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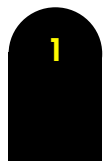
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PRO-LITE 350™ HOSE

USE WITH SWIVEL-SEAL™, AUTO-FIT™ OR
AUTO-CRIMP™ HOSE ENDS

HOSE & HOSE ENDS



EARL'S PRO LITE 350™ HOSE IS ONE OF THE LIGHTEST AND MOST DURABLE HOSES AVAILABLE ON THE MARKET TODAY!



| SIZE | TYPICAL APPLICATION |
|------|---|
| 4 | Small Oil & Fuel Lines, Pressure Gauges, Vacuum Lines |
| 6 | Carburetor, Fuel & Oil Lines |
| 8 | Water, Fuel & Oil Lines |
| 10 | Oil & Fuel Lines, Heater Hoses |
| 12 | Water, Fuel & Oil Lines, Heater Hoses |
| 16 | Water, Dry Sump & Fuel Lines, Heater Hoses |
| 20 | Fuel, Water & Radiator Lines |

Serious racers and street performers can benefit from the light weight, durability and temperature characteristics of our Pro Lite 350™ hose. With a maximum pressure rating of 350 psi and an operating temperature range of -40° F to +300° F, the Pro Lite 350™ hose can take the most demanding conditions and still deliver you to the winners circle. Replacing the existing steel braided oil, fuel and coolant hoses on a typical circle track car can save you as much as 30 lbs!

Constructed in the USA, the Pro Lite 350™ hose has a tough, abrasion resistant Nylon sheathing, bonded to the textile inner braid embedded in the synthetic rubber liner. This gives the hose incredible flexibility while maintaining the ability to withstand high vacuum (27 inches/hg) and hot oil temperatures.

Pro Lite 350™ hose has been specifically designed to use EARL'S Swivel Seal™, Auto-Fit™ and Auto Crimp™ Hose ends exclusively. The use of other manufacturers hose ends is not recommended and may compromise the pressure capabilities and durability of the hose. Insist on the brands you trust, EARL'S Pro Lite 350™ hose and Swivel Seal™, Auto-Fit and Auto Crimp™ hose ends.

Inner support spring pg.105

| Hose Size AN | Hose I.D. (in) | Hose I.D. (mm) | Hose O.D. (in) | Hose O.D. (mm) | Max. Op. Press. (PSI) | Max. Op. Press. (Bar) | Min. Bend Radius (in) | Min. Bend Radius (mm) | Max Vacuum (inHg) | Max Vacuum (kPa) | Bulk P/N | 3ft./0.9M P/N | 6ft./1.8M P/N | 10ft./3.0M P/N | 20ft./6.1 P/N | 33ft./10.1 P/N |
|--------------|----------------|----------------|----------------|----------------|-----------------------|-----------------------|-----------------------|-----------------------|-------------------|------------------|-----------|---------------|---------------|----------------|---------------|----------------|
| -4 | 0.22 | 5.59 | 0.44 | 11.18 | 350 | 24.13 | 2.0 | 50.8 | 27 | 91.43 | 350004ERL | 350304ERL | 350604ERL | 351004ERL | 352004ERL | 353304ERL |
| -6 | 0.35 | 8.89 | 0.55 | 13.97 | 350 | 24.13 | 2.25 | 57.15 | 27 | 91.43 | 350006ERL | 350306ERL | 350606ERL | 351006ERL | 352006ERL | 353306ERL |
| -8 | 0.44 | 11.18 | 0.65 | 16.51 | 350 | 24.13 | 3.5 | 88.9 | 27 | 91.43 | 350008ERL | 350308ERL | 350608ERL | 351008ERL | 352008ERL | 353308ERL |
| -10 | 0.57 | 14.48 | 0.8 | 20.32 | 350 | 24.13 | 4.0 | 101.6 | 27 | 91.43 | 350010ERL | 350310ERL | 350610ERL | 351010ERL | 352010ERL | 353310ERL |
| -12 | 0.69 | 17.53 | 0.94 | 23.88 | 350 | 24.13 | 4.5 | 114.3 | 27 | 91.43 | 350012ERL | 350312ERL | 350612ERL | 351012ERL | 352012ERL | 353312ERL |
| -16 | 0.88 | 22.35 | 1.16 | 29.46 | 300 | 20.68 | 5.5 | 139.7 | 22 | 74.50 | 350016ERL | 350316ERL | 350616ERL | 351016ERL | 352016ERL | 353316ERL |
| -20 | 1.12 | 28.45 | 1.44 | 36.58 | 250 | 17.23 | 8.0 | 203.2 | | | 350020ERL | 350320ERL | 350620ERL | 351020ERL | 352020ERL | 353320ERL |



In recent years various fuel manufacturers may have added any number of new unpublished additives to their blends. It is therefore very difficult to know how the tube compound used in the inner liner of our Pro-Lite 350 or any other brand of elastomeric hose will react with a specific fuel. Because of the unknowns described above, we are unable to guarantee that the below listed hoses are the best possible products to use with any specific fuel. If in doubt use teflon lined hose. Pro-Lite 350™ hose is not to be used with brake fluid.

The Inner Liner constructed from synthetic rubber tube, clean and fast flowing, provides constant flow at operating temperatures from -40° to +300 F.



EASIER TO CUT AND WORK WITH!

Partial coverage textile inner braid is embedded outside inner liner.

Full Coverage Outer Braid of Nylon bonded to the hose liner provides 350 PSI maximum pressure capabilities, while maintaining the durability and flexibility that is responsible for the Pro-Lite 350™ hose.

PERFORM-O-FLEX™ HOSE

USE WITH SWIVEL-SEAL™, AUTO-FIT™ OR
AUTO-CRIMP™ HOSE ENDS

HOSE & HOSE ENDS



SIZE TYPICAL APPLICATION

| | |
|----|---|
| 4 | Small Oil & Fuel Lines, Pressure Gauges, Vacuum Lines |
| 6 | Carburetor, Fuel & Oil Lines |
| 8 | Water, Fuel & Oil Lines |
| 10 | Oil & Fuel Lines, Heater Hoses |
| 12 | Water, Fuel & Oil Lines, Heater Hoses |
| 16 | Water, Dry Sump & Fuel Lines, Heater Hoses |
| 20 | Fuel, Water & Radiator Lines |
| 24 | Water & Radiator Lines |

NOTE: Earl's reserves the right to substitute hose of comparable or improved quality.

Earl's PERFORM-O-FLEX™ stainless braid-protected synthetic rubber hose is the premium quality racing hose depended on by the top racing teams of every professional sanctioning body in the world.

PERFORM-O-FLEX™ features an inner liner of synthetic rubber. A partial coverage protective sheath of stainless steel braid is embedded in the liner during manufacturing. The reinforced hose liner is then bonded to a full-coverage outer protective sheath of high tensile stainless steel wire braid. Yet Perform-O-Flex™, with its inner liner, remains flexible at temperatures between -40 and +300 degrees F. Racing Greats have depended on PERFORM-O-FLEX™ hose and SWIVEL-SEAL™ hose ends since 1972. Look for Earl's distinctive marker wire.

Perform-O-Flex™ hose is intended for use with Swivel-Seal™, Auto-Fit™ and Auto-Mate™ hose ends only. No other Earl's hose ends are intended for use with Perform-O-Flex™ hose. The use of other manufacturer's hose ends is not recommended.

If you are going to pay for the best—demand it. Insist on Earl's PERFORM-O-FLEX™ hose and SWIVEL-SEAL™ or AUTO-FIT™ hose ends.

| Hose Size AN | Hose I.D. | | Hose O.D. | | Max. Op. Pressure | | Min. Bend Radius | | Bulk P/N | 3ft./0.9M P/N | 6ft./1.8M P/N | 10ft./3.0M P/N | 20ft./6.1 P/N | 33ft./10.1 P/N |
|--------------|-----------|-------|-----------|-------|-------------------|--------|------------------|-------|-----------|---------------|---------------|----------------|---------------|----------------|
| | (in) | (mm) | (in) | (mm) | (PSI)* | (Bar)* | (in) | (mm) | | | | | | |
| -4 | 0.22 | 5.59 | 0.44 | 11.18 | 1500 | 103.40 | 2.0 | 50.8 | 400040ERL | 413004ERL | 416004ERL | 410004ERL | 420004ERL | 433004ERL |
| -6 | 0.34 | 8.64 | 0.55 | 13.97 | 1500 | 103.40 | 2.25 | 57.15 | 400060ERL | 413006ERL | 416006ERL | 410006ERL | 420006ERL | 433006ERL |
| -8 | 0.44 | 11.18 | 0.64 | 16.26 | 1500 | 103.40 | 3.5 | 88.9 | 400080ERL | 413008ERL | 416008ERL | 410008ERL | 420008ERL | 433008ERL |
| -10 | 0.56 | 14.22 | 0.8 | 20.32 | 1250 | 86.16 | 4.0 | 101.6 | 400100ERL | 413010ERL | 416010ERL | 410010ERL | 420010ERL | 433010ERL |
| -12 | 0.69 | 17.53 | 0.94 | 23.88 | 1000 | 68.93 | 4.5 | 114.3 | 400120ERL | 413012ERL | 416012ERL | 410012ERL | 420012ERL | 433012ERL |
| -16 | 0.88 | 22.35 | 1.16 | 29.46 | 750 | 51.70 | 5.5 | 139.7 | 400160ERL | 413016ERL | 416016ERL | 410016ERL | 420016ERL | 433016ERL |
| -20 | 1.12 | 28.45 | 1.44 | 36.58 | 500 | 34.47 | 8.0 | 203.2 | 400200ERL | 413020ERL | 416020ERL | 410020ERL | 420020ERL | |
| -24 | 1.38 | 35.05 | 1.7 | 43.18 | 250 | 17.23 | 9.0 | 228.6 | 400240ERL | 413024ERL | 416024ERL | 410024ERL | 420024ERL | |

* When used with Auto-Fit™ or Swivel-Seal™ hose ends.

Partial Coverage Stainless Steel Inner Braid is woven into the inner liner of high-temperature synthetic rubber. The timing of the braiding and the curing of the rubber during construction are the key to achieving the desired flexibility and mechanical bond between the braiding layers. Beware of cheaper hoses that do not have this critical mechanical bond.



The Inner Liner constructed from synthetic rubber tube, clean and fast flowing, provides constant flow at operating temperatures from -40° to +300 F.

Full Coverage Outer Braid of High Tensile Stainless Steel bonded to the hose liner provides maximum pressure capabilities, while maintaining the beauty, and flexibility that is responsible for the popularity of PERFORM-O-FLEX™ hose.



In recent years various fuel manufacturers may have added any number of new unpublished additives to their blends. It is therefore very difficult to know how the tube compound used in the inner liner of our Super-stock, Auto Flex and Perform-O-Flex or any other brand of elastomeric hose will react with a specific fuel. Because of the unknowns described above, we are unable to guarantee that the below listed hoses are the best possible products to use with any specific fuel. If in doubt use teflon lined hose. Perform-O-Flex hose is not to be used with brake fluid.

AUTO-FLEX™ HOSE

USE WITH SWIVEL-SEAL™ AUTO-FIT™ OR
AUTO-CRIMP™ HOSE ENDS

HOSE & HOSE ENDS



A stainless braided hose at a price competitive with the imports. Earl's AUTO-FLEX™ HTE stainless braid- protected synthetic rubber hose is manufactured to our specifications in the U.S.A.

Earl's AUTO-FLEX™ HTE hose features a recommended temperature range and maximum operating pressure equal to our premium quality Perform-O-Flex hose...at a much better price. A partial coverage textile inner braid is imbedded in the HTE liner during manufacture. The hose is finished with a full coverage stainless steel braid which is bonded to the reinforced HTE liner. Continuous use temperature rating is -40 to + 300 degrees F.

Auto-Flex™ hose is intended for use with Swivel-Seal™, Auto-Fit™ and Auto-Mate™ hose ends only. No other Earl's hose ends are intended for use with Auto-Flex™ hose. The use of other manufacturers hose ends is not recommended.

| SIZE | TYPICAL APPLICATION |
|-------|---|
| 3/4 | Small Oil & Fuel Lines, Pressure Gauges, Vacuum Lines |
| 5 | Fuel & Vacuum Lines where Hose is Clamped |
| 6 | Carburetor, Fuel & Oil Lines |
| 7 | Fuel, Vacuum & Oil Lines |
| 8/9 | Water, Fuel & Oil Lines |
| 10/11 | Oil & Fuel Lines, Heater Hoses |
| 12 | Water, Oil Lines & Heater Hoses |
| 14 | Water Lines |
| 16 | Water, Oil Lines & Heater Hoses |
| 18 | Water Lines |
| 28 | Water & Radiator Lines |
| 32 | Water & Radiator Lines |

NOTE: Earl's reserves the right to substitute hose of comparable or improved quality.

FOR USE WITH SWIVEL-SEAL™, AUTO-FIT™ OR AUTO-CRIMP™ HOSE ENDS

| Hose Size AN | Hose I.D. (in) (mm) | | Hose O.D. (in) (mm) | | Max. Op. Pressure (PSI)* (Bar)* | | Min. Bend Radius (in) (mm) | | Bulk P/N | 3ft./0.9M P/N | 6ft./1.8M P/N | 10ft./3.0M P/N | 20ft./6.1M P/N | 33ft./10.1M P/N |
|--------------|---------------------|-------|---------------------|-------|---------------------------------|--------|----------------------------|-------|-----------|---------------|---------------|----------------|----------------|-----------------|
| -4 | 0.22 | 5.59 | 0.44 | 11.18 | 1500 | 103.40 | 2.0 | 50.8 | 300004ERL | 303004ERL | 306004ERL | 310004ERL | 320004ERL | 333004ERL |
| -6 | 0.34 | 8.64 | 0.55 | 13.97 | 1500 | 103.40 | 2.5 | 63.5 | 300006ERL | 303006ERL | 306006ERL | 310006ERL | 320006ERL | 333006ERL |
| -8 | 0.44 | 11.18 | 0.64 | 16.26 | 1500 | 103.40 | 3.5 | 88.9 | 300008ERL | 303008ERL | 306008ERL | 310008ERL | 320008ERL | 333008ERL |
| -10 | 0.56 | 14.22 | 0.80 | 20.32 | 1250 | 86.16 | 4.0 | 101.6 | 300010ERL | 303010ERL | 306010ERL | 310010ERL | 320010ERL | 333010ERL |
| -12 | 0.69 | 17.53 | 0.94 | 23.88 | 1000 | 68.93 | 4.5 | 114.3 | 300012ERL | 303012ERL | 306012ERL | 310012ERL | 320012ERL | 333012ERL |
| -16 | 0.88 | 22.35 | 1.16 | 29.46 | 750 | 51.70 | 5.5 | 139.7 | 300016ERL | 303016ERL | 306016ERL | 310016ERL | 320016ERL | 333016ERL |

FOR USE WITH EARL'S ECON-O-FIT™ OR HOSE CLAMPS ONLY - NO HOSE ENDS AVAILABLE

| Hose Size AN | Hose I.D. (in) (mm) | | Hose O.D. (in) (mm) | | Max. Op. Pressure (PSI)* (Bar)* | | Min. Bend Radius (in) (mm) | | Bulk P/N | 3ft./0.9M P/N | 6ft./1.8M P/N | 10ft./3.0M P/N | 20ft./6.1M P/N | 33ft./10.1M P/N |
|--------------|---------------------|-------|---------------------|-------|---------------------------------|-----|----------------------------|-------|-----------|---------------|---------------|----------------|----------------|-----------------|
| -3 | 0.16 | 4.06 | 0.38 | 9.65 | *** | *** | 2.0 | 50.8 | 300003ERL | 303003ERL | 306003ERL | 310003ERL | 320003ERL | - |
| -5 | 0.25 | 6.35 | 0.50 | 12.70 | *** | *** | 2.0 | 50.8 | 300005ERL | 303005ERL | 306005ERL | 310005ERL | 320005ERL | - |
| -7 | 0.38 | 9.65 | 0.63 | 16.00 | *** | *** | 3.0 | 76.2 | 300007ERL | 303007ERL | 306007ERL | 310007ERL | 320007ERL | - |
| -9 | 0.50 | 12.70 | 0.72 | 18.29 | *** | *** | 3.5 | 88.9 | 300009ERL | 303009ERL | 306009ERL | 310009ERL | 320009ERL | - |
| -11 | 0.63 | 16.00 | 0.88 | 22.35 | *** | *** | 4.0 | 101.6 | 300011ERL | 303011ERL | 306011ERL | 310011ERL | 320011ERL | - |
| -14 | 0.75 | 19.05 | 1.00 | 25.40 | *** | *** | 5.0 | 127 | 300014ERL | 303014ERL | 306014ERL | 310014ERL | 320014ERL | - |
| -18 | 1.00 | 25.40 | 1.31 | 33.27 | *** | *** | 7.0 | 177.8 | 300018ERL | 303018ERL | 306018ERL | 310018ERL | 320018ERL | - |
| -28 | 1.50 | 38.10 | 1.84 | 46.74 | *** | *** | 11.0 | 279.4 | 300280ERL | 303028ERL | 306028ERL | 310028ERL | 320028ERL | - |
| -32 | 1.75 | 44.45 | 2.13 | 54.10 | *** | *** | 12.5 | 317.5 | 300320ERL | 303032ERL | 306032ERL | 310032ERL | 320032ERL | - |

* When used with Swivel-Seal, Auto-Fit or Auto-Crimp hose ends.
*** Limiting pressure will be hose clamp



In recent years various fuel manufacturers may have added any number of new unpublished additives to their blends. It is therefore very difficult to know how the tube compound used in the inner liner of our Super-stock, Auto Flex and Perform-O-Flex or any other brand of elastomeric hose will react with a specific fuel. Because of the unknowns described above, we are unable to guarantee that the below listed hoses are the best possible products to use with any specific fuel. If in doubt use teflon lined hose. Auto-Flex hose is not to be used with brake fluid.

Partial Coverage Textile Inner Braid is woven into the inner liner of Temprel high-temperature synthetic rubber. The timing of the braiding and the curing of the rubber during construction are the key to achieving the desired flexibility and mechanical bond between the braiding layers. Beware of cheap hoses that do not have this critical mechanical bond.



The Inner Liner constructed from Temprel synthetic rubber tube, clean and fast flowing, provides constant flow at operating temperatures from -40° to +300 F.

Full Coverage Outer Braid of High Tensile Stainless Steel bonded to the hose liner provides maximum pressure capabilities, while maintaining the beauty, and flexibility that is responsible for the popularity of AUTO-FLEX™ hose.

ULTRA-FLEX 650™ HOSE

HOSE & HOSE ENDS

NEW!



The packaging envelopes of the modern racing car become tighter each year - leaving less room for auxiliaries such as plumbing. At the same time it becomes more and more difficult to get the cars down to minimum weight. Earl's Ultra-Flex 650™ hose solves these issues. Earl's finest and lightest hose combines a woven Ultra-light Kevlar™ braid with a smooth bore Teflon™ tubing for increased flow and convoluted outside for incredible flexibility. It also has significantly higher flow and pressure ratings than conventional convoluted Teflon® hose. Ultra-Flex 650™ is 60% lighter than our stainless braid-protected synthetic rubber hose, and 15% lighter than our Pro-Lite 350™ hose. You have spent a lot of time, energy and money on your race engine and you should bring the life sustaining fluid to it with the best hose on the market today - Earl's Ultra-Flex 650™.

Temp. Rating: -94° F to 500° F / -70° C to 260° C

| Hose Size AN | Hose I.D. | | Hose O.D. | | Max. Op. Pressure | | Min. Bend Radius | | Bulk P/N |
|-----------------|-----------|------|-----------|------|-------------------|--------|------------------|------|-------------|
| | (in) | (mm) | (in) | (mm) | (PSI)* | (Bar)* | (in) | (mm) | |
| -4 | .270 | 6.8 | .378 | 9.6 | 1320 | 90 | .75 | 19 | 650004ERL |
| -6 | .394 | 10.0 | .512 | 13.0 | 1180 | 80 | .787 | 20 | 650006ERL |
| -8 | .536 | 13.6 | .650 | 16.5 | 1030 | 70 | 1.496 | 38 | 650008ERL |
| -10 | .658 | 16.7 | .819 | 20.8 | 955 | 65 | 1.772 | 45 | 650010ERL |
| -12 | .780 | 19.8 | .961 | 24.4 | 880 | 60 | 1.969 | 50 | 650012ERL |
| -16 | 1.0039 | 26.4 | 1.272 | 32.3 | 740 | 50 | 2.756 | 70 | 650016ERL |

Crimper & Accessories pg. 9,10

Crimping Instructions on pg. 118,119



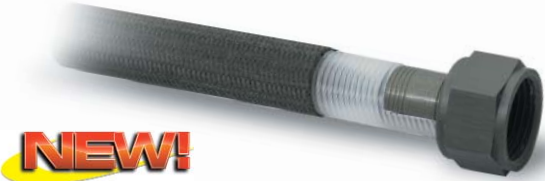
Ultra-Flex 650™ hose is intended for use with Ultra-Flex hose ends only. No other Earl's hose ends are intended for use with this hose. The use of other manufacturers hose ends is not recommended and may compromise the pressure capabilities and durability of the hose.

ULTRA-FLEX™ HOSE ENDS

SHORT NUT

HOSE & HOSE ENDS

Ultra-Flex Hose ends have been developed by Earl's to be used with our Ultra-Flex 650™ hose. The crimp design offers our lightest alternative in plumbing a race engine. The Mil Spec Type III hard anodizing also is impregnated with Teflon® to significantly reduce friction of the fluids running through the line assemblies. The advantages of the smooth bore teflon hose no longer ends at the hose end, but continues through the entire assembly!



NEW!



| PART NO. STRAIGHT | HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE |
|-------------------|---------------|---------------|--------------|
| 650104ERL | 4 | 4 | 4 |
| 650106ERL | 6 | 6 | 6 |
| 650108ERL | 8 | 8 | 8 |
| 650110ERL | 10 | 10 | 10 |
| 650112ERL | 12 | 12 | 12 |
| 650116ERL | 16 | 16 | 16 |



| PART NO. 90° LOW PROFILE | HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE |
|--------------------------|---------------|---------------|--------------|
| 659004ERL | 4 | 4 | 4 |
| 659006ERL | 6 | 6 | 6 |
| 659008ERL | 8 | 8 | 8 |
| 659010ERL | 10 | 10 | 10 |
| 659012ERL | 12 | 12 | 12 |
| 659016ERL | 16 | 16 | 16 |



| PART NO. 30° | HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE |
|--------------|---------------|---------------|--------------|
| 653004ERL | 4 | 4 | 4 |
| 653006ERL | 6 | 6 | 6 |
| 653008ERL | 8 | 8 | 8 |
| 653010ERL | 10 | 10 | 10 |
| 653012ERL | 12 | 12 | 12 |
| 653016ERL | 16 | 16 | 16 |



| PART NO. 90° TUBE | HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE |
|-------------------|---------------|---------------|--------------|
| 659104ERL | 4 | 4 | 4 |
| 659106ERL | 6 | 6 | 6 |
| 659108ERL | 8 | 8 | 8 |
| 659110ERL | 10 | 10 | 10 |
| 659112ERL | 12 | 12 | 12 |
| 659116ERL | 16 | 16 | 16 |



| PART NO. 45° LOW PROFILE | HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE |
|--------------------------|---------------|---------------|--------------|
| 654504ERL | 4 | 4 | 4 |
| 654506ERL | 6 | 6 | 6 |
| 654508ERL | 8 | 8 | 8 |
| 654510ERL | 10 | 10 | 10 |
| 654512ERL | 12 | 12 | 12 |
| 654516ERL | 16 | 16 | 16 |



| PART NO. 120° TUBE | HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE |
|--------------------|---------------|---------------|--------------|
| 652004ERL | 4 | 4 | 4 |
| 652006ERL | 6 | 6 | 6 |
| 652008ERL | 8 | 8 | 8 |
| 652010ERL | 10 | 10 | 10 |
| 652012ERL | 12 | 12 | 12 |
| 652016ERL | 16 | 16 | 16 |



| PART NO. 45° TUBE | HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE |
|-------------------|---------------|---------------|--------------|
| 654604ERL | 4 | 4 | 4 |
| 654606ERL | 6 | 6 | 6 |
| 654608ERL | 8 | 8 | 8 |
| 654610ERL | 10 | 10 | 10 |
| 654612ERL | 12 | 12 | 12 |
| 654616ERL | 16 | 16 | 16 |



| PART NO. 150° TUBE | HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE |
|--------------------|---------------|---------------|--------------|
| 655004ERL | 4 | 4 | 4 |
| 655006ERL | 6 | 6 | 6 |
| 655008ERL | 8 | 8 | 8 |
| 655010ERL | 10 | 10 | 10 |
| 655012ERL | 12 | 12 | 12 |
| 655016ERL | 16 | 16 | 16 |



| PART NO. 60° TUBE | HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE |
|-------------------|---------------|---------------|--------------|
| 656004ERL | 4 | 4 | 4 |
| 656006ERL | 6 | 6 | 6 |
| 656008ERL | 8 | 8 | 8 |
| 656010ERL | 10 | 10 | 10 |
| 656012ERL | 12 | 12 | 12 |
| 656016ERL | 16 | 16 | 16 |



| PART NO. 180° TUBE | HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE |
|--------------------|---------------|---------------|--------------|
| 658004ERL | 4 | 4 | 4 |
| 658006ERL | 6 | 6 | 6 |
| 658008ERL | 8 | 8 | 8 |
| 658010ERL | 10 | 10 | 10 |
| 658012ERL | 12 | 12 | 12 |
| 658016ERL | 16 | 16 | 16 |

HOSE & HOSE ENDS

NOTE: Collars included with hose ends

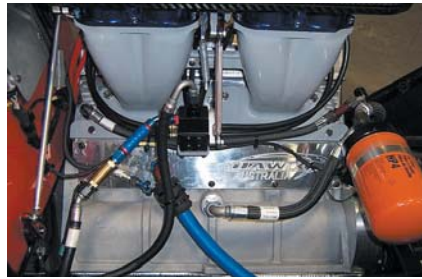
Crimper & Accessories pg. 9,10
Crimping Instructions on pg. 118,119

NOTE: 65 Series have a short nut

ULTRA-FLEX™ HOSE ENDS

STANDARD NUT

HOSE & HOSE ENDS



Ultra-Flex Hose ends have been developed by Earl's to be used with our Ultra-Flex 650™ hose. The crimp design offers our lightest alternative in plumbing a race engine. The Mil Spec Type III hard anodizing also is impregnated with Teflon® to significantly reduce friction of the fluids running through the line assemblies. The advantages of the smooth bore teflon hose no longer ends at the hose end, but continues through the entire assembly!



| PART NO. STRAIGHT | HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE |
|-------------------|---------------|---------------|--------------|
| 670104ERL | 4 | 4 | 4 |
| 670106ERL | 6 | 6 | 6 |
| 670108ERL | 8 | 8 | 8 |
| 670110ERL | 10 | 10 | 10 |
| 670112ERL | 12 | 12 | 12 |
| 670116ERL | 16 | 16 | 16 |



| PART NO. 30° | HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE |
|--------------|---------------|---------------|--------------|
| 673004ERL | 4 | 4 | 4 |
| 673006ERL | 6 | 6 | 6 |
| 673008ERL | 8 | 8 | 8 |
| 673010ERL | 10 | 10 | 10 |
| 673012ERL | 12 | 12 | 12 |
| 673016ERL | 16 | 16 | 16 |



| PART NO. 45° LOW PROFILE | HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE |
|--------------------------|---------------|---------------|--------------|
| 674504ERL | 4 | 4 | 4 |
| 674506ERL | 6 | 6 | 6 |
| 674508ERL | 8 | 8 | 8 |
| 654510ERL | 10 | 10 | 10 |
| 674512ERL | 12 | 12 | 12 |
| 674516ERL | 16 | 16 | 16 |



| PART NO. 45° TUBE | HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE |
|-------------------|---------------|---------------|--------------|
| 674604ERL | 4 | 4 | 4 |
| 674606ERL | 6 | 6 | 6 |
| 674608ERL | 8 | 8 | 8 |
| 674610ERL | 10 | 10 | 10 |
| 674612ERL | 12 | 12 | 12 |
| 674616ERL | 16 | 16 | 16 |



| PART NO. 60° TUBE | HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE |
|-------------------|---------------|---------------|--------------|
| 676004ERL | 4 | 4 | 4 |
| 676006ERL | 6 | 6 | 6 |
| 676008ERL | 8 | 8 | 8 |
| 676010ERL | 10 | 10 | 10 |
| 676012ERL | 12 | 12 | 12 |
| 676016ERL | 16 | 16 | 16 |



| PART NO. 90° LOW PROFILE | HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE |
|--------------------------|---------------|---------------|--------------|
| 679004ERL | 4 | 4 | 4 |
| 679006ERL | 6 | 6 | 6 |
| 679008ERL | 8 | 8 | 8 |
| 679010ERL | 10 | 10 | 10 |
| 679012ERL | 12 | 12 | 12 |
| 679016ERL | 16 | 16 | 16 |



| PART NO. 90° TUBE | HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE |
|-------------------|---------------|---------------|--------------|
| 679104ERL | 4 | 4 | 4 |
| 679106ERL | 6 | 6 | 6 |
| 679108ERL | 8 | 8 | 8 |
| 679110ERL | 10 | 10 | 10 |
| 679112ERL | 12 | 12 | 12 |
| 679116ERL | 16 | 16 | 16 |



| PART NO. 120° TUBE | HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE |
|--------------------|---------------|---------------|--------------|
| 672004ERL | 4 | 4 | 4 |
| 672006ERL | 6 | 6 | 6 |
| 672008ERL | 8 | 8 | 8 |
| 672010ERL | 10 | 10 | 10 |
| 672012ERL | 12 | 12 | 12 |
| 672016ERL | 16 | 16 | 16 |



| PART NO. 150° TUBE | HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE |
|--------------------|---------------|---------------|--------------|
| 675004ERL | 4 | 4 | 4 |
| 675006ERL | 6 | 6 | 6 |
| 675008ERL | 8 | 8 | 8 |
| 675010ERL | 10 | 10 | 10 |
| 675012ERL | 12 | 12 | 12 |
| 675016ERL | 16 | 16 | 16 |



| PART NO. 180° TUBE | HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE |
|--------------------|---------------|---------------|--------------|
| 678004ERL | 4 | 4 | 4 |
| 678006ERL | 6 | 6 | 6 |
| 678008ERL | 8 | 8 | 8 |
| 678010ERL | 10 | 10 | 10 |
| 678012ERL | 12 | 12 | 12 |
| 678016ERL | 16 | 16 | 16 |

NOTE: Collars included with hose ends

Crimper & Accessories pg. 9,10
Crimping Instructions on pg. 118,119

NOTE: 67 Series have a standard length nut and are recommended for most racing applications.

ULTRA-FLEX™ QD HOSE ENDS

Manufactured to be used with Earl's new Ultra-Flex 650™ hose, Earl's QD hose ends are made to reduce time, space and weight issues in certain racing situations. These hose ends are threadless and the male and female designs are manufactured for smooth and effortless installations every time. They are coupled by a threadless clamshell closure that is manufactured by the leader in the industry – Adel Wiggins. Earl's QD hose ends are plated with the same Mil-Spec III hard anodizing and our exclusive Teflon® impregnation for a great reduction in the fluid flow friction. Our male ends also come with plasma coated nitrile o-rings installed for longer life.

NEW!



Male

| PART NO. STRAIGHT | HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE |
|-------------------|---------------|---------------|--------------|
| 670408ERL | 8 | 8 | 8 |
| 670410ERL | 10 | 10 | 10 |
| 670412ERL | 12 | 12 | 12 |

| PART NO. 30° | HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE |
|--------------|---------------|---------------|--------------|
| 674308ERL | 8 | 8 | 8 |
| 674310ERL | 10 | 10 | 10 |
| 674312ERL | 12 | 12 | 12 |

| PART NO. 90° | HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE |
|--------------|---------------|---------------|--------------|
| 678808ERL | 8 | 8 | 8 |
| 678810ERL | 10 | 10 | 10 |
| 678812ERL | 12 | 12 | 12 |

Female

| PART NO. STRAIGHT | HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE |
|-------------------|---------------|---------------|--------------|
| 670508ERL | 8 | 8 | 8 |
| 670510ERL | 10 | 10 | 10 |
| 670512ERL | 12 | 12 | 12 |

| PART NO. 30° | HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE |
|--------------|---------------|---------------|--------------|
| 674408ERL | 8 | 8 | 8 |
| 674410ERL | 10 | 10 | 10 |
| 674412ERL | 12 | 12 | 12 |

| PART NO. 90° | HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE |
|--------------|---------------|---------------|--------------|
| 678908ERL | 8 | 8 | 8 |
| 678910ERL | 10 | 10 | 10 |
| 678912ERL | 12 | 12 | 12 |

Straight (male)



45° (male)



90° (male)



Straight (female)



45° (female)



90° (female)



Crimper & Accessories pg. 9,10

HAND HELD CUTTER & BLADES

HAND HELD HOSE CUTTER

Stop wasting time and material with jagged or angled cuts on your hose assemblies. This hose cutter puts precision accuracy in the palm of your hand. The special v-block ensures a straight clean cut every time. This hand held cutter will cut Earl's Super Stock™, Pro-Lite 350™ and even our new Ultra-Flex 650™ Kevlar hose. This tool weighs only 12 oz. and the best part is that the blade is dual functioning. When one edge becomes dull simply rotate the blade and you have a fresh blade ready for hundreds of cuts.



D022ERL

REPLACEMENT HOSE CUTTER BLADE

Earl's also carries a 5 blade (10 with rotation) replacement set.



D023ERL

REPLACEMENT CRIMP COLLARS

| PART NO. | HOSE END SIZE | PART NO. | HOSE END SIZE |
|-----------|---------------|-----------|---------------|
| 698043ERL | -4 | 698103ERL | -10 |
| 698063ERL | -6 | 698123ERL | -12 |
| 698083ERL | -8 | 698163ERL | -16 |



CRIMPING ACCESSORIES

Earl's offers a full line of crimping accessories and an exclusively built mobile crimper for assembling all of our Ultra-Flex 650™ hose and Ultra-Flex™ hose ends. A complete set of dies covering all sizes -4 through -16, die ring, optional air over oil pump for direct air source, and a custom mounting plate are available. The perfect lasting investment for all of your Ultra-Flex assembly needs.

- Crimper has a cast aluminum body that weighs only 42 lbs!
- Manual pump (provided) or optional air over oil pump for direct air source.
- Full cycle time of 20 seconds to 3 minutes depending on what hose end or size of the hose is used.
- 10,000 PSI crimp force on the collar.
- Completely mobile.
- All parts designed exclusively for Earl's for the Ultra-Flex line.

NEW!

| PART # | DESCRIPTION |
|-----------|-----------------------------|
| D032ERL | Ultra-Flex crimping machine |
| D03200ERL | D032 Mounting Plate |
| D03201ERL | D032 Crimper Die Ring |
| D03202ERL | D032 Air over Oil Pump |
| D03204ERL | -4 Ultra-Flex die set |
| D03206ERL | -6 Ultra-Flex die set |
| D03208ERL | -8 Ultra-Flex die set |
| D03210ERL | -10 Ultra-Flex die set |
| D03212ERL | -12 Ultra-Flex die set |
| D03216ERL | -16 Ultra-Flex die set |



D032ERL
Ultra-Flex crimping machine



D032_ERL
Ultra-Flex die set

D03201ERL
D032 Crimper Die Ring



D03202ERL
D032 Air over Oil Pump

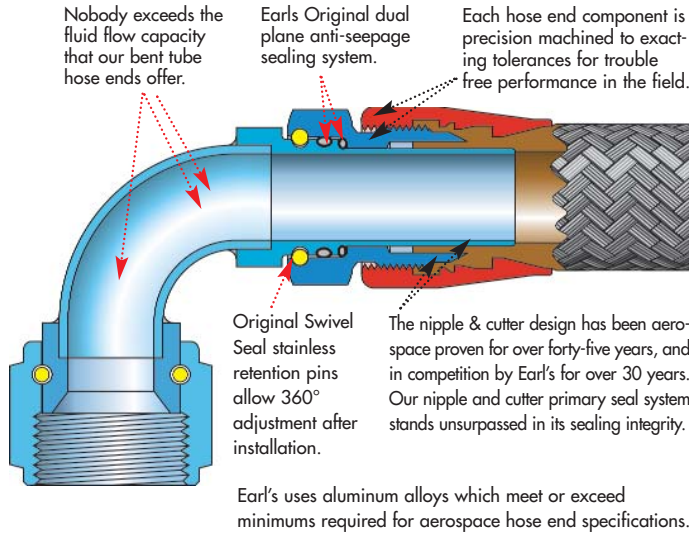


D03200ERL
D032 Mounting Plate

Crimping Instructions on pg. 118,119

SWIVEL-SEAL™ HOSE ENDS

HOSE & HOSE ENDS



Our Premium Hose End for rubber lined hose. Earl's invented the Swivel Seal™ Hose End in 1972 and it is still the most reliable and most widely sold swivel on the market.

Assembly instructions can be found on pg. 114

Hose end specifications can be found on pg. 130

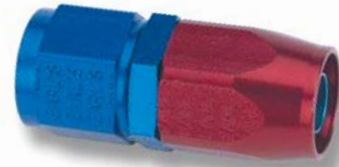
Replacement sockets can be found on pg. 19



SWIVEL-SEAL hose ends are designed to be used with Earl's PERFORM-O-FLEX™, PRO-LITE 350™ and AUTO-FLEX™ braid-protected hose. Not intended for use on any other Earl's hose. Use with other manufacturers' hose is not recommended.

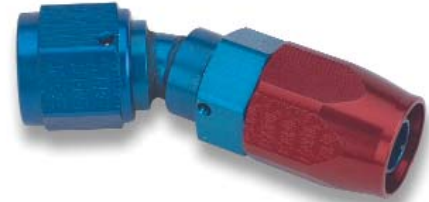
| PART NO. STRAIGHT | HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE |
|-------------------|---------------|---------------|--------------|
| 800106ERL | 6 | 6 | 6 |
| 800108ERL | 8 | 8 | 8 |
| 800110ERL | 10 | 10 | 10 |
| 800112ERL | 12 | 12 | 12 |
| 800116ERL | 16 | 16 | 16 |

STRAIGHT
8001__ERL



| PART NO. 30° TUBE | HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE |
|-------------------|---------------|---------------|--------------|
| 803106ERL | 6 | 6 | 6 |
| 803108ERL | 8 | 8 | 8 |
| 803110ERL | 10 | 10 | 10 |
| 803112ERL | 12 | 12 | 12 |
| 803116ERL | 16 | 16 | 16 |

30° TUBE
8031__ERL



| PART NO. 45° LOW PROFILE | HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE |
|--------------------------|---------------|---------------|--------------|
| 804506ERL | 6 | 6 | 6 |
| 804508ERL | 8 | 8 | 8 |
| 804510ERL | 10 | 10 | 10 |
| 804512ERL | 12 | 12 | 12 |
| 804516ERL | 16 | 16 | 16 |

45° LOW PROFILE
8045__ERL



| PART NO. 45° TUBE | HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE |
|-------------------|---------------|---------------|--------------|
| 804606ERL | 6 | 6 | 6 |
| 804608ERL | 8 | 8 | 8 |
| 804610ERL | 10 | 10 | 10 |
| 804612ERL | 12 | 12 | 12 |
| 804616ERL | 16 | 16 | 16 |

45° TUBE
8046__ERL



SWIVEL-SEAL™ HOSE ENDS

HOSE & HOSE ENDS



60° TUBE
8061__ERL

| PART NO. 60° TUBE | HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE |
|-------------------------|---------------------|---------------------|-----------------|
| 806106ERL | 6 | 6 | 6 |
| 806108ERL | 8 | 8 | 8 |
| 806110ERL | 10 | 10 | 10 |
| 806112ERL | 12 | 12 | 12 |
| 806116ERL | 16 | 16 | 16 |



90° LOW PROFILE
8090__ERL

| PART NO. 90° LOW PROFILE | HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE |
|--------------------------------|---------------------|---------------------|-----------------|
| 809006ERL | 6 | 6 | 6 |
| 809008ERL | 8 | 8 | 8 |
| 809010ERL | 10 | 10 | 10 |
| 809012ERL | 12 | 12 | 12 |
| 809016ERL | 16 | 16 | 16 |



90° TUBE
8091__ERL

| PART NO. 90° TUBE | HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE |
|-------------------------|---------------------|---------------------|-----------------|
| 809106ERL | 6 | 6 | 6 |
| 809108ERL | 8 | 8 | 8 |
| 809110ERL | 10 | 10 | 10 |
| 809112ERL | 12 | 12 | 12 |
| 809116ERL | 16 | 16 | 16 |



120° TUBE
8120__ERL

| PART NO. 120° TUBE | HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE |
|--------------------------|---------------------|---------------------|-----------------|
| 812006ERL | 6 | 6 | 6 |
| 812008ERL | 8 | 8 | 8 |
| 812010ERL | 10 | 10 | 10 |
| 812012ERL | 12 | 12 | 12 |
| 812016ERL | 16 | 16 | 16 |



150° TUBE
8150__ERL

| PART NO. 150° TUBE | HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE |
|--------------------------|---------------------|---------------------|-----------------|
| 815006ERL | 6 | 6 | 6 |
| 815008ERL | 8 | 8 | 8 |
| 815010ERL | 10 | 10 | 10 |
| 815012ERL | 12 | 12 | 12 |
| 815016ERL | 16 | 16 | 16 |



180° TUBE
8180__ERL

| PART NO. 180° TUBE | HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE |
|--------------------------|---------------------|---------------------|-----------------|
| 818006ERL | 6 | 6 | 6 |
| 818008ERL | 8 | 8 | 8 |
| 818010ERL | 10 | 10 | 10 |
| 818012ERL | 12 | 12 | 12 |
| 818016ERL | 16 | 16 | 16 |

SWIVEL-SEAL™ HOSE ENDS

DIRECT CONNECT

HOSE & HOSE ENDS

THIS UNIQUE LINE of hose ends has been developed to allow the hose end to be threaded directly into a female port without the bulk and complication of an adapter fitting. In all cases the coupler can be rotated independently of the hose end, this allows the coupler to be threaded into the part while the hose and hose end are held stationary. Both step-up and step-down coupler sizes are available as listed below.



MALE PIPE THREADS

| MALE THREAD SIZE | USE HOSE SIZE | STRAIGHT PART NO. | 45° PART NO. | 90° PART NO. |
|------------------------|------------------|----------------------|-----------------|-----------------|
| 1/8 NPT | 6 | 820162ERL | 824562ERL | 829062ERL |
| 1/4 NPT | 6 | 820106ERL | 824506ERL | 829006ERL |
| 3/8 NPT | 6 | 820166ERL | 824566ERL | 829066ERL |
| 3/8 NPT | 8 | 820108ERL | 824508ERL | 829008ERL |
| 1/2 NPT | 8 | 820188ERL | 824588ERL | 829088ERL |
| 3/8 NPT | 10 | 820111ERL | 824511ERL | 829011ERL |
| 1/2 NPT | 10 | 820110ERL | 824510ERL | 829010ERL |
| 1/2 NPT | 12 | 820113ERL | 824513ERL | 829013ERL |
| 3/4 NPT | 12 | 820112ERL | 824512ERL | 829012ERL |



MALE A.N. THREADS

| MALE THREAD SIZE (AN) | USE HOSE SIZE | STRAIGHT PART NO. (FLARE / "O" RING) | 45° PART NO. ("O" RING ONLY) | 90° PART NO. ("O" RING ONLY) |
|-----------------------------|------------------|--|------------------------------------|------------------------------------|
| 7/16-20 (AN-4) | 6 | — | 844564ERL | 849064ERL |
| 1/2-20 (AN-5) | 6 | — | 844565ERL | 849065ERL |
| 9/16-18 (AN-6) | 6 | 840106ERL | 844506ERL | 849006ERL |
| 3/4-16 (AN-8) | 6 | — | 844568ERL | 849068ERL |
| 9/16-18 (AN-6) | 8 | — | 844586ERL | 849086ERL |
| 3/4-16 (AN-8) | 8 | 840108ERL | 844508ERL | 849008ERL |
| 7/8-14 (AN-10) | 8 | — | 844581ERL | 849081ERL |
| 3/4-16 (AN-8) | 10 | — | 844509ERL | 849009ERL |
| 7/8-14 (AN-10) | 10 | 840110ERL | 844510ERL | 849010ERL |
| 1 1/16-12 (AN-12) | 10 | — | 844511ERL | 849011ERL |
| 7/8-14 (AN-10) | 12 | — | 844513ERL | 849013ERL |
| 1 1/16-12 (AN-12) | 12 | 840112ERL | 844512ERL | 849012ERL |

Replacement O-rings pg.98

ANO-TUFF™ SWIVEL-SEAL HOSE ENDS

HOSE & HOSE ENDS

ANO-TUFF™ HARD ANODIZED ALUMINUM!

EARL'S uses Mil Spec Type III hard anodizing to add superior wear and corrosion resistance to their aluminum. Ideal for use with alcohol fuel and marine environments. Also helps to extend hose end life by reducing thread wear.

EARL'S Ano-Tuff™ Swivel-Seal™ hose ends are offered in a distinctive black hard anodized finish.



SWIVEL-SEAL™ hose ends are designed to be used with Earl's PERFORM-O-FLEX™, AUTO-FLEX™ & PRO-LITE 350™ braid-protected hose. Not intended for use on any other Earl's hose. Use with other manufacturers' hose is not recommended.

| HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE | TYPICAL APPLICATION |
|---------------|---------------|--------------|--------------------------------------|
| 6 | 6 | 6 | Fuel Lines |
| 8 | 8 | 8 | Remote Oil Filter Lines |
| 10 | 10 | 10 | Dry, Sump, Remote Oil Filter Lines |
| 12 | 12 | 12 | Dry, Sump, Remote Oil Filter Lines |
| 16 | 16 | 16 | Dry, Sump & Oil Lines, Radiator Hose |



STRAIGHT
AT8001__ERL

| PART NO. | HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE |
|-------------|---------------|---------------|--------------|
| AT800106ERL | 6 | 6 | 6 |
| AT800108ERL | 8 | 8 | 8 |
| AT800110ERL | 10 | 10 | 10 |
| AT800112ERL | 12 | 12 | 12 |
| AT800116ERL | 16 | 16 | 16 |



30° TUBE
AT8030__ERL

| PART NO. | HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE |
|-------------|---------------|---------------|--------------|
| AT803006ERL | 6 | 6 | 6 |
| AT803008ERL | 8 | 8 | 8 |
| AT803010ERL | 10 | 10 | 10 |
| AT803012ERL | 12 | 12 | 12 |
| AT803016ERL | 16 | 16 | 16 |



45° LOW PROFILE
AT8045__ERL

| PART NO. | HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE |
|-------------|---------------|---------------|--------------|
| AT804506ERL | 6 | 6 | 6 |
| AT804508ERL | 8 | 8 | 8 |
| AT804510ERL | 10 | 10 | 10 |
| AT804512ERL | 12 | 12 | 12 |
| AT804516ERL | 16 | 16 | 16 |



45° TUBE
AT8046__ERL

| PART NO. | HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE |
|-------------|---------------|---------------|--------------|
| AT804606ERL | 6 | 6 | 6 |
| AT804608ERL | 8 | 8 | 8 |
| AT804610ERL | 10 | 10 | 10 |
| AT804612ERL | 12 | 12 | 12 |
| AT804616ERL | 16 | 16 | 16 |



60° TUBE
AT8060__ERL

| PART NO. | HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE |
|-------------|---------------|---------------|--------------|
| AT806006ERL | 6 | 6 | 6 |
| AT806008ERL | 8 | 8 | 8 |
| AT806010ERL | 10 | 10 | 10 |
| AT806012ERL | 12 | 12 | 12 |
| AT806016ERL | 16 | 16 | 16 |

ANO-TUFF™ SWIVEL SEAL HOSE ENDS

HOSE & HOSE ENDS



90° LOW PROFILE
AT8090__ERL

| PART NO. | HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE |
|-------------|---------------|---------------|--------------|
| AT809006ERL | 6 | 6 | 6 |
| AT809008ERL | 8 | 8 | 8 |
| AT809010ERL | 10 | 10 | 10 |
| AT809012ERL | 12 | 12 | 12 |
| AT809016ERL | 16 | 16 | 16 |



90° TUBE
AT8091__ERL

| Part NO. | Hose End Size | Use Hose Size | Adapter Size |
|-------------|---------------|---------------|--------------|
| AT809106ERL | 6 | 6 | 6 |
| AT809108ERL | 8 | 8 | 8 |
| AT809110ERL | 10 | 10 | 10 |
| AT809112ERL | 12 | 12 | 12 |
| AT809116ERL | 16 | 16 | 16 |



120° TUBE
AT8120__ERL

| Part NO. | Hose End Size | Use Hose Size | Adapter Size |
|-------------|---------------|---------------|--------------|
| AT812006ERL | 6 | 6 | 6 |
| AT812008ERL | 8 | 8 | 8 |
| AT812010ERL | 10 | 10 | 10 |
| AT812012ERL | 12 | 12 | 12 |
| AT812016ERL | 16 | 16 | 16 |



150° TUBE
AT8150__ERL

| Part NO. | Hose End Size | Use Hose Size | Adapter Size |
|-------------|---------------|---------------|--------------|
| AT815006ERL | 6 | 6 | 6 |
| AT815008ERL | 8 | 8 | 8 |
| AT815010ERL | 10 | 10 | 10 |
| AT815012ERL | 12 | 12 | 12 |
| AT815016ERL | 16 | 16 | 16 |



180° TUBE
AT8180__ERL

| Part NO. | Hose End Size | Use Hose Size | Adapter Size |
|-------------|---------------|---------------|--------------|
| AT818006ERL | 6 | 6 | 6 |
| AT818008ERL | 8 | 8 | 8 |
| AT818010ERL | 10 | 10 | 10 |
| AT818012ERL | 12 | 12 | 12 |
| AT818016ERL | 16 | 16 | 16 |

See pg. 46-50 for AT Adapters

Assembly instructions can be found on pg. 114

AUTO-FIT™ HOSE ENDS

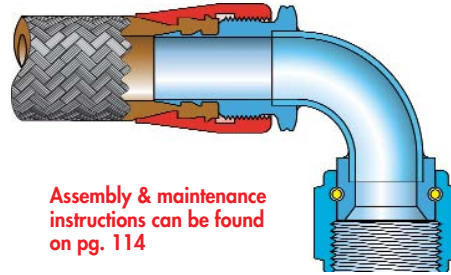
HOSE & HOSE ENDS

Earl's Auto-Fit™ design provides the reliability and appearance of Swivel-Seal™ but are easier to assemble and less expensive.

With the conventional single nipple hose end design used by some of our competitors, the nipple actually threads into the hose and is retained by the socket. The thread forms a part of the seal—and a possible spiral leak path.

The Auto-Fit™ nipple is barbed rather than threaded. In assembly the nipple is pushed into rather than threaded into the hose. The hose is compressed between the nipple and the socket, sealing at the barbs. Hose retention is positive (the same as SWIVEL-SEAL™) and there is no spiral path for possible leaks.

Auto-Fit™ hose ends are available in aluminum, steel and stainless steel. The lightweight aluminum hose ends are suitable for most applications. Steel Auto-Fit™ hose ends should be used when increased physical strength and/or where resistance to alcohol fuels is required. The stainless units offer maximum corrosion and temperature resistance and are recommended for marine or chemical use and for exotic fuels.



Assembly & maintenance instructions can be found on pg. 114

Hose end specifications can be found on pg. 124

Replacement sockets can be found on pg. 19

| Size | Typical Application |
|------|--|
| 4 | Fuel Lines, Fuel and Oil Pressure Gauges |
| 6 | Fuel Lines |
| 8 | Fuel, Remote Oil Filter Lines |
| 10 | Dry Sump, Remote Oil Filter Lines |
| 12 | Dry Sump, Remote Oil Filter Lines |
| 16 | Dry Sump & Water Lines |
| 20 | Water Lines |
| 24 | Water Lines |



SWIVEL-SEAL hose ends are designed to be used with Earl's PERFORM-O-FLEX™, PRO-LITE 350™ and AUTO-FLEX™ braid-protected hose. Not intended for use on any other Earl's hose. Use with other manufacturers' hose is not recommended.

STRAIGHT FITTINGS



| HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE | ALUMINUM | STEEL | STAINLESS |
|---------------|---------------|--------------|-----------|-----------|------------|
| | | | PART # | PART # | PART # |
| 4 | 4 | 4 | 300104ERL | 400104ERL | 490104ERL |
| 6 | 6 | 6 | 300106ERL | 400106ERL | 490106ERL |
| 8 | 8 | 8 | 300108ERL | 400108ERL | 490108ERL |
| 10 | 10 | 10 | 300110ERL | - | 490110ERL |
| 12 | 12 | 12 | 300112ERL | - | 490112ERL* |
| 16 | 16 | 16 | 300116ERL | - | 490116ERL* |
| 20 | 20 | 20 | 300120ERL | - | 490120ERL* |
| 24 | 24 | 24 | 300124ERL | - | 490124ERL* |

45° BENT TUBE FITTINGS



| HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE | ALUMINUM | STEEL | STAINLESS |
|---------------|---------------|--------------|-----------|-----------|------------|
| | | | PART # | PART # | PART # |
| 4 | 4 | 4 | 304604ERL | 404604ERL | 494604ERL |
| 6 | 6 | 6 | 304606ERL | 404606ERL | 494606ERL |
| 8 | 8 | 8 | 304608ERL | 404608ERL | 494608ERL |
| 10 | 10 | 10 | 304610ERL | - | 494610ERL |
| 12 | 12 | 12 | 304612ERL | - | 494612ERL* |
| 16 | 16 | 16 | 304616ERL | - | 494616ERL* |
| 20 | 20 | 20 | 304620ERL | - | 494620ERL* |
| 24 | 24 | 24 | 304624ERL | - | 494624ERL* |

* Available on a Special Order basis only.

AUTO-FIT™ HOSE ENDS

HOSE & HOSE ENDS

90° BENT TUBE FITTINGS



| HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE | ALUMINUM PART # | STEEL PART # | STAINLESS PART # |
|---------------|---------------|--------------|-----------------|--------------|------------------|
| 4 | 4 | 4 | 309104ERL | 409104ERL | 499104ERL |
| 6 | 6 | 6 | 309106ERL | 409106ERL | 499106ERL |
| 8 | 8 | 8 | 309108ERL | 409108ERL | 499108ERL |
| 10 | 10 | 10 | 309110ERL | - | 499110ERL |
| 12 | 12 | 12 | 309112ERL | - | 499112ERL* |
| 16 | 16 | 16 | 309116ERL | - | 499116ERL* |
| 20 | 20 | 20 | 309120ERL | - | 499120ERL* |
| 24 | 24 | 24 | 309124ERL | - | 499124ERL* |

120° BENT TUBE FITTINGS



| HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE | ALUMINUM PART # | STEEL PART # | STAINLESS PART # |
|---------------|---------------|--------------|-----------------|--------------|------------------|
| 4 | 4 | 4 | 312004ERL | 412004ERL | 492004ERL |
| 6 | 6 | 6 | 312006ERL | 412006ERL | 492006ERL |
| 8 | 8 | 8 | 312008ERL | - | 492008ERL |
| 10 | 10 | 10 | 312010ERL | - | 492010ERL |
| 12 | 12 | 12 | 312012ERL | - | 492012ERL* |
| 16 | 16 | 16 | 312016ERL | - | 492016ERL* |
| 20 | 20 | 20 | 312020ERL* | - | 492020ERL* |
| 24 | 24 | 24 | 312024ERL* | - | 492024ERL* |

150° BENT TUBE FITTINGS



| HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE | ALUMINUM PART # | STEEL PART # | STAINLESS PART # |
|---------------|---------------|--------------|-----------------|--------------|------------------|
| 4 | 4 | 4 | 315004ERL | 415004ERL | 495004ERL |
| 6 | 6 | 6 | 315006ERL | 415006ERL | 495006ERL |
| 8 | 8 | 8 | 315008ERL | - | 495008ERL |
| 10 | 10 | 10 | 315010ERL | - | 495010ERL |
| 12 | 12 | 12 | 315012ERL | - | 495012ERL* |
| 16 | 16 | 16 | 315016ERL | - | 495016ERL* |
| 20 | 20 | 20 | 315020ERL* | - | 495020ERL* |
| 24 | 24 | 24 | 315024ERL* | - | 495024ERL* |

180° BENT TUBE FITTINGS



| HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE | ALUMINUM PART # | STEEL PART # | STAINLESS PART # |
|---------------|---------------|--------------|-----------------|--------------|------------------|
| 4 | 4 | 4 | 318004ERL | 418004ERL | 498004ERL |
| 6 | 6 | 6 | 318006ERL | 418006ERL | 498006ERL |
| 8 | 8 | 8 | 318008ERL | - | 498008ERL |
| 10 | 10 | 10 | 318010ERL | - | 498010ERL |
| 12 | 12 | 12 | 318012ERL | - | 498012ERL* |
| 16 | 16 | 16 | 318016ERL | - | 498016ERL* |
| 20 | 20 | 20 | 318020ERL* | - | 498020ERL* |
| 24 | 24 | 24 | 318024ERL* | - | 498024ERL* |

* Available on a Special Order basis only.

AUTO-FIT™ HOSE ENDS

UNANODIZED

HOSE & HOSE ENDS

Put away the oven and wheel cleaners for good! Earl's "UP" (unanodized - polished) Auto-Fit™ hose ends are tumble polished without anodizing so you can plate them any color you want to complete that custom plumbing system. You could also have them clear coated to keep that natural look of polished aluminum. We have replaced the stainless retaining pin in the female B-nut with an aluminum pin so you do not have to disassemble the nut from the body before plating. "UP" hose ends and adapters are the solution to that finishing touch to a custom system.



Auto-Fit hose ends are designed to be used with Perform-O-Flex™ & Auto-Flex™ hose. They are not recommended for use with any other manufacturers' hose. Before purchasing a single-nipple hose end that merely "looks good", check the pressure ratings of Auto-Fit™ hose ends when used with Perform-O-Flex™ and Auto-Flex™ hose.

NOTE: Unanodized hose ends and adapters must be clear coated or anodized before assembly.

STRAIGHT (unanodized)
UP3001__ERL



| UNANODIZED PART NO. | HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE |
|---------------------|---------------|---------------|--------------|
| UP300104ERL | 4 | 4 | 4 |
| UP300106ERL | 6 | 6 | 6 |
| UP300108ERL | 8 | 8 | 8 |
| UP300110ERL | 10 | 10 | 10 |
| UP300112ERL | 12 | 12 | 12 |
| UP300116ERL | 16 | 16 | 16 |

45° (unanodized)
UP3046__ERL



| UNANODIZED PART NO. | HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE |
|---------------------|---------------|---------------|--------------|
| UP304604ERL | 4 | 4 | 4 |
| UP304606ERL | 6 | 6 | 6 |
| UP304608ERL | 8 | 8 | 8 |
| UP304610ERL | 10 | 10 | 10 |
| UP304612ERL | 12 | 12 | 12 |
| UP304616ERL | 16 | 16 | 16 |

90° (unanodized)
UP3091__ERL



| UNANODIZED PART NO. | HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE |
|---------------------|---------------|---------------|--------------|
| UP309104ERL | 4 | 4 | 4 |
| UP309106ERL | 6 | 6 | 6 |
| UP309108ERL | 8 | 8 | 8 |
| UP309110ERL | 10 | 10 | 10 |
| UP309112ERL | 12 | 12 | 12 |
| UP309116ERL | 16 | 16 | 16 |

120° (unanodized)
UP3120__ERL



| UNANODIZED PART NO. | HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE |
|---------------------|---------------|---------------|--------------|
| UP312004ERL | 4 | 4 | 4 |
| UP312006ERL | 6 | 6 | 6 |
| UP312008ERL | 8 | 8 | 8 |
| UP312010ERL | 10 | 10 | 10 |
| UP312012ERL | 12 | 12 | 12 |
| UP312016ERL | 16 | 16 | 16 |

150° (unanodized)
UP3150__ERL



| UNANODIZED PART NO. | HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE |
|---------------------|---------------|---------------|--------------|
| UP315004ERL | 4 | 4 | 4 |
| UP315006ERL | 6 | 6 | 6 |
| UP315008ERL | 8 | 8 | 8 |
| UP315010ERL | 10 | 10 | 10 |
| UP315012ERL | 12 | 12 | 12 |
| UP315016ERL | 16 | 16 | 16 |

180° (unanodized)
UP3180__ERL



| UNANODIZED PART NO. | HOSE END SIZE | USE HOSE SIZE | ADAPTER SIZE |
|---------------------|---------------|---------------|--------------|
| UP318004ERL | 4 | 4 | 4 |
| UP318006ERL | 6 | 6 | 6 |
| UP318008ERL | 8 | 8 | 8 |
| UP318010ERL | 10 | 10 | 10 |
| UP318012ERL | 12 | 12 | 12 |
| UP318016ERL | 16 | 16 | 16 |

See pg. 51 for UP Adapters

AUTO-FIT™ HOSE ENDS

HOSE & HOSE ENDS

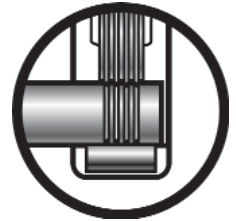
Direct Connect Auto-Fit™ hose ends eliminate the need for an adapter by threading directly into an NPT port.



| Part No. | Size |
|-----------|---------------------|
| 320104ERL | -4 Hose to 1/8 NPT |
| 320144ERL | -4 Hose to 1/4 NPT |
| 320162ERL | -6 Hose to 1/8 NPT |
| 320106ERL | -6 Hose to 1/4 NPT |
| 320166ERL | -6 Hose to 3/8 NPT |
| 320107ERL | -8 Hose to 1/4 NPT |
| 320108ERL | -8 Hose to 3/8 NPT |
| 320188ERL | -8 Hose to 1/2 NPT |
| 320111ERL | -10 Hose to 3/8 NPT |
| 320110ERL | -10 Hose to 1/2 NPT |
| 320112ERL | -12 Hose to 3/4 NPT |
| 320113ERL | -12 Hose to 1/2 NPT |

TUBE-MATE AUTO-FIT™

IT IS OFTEN NECESSARY to connect a length of rigid metal tubing to a flexible stainless braid protected hose. The only methods available have been either to flare the tubing and use a connection tube nut and sleeve or to weld an adapter fitting to the metal tubing. Earl's TUBE-MATE is a unique fitting designed to connect flexible hoses to low pressure tubing (25 PSI max) without the necessity for welded adapters. **NOTE:** tubing should be flared, beaded or grooved for secure installation. See Plumbing Accessories pg. 101 for part #006 grooving wheel.



See page 43 for higher pressure options
Assembly instructions pg. 117

| PART # | HOSE SIZE AN | TUBING O.D. | | MAX. OPERATING PRESSURE | |
|-----------|-----------------|-------------|-------|-------------------------|-------|
| | | (IN) | (MM) | (PSI) | (BAR) |
| 360104ERL | -4 | 0.25 | 6.35 | 25 | 1.72 |
| 360165ERL | -6 | 0.31 | 7.87 | 25 | 1.72 |
| 360106ERL | -6 | 0.38 | 9.65 | 25 | 1.72 |
| 360108ERL | -8 | 0.5 | 12.70 | 25 | 1.72 |
| 360110ERL | -10 | 0.63 | 16.00 | 25 | 1.72 |
| 360112ERL | -12 | 0.75 | 19.05 | 25 | 1.72 |

REPLACEMENT RUBBER BOOTS



| Part No. | Description |
|------------|--|
| 360104BERL | Replacement rubber boot for Tube-Mate #360104ERL |
| 360165BERL | Replacement rubber boot for Tube-Mate #360165ERL |
| 360106BERL | Replacement rubber boot for Tube-Mate #360106ERL |
| 360108BERL | Replacement rubber boot for Tube-Mate #360108ERL |
| 360110BERL | Replacement rubber boot for Tube-Mate #360110ERL |
| 360112BERL | Replacement rubber boot for Tube-Mate #360112ERL |

SWIVEL-SEAL™ & AUTO-FIT™ REPLACEMENT SOCKETS

When you need to reuse a hose end and the sockets are damaged or worn, you can now order replacement sockets!



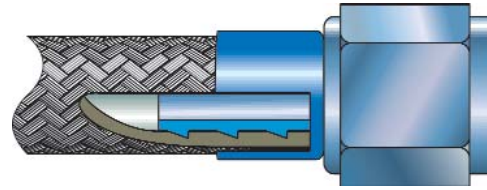
| Hose Size | -4 | -6 | -8 | -10 | -12 | -16 | -20 | -24 |
|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Replacement Sockets | 898043ERL | 898063ERL | 898083ERL | 898103ERL | 898123ERL | 898163ERL | 898203ERL | 898243ERL |

AUTO-MATE™ & AUTO-CRIMP™ HOSE ENDS

HOSE & HOSE ENDS

The original and still the best barbed aluminum nipple, cover and clamp hose ends. AUTO-MATE is intended for use with either AUTO-FLEX™, PERFORM-O-FLEX™ stainless steel braid protected hose or PRO LITE 350™ hoses anywhere that reliable and professional plumbing is required at an economical price.

When combined with Pro-Lite 350™ hose. You have an assembly that is half the weight of traditional stainless braid and removable hose ends. Earl's offers the crimping sleeves (see below) and a crimping tool to allow field assembly of these attractive, cost effective and light-weight fittings. See page 100 for crimping tool details. Can also be used with Econ-O-Fit™ clamps.



AUTO-MATE™ hose ends are designed for use with stainless steel braid-protected hose & Pro-Lite 350™. They cannot be used with Earl's SUPER STOCK™ hose. Auto-Mate™ needs either Econ-O-Fit™ or crimped Auto-Crimp™ collar to function.

Assembly instructions can be found on pg. 115 & 117

Straight
7001__ERL



| PART NO. | HOSE END SIZE | ADAPTER SIZE | HOSE SIZE |
|-----------|---------------|--------------|-----------|
| 700104ERL | 4 | 4 | 4 |
| 700106ERL | 6 | 6 | 6 |
| 700108ERL | 8 | 8 | 8 |
| 700110ERL | 10 | 10 | 10 |
| 700112ERL | 12 | 12 | 12 |
| 700116ERL | 16 | 16 | 16 |

45°
7046__ERL



| PART NO. | HOSE END SIZE | ADAPTER SIZE | HOSE SIZE |
|-----------|---------------|--------------|-----------|
| 704604ERL | 4 | 4 | 4 |
| 704606ERL | 6 | 6 | 6 |
| 704608ERL | 8 | 8 | 8 |
| 704610ERL | 10 | 10 | 10 |
| 704612ERL | 12 | 12 | 12 |
| 704616ERL | 16 | 16 | 16 |

90°
7091__ERL



| PART NO. | HOSE END SIZE | ADAPTER SIZE | HOSE SIZE |
|-----------|---------------|--------------|-----------|
| 709104ERL | 4 | 4 | 4 |
| 709106ERL | 6 | 6 | 6 |
| 709108ERL | 8 | 8 | 8 |
| 709110ERL | 10 | 10 | 10 |
| 709112ERL | 12 | 12 | 12 |
| 709116ERL | 16 | 16 | 16 |

120°
7120__ERL



| PART NO. | HOSE END SIZE | ADAPTER SIZE | HOSE SIZE |
|-----------|---------------|--------------|-----------|
| 712004ERL | 4 | 4 | 4 |
| 712006ERL | 6 | 6 | 6 |
| 712008ERL | 8 | 8 | 8 |
| 712010ERL | 10 | 10 | 10 |
| 712012ERL | 12 | 12 | 12 |
| 712016ERL | 16 | 16 | 16 |

180°
7180__ERL



| PART NO. | HOSE END SIZE | ADAPTER SIZE | HOSE SIZE |
|-----------|---------------|--------------|-----------|
| 718004ERL | 4 | 4 | 4 |
| 718006ERL | 6 | 6 | 6 |
| 718008ERL | 8 | 8 | 8 |
| 718010ERL | 10 | 10 | 10 |
| 718012ERL | 12 | 12 | 12 |
| 718016ERL | 16 | 16 | 16 |

Auto Crimp Collars
798__ERL



| PART NO. | HOSE END SIZE | HOSE SIZE |
|-----------|---------------|-----------|
| 798043ERL | 4 | 4 |
| 798063ERL | 6 | 6 |
| 798083ERL | 8 | 8 |
| 798103ERL | 10 | 10 |
| 798123ERL | 12 | 12 |
| 798163ERL | 16 | 16 |

* Collar sold separately

Econ-O-Fit Clamp Housings pg. 95



AUTO-MATE™ & AUTO-CRIMP™ HOSE ENDS

ANO-TUFF™

HOSE & HOSE ENDS

With the Ano-Tuff™ Mil Spec Type III hard anodized finish added to these hose ends, you have a combination that cannot be beat. Superior wear and corrosion resistance with one of the lightest hose ends on the market today.



Straight
AT7001__ERL



| PART NO. | HOSE END SIZE | ADAPTER SIZE | HOSE SIZE |
|-------------|---------------|--------------|-----------|
| AT700104ERL | 4 | 4 | 4 |
| AT700106ERL | 6 | 6 | 6 |
| AT700108ERL | 8 | 8 | 8 |
| AT700110ERL | 10 | 10 | 10 |
| AT700112ERL | 12 | 12 | 12 |
| AT700116ERL | 16 | 16 | 16 |

45°
AT7046__ERL



| PART NO. | HOSE END SIZE | ADAPTER SIZE | HOSE SIZE |
|-------------|---------------|--------------|-----------|
| AT704604ERL | 4 | 4 | 4 |
| AT704606ERL | 6 | 6 | 6 |
| AT704608ERL | 8 | 8 | 8 |
| AT704610ERL | 10 | 10 | 10 |
| AT704612ERL | 12 | 12 | 12 |
| AT704616ERL | 16 | 16 | 16 |

90°
AT7091__ERL



| PART NO. | HOSE END SIZE | ADAPTER SIZE | HOSE SIZE |
|-------------|---------------|--------------|-----------|
| AT709104ERL | 4 | 4 | 4 |
| AT709106ERL | 6 | 6 | 6 |
| AT709108ERL | 8 | 8 | 8 |
| AT709110ERL | 10 | 10 | 10 |
| AT709112ERL | 12 | 12 | 12 |
| AT709116ERL | 16 | 16 | 16 |

120°
AT7120__ERL



| PART NO. | HOSE END SIZE | ADAPTER SIZE | HOSE SIZE |
|-------------|---------------|--------------|-----------|
| AT712004ERL | 4 | 4 | 4 |
| AT712006ERL | 6 | 6 | 6 |
| AT712008ERL | 8 | 8 | 8 |
| AT712010ERL | 10 | 10 | 10 |
| AT712012ERL | 12 | 12 | 12 |
| AT712016ERL | 16 | 16 | 16 |

150°
AT7150__ERL



| PART NO. | HOSE END SIZE | ADAPTER SIZE | HOSE SIZE |
|-------------|---------------|--------------|-----------|
| AT715004ERL | 4 | 4 | 4 |
| AT715006ERL | 6 | 6 | 6 |
| AT715008ERL | 8 | 8 | 8 |
| AT715010ERL | 10 | 10 | 10 |
| AT715012ERL | 12 | 12 | 12 |
| AT715016ERL | 16 | 16 | 16 |

180°
AT7180__ERL



| PART NO. | HOSE END SIZE | ADAPTER SIZE | HOSE SIZE |
|-------------|---------------|--------------|-----------|
| AT718004ERL | 4 | 4 | 4 |
| AT718006ERL | 6 | 6 | 6 |
| AT718008ERL | 8 | 8 | 8 |
| AT718010ERL | 10 | 10 | 10 |
| AT718012ERL | 12 | 12 | 12 |
| AT718016ERL | 16 | 16 | 16 |

Auto Crimp Collars
798__ERL



| PART NO. | HOSE END SIZE | HOSE SIZE |
|-----------|---------------|-----------|
| 798043ERL | 4 | 4 |
| 798063ERL | 6 | 6 |
| 798083ERL | 8 | 8 |
| 798103ERL | 10 | 10 |
| 798123ERL | 12 | 12 |
| 798163ERL | 16 | 16 |

* Collar sold separately

Auto Crimp Collars
(Stainless Steel)
798__ERL



| PART NO. | HOSE END SIZE | HOSE SIZE |
|-----------|---------------|-----------|
| 798049ERL | 4 | 4 |
| 798069ERL | 6 | 6 |
| 798089ERL | 8 | 8 |
| 798109ERL | 10 | 10 |
| 798129ERL | 12 | 12 |
| 798169ERL | 16 | 16 |

* Collar sold separately

Econ-O-Fit Clamp Housings pg. 95



Crimper & Dies pg. 100



AUTO-MATE™ hose ends are designed for use with stainless steel braided hose & Pro-Lite 350™. They cannot be used with Earl's SUPER STOCK™ hose. Auto-Mate™ needs either Econ-O-Fit™ or crimped Auto-Crimp™ collar to function.

SUPER STOCK™ HOSE

FOR USE WITH SUPER STOCK HOSE ENDS

HOSE & HOSE ENDS



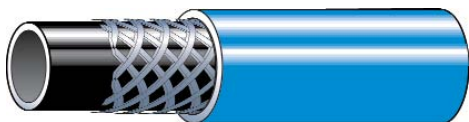
Earl's SUPER STOCK™ hose is a high quality synthetic rubber hose reinforced by a full coverage interior braided fabric sheath. This superior replacement hose for original equipment applications has found favor with professional racing teams and street performers alike. Available in blue or black SUPER STOCK™ is rated at 250 psi and 250° F. continuous service. To prevent collapse in suction service or for very tight bends, we can supply an internal spiral reinforcing wire . Suitable for fuel, oil and water.

Super Stock™ hose is intended for use with Super Stock™ hose ends only. It is also for use with hose nipples and beaded tubing. No other Earl's hose ends are intended for use with Super Stock™ hose.

| Hose Size AN | Hose I.D. | | Hose O.D. | | Max. Op. Pressure | | Min. Bend Radius | | Bulk P/N | 6ft./1.8M P/N | 10ft./3.0M P/N | 20ft./6.1 P/N | 33ft./10.1 P/N |
|-----------------|-----------|-------|-----------|-------|-------------------|-------|------------------|-------|-------------|------------------|-------------------|------------------|-------------------|
| | (in) | (mm) | (in) | (mm) | (PSI) | (Bar) | (in) | (mm) | | | | | |
| Black -4 | 0.25 | 6.35 | 0.47 | 11.94 | 250 | 17.23 | 2.5 | 63.5 | 780004ERL | 780604ERL | 781004ERL | 782004ERL | - |
| Blue -4 | 0.25 | 6.35 | 0.47 | 11.94 | 250 | 17.23 | 2.5 | 63.5 | 790004ERL | 790604ERL | 791004ERL | 792004ERL | - |
| Black -6 | 0.38 | 9.65 | 0.63 | 16.00 | 250 | 17.23 | 3 | 76.2 | 780006ERL | 780606ERL | 781006ERL | 782006ERL | 783306ERL |
| Blue -6 | 0.38 | 9.65 | 0.63 | 16.00 | 250 | 17.23 | 3 | 76.2 | 790006ERL | 790606ERL | 791006ERL | 792006ERL | 793306ERL |
| Black -8 | 0.5 | 12.70 | 0.75 | 19.05 | 250 | 17.23 | 5 | 127 | 780008ERL | 780608ERL | 781008ERL | 782008ERL | 783308ERL |
| Blue -8 | 0.5 | 12.70 | 0.75 | 19.05 | 250 | 17.23 | 5 | 127 | 790008ERL | 790608ERL | 791008ERL | 792008ERL | 793308ERL |
| Black -10 | 0.63 | 16.00 | 0.94 | 23.88 | 250 | 17.23 | 6.0 | 152.4 | 780010ERL | 780610ERL | 781010ERL | 782010ERL | - |
| Blue -10 | 0.63 | 16.00 | 0.94 | 23.88 | 250 | 17.23 | 6.0 | 152.4 | 790010ERL | 790610ERL | 791010ERL | 792010ERL | - |
| Black -12 | 0.75 | 19.05 | 1 | 25.40 | 250 | 17.23 | 7 | 177.8 | 780012ERL | 780612ERL | 781012ERL | 782012ERL | - |
| Blue -12 | 0.75 | 19.05 | 1 | 25.40 | 250 | 17.23 | 7 | 177.8 | 790012ERL | 790612ERL | 791012ERL | 792012ERL | - |



In recent years various fuel manufacturers have added any number of new unpublished additives to their blends. It is therefore very difficult to know how the tube compound used in the inner liner of our Super-stock, Auto Flex and Perform-O-Flex or any other brand of elastomeric hose will react with a specific fuel. Because of the unknowns described above, we are unable to guarantee that the above listed hoses are the best possible products to use with any specific fuel. If in doubt use teflon lined hose. Super Stock hose is not to be used with brake fluid. On applications where the maximum temperature range is expected, compression of the Super Stock collar is required.



INNER SUPPORT SPRING

The inner support spring is to be used with Super Stock™ Hose to prevent collapse when in suction service or when very tight bends must be made. It may also be used with other types of hose where it's determined that these conditions may occur.

| HOSE NO. | 4 FT. LENGTH |
|----------|--------------|
| 10 | 770410ERL |
| 12 | 770412ERL |

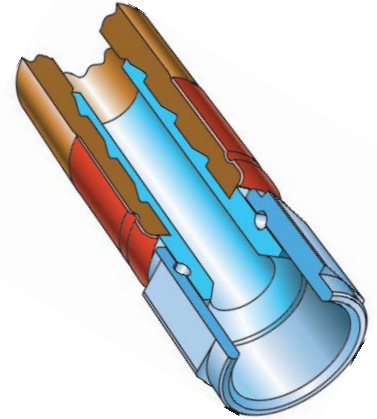


SUPER STOCK™ HOSE ENDS

HOSE & HOSE ENDS

Super Stock™ push-on hose ends are designed to be an attractive and lightweight direct replacement for the popular and economical brass push lock type. Machined from aluminum alloy and anodized in the familiar red and blue made famous by Earl's, they are available in all common AN 37° flare configurations and, as straight hose ends, with male NPT threads.

Designed to be used with our Super Stock™ hose, these hose ends are not intended for use with stainless braid-protected hoses or Pro-Lite 350™ or Teflon lined hose. While basically meant for street and marine applications, super stock hose and hose ends have found favor with professional racers and in limited production OEM applications.



Earl's Super Stock hose ends are designed to be used with Earl's SUPER STOCK hose. They cannot be used with stainless steel braid protected hose. On applications where the maximum temperature range is expected, compression of the Super Stock collar is required.

Straight
7001__ERL



| SUPER STOCK PART NO. | A.N. FITTING SIZE | HOSE NO. | HOSE SIZE |
|----------------------|-------------------|----------|-----------|
| 700145ERL | 4 | 4 | 1/4 |
| 700167ERL | 6 | 6 | 3/8 |
| 700109ERL | 8 | 8 | 1/2 |
| 700111ERL | 10 | 10 | 5/8 |
| 700113ERL | 12 | 12 | 3/4 |

45°
7046__ERL



| | | | |
|-----------|----|----|-----|
| 704645ERL | 4 | 4 | 1/4 |
| 704667ERL | 6 | 6 | 3/8 |
| 704609ERL | 8 | 8 | 1/2 |
| 704611ERL | 10 | 10 | 5/8 |
| 704613ERL | 12 | 12 | 3/4 |

90°
7091__ERL



| | | | |
|-----------|----|----|-----|
| 709145ERL | 4 | 4 | 1/4 |
| 709167ERL | 6 | 6 | 3/8 |
| 709109ERL | 8 | 8 | 1/2 |
| 709111ERL | 10 | 10 | 5/8 |
| 709113ERL | 12 | 12 | 3/4 |

120°
7120__ERL



| | | | |
|-----------|----|----|-----|
| 712045ERL | 4 | 4 | 1/4 |
| 712067ERL | 6 | 6 | 3/8 |
| 712009ERL | 8 | 8 | 1/2 |
| 712011ERL | 10 | 10 | 5/8 |
| 712013ERL | 12 | 12 | 3/4 |

150°
7150__ERL



| SUPER STOCK PART NO. | A.N. FITTING SIZE | HOSE NO. | HOSE SIZE |
|----------------------|-------------------|----------|-----------|
| 715045ERL | 4 | 4 | 1/4 |
| 715067ERL | 6 | 6 | 3/8 |
| 715009ERL | 8 | 8 | 1/2 |
| 715011ERL | 10 | 10 | 5/8 |
| 715013ERL | 12 | 12 | 3/4 |

180°
7180__ERL



| | | | |
|-----------|----|----|-----|
| 718045ERL | 4 | 4 | 1/4 |
| 718067ERL | 6 | 6 | 3/8 |
| 718009ERL | 8 | 8 | 1/2 |
| 718011ERL | 10 | 10 | 5/8 |
| 718013ERL | 12 | 12 | 3/4 |

Male Pipe Thread
7201__ERL



| | NPT SIZE | HOSE NO. | HOSE SIZE |
|-----------|----------|----------|-----------|
| 720142ERL | 1/8 | 4 | 1/4 |
| 720164ERL | 1/4 | 6 | 3/8 |
| 720166ERL | 3/8 | 6 | 3/8 |
| 720186ERL | 3/8 | 8 | 1/2 |
| 720111ERL | 1/2 | 10 | 5/8 |
| 720113ERL | 3/4 | 12 | 3/4 |

TYPICAL APPLICATION

| Size | Usage |
|------|--|
| 4 | Fuel Lines, Fuel and Oil Pressure Gauges |
| 6 | Fuel, Remote Oil Filter Lines |
| 8 | Dry Sump, Remote Oil Filter Lines |
| 10 | Dry Sump, Remote Oil Filter Lines |
| 12 | Dry Sump, Remote Oil Filter Lines |

Assembly instructions pg. 115

Crimper & Dies pg. 100

SUPER STOCK™ REPLACEMENT SLEEVES

Color: Red Quantity 1 ea.

| Hose Size | -4 | -6 | -8 | -10 | -12 |
|---------------------|-----------|-----------|-----------|-----------|-----------|
| Replacement Sleeves | 798045ERL | 798067ERL | 798009ERL | 798011ERL | 798013ERL |



POWER STEERING HOSE & HOSE ENDS

HOSE & HOSE ENDS



A TRIPLE STEEL AND FABRIC braided-reinforced high pressure hose developed specifically to meet the demands of power steering systems, this flexible hose is also suitable for hydraulic and air lines. Available in size - 6 with a blue fabric outer covering.

The pressure rating shown is only valid when Earl's power steering hose is used with Earl's POWER STEERING hose ends. The use of other manufacturers' hose ends is not recommended.

| Hose Size | Hose I.D. | | Hose O.D. | | Max. Op. Pressure | | Burst Pressure | | Min. Bend Radius | | Bulk P/N | 6ft./1.8M P/N | 10ft./3.0M P/N | 20ft./6.1 P/N |
|-----------|-----------|------|-----------|-------|-------------------|--------|----------------|--------|------------------|-------|-----------|---------------|----------------|---------------|
| AN | (in) | (mm) | (in) | (mm) | (PSI) | (Bar) | (PSI) | (Bar) | (in) | (mm) | | | | |
| -6 | 0.31 | 7.87 | 0.68 | 17.27 | 2250 | 155.09 | 9000 | 620.37 | 4 | 101.6 | 130006ERL | 130606ERL | 131006ERL | 132006ERL |

Due to extreme pressure spikes at the end of steering travel, power steering hose requirements are among the toughest in the industry. These steel hose ends have been developed specifically to meet these requirements.

ASSEMBLY & MAINTENANCE INSTRUCTIONS CAN BE FOUND ON PAGE 116



Earl's POWER STEERING HOSE ENDS are designed to be used only with EARL'S POWER STEERING HOSE. They cannot be used with stainless steel braided-protected hose SUPER STOCK hose™ PRO-LITE 350™ hose, SPEED-FLEX™ hose or ULTRA-FLEX 650 hose.



Straight
1301_ _ERL



45°
1346_ _ERL



90°
1391_ _ERL

JIC = 37° flare
SAE = 45° flare

| PART NO. | HOSE SIZE | DESCRIPTION | THREAD |
|-----------|-----------|---------------|---------|
| 130106ERL | -6 | JIC Str. Fem. | 9/16-18 |
| 130107ERL | -6 | SAE Str. Fem. | 5/8-18 |

| PART NO. | HOSE SIZE | DESCRIPTION | THREAD |
|-----------|-----------|--------------|---------|
| 134606ERL | -6 | JIC 45° Fem. | 9/16-18 |
| 134607ERL | -6 | SAE 45° Fem. | 5/8-18 |

| Part No. | Hose Size | Description | Thread |
|-----------|-----------|--------------|---------|
| 139106ERL | -6 | JIC 90° Fem. | 9/16-18 |
| 139107ERL | -6 | SAE 90° Fem. | 5/8-18 |

BILLET FUEL LINE KITS

FUEL SYSTEM COMPONENTS

Earl's fuel kits are offered in Ano-Tuff™ MIL SPEC Type III hard anodizing (AT), for superior wear and corrosion resistance, and our traditional blue and red bright dip plating. Bowl fittings are contoured for maximum flow.



SINGLE INLET B-NUT DISASSEMBLY ANO-TUFF SWIVEL-SEAL™ - STAINLESS STEEL FUEL LINE

HOLLEY 4150/4150HP/REMAN
MODELS W/ 7/8-20 THREADS

SIZE

PART NO.



9.5"

-6 AN

AT101185ERL

-8 AN

AT101285ERL

SINGLE INLET B-NUT DISASSEMBLY ANO-TUFF SWIVEL-SEAL - PRO-LITE 350™ FUEL LINE

HOLLEY 4150/4150HP/REMAN
MODELS W/ 7/8-20 THREADS

SIZE

PART NO.



9.5"

-6 AN

AT101195ERL

-8 AN

AT101295ERL

DUAL INLET B-NUT DISASSEMBLY ANO-TUFF SWIVEL-SEAL - STAINLESS STEEL FUEL LINE

HOLLEY 4150/4150HP/REMAN
MODELS W/ 7/8-20 THREADS

SIZE

PART NO.



9.5"

-6 AN

AT101186ERL

-8 AN

AT101286ERL

BILLET FUEL LINE KITS

FUEL SYSTEM COMPONENTS



DUAL INLET B-NUT DISASSEMBLY ANO-TUFF SWIVEL-SEAL™ - PRO-LITE 350™ FUEL LINE

HOLLEY 4150/4150HP/REMAN
MODELS W/ 7/8-20 THREADS

SIZE

PART NO.



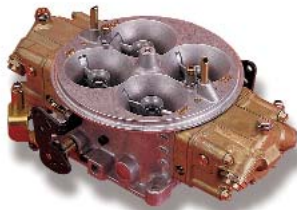
9.5"

-6 AN

AT101196ERL

-8 AN

AT101296ERL



SINGLE INLET B-NUT DISASSEMBLY ANO-TUFF™ SWIVEL-SEAL™ - STAINLESS STEEL FUEL LINE

HOLLEY 4500 DOMINATORS®/REMAN
MODELS WITH 7/8-20 THREADS

SIZE

PART NO.



12"

-6 AN

AT102185ERL

-8 AN

AT102285ERL

SINGLE INLET B-NUT DISASSEMBLY ANO-TUFF™ SWIVEL-SEAL™ - PRO-LITE 350™ FUEL LINE

HOLLEY 4500 DOMINATORS®/REMAN
MODELS WITH 7/8-20 THREADS

SIZE

PART NO.



12"

-6 AN

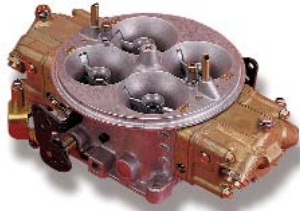
AT102195ERL

-8 AN

AT102295ERL

BILLET FUEL LINE KITS

FUEL SYSTEM COMPONENTS

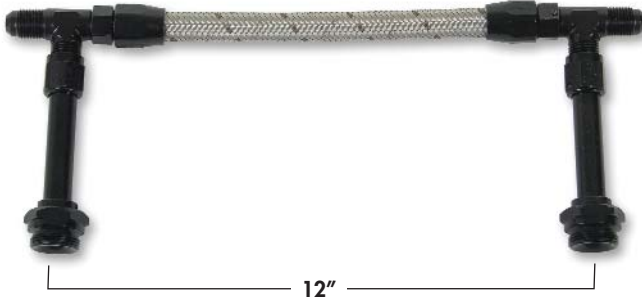


DUAL INLET B-NUT DISASSEMBLY ANO-TUFF™ SWIVEL-SEAL™ - STAINLESS STEEL FUEL LINE

HOLLEY 4500 DOMINATORS®/REMAN
MODELS WITH 7/8-20 THREADS

SIZE

PART NO.



-6 AN

AT102186ERL

-8 AN

AT102286ERL

DUAL INLET B-NUT DISASSEMBLY ANO-TUFF™ SWIVEL-SEAL™ - PRO-LITE 350™ FUEL LINE

HOLLEY 4500 DOMINATORS®/REMAN
MODELS WITH 7/8-20 THREADS

SIZE

PART NO.



-6 AN

AT102196ERL

-8 AN

AT102296ERL

UNIVERSAL SINGLE INLET BENT TUBE ANO-TUFF™ STAINLESS STEEL FUEL LINE

UNIVERSAL/REMAN FITS HOLLEY 4160, 4150 AND 4500 MODELS
WITH DUAL INLET BOWLS AND 7/8-20 THREADS

SIZE

PART NO.



3/8" NPT female inlet
tapped for 1/8" NPT
pressure gauge

AT105175ERL

BILLET FUEL LINE KITS

FUEL SYSTEM COMPONENTS

UNIVERSAL SINGLE INLET BENT TUBE ANO-TUFF PRO-LITE 350 FUEL LINE

UNIVERSAL/REMAN FITS HOLLEY 4160, 4150 AND 4500 MODELS WITH DUAL INLET BOWLS AND 7/8-20 THREADS

SIZE

PART NO.



3/8" NPT female inlet
tapped for 1/8" NPT
pressure gauge

AT105185ERL



SINGLE INLET BILLET SWIVEL-SEAL STAINLESS STEEL FUEL LINE

HOLLEY 4150/4150HP/REMAN MODELS W/ 7/8-20 THREADS

SIZE

PART NO.



-6 AN

101175ERL

-8 AN

101275ERL

9.5"

DUAL INLET BILLET SWIVEL-SEAL STAINLESS STEEL FUEL LINE

HOLLEY 4150/4150HP/REMAN MODELS W/ 7/8-20 THREADS

SIZE

PART NO.



-6 AN

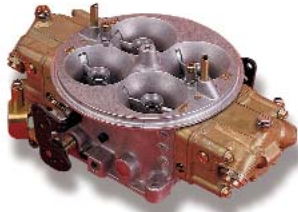
101176ERL

-8 AN

101276ERL

BILLET FUEL LINE KITS

FUEL SYSTEM COMPONENTS

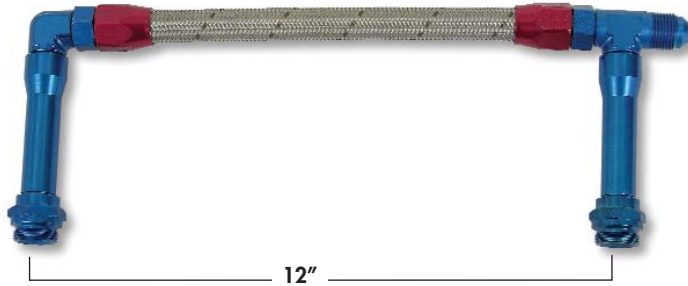


SINGLE INLET BILLET SWIVEL-SEAL STAINLESS STEEL FUEL LINE

HOLLEY 4500 DOMINATORS®/REMAN MODELS WITH 7/8-20 THREADS

SIZE

PART NO.



-8 AN

102275ERL

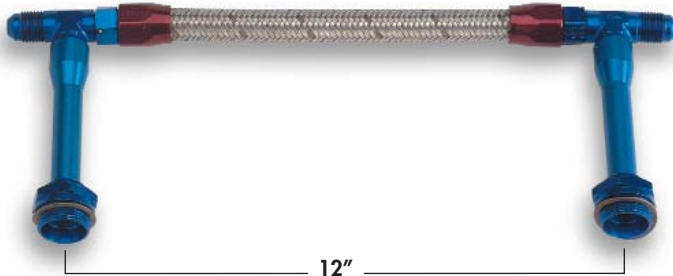
12"

DUAL INLET BILLET SWIVEL-SEAL STAINLESS STEEL FUEL LINE

HOLLEY 4500 DOMINATORS®/REMAN MODELS WITH 7/8-20 THREADS

SIZE

PART NO.



-8 AN

102276ERL

12"



SINGLE INLET BENT TUBE STAINLESS STEEL FUEL LINE

HOLLEY 4150/4150HP/REMAN MODELS W/ 7/8-20 THREADS

SIZE

PART NO.



3/8" NPT female inlet
tapped for 1/8" NPT
pressure gauge

103176ERL

9.5"

FUEL LINE REPLACEMENT HOSE ENDS & KITS

FUEL SYSTEM COMPONENTS

| PART NO. | DESCRIPTION | REPLACEMENT FOR KIT(S) # |
|----------|---|--|
| | 849093LERL -6 forged "L" w/ pinned 7/8-20 extension | 101175ERL, 101176ERL |
| | 849393TERL -6 forged "T" w/ pinned 7/8-20 extension | 101175ERL, 101176ERL |
| | 849083LERL -8 forged "L" w/ pinned 7/8-20 extension | 101275ERL, 101276ERL, 102275ERL, 102276ERL |
| | 849383TERL -8 forged "T" w/ pinned 7/8-20 extension | 101275ERL, 101276ERL, 102275ERL, 102276ERL |
| | AT850206LERL -6 forged "L" B-Nut/no extension | AT101185ERL, AT101186ERL, AT102185ERL, AT102186ERL |
| | AT849406TERL -6 forged "T" B-Nut/no extension | AT101185ERL, AT101186ERL, AT102185ERL, AT102186ERL |
| | AT915393LERL -6 forged B-Nut to 7/8-20 extension | AT101185ERL, AT101186ERL, AT102185ERL, AT102186ERL |
| | AT850208LERL -8 forged "L" B-Nut/no extension | AT101285ERL, AT101286ERL, AT102285ERL, AT102286ERL |

FUEL LINE REPLACEMENT HOSE ENDS & KITS

FUEL SYSTEM COMPONENTS

| PART NO. | DESCRIPTION | REPLACEMENT FOR KIT(S) # |
|---|---|--|
|  | AT849408TERL -8 forged "T" B-Nut/no extension | AT101285ERL, AT101286ERL, AT102285ERL, AT102286ERL |
|  | AT915383LERL -8 forged B-Nut to 7/8-20 extension | AT101285ERL, AT101286ERL, AT102285ERL, AT102286ERL |
|  | 103176LERL Push-on 90° tube 7/8-20 swivel | 103176ERL |
|  | 103176TERL 3/8 fem inlet to push-on to 90° tube 7/8-20 1/8" NPT for gauge | 103176ERL |
|  | AT105175LERL push-on 90° tube 7/8-20 swivel | AT105175ERL, AT105185ERL |
|  | AT105175TERL 3/8 fem. inlet to push-on to 90° tube 7/8-20 1/8" NPT for gauge | AT105175ERL, AT105185ERL |
|  | AT982484ERL -8AN male tee with -4AN male on run | |
|  | 982484ERL -8AN male tee with -4AN male on run | |

CARB SPECIALTY ADAPTERS

FUEL SYSTEM COMPONENTS

DIRECT TO CARBURETOR & FUEL PUMP HOSE ENDS



| 90° PART NO. | USE HOSE SIZE | USE HOSE SIZE | COMMON USAGE |
|--------------|---------------|---------------|--------------------------|
| 849091ERL | 12mm x 1.25 | 6 | Dellorto, Solex, Mikuni |
| 849092ERL | 12mm x 1.50 | 6 | Weber |
| 849093ERL | 7/8-20 | 6 | Holley/Reman Large Inlet |

SINGLE & DOUBLE BANJO HOSE ENDS



DOUBLE BANJO HOSE END
8079_ _ERL



SINGLE BANJO HOSE END
8076_ _ERL

Perfect for upgrading carburetion fuel systems. Includes banjo bolt and seals. For use with Perform-O-Flex™, Pro-Lite 350™ & Auto-Flex™ braided hose.

See chart

DOUBLE BANJO HOSE END (-6 HOSE SIZE)

| PART NO. | DESCRIPTION | APPLICATION |
|-----------|-------------|-------------------------|
| 807991ERL | 12mm x1.25 | Dellorto, Solex, Mikuni |
| 807992ERL | 12mm x1.5 | Weber |
| 807994ERL | 9/16-24 | Small Inlet Holley |
| 807995ERL | 1/2-20 | Fuel Pump |

SINGLE BANJO HOSE END (-6 HOSE SIZE)

| | | |
|-----------|------------|-------------------------|
| 807691ERL | 12mm x1.25 | Dellorto, Solex, Mikuni |
| 807692ERL | 12mm x1.5 | Weber |
| 807694ERL | 9/16-24 | Small Inlet Holley |
| 807695ERL | 1/2-20 | Fuel Pump |

NOTE: Swivel-seal™ hose ends may be used with Perform-O-Flex™, Pro-Lite 350™ & Auto-Flex™ hose.

REPLACEMENT BANJO BOLTS



| REPLACEMENT BOLTS | DESCRIPTION | FOR PART NO. |
|-------------------|-------------|--------------|
|-------------------|-------------|--------------|

| | | |
|-----------|------------|----------------------|
| 997591ERL | 12mm x1.25 | 807991ERL, 807691ERL |
|-----------|------------|----------------------|



| | | |
|-----------|-----------|----------------------|
| 997592ERL | 12mm x1.5 | 807992ERL, 807692ERL |
|-----------|-----------|----------------------|



| | | |
|-----------|---------|----------------------|
| 997594ERL | 9/16-24 | 807994ERL, 807694ERL |
|-----------|---------|----------------------|



| | | |
|-----------|--------|----------------------|
| 997595ERL | 1/2-20 | 807995ERL, 807695ERL |
|-----------|--------|----------------------|

GAUGES & GAUGE ADAPTERS

FUEL SYSTEM COMPONENTS

FUEL PRESSURE GAUGE



Now you can know what your fuel pressure is in a glance with these easy to read 0-15 psi fuel pressure gauges.

| PART NO. | DESCRIPTION |
|-----------|---|
| 100195ERL | Fuel Pressure Gauge 1/8 NPT Male Thread |
| 100189ERL | Fuel Pressure Gauge 1/8 NPT Male Thread, OIL FILLED |

1 1/2" body diameter. 1/8" thread on back



PRESSURE GAUGE ADAPTERS

The ideal way to install a fuel pressure gauge (such as our 100195) is with an Earl's pressure gauge adapter. The selection below includes sizes to accommodate all popular fuel line sizes. Mounted or In-line adapters for either direct or remote mounted fuel pressure gauges



| PART NO. | DESCRIPTION |
|-----------|-----------------------------|
| 100188ERL | -3 Male with 1/8 NPT Female |



| PART NO. | DESCRIPTION |
|-----------|--|
| 100196ERL | -8 Male to -8 Male with 1/8 NPT in hex |



| | |
|-----------|-----------------------------|
| 100190ERL | -6 Male with 1/8 NPT Female |
|-----------|-----------------------------|



| | |
|-----------|--|
| 100197ERL | -8 Male to 1/4 NPT with 1/8 NPT in hex |
|-----------|--|



| | |
|-----------|-----------------------------|
| 100191ERL | -8 Male with 1/4 NPT Female |
|-----------|-----------------------------|



| | |
|-----------|--|
| 100198ERL | -8 Male to 3/8 NPT with 1/8 NPT in hex |
|-----------|--|



| | |
|-----------|--|
| 100192ERL | -6 Male to -6 Male with 1/8 NPT in hex |
|-----------|--|



| | |
|-----------|--|
| 100199ERL | -6 Male to -6 Female with 1/8 NPT in hex |
|-----------|--|



| | |
|-----------|--|
| 100193ERL | -6 Male to 1/4 NPT with 1/8 NPT in hex |
|-----------|--|



| | |
|-----------|--|
| 100200ERL | -8 Male to -8 Female with 1/8 NPT in hex |
|-----------|--|



| | |
|-----------|--|
| 100194ERL | -6 Male to 3/8 NPT with 1/8 NPT in hex |
|-----------|--|



| | |
|-----------|--|
| 100201ERL | -4 Male to -4 Female with 1/8 NPT in hex |
|-----------|--|

GAUGE ADAPTERS / FUEL & OIL FILTERS

FUEL SYSTEM COMPONENTS

GAUGE HEAD ADAPTERS



| STEEL PART NO. | ALUMINUM PART NO. | FTG. SIZE | DESCRIPTION |
|----------------|-------------------|-----------|--|
| 968604ERL | 998604ERL | 4 | Male to -4 AN to Female 1/8 NPT -90° |
| 968704ERL | 998704ERL | 4 | Male to -4 AN to Female 1/8 NPT Str. |
| 968603ERL | 998603ERL | 3 | Male -3 AN to Female 1/8- NPT Female 90° |
| 968703ERL | 998703ERL | 3 | Male -3 AN to Female 1/8- NPT Str. |

OIL PRESSURE ADAPTERS



| STEEL PART NO. | FTG. SIZE | DESCRIPTION |
|----------------|-----------|---|
| 968803ERL | 3 | Male to -3 AN to 1/8" NPT Male Extended |
| 968804ERL | 4 | Male to -4 AN to 1/8" NPT Male Extended |

SCREEN TYPE IN-LINE FUEL & OIL FILTERS

For use as "pre-" filters for fuel and oil systems. Easily disassembled for inspection and cleaning.



| FUEL FILTER PART NO. | OIL FILTER PART NO. | FITTINGS SIZE |
|-----------------------|------------------------|---------------|
| 230204ERL (85 micron) | 230304ERL (140 micron) | 4 |
| 230206ERL (85 micron) | 230306ERL (140 micron) | 6 |
| 230208ERL (85 micron) | 230308ERL (140 micron) | 8 |

| FUEL FILTER PART NO. | OIL FILTER PART NO. | FITTINGS SIZE |
|-----------------------|------------------------|---------------|
| 230210ERL (85 micron) | 230310ERL (140 micron) | 10 |

| FUEL FILTER PART NO. | OIL FILTER PART NO. | FITTINGS SIZE |
|-----------------------|------------------------|---------------|
| 230212ERL (85 micron) | 230312ERL (140 micron) | 12 |
| 230216ERL (85 micron) | 230316ERL (140 micron) | 16 |



FUEL SYSTEM COMPONENTS

IN-LINE FUEL FILTERS

Earl's In-line 35 Micron sintered bronze element fuel filter can be easily disassembled for inspection and cleaning. Available with size 6 or 8 AN, or hose barb end fittings for use with Earl's high performance fuel line and fittings. Aircraft quality aluminum body and fittings with a blue anodized finish. Sintered bronze filter element also sold separately. 4 to 5 GPM flow.



| PART NO. | DESCRIPTION |
|-----------|-----------------|
| 230103ERL | Barb 5/16"-3/8" |



| PART NO. | DESCRIPTION |
|-----------|-------------|
| 230106ERL | 6 AN Male |
| 230108ERL | 8 AN Male |



| PART NO. | DESCRIPTION |
|-----------|--------------|
| 230107ERL | Element Only |

SHUT-OFF VALVE

IDEAL FOR USE AS:

1. Emergency Fuel Shut Off Valve
2. Anti-Theft Device
3. Drain Valve

•300 PSI Max



| Part No. | Inlet Thread Size | Outlet Thread Size | Overall Length of Body | Material of Body |
|----------|-------------------|--------------------|------------------------|------------------|
|----------|-------------------|--------------------|------------------------|------------------|

| | | | | |
|-----------|--------------|--------------|--------|---------------------|
| 230501ERL | 3/8 Fem. NPT | 3/8 Fem. NPT | 1-3/4" | Chrome Plated Brass |
|-----------|--------------|--------------|--------|---------------------|



| | | | | |
|-----------|--------------|----------------|--------|--------------------|
| 230502ERL | 3/8 Fem. NPT | -6 AN Bulkhead | 2-3/4" | Red Anodized Alum. |
|-----------|--------------|----------------|--------|--------------------|



| | | | | |
|-----------|--------------|----------------|--------|--------------------|
| 230503ERL | 3/8 Fem. NPT | -8 AN Bulkhead | 2-3/4" | Red Anodized Alum. |
|-----------|--------------|----------------|--------|--------------------|



| | | | | |
|-----------|--------------|--------------|--------|---------------------|
| 230504ERL | 1/2 Fem. NPT | 1/2 Fem. NPT | 2-1/4" | Chrome Plated Brass |
|-----------|--------------|--------------|--------|---------------------|



| | | | | |
|-----------|--------------|-----------------|--------|--------------------|
| 230505ERL | 1/2 Fem. NPT | -10 AN Bulkhead | 2-3/4" | Red Anodized Alum. |
|-----------|--------------|-----------------|--------|--------------------|

DISTRIBUTION BLOCKS & CHECK VALVES

FUEL SYSTEM COMPONENTS

DISTRIBUTION BLOCKS

TWO FULLY CNC MACHINED STYLES to choose from: Straight or "Y" for various applications. Straight unit features filter screen. Both feature 1/8 NPT outlet for fuel pressure gauge.

Blue Anodized /
Style A



| PART NO. | INLET THREAD SIZE | OUTLET THREAD SIZE | NO. OF OUTLETS |
|-----------|-------------------|--------------------|----------------|
| 100177ERL | 8 AN | 1/4 NPT | 4 |
| 100178ERL | 3/8 NPT | 1/4 NPT | 4 |
| 100180ERL | 3/8 NPT | 1/4 NPT | 2 |
| 100182ERL | 1/4 NPT | 1/4 NPT | 2 |

Bare Aluminum /
Style B Female Outlets



| | | | |
|-----------|---------|---------|---|
| 100176ERL | 10 AN | 10 AN | 2 |
| 100179ERL | 3/8 NPT | 1/4 NPT | 2 |
| 100183ERL | 1/2 NPT | 3/8 NPT | 2 |
| 100184ERL | 1/2 NPT | 1/2 NPT | 2 |

Bare Aluminum /
Style B Male Outlets



| | | | |
|-----------|---------|-----------|---|
| 100181ERL | 3/8 NPT | 6 AN Male | 2 |
|-----------|---------|-----------|---|

CHECK VALVES (ONE-WAY OR NON-RETURN VALVES)

THE SURPLUS UNITS were widely used in fuel systems for decades. However, the surplus synthetic rubber seals are not always compatible with current hydrocarbon fuels and/or additives. Earl's has redesigned the original surplus valves with modern elastomers which are not affected by most fuels and lubricants.



Same body for all fitting sizes

| Part No. | Fitting Size | Flapper Style (Red Anodized Aluminum) |
|-----------|--------------|--|
| 251004ERL | 4 | Reinforced Viton® with Aluminum Support 150 PSI Max .5 PSI to seal |
| 251006ERL | 6 | Reinforced Viton® with Aluminum Support 150 PSI Max .5 PSI to seal |
| 251008ERL | 8 | Reinforced Viton® with Aluminum Support 150 PSI Max .5 PSI to seal |
| 251010ERL | 10 | Reinforced Viton® with Aluminum Support 150 PSI Max .5 PSI to seal |

*400°F max

Viton® is a registered trademark of DuPont Performance Elastomers

CHECK VALVES, QUICK DISCONNECT, QDV REPAIR KITS

FUEL SYSTEM COMPONENTS

CHECK VALVES (ONE-WAY OR NON-RETURN VALVES)



| Part No. | Fitting Size | Flapper Style | clearcoat |
|-----------|--------------|----------------------------------|-----------|
| 253004ERL | -4 | All metal, Conventional Hinge | |
| 253006ERL | -6 | | |
| 253008ERL | -8 | | |
| 253010ERL | -10 | | |
| 253012ERL | -12 | | |

NOTE: Check Valve features & specifications pg. 121



| Part No. | Fitting Size | Flapper Size |
|-----------|--------------|----------------------------------|
| 253016ERL | -16 | All metal, Conventional hinge |

NOTE: Aircraft valve - limited to stock on hand

QUICK DISCONNECT FITTINGS

Earl's Quick Disconnect fittings allow instant disconnect and reconnect of fuel, lubricant, air and hydraulic lines with virtually no spillage. Flow restriction is minimal. Buna seals are compatible with most fuels and lubricants. Use Viton® fluoroelastomer seals for higher temperature and more severe applications.



| ALUMINUM W/ BUNA SEALS | ALUMINUM W/ VITON® SEALS | MALE FITTING SIZE | PRESSURE RATING | |
|------------------------|--------------------------|-------------------|-----------------|--------|
| | | | PSI | BAR |
| 240103ERL | 240303ERL | -3 | 2250 | 155.09 |
| 240104ERL | 240304ERL | -4 | 2250 | 155.09 |
| 240106ERL | 240306ERL | -6 | 2250 | 155.09 |
| 240108ERL | 240308ERL | -8 | 1750 | 120.65 |
| 240110ERL | 240310ERL | -10 | 1750 | 120.65 |
| 240112ERL | 240312ERL | -12 | 1750 | 120.65 |
| 240116ERL | 240316ERL | -16 | 1750 | 120.65 |

QDV REPAIR KITS



BUNA®



VITON®

| BUNA® REPAIR KIT | VITON® REPAIR KIT |
|------------------|-------------------|
| 241103ERL | 242103ERL |
| 241104ERL | 242104ERL |
| 241106ERL | 242106ERL |
| 241108ERL | 242108ERL |
| 241110ERL | 242110ERL |
| 241112ERL | 242112ERL |
| 241116ERL | 242116ERL |

ALUMINUM & STEEL ADAPTERS

ADAPTERS

Earl's offers the most complete line of adapter fittings in the industry! In addition to the standard range of AN adapters in both aluminum and steel, over the past 30 years Earl's has designed and manufactured a wide selection of special adapter fittings to meet the needs of the racing industry. These specials include metric to AN, inverted flare to AN and power steering fittings.

For AN number to tube size conversion see pg. 111

PIPE THREAD TO A.N. ADAPTERS



STRAIGHT

| ALUMINUM PART NO. | STEEL PART NO. | "A" FTG. SIZE | "B" PIPE THD. SIZE |
|-------------------|----------------|---------------|--------------------|
| 981603ERL | 961603ERL | 3 | 1/8 |
| 981604ERL | 961604ERL | 4 | 1/8 |
| 981644ERL | 961644ERL | 4 | 1/4 |
| 981646ERL | 961646ERL | 4 | 3/8 |
| 981662ERL | 961662ERL | 6 | 1/8 |
| 981606ERL | 961606ERL | 6 | 1/4 |
| 981666ERL | 961666ERL | 6 | 3/8 |
| 981668ERL | - | 6 | 1/2 |
| 981607ERL | - | 8 | 1/4 |
| 981608ERL | - | 8 | 3/8 |
| 981688ERL | - | 8 | 1/2 |
| 981611ERL | - | 10 | 3/8 |
| 981610ERL | - | 10 | 1/2 |
| 981609ERL | - | 10 | 3/4 |
| 981612ERL | - | 12 | 3/4 |
| 981613ERL | - | 12 | 1/2 |
| 981615ERL | - | 16 | 3/4 |
| 981616ERL | - | 16 | 1 |
| 981620ERL | - | 20 | 1-1/4 |



45° ELBOW

| ALUMINUM PART NO. | STEEL PART NO. | "A" FTG. SIZE | "B" PIPE THD. SIZE |
|-------------------|----------------|---------------|--------------------|
| 982303ERL | 962303ERL | 3 | 1/8 |
| 982304ERL | 962304ERL | 4 | 1/8 |
| 982344ERL | - | 4 | 1/4 |
| 982362ERL | - | 6 | 1/8 |
| 982306ERL | 962306ERL | 6 | 1/4 |
| 982366ERL | - | 6 | 3/8 |
| 982368ERL | - | 6 | 1/2 |
| 982307ERL | - | 8 | 1/4 |
| 982308ERL | - | 8 | 3/8 |
| 982388ERL | - | 8 | 1/2 |
| 982311ERL | - | 10 | 3/8 |
| 982310ERL | - | 10 | 1/2 |
| 982309ERL | - | 10 | 3/4 |
| 982312ERL | - | 12 | 3/4 |
| 982313ERL | - | 12 | 1/2 |
| 982316ERL | - | 16 | 1 |



90° ELBOW

| ALUMINUM PART NO. | STEEL PART NO. | "A" FTG. SIZE | "B" PIPE THD. SIZE |
|-------------------|----------------|---------------|--------------------|
| 982203ERL | 962203ERL | 3 | 1/8 |
| 982204ERL | 962204ERL | 4 | 1/8 |
| 982244ERL | 962244ERL | 4 | 1/4 |
| 982262ERL | 962262ERL | 6 | 1/8 |
| 982206ERL | 962206ERL | 6 | 1/4 |
| 982266ERL | 962266ERL | 6 | 3/8 |
| 982268ERL | - | 6 | 1/2 |
| 982207ERL | - | 8 | 1/4 |
| 982208ERL | - | 8 | 3/8 |
| 982288ERL | - | 8 | 1/2 |
| 982211ERL | - | 10 | 3/8 |
| 982210ERL | - | 10 | 1/2 |
| 982209ERL | - | 10 | 3/4 |
| 982212ERL | - | 12 | 3/4 |
| 982213ERL | - | 12 | 1/2 |
| 982215ERL | - | 16 | 3/4 |
| 982216ERL | - | 16 | 1 |



TEE-PIPE THREAD ON SIDE

| ALUMINUM PART NO. | STEEL PART NO. | "A" FTG. SIZE | "B" FTG. SIZE | "C" PIPE THD. SIZE |
|-------------------|----------------|---------------|---------------|--------------------|
| 982503ERL | 962503ERL | 3 | 3 | 1/8 |
| 982504ERL | 962504ERL | 4 | 4 | 1/8 |
| 982506ERL | 962506ERL | 6 | 6 | 1/4 |
| 982508ERL | - | 8 | 8 | 3/8 |
| 982510ERL | - | 10 | 10 | 1/2 |
| 982512ERL | - | 12 | 12 | 3/4 |



TEE-PIPE THREAD ON RUN

| ALUMINUM PART NO. | STEEL PART NO. | "A" PIPE THD. SIZE | "B" FTG. SIZE | "C" FTG. SIZE |
|-------------------|----------------|--------------------|---------------|---------------|
| 982603ERL | 962603ERL | 1/8 | 3 | 3 |
| 982604ERL | 962604ERL | 1/8 | 4 | 4 |
| 982606ERL | 962606ERL | 1/4 | 6 | 6 |
| 982608ERL | - | 3/8 | 8 | 8 |
| 982610ERL | - | 1/2 | 10 | 10 |
| 982612ERL | - | 3/4 | 12 | 12 |
| 982616ERL | - | 1 | 12 | 12 |

ALUMINUM & STEEL ADAPTERS

ADAPTERS

METRIC THREAD TO A.N. ADAPTERS

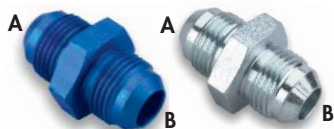


STRAIGHT

| PART NO. | "A" FTG. SIZE | "B" THREAD SIZE |
|------------|---------------|-----------------|
| 9919BFAERL | 4 | 8MM x 1.5 |
| 9919BFCERL | 4 | 10MM x 1.25 |
| 9919BFDERL | 4 | 10MM x 1.5 |
| 9919BFGERL | 4 | 12MM x 1.5 |
| 9919BFHERL | 4 | 14MM x 1.5 |
| 9919DFCERL | 6 | 10MM x 1.25 |
| 9919DFDERL | 6 | 10MM x 1.5 |
| 9919DFGERL | 6 | 12MM x 1.5 |
| 9919DFHERL | 6 | 14MM x 1.5 |
| 9919DFJERL | 6 | 16MM x 1.5 |
| 9919DFKERL | 6 | 16MM x 1.5 |
| 9919DFLERL | 6 | 20MM x 1.5 |
| 9919DFMERL | 6 | 20MM x 1.5 |
| 9919DFNERL | 6 | 30MM x 1.5 |
| 9919DFPERL | 6 | 30MM x 1.5 |
| 9919DFQERL | 6 | 30MM x 1.5 |
| 9919DFRERL | 6 | 30MM x 1.5 |
| 9919DFSERL | 6 | 30MM x 1.5 |
| 9919DFTERL | 6 | 30MM x 1.5 |
| 9919DFUERL | 6 | 30MM x 1.5 |
| 9919DFVERL | 6 | 30MM x 1.5 |
| 9919DFWERL | 6 | 30MM x 1.5 |
| 9919DFXERL | 6 | 30MM x 1.5 |
| 9919DFYERL | 6 | 30MM x 1.5 |
| 9919DFZERL | 6 | 30MM x 1.5 |
| 9919DFZERL | 6 | 30MM x 1.5 |

| PART NO. | "A" FTG. SIZE | "B" THREAD SIZE |
|------------|---------------|-----------------|
| 9919FFHERL | 10 | 14MM x 1.5 |
| 9919FFJERL | 10 | 16MM x 1.5 |
| 9919FFKERL | 10 | 18MM x 1.5 |
| 9919FFLERL | 10 | 20MM x 1.5 |
| 9919FFMERL | 10 | 20MM x 1.5 |
| 9919FFNERL | 10 | 20MM x 1.5 |
| 9919FFPERL | 10 | 20MM x 1.5 |
| 9919FFQERL | 10 | 20MM x 1.5 |
| 9919FFRERL | 10 | 20MM x 1.5 |
| 9919FFSERL | 10 | 20MM x 1.5 |
| 9919FFTERL | 10 | 20MM x 1.5 |
| 9919FFUERL | 10 | 20MM x 1.5 |
| 9919FFVERL | 10 | 20MM x 1.5 |
| 9919FFWERL | 10 | 20MM x 1.5 |
| 9919FFXERL | 10 | 20MM x 1.5 |
| 9919FFYERL | 10 | 20MM x 1.5 |
| 9919FFZERL | 10 | 20MM x 1.5 |

A.N. TO A.N. ADAPTERS



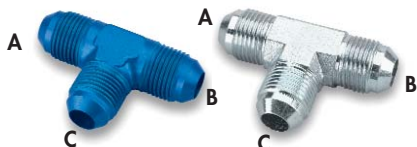
UNION - MALE

| ALUMINUM PART NO. | STEEL PART NO. | "A" FTG. SIZE | "B" FTG. SIZE |
|-------------------|----------------|---------------|---------------|
| 981503ERL | 961503ERL | 3 | 3 |
| 981504ERL | 961504ERL | 4 | 4 |
| 981506ERL | 961506ERL | 6 | 6 |
| 981508ERL | - | 8 | 8 |
| 981510ERL | - | 10 | 10 |
| 981512ERL | - | 12 | 12 |
| 981516ERL | - | 16 | 16 |
| 981520ERL | - | 20 | 20 |

UNION - REDUCER



| PART NO. | "A" FTG. SIZE | "B" FTG. SIZE |
|-----------|---------------|---------------|
| 991902ERL | 4 | 3 |
| 991903ERL | 5 | 4 |
| 991906ERL | 6 | 4 |
| 991907ERL | 6 | 5 |
| 991912ERL | 8 | 6 |
| 991914ERL | 10 | 6 |
| 991915ERL | 10 | 8 |
| 991918ERL | 12 | 6 |
| 991919ERL | 12 | 8 |
| 991920ERL | 12 | 10 |
| 991922ERL | 16 | 10 |
| 991923ERL | 16 | 12 |
| 991924ERL | 20 | 16 |



AN TEE

| ALUMINUM PART NO. | STEEL PART NO. | "A" FTG. SIZE | "B" FTG. SIZE | "C" FTG. SIZE |
|-------------------|----------------|---------------|---------------|---------------|
| 982403ERL | 962403ERL | 3 | 3 | 3 |
| 982404ERL | 962404ERL | 4 | 4 | 4 |
| 982406ERL | 962406ERL | 6 | 6 | 6 |
| 982408ERL | - | 8 | 8 | 8 |
| 982410ERL | - | 10 | 10 | 10 |
| 982412ERL | - | 12 | 12 | 12 |
| 982416ERL | - | 16 | 16 | 16 |

90° ELBOW

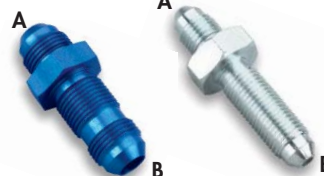


| PART NO. | "A" FTG. SIZE | "B" FTG. SIZE |
|-----------|---------------|---------------|
| 982103ERL | 3 | 3 |
| 982104ERL | 4 | 4 |
| 982106ERL | 6 | 6 |
| 982108ERL | 8 | 8 |
| 982110ERL | 10 | 10 |
| 982112ERL | 12 | 12 |
| 982116ERL | 16 | 16 |



45° BULKHEAD

| ALUMINUM PART NO. | STEEL PART NO. | "A" FTG. SIZE | "B" FTG. SIZE |
|-------------------|----------------|---------------|---------------|
| 983703ERL | 963703ERL | 3 | 3 |
| 983704ERL | 963704ERL | 4 | 4 |
| 983706ERL | 963706ERL | 6 | 6 |
| 983708ERL | - | 8 | 8 |
| 983710ERL | - | 10 | 10 |
| 983712ERL | - | 12 | 12 |



STRAIGHT BULKHEAD

| ALUMINUM PART NO. | STEEL PART NO. | "A" FTG. SIZE | "B" FTG. SIZE |
|-------------------|----------------|---------------|---------------|
| 983203ERL | 963203ERL | 3 | 3 |
| 983204ERL | 963204ERL | 4 | 4 |
| 983206ERL | 963206ERL | 6 | 6 |
| 983208ERL | - | 8 | 8 |
| 983210ERL | - | 10 | 10 |
| 983212ERL | - | 12 | 12 |
| 983216ERL | - | 16 | 16 |

ALUMINUM & STEEL ADAPTERS

ADAPTERS

A.N. TO A.N. ADAPTERS



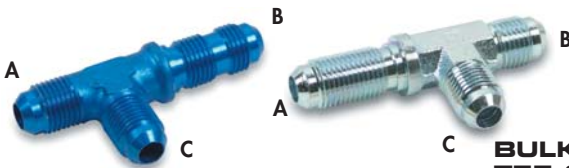
**90°
BULKHEAD**

| ALUMINUM PART NO. | STEEL PART NO. | "A" FTG. SIZE | "B" FTG. SIZE |
|-------------------|----------------|---------------|---------------|
| 983303ERL | 963303ERL | 3 | 3 |
| 983304ERL | 963304ERL | 4 | 4 |
| 983306ERL | 963306ERL | 6 | 6 |
| 983308ERL | - | 8 | 8 |
| 983310ERL | - | 10 | 10 |
| 983312ERL | - | 12 | 12 |
| 983316ERL | - | 16 | 16 |



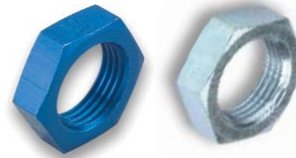
AN TEE

| ALUMINUM PART NO. | STEEL PART NO. | "A" FTG. SIZE | "B" FTG. SIZE | "C" FTG. SIZE |
|-------------------|----------------|---------------|---------------|---------------|
| 983403ERL | 963403ERL | 3 | 3 | 3 |
| 983404ERL | 963404ERL | 4 | 4 | 4 |
| 983406ERL | 963406ERL | 6 | 6 | 6 |
| 983408ERL | - | 8 | 8 | 8 |
| 983410ERL | - | 10 | 10 | 10 |
| 983412ERL | - | 12 | 12 | 12 |
| 983416ERL | - | 16 | 16 | 16 |



**BULKHEAD
TEE ON RUN**

| ALUMINUM PART NO. | STEEL PART NO. | "A" FTG. SIZE | "B" FTG. SIZE | "C" FTG. SIZE |
|-------------------|----------------|---------------|---------------|---------------|
| 980403ERL | 960403ERL | 3 | 3 | 3 |
| 980404ERL | 960404ERL | 4 | 4 | 4 |
| 980406ERL | 960406ERL | 6 | 6 | 6 |
| 980408ERL | - | 8 | 8 | 8 |
| 980410ERL | - | 10 | 10 | 10 |
| 980412ERL | - | 12 | 12 | 12 |
| 980416ERL | - | 16 | 16 | 16 |



**BULKHEAD
NUT**

| ALUMINUM PART NO. | STEEL PART NO. | QTY. PER PKG. | FTG. SIZE |
|-------------------|----------------|---------------|-----------|
| 592403ERL | 502403ERL | 2 | 3 |
| 592404ERL | 502404ERL | 2 | 4 |
| 592406ERL | 502406ERL | 2 | 6 |
| 992408ERL | - | 1 | 8 |
| 992410ERL | - | 1 | 10 |
| 992412ERL | - | 1 | 12 |
| 992416ERL | - | 1 | 16 |



**TUBE
NUT**

| ALUMINUM PART NO. | STEEL PART NO. | QTY. PER PKG. | FTG. SIZE | TUBE SIZE |
|-------------------|----------------|---------------|-----------|-----------|
| 581803ERL | 561803ERL | 2 | 3 | 3/16 |
| 581804ERL | 561804ERL | 2 | 4 | 1/4 |
| 581805ERL | - | 2 | 5 | 5/16 |
| 581806ERL | 561806ERL | 2 | 6 | 3/8 |
| 981808ERL | - | 1 | 8 | 1/2 |
| 981810ERL | - | 1 | 10 | 5/8 |
| 981812ERL | - | 1 | 12 | 3/4 |
| 981816ERL | - | 1 | 16 | 1 |



**TUBE
SLEEVE**

| ALUMINUM PART NO. | STEEL PART NO. | QTY. PER PKG. | FTG. SIZE | TUBE SIZE |
|-------------------|----------------|---------------|-----------|-----------|
| 581903ERL | 561903ERL | 2 | 3 | 3/16 |
| 581904ERL | 561904ERL | 2 | 4 | 1/4 |
| 581905ERL | - | 2 | 5 | 5/16 |
| 581906ERL | 561906ERL | 2 | 6 | 3/8 |
| 981908ERL | - | 1 | 8 | 1/2 |
| 981910ERL | - | 1 | 10 | 5/8 |
| 981912ERL | - | 1 | 12 | 3/4 |
| 981916ERL | - | 1 | 16 | 1 |

ALUMINUM & STEEL ADAPTERS

ADAPTERS

A.N. TO A.N. ADAPTERS

FEMALE AN TEE ("O" RING SEAL)



| ALUMINUM PART NO. | "A" FTG. SIZE | "B" FTG. SIZE | "C" FTG. SIZE |
|-------------------|---------------|---------------|---------------|
| 993804ERL | 4 | 4 | 4 |
| 993806ERL | 6 | 6 | 6 |
| 993808ERL | 8 | 8 | 8 |
| 993810ERL | 10 | 10 | 10 |
| 993812ERL | 12 | 12 | 12 |

AN REDUCER ("O" RING SEAL)



| PART NO. | "A" FTG. SIZE | "B" FTG. SIZE |
|-----------|---------------|---------------|
| 989404ERL | 10 | 8 |
| 989409ERL | 12 | 8 |
| 989410ERL | 12 | 10 |
| 989411ERL | 16 | 12 |
| 989443ERL | 4 | 3 |
| 989464ERL | 6 | 4 |
| 989486ERL | 8 | 6 |

PIPE THREAD TO PIPE THREAD ADAPTERS

FEMALE COUPLING



| PART NO. | PIPE THD. SIZE |
|-----------|----------------|
| 991001ERL | 1/8 |
| 991002ERL | 1/4 |
| 991003ERL | 3/8 |
| 991004ERL | 1/2 |
| 991006ERL | 3/4 |

MALE NIPPLE



| PART NO. | PIPE THD. SIZE |
|-----------|----------------|
| 991101ERL | 1/8 |
| 991102ERL | 1/4 |
| 991103ERL | 3/8 |
| 991104ERL | 1/2 |
| 991106ERL | 3/4 |

PIPE NIPPLE - STEEL



| PART NO. | PIPE THD. SIZE |
|-----------|----------------|
| 901102ERL | 1/8 |

45° ELBOW INTERNAL/EXTERNAL PIPE THREAD



| PART NO. | "A" PIPE THD. SIZE | "B" PIPE THD. SIZE |
|-----------|--------------------|--------------------|
| 991501ERL | 1/8 | 1/8 |
| 991502ERL | 1/4 | 1/4 |
| 991503ERL | 3/8 | 3/8 |

90° ELBOW INTERNAL/EXTERNAL PIPE THREAD



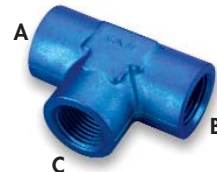
| PART NO. | "A" PIPE THD. SIZE | "B" PIPE THD. SIZE |
|-----------|--------------------|--------------------|
| 991401ERL | 1/8 | 1/8 |
| 991402ERL | 1/4 | 1/4 |
| 991403ERL | 3/8 | 3/8 |

90° ELBOW INTERNAL PIPE THREAD



| PART NO. | "A" PIPE THD. SIZE | "B" PIPE THD. SIZE |
|-----------|--------------------|--------------------|
| 991601ERL | 1/8 | 1/8 |
| 991602ERL | 1/4 | 1/4 |
| 991603ERL | 3/8 | 3/8 |

TEE INTERNAL PIPE THREAD



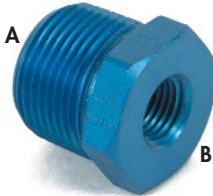
| PART NO. | "A" PIPE THD. SIZE | "B" PIPE THD. SIZE | "C" PIPE THD. SIZE |
|-----------|--------------------|--------------------|--------------------|
| 991701ERL | 1/8 | 1/8 | 1/8 |
| 991702ERL | 1/4 | 1/4 | 1/4 |
| 991703ERL | 3/8 | 3/8 | 3/8 |

ALUMINUM & STEEL ADAPTERS

ADAPTERS

PIPE THREAD TO PIPE THREAD ADAPTERS

REDUCER - PIPE BUSHING



| PART NO. | "A" PIPE THD. SIZE | "B" PIPE THD. SIZE |
|-----------|--------------------|--------------------|
| 991201ERL | 1/4 | 1/8 |
| 991202ERL | 3/8 | 1/4 |
| 991203ERL | 3/8 | 1/8 |
| 991204ERL | 1/2 | 3/8 |
| 991205ERL | 1/2 | 1/4 |
| 991206ERL | 1/2 | 1/8 |
| 991207ERL | 3/4 | 1/2 |

| PART NO. | "A" PIPE THD. SIZE | "B" PIPE THD. SIZE |
|-----------|--------------------|--------------------|
| 991208ERL | 3/4 | 3/8 |
| 991209ERL | 3/4 | 1/4 |
| 991210ERL | 1 | 3/4 |
| 991211ERL | 1 | 1/2 |
| 991212ERL | 1 | 3/8 |
| 991213ERL | 1 1/4 | 3/4 |

HOSE BARB TO PIPE THREAD ADAPTERS

STRAIGHT



| PART NO. | "A" HOSE SIZE | "B" FTG. SIZE |
|-----------|---------------|---------------|
| 984004ERL | 1/4 | 1/8 |
| 984006ERL | 3/8 | 1/4 |
| 984008ERL | 1/2 | 3/8 |
| 984010ERL | 5/8 | 1/2 |
| 984012ERL | 3/4 | 3/4 |

45° ELBOW



| PART NO. | "A" HOSE SIZE | "B" FTG. SIZE |
|-----------|---------------|---------------|
| 984404ERL | 1/4 | 1/8 |
| 984406ERL | 3/8 | 1/4 |
| 984408ERL | 1/2 | 3/8 |
| 984410ERL | 5/8 | 1/2 |
| 984412ERL | 3/4 | 3/4 |

90° ELBOW



| PART NO. | "A" HOSE SIZE | "B" FTG. SIZE |
|-----------|---------------|---------------|
| 984204ERL | 1/4 | 1/8 |
| 984206ERL | 3/8 | 1/4 |
| 984208ERL | 1/2 | 3/8 |
| 984210ERL | 5/8 | 1/2 |
| 984212ERL | 3/4 | 3/4 |

ALUMINUM & STEEL WELD FITTINGS

FEMALE NPT



| ALUM. PART NO. | "A" FTG. SIZE |
|----------------|---------------|
| 996701ERL | 1/8" |
| 996702ERL | 1/4" |
| 996703ERL | 3/8" |
| 996704ERL | 1/2" |
| 996706ERL | 3/4" |

FEMALE AN ("O" RING SEAL)



| ALUM. PART NO. | "A" FTG. SIZE |
|----------------|---------------|
| 987104ERL | 4 |
| 987106ERL | 6 |
| 987108ERL | 8 |
| 987110ERL | 10 |
| 987112ERL | 12 |
| 987116ERL | 16 |



MALE AN

| ALUM. PART NO. | STEEL PART NO. | "A" FTG. SIZE |
|----------------|----------------|---------------|
| 997103ERL | - | 3 |
| 997104ERL | 967104ERL | 4 |
| 997106ERL | 967106ERL | 6 |
| 997108ERL | 967108ERL | 8 |
| 997110ERL | 967110ERL | 10 |
| 997112ERL | 967112ERL | 12 |
| 997116ERL | 967116ERL | 16 |
| 997120ERL | - | 20 |
| 997124ERL | - | 24 |

FEMALE NPT BOSS



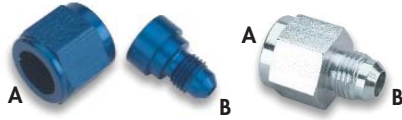
| ALUM. PART NO. | "A" FTG. SIZE |
|----------------|---------------|
| 986701ERL | 1/8" |
| 986702ERL | 1/4" |
| 986703ERL | 3/8" |
| 986704ERL | 1/2" |
| 986706ERL | 3/4" |

- 6061 bare aluminum
- Zinc plated steel

ALUMINUM & STEEL ADAPTERS

ADAPTERS

SPECIAL PURPOSE ADAPTERS



FLARE REDUCERS

| ALUMINUM PART NO. | STEEL PART NO. | "A" FTG. SIZE | "B" FTG. SIZE |
|-------------------|----------------|---------------|---------------|
| - | 9692043ERL | 4 | 3 |
| 9892064ERL | 969206ERL | 6 | 4 |
| 9892084ERL | - | 8 | 4 |
| 9892086ERL | 969208ERL | 8 | 6 |
| 9892104ERL | - | 10 | 4 |
| 9892106ERL | - | 10 | 6 |
| 9892108ERL | - | 10 | 8 |
| 9892126ERL | - | 12 | 6 |
| 9892128ERL | - | 12 | 8 |
| 9892120ERL | - | 12 | 10 |
| 9892160ERL | - | 16 | 10 |
| 9892162ERL | - | 16 | 12 |
| 9892206ERL | - | 20 | 16 |

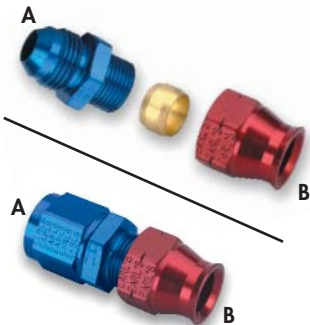


NEW!

FLARE EXPANDERS

| ALUMINUM PART NO. | STEEL PART NO. | "A" FTG. SIZE | "B" FTG. SIZE |
|-------------------|----------------|---------------|---------------|
| 9893034ERL | 9693034ERL | 3 | 4 |
| 9893046ERL | - | 4 | 6 |
| 9893068ERL | - | 6 | 8 |
| 9893810ERL | - | 8 | 10 |
| 9893102ERL | - | 10 | 12 |
| 9893126ERL | - | 12 | 16 |

ALUMINUM TUBING ADAPTERS



| PART NO. | "A" FTG. SIZE | "B" TUBE SIZE |
|-----------|---------------|---------------|
| 165056ERL | -6 AN Male | 5/16" |
| 165006ERL | -6 AN Male | 3/8" |
| 165008ERL | -8 AN Male | 1/2" |
| 165010ERL | -10 AN Male | 5/8" |
| 165156ERL | -6 AN Female | 5/16" |
| 165106ERL | -6 AN Female | 3/8" |
| 165108ERL | -8 AN Female | 1/2" |
| 165110ERL | -10 AN Female | 5/8" |

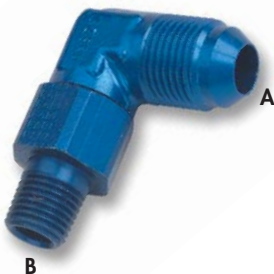
*50 PSI MAX

STRAIGHT AN SWIVEL TO MALE NPT



| PART NO. | "A" FTG. SIZE | "B" NPT THREAD SIZE |
|-----------|---------------|---------------------|
| 916103ERL | 3 | 1/8 |
| 916104ERL | 4 | 1/8 |
| 916144ERL | 4 | 1/4 |
| 916106ERL | 6 | 1/4 |
| 916162ERL | 6 | 1/8 |
| 916166ERL | 6 | 3/8 |
| 916107ERL | 8 | 1/4 |
| 916108ERL | 8 | 3/8 |
| 916188ERL | 8 | 1/2 |
| 916110ERL | 10 | 1/2 |
| 916111ERL | 10 | 3/8 |
| 916112ERL | 12 | 3/4 |
| 916113ERL | 12 | 1/2 |

90° MALE AN TO MALE SWIVEL NPT



| PART NO. | "A" FTG. SIZE | "B" NPT THREAD SIZE |
|-----------|---------------|---------------------|
| 922103ERL | 3 | 1/8 |
| 922104ERL | 4 | 1/8 |
| 922144ERL | 4 | 1/4 |
| 922106ERL | 6 | 1/4 |
| 922162ERL | 6 | 1/8 |
| 922166ERL | 6 | 3/8 |
| 922107ERL | 8 | 1/4 |
| 922108ERL | 8 | 3/8 |
| 922188ERL | 8 | 1/2 |
| 922110ERL | 10 | 1/2 |
| 922111ERL | 10 | 3/8 |
| 922112ERL | 12 | 3/4 |
| 922113ERL | 12 | 1/2 |

STRAIGHT FEMALE AN SWIVEL COUPLING



| PART NO. | "A" FTG. SIZE | "B" FTG. SIZE |
|-----------|---------------|---------------|
| 915103ERL | 3 | 3 |
| 915104ERL | 4 | 4 |
| 915106ERL | 6 | 6 |
| 915186ERL | 8 | 6 |
| 915108ERL | 8 | 8 |
| 915110ERL | 10 | 10 |
| 915112ERL | 12 | 12 |
| 915116ERL | 16 | 16 |
| 915120ERL | 20 | 20 |

ALUMINUM ADAPTERS

ADAPTERS

SPECIAL PURPOSE ADAPTERS

45° FEMALE AN SWIVEL TO FEMALE AN SWIVEL - TUBE



| PART NO. | "A" FTG. SIZE | "B" FTG. SIZE |
|-----------|---------------|---------------|
| 939203ERL | 3 | 3 |
| 939204ERL | 4 | 4 |
| 939206ERL | 6 | 6 |
| 939208ERL | 8 | 8 |
| 939210ERL | 10 | 10 |
| 939212ERL | 12 | 12 |
| 939216ERL | 16 | 16 |

90° FEMALE AN SWIVEL TO FEMALE AN SWIVEL - TUBE



| PART NO. | "A" FTG. SIZE | "B" FTG. SIZE |
|-----------|---------------|---------------|
| 935103ERL | 3 | 3 |
| 935104ERL | 4 | 4 |
| 935106ERL | 6 | 6 |
| 935108ERL | 8 | 8 |
| 935110ERL | 10 | 10 |
| 935112ERL | 12 | 12 |
| 935116ERL | 16 | 16 |

45° FEMALE AN SWIVEL TO FEMALE AN SWIVEL LOW PROFILE



| PART NO. | "A" FTG. SIZE | "B" FTG. SIZE |
|-----------|---------------|---------------|
| 939103ERL | 3 | 3 |
| 939104ERL | 4 | 4 |
| 939106ERL | 6 | 6 |
| 939108ERL | 8 | 8 |
| 939110ERL | 10 | 10 |
| 939112ERL | 12 | 12 |
| 939116ERL | 16 | 16 |

90° FEMALE AN SWIVEL TO FEMALE AN SWIVEL LOW PROFILE



| PART NO. | "A" FTG. SIZE | "B" FTG. SIZE |
|-----------|---------------|---------------|
| 934103ERL | 3 | 3 |
| 934104ERL | 4 | 4 |
| 934106ERL | 6 | 6 |
| 934108ERL | 8 | 8 |
| 934110ERL | 10 | 10 |
| 934112ERL | 12 | 12 |
| 934116ERL | 16 | 16 |

45° FEMALE AN SWIVEL TO MALE AN



| PART NO. | "A" FTG. SIZE | "B" FTG. SIZE |
|-----------|---------------|---------------|
| 924103ERL | 3 | 3 |
| 924104ERL | 4 | 4 |
| 924106ERL | 6 | 6 |
| 924108ERL | 8 | 8 |
| 924110ERL | 10 | 10 |
| 924112ERL | 12 | 12 |

90° FEMALE AN SWIVEL TO MALE AN



| BLUE PART NO. | STEEL PART NO. | "A" FTG. SIZE | "B" FTG. SIZE |
|---------------|----------------|---------------|---------------|
| 921103ERL | 966303ERL | 3 | 3 |
| 921104ERL | 966304ERL | 4 | 4 |
| 921106ERL | 966306ERL | 6 | 6 |
| 921108ERL | | 8 | 8 |
| 921110ERL | | 10 | 10 |
| 921112ERL | | 12 | 12 |

AN TEE FEMALE SWIVEL ON SIDE



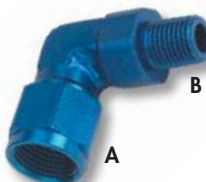
| BLUE PART NO. | "A" FTG. SIZE | "B" FTG. SIZE | "C" FTG. SIZE |
|---------------|---------------|---------------|---------------|
| 925103ERL | 3 | 3 | 3 |
| 925104ERL | 4 | 4 | 4 |
| 925106ERL | 6 | 6 | 6 |
| 925108ERL | 8 | 8 | 8 |
| 925110ERL | 10 | 10 | 10 |
| 925112ERL | 12 | 12 | 12 |

AN TEE FEMALE SWIVEL ON RUN



| BLUE PART NO. | "A" FTG. SIZE | "B" FTG. SIZE | "C" FTG. SIZE |
|---------------|---------------|---------------|---------------|
| 926103ERL | 3 | 3 | 3 |
| 926104ERL | 4 | 4 | 4 |
| 926106ERL | 6 | 6 | 6 |
| 926108ERL | 8 | 8 | 8 |
| 926110ERL | 10 | 10 | 10 |
| 926112ERL | 12 | 12 | 12 |

90° FEMALE AN TO MALE SWIVEL NPT (OR METRIC)



| PART NO. | "A" FTG. SIZE | "B" NPT/ METRIC THREAD SIZE |
|-----------|---------------|-----------------------------|
| 923103ERL | 3 | 1/8 |
| 923104ERL | 4 | 1/8 |
| 923144ERL | 4 | 1/4 |
| 923106ERL | 6 | 1/4 |
| 923162ERL | 6 | 1/8 |
| 923166ERL | 6 | 3/8 |
| 923107ERL | 8 | 1/4 |
| 923108ERL | 8 | 3/8 |

| PART NO. | "A" FTG. SIZE | "B" NPT/ METRIC THREAD SIZE |
|-----------|---------------|-----------------------------|
| 923188ERL | 8 | 1/2 |
| 923110ERL | 10 | 1/2 |
| 923111ERL | 10 | 3/8 |
| 923113ERL | 12 | 1/2 |
| 923112ERL | 12 | 3/4 |
| 923191ERL | -6 | 12mm x 1.25 |
| 923192ERL | -6 | 12mm x 1.5 |



ALUMINUM ADAPTERS

ADAPTERS

SPECIAL PURPOSE ADAPTERS

AN PORT ADAPTER ("O" RING SEAL) (PORT END CONTOURED FOR MAXIMUM FLOW)



| PART NO. | "A" FTG. SIZE | "B" FTG. SIZE |
|-----------------------|---------------|-------------------|
| 985064ERL | -6 | 7/16-20 (AN 4) |
| 985065ERL | -6 | 1/2-20 (AN 5) |
| 985006ERL | -6 | 9/16-18 (AN 6) |
| 985068ERL | -6 | 3/4-16 (AN 8) |
| 985086ERL | -8 | 9/16-18 (AN 6) |
| 985008ERL | -8 | 3/4-16 (AN 8) |
| 985081ERL | -8 | 7/8-14 (AN 10) |
| 985009ERL | -10 | 3/4-16 (AN 8) |
| 985010ERL | -10 | 7/8-14 (AN 8) |
| 985011ERL | -10 | 11/16-12 (AN 12) |
| 985013ERL | -12 | 7/8-14 (AN 10) |
| 985012ERL | -12 | 1 1/16-12 (AN 12) |
| NEW! 985016ERL | -16 | 1 1/16-12 (AN 12) |

90° MALE AN TO MALE SWIVEL A.N. (OR METRIC)



| PART NO. | "A" FTG. SIZE | "B" THREAD SIZE |
|-----------|---------------|-----------------|
| 949064ERL | 6 | 7/16-20 |
| 949065ERL | 6 | 1/2-20 |
| 949006ERL | 6 | 9/16-18 |
| 949068ERL | 6 | 3/4-16 |
| 949091ERL | 6 | 12mm x 1.25 |
| 949092ERL | 6 | 12mm x 1.5 |
| 949093ERL | 6 | 7/8-20 |
| 949094ERL | 6 | 9/16-24 |
| 949096ERL | 6 | 5/8-18 |
| 949086ERL | 8 | 9/16-18 |
| 949008ERL | 8 | 3/4-16 |
| 949081ERL | 8 | 7/8-14 |
| 949083ERL | 8 | 7/8-20 |
| 949009ERL | 10 | 3/4-16 |
| 949010ERL | 10 | 7/8-14 |
| 949011ERL | 10 | 1 1/16-12 |
| 949013ERL | 12 | 7/8-14 |
| 949012ERL | 12 | 1 1/16-12 |

EXTENDED OIL PRESSURE FITTINGS



| STEEL PART NO. | "A" FTG. SIZE | "B" NPT THREAD SIZE |
|----------------|---------------|---------------------|
| 968803ERL | 3 | 1/8 |
| 968804ERL | 4 | 1/8 |

CAPS & PLUGS

A.N. CAP



See pg. 105
for plastic plugs

| PART NO. | QTY. PER PKG. | FTG. SIZE |
|-----------|---------------|-----------|
| 592902ERL | 2 | 2 |
| 592903ERL | 2 | 3 |
| 592904ERL | 2 | 4 |
| 592906ERL | 2 | 6 |
| 992908ERL | 1 | 8 |
| 992910ERL | 1 | 10 |
| 992912ERL | 1 | 12 |
| 992916ERL | 1 | 16 |
| 992920ERL | 1 | 20 |

A.N. PLUG



See pg. 105
for plastic plugs

| PART NO. | QTY. PER PKG. | FTG. SIZE |
|-----------|---------------|-----------|
| 580603ERL | 2 | 3 |
| 580604ERL | 2 | 4 |
| 580606ERL | 2 | 6 |
| 980608ERL | 1 | 8 |
| 980610ERL | 1 | 10 |
| 980612ERL | 1 | 12 |
| 980616ERL | 1 | 16 |
| 980620ERL | 1 | 20 |

PORT PLUG ("O" RING SEAL)



| PART NO. | QTY. PER PKG. | FTG. SIZE |
|-----------|---------------|-----------|
| 581403ERL | 2 | 3 |
| 581404ERL | 2 | 4 |
| 581406ERL | 2 | 6 |
| 981408ERL | 1 | 8 |
| 981410ERL | 1 | 10 |
| 981412ERL | 1 | 12 |
| 981416ERL | 1 | 16 |

NPT PLUG- INTERNAL WRENCHING



| PART NO. | QTY. PER PKG. | FTG. SIZE |
|-----------|---------------|-----------|
| 593201ERL | 2 | 1/16 |
| 593202ERL | 2 | 1/8 |
| 593203ERL | 2 | 1/4 |
| 593204ERL | 2 | 3/8 |
| 993205ERL | 1 | 1/2 |
| 993206ERL | 1 | 3/4 |

NPT PLUG-HEX HEAD



| PART NO. | FTG. SIZE |
|-----------|-----------|
| 993301ERL | 1/8 |
| 993302ERL | 1/4 |
| 993303ERL | 3/8 |
| 993304ERL | 1/2 |
| 993306ERL | 3/4 |

ANO-TUFF™ ADAPTERS

ADAPTERS

NEW!

The perfect match for our hugely popular Ano-Tuff™ hose ends. Ano-Tuff™ adapters feature the same Mil Spec hard anodized coating that penetrates the aluminum base to deliver superior wear and corrosion resistance.

STRAIGHT



| PART NO. | "A" FTG. SIZE | "B" NPT THREAD SIZE |
|-------------|---------------|---------------------|
| AT981604ERL | 4 | 1/8 |
| AT981644ERL | 4 | 1/4 |
| AT981662ERL | 6 | 1/8 |
| AT981606ERL | 6 | 1/4 |
| AT981666ERL | 6 | 3/8 |
| AT981668ERL | 6 | 1/2 |
| AT981607ERL | 8 | 1/4 |
| AT981608ERL | 8 | 3/8 |
| AT981688ERL | 8 | 1/2 |
| AT981611ERL | 10 | 3/8 |
| AT981610ERL | 10 | 1/2 |
| AT981609ERL | 10 | 3/4 |
| AT981613ERL | 12 | 1/2 |
| AT981612ERL | 12 | 3/4 |
| AT981615ERL | 16 | 3/4 |
| AT981616ERL | 16 | 1 |

45° ELBOW



| PART NO. | "A" FTG. SIZE | "B" NPT THREAD SIZE |
|-------------|---------------|---------------------|
| AT982304ERL | 4 | 1/8 |
| AT982344ERL | 4 | 1/4 |
| AT982362ERL | 6 | 1/8 |
| AT982306ERL | 6 | 1/4 |
| AT982366ERL | 6 | 3/8 |
| AT982368ERL | 6 | 1/2 |
| AT982307ERL | 8 | 1/4 |
| AT982308ERL | 8 | 3/8 |
| AT982388ERL | 8 | 1/2 |
| AT982311ERL | 10 | 3/8 |
| AT982310ERL | 10 | 1/2 |
| AT982309ERL | 10 | 3/4 |
| AT982313ERL | 12 | 1/2 |
| AT982312ERL | 12 | 3/4 |
| AT982316ERL | 16 | 1 |

90° ELBOW



| PART NO. | "A" FTG. SIZE | "B" NPT THREAD SIZE |
|-------------|---------------|---------------------|
| AT982204ERL | 4 | 1/8 |
| AT982244ERL | 4 | 1/4 |
| AT982262ERL | 6 | 1/8 |
| AT982206ERL | 6 | 1/4 |
| AT982266ERL | 6 | 3/8 |
| AT982268ERL | 6 | 1/2 |
| AT982207ERL | 8 | 1/4 |
| AT982208ERL | 8 | 3/8 |
| AT982288ERL | 8 | 1/2 |
| AT982211ERL | 10 | 3/8 |
| AT982210ERL | 10 | 1/2 |
| AT982209ERL | 10 | 3/4 |
| AT982213ERL | 12 | 1/2 |
| AT982212ERL | 12 | 3/4 |
| AT982215ERL | 16 | 3/4 |
| AT982216ERL | 16 | 1 |

AN TEE



| PART NO. | "A" FTG. SIZE | "B" FTG. SIZE | "C" FTG. SIZE |
|-------------|---------------|---------------|---------------|
| AT982403ERL | 3 | 3 | 3 |
| AT982404ERL | 4 | 4 | 4 |
| AT982406ERL | 6 | 6 | 6 |
| AT982408ERL | 8 | 8 | 8 |
| AT982410ERL | 10 | 10 | 10 |
| AT982412ERL | 12 | 12 | 12 |
| AT982416ERL | 16 | 16 | 16 |

TEE-PIPE THREAD ON SIDE



| PART NO. | "A" FTG. SIZE | "B" FTG. SIZE | "C" PIPE THD. SIZE |
|-------------|---------------|---------------|--------------------|
| AT982503ERL | 3 | 3 | 1/8 |
| AT982504ERL | 4 | 4 | 1/8 |
| AT982506ERL | 6 | 6 | 1/4 |
| AT982508ERL | 8 | 8 | 3/8 |
| AT982510ERL | 10 | 10 | 1/2 |
| AT982512ERL | 12 | 12 | 3/4 |

UNION - MALE



| PART NO. | "A" FTG. SIZE | "B" FTG. SIZE |
|-------------|---------------|---------------|
| AT981504ERL | 4 | 4 |
| AT981506ERL | 6 | 6 |
| AT981508ERL | 8 | 8 |
| AT981510ERL | 10 | 10 |
| AT981512ERL | 12 | 12 |
| AT981516ERL | 16 | 16 |

TEE-PIPE THREAD ON RUN



| PART NO. | "A" PIPE THD. SIZE | "B" FTG. SIZE | "C" FTG. SIZE |
|-------------|--------------------|---------------|---------------|
| AT982603ERL | 1/8 | 3 | 3 |
| AT982604ERL | 1/8 | 4 | 4 |
| AT982606ERL | 1/4 | 6 | 6 |
| AT982608ERL | 3/8 | 8 | 8 |
| AT982610ERL | 1/2 | 10 | 10 |
| AT982612ERL | 3/4 | 12 | 12 |
| AT982616ERL | 1 | 12 | 12 |

ADAPTERS

NEW!

The perfect match for our hugely popular Ano-Tuff™ hose ends. Ano-Tuff™ adapters feature the same Mil Spec hard anodized coating that penetrates the aluminum base to deliver superior wear and corrosion resistance.

UNION - REDUCER



| PART NO. | "A" FTG. SIZE | "B" FTG. SIZE |
|-------------|---------------|---------------|
| AT991902ERL | 4 | 3 |
| AT991903ERL | 5 | 4 |
| AT991906ERL | 6 | 4 |
| AT991907ERL | 6 | 5 |
| AT991912ERL | 8 | 6 |
| AT991914ERL | 10 | 6 |
| AT991915ERL | 10 | 8 |
| AT991918ERL | 12 | 6 |
| AT991919ERL | 12 | 8 |
| AT991920ERL | 12 | 10 |
| AT991922ERL | 16 | 10 |
| AT991923ERL | 16 | 12 |
| AT991924ERL | 20 | 16 |

45° BULKHEAD



| PART NO. | "A" FTG. SIZE | "B" FTG. SIZE |
|-------------|---------------|---------------|
| AT983703ERL | 3 | 3 |
| AT983704ERL | 4 | 4 |
| AT983706ERL | 6 | 6 |
| AT983708ERL | 8 | 8 |
| AT983710ERL | 10 | 10 |
| AT983712ERL | 12 | 12 |

90° BULKHEAD



| PART NO. | "A" FTG. SIZE | "B" FTG. SIZE |
|-------------|---------------|---------------|
| AT983303ERL | 3 | 3 |
| AT983304ERL | 4 | 4 |
| AT983306ERL | 6 | 6 |
| AT983308ERL | 8 | 8 |
| AT983310ERL | 10 | 10 |
| AT983312ERL | 12 | 12 |
| AT983316ERL | 16 | 16 |

STRAIGHT BULKHEAD



| PART NO. | "A" FTG. SIZE | "B" FTG. SIZE |
|-------------|---------------|---------------|
| AT983203ERL | 3 | 3 |
| AT983204ERL | 4 | 4 |
| AT983206ERL | 6 | 6 |
| AT983208ERL | 8 | 8 |
| AT983210ERL | 10 | 10 |
| AT983212ERL | 12 | 12 |
| AT983216ERL | 16 | 16 |

BULKHEAD NUT



| PART NO. | QTY. PER PKG. | FTG. SIZE |
|-------------|---------------|-----------|
| AT592403ERL | 2 | 3 |
| AT592404ERL | 2 | 4 |
| AT592406ERL | 2 | 6 |
| AT992408ERL | 1 | 8 |
| AT992410ERL | 1 | 10 |
| AT992412ERL | 1 | 12 |
| AT992416ERL | 1 | 16 |

AN TEE BULKHEAD



| PART NO. | "A" FTG. SIZE | "B" FTG. SIZE | "C" FTG. SIZE |
|-------------|---------------|---------------|---------------|
| AT983403ERL | 3 | 3 | 3 |
| AT983404ERL | 4 | 4 | 4 |
| AT983406ERL | 6 | 6 | 6 |
| AT983408ERL | 8 | 8 | 8 |
| AT983410ERL | 10 | 10 | 10 |
| AT983412ERL | 12 | 12 | 12 |
| AT983416ERL | 16 | 16 | 16 |

TUBE NUT



| PART NO. | QTY. PER PKG. | FTG. SIZE | TUBE SIZE |
|-------------|---------------|-----------|-----------|
| AT581803ERL | 2 | 3 | 3 |
| AT581804ERL | 2 | 4 | 4 |
| AT581805ERL | 2 | 5 | 5 |
| AT581806ERL | 2 | 6 | 6 |
| AT981808ERL | 1 | 8 | 8 |
| AT981810ERL | 1 | 10 | 10 |
| AT981812ERL | 1 | 12 | 12 |
| AT981816ERL | 1 | 16 | 16 |

ANO-TUFF™ ADAPTERS

ADAPTERS

CAPS & PLUGS

NEW!

The perfect match for our hugely popular Ano-Tuff™ hose ends. Ano-Tuff™ adapters feature the same Mil Spec hard anodized coating that penetrates the aluminum base to deliver superior wear and corrosion resistance.

A.N. CAP



See pg. 105
for plastic caps

| PART NO. | QTY. PER PKG. | FTG. SIZE |
|-------------|---------------|-----------|
| AT592902ERL | 2 | 2 |
| AT592903ERL | 2 | 3 |
| AT592904ERL | 2 | 4 |
| AT592906ERL | 2 | 6 |
| AT992908ERL | 1 | 8 |
| AT992910ERL | 1 | 10 |
| AT992912ERL | 1 | 12 |
| AT992916ERL | 1 | 16 |
| AT992920ERL | 1 | 20 |

A.N. PLUG



See pg. 105
for plastic plugs

| PART NO. | QTY. PER PKG. | FTG. SIZE |
|-------------|---------------|-----------|
| AT580603ERL | 2 | 3 |
| AT580604ERL | 2 | 4 |
| AT580606ERL | 2 | 6 |
| AT980608ERL | 1 | 8 |
| AT980610ERL | 1 | 10 |
| AT980612ERL | 1 | 12 |
| AT980616ERL | 1 | 16 |
| AT980620ERL | 1 | 20 |

PORT PLUG ("O" RING SEAL)



| PART NO. | QTY. PER PKG. | FTG. SIZE |
|-------------|---------------|-----------|
| AT581403ERL | 2 | 3 |
| AT581404ERL | 2 | 4 |
| AT581406ERL | 2 | 6 |
| AT981408ERL | 1 | 8 |
| AT981410ERL | 1 | 10 |
| AT981412ERL | 1 | 12 |
| AT981416ERL | 1 | 16 |

NPT PLUG-INTERNAL WRENCHING



| PART NO. | QTY. PER PKG. | FTG. SIZE |
|-------------|---------------|-----------|
| AT593201ERL | 2 | 1/16 |
| AT593202ERL | 2 | 1/8 |
| AT593203ERL | 2 | 1/4 |
| AT593204ERL | 2 | 3/8 |
| AT993205ERL | 1 | 1/2 |
| AT993206ERL | 1 | 3/4 |

NPT PLUG-HEX HEAD



| PART NO. | FTG. SIZE |
|-------------|-----------|
| AT993301ERL | 1/8 |
| AT993302ERL | 1/4 |
| AT993303ERL | 3/8 |
| AT993304ERL | 1/2 |
| AT993306ERL | 3/4 |

SPECIAL PURPOSE ADAPTERS

FLARE REDUCERS



| PART NO. | "A" FTG. SIZE | "B" FTG. SIZE |
|--------------|---------------|---------------|
| AT9892064ERL | 6 | 4 |
| AT9892084ERL | 8 | 4 |
| AT9892086ERL | 8 | 6 |
| AT9892104ERL | 10 | 4 |
| AT9892106ERL | 10 | 6 |
| AT9892108ERL | 10 | 8 |
| AT9892126ERL | 12 | 6 |
| AT9892128ERL | 12 | 8 |
| AT9892120ERL | 12 | 10 |
| AT9892160ERL | 16 | 10 |
| AT9892162ERL | 16 | 12 |
| AT9892206ERL | 20 | 16 |

STRAIGHT FEMALE AN SWIVEL COUPLING



| PART NO. | "A" FTG. SIZE | "B" FTG. SIZE |
|-------------|---------------|---------------|
| AT915103ERL | 3 | 3 |
| AT915104ERL | 4 | 4 |
| AT915106ERL | 6 | 6 |
| AT915186ERL | 8 | 6 |
| AT915108ERL | 8 | 8 |
| AT915110ERL | 10 | 10 |
| AT915112ERL | 12 | 12 |
| AT915116ERL | 16 | 16 |
| AT915120ERL | 20 | 20 |

ANO-TUFF™ ADAPTERS

ADAPTERS

NEW!

The perfect match for our hugely popular Ano-Tuff™ hose ends. Ano-Tuff™ adapters feature the same Mil Spec hard anodized coating that penetrates the aluminum base to deliver superior wear and corrosion resistance.

45° FEMALE AN SWIVEL TO FEMALE AN SWIVEL - TUBE



| PART NO. | "A" FTG. SIZE | "B" FTG. SIZE |
|-------------|---------------|---------------|
| AT939203ERL | 3 | 3 |
| AT939204ERL | 4 | 4 |
| AT939206ERL | 6 | 6 |
| AT939208ERL | 8 | 8 |
| AT939210ERL | 10 | 10 |
| AT939212ERL | 12 | 12 |
| AT939216ERL | 16 | 16 |

90° FEMALE AN SWIVEL TO FEMALE AN SWIVEL - TUBE



| PART NO. | "A" FTG. SIZE | "B" FTG. SIZE |
|-------------|---------------|---------------|
| AT935103ERL | 3 | 3 |
| AT935104ERL | 4 | 4 |
| AT935106ERL | 6 | 6 |
| AT935108ERL | 8 | 8 |
| AT935110ERL | 10 | 10 |
| AT935112ERL | 12 | 12 |
| AT935116ERL | 16 | 16 |

45° FEMALE AN SWIVEL TO FEMALE AN SWIVEL LOW PROFILE



| PART NO. | "A" FTG. SIZE | "B" FTG. SIZE |
|-------------|---------------|---------------|
| AT939103ERL | 3 | 3 |
| AT939104ERL | 4 | 4 |
| AT939106ERL | 6 | 6 |
| AT939108ERL | 8 | 8 |
| AT939110ERL | 10 | 10 |
| AT939112ERL | 12 | 12 |
| AT939116ERL | 16 | 16 |

90° FEMALE AN SWIVEL TO FEMALE AN SWIVEL LOW PROFILE



| PART NO. | "A" FTG. SIZE | "B" FTG. SIZE |
|-------------|---------------|---------------|
| AT934103ERL | 3 | 3 |
| AT934104ERL | 4 | 4 |
| AT934106ERL | 6 | 6 |
| AT934108ERL | 8 | 8 |
| AT934110ERL | 10 | 10 |
| AT934112ERL | 12 | 12 |
| AT934116ERL | 16 | 16 |

45° FEMALE AN SWIVEL TO MALE AN



| PART NO. | "A" FTG. SIZE | "B" FTG. SIZE |
|-------------|---------------|---------------|
| AT924103ERL | 3 | 3 |
| AT924104ERL | 4 | 4 |
| AT924106ERL | 6 | 6 |
| AT924108ERL | 8 | 8 |
| AT924110ERL | 10 | 10 |
| AT924112ERL | 12 | 12 |

90° FEMALE AN SWIVEL TO MALE AN



| PART NO. | "A" FTG. SIZE | "B" FTG. SIZE |
|-------------|---------------|---------------|
| AT921103ERL | 3 | 3 |
| AT921104ERL | 4 | 4 |
| AT921106ERL | 6 | 6 |
| AT921108ERL | 8 | 8 |
| AT921110ERL | 10 | 10 |
| AT921112ERL | 12 | 12 |

AN TEE FEMALE SWIVEL ON SIDE



| PART NO. | "A" FTG. SIZE | "B" FTG. SIZE | "C" FTG. SIZE |
|-------------|---------------|---------------|---------------|
| AT925103ERL | 3 | 3 | 3 |
| AT925104ERL | 4 | 4 | 4 |
| AT925106ERL | 6 | 6 | 6 |
| AT925108ERL | 8 | 8 | 8 |
| AT925110ERL | 10 | 10 | 10 |
| AT925112ERL | 12 | 12 | 12 |

AN TEE FEMALE SWIVEL ON RUN



| PART NO. | "A" FTG. SIZE | "B" FTG. SIZE | "C" FTG. SIZE |
|-------------|---------------|---------------|---------------|
| AT926103ERL | 3 | 3 | 3 |
| AT926104ERL | 4 | 4 | 4 |
| AT926106ERL | 6 | 6 | 6 |
| AT926108ERL | 8 | 8 | 8 |
| AT926110ERL | 10 | 10 | 10 |
| AT926112ERL | 12 | 12 | 12 |

ANO-TUFF™ ADAPTERS

ADAPTERS

NEW!

The perfect match for our hugely popular Ano-Tuff™ hose ends. Ano-Tuff™ adapters feature the same Mil Spec hard anodized coating that penetrates the aluminum base to deliver superior wear and corrosion resistance.

STRAIGHT AN SWIVEL TO MALE NPT



| PART NO. | "A" FTG. SIZE | "B" NPT THREAD SIZE |
|-------------|---------------|---------------------|
| AT916103ERL | 3 | 1/8 |
| AT916104ERL | 4 | 1/8 |
| AT916144ERL | 4 | 1/4 |
| AT916106ERL | 6 | 1/4 |
| AT916162ERL | 6 | 1/8 |
| AT916166ERL | 6 | 3/8 |
| AT916107ERL | 8 | 1/4 |
| AT916108ERL | 8 | 3/8 |
| AT916188ERL | 8 | 1/2 |
| AT916110ERL | 10 | 1/2 |
| AT916111ERL | 10 | 3/8 |
| AT916112ERL | 12 | 3/4 |
| AT916113ERL | 12 | 1/2 |

90° MALE AN TO MALE SWIVEL NPT



| PART NO. | "A" FTG. SIZE | "B" NPT THREAD SIZE |
|-------------|---------------|---------------------|
| AT922103ERL | 3 | 1/8 |
| AT922104ERL | 4 | 1/8 |
| AT922144ERL | 4 | 1/4 |
| AT922106ERL | 6 | 1/4 |
| AT922162ERL | 6 | 1/8 |
| AT922166ERL | 6 | 3/8 |
| AT922107ERL | 8 | 1/4 |
| AT922108ERL | 8 | 3/8 |
| AT922188ERL | 8 | 1/2 |
| AT922110ERL | 10 | 1/2 |
| AT922111ERL | 10 | 3/8 |
| AT922112ERL | 12 | 3/4 |
| AT922113ERL | 12 | 1/2 |

PORT ADAPTERS ("O" Ring seal)



| PART NO. | "A" FTG. SIZE | "B" FTG. SIZE |
|-------------|---------------|-------------------|
| AT985064ERL | -6 | 7/16-20 (AN 4) |
| AT985065ERL | -6 | 1/2-20 (AN 5) |
| AT985006ERL | -6 | 9/16-18 (AN 6) |
| AT985068ERL | -6 | 3/4-16 (AN 8) |
| AT985086ERL | -8 | 9/16-18 (AN 6) |
| AT985008ERL | -8 | 3/4-16 (AN 8) |
| AT985081ERL | -8 | 7/8-14 (AN 10) |
| AT985009ERL | -10 | 3/4-16 (AN 8) |
| AT985010ERL | -10 | 7/8-14 (AN 10) |
| AT985011ERL | -10 | 1 1/16-12 (AN 12) |
| AT985013ERL | -12 | 7/8-14 (AN 10) |
| AT985012ERL | -12 | 1 1/16-12 (AN 12) |
| AT985016ERL | -16 | 1 1/16-12 (AN 12) |

90° MALE AN TO MALE SWIVEL A.N. (OR METRIC)



| PART NO. | "A" FTG. SIZE | "B" THREAD SIZE |
|-------------|---------------|-----------------|
| AT949064ERL | 6 | 7/16-20 |
| AT949065ERL | 6 | 1/2-20 |
| AT949006ERL | 6 | 9/16-18 |
| AT949068ERL | 6 | 3/4-16 |
| AT949091ERL | 6 | 12mm x 1.25 |
| AT949092ERL | 6 | 12mm x 1.5 |
| AT949093ERL | 6 | 7/8-20 |
| AT949094ERL | 6 | 9/16-24 |
| AT949096ERL | 6 | 5/8-18 |
| AT949086ERL | 8 | 9/16-18 |
| AT949008ERL | 8 | 3/4-16 |
| AT949081ERL | 8 | 7/8-14 |
| AT949083ERL | 8 | 7/8-20 |
| AT949009ERL | 10 | 3/4-16 |
| AT949010ERL | 10 | 7/8-14 |
| AT949011ERL | 10 | 1 1/16-12 |
| AT949013ERL | 12 | 7/8-14 |
| AT949012ERL | 12 | 1 1/16-12 |

CARB ADAPTERS



| PART NO. | "A" FTG. SIZE | "B" THREAD SIZE |
|-------------|---------------|-----------------|
| AT991942ERL | 6 | 9/16-24 |
| AT991943ERL | 6 | 7/8-20 |
| AT991948ERL | 8 | 7/8-20 long |
| AT991957ERL | 8 | 7/8-20 short |

UNANODIZED ADAPTERS

ADAPTERS

Earl's "UP" aluminum adapters are unplated and polished so you can finish your custom plumbing system by plating them the color of your choosing. You can also have them clear coated for a clean polished aluminum look.

***Adapters must be anodized, plated or clear coated before assembly.**

UNION - MALE



| PART NO. | "A" FTG. SIZE | "B" FTG. SIZE |
|-------------|---------------|---------------|
| UP981504ERL | 4 | 4 |
| UP981506ERL | 6 | 6 |
| UP981508ERL | 8 | 8 |
| UP981510ERL | 10 | 10 |
| UP981512ERL | 12 | 12 |
| UP981516ERL | 16 | 16 |

90° ELBOW



| PART NO. | "A" FTG. SIZE | "B" NPT THREAD SIZE |
|-------------|---------------|---------------------|
| UP982204ERL | 4 | 1/8 |
| UP982244ERL | 4 | 1/4 |
| UP982262ERL | 6 | 1/8 |
| UP982206ERL | 6 | 1/4 |
| UP982266ERL | 6 | 3/8 |
| UP982268ERL | 6 | 1/2 |
| UP982207ERL | 8 | 1/4 |
| UP982208ERL | 8 | 3/8 |
| UP982288ERL | 8 | 1/2 |
| UP982211ERL | 10 | 3/8 |
| UP982210ERL | 10 | 1/2 |
| UP982209ERL | 10 | 3/4 |
| UP982213ERL | 12 | 1/2 |
| UP982212ERL | 12 | 3/4 |
| UP982215ERL | 16 | 3/4 |
| UP982216ERL | 16 | 1 |

STRAIGHT



| PART NO. | "A" FTG. SIZE | "B" NPT THREAD SIZE |
|-------------|---------------|---------------------|
| UP981604ERL | 4 | 1/8 |
| UP981644ERL | 4 | 1/4 |
| UP981662ERL | 6 | 1/8 |
| UP981606ERL | 6 | 1/4 |
| UP981666ERL | 6 | 3/8 |
| UP981668ERL | 6 | 1/2 |
| UP981607ERL | 8 | 1/4 |
| UP981608ERL | 8 | 3/8 |
| UP981688ERL | 8 | 1/2 |
| UP981611ERL | 10 | 3/8 |
| UP981610ERL | 10 | 1/2 |
| UP981609ERL | 10 | 3/4 |
| UP981613ERL | 12 | 1/2 |
| UP981612ERL | 12 | 3/4 |
| UP981615ERL | 16 | 3/4 |
| UP981616ERL | 16 | 1 |

AN TEE



| PART NO. | "A" FTG. SIZE | "B" FTG. SIZE | "C" FTG. SIZE |
|-------------|---------------|---------------|---------------|
| UP982404ERL | 4 | 4 | 4 |
| UP982406ERL | 6 | 6 | 6 |
| UP982408ERL | 8 | 8 | 8 |
| UP982410ERL | 10 | 10 | 10 |
| UP982412ERL | 12 | 12 | 12 |
| UP982416ERL | 16 | 16 | 16 |

45° ELBOW



| PART NO. | "A" FTG. SIZE | "B" NPT THREAD SIZE |
|-------------|---------------|---------------------|
| UP982304ERL | 4 | 1/8 |
| UP982344ERL | 4 | 1/4 |
| UP982362ERL | 6 | 1/8 |
| UP982306ERL | 6 | 1/4 |
| UP982366ERL | 6 | 3/8 |
| UP982368ERL | 6 | 1/2 |
| UP982307ERL | 8 | 1/4 |
| UP982308ERL | 8 | 3/8 |
| UP982388ERL | 8 | 1/2 |
| UP982311ERL | 10 | 3/8 |
| UP982310ERL | 10 | 1/2 |
| UP982309ERL | 10 | 3/4 |
| UP982313ERL | 12 | 1/2 |
| UP982312ERL | 12 | 3/4 |
| UP982316ERL | 16 | 1 |

STRAIGHT BULKHEAD



| PART NO. | "A" FTG. SIZE | "B" FTG. SIZE |
|-------------|---------------|---------------|
| UP983203ERL | 3 | 3 |
| UP983204ERL | 4 | 4 |
| UP983206ERL | 6 | 6 |
| UP983208ERL | 8 | 8 |
| UP983210ERL | 10 | 10 |
| UP983212ERL | 12 | 12 |
| UP983216ERL | 16 | 16 |

BULKHEAD NUT



| PART NO. | QTY. PER PKG. | "A" FTG. SIZE | "B" FTG. SIZE |
|-------------|---------------|---------------|---------------|
| UP592403ERL | 2 | 3 | 3 |
| UP592404ERL | 2 | 4 | 4 |
| UP592406ERL | 2 | 6 | 6 |
| UP992408ERL | 1 | 8 | 8 |
| UP992410ERL | 1 | 10 | 10 |
| UP992412ERL | 1 | 12 | 12 |
| UP992416ERL | 1 | 16 | 16 |

ALUMINUM & STEEL ADAPTERS

ADAPTERS

CARBURETOR / POWER STEERING / FUEL PUMP / FUEL INJECTION ADAPTERS

| | PART NO. | HOSE END SIZE | APPLICATION |
|---|-------------------|---------------|---|
|  | 991941ERL | 6 | Carter® / Edelbrock® with 5/8-20 thread size |
|  | 991942ERL | 6 | Single Inlet Holley/Reman with 9/16-24 thread size |
|  | 991943ERL | 6 | Dual Feed Holley/Reman (short) w/ 7/8-20 thread size |
|  | 991944ERL | 6 | Weber with 12mm X 1.50 thread size |
|  | 991945ERL | 6 | Dellorto / Solex / Mikuni with 12mm X 1.25 thread size |
|  | 991946ERL | 6 | Power Steering / Fuel Pump - 5/16 Tube Inverted Flare with 1/2-20 thread size |
|  | 961946ERL (Steel) | 6 | Power Steering / Fuel Pump - 5/16 Tube Inverted Flare with 1/2-20 thread size |
|  | 991947ERL | 6 | Power Steering / Fuel Pump - 3/8 Tube Inverted Flare with 5/8-18 thread size |
|  | 961947ERL (Steel) | 6 | Power Steering / Fuel Pump - 3/8 Tube Inverted Flare with 5/8-18 thread size |
|  | 991948ERL | 8 | Dual Feed Holley/Reman (extended) with 7/8-20 thread size |

| | PART NO. | HOSE END SIZE | APPLICATION |
|---|-------------------|---------------|---|
|  | 991949ERL | 6 | Rochester with 7/8-20 thread size |
|  | 991950ERL | 6 | Power Steering - Inverted Flare with 11/16-18 thread size |
|  | 961950ERL (Steel) | 6 | Power Steering - Inverted Flare with 11/16-18 thread size |
|  | 991951ERL | 6 | Dellorto - Cupped Banjo for 7mm Banjo Bolt |
|  | 991952ERL | 6 | Rochester 75 up with 1"-20 thread size |
|  | 991953ERL | 6 | Weber with 10mm X 1 thread size |
|  | 991954ERL | 6 | Power Steering / Fuel Injection - O-Ring Seal 14mm X 1.5 |
|  | 991955ERL | 6 | Power Steering / Fuel Injection - O-Ring Seal 16mm X 1.5 |
|  | 961955ERL (Steel) | 6 | Power Steering / Fuel Injection - O-Ring Seal 16mm X 1.5 |
|  | 991956ERL | 6 | Power Steering - O-Ring Seal with 18mm X 1.50 thread size |
|  | 961956ERL (Steel) | 6 | Power Steering - O-Ring Seal with 18mm X 1.50 thread size |

ALUMINUM & STEEL ADAPTERS





ADAPTERS

CARBURETOR / POWER STEERING / FUEL PUMP / FUEL INJECTION ADAPTERS

| PART NO. | HOSE END | | APPLICATION |
|--|------------|-------------|--|
| | SIZE | APPLICATION | |
|  | 991957ERL | 8 | Dual Feed Holley/Reman with 7/8-20 thread size |
|  | 9894DBHERL | 6 | Fuel Injection Fem. O-Ring Seal with Fem. 14mm X 1.5 thread size |
|  | 9894DBJERL | 6 | Fuel Injection Fem. O-Ring Seal with Fem. 16mm X 1.5 thread size |
|  | 982484ERL | 8 | -8 AN male tee with -4 AN on run |

| PART NO. | HOSE END | | APPLICATION |
|---|--------------|-------------|---|
| | SIZE | APPLICATION | |
|  | AT982484ERL* | 8 | -8 AN male tee with -4 AN on run * Hard Anodized |
|  | 977606ERL | 6 | -6 AN male to 9/16 banjo |
|  | 977646ERL | 4 | -4 AN male to 9/16 banjo NEW! |
|  | 997596ERL | - | 9/16 -18 Bolt NEW! |

BRAKE SYSTEM ADAPTERS

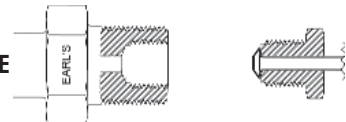
| PART NO. | PKG QTY | THREAD SIZE | |
|---|-----------|-------------|--------------------------------------|
| | | PKG QTY | THREAD SIZE |
|  | 501902ERL | 2 | -3 AN to 4 AN |
|  | 581531ERL | 2 | -3 AN to 3/8-24 inverted flare short |
|  | 581533ERL | 2 | -3 AN to 3/8-24 inverted flare long |
|  | 591932ERL | 2 | -3 AN to 7/16-24 inverted flare |

| PART NO. | PKG QTY | THREAD SIZE | |
|--|-----------|-------------|--------------------------------------|
| | | PKG QTY | THREAD SIZE |
|  | 591941ERL | 2 | -4 AN to 7/16-20 inverted flare |
|  | 591942ERL | 2 | -4 AN to 7/16-24 inverted flare |
|  | 591972ERL | 2 | -4 AN to 3/8-24 inverted flare short |
|  | 591982ERL | 2 | -4 AN to 3/8-24 inverted flare long |

CONVEX INVERTED FLARE



CONCAVE



ALUMINUM & STEEL ADAPTERS

ADAPTERS

BRAKE SYSTEM ADAPTERS

| | PART NO. | PKG QTY | THREAD SIZE |
|---|-------------------------|---------|------------------------------------|
|  | 592032ERL | 2 | -3 AN to 10mm x1.0 |
|  | 592035ERL | 2 | -3 AN to 10mm x1.25 inverted flare |
|  | 592042ERL | 2 | -4 AN to 10mm x1.0 |
|  | 592045ERL | 2 | -4 AN to 10mm x1.25 inverted flare |
|  | 592046ERL (Aluminum) | 2 | -3 AN to 1/2-20 inverted flare |
|  | 592047ERL (Aluminum) | 2 | -4 AN to 1/2-20 inverted flare |
|  | 592048ERL (Aluminum) | 2 | -3 AN to 9/16-18 inverted flare |
|  | 592049ERL (Aluminum) | 2 | -4 AN to 9/16-18 inverted flare |
|  | 963243ERL | 1 | -3 AN Long Side, -4 AN Short Side |

TUBING ADAPTER

| | PART NO. | PKG QTY | THREAD SIZE |
|---|-----------|---------|---|
|  | 989531ERL | 1 | -3 AN to 3/8-24 Fem. |
|  | 989543ERL | 1 | -3 AN to 3/8-24 Fem. inverted flare |
|  | 989534ERL | 1 | -3 AN to Fem. 10mm x1.0 |
|  | 989535ERL | 1 | -3 AN to Fem. 10mm x1.25 |
|  | 989545ERL | 1 | -3 AN to Fem. 10mm x1.0 inverted flare |
|  | 989536ERL | 1 | -3 AN to Fem. 10mm x1.25 inverted flare |

ALUMINUM & STEEL ADAPTERS

ADAPTERS

BRAKE SYSTEM ADAPTERS





TUBING ADAPTER

| | PART NO. | PKG QTY | THREAD SIZE |
|---|-----------|---------|--|
|  | 989532ERL | 1 | -4 to 3/8-24 Fem. inverted flare |
|  | 989541ERL | 1 | -4 to 3/8-24 Fem. |
|  | 989542ERL | 1 | -4 to Fem. 10mm x1.0 inverted flare |
|  | 989544ERL | 1 | -4 to Fem. 10mm x1.0 inverted flare |
|  | 989546ERL | 1 | -4 AN to Fem. 10mm x1.25 |
|  | 989547ERL | 1 | -4 AN to Fem. 10mm x1.25 inverted flare |
|  | 989537ERL | 1 | -3 AN to 10mm x1.0 inverted flare (Honda) |
|  | 989538ERL | 1 | -3 AN to 10mm x1.0 inverted flare (Toyota) |
|  | 989548ERL | 1 | -4 AN to 7/16-24 inverted flare |
|  | 989549ERL | 1 | -3 AN to 7/16-24 inverted flare |
|  | 989500ERL | 1 | -3 hose Clip-in Fairlead |

BANJOS

| | PART NO. | THD. SIZE | HOLE DIAMETER | HEIGHT |
|--|-----------|-----------|---------------|--------|
|  | 997603ERL | -3 AN | 3/8" | .425 |
|  | 997604ERL | -4 AN | 7/16" | .425 |
|  | 997631ERL | -3 AN | 10mm | .425 |
|  | 997634ERL | -3 AN | 7/16" | .425 |
|  | 997635ERL | -3 AN | 12mm | .425 |
|  | 997641ERL | -4 AN | 10mm | .425 |
|  | 997643ERL | -4 AN | 3/8" | .425 |

DOT BANJOS

| | PART NO. | DESC. | HOLE | WIDTH | HEIGHT |
|--|------------|----------------------|-----------|-------|--------|
|  | 9976031ERL | Sq. Banjo Center | 3/8"-10mm | 0.75" | 0.5" |
|  | 9976032ERL | Sq. Banjo Center | 7/16" | 0.75" | 0.5" |
|  | 9977031ERL | 10° Sq. Banjo Center | 3/8"-10mm | 0.75" | 0.45" |
|  | 9977032ERL | 10° Sq. Banjo Center | 7/16" | 0.75" | 0.45" |

ALUMINUM & STEEL ADAPTERS

ADAPTERS

BRAKE SYSTEM ADAPTERS

DOT BANJOS

| PART NO. | DESC. | HOLE | WIDTH | HEIGHT |
|----------|-------|------|-------|--------|
|----------|-------|------|-------|--------|



9976033ERL Sq. Banjo Offset 3/8"-10mm 0.75" 0.5"



9976034ERL Sq. Banjo Offset 7/16" 0.75" 0.5"



9977033ERL 10° Sq. Banjo Offset 3/8"-10mm 0.75" 0.45"



9977034ERL 10° Sq. Banjo Offset 7/16" 0.75" 0.45"



9978031ERL Lg. Rd. Banjo 3/8"-10mm - 10mm



9978032ERL Lg. 7° Rd. Banjo 3/8"-10mm - 10mm



9978033ERL Lg. 15° Rd. Banjo 3/8"-10mm - 10mm



9978034ERL Lg. 30° Rd. Banjo 3/8"-10mm - 10mm



9978035ERL Lg. 40° Rd. Banjo 3/8"-10mm - 10mm



9978036ERL Lg. 25° side Rd. Banjo 3/8"-10mm - 10mm

BANJO BOLTS

| PART # FOR .425 BANJO HGHT. | PART # FOR 8mm BANJO HGHT. | THREAD SIZE | BANJO HOLE DIAMETER |
|-----------------------------|----------------------------|-------------|---------------------|
|-----------------------------|----------------------------|-------------|---------------------|



977503ERL **997503ERL** 3/8-24 Single 3/8"



977504ERL **997504ERL** 7/16-20 Single 7/16"



977513ERL **997513ERL** 3/8-24 Double for 2 Banjos 3/8"



977514ERL - 7/16-20 Double for 2 Banjos 7/16"



977515ERL **997515ERL** 10mm x1.25 Single 10mm



977516ERL - 3/8-24 inverted flare 3/8"



977517ERL **997517ERL** 10mm x1.0 Single 10mm



977518ERL **997518ERL** 10mm x1.25 Double 10mm



977519ERL **997519ERL** 10mm x1.0 Double 10mm

ALUMINUM & STEEL ADAPTERS

ADAPTERS

BRAKE SYSTEM ADAPTERS

BANJO BOLTS

| PART # FOR .425 BANJO HGHT. | PART # FOR 8mm BANJO HGHT. | THREAD SIZE | BANJO HOLE DIAMETER |
|-----------------------------|----------------------------|-------------------|---------------------|
| 977520ERL | 997520ERL | 10mm x1.50 Single | 10mm |

| | | | |
|-----------|---|------------------------|------|
| 977521ERL | - | 1/8 NPT Male to 3/8-24 | 3/8" |
|-----------|---|------------------------|------|

| | | | |
|-----------|---|----------------|-------|
| 977522ERL | - | 7/16-24 Single | 7/16" |
|-----------|---|----------------|-------|

TEE

| PART NO. | DESCRIPTION |
|-----------|--|
| 961701ERL | 1/8 NPT Fem. (all 3), no mounting hole |

| | |
|-----------|---|
| 972050ERL | 3/8-24 I.F. on sides, 3/8-24 straight thread on branch, 1/4 mounting hole |
|-----------|---|

| | |
|-----------|--|
| 972051ERL | 7/16-24 I.F. on one run, 3/8-24 other run and branch, 7/16 mounting hole |
|-----------|--|

| | |
|------------|---|
| 972051AERL | 3/8-24 I.F. on branch, #3 AN male on one run, 7/16-24 I.F. on other run |
|------------|---|

| | |
|------------|---|
| 972051BERL | #3 AN male on branch, 3/8-24 I.F. on one run, 7/16-24 I.F. on other run |
|------------|---|

| | |
|-----------|---|
| 972052ERL | 3/8-24 I.F. all 3 ports, 7/16 mounting hole |
|-----------|---|

| | |
|-----------|---|
| 972053ERL | 3/8-24 I.F. on branch, 3/8-24 at run, 5/8-18 mounting nut |
|-----------|---|

TEE

| PART NO. | DESCRIPTION |
|------------|--|
| 972053AERL | 3/8-24 I.F. on branch, 3/8-24 at run, 5/8-18 mount #3 AN male on other run |

| | |
|------------|---|
| 972053BERL | #3 AN male on branch, 3/8-24 I.F. on run and 5/8-18 mounting nut on run |
|------------|---|

| | |
|-----------|---|
| 972054ERL | 3/8-24 I.F. all runs 7/16 mounting hole |
|-----------|---|

| | |
|------------|--|
| 972054AERL | 3/8-24 I.F. on branch, #3 AN male on one run, 3/8-24 I.F. on other run |
|------------|--|

| | |
|------------|---|
| 972054BERL | #3 AN male on branch, 3/8-24 on both runs |
|------------|---|

| | |
|-----------|---|
| 972055ERL | 3/8-24 I.F. on branch, 3/8-24 on one run, 7/16-24 I.F. on other run. 7/16" Mount hole |
|-----------|---|

| | |
|-----------|---|
| 972056ERL | 10mmx1 x 10mmx1 x 3/8-24 I.F. 5/8-18 mounting nut |
|-----------|---|

| | |
|-----------|--|
| 972057ERL | #3 AN male on branch, 10mm x 1.0 bubble flare on both runs |
|-----------|--|

| | |
|------------|--|
| 972057BERL | #3 AN male on branch, 10mm x 1.0 bubble flare on both runs |
|------------|--|

| | |
|-----------|---|
| 972058ERL | 3/8-24 I.F. (all ports) 5/8-18 mounting nut |
|-----------|---|

| | |
|-----------|---|
| 972059ERL | Y-fitting 3/8-24 I.F. (all ports) 7/16 mount hole |
|-----------|---|

| | |
|-----------|-----------------------------------|
| 972060ERL | Y-fitting 3/8-24 I.F. (all ports) |
|-----------|-----------------------------------|

ADAPTERS

FORM-A-FLEX™ HOSE KITS

COOLING SYSTEM



Original Equipment - Type Molded Black Rubber Hoses, while efficient and inexpensive, leave a lot to be desired in appearance. The tortuous bends often required to clear front engine accessories usually preclude the use of relatively inflexible stainless steel braid protected elastomeric hoses such as Earl's Auto-Flex™. Further the inherent stiffness of this type of hose imposes substantial loads on the soldered radiator inlet and outlet necks - especially when the engine rocks on flexible mounts.

With Earl's Form-A-Flex™ there is no plating to flake or rust through, because they are constructed from 300 series stainless steel tubing. They can be permanently bent by hand in tight radii and still remain flexible enough to absorb engine vibration and rock. The clamp housings are billet 6061-T6 and come in a variety of colors.

FORM-A-FLEX™ HOSE KITS

COOLING SYSTEMS

RADIATOR HOSE KITS

1-PC: 1-3/4 DIA. FORM-A-FLEX®
& 2-END CONNECTORS

P/N UNIT CONNECTORS



| | | |
|------------|-----------|-----|
| 121121ERL | 1 ft. Kit | Red |
| 1211241ERL | 2 ft. Kit | Red |
| 1211361ERL | 3 ft. Kit | Red |



| | | |
|------------|-----------|------|
| 121122ERL | 1 ft. Kit | Blue |
| 1211242ERL | 2 ft. Kit | Blue |
| 1211362ERL | 3 ft. Kit | Blue |



| | | |
|------------|-----------|--------|
| 121123ERL | 1 ft. Kit | Chrome |
| 1211243ERL | 2 ft. Kit | Chrome |
| 1211363ERL | 3 ft. Kit | Chrome |



| | | |
|------------|-----------|-------|
| 121125ERL | 1 ft. Kit | Black |
| 1211245ERL | 2 ft. Kit | Black |
| 1211365ERL | 3 ft. Kit | Black |

HEATER HOSE KITS

2-PCS: 3/4 DIA, 44" FORM-A-FLEX® &
4-END CONNECTORS

P/N CONNECTORS



| | |
|-----------|-----|
| 122881ERL | Red |
|-----------|-----|



| | |
|-----------|------|
| 122882ERL | Blue |
|-----------|------|



| | |
|-----------|--------|
| 122883ERL | Chrome |
|-----------|--------|



| | |
|-----------|-------|
| 122885ERL | Black |
|-----------|-------|

DOUBLE ECON-O-FIT® FITTINGS

WITHOUT SILICONE HOSE

P/N DESCRIPTION CONNECTORS



| | | |
|------------|--------------|-----|
| 9001115ERL | for 3/4 Hose | Red |
|------------|--------------|-----|



| | | |
|------------|--------------|------|
| 9002115ERL | for 3/4 Hose | Blue |
|------------|--------------|------|



| | | |
|------------|--------------|--------|
| 9003115ERL | for 3/4 Hose | Chrome |
|------------|--------------|--------|



| | | |
|------------|--------------|-------|
| 9005115ERL | for 3/4 Hose | Black |
|------------|--------------|-------|



| | | |
|------------|----------------|-----|
| 9001133ERL | for 1-3/4 Hose | Red |
|------------|----------------|-----|



| | | |
|------------|----------------|------|
| 9002133ERL | for 1-3/4 Hose | Blue |
|------------|----------------|------|

WITHOUT SILICONE HOSE

P/N DESCRIPTION CONNECTORS



| | | |
|------------|----------------|--------|
| 9003133ERL | for 1-3/4 Hose | Chrome |
|------------|----------------|--------|



| | | |
|------------|----------------|-------|
| 9005133ERL | for 1-3/4 Hose | Black |
|------------|----------------|-------|

FORM-A-FLEX® BULK

P/N

DESCRIPTION



| | |
|-----------|------------------------------|
| 121000ERL | 1-3/4 Form-A-Flex® (per ft.) |
|-----------|------------------------------|



| | |
|-----------|----------------------------|
| 122000ERL | 3/4 Form-A-Flex® (per ft.) |
|-----------|----------------------------|



| | |
|-----------|--|
| 121103ERL | 1-3/4 Blue Silicone Hose for Double Econ-O-Fit® (3" length) |
|-----------|--|



| | |
|-----------|-----------------------------|
| 122103ERL | 3/4 Blue Silicone Hose (3") |
|-----------|-----------------------------|



| | |
|-----------|---------------------------|
| 122104ERL | 1-1/2 Reducer boot (1.5") |
|-----------|---------------------------|

TEMP-A-CURE™



Today's high performance car packs a lot of power in a smaller package. In order to save both weight and space, the typical OEM cooling system is designed for "normal" driving conditions. When driven hard for extended periods, the cooling system may prove less than adequate. Earl's offers the solution to marginal cooling systems—race proven lightweight and efficient oil coolers designed to fit in the smallest practical space.

Any performance vehicle can benefit from the TEMP-A-CURE difference. Tow vehicles, motor homes, passenger cars and even motorcycles can realize extended engine and/or transmission efficiency and life with an Earl's TEMP-A-CURE oil cooler.

Racing cars have always required oil coolers. Since World War II, most racing cars, world wide, have utilized brazed aluminum "modular" oil coolers. The basic design of the modular oil cooler dates back to the early 1930s when it was developed for use with the Rolls Royce Merlin engine that powered the Spitfires and Hurricanes that won the Battle of Britain. This type of cooler with its internal turbulator plates and dense air fins provides maximum liquid side and air side surface area. The large collector tanks ensure minimum flow restriction. The fully brazed construction results in the most efficient possible thermal transfer path between liquid and air. All of this adds up to the most thermally efficient liquid-air heat exchanger available.

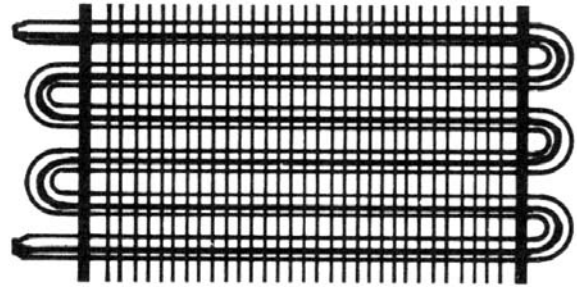
EARL'S TEMP-A-CURE OIL COOLERS OFFER THE FOLLOWING ADVANTAGES:

1. Manufactured in the U.S.A. from aircraft spec aluminum alloy, using the latest vacuum brazing technology.
2. Corrugated screen internal turbulator plates increase both thermal efficiency and mechanical strength resulting in the most efficient, smallest and lightest practical package (typically half the size of traditional tube & fin cooler).
3. Manufactured from thin aluminum plates for fastest possible heat transfer.
4. Inlet and outlet fittings seal with an o-ring to the top plate assembly for worry free performance.
5. Designed for the range of oil flows and air speeds encountered in high performance automobiles.
6. Available in three widths with inlet and outlet fittings, male AN -6 to -16
7. Every cooler is pressure checked to 175 psi. Periodic samples are burst tested to 350 psi.

TEMP-A-CURE™

EARL'S DESIGN

For many years, professional racers have been using modular style oil coolers almost exclusively. Virtually every Formula One, Indy and GTP or Trans-Am car depends on these type units for engine and transaxle cooling. Temp-A-Cure coolers have been developed specifically for use in all types of engines and transmissions subjected to temperature extremes, including competition and high performance uses. They are designed for the range of air speeds and oil flows normally encountered in automotive use, but built to aircraft standards of quality. They are constructed of high grade aluminum and are completely furnace brazed to insure the most thermally efficient joint possible between the oil tubes and air fins. The internal design of the oil tubes and the large area collector tanks provide maximum surface area with minimum pressure drop. The highly concentrated air fins offer maximum heat transfer to the outside air.



TYPICAL TUBE & FIN DESIGN

The tube and fin cooler has little to offer in the way of efficient oil cooling. Its typical serpentine design has a large pressure drop due to the tube length and to the restricted bends. The tube and fin cooler cannot approach the cooling efficiency of Earl's Fin density and oil side to air side mechanical bond.

TEST COMPARISON PG.122

AIR VELOCITY: THE CRITICAL FACTOR IN HEAT DISSIPATION

EARL'S TEMP-A-CURE OIL COOLERS are designed to efficiently use all of the air that passes through them. The center chart below shows that a Temp-A-Cure cooler of comparable size is between two and three times more efficient in terms of heat rejection as a typical tube and fin type cooler. ("B")

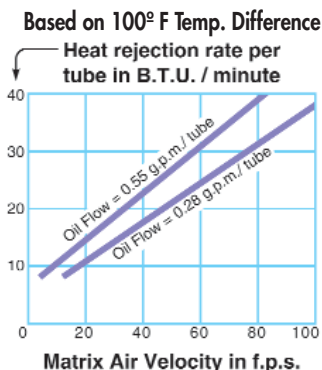
Cooler "A" in our chart below is of a popular stamped dish plate design; where the dish plates are the only components—no fins and no corrugated screen. This design, while extremely attractive to the manufacturer, sacrifices efficiency of heat transfer for ease of assembly.

The right hand chart below represents testing to determine pressure drop. It shows that the Temp-A-Cure cooler can handle a larger volume of oil (four times the volume!) with less than half the pressure drop of a typical tube and fin style oil cooler.

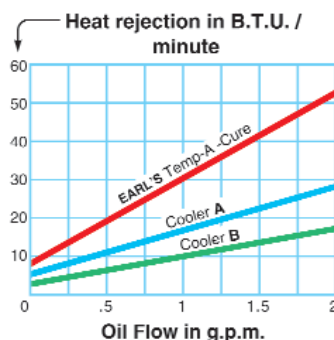
Earl's Temp-A-Cure oil coolers are properly termed "air to liquid heat exchangers". In order to operate efficiently, they must be mounted in a stream of moving air at ambient temperature. It is not a good idea to mount the oil cooler behind the water radiator where it will receive only heated air. It is not enough to lead air to the cooler—the heated air must have somewhere to go after it passes through the core. Remember, air always obeys the immutable laws of fluid dynamics. Simply put, air will only flow from a region of relatively high pressure to a region of relatively low pressure. Any attempt on our part to convince it to do otherwise is doomed to failure.

BTU RATINGS PG.122

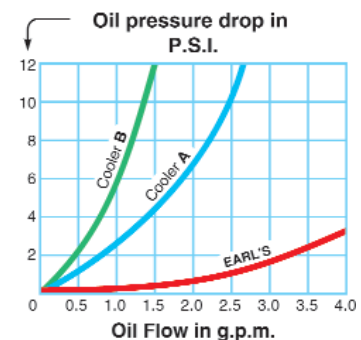
To obtain the heat rejection rate for a given Earl's Cooler, multiply the dissipation value from the chart by the number of tubes in the cooler.



Comparable heat rejection rates based on SAE 10 weight oil at 200° F. inlet temperature and 7 square inches of matrix area. Contact Earl's for specific comparison data.

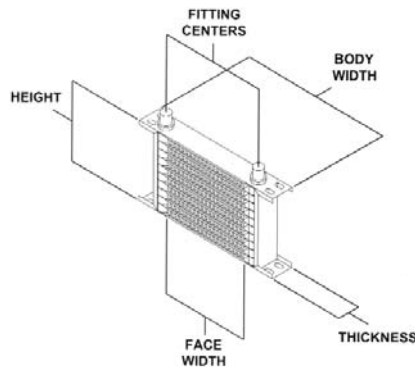


Comparable oil pressure drop across matrix with SAE 10 oil at 200° F. inlet temperature.



TEMP-A-CURE™ OIL COOLERS

COOLING SYSTEMS



TEMP-A-CURE™

TEMP-A-CURE oil coolers are designed to suit any application. The chart below will assist you in choosing the correct model for your needs.

NOTE: All of our Temp-A-Cure Coolers are available with male AN fittings -6 to -16

Cooler fitting instructions pg. 65 & typical plumbing of cooler pg. 123

| | | | | | | |
|----------------------------|--------|--------|--------|--------|---------|---------|
| FACE WIDTH (BETWEEN TANKS) | 4" | 4" | 9" | 9" | 11" | 11" |
| FITTING CENTERS | 5-1/8" | 5-1/8" | 9-3/4" | 9-3/4" | 12-1/8" | 12-1/8" |
| BODY WIDTH | 8-1/4" | 8-1/4" | 13" | 13" | 14" | 14" |
| THICKNESS | 2" | 2" | 2" | 2" | 2" | 2" |



| ROW # & HEIGHT | FITTING SIZE | GRAY-NARROW | BLACK-NARROW | GRAY-WIDE | BLACK-WIDE | GRAY-EXTRA WIDE | BLACK-EXTRA WIDE |
|-------------------------|------------------|-------------|--------------|-----------|------------|-----------------|------------------|
| 7 Row Height 2" | Core Only | 20700ERL | 20700AERL | 40700ERL | 40700AERL | 80700ERL | 80700AERL |
| | -6 AN Male | 20706ERL | 20706AERL | 40706ERL | 40706AERL | 80706ERL | 80706AERL |
| | -8 AN Male | 20708ERL | 20708AERL | 40708ERL | 40708AERL | 80708ERL | 80708AERL |
| | -10 AN Male | 20710ERL | 20710AERL | 40710ERL | 40710AERL | 80710ERL | 80710AERL |
| | -12 AN Male | 20712ERL | 20712AERL | 40712ERL | 40712AERL | 80712ERL | 80712AERL |
| | -16 AN Male | 20716ERL* | 20716AERL* | 40716ERL* | 40716AERL* | 80716ERL* | 80716AERL* |
| | 12mmx1.5 female | 20745ERL | - | - | - | - | - |
| 10 Row Height 3" | Core Only | 21000ERL | 21000AERL | 41000ERL | 41000AERL | 81000ERL | 81000AERL |
| | -6 AN Male | 21006ERL | 21006AERL | 41006ERL | 41006AERL | 81006ERL | 81006AERL |
| | -8 AN Male | 21008ERL | 21008AERL | 41008ERL | 41008AERL | 81008ERL | 81008AERL |
| | -10 AN Male | 21010ERL | 21010AERL | 41010ERL | 41010AERL | 81010ERL | 81010AERL |
| | -12 AN Male | 21012ERL | 21012AERL | 41012ERL | 41012AERL | 81012ERL | 81012AERL |
| | -16 AN Male | 21016ERL* | 21016AERL* | 41016ERL* | 41016AERL* | 81016ERL* | 81016AERL* |
| | 12mmx1.5 female | 21045ERL | - | - | - | - | - |
| 13 Row Height 4" | Core Only | 21300ERL | 21300AERL | 41300ERL | 41300AERL | 81300ERL | 81300AERL |
| | -6 AN Male | 21306ERL | 21306AERL | 41306ERL | 41306AERL | 81306ERL | 81306AERL |
| | -8 AN Male | 21308ERL | 21308AERL | 41308ERL | 41308AERL | 81308ERL | 81308AERL |
| | -10 AN Male | 21310ERL | 21310AERL | 41310ERL | 41310AERL | 81310ERL | 81310AERL |
| | -12 AN Male | 21312ERL | 21312AERL | 41312ERL | 41312AERL | 81312ERL | 81312AERL |
| | -16 AN Male | 21316ERL* | 21316AERL* | 41316ERL* | 41316AERL* | 81316ERL* | 81316AERL* |
| | | | | | | | |
| 16 Row Height 5" | Core Only | 21600ERL | 21600AERL | 41600ERL | 41600AERL | 81600ERL | 81600AERL |
| | -6 AN Male | 21606ERL | 21606AERL | 41606ERL | 41606AERL | 81606ERL | 81606AERL |
| | -8 AN Male | 21608ERL | 21608AERL | 41608ERL | 41608AERL | 81608ERL | 81608AERL |
| | -10 AN Male | 21610ERL | 21610AERL | 41610ERL | 41610AERL | 81610ERL | 81610AERL |
| | -12 AN Male | 21612ERL | 21612AERL | 41612ERL | 41612AERL | 81612ERL | 81612AERL |
| | -16 AN Male | 21616ERL* | 21616AERL* | 41616ERL* | 41616AERL* | 81616ERL* | 81616AERL* |
| | | | | | | | |
| 19 Row Height 5-7/8" | Core Only | 21900ERL | 21900AERL | 41900ERL | 41900AERL | 81900ERL | 81900AERL |
| | -6 AN Male | 21906ERL | 21906AERL | 41906ERL | 41906AERL | 81906ERL | 81906AERL |
| | -8 AN Male | 21908ERL | 21908AERL | 41908ERL | 41908AERL | 81908ERL | 81908AERL |
| | -10 AN Male | 21910ERL | 21910AERL | 41910ERL | 41910AERL | 81910ERL | 81910AERL |
| | -12 AN Male | 21912ERL | 21912AERL | 41912ERL | 41912AERL | 81912ERL | 81912AERL |
| | -16 AN Male | 21916ERL* | 21916AERL* | 41916ERL* | 41916AERL* | 81916ERL* | 81916AERL* |
| | | | | | | | |

TEMP-A-CURE OIL COOLERS

COOLING SYSTEMS

| | | | | | | |
|----------------------------|--------|--------|--------|--------|---------|---------|
| FACE WIDTH (BETWEEN TANKS) | 4" | 4" | 9" | 9" | 11" | 11" |
| FITTING CENTERS | 5-1/8" | 5-1/8" | 9-3/4" | 9-3/4" | 12-1/8" | 12-1/8" |
| BODY WIDTH | 8-1/4" | 8-1/4" | 13" | 13" | 14" | 14" |
| THICKNESS | 2" | 2" | 2" | 2" | 2" | 2" |



| ROW # & HEIGHT | FITTING SIZE | GRAY-NARROW | BLACK-NARROW | GRAY-WIDE | BLACK-WIDE | GRAY-EXTRA WIDE | BLACK-EXTRA WIDE |
|--------------------------|------------------|-------------|--------------|-----------|------------|-----------------|------------------|
| 25 Row Height 7-3/4" | Core Only | 22500ERL | 22500AERL | 42500ERL | 42500AERL | 82500ERL | 82500AERL |
| | -6 AN Male | 22506ERL | 22506AERL | 42506ERL | 42506AERL | 82506ERL | 82506AERL |
| | -8 AN Male | 22508ERL | 22508AERL | 42508ERL | 42508AERL | 82508ERL | 82508AERL |
| | -10 AN Male | 22510ERL | 22510AERL | 42510ERL | 42510AERL | 82510ERL | 82510AERL |
| | -12 AN Male | 22512ERL | 22512AERL | 42512ERL | 42512AERL | 82512ERL | 82512AERL |
| | -16 AN Male | 22516ERL* | 22516AERL* | 42516ERL* | 42516AERL* | 82516ERL* | 82516AERL* |
| 34 Row Height 10-1/2" | Core Only | 23400ERL | 23400AERL | 43400ERL | 43400AERL | 83400ERL | 83400AERL |
| | -6 AN Male | 23406ERL | 23406AERL | 43406ERL | 43406AERL | 83406ERL | 83406AERL |
| | -8 AN Male | 23408ERL | 23408AERL | 43408ERL | 43408AERL | 83408ERL | 83408AERL |
| | -10 AN Male | 23410ERL | 23410AERL | 43410ERL | 43410AERL | 83410ERL | 83410AERL |
| | -12 AN Male | 23412ERL | 23412AERL | 43412ERL | 43412AERL | 83412ERL | 83412AERL |
| | -16 AN Male | 23416ERL* | 23416AERL* | 43416ERL* | 43416AERL* | 83416ERL* | 83416AERL* |

* -16 special order only

SPECIAL ORDER OIL COOLERS

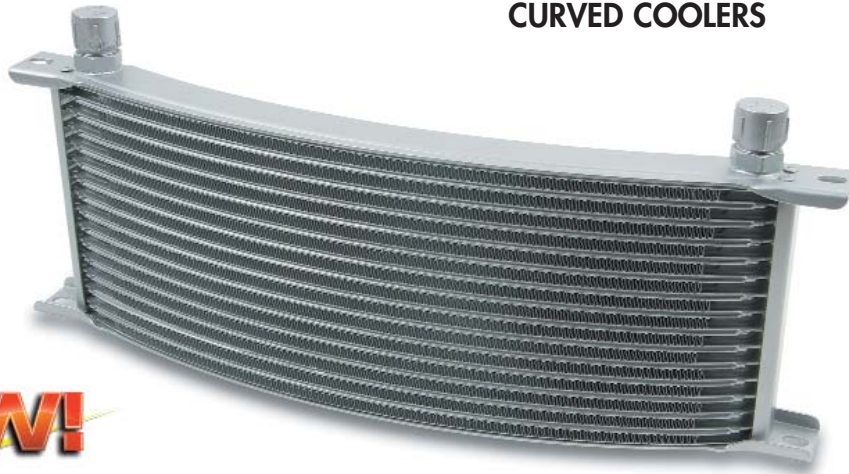
| | | | | | | |
|----------------------------|--------|--------|--------|--------|---------|---------|
| FACE WIDTH (BETWEEN TANKS) | 4" | 4" | 9" | 9" | 11" | 11" |
| FITTING CENTERS | 5-1/8" | 5-1/8" | 9-3/4" | 9-3/4" | 12-1/8" | 12-1/8" |
| BODY WIDTH | 8-1/4" | 8-1/4" | 13" | 13" | 14" | 14" |
| THICKNESS | 2" | 2" | 2" | 2" | 2" | 2" |

| ROW # & HEIGHT | FITTING SIZE | GRAY-NARROW | BLACK-NARROW | GRAY-WIDE | BLACK-WIDE | GRAY-EXTRA WIDE | BLACK-EXTRA WIDE |
|--------------------------|------------------|-------------|--------------|-----------|------------|-----------------|------------------|
| 42 Row Height 13" | Core Only | 24200ERL | 24200AERL | 44200ERL | 44200AERL | 84200ERL | 84200AERL |
| | -6 AN Male | 24206ERL | 24206AERL | 44206ERL | 44206AERL | 84206ERL | 84206AERL |
| | -8 AN Male | 24208ERL | 24208AERL | 44208ERL | 44208AERL | 84208ERL | 84208AERL |
| | -10 AN Male | 24210ERL | 24210AERL | 44210ERL | 44210AERL | 84210ERL | 84210AERL |
| | -12 AN Male | 24212ERL | 24212AERL | 44212ERL | 44212AERL | 84212ERL | 84212AERL |
| | -16 AN Male | 24216ERL | 24216AERL | 44216ERL | 44216AERL | 84216ERL | 84216AERL |
| 50 Row Height 15-1/2" | Core Only | 25000ERL | 25000AERL | 45000ERL | 45000AERL | 85000ERL | 85000AERL |
| | -6 AN Male | 25006ERL | 25006AERL | 45006ERL | 45006AERL | 85006ERL | 85006AERL |
| | -8 AN Male | 25008ERL | 25008AERL | 45008ERL | 45008AERL | 85008ERL | 85008AERL |
| | -10 AN Male | 25010ERL | 25010AERL | 45010ERL | 45010AERL | 85010ERL | 85010AERL |
| | -12 AN Male | 25012ERL | 25012AERL | 45012ERL | 45012AERL | 85012ERL | 85012AERL |
| | -16 AN Male | 25016ERL | 25016AERL | 45016ERL | 45016AERL | 85016ERL | 85016AERL |
| 60 Row Height 18-1/2" | Core Only | 26000ERL | 26000AERL | 46000ERL | 46000AERL | 86000ERL | 86000AERL |
| | -6 AN Male | 26006ERL | 26006AERL | 46006ERL | 46006AERL | 86006ERL | 86006AERL |
| | -8 AN Male | 26008ERL | 26008AERL | 46008ERL | 46008AERL | 86008ERL | 86008AERL |
| | -10 AN Male | 26010ERL | 26010AERL | 46010ERL | 46010AERL | 86010ERL | 86010AERL |
| | -12 AN Male | 26012ERL | 26012AERL | 46012ERL | 46012AERL | 86012ERL | 86012AERL |
| | -16 AN Male | 26016ERL | 26016AERL | 46016ERL | 46016AERL | 86016ERL | 86016AERL |

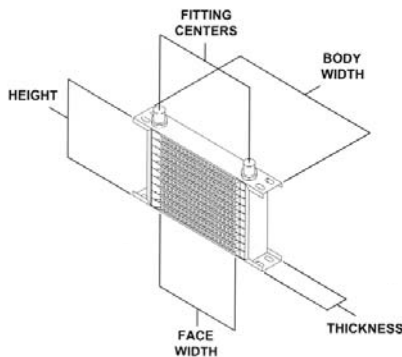
TEMP-A-CURE™ OIL COOLERS

COOLING SYSTEMS

TEMP-A-CURE™ CURVED COOLERS



NEW!



Earl's curved coolers are constructed with the same high grade aluminum and the same internal design as our standard 2" coolers, but have a curved design to fit neatly between the front forks of a motorcycle for maximum heat dissipation. The curved design allows for full wheel travel no matter where it is mounted on the forks. These coolers are only 1-1/4" thick and are available in two widths, three different heights and male -6 or -8 inlet and outlet fittings.

| FACE WIDTH (BETWEEN TANKS) | 8" | 8" | 11" | 11" |
|----------------------------|---------|---------|---------|---------|
| FITTING CENTERS | 9.05" | 9.05" | 11.618" | 11.618" |
| BODY WIDTH | 11.562" | 11.562" | 14.125" | 14.125" |
| THICKNESS | 1.25" | 1.25" | 1.25" | 1.25" |



| ROW # & HEIGHT | FITTING SIZE | GRAY-NARROW | BLACK-NARROW | GRAY-WIDE | BLACK-WIDE |
|----------------------------|--------------|-------------|--------------|-----------|------------|
| 10 Row Height 3.050 nom | -6 AN Male | 71006ERL | 71006AERL | 91006ERL | 91006AERL |
| | -8 AN Male | 71008ERL | 71008AERL | 91008ERL | 91008AERL |
| 13 Row Height 3.977 nom | -6 AN Male | 71306ERL | 71306AERL | 91306ERL | 91306AERL |
| | -8 AN Male | 71308ERL | 71308AERL | 91308ERL | 91308AERL |
| 16 Row Height 4.919 nom | -6 AN Male | 71606ERL | 71606AERL | 91606ERL | 91606AERL |
| | -8 AN Male | 71608ERL | 71608AERL | 91608ERL | 91608AERL |

SUGGESTED TOOLS:

- Two Aluminum AN Hose End Wrenches (1-1/8")
- Earl's Performance Assembly Lube

TEMP-A-CURE OIL COOLER FITTING INSTALLATION

1. Inspect oil cooler threaded boss and AN fitting for nicks or burrs in O-ring contact area that might cause O-ring failure.
2. Lubricate O-ring by coating with Earl's Performance Products Assembly Lube or light petroleum oil and install the O-ring onto the fitting. (Fig. 1)
3. Screw male AN cooler fitting into the straight female thread boss on oil cooler. (Fig. 2)
4. Using two AN wrenches, tighten AN fitting until hexagon face contacts the face of the hexagon boss on cooler as shown in picture. Always use two wrenches to tighten fitting onto cooler. Using only one wrench and cooler as leverage will cause cooler to fail. (Fig. 3)
5. Do Not Over Tighten. Tighten to just snug. The O-ring is the sealing component. This is not a pipe thread.

**NOTE: FAILURE TO FOLLOW ABOVE INSTALLATION PROCEDURES
VOIDS COOLER WARRANTY!**



OIL COOLER ADAPTERS

TEMP-A-CURE™ Coolers are manufactured with removable, interchangeable fittings that feature a contoured port side with an O-ring seal for worry free performance. You can stock your most common cooler cores and fittings, and mix and match to each customer's needs. This means you can lower your inventory, increase customer service, and increase inventory turns all at the same time!



| PART NO. | AN FTG. SIZE | PORT FTG. SIZE |
|-----------|--------------|----------------|
| 585106ERL | -6 | -10 |
| 585108ERL | -8 | -10 |
| 585110ERL | -10 | -10 |
| 585112ERL | -12 | -10 |

NOTE: Fitting instructions pg. 65

ALUMINUM MOUNTING BRACKETS

Here is the strongest, most convenient and the best method for mounting an Earl's TEMP-A-CURE™ cooler. Manufactured from a custom aluminum extrusion and then ball burnished to a high luster, this bracket securely holds the TEMP-A-CURE™ cooler preventing vibration damage. The bracket is pre-drilled for ease of mounting to any surface, and comes complete with tension rods and the proper aircraft hardware. Check the chart below and choose the kit that matches the face height (number of rows) on your cooler. With proper installation the TEMP-A-CURE™ cooler will give a long service life.

| NARROW COOLER PART NO. | WIDE COOLER PART NO. | EXTRA WIDE COOLER PART NO. | DESCRIPTION |
|------------------------|----------------------|----------------------------|--|
| 1707ERL | 1807ERL | 1607ERL | Alum. Mounting Bracket Kit 7 Row Cooler |
| 1710ERL | 1810ERL | 1610ERL | Alum. Mounting Bracket Kit 10 Row Cooler |
| 1713ERL | 1813ERL | 1613ERL | Alum. Mounting Bracket Kit 13 Row Cooler |
| 1716ERL | 1816ERL | 1616ERL | Alum. Mounting Bracket Kit 16 Row Cooler |
| 1719ERL | 1819ERL | 1619ERL | Alum. Mounting Bracket Kit 19 Row Cooler |
| 1725ERL | 1825ERL | 1625ERL | Alum. Mounting Bracket Kit 25 Row Cooler |
| 1734ERL | 1834ERL | 1634ERL | Alum. Mounting Bracket Kit 34 Row Cooler |
| 1742ERL | 1842ERL | 1642ERL | Alum. Mounting Bracket Kit 42 Row Cooler |
| 1750ERL | 1850ERL | 1650ERL | Alum. Mounting Bracket Kit 50 Row Cooler |
| 1760ERL | 1860ERL | 1660ERL | Alum. Mounting Bracket Kit 60 Row Cooler |



STEEL MOUNTING BRACKETS

The benefits of the TEMP-A-CURE design are provided in part by using very thin brazing sheet in the construction of the tubes. Occasionally, in an especially rough competition application, vibration and shock will cause a fatigue crack between the plates resulting in seepage. Improper mounting has been found to be the cause of most of these incidents of fatigue.

Earl's Research & Development Department designed a saddle mounting bracket that securely mounts any size TEMP-A-CURE cooler. We strongly recommend the use of these brackets for all Off Road applications.

| PART NO. | FACE HEIGHT |
|----------|-------------|
| 1907ERL | 2" |
| 1910ERL | 2.8" |
| 1913ERL | 3.8" |
| 1916ERL | 4.8" |
| 1919ERL | 5.6" |
| 1925ERL | 7.6" |
| 1934ERL | 10.3" |
| 1942ERL | 12.6" |
| 1950ERL | 15.2" |
| 1960ERL | 18.0" |



(Will fit all 3 widths)

UNIVERSAL MOUNTING KIT - PART NO. 1901ERL

This kit includes four special ties and four vibration isolators for mounting the cooler directly to the front of the vehicle's radiator.

OIL FILTER BY-PASS ADAPTERS

Many installations, particularly oil cooler installations, require the oil filter to be relocated. Earl's has bypass adapters for most spin-on and many bolt-on applications. They are quick and easy to install. All ports are 1/2" NPT female unless otherwise noted.

| | PART NO. | THREAD | PORT SIZE | O-RING O.D. | O-RING CROSS SECTION |
|---|---|---|-----------|--|----------------------|
|  | 1177ERL | 3/4-16 | 1/2 NPT | 2-3/4" (69.2mm) | .139 |
|  | 1178ERL | 3/4-16 | 1/2 NPT | 2-3/4" (69.2mm) | .139 |
| | TYPICAL APPLICATIONS* Most Ford, Chrysler, Toyota, Nissan & V-W vehicles with spin-on filter. Many other foreign makes. | | | | |
|  | 1277ERL | 13/16-16 | 1/2 NPT | 2-3/4" & 3-3/8" (inner 69.2mm) (outer 85mm) | .139 |
| | TYPICAL APPLICATIONS* Most General Motors and American Motors vehicles with spin-on filter | | | | |
|  | 1377ERL | Bolt on (Chevy) 1/4-20 & 5/16 -18 Bolts | 1/2 NPT | - | - |
| | TYPICAL APPLICATIONS* Chevrolet V-8 without spin-on filter. (Includes both bolt sizes and supercedes 1477). | | | | |
|  | 1577ERL | 18mm x 1.5 | 1/2 NPT | 2-3/4" (69.2mm) | .139 |
|  | 1578ERL | 18mm x 1.5 | 1/2 NPT | 2-3/4" (69.2mm) | .139 |
| | TYPICAL APPLICATIONS* Some General Motors vehicles with spin-on filter. | | | | |
|  | 1677ERL | Bolt-On (V.W.) | 3/8 NPT | - | - |
| | TYPICAL APPLICATIONS* V-W Type 1 and 2, 3/8 NPT ports | | | | |

*If you are unsure which adapter your vehicle requires or don't find your vehicle listed, please call factory for correct part number.

OIL FILTER BY-PASS ADAPTERS


| | PART NO. | THREAD | PORT SIZE | O-RING O.D. | CROSS SECTION |
|---|---|--------------|-----------|--|---------------|
|  | 1777ERL | Bolt-On (VW) | 1/4 NPT | - | - |
| | TYPICAL APPLICATIONS* VW Type 1 and 2, 1/4 NPT ports | | | | |
|  | 1877ERL | 22mm x 1.5 | 1/2 NPT | 2-3/4" (69.2mm) | .139 |
| | TYPICAL APPLICATIONS* Many Honda and Acura vehicles. Some Ford. | | | | |
|  | 1977ERL | 20mm x 1.5 | 1/2 NPT | 2-3/4" & 3-3/8" (inner 69.2mm) (outer 85mm) | .139 |
| | TYPICAL APPLICATIONS* Many Honda and Acura vehicles. Some Ford. | | | | |
|  | 1118ERL | 3/4-16 | 1/2 NPT | 2-1/2 (65mm) | .210 |
| | TYPICAL APPLICATIONS* Nissan, Toyota, Suzuki | | | | |
|  | 1119ERL | 20mm x 1.5 | 1/2 NPT | 2-1/2 (65mm) | .210 |
| | TYPICAL APPLICATIONS* Nissan, Subaru, Holden | | | | |
|  | 1120ERL | 13/16-16 | 1/2 NPT | 2-1/2 (65mm) | .210 |
| | TYPICAL APPLICATIONS* GM - small canister | | | | |
|  | 1121ERL | 22mm x 1.5 | 1/2 NPT | 2-1/2 (65mm) | .210 |
| | TYPICAL APPLICATIONS* Honda, Acura | | | | |

*If you are unsure which adapter your vehicle requires or don't find your vehicle listed, please call factory for correct part number.

COOLING SYSTEMS

REMOTE OIL FILTER MOUNTS

USE THESE TEMP-A-CURE quality oil filter mounts from Earl's to relocate your oil filter. Machined from billet or cast from lightweight aluminum, these remote mounts are especially useful in high performance vehicles where quick, easy access to an oil filter is desired.

| | DOUBLE PART NO. | CENTER THREAD | PORT SIZE |
|---|-----------------|---------------|-----------|
|  | 2377ERL | 3/4-16 | 1/2 NPT |
| USE FILTER: Fram filters PH-8 or HP-1 (or equivalent) | | | |

| | SINGLE PART NO. | CENTER THREAD | PORT SIZE |
|---|-----------------|---------------|-----------|
|  | 2178ERL | 3/4-16 | 1/2 NPT |
|  | 2177ERL | 3/4-16 | 1/2 NPT |
| USE FILTER: Fram filters PH-8 or HP-1 (or equivalent) | | | |
|  | 2277ERL | 3/4-16 | 1/2 NPT |
| USE FILTER: Fram filters PH-8 or HP-1 (or equivalent) | | | |
|  | 2477ERL | 13/16-16 | 1/2 NPT |
| USE FILTER: Fram HP-2 (or equivalent) | | | |

OIL THERMOSTAT

TO INSURE quick warm up under cold weather conditions, use our oil-stat. This uniquely designed product controls oil temperature like a thermostat controls water temperature in a radiator. The three sensor ports allow monitoring of oil temperature, flow and pressure. Designed for passenger car, marine and truck usage with Earl's TEMP-A-CURE oil coolers.

| | |
|-----------------------|------------------------------|
| PART # | 501ERL |
| Fitting Size | -10 AN Female O-Ring Seal |
| Starts to Open | 160° Fahrenheit |
| Fully Open | 180° Fahrenheit |






*See page 121 for proper inline assembly

OIL COOLER COMPONENTS

COOLING SYSTEMS




BILLET ALUMINUM SANDWICH STYLE OIL THERMOSTAT

As in our remote oil thermostat these units facilitate quick oil warm up. These units mount between the oil filter mounting boss and the oil filter itself. **Opening starts at 160° / Fully open at 180°**

| | PART NO. | CENTER PORT SIZE | PORT SIZE | O-RING O.D. | O-RING CROSS SECTION |
|--|---|------------------|--------------------------|---------------------------------------|----------------------|
|  | 502ERL | 3/4-16 | 10 AN Female O-Ring Seal | inner 2.887, outer 3.387 | .139 |
| | Typical Applications* Most Ford, Chrysler, Toyota, Nissan & V-W vehicles with spin-on filter. Many other foreign makes. | | | | |
|  | 503ERL | 13/16-16 | 10 AN Female O-Ring Seal | inner 2.887, outer 3.387 | .139 |
| | Typical Applications* Most General Motors and American Motors vehicles with spin-on filter.1 | | | | |
|  | 504ERL | 13/16-16 | 10 AN Female O-Ring Seal | inner 2.887, outer 3.387, spacer 3.77 | .139 .210 |
| | Typical Applications* Most Chevy V8 with spin on filter. All V8 through 1989 and some through 1996. 1990 and later may have metric threads. | | | | |

SANDWICH FILTER ADAPTERS

THESE UNITS allow the adaptation of an oil cooler to any engine while maintaining the stock oil filter location. These adapters add approximately 1" to the length of the filter (except 513) and have 3/8 female pipe threads.

| | PART NO. | CENTER PORT SIZE | PORT SIZE | O-RING O.D. | O-RING CROSS SECTION |
|---|--|------------------|-----------|----------------|----------------------|
|  | 509ERL | 22mm x 1.5 | 3/8 NPT | 2-3/4 (69.2mm) | .139 |
| | Typical Applications* Many Honda & Acura. Some Ford. | | | | |
|  | 510ERL | 3/4-16 | 3/8 NPT | 2-3/4 (69.2mm) | .139 |
| | Typical Applications* Most Ford, Chrysler, Toyota, Nissan & V-W vehicles with spin-on filters. Many other foreign makes. | | | | |
|  | 511ERL | 18mm x 1.5 | 3/8 NPT | 2-3/4 (69.2mm) | .139 |
| | Typical Applications* Some General Motors vehicles with spin on filter. | | | | |

COOLING SYSTEMS

SANDWICH FILTER ADAPTERS

| | PART NO. | CENTER PORT SIZE | PORT SIZE | O-RING O.D. | O-RING CROSS SECTION |
|---|---|------------------|-----------|--|----------------------|
|  | 512ERL | 13/16-16 | 3/8 NPT | 2-3/4 & 3-3/8 (inner 69.2mm) (outer 85mm) | .139 |
| | Typical Applications* Most General Motors and American Motors vehicles with spin-on filter, except Chevy V8 | | | | |
|  | 513ERL | 13/16-16 (Chevy) | 3/8 NPT | 3-3/8 (85mm) | .139 |
| | Typical Applications* Most General Motors and American Motors vehicles with spin-on filter, except Chevy V8 | | | | |
|  | 514ERL | 20mm x 1.5 | 3/8 NPT | 2-3/4 & 3-3/8 (inner 69.2mm) (outer 85mm) | .139 |
| | Typical Applications* Many Honda and Acura vehicles. Some Ford. | | | | |
|  | 515ERL | 18mm x 1.5 | 3/8 NPT | 2-1/2 (65mm) | .210 |
| | Typical Applications* GM | | | | |
|  | 516ERL | 3/4-16 | 3/8 NPT | 2-1/2 (65mm) | .210 |
| | Typical Applications* Toyota, VW, Suzuki, Nissan | | | | |
|  | 517ERL | 20mm x 1.5 | 3/8 NPT | 2-1/2 (65mm) | .210 |
| | Typical Applications* Honda, Acura, Nissan, Mazda, Subaru, Hyundai, KIA, Holden | | | | |
|  | 518ERL | 13/16-16 | 3/8 NPT | 2-1/2 (65mm) | .210 |
| | Typical Applications* GM | | | | |
|  | 519ERL | 22mm x 1.5 | 3/8 NPT | 2-1/2 (65mm) | .210 |
| | Typical Applications* Honda, Acura, some Ford | | | | |

HYDRAULIC SYSTEMS

Standard automotive flexible brake hoses are manufactured from synthetic rubber and reinforced with multiple layers of fabric braid. They were designed and developed for use with drum brake systems. When disc brakes were developed for racing cars, line pressure requirements increased considerably. With the larger and heavier cars, like Ford's GT-40s, enough of the available brake pedal travel was used up in expanding the flexible brake hoses so that there was insufficient pedal travel left for safe braking.



In the mid-1960s, Earl's pioneered the use of armored flex hose of extruded teflon to solve this problem. The stiffness of the teflon liner combined with the tightly woven high tensile stainless steel outer braid solved the pedal travel problem. By eliminating the line swell it also dramatically increased the firmness and feel of the brake pedal which allowed the drivers to modulate the brakes more efficiently. Improved abrasion resistance and increased temperature capacity are secondary advantages.

Since brake actuation produces high pressure with very little fluid displacement, we recommend -2 & -3 SPEED-FLEX™ for brake systems. Clutch actuation, on the other hand, requires moderate pressure but considerable displacement of fluid. For hydraulic clutch systems we recommend the use of -4 SPEED-FLEX™.

FUEL & LUBRICATION SYSTEMS

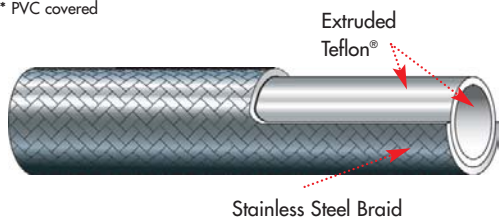
In recent years various fuel manufacturers have added any number of new unpublished additives to their blends rendering some of them incompatible with synthetic rubber lined hose. Earl's Speed-Flex™ Teflon™ lined stainless braided hose is impervious to any automotive fuel blend known to us and may be the best choice for use with modern racing gasolines. All SPEED-FLEX™ hoses are compatible with gasoline, hydrocarbon fuels, alcohols, nitro-methane, mineral and synthetic lubricants, and high density fuel additives. Size 6 and 8 are carbon lined to dissipate static electricity.

Some caution is necessary in the selection of armored Teflon™ hose. The teflon liner is manufactured in two wall thicknesses, commercial (.030") and aircraft specification (.040"), Earl's uses the thicker and stronger wall. There are also hoses in the marketplace manufactured in such a manner that the stainless braid is loose on the teflon liner. These hoses offer good pressure capacity but limited expansion resistance. **Earl's SPEED-FLEX™ hose is the standard of the industry.**

| Hose Size AN | Hose I.D. (in) | Hose I.D. (mm) | Hose O.D. (in) | Hose O.D. (mm) | Max. Op. Press. (PSI)* | Max. Op. Press. (Bar)* | Min. Bend Radius (in) | Min. Bend Radius (mm) | Bulk P/N | 3ft./0.9M P/N | 6ft./1.8M P/N | 10ft./3.0M P/N | 20ft./6.1M P/N | 33ft./10.1M P/N |
|--------------|----------------|----------------|----------------|----------------|------------------------|------------------------|-----------------------|-----------------------|------------|---------------|---------------|----------------|----------------|-----------------|
| -2 | 0.08 | 2.03 | 0.2 | 5.08 | 2000 | 137.86 | 1.5 | 38.1 | 600002ERL | 603002ERL | 606002ERL | 610002ERL | 620002ERL | 633002ERL |
| -3 | 0.13 | 3.30 | 0.25 | 6.35 | 2000 | 137.86 | 1.5 | 38.1 | 600003ERL | 603003ERL | 606003ERL | 610003ERL | 620003ERL | 633003ERL |
| -3**clear | 0.13 | 3.30 | 0.29 | 7.73 | 2000 | 137.86 | 1.5 | 38.1 | 6000031ERL | 6030031ERL | 6060031ERL | 6100031ERL | 6200031ERL | 6330031ERL |
| -3**smoke | 0.13 | 3.30 | 0.29 | 7.73 | 2000 | 137.86 | 1.5 | 38.1 | 6000032ERL | 6030032ERL | 6060032ERL | 6100032ERL | 6200032ERL | 6330032ERL |
| -4 | 0.19 | 4.83 | 0.44 | 11.18 | 2000 | 137.86 | 1.5 | 38.1 | 600004ERL | 603004ERL | 606004ERL | 610004ERL | 620004ERL | 633004ERL |
| -6* | 0.34 | 8.64 | 0.55 | 13.97 | 1500 | 103.40 | 4 | 101.6 | 600006ERL | 603006ERL | 606006ERL | 610006ERL | 620006ERL | 633006ERL |
| -8* | 0.56 | 14.22 | 0.65 | 16.51 | 1000 | 68.93 | 5 | 127 | 600008ERL | 603008ERL | 606008ERL | 610008ERL | 620008ERL | 633008ERL |

* Carbon lined for static dissipation.

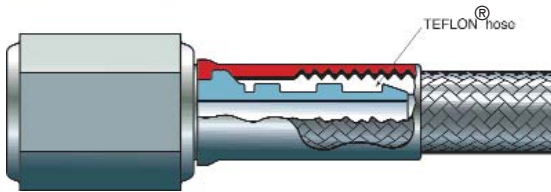
** PVC covered



When considering the replacement of stock rubber brake hoses with stainless braid-protected hose of extruded Teflon® you should consider the following facts:

Speed-Flex hose is intended for use with Speed-Seal hose ends only. No other Earl's hose end is intended for use with Speed-Flex hose. The use of other manufacturers hose ends is not recommended. The use of stainless braid protected teflon brake hose assemblies will result in a firmer brake pedal, improved brake pedal "feel" and better brake modulation. These hoses will not necessarily provide longer hose life or any other advantage. We have independent test lab reports on file showing that prototype assemblies exceeded D.O.T. recommendations in all categories. The only continuing test program however, is a 4000 P.S.I. hydrostatic pressure test of every assembly that we make. We do not claim that any individual hose assembly is certifiable to D.O.T. standards and we therefore must advise you that they are sold to be used on off-road applications only. We make no claim of useability or suitability for highway or road use. Teflon brake hoses must be installed by an experienced professional mechanic. After installation each hose must be both clean and free flowing. There must be no possibility that the installed hose assemblies can stretch, crimp or kink under any conditions of wheel travel and steering angle. As with any hose installation, periodic inspection of hose condition is essential.

BRAKE SYSTEMS



CONSTRUCTION: These factory assembled hoses are made from the same SPEED-FLEX™ stainless steel braid protected hose of extruded teflon that is the world wide standard of the racing industry for flexible brake, clutch and instrument hoses. Hoses are assembled with Earl's SPEED-FLEX™ crimp and/or swaged permanently installed hose ends. Each hose is pressure tested to 4,000 psi.

MAXIMUM OPERATING PRESSURE: 2,000 psi.












APPLICATION:

- Medium pressure hydraulic systems
- Flexible brake and clutch hoses
- Instrument hoses (most racing sanctioning bodies forbid the use of unarmored hoses in the cockpit area)
- Available in many configurations in lengths from 6" to 72"

Refer to the adapter section for adapter fittings, banjo bolts and plumbing accessories section for crush washers for use with these hoses.

*Teflon is a Du Pont trademark.

TEFLON® LINED HYDRAULIC MEDIUM PRESSURE HOSE ASSEMBLIES - OFF-ROAD/RACING

| | | |
|--|---|---|
|  <p>630101__ERL -3 AN female swivel both ends size 3 hose</p> |  <p>See adapter section for banjo bolts 630202__ERL -10mm/3/8" banjo**(.425 thick) both ends size 3 hose</p> |  <p>See adapter section for banjo bolts 631616__ERL 7/16" banjo to 7/16" banjo (.425 thick) size 3 hose</p> |
|  <p>See adapter section for banjo bolts 630102__ERL -3 AN female swivel to 10mm/3/8" Banjo** (.425 thick) size 3 hose</p> |  <p>630405__ERL 3/16" tube inverted flare (3/8-24) female to 3/16" inverted flare (3/8-24) male size 3 hose</p> |  <p>641919__ERL -4 AN female swivel both ends size 4 hose</p> |
|  <p>See adapter section for banjo bolts 630116__ERL -3 AN female swivel to 7/16" Banjo (.425 thick) size 3 hose</p> |  <p>630707__ERL 10mm x 1 female to 10mm x 1 female size 3 hose</p> |  <p>641515__ERL 1/8" NPT male both ends size 4 hose</p> |
|  <p>630117__ERL -3 AN female swivel straight to -3 female swivel 90° size 3 hose</p> |  <p>630710__ERL 10mm x 1 female to 10mm x male size 3 hose</p> | <p>**For use with 10mm or 3/8-24 UNF Banjo Bolts.</p> <p>__ERL = Hose length in inches</p> |



When considering the replacement of stock rubber brake hoses with stainless braid-protected hose of extruded teflon you should consider the following facts:

The use of stainless braid protected teflon brake hose assemblies will result in a firmer brake pedal, improved brake pedal "feel" and better brake modulation. These hoses will not necessarily provide longer hose life or any other advantage. We have independent test lab reports on file showing that prototype assemblies exceeded D.O.T. recommendations in all categories. The only continuing test program however, is a 4000 P.S.I. hydrostatic pressure test of every assembly that we make. We do not claim that any individual hose assembly is certifiable to D.O.T. standards and we therefore must advise you that they are sold to be used on off-road applications only. We make no claim of useability or suitability for highway or road use. Teflon brake hoses must be installed by an experienced professional mechanic. After installation each hose must be both clean and free flowing. There must be no possibility that the installed hose assemblies can stretch, crimp or kink under any conditions of wheel travel and steering angle. As with any hose installation, periodic inspection of hose condition is essential.

SPEED-SEAL™ HOSE ENDS

SPEED-SEAL™ hose ends are available in stainless steel, steel and anodized aluminum, in both low profile and bent tube construction and in adjustable and non-adjustable configurations. For use with SPEED-FLEX™ Smooth Bore Teflon™ Hose



| HOSE SIZE | NUT SIZE | STAINLESS PART # |
|-----------|----------|------------------|
| -2 | 2 | 6001902ERL |
| -2 | 3 | 6001923ERL |



| HOSE SIZE | NUT SIZE | STAINLESS PART # |
|-----------|----------|------------------|
| -2 | 2 | 6045902ERL |
| -2 | 3 | 6045923ERL |



| HOSE SIZE | NUT SIZE | STAINLESS PART # |
|-----------|----------|------------------|
| -2 | 2 | 6090902ERL |
| -2 | 3 | 6090923ERL |

STRAIGHT FITTINGS



| HOSE SIZE | NUT SIZE | ALUMINUM PART # |
|-----------|----------|-----------------|
| -3 | 3 | 600133ERL |
| -3 | 4 | - |
| -4 | 4 | 600134ERL |
| -6 | 6 | 600136ERL |
| -8 | 8 | 600138ERL |



| HOSE SIZE | NUT SIZE | STEEL PART # |
|-----------|----------|--------------|
| -3 | 3 | 600103ERL |
| -3 | 4 | 600143ERL |
| -4 | 4 | 600104ERL |
| -6 | 6 | 600106ERL |
| -8 | 8 | - |



| HOSE SIZE | NUT SIZE | STAINLESS PART # |
|-----------|----------|------------------|
| -3 | 3 | 600193ERL |
| -3 | 4 | - |
| -4 | 4 | 600194ERL |
| -6 | 6 | 600196ERL |
| -8 | 8 | - |

NON-ADJUSTABLE LOW PROFILE 45°



| HOSE SIZE | NUT SIZE | STEEL PART # |
|-----------|----------|--------------|
| -3 | 3 | 604403ERL |
| -4 | 4 | 604404ERL |



| HOSE SIZE | NUT SIZE | STAINLESS PART # |
|-----------|----------|------------------|
| -3 | 3 | 604493ERL |
| -4 | 4 | 604494ERL |

ADJUSTABLE LOW PROFILE 45°



| HOSE SIZE | NUT SIZE | ALUMINUM PART # |
|-----------|----------|-----------------|
| -3 | 3 | 604533ERL |
| -4 | 4 | 604534ERL |
| -6 | 6 | 604536ERL |
| -8 | 8 | 604538ERL |



| HOSE SIZE | NUT SIZE | STEEL PART # |
|-----------|----------|--------------|
| -3 | 3 | 604503ERL |
| -4 | 4 | 604504ERL |
| -6 | 6 | 604506ERL |
| -8 | 8 | - |



| HOSE SIZE | NUT SIZE | STAINLESS PART # |
|-----------|----------|------------------|
| -3 | 3 | 604593ERL |
| -4 | 4 | 604594ERL |
| -6 | 6 | 604596ERL |
| -8 | 8 | - |

NON-ADJUSTABLE TUBE 45°



| HOSE SIZE | NUT SIZE | ALUMINUM PART # |
|-----------|----------|-----------------|
| -3 | 3 | 604633ERL |
| -4 | 4 | 604634ERL |



| HOSE SIZE | NUT SIZE | STEEL PART # |
|-----------|----------|--------------|
| -3 | 3 | 604603ERL |
| -4 | 4 | 604604ERL |



| HOSE SIZE | NUT SIZE | STAINLESS PART # |
|-----------|----------|------------------|
| -3 | 3 | 604693ERL |
| -4 | 4 | 604694ERL |

SPEED-SEAL™ HOSE ENDS

For use with SPEED-FLEX™ Smooth Bore Teflon™ Hose

ADJUSTABLE TUBE 45°



| HOSE SIZE | NUT SIZE | ALUMINUM | STEEL | STAINLESS |
|--------------|-------------|-----------|-----------|-----------|
| | | PART # | PART # | PART # |
| -3 | 3 | 604733ERL | 604703ERL | 604793ERL |
| -4 | 4 | 604734ERL | 604704ERL | 604794ERL |
| -6 | 6 | 604736ERL | 604706ERL | 604796ERL |
| -8 | 8 | 604738ERL | - | - |

NON-ADJUSTABLE LOW PROFILE 90°



| HOSE SIZE | NUT SIZE | STEEL | STAINLESS |
|--------------|-------------|-----------|-----------|
| | | PART # | PART # |
| -3 | 3 | 608903ERL | 608993ERL |
| -4 | 4 | 608904ERL | 608994ERL |

ADJUSTABLE LOW PROFILE 90°



| HOSE SIZE | NUT SIZE | ALUMINUM | STEEL | STAINLESS |
|--------------|-------------|-----------|-----------|-----------|
| | | PART # | PART # | PART # |
| -3 | 3 | 609033ERL | 609003ERL | 609093ERL |
| -4 | 4 | 609034ERL | 609004ERL | 609094ERL |
| -6 | 6 | 609036ERL | 609006ERL | 609096ERL |
| -8 | 8 | 609038ERL | - | - |

NON-ADJUSTABLE TUBE 90°



| HOSE SIZE | NUT SIZE | ALUMINUM | STEEL | STAINLESS |
|--------------|-------------|-----------|-----------|-----------|
| | | PART # | PART # | PART # |
| -3 | 3 | 609133ERL | 609103ERL | 609193ERL |
| -4 | 4 | 609134ERL | 609104ERL | 609194ERL |

ADJUSTABLE TUBE 90°



| HOSE SIZE | NUT SIZE | ALUMINUM | STEEL | STAINLESS |
|--------------|-------------|-----------|-----------|-----------|
| | | PART # | PART # | PART # |
| -3 | 3 | 609233ERL | 609203ERL | 609293ERL |
| -4 | 4 | 609234ERL | 609204ERL | 609294ERL |
| -6 | 6 | 609236ERL | 609206ERL | 609296ERL |
| -8 | 8 | 609238ERL | - | - |

SPEED SEAL™ HOSE ENDS

For use with SPEED-FLEX™ Smooth Bore Teflon™ Hose

ADJUSTABLE TUBE 120°



| HOSE SIZE | NUT SIZE | ALUMINUM | STEEL | STAINLESS |
|--------------|-------------|-----------|-----------|-----------|
| | | PART # | PART # | PART # |
| -3 | 3 | 612133ERL | 612103ERL | 612193ERL |
| -4 | 4 | 612134ERL | 612104ERL | 612194ERL |
| -6 | 6 | 612136ERL | 612106ERL | 612196ERL |
| -8 | 8 | 612138ERL | - | - |

ADJUSTABLE TUBE 180°



| HOSE SIZE | NUT SIZE | ALUMINUM | STEEL | STAINLESS |
|--------------|-------------|-----------|-----------|-----------|
| | | PART # | PART # | PART # |
| -3 | 3 | 618133ERL | 618103ERL | 618193ERL |
| -4 | 4 | 618134ERL | 618104ERL | 618194ERL |
| -6 | 6 | 618136ERL | 618106ERL | 618196ERL |
| -8 | 8 | 618138ERL | - | - |

ALUMINUM SPEED-SEAL: EARL'S ALUMINUM SPEED-SEAL HOSE ENDS ARE NOT RECOMMENDED FOR USE ON AUTOMOTIVE BRAKE SYSTEMS. AVOIDANCE OF OVER TORQUING IS ESPECIALLY IMPORTANT WITH ALUMINUM SOCKETS.



TO REDUCE brake line swell under extreme pressure and consequent loss of pedal travel and firmness, stainless braid protected hose of extruded teflon® (Earl's SPEED-FLEX) is used throughout the racing industry as flexible brake and clutch hoses. Earl's proven record of reliability and unmatched range of configurations has made SPEED-SEAL reusable hose ends the choice of professional race teams world wide. Since brake system hose ends are often subject to fatigue from extreme vibration, Earl's adjustable SPEED-SEAL -3 forged hose ends feature an 80% greater wall thickness than those of our competitors. In recent years various fuel manufacturers have added any number of new unpublished additives to their blends rendering some of them incompatible with synthetic rubber lined hose. Earl's Speed-Flex teflon lined stainless braided hose is impervious to any automotive fuel blend known to us and may be the best choice for use with modern racing gasolines. All SPEED-FLEX hoses are compatible with gasoline,

hydrocarbon fuels, alcohols, nitro-methane, mineral and synthetic lubricants, and high density fuel additives. Not recommended for use with any other manufacturers hose. (Not for use with any other Earl's hose.) Some caution is necessary in the selection of armored teflon hose. The teflon® liner is manufactured in two wall thicknesses, commercial (.030") and aircraft specifications (.040"), Earl's uses the thicker and stronger wall. There are also hoses in the marketplace manufactured in such a manner that the stainless braid is loose on the teflon liner. These hoses offer good pressure capacity but limited expansion resistance.

SPEED-SEAL hose ends are available in stainless steel, steel and anodized aluminum, in both low profile and bent tube construction and in adjustable and non-adjustable configurations.



The high performance plumbing industry offers two wall thicknesses in stainless braid protected extruded teflon hose—Earl's utilizes the thicker and stronger .040 wall thickness. This means that Earl's SPEED-SEAL hose ends are not compatible with thin walled hose from other sources.

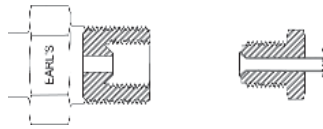
In order to adjust the radial positioning of Earl's adjustable SPEED-SEAL hose ends, first loosen the swivel nut approximately 1/2 turn. Adjust the hose end and then retighten the swivel nut. Do not attempt to adjust the hose end without loosening the swivel nut.

*Teflon is a Du Pont trademark.

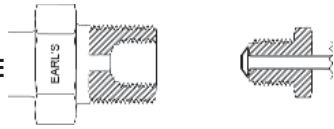
SPEED-SEAL™ HOSE ENDS

BRAKE SYSTEMS












CONVEX INVERTED FLARE



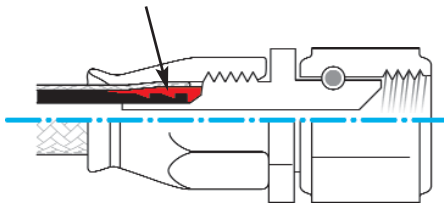
CONCAVE



For use with SPEED-FLEX™ Smooth Bore Teflon™ Hose

| | PART NO. | HOSE SIZE | THREAD SIZE | | PKG NO. | HOSE SIZE | THREAD SIZE |
|---|-----------|-----------|----------------------------|--|-----------|-----------|--------------------------------|
|  | 640103ERL | 3 | Male 3/8-24 I.F. |  | 640703ERL | 3 | Female 10mm x1.25 Convex (IF) |
|  | 640203ERL | 3 | -3 AN Male Bulkhead |  | 640803ERL | 3 | Male 10mm x1 Long Concave |
|  | 640303ERL | 3 | Male 10mm x1 Convex (IF) |  | 640903ERL | 3 | Female 10mm x1 Convex (Honda) |
|  | 640403ERL | 3 | Male 10mm x1.25 Concave |  | 641003ERL | 3 | Female 10mm x1 Convex (Toyota) |
|  | 640503ERL | 3 | Female 3/8-24 Convex (IF) |  | 641103ERL | 3 | Female 10mm x1 Concave |
|  | 640603ERL | 3 | Female 10mm x1 Convex (IF) | | | | |

REPLACEMENT OLIVES FOR SPEED-SEAL™ SMOOTH BORE TEFLON™ HOSE ENDS



NOTE: Olives for .040 wall hose only



| Size | Brass Part No. | Alum. Part No. | Stainless Part No. |
|------|----------------|----------------|--------------------|
| -2 | 699020ERL | — | 699029ERL |
| -3 | 699030ERL | 699033ERL | 699039ERL |
| -4 | 699040ERL | 699043ERL | 699049ERL |
| -6 | 699060ERL | 699063ERL | 699069ERL |
| -8 | - | 699083ERL | - |

SPEED-SEAL™ HOSE ENDS

BANJOS

STRAIGHT NON-ADJUSTABLE SHORT



| HOSE SIZE | BANJO BOLT DIA. | .425" ALUMINUM | | .425" STEEL | | .425" STAINLESS | |
|--------------|--------------------|----------------|--------|-------------|-----------|-----------------|---|
| | | PART # | PART # | PART # | PART # | | |
| -3 | 3/8" or 10mm | 600333ERL | - | 600303ERL | 600343ERL | 600393ERL | - |
| -3 | 7/16" | - | - | 600341ERL | - | - | - |
| -4 | 3/8" or 10mm | - | - | 600304ERL | - | - | - |
| -4 | 7/16" | - | - | - | - | - | - |

STRAIGHT NON-ADJUSTABLE LONG



| HOSE SIZE | BANJO BOLT DIA. | .425" ALUMINUM | | .425" STEEL | | .425" STAINLESS | |
|--------------|--------------------|----------------|--------|-------------|-----------|-----------------|---|
| | | PART # | PART # | PART # | PART # | | |
| -3 | 3/8" or 10mm | 600733ERL | - | 600703ERL | 600743ERL | 600793ERL | - |
| -3 | 7/16" | - | - | - | - | - | - |

STRAIGHT ADJUSTABLE LONG



| HOSE SIZE | BANJO BOLT DIA. | .425" ALUMINUM | | .425" STEEL | | .425" STAINLESS | |
|--------------|--------------------|----------------|--------|-------------|--------|-----------------|---|
| | | PART # | PART # | PART # | PART # | | |
| -3 | 3/8" or 10mm | 600433ERL | - | 600403ERL | - | 600493ERL | - |

20° BENT NON-ADJUSTABLE LONG



| HOSE SIZE | BANJO BOLT DIA. | .425" ALUMINUM | | .425" STEEL | | .425" STAINLESS | |
|--------------|--------------------|----------------|--------|-------------|-----------|-----------------|---|
| | | PART # | PART # | PART # | PART # | | |
| -3 | 3/8" or 10mm | 600933ERL | - | 600903ERL | 600943ERL | 600993ERL | - |
| -3 | 7/16" | - | - | - | - | - | - |

30° BENT NON-ADJUSTABLE LONG



| HOSE SIZE | BANJO BOLT DIA. | .425" ALUMINUM | | .425" STEEL | | .425" STAINLESS | |
|--------------|--------------------|----------------|--------|-------------|-----------|-----------------|---|
| | | PART # | PART # | PART # | PART # | | |
| -3 | 3/8" or 10mm | 600833ERL | - | 600803ERL | 600843ERL | 600893ERL | - |
| -3 | 7/16" | - | - | - | - | - | - |

BANJOS

30° BENT ADJUSTABLE LONG

| HOSE SIZE | BANJO BOLT DIA. | .425" ALUMINUM PART # | .425" STEEL PART # | .425" STAINLESS PART # |
|-----------|-----------------|-----------------------|--------------------|------------------------|
| -3 | 3/8" or 10mm | 600533ERL | 600503ERL | 600593ERL |

45° BENT NON-ADJUSTABLE LONG

| HOSE SIZE | BANJO BOLT DIA. | .425" ALUMINUM PART # | .425" STEEL PART # | .425" STAINLESS PART # |
|-----------|-----------------|-----------------------|--------------------|------------------------|
| -3 | 3/8" or 10mm | 601633ERL | 601603ERL | 601693ERL |

90° BENT NON-ADJUSTABLE LONG

| HOSE SIZE | BANJO BOLT DIA. | .425" ALUMINUM PART # | .425" STEEL PART # | .425" STAINLESS PART # |
|-----------|-----------------|-----------------------|--------------------|------------------------|
| -3 | 3/8" or 10mm | 601533ERL | 601503ERL | 601593ERL |

20° BENT SIDE BENT NON-ADJUSTABLE

| HOSE SIZE | BANJO BOLT DIA. | .425" ALUMINUM PART # | .425" STEEL PART # | .425" STAINLESS PART # |
|-----------|-----------------|-----------------------|--------------------|------------------------|
| -3 | 3/8" or 10mm | 601133ERL | 601103ERL | 601193ERL |

20° BENT SIDE BENT ADJUSTABLE

| HOSE SIZE | BANJO BOLT DIA. | .425" ALUMINUM PART # | .425" STEEL PART # | .425" STAINLESS PART # |
|-----------|-----------------|-----------------------|--------------------|------------------------|
| -3 | 3/8" or 10mm | 601233ERL | 601203ERL | 601293ERL |

SPEED-SEAL™ HOSE ENDS

BANJOS AND TEES

**8MM
STRAIGHT
NON-ADJ.
LONG**



| PART NO. | HOSE SIZE | HEIGHT/MATERIAL | BANJO BOLT DIAMETER |
|-----------|-----------|-----------------|---------------------|
| 601703ERL | -3 | 8mm/Steel | 3/8" or 10mm |

**8MM
30° BENT
NON-ADJ.
LONG**



| PART NO. | HOSE SIZE | HEIGHT/MATERIAL | BANJO BOLT DIAMETER |
|-----------|-----------|-----------------|---------------------|
| 601803ERL | -3 | 8mm/Steel | 3/8" or 10mm |



| HOSE SIZE | MOUNT BOLT DIA. | ALUMINUM | STEEL | STAINLESS |
|-----------|-----------------|------------|------------|------------|
| -3 | #10 or 3/16" | 6453533ERL | 6453503ERL | 6453593ERL |



| HOSE SIZE | MOUNT BOLT DIA. | ALUMINUM | STEEL | STAINLESS |
|-----------|-----------------|------------|------------|------------|
| | | PART # | PART # | PART # |
| -3 | 3/8" or 10mm | 6453233ERL | 6453203ERL | 6453293ERL |



| HOSE SIZE | MOUNT BOLT DIA. | ALUMINUM | STEEL | STAINLESS |
|-----------|-----------------|------------|------------|------------|
| | | PART # | PART # | PART # |
| -3 | 3/8" or 10mm | 6453033ERL | 6453003ERL | 6453093ERL |

NOTE: As listed Earl's offers many configurations of adjustable and non-adjustable Banjo hose ends in both the U.S. .425" and the U.K. and European 8mm heights. It is important to use the correct Banjo bolts for each height.

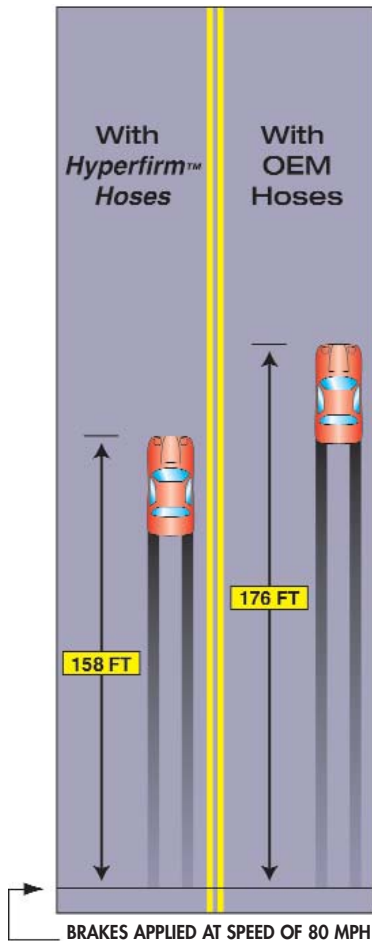


Aluminum SPEED-SEAL:
Earl's aluminum SPEED-SEAL hose ends are not recommended for use on automotive brake systems. Avoidance of over torquing is especially important with aluminum sockets.

HYPERFIRM™ BRAKE LINE KITS

BRAKE SYSTEMS

AVERAGE STOPPING DISTANCE



This illustration represents the results of our initial comparison testing. The vehicle used was a 1996 Toyota Supra, equipped with anti-lock brakes. Professional drivers were used on a closed course.



HYPERFIRM® brake hoses not only meet all D.O.T., T.U.V and J.W.A. standards and specifications for flexible brake hoses, including SAE J 1401 (Jan 81) and FMVSS 106-74-38 FR31302 1973. They are individually inspected and tested before shipment. Batch testing, the industry standard, is not acceptable at Earl's. Each individual hose assembly is pressure tested at 4000 psi after manufacture.

Serious race car owners have used flexible brake hoses of extruded Teflon™ for decades. They are protected against abrasion and swelling by a sheath of tightly braided stainless steel wire. The resistance to "line swell" both improves the firmness or "feel" of the brake pedal and reduces the time required for effective pressure to reach the brakes and begin to slow the car.

Equally important in street vehicles, improvement in pedal firmness and feel make brake modulation easier and more efficient—right up to the time that the anti-lock brake system is actuated. The familiar brake pedal "thump" of anti-lock brake systems is significantly reduced. The decreased system reaction time reduces stopping distance in emergency situations—as much as 18 feet at 80 miles per hour.

The Teflon™/stainless steel brake hoses have not been available for legal use on street driven vehicles until recently. All safety-related components on street vehicles must meet stringent requirements and tests set forth by the National Highway Traffic Safety Administration of the U.S. Department of Transportation. The most demanding test for brake hoses is the "whip test," designed to simulate the continuous flexing of the hoses during suspension and steering movement. Until Earl's developed and patented their exclusive "whip dampener," Teflon™/stainless steel hoses were not able to pass this extremely rigorous test.

The D.O.T. does not "approve" any products. It calls out specifications and test procedures that the components must meet. The manufacturers then self-certify that they are in compliance. The D.O.T. may randomly require that components be tested by an independent certified laboratory selected by the D.O.T.

CERTAIN HYPER FIRM BRAKE HOSE ASSEMBLIES ARE COVERED BY US PATENT NO. 5,908,090.

HYPERFIRM™ BRAKE LINE KITS

BRAKE SYSTEMS

ACURA

| | | | |
|----------------|-------|-----|-----------|
| Integra | 94 | All | 28J020ERL |
| Integra | 90-93 | All | 28J010ERL |
| CL 2.2/2.3/3.2 | 97-99 | All | 28L250ERL |
| CL 3.0 | 97 | All | 28L300ERL |
| NSX | 91-96 | All | 28J030ERL |

AUDI

| | | | |
|------------------|-------|------------------------|-----------|
| 4000S | 83-85 | 4 whl Disc,exc.Quattro | 28M050ERL |
| Coupe | 86-87 | 4 whl Disc | 28M050ERL |
| 80, exc. Quattro | 88-89 | 4 whl Disc | 28M070ERL |
| 90, exc. Quattro | 88-89 | 4 whl Disc | 28M070ERL |

BUICK

| | | | |
|------------------|-------|------------|-----------|
| Century, Regal, | 77 | All | 28A100ERL |
| Skylark | 79 | | 28A110ERL |
| Skylark | 77-78 | | 28A100ERL |
| Skylark/Special, | 69-72 | 4w drum | 28A470ERL |
| Skylark/Special, | 69-72 | front disc | 28A480ERL |

CHEVROLET

| | | | |
|-------------|-------|----------------------------|-----------|
| Camaro | 98-99 | 4 Wheel Disc | 28A460ERL |
| Camaro | 93-97 | Front discs | 28A020ERL |
| Camaro | 93-97 | 4-wh. discs | 28A030ERL |
| Camaro | 85-92 | Perform. Pkg. 4-wh. discs | 28A190ERL |
| Camaro | 84-92 | Front discs | 28A180ERL |
| Camaro | 85-88 | 4-wh. discs,Excl Hi Perf. | 28A520ERL |
| Camaro | 84 | 4-wh. discs | 28A510ERL |
| Camaro | 82-83 | Front discs | 28A090ERL |
| Camaro | 79-81 | Front discs | 28A110ERL |
| Camaro | 77-78 | Front discs, excl Hi Perf. | 28A100ERL |
| Camaro | 74-76 | Front discs | 28A170ERL |
| Camaro | 72-73 | Front discs | 28A200ERL |
| Camaro | 70-71 | Front discs | 28A210ERL |
| Camaro | 69 | All drums | 28A150ERL |
| Camaro | 69 | Front discs | 28A160ERL |
| Camaro | 68 | Front discs | 28A220ERL |
| Camaro | 68 | 4 Wheel Drum | 28A450ERL |
| Camaro | 67 | All drums | 28A120ERL |
| Camaro | 67 | Front discs | 28A130ERL |
| Chevelle | 68-72 | 4w drum | 28A470ERL |
| Chevelle | 68-72 | front disc | 28A480ERL |
| Corvette | 97-98 | All | 28A040ERL |
| Corvette, | 93-96 | All | 28A010ERL |
| Corvette | 88-92 | All | 28A050ERL |
| Corvette | 84-87 | All | 28A080ERL |
| Corvette | 84-87 | All | 28A080ERL |
| Corvette | 63-66 | exc HD Susp | 28A070ERL |
| Corvette | 53-62 | All | 28A060ERL |
| El Camino | 77 | All | 28A100ERL |
| Impala SS | 94-96 | 4-wh. discs | 28A140ERL |
| Malibu | 77 | All | 28A100ERL |
| Monte Carlo | 77 | All | 28A100ERL |
| Monte Carlo | 70-72 | All | 28A480ERL |
| Nova | 77-78 | All | 28A100ERL |
| Nova | 79 | All | 28A110ERL |
| Nova | 70-72 | 4 Wheel Drums | 28A150ERL |
| Nova | 70-72 | Front Discs | 28A160ERL |

CHEVROLET & GMC TRUCKS

| | | | |
|--------------------|------------|------------------------------|-----------|
| Pick up C-1500 | 88-98 | 4x2 excl Diesel | 28A230ERL |
| Pick up C-10/R-10 | 81-87 | 4x2,4900-560 GVW,excl Diesel | 28A240ERL |
| Pick up C-10/R-10 | 81-87 | 4x2, Diesel and HD opt. | 28A250ERL |
| Pick up C-10 | 79-80 | 4x2, all; | 28A250ERL |
| Pick up C-2500 | 92-99 | 4x2, 7200 GVW | 28A390ERL |
| Pick up C-2500 | 89-92 | 4x2, 8600 GVW | 28A390ERL |
| Pick up C-20/R-20 | 81, 83-88 | 4x2, up to 7200 GVW | 28A250ERL |
| Pick up C-3500 | 90-91 | 4x2, w/single rear wheels, | 28A390ERL |
| Pick up C-3500 | 88-89 | 4x2, all | 28A390ERL |
| Pick up C-30 | 81-86 | 4x2, all; | 28A400ERL |
| Pick up C-30 | 74-80 | 4x2, HD opt.,9000-10000 GVW | 28A400ERL |
| Pick up K-1500 | 88-98 | 4x4; | 28A260ERL |
| Pick up K-10/V10 | 81-87 | 4x4; | 28A270ERL |
| Pick up K-10 | 79-80 | 4x4, up to 6800GVW | 28A280ERL |
| Pick up K-2500 | 88-98 | 4x4, excl. 89-98 w/8600 GVW | 28A260ERL |
| Pick up K-2500 | 89-94 | 4x4, w/8600 GVW | 28A320ERL |
| Pick up K-20 | 81-87 | 4x4, 8600GVW, excl. Diesel | 28A310ERL |
| Pick up K-20 | 81-86 | 4x4, 6600-6800 GVW, | 28A270ERL |
| Pick up K-20 | 79-80 | 4x4, up to 6800GVW | 28A280ERL |
| Pick up K-3500 | 90-94 | 4x4, w/single rear wheels | 28A320ERL |
| Pick up K-3500 | 88-89 | 4x4, all | 28A320ERL |
| Pick up R-30 | 87-91 | 4x2, all | 28A400ERL |
| Pick up S-10 | 94 | excl High Wide Pkg | 28A340ERL |
| Pick up S-10 | 92-93 | 4x2 | 28A340ERL |
| Pick up S-10 | 91 | 4x2, w/Interim Design Change | 28A330ERL |
| Pick up S-10 | 82-91 | 4x2, Before Design Change | 28A290ERL |
| Tahoe C-1500 | 95-98 | 4x2 | 28A230ERL |
| Blazer C-10 | 79-82 | 4x2, all | 28A250ERL |
| Blazer K-10/V10 | 81-91 | 4x4 | 28A270ERL |
| Blazer K-10 | 79-80 | 4x4 up to 6800GVW | 28A280ERL |
| Blazer S-10 | Late 91-93 | 4x2, w/Interim Design Change | 28A340ERL |
| Blazer S-10 | 82-91 | 4x2, Before Design Change | 28A290ERL |
| Silverado | 99-03 | 2WD 3 line kit | 28A660ERL |
| Suburban | 99-03 | 2WD 5 line kit | 28A640ERL |
| Suburban/Yukon XL | 00-03 | 2WD | 28A650ERL |
| Suburban C-1500 | 92-99 | 4x2, excl. Diesel | 28A230ERL |
| Suburban C-10/R-10 | 79-91 | 4x2, all; | 28A250ERL |
| Suburban C-2500 | 92 | 4x2, 8600 GVW; | 28A390ERL |
| Suburban C-20 | 81, 83-88 | 4x2, up to 7200 GVW | 28A250ERL |
| Suburban K-1500 | 94 | 4x4, Diesel | 28A320ERL |
| Suburban K-1500 | 92-94 | 4x4, excl. 94 Sub w/Diesel | 28A260ERL |
| Suburban K-10/V-10 | 81-91 | 4x4 | 28A270ERL |
| Suburban K-10 | 79-80 | 4x4, up to 6800GVW | 28A280ERL |
| Suburban K-2500 | 92-94 | 4x4, 8600GVW | 28A320ERL |
| Suburban V-20 | 88-91 | 4x4, all | 28A310ERL |
| Suburban V-20 | 87 | 4x4, 8600 GVW | 28A310ERL |
| Suburban K-20 | 82-86 | 4x4, all | 28A310ERL |
| Suburban K-20 | 81 | 4x4, 6800 GVW | 28A270ERL |
| Suburban K-20 | 81 | 4x4, above 7300 GVW | 28A310ERL |
| Suburban K-20 | 79-80 | 4x4, up to 6800 GVW | 28A280ERL |
| Astrovan | 90-99 | 4x4 | 28A580ERL |
| Astrovan | 00-01 | 2WD | 28A530ERL |
| Astrovan | 00-01 | AWD | 28A540ERL |

CHRYSLER

| | | | |
|---------------------|-------|--------------------------|-----------|
| Sebring | 95-98 | rear drum, exc. 98 Conv. | 28K070ERL |
| Sebring, exc. Conv. | 95-98 | rear disc | 28K080ERL |
| Sebring, Conv. | 95-97 | rear drum | 28K070ERL |
| Sebring, Conv. | 95-96 | rear disc | 28K080ERL |

HYPERFIRM™ BRAKE LINE KITS

BRAKE SYSTEMS

DODGE & DODGE TRUCKS

| | | | |
|----------------------|-------|---------------------------|-----------|
| D150 P/U | 89-93 | 4x2; | 28H040ERL |
| D100/150 P/U | 82-88 | 4x2; | 28H030ERL |
| D250 P/U | 89-93 | 4x2; | 28H040ERL |
| D250 P/U | 84-88 | 4x2; | 28H030ERL |
| D350 P/U | 89-93 | 4x2 | 28H040ERL |
| D350 P/U | 82-88 | 4x2 | 28H030ERL |
| AD 150 Ramcharger | 90-93 | 4x2; | 28H040ERL |
| AD 150 Ramcharger | 84-89 | 4x2; | 28H030ERL |
| AW 150 Ramcharger | 89-93 | 4x4; | 28H110ERL |
| AW 150 Ramcharger | 85-88 | 4x4; | 28H100ERL |
| AW 150 Ramcharger | 82-84 | 4x4; | 28H090ERL |
| AW100/150 Ramcharger | 76-81 | 4x4; | 28H080ERL |
| W150 P/U | 89-93 | 4x4; | 28H110ERL |
| W150 P/U | 85-88 | 4x4; | 28H100ERL |
| W150 P/U | 82-84 | 4x4; | 28H090ERL |
| W100/150 P/U | 76-81 | 4x4; | 28H080ERL |
| W250 P/U | 89-93 | 4x4, excl 4500 Front Axle | 28H110ERL |
| W250 P/U | 85-88 | 4x4, excl 4500 Front Axle | 28H100ERL |
| W250 P/U | 82-84 | 4x4, excl 4500 Front Axle | 28H090ERL |
| W250 P/U | 76-81 | 4x4, excl 4500 Front Axle | 28H080ERL |
| W350 P/U | 90 | 4x4, excl 4500 Front Axle | 28H110ERL |
| W350 P/U | 84-88 | 4x4, excl 4500 Front Axle | 28H100ERL |
| W350 P/U | 82-83 | 4x4, excl 4500 Front Axle | 28H090ERL |
| Avenger | 95-98 | rear drum | 28K070ERL |
| Avenger | 95-98 | rear disc | 28K080ERL |
| Stealth | 92-94 | 4x2 | 28K090ERL |
| Stealth | 91 | 4x2, turbo, ABS | 28K090ERL |

EAGLE

| | | | |
|-------|-------|---------------|-----------|
| Talon | 97-98 | rear drum | 28K070ERL |
| Talon | 97-98 | 4w disc | 28K080ERL |
| Talon | 95-96 | All | 28K080ERL |
| Talon | 92-94 | 2 Wheel Drive | 28K020ERL |
| Talon | 92-94 | 4 Wheel Drive | 28K040ERL |

FIAT

| | | | |
|------|-------|--|-----------|
| X1/9 | All | | 28S010ERL |
| 124 | 69-85 | | 28S020ERL |
| 850 | All | | 28S030ERL |

FORD

| | | | |
|-------------|----------------|---|-----------|
| Contour | 95-96 | Front discs | 28B110ERL |
| Escort GT | 91-96 | | 28B530ERL |
| Fairmont | 80-82 | Police Option | 28B140ERL |
| Fairmont | 83 | All | 28B140ERL |
| Fairmont | 79-82 | exc. Police Option | 28B150ERL |
| Granada | 81-82 | All | 28B150ERL |
| LTD | 83-84 | All | 28B140ERL |
| Mustang | 05 | 4 WH. disc | 28B600ERL |
| Mustang | 94-95 | exc. Cobra | 28B010ERL |
| Mustang | 94-95 | Cobra | 28B020ERL |
| Mustang | 89-93 | V-8 & Front discs | 28B040ERL |
| Mustang | 87-88 | Front discs & Dual exhaust | 28B050ERL |
| Mustang | 86 | Front discs (not SVO) with V-8 & Dual Exhaust | 28B060ERL |
| Mustang | 86 | 4-wh. discs SVO | 28B070ERL |
| Mustang | 85 | Front discs (not SVO) with V-8 & Dual Exhaust | 28B080ERL |
| Mustang | 85 | 4-wh. discs SVO | 28B090ERL |
| Mustang | 84 | Front discs (not SVO) | 28B100ERL |
| Mustang | (from 5/84) 84 | SVO, 4w Disc | 28B120ERL |
| Mustang | 84 Early | 4-wh. discs SVO | 28B130ERL |
| Mustang | 83 | exc. Non-Turbo 4 cyl. | 28B140ERL |
| Mustang | 82 | Front discs | 28B150ERL |
| Thunderbird | 80-82 | All | 28B150ERL |
| Taurus | 94-95 | SHO | 28B460ERL |

FORD TRUCK

| | | | |
|-----------------|-------------|----------------------------|-----------|
| F150 | 05 | 2WD | 28B590ERL |
| F150 PU EXT. PU | 97-03 | 2WD | 28B520ERL |
| F150 PU | 94-96 | 4x2 | 28B030ERL |
| F150 PU | 94-96 | 4x4 | 28B250ERL |
| F150 PU | 92-93 | 4x2 | 28B210ERL |
| F150 PU | 92-93 | 4x4 | 28B240ERL |
| F150 PU | 90-91 | 4x2 | 28B200ERL |
| F150 PU | 90-91 | 4x4 | 28B230ERL |
| F150 PU | 80-89 | 4x2 | 28B190ERL |
| F100/F150 PU | 80-Mid 89 | 4x4 | 28B220ERL |
| F250 P/U | 80-85 | 4x2, single piston cal. | 28B190ERL |
| Bronco | 94-96 | 4x4, Full size | 28B280ERL |
| Bronco | 93 | 4x4, Full size | 28B270ERL |
| Bronco | 90-92 | 4x4, Full size | 28B200ERL |
| Bronco | 80-89 | 4x4, Full size | 28B190ERL |
| Bronco | 76-77 | 4x4 | 28B300ERL |
| Bronco | 71-75 | 4x4 | 28B290ERL |
| Bronco | 67-70 | 4x4 | 28B260ERL |
| Bronco I | 90 | All | 28B350ERL |
| Bronco I | 89 | All | 28B340ERL |
| Bronco I | 87-88 | 4x4 | 28B320ERL |
| Bronco I | 86-88 | 4x2 | 28B330ERL |
| Bronco I | 86 | 4x4 | 28B310ERL |
| Explorer | 93-94 | All | 28B380ERL |
| Explorer | Late 92 | All | 28B370ERL |
| Explorer | 91-Early 92 | All | 28B360ERL |
| Ranger | 90-94 | 4x2 | 28B450ERL |
| Ranger | 89 | 4x2 | 28B440ERL |
| Ranger | 87-88 | 4x2 | 28B420ERL |
| Ranger | 86 | 4x2 | 28B330ERL |
| Ranger | 83-85 | 4x2 | 28B420ERL |
| Ranger | Late 92-94 | 4x4 | 28B370ERL |
| Ranger | 91-Early 92 | 4x4 | 28B360ERL |
| Ranger | 87-88 | 4x4 w/ STX or Ride Hgt. | 28B320ERL |
| Ranger | 86-88 | 4x4 excl. STX or Ride Hgt. | 28B330ERL |
| Ranger | 83-85 | 4x4 | 28B390ERL |
| Ranger | 90 | 4x4 | 28B410ERL |
| Ranger | 89 | 4x4 | 28B400ERL |

HONDA

| | | | |
|--------|-------|----------------------------|-----------|
| Accord | 98-99 | 2 Dr & 4 Dr w/rear Drums | 28L150ERL |
| Accord | 98-99 | 2 Dr & 4 Dr W/4 Wheel disc | 28L160ERL |
| Accord | 97 | 2 Dr Ex | 28L250ERL |
| Accord | 95-97 | All excl w/ABS | 28L260ERL |
| Accord | 95-97 | 4Dr w/ABS | 28L300ERL |
| Accord | 95-96 | 2Dr LX w/ABS | 28L300ERL |
| Accord | 95-96 | EX | 28L300ERL |
| Accord | 94 | 2Dr & 4 Dr excl EX | 28L260ERL |
| Accord | 94 | 2Dr & 4Dr w/ABS excl LX | 28L290ERL |
| Accord | 90-93 | All | 28L010ERL |
| Civic | 99 | Si | 28L240ERL |
| Civic | 96-99 | 2 Door DX & HX | 28L220ERL |
| Civic | 96-99 | 3 Door All | 28L220ERL |
| Civic | 96-99 | 4 Door excl w/ABS | 28L220ERL |
| Civic | 96-99 | 2 Door excl EX w/ABS | 28L220ERL |
| Civic | 92-95 | All w/4 wheel Disc | 28J020ERL |
| Civic | 92-95 | All excl w/ABS | 28L280ERL |
| Civic | 89-91 | Rear Drums | 28L040ERL |
| Civic | 90-91 | 4 Door EX | 28L210ERL |
| Civic | 92-95 | All w/4 wheel Disc | 28L050ERL |
| CRX | 90-91 | Si | 28L030ERL |
| CRX | 89-91 | Rear Drums | 28L040ERL |

HYPERFIRM™ BRAKE LINE KITS

BRAKE SYSTEMS

HONDA

| | | | |
|---------|-------|---------------|-----------|
| De Sol | 96-97 | VTEC All | 28L200ERL |
| De Sol | 93-97 | S | 28L190ERL |
| De Sol | 94-95 | VTEC Si w/ABS | 28L200ERL |
| De Sol | 94-97 | Si | 28L270ERL |
| Prelude | 97-99 | excl SH | 28L180ERL |
| Prelude | 92-96 | All | 28L020ERL |
| S2000 | 00-01 | All | 28L330ERL |

INFINITY

| | | | |
|--------------------|----|-----------------|-----------|
| Infinity G35 Coupe | 03 | includes Brembo | 28C180ERL |
|--------------------|----|-----------------|-----------|

JEEP

| | | | |
|--------------------|---------|--------------------------------|-----------|
| Wrangler | 3/94-95 | All | 28Q090ERL |
| Wrangler | 90-92 | All | 28Q080ERL |
| Wrangler | 93-2/94 | w/o ABS | 28Q080ERL |
| Wrangler | 87-89 | All 4 W/D | 28Q070ERL |
| CJ-6,7,8 | 82-86 | | 28Q060ERL |
| CJ-5 | 84-86 | | 28Q060ERL |
| CJ-5 | 82-83 | | 28Q050ERL |
| CJ | 81 | All | 28Q040ERL |
| CJ | 79-80 | All | 28Q030ERL |
| CJ | 78 | hose w/round end | 28Q020ERL |
| CJ | 77 | Front Disc | 28Q020ERL |
| CJ | 76-77 | 4w Drum | 28Q010ERL |
| Full Size Cherokee | 94-96 | All | 28Q190ERL |
| Mid Size Cherokee | 92-93 | 4-WD | 28Q190ERL |
| Mid Size Cherokee | 92-93 | 2-WD | 28Q180ERL |
| Mid Size Cherokee | 91 | 2-WD | 28Q170ERL |
| Mid Size Cherokee | 90-91 | 4-WD | 28Q160ERL |
| Mid Size Cherokee | 90 | 2-WD | 28Q150ERL |
| SJ Cherokee | 79-91 | Full Size, exc.79-84 Wide Trac | 28Q120ERL |
| SJ Cherokee | 76-78 | Full Size, Front Disc | 28Q110ERL |
| SJ Cherokee | 74-75 | SJ Full Size, Front Disc | 28Q100ERL |
| Mid Size Cherokee | 86-89 | All | 28Q140ERL |
| Mid Size Cherokee | 84-85 | All | 28Q130ERL |
| SJ Grand Wagoneer | 79-91 | Full Size, exc.79-84 Wide Trac | 28Q120ERL |
| SJ Grand Wagoneer | 76-78 | Full Size, Front Disc | 28Q110ERL |
| SJ Grand Wagoneer | 74-75 | SJ Full Size, Front Disc | 28Q100ERL |
| SJ Wagoneer | 74-75 | SJ Full Size, Front Disc | 28Q100ERL |
| SJ Wagoneer | 76-78 | Full Size, Front Disc | 28Q110ERL |
| SJ Wagoneer | 79-91 | Full Size,excl,79-84 WideTrac | 28Q120ERL |

MAZDA

| | | | |
|----------|-------------|-----------|-----------|
| RX-8 | 04 | All | 28i170ERL |
| 626-MX-6 | 81-82 | rear drum | 28i090ERL |
| Navajo | 91-Early 92 | All | 28B360ERL |

MERCURY

| | | | |
|--------|-------|----------------------|-----------|
| Capri | 80-81 | excl Non Turbo 4cyl. | 28B160ERL |
| Capri | 79 | V-8 | 28B170ERL |
| Cougar | 80-82 | XR7 | 28B170ERL |
| Zepher | 79-82 | exc. Police Option | 28B170ERL |
| Zepher | 80-82 | Police Option | 28B140ERL |
| Zepher | 83 | All | 28B140ERL |

MITSUBISHI

| | | | |
|-------------|-----------------|----------------------|-----------|
| Eclipse | 89-(5/90) | excl 4x4 | 28K010ERL |
| Eclipse | (after 5/90)-91 | excl 4x4 | 28K020ERL |
| Eclipse | 90-94 | 4x4 | 28K040ERL |
| Eclipse | 95-97 | rear drum | 28K070ERL |
| Eclipse | 95-97 | 4w Disc | 28K080ERL |
| Lancer EVO8 | 04 | | 28K120ERL |
| 3000 GT | 91-93 | Excl All Wheel Drive | 28K090ERL |

NISSAN

| | | | |
|-----------------|-------|------------------------------|-----------|
| 350 ZX | 03 | Incl. Brembo | 28C180ERL |
| 300 ZX | 90-96 | All | 28C010ERL |
| 300 ZX | 84-89 | All | 28C020ERL |
| 280 ZX | 82-83 | All | 28C030ERL |
| 280 ZX | 79-81 | All | 28C040ERL |
| 240, 260, 280-Z | 70-78 | All | 28C050ERL |
| 240 SX | 89-94 | w/ ABS | 28C080ERL |
| 200 SX | 84-88 | 4-cyl. w/o Turbo | 28C060ERL |
| 200 SX | 84-88 | 4-cyl. w/ Turbo | 28C070ERL |
| Maxima | 95-97 | 4w Disc | 28C170ERL |
| NX 1600 | 91 | 4w Disc | 28C090ERL |
| NX 2000 | 91 | 4w Disc | 28C090ERL |
| Sentra | 91 | 2dr, 2.0L,Nichirin type Hose | 28C090ERL |
| Sentra | 92-94 | 4w Disc & Nichirin Hose | 28C090ERL |

OLDSMOBILE

| | | | |
|--------------------|-------|------------|-----------|
| Cutlass | 77 | All | 28A100ERL |
| Cutlass, F-85, 442 | 72 | 4w drum | 28F020ERL |
| Cutlass, F-85, 442 | 72 | front disc | 28F030ERL |
| Cutlass, F-85, 442 | 69-71 | front disc | 28A480ERL |
| Cutlass, F-85, 442 | 68-71 | 4w drum | 28A470ERL |
| Omega | 79 | All | 28A110ERL |
| Omega | 77-78 | All | 28A100ERL |
| Vista Cruiser | 77 | All | 28A100ERL |

PLYMOUTH

| | | | |
|--------------|-------|-------------|-----------|
| Laser | 92-94 | excll 4x4 | 28K020ERL |
| Laser | 92-94 | 4x4 | 28K040ERL |
| Trail Duster | 76-81 | 4 Wheel Dr. | 28H080ERL |

PONTIAC

| | | | |
|---------------------|-------|---------------------------|-----------|
| Firebird | 89-92 | w/ 4-wh. Discs | 28A300ERL |
| Firebird | 85-92 | Perform. Pkg. 4-wh. discs | 28A190ERL |
| Firebird | 84-92 | Front discs | 28A180ERL |
| Firebird | 82-83 | Front discs | 28A090ERL |
| Firebird | 79-81 | Front Disc | 28A110ERL |
| Firebird | 77-78 | Front discs | 28A100ERL |
| Firebird | 74-75 | Front discs | 28A170ERL |
| Firebird | 72-73 | Front discs | 28A200ERL |
| Firebird | 69 | Front Disc | 28A160ERL |
| Firebird | 69 | 4w drums | 28A220ERL |
| Grand AM | 77 | All | 28A100ERL |
| Le Mans | 77 | All | 28A100ERL |
| Lemans, GTO | 71-72 | front disc | 28F030ERL |
| Lemans, 442 | 69-72 | front disc | 28A480ERL |
| Lemans, GTO | 69-71 | 4w drum | 28A470ERL |
| Phoenix | 77-78 | All | 28A100ERL |
| Phoenix | 79 | All | 28A110ERL |
| Ventura, Ventura II | 72 | | 28A150ERL |

HYPERFIRM™ BRAKE LINE KITS

BRAKE SYSTEMS

PORSCHE

| | | | |
|-------------|-------|------------------------|-----------|
| 911 Porsche | 84-88 | All | 28E020ERL |
| 911 Porsche | 69-83 | All | 28E010ERL |
| 924 Porsche | 86-88 | All | 28E040ERL |
| 924 Porsche | 77-82 | w/ Sport Equipment | 28E040ERL |
| 928 Porsche | 82-95 | All | 28E060ERL |
| 944 | 89-91 | excl. Turbo; | 28E080ERL |
| 944 | 87-88 | All; | 28E080ERL |
| 944 | 86 | excl Turbo | 28E040ERL |
| 944 Porsche | 83-85 | All | 28E040ERL |
| 968 | 92-94 | excl. Sport Suspension | 28E080ERL |

SUBARU

| | | | |
|-----|-------|--|-----------|
| WRX | 01-03 | | 28V010ERL |
|-----|-------|--|-----------|

TOYOTA

| | | | |
|--------|-----------|---------------------|-----------|
| MR-2 | 91-94 | | 28G020ERL |
| MR-2 | 85-89 | | 28G010ERL |
| Supra | 93-95 | | 28G040ERL |
| Supra | Mid 86-92 | | 28G030ERL |
| Celica | 92-93 | ST & GT Convertible | 28G050ERL |
| Celica | 92-93 | GT Coupe & GT-S | 28G060ERL |

TOYOTA TRUCK

| | | | |
|----------------|-------|------------------|-----------|
| Pick-up | 95-97 | Tacoma | 28G120ERL |
| T-100 | 93-95 | 4x4 | 28G110ERL |
| Pick-up | 89-95 | 4x4 / not Tacoma | 28G100ERL |
| Pick-up | 89-95 | 4x2, 1/2 ton, | 28G170ERL |
| Pick-up | 86-88 | 4x4 | 28G090ERL |
| Pick-up | 84-88 | 4x2, 1/2 ton, | 28G160ERL |
| Pick-up | 84-85 | 4x4 | 28G080ERL |
| Pick-up | 84 | 4x2, 3/4 ton | 28G160ERL |
| Pick-up | 79-83 | 4x4 | 28G070ERL |
| Pick-up | 79-83 | 4x2, 1/2 ton | 28G140ERL |
| Pick-up | 79-83 | 4x2, 3/4 ton | 28G150ERL |
| Pick-up, Heavy | 89-91 | All 1 ton | 28G170ERL |

TOYOTA TRUCK

| | | | |
|----------------|----------------|-----------|-----------|
| Pick-up, Heavy | 85-88 | All 1 ton | 28G160ERL |
| Pick-up, Heavy | 84 | All | 28G160ERL |
| 4-Runner | (from 4/89)-95 | | 28G130ERL |
| 4-Runner | 86-Mid 89 | | 28G090ERL |
| 4-Runner | 84-85 | | 28G080ERL |

VOLKSWAGEN

| | | | |
|-----------------------|-----------------|-------------------------------|-----------|
| Karmann Ghia | 61-66 | All | 28M010ERL |
| Karmann Ghia | 67 | All | 28M090ERL |
| Karmann Ghia | 68 & Later | stick shift | 28M090ERL |
| Beetle | 68 & Later | excl. AutoTrans, Super Beetle | 28M180ERL |
| Beetle | 67-68 | All | 28M030ERL |
| Beetle | 65-66 | All | 28M020ERL |
| Beetle | 54-64 | All | 28M010ERL |
| Type II (Transporter) | 61-67 | All | 28M020ERL |
| Type III | 64-66 | All | 28M030ERL |
| Type IV | 71-74 | All | 28M130ERL |
| Rabbit (Westmoreland) | (from 4/79)-84 | All | 28M040ERL |
| Rabbit | (from 11/78)-80 | w/ATE type | 28M040ERL |
| Scirocco | (from 11/78)-80 | w/ATE type | 28M040ERL |
| Scirocco | 84-85 | All | 28M040ERL |
| Scirocco | 89-93 | excl. 16 valve | 28M060ERL |
| Scirocco | 88 | 16 valve | 28M070ERL |
| Jetta | 80-84 | w/ATE type | 28M040ERL |
| Jetta | 85-86 | GLI 4 wheel Disc | 28M050ERL |
| Jetta | 87-88 | 4 wheel Disc | 28M070ERL |
| Rabbit Conv. | 84-85 | All | 28M040ERL |
| Cabriolet | 86 | All | 28M040ERL |
| Cabriolet | 87-93 | All | 28M060ERL |
| Fox | 87-93 | excl. SW | 28M080ERL |
| Golf | 87-91 | GTI | 28M070ERL |
| Golf | 85-86 | excl. GTI | 28M040ERL |
| Golf | 85-86 | GTI 4 wheel Disc | 28M050ERL |
| Jetta | 87-89 | Rear Drum | 28M060ERL |
| Jetta | 85-86 | excl. GLI | 28M040ERL |



HYPERFIRM™ U-SPEC-IT™ KITS

BRAKE SYSTEMS

The U-SPEC-IT™ System is designed to reduce the inventory requirements of the dealer or installer. Each hose assembly is certified by Earl's to pass all D.O.T. test requirements of SAE J 1401 for an assembly of its specific length.

Brake hoses not only meet all D.O.T., T.U.V. and J.W.A. standards and specifications for flexible brake hoses including SAE J 1401 (Jan 81) and FMVSS 106-74-38 FR31302 1973, they are individually inspected and tested before shipment. Batch testing, the industry standard, is not acceptable at Earl's. Each individual hose assembly is pressure tested at 4000 psi after manufacture.

EARL'S HYPERFIRM® flexible brake hoses offer several performance advantages:

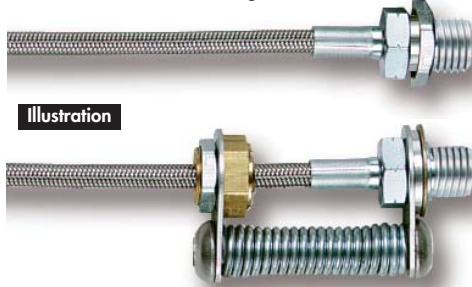
- Firmer brake pedal, allowing better brake modulation and improved vehicle control
- Significant reduction of stopping distance during emergency braking conditions
- Anti-lock braking system pedal "thump" is significantly reduced.



It remains the responsibility of the installer to select the proper hose length and the correct adapter fittings for a specific application. Be absolutely certain that the mechanic doing your installation is qualified to do the job.

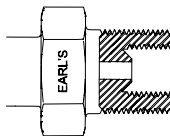
DOT BRAKE ADAPTERS CAN BE FOUND ON PAGES 55-57

STYLE A - Available in lengths of 9"-11" & 18"-28"



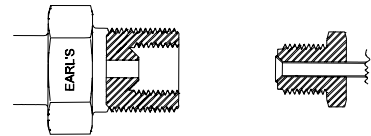
Illustration

280103_ ERL



3/8"-24 INVERTED FLARE, FEMALE CHASSIS MOUNT

280104_ ERL



10MM X 1.0 INVERTED FLARE, FEMALE CHASSIS MOUNT

STYLE B - Available in lengths of 12"-17"

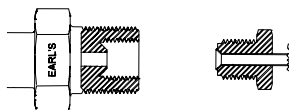
_ERL = length of hose in inches

NOTE:

12" to 17" brake hoses include Earl's patented whip dampener.

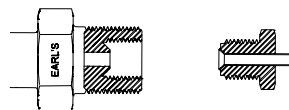
All hoses are supplied with a female AN-3 on one end.

280105_ ERL



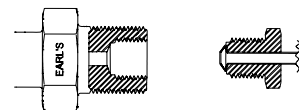
10MM X 1.25 INVERTED FLARE, FEMALE CHASSIS MOUNT

280106_ ERL



7/16"-24 INVERTED FLARE, FEMALE CHASSIS MOUNT

280107_ ERL



10MM X 1.0 BUBBLE FLARE, FEMALE CHASSIS MOUNT

BRAKE SYSTEMS



Brake bleeding has always been an inconvenient and messy job. Commercial shops typically use an expensive pressure bleeder—which, unless used properly, can introduce air bubbles into the system through cavitation. Vacuum bleeders are less expensive but can also introduce air into the system.

The time honored manual method (still universally used in racing) requires two people: one to pump the pedal, and another to open and close each bleed screw in sequence. Again, proper procedure and coordination are required to prevent air inclusion.

Earl's **SOLO-BLEED™** bleeder screws solve both problems. A direct replacement for the original equipment bleeders, **SOLO-BLEED™** allows one person to safely bleed brakes without a mess and with no chance of air inclusion.

SAE

PART NO REPLACES FOLLOWING DIAM. & LENGTH

| | |
|-----------|--|
| 280023ERL | 1/4"-28 x 59/64" Thread SOLO-BLEED (pair) |
| 280043ERL | 1/4"-28 x 1-1/4" Thread SOLO-BLEED (pair) |
| 280035ERL | 5/16"-24 x 1" Thread SOLO-BLEED (pair) |
| 280032ERL | 5/16"-24 x 1-3/16" Thread SOLO-BLEED (pair) |
| 280021ERL | 3/8"-24 x 1-11/64" Thread SOLO-BLEED (pair) |
| 280033ERL | 3/8"-24 x 1-1/2" Thread SOLO-BLEED (pair) |
| 280037ERL | 3/8"-24 x 1-1/2" Thread SOLO-BLEED (pair) |
| 280036ERL | 7/16"-24 x 1-15/32" Thread SOLO-BLEED (pair) |
| 280030ERL | 7/16"-20 x 1-1/4" Thread SOLO-BLEED (pair) |
| 280034ERL | 7/16"-20 x 1-11/16" Thread SOLO-BLEED (pair) |
| 280045ERL | 7/16"-20 x 2-1/8" Thread SOLO-BLEED (pair) |
| 280046ERL | 7/16"-20 x 2-5/8" Thread SOLO-BLEED (pair) |

METRIC

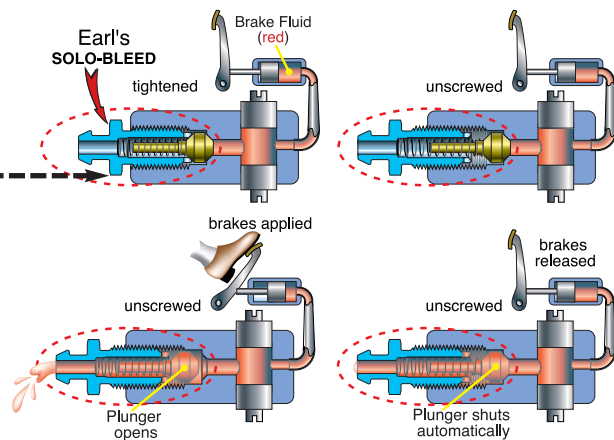
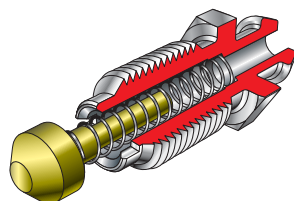
PART NO REPLACES FOLLOWING DIAM. & LENGTH

| | |
|-----------|---|
| 280031ERL | 6mm x 1.0 x 37mm Thread SOLO-BLEED (pair) |
| 280025ERL | 7mm x 1.0 x 34mm Thread SOLO-BLEED (pair) |
| 280027ERL | 8mm x 1.0 x 25mm Thread SOLO-BLEED (pair) |
| 280024ERL | 8mm x 1.25 x 23mm Thread SOLO-BLEED (pair) |
| 280022ERL | 10mm x 1.0 x 27mm Thread SOLO-BLEED (pair) |
| 280040ERL | 10mm x 1.0 x 32mm Thread SOLO-BLEED (pair) |
| 280041ERL | 10mm x 1.0 x 35mm Thread SOLO-BLEED (pair) |
| 280039ERL | 10mm x 1.0 x 38mm Thread SOLO-BLEED (pair) |
| 280047ERL | 10mm x 1.0 x 54mm Thread SOLO-BLEED (pair) |
| 280028ERL | 10mm x 1.25 x 33mm Thread SOLO-BLEED (pair) |
| 280029ERL | 10mm x 1.5 x 27mm Thread SOLO-BLEED (pair) |

How SOLO-BLEED™ works:



Must be in this Position during operation of vehicle!



BRAKE SYSTEMS

| PART NO. | APPLICATION | YEARS | SIZE | |
|-----------|----------------------|-------|-----------------------------------|--------------|
| 280022ERL | Acura | 86-89 | 10mm x 1.0 Thread, 32.75mm length | Front & Rear |
| 280028ERL | Acura | 86-94 | 10mm x 1.25 Thread, 33mm length | Front & Rear |
| 280024ERL | Acura | 91-94 | 8mm x 1.25 thread, 23.5mm length | Slave Cyl. |
| 280022ERL | Alfa Romeo | 81-89 | 10mm x 1.0 Thread, 38.5mm length | Front |
| 280025ERL | Alfa Romeo | 82-91 | 7mm x 1.0 thread, 32 mm length | Front & Rear |
| 280023ERL | AMC | 61-83 | 1/4"-28 Thread, 59/64" length | Front & Rear |
| 280021ERL | AMC | 61-88 | 3/8"-24 Thread, 1 11/64" length | Front & Rear |
| 280021ERL | AMC | 72-78 | 3/8"-24 Thread, 1 11/64" length | Front & Rear |
| 280024ERL | AMC | 79-89 | 8mm x 1.25 thread, 23.5mm length | Front & Rear |
| 280029ERL | AMC | 79-89 | 10mm x 1.5 Thread, 25.5mm length | Front & Rear |
| 280025ERL | Audi | 68-93 | 7mm x 1.0 thread, 32 mm length | Front & Rear |
| 280029ERL | Audi | 75-91 | 10mm x 1.5 Thread, 25.5mm length | Front & Rear |
| 280022ERL | Audi | 89-97 | 10mm x 1.0 Thread, 27.5mm length | Front |
| 280022ERL | Audi | 89-97 | 10mm x 1.0 Thread, 27.5mm length | Rear |
| 280022ERL | Audi | 90-94 | 10mm x 1.0 Thread, 38.5mm length | Front & Rear |
| 280031ERL | Audi 4000, Fox,100LS | 74-87 | 6mm x 1.0 thread, 37.1mm length | Rear |
| 280022ERL | BMW | 94 | 10mm x 1.0 Thread, 27.5mm length | Front |
| 280029ERL | BMW | 77-90 | 10mm x 1.5 Thread, 25.5mm length | Front & Rear |
| 280025ERL | BMW | 77-94 | 7mm x 1.0 thread, 32 mm length | Front |
| 280025ERL | BMW | 91-94 | 7mm x 1.0 thread, 32 mm length | Rear |
| 280029ERL | Buick | 64-95 | 10mm x 1.5 Thread, 25.5mm length | Front & Rear |
| 280021ERL | Buick | 76-80 | 3/8"-24 Thread, 1 11/64" length | Front & Rear |
| 280024ERL | Buick | 92-94 | 8mm x 1.25 thread, 23.5mm length | Rear |
| 280021ERL | Cadillac | 71-78 | 3/8"-24 Thread, 1 11/64" length | Front & Rear |
| 280035ERL | Cadillac | 71-78 | 5/16"-24 Thread, 1" length | Rear |
| 280029ERL | Cadillac | 79-92 | 10mm x 1.5 Thread, 25.5mm length | Front & Rear |
| 280024ERL | Cadillac | 79-92 | 8mm x 1.25 thread, 23.5mm length | Rear |
| 280022ERL | Capri | 71-78 | 10mm x 1.0 Thread, 27.5mm length | Front |
| 280024ERL | Chevy | 95 | 8mm x 1.25 thread, 23.5mm length | Rear |
| 280021ERL | Chevy | 64-80 | 3/8"-24 Thread, 1 11/64" length | Front |
| 280035ERL | Chevy | 64-80 | 5/16"-24 Thread, 1" length | Rear |
| 280024ERL | Chevy | 76-78 | 8mm x 1.25 thread, 23.5mm length | Rear |
| 280024ERL | Chevy | 76-87 | 8mm x 1.25 thread, 23.5mm length | Rear |
| 280029ERL | Chevy | 79-95 | 10mm x 1.5 Thread, 25.5mm length | Front & Rear |
| 280022ERL | Chevy | 84-94 | 10mm x 1.0 Thread, 32.75mm length | Front & Rear |
| 280025ERL | Chevy | 85-89 | 7mm x 1.0 thread, 32 mm length | Rear |
| 280030ERL | Chevy Truck | 70-89 | 7/16"-20 Thread, 2 1/8" length | Rear |
| 280022ERL | Chevy Truck | 72-81 | 10mm x 1.0 Thread, 32.75mm length | Front |
| 280022ERL | Chevy Truck | 72-82 | 10mm x 1.0 Thread, 32.75mm length | Rear |
| 280025ERL | Chevy Truck | 72-93 | 7mm x 1.0 thread, 32 mm length | Front & Rear |
| 280029ERL | Chevy Truck | 72-94 | 10mm x 1.5 Thread, 25.5mm length | Front & Rear |
| 280021ERL | Chevy Truck | 74-78 | 3/8"-24 Thread, 1 11/64" length | Front & Rear |
| 280024ERL | Chevy Truck | 79-94 | 8mm x 1.25 thread, 23.5mm length | Rear |
| 280022ERL | Chevy Truck | 89-93 | 10mm x 1.0 Thread, 32.75mm length | Front |
| 280022ERL | Chevy Truck | 89-93 | 10mm x 1.0 Thread, 27.5mm length | Front |
| 280022ERL | Chevy Truck LUV | 81-82 | 10mm 1.0 Thread, 35mm length | Front |
| 280035ERL | Chrysler | 61-62 | 5/16"-24 Thread, 1 3/16" length | Front & Rear |
| 280023ERL | Chrysler | 61-67 | 1/4"-28 Thread, 59/64" length | Front & Rear |
| 280021ERL | Chrysler | 66-93 | 3/8"-24 Thread, 1 11/64" length | Front |
| 280035ERL | Chrysler | 66-93 | 5/16"-24 Thread, 1" length | Front |
| 280035ERL | Chrysler | 91-93 | 5/16"-24 Thread, 1 3/16" length | Rear |
| 280022ERL | Chrysler Imports | 73-93 | 10mm x 1.0 Thread, 32.75mm length | Front & Rear |
| 280022ERL | Chrysler Imports | 78-81 | 10mm x 1.0 Thread, 49.75mm length | Rear |
| 280022ERL | Chrysler Imports | 78-89 | 10mm 1.0 Thread, 35mm length | Front |
| 280029ERL | Chrysler Imports | 79-92 | 10mm x 1.5 Thread, 25.5mm length | Rear |
| 280025ERL | Chrysler Imports | 85-93 | 7mm x 1.0 thread, 32 mm length | Front |
| 280029ERL | Chrysler Imports | 89-92 | 10mm x 1.5 Thread, 25.5mm length | Front |
| 280022ERL | Chrysler Imports | 91-93 | 10mm x 1.0 Thread, 38.5mm length | Front |
| 280025ERL | Daihatsu | 88-93 | 7mm x 1.0 thread, 32 mm length | Front & Rear |
| 280022ERL | Daihatsu | 90-93 | 10mm x 1.0 Thread, 38.5mm length | Rear |
| 280022ERL | Daihatsu | 90-93 | 10mm x 1.0 Thread, 32.75mm length | Front |
| 280035ERL | Dodge | 95 | 5/16"-24 Thread, 1" length | Rear |
| 280021ERL | Dodge | 66-95 | 3/8"-24 Thread, 1 11/64" length | Front & Rear |
| 280022ERL | Dodge | 88-93 | 10mm x 1.0 Thread, 27.5mm length | Front |
| 280035ERL | Dodge | 92-93 | 5/16"-24 Thread, 1 3/16" length | Rear |
| 280021ERL | Dodge Truck | 61-93 | 3/8"-24 Thread, 1 11/64" length | Rear |
| 280035ERL | Dodge Truck | 61-93 | 5/16"-24 Thread, 1" length | Rear |
| 280029ERL | Dodge Truck | 90-94 | 10mm x 1.5 Thread, 25.5mm length | Front |
| 280022ERL | Dodge Truck | 92-93 | 10mm x 1.0 Thread, 38.5mm length | Front |
| 280022ERL | Eagle | 88-93 | 10mm x 1.0 Thread, 32.75mm length | Front |
| 280022ERL | Eagle | 88-93 | 10mm x 1.0 Thread, 27.5mm length | Front |
| 280022ERL | Eagle | 88-93 | 10mm x 1.0 Thread, 27.5mm length | Rear |
| 280035ERL | Eagle | 89-92 | 5/16"-24 Thread, 1" length | Front & Rear |
| 280025ERL | Eagle Talon | 93 | 7mm x 1.0 thread, 32 mm length | Front |
| 280024ERL | Fiat | 75-79 | 8mm x 1.25 thread, 23.5mm length | Front & Rear |
| 280022ERL | Fiesta | 78-89 | 10mm x 1.0 Thread, 27.5mm length | Front |
| 280021ERL | Ford | 74 | 3/8"-24 Thread, 1 1/2" length | Front |
| 280023ERL | Ford | 61-80 | 1/4"-28 Thread, 59/64" length | Front & Rear |
| 280021ERL | Ford | 61-94 | 3/8"-24 Thread, 1 11/64" length | Front & Rear |
| 280029ERL | Ford | 70-92 | 10mm x 1.5 Thread, 25.5mm length | Front |
| 280035ERL | Ford | 73-75 | 5/16"-24 Thread, 1 3/16" length | Front & Rear |
| 280022ERL | Ford | 78-80 | 10mm x 1.0 Thread, 38.5mm length | Front & Rear |
| 280023ERL | Ford | 81-89 | 1/4"-28 Thread, 59/64" length | Rear |
| 280022ERL | Ford | 82-94 | 10mm x 1.0 Thread, 32.75mm length | Front & Rear |
| 280027ERL | Ford | 88-97 | 8mm x 1.0 Thread, 25.4mm length | Rear |

BRAKE SYSTEMS

| PART NO. | APPLICATION | YEARS | SIZE | |
|-----------|---------------------|--------|-----------------------------------|--------------|
| 280027ERL | Ford | 89-94 | 8mm x 1.0 Thread, 31.9mm length | Rear |
| 280022ERL | Ford | 90-94 | 10mm x 1.0 Thread, 27.5mm length | Front |
| 280025ERL | Ford | 90-94 | 7mm x 1.0 thread, 32 mm length | Front & Rear |
| 280021ERL | Ford Truck | 61-94 | 3/8"-24 Thread, 1 11/64" length | Front & Rear |
| 280030ERL | Ford Truck | 70-94 | 7/16"-20 Tread, 1 17/64" length | Front |
| 280035ERL | Ford Truck | 71-75 | 5/16"-24 Thread, 1 3/16" length | Front & Rear |
| 280023ERL | Ford Truck | 71-77 | 1/4"-28 Thread, 59/64" length | Front |
| 280021ERL | Ford Truck | 71-94 | 3/8"-24 Thread, 1 1/2" length | Front |
| 280022ERL | Ford Truck | 81-85 | 10mm x 1.0 Thread, 38.5mm length | Rear |
| 280035ERL | Ford Truck | 83-93 | 5/16"-24 Thread, 1" length | Front |
| 280021ERL | Ford Truck | 86-92 | 3/8"-24 Thread, 1 1/2" length | Front |
| 280035ERL | Ford Truck | 90-94 | 5/16"-24 Thread, 1" length | Rear |
| 280030ERL | Ford Truck | | 7/16"-20 Thread, 1 11/16" length | |
| 280025ERL | Ford Truck, Courier | 77-83 | 7mm x 1.0 thread, 32 mm length | Front |
| 280029ERL | GEO | 89-92 | 10mm x 1.5 Thread, 25.5mm length | Front & Rear |
| 280022ERL | GEO | 93-94 | 10mm x 1.0 Thread, 32.75mm length | Rear |
| 280025ERL | GEO | 93-94 | 7mm x 1.0 thread, 32 mm length | Front & Rear |
| 280021ERL | GM | 61-65 | 3/8"-24 Thread, 1 1/2" length | Front & Rear |
| 280021ERL | GM | 61-80 | 3/8"-24 Thread, 1 11/64" length | Front & Rear |
| 280024ERL | GM | 76-93 | 8mm x 1.25 thread, 23.5mm length | Front & Rear |
| 280025ERL | GM | 83-93 | 7mm x 1.0 thread, 32 mm length | Front & Rear |
| 280022ERL | GM | 84-93 | 10mm x 1.0 Thread, 32.75mm length | Front & Rear |
| 280022ERL | GM | 89-93 | 10mm x 1.0 Thread, 27.5mm length | Front |
| 280035ERL | GM | 61-80 | 5/16"-24 Thread, 1" length | Rear |
| 280023ERL | GMC truck | 60-63 | 1/4"-28 Thread, 1 3/8" length | Rear |
| 280021ERL | GMC Truck | 61-78 | 3/8"-24 Thread, 1 11/64" length | Front & Rear |
| 280021ERL | GMC Truck | 63-71 | 3/8"-24 Thread, 1 1/2" length | Front & Rear |
| 280030ERL | GMC Truck | 70-89 | 7/16"-20 Thread, 2 1/8" length | Rear |
| 280024ERL | GMC Truck | 71-9-4 | 8mm x 1.25 thread, 23.5mm length | Rear |
| 280036ERL | GMC truck | 74-76 | 7/16"-24 Thread, 1 15/32" length | Rear |
| 280025ERL | GMC Truck | 79-93 | 7mm x 1.0 thread, 32 mm length | Front & Rear |
| 280029ERL | GMC Truck | 79-94 | 10mm x 1.5 Thread, 25.5mm length | Front & Rear |
| 280022ERL | GMC Truck | 89-93 | 10mm x 1.0 Thread, 32.75mm length | Front |
| 280022ERL | GMC Truck | 89-93 | 10mm x 1.0 Thread, 27.5mm length | Front |
| 280030ERL | GMC Truck | | 7/16"-20 Thread, 1 11/16" length | |
| 280022ERL | Honda | 74-94 | 10mm x 1.0 Thread, 32.75mm length | Front & Rear |
| 280024ERL | Honda | 75-94 | 8mm x 1.25 thread, 23.5mm length | Rear |
| 280022ERL | Honda | 77-79 | 10mm 1.0 Thread, 35mm length | Front |
| 280025ERL | Honda | 77-79 | 7mm x 1.0 thread, 32 mm length | Front |
| 280028ERL | Honda | 88-94 | 10mm x 1.25 Thread, 33mm length | Front & Rear |
| 280022ERL | Honda Truck | 94 | 10mm x 1.0 Thread, 38.5mm length | Rear |
| 280022ERL | Hyundai | 83-93 | 10mm x 1.0 Thread, 32.75mm length | Front |
| 280022ERL | Hyundai | 86-89 | 10mm 1.0 Thread, 35mm length | Rear |
| 280022ERL | Hyundai | 89-95 | 10mm x 1.0 Thread, 27.5mm length | Front |
| 280022ERL | Hyundai | 89-95 | 10mm x 1.0 Thread, 27.5mm length | Rear |
| 280035ERL | Hyundai | 90-91 | 5/16"-24 Thread, 1" length | Rear |
| 280022ERL | Hyundai | 90-95 | 10mm x 1.0 Thread, 32.75mm length | Rear |
| 280030ERL | IH Truck | | 7/16"-20 Thread, 2 5/8" length | |
| 280030ERL | IH Truck | | 7/16"-20 Thread, 1 11/16" length | |
| 280022ERL | Infiniti | 90-94 | 10mm x 1.0 Thread, 32.75mm length | Front & Rear |
| 280022ERL | Isuzu | 81-84 | 10mm x 1.0 Thread, 32.75mm length | Front |
| 280022ERL | Isuzu | 81-93 | 10mm x 1.0 Thread, 38.5mm length | Rear |
| 280025ERL | Isuzu | 81-93 | 7mm x 1.0 thread, 32 mm length | Rear |
| 280022ERL | Isuzu | 88-91 | 10mm 1.0 Thread, 35mm length | Rear |
| 280022ERL | Isuzu Truck | 81-92 | 10mm x 1.0 Thread, 32.75mm length | Front |
| 280029ERL | Isuzu Truck | 81-92 | 10mm x 1.5 Thread, 25.5mm length | Front |
| 280022ERL | Isuzu Truck | 88-94 | 10mm 1.0 Thread, 35mm length | Rear |
| 280022ERL | Isuzu Truck | 91-94 | 10mm x 1.0 Thread, 38.5mm length | Rear |
| 280022ERL | Jaguar | 73-90 | 10mm x 1.0 Thread, 32.75mm length | Front |
| 280021ERL | Jaguar | 74-76 | 3/8"-24 Thread, 1 11/64" length | Rear |
| 280022ERL | Jaguar | 86-90 | 10mm x 1.0 Thread, 32.75mm length | Rear |
| 280021ERL | Jeep | 61-77 | 3/8"-24 Thread, 1 11/64" length | Front & Rear |
| 280023ERL | Jeep | 61-77 | 1/4"-28 Thread, 59/64" length | Front |
| 280021ERL | Jeep | 65-93 | 3/8"-24 Thread, 1 11/64" length | Front & Rear |
| 280024ERL | Jeep | 79-92 | 8mm x 1.25 thread, 23.5mm length | Front & Rear |
| 280029ERL | Jeep | 79-93 | 10mm x 1.5 Thread, 25.5mm length | Front & Rear |
| 280035ERL | Jeep | 90-93 | 5/16"-24 Thread, 1" length | Rear |
| 280025ERL | Lexus | 90-93 | 7mm x 1.0 thread, 32 mm length | Front & Rear |
| 280021ERL | Lincoln | 81-93 | 3/8"-24 Thread, 1 11/64" length | Front & Rear |
| 280022ERL | Lincoln | 92-94 | 10mm x 1.0 Thread, 27.5mm length | Front & Rear |
| 280025ERL | Mazda | 72-93 | 7mm x 1.0 thread, 32 mm length | Front & Rear |
| 280027ERL | Mazda | 79-92 | 8mm x 1.0 Thread, 31.9mm length | Rear |
| 280021ERL | Mazda | 92-93 | 3/8"-24 Thread, 1 1/2" length | Front & Rear |
| 280035ERL | Mazda Truck | 94 | 5/16"-24 Thread, 1" length | Rear |
| 280021ERL | Mazda Truck | 91-94 | 3/8"-24 Thread, 1 1/2" length | Front & Rear |
| 280029ERL | Mazda | 73-92 | 10mm x 1.5 Thread, 25.5mm length | Front & Rear |
| 280027ERL | Mazda 323 | 86 | 8mm x 1.0 Thread, 25.4mm length | Front |
| 280027ERL | Mazda 323 | 90 | 8mm x 1.0 Thread, 25.4mm length | Front |
| 280027ERL | Mazda 323 | 92-94 | 8mm x 1.0 Thread, 25.4mm length | Front |
| 280027ERL | Mazda 626 | 81-82 | 8mm x 1.0 Thread, 25.4mm length | Front |
| 280027ERL | Mazda GLC | 83-85 | 8mm x 1.0 Thread, 25.4mm length | Front |
| 280027ERL | Mazda Miata MX5 | 94 | 8mm x 1.0 Thread, 25.4mm length | Front |
| 280027ERL | Mazda MX3 | 94 | 8mm x 1.0 Thread, 25.4mm length | Front |
| 280027ERL | Mazda MX6 | 93-94 | 8mm x 1.0 Thread, 25.4mm length | Rear |
| 280027ERL | Mazda Protege | 92-94 | 8mm x 1.0 Thread, 25.4mm length | Front |

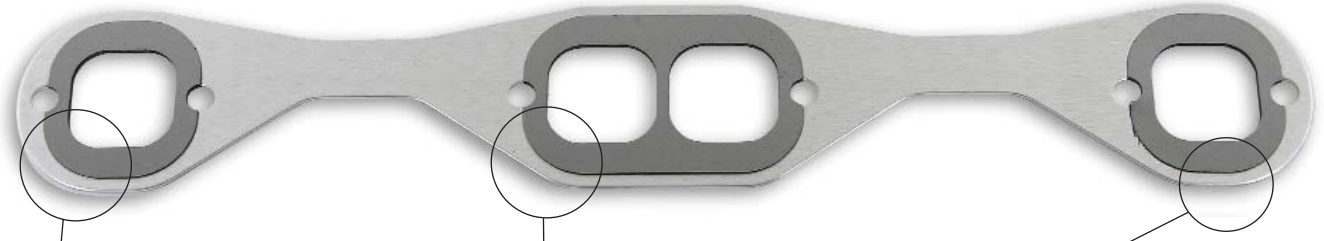
BRAKE SYSTEMS

| PART NO. | APPLICATION | YEARS | SIZE | |
|-----------|---|-------|-----------------------------------|--------------|
| 280027ERL | Mazda RX7 | 94 | 8mm x 1.0 Thread, 25.4mm length | Front |
| 280027ERL | Mazda RX7 | 86-87 | 8mm x 1.0 Thread, 25.4mm length | Front |
| 280027ERL | Mazda Truck | 93-94 | 8mm x 1.0 Thread, 25.4mm length | Front |
| 280025ERL | Medallion | 88-90 | 7mm x 1.0 thread, 32 mm length | Front & Rear |
| 280024ERL | Mercedes Benz | 84-94 | 8mm x 1.25 thread, 23.5mm length | Front & Rear |
| 280023ERL | Mercury | 81-89 | 1/4"-28 Thread, 59/64" length | Rear |
| 280021ERL | Mercury | 81-93 | 3/8"-24 Thread, 1 11/64" length | Front & Rear |
| 280022ERL | Mercury | 86-94 | 10mm x 1.0 Thread, 32.75mm length | Front & Rear |
| 280027ERL | Mercury | 87-94 | 8mm x 1.0 Thread, 31.9mm length | Rear |
| 280022ERL | Mercury | 90-94 | 10mm x 1.0 Thread, 27.5mm length | Front & Rear |
| 280027ERL | Mercury | 91-94 | 8mm x 1.0 Thread, 25.4mm length | Front |
| 280027ERL | Mercury | 91-94 | 8mm x 1.0 Thread, 25.4mm length | Rear |
| 280022ERL | Mercury Truck | 93-94 | 10mm x 1.0 Thread, 27.5mm length | Rear |
| 280022ERL | MG | 65-80 | 10mm x 1.0 Thread, 27.5mm length | Front |
| 280022ERL | Mitsubishi | 83-85 | 10mm 1.0 Thread, 35mm length | Front |
| 280022ERL | Mitsubishi | 83-93 | 10mm x 1.0 Thread, 32.75mm length | Front & Rear |
| 280022ERL | Mitsubishi | 90-93 | 10mm x 1.0 Thread, 38.5mm length | Front & Rear |
| 280022ERL | Mitsubishi Truck | 92-94 | 10mm x 1.0 Thread, 32.75mm length | Front & Rear |
| 280029ERL | Nissan | 69-92 | 10mm x 1.5 Thread, 25.5mm length | Front & Rear |
| 280022ERL | Nissan | 69-94 | 10mm x 1.0 Thread, 32.75mm length | Front & Rear |
| 280025ERL | Nissan | 79-93 | 7mm x 1.0 thread, 32 mm length | Rear |
| 280022ERL | Nissan | 81-85 | 10mm 1.0 Thread, 35mm length | Front |
| 280022ERL | Nissan | 89-94 | 10mm x 1.0 Thread, 38.5mm length | Front & Rear |
| 280022ERL | Nissan Truck | 86-94 | 10mm x 1.0 Thread, 32.75mm length | Front |
| 280022ERL | Nissan Truck | 88-94 | 10mm x 1.0 Thread, 32.75mm length | Rear |
| 280021ERL | Nissan Truck | 93-94 | 3/8"-24 Thread, 1 11/64" length | Front |
| 280022ERL | Nissan Truck | 93-94 | 10mm x 1.0 Thread, 27.5mm length | Rear |
| 280021ERL | OH Truck | 57-80 | 3/8"-24 Thread, 1 1/2" length | Front & Rear |
| 280029ERL | Oldsmobile | 79-94 | 10mm x 1.5 Thread, 25.5mm length | Front & Rear |
| 280025ERL | Peugeot | 81-89 | 7mm x 1.0 thread, 32 mm length | Rear |
| 280022ERL | Peugeot | 89-90 | 10mm x 1.0 Thread, 27.5mm length | Front |
| 280025ERL | Plymouth | 93 | 7mm x 1.0 thread, 32 mm length | Front |
| 280035ERL | Plymouth | 66-95 | 5/16"-24 Thread, 1" length | Rear |
| 280021ERL | Plymouth | 81-95 | 3/8"-24 Thread, 1 11/64" length | Front & Rear |
| 280022ERL | Plymouth | 90-93 | 10mm x 1.0 Thread, 32.75mm length | Front & Rear |
| 280035ERL | Plymouth | 92-93 | 5/16"-24 Thread, 1 3/16" length | Rear |
| 280022ERL | Pontiac | 94 | 10mm x 1.0 Thread, 32.75mm length | Rear |
| 280029ERL | Pontiac | 79-92 | 10mm x 1.5 Thread, 25.5mm length | Front & Rear |
| 280022ERL | Porsche | 89 | 10mm x 1.0 Thread, 38.5mm length | Front & Rear |
| 280025ERL | Porsche | 73-89 | 7mm x 1.0 thread, 32 mm length | Front |
| 280022ERL | Porsche | 87-95 | 10mm x 1.0 Thread, 27.5mm length | Front & Rear |
| 280025ERL | Renault | 76-89 | 7mm x 1.0 thread, 32 mm length | Front |
| 280027ERL | Renault Alliance | 83-87 | 8mm x 1.0 Thread, 25.4mm length | Rear |
| 280027ERL | Renault Encore | 84-86 | 8mm x 1.0 Thread, 25.4mm length | Rear |
| 280027ERL | Renault GTA | 87 | 8mm x 1.0 Thread, 25.4mm length | Rear |
| 280029ERL | Saab | 79-92 | 10mm x 1.5 Thread, 25.5mm length | Rear |
| 280024ERL | Saab | 90-92 | 8mm x 1.25 thread, 23.5mm length | Rear |
| 280025ERL | Saab | 90-94 | 7mm x 1.0 thread, 32 mm length | Rear |
| 280022ERL | Saturn | 91-94 | 10mm x 1.0 Thread, 32.75mm length | Front & Rear |
| 280022ERL | Sterling | 87-91 | 10mm x 1.0 Thread, 27.5mm length | Front & Rear |
| 280023ERL | Studebaker | 61-66 | 1/4"-28 Thread, 59/64" length | Front & Rear |
| 280029ERL | Subaru | 72-92 | 10mm x 1.5 Thread, 25.5mm length | Front & Rear |
| 280025ERL | Subaru | 76-93 | 7mm x 1.0 thread, 32 mm length | Front & Rear |
| 280022ERL | Subaru | 79-89 | 10mm x 1.0 Thread, 38.5mm length | Front & Rear |
| 280022ERL | Subaru | 82-94 | 10mm x 1.0 Thread, 32.75mm length | Front |
| 280022ERL | Subaru | 84-85 | 10mm 1.0 Thread, 35mm length | Front |
| 280022ERL | Suzuki | 86-94 | 10mm x 1.0 Thread, 32.75mm length | Front & Rear |
| 280022ERL | Suzuki | 89-94 | 10mm 1.0 Thread, 35mm length | Front & Rear |
| 280025ERL | Suzuki | 92-93 | 7mm x 1.0 thread, 32 mm length | Rear |
| 280022ERL | Suzuki Truck | 90-94 | 10mm x 1.0 Thread, 32.75mm length | Front |
| 280022ERL | Suzuki Truck | 91-94 | 10mm x 1.0 Thread, 32.75mm length | Rear |
| 280022ERL | Suzuki Truck | 92-94 | 10mm 1.0 Thread, 35mm length | Rear |
| 280029ERL | Toyota | 67-92 | 10mm x 1.5 Thread, 25.5mm length | Front & Rear |
| 280022ERL | Toyota | 67-93 | 10mm x 1.0 Thread, 32.75mm length | Front |
| 280022ERL | Toyota | 68-94 | 10mm x 1.0 Thread, 38.5mm length | Front & Rear |
| 280025ERL | Toyota | 75-93 | 7mm x 1.0 thread, 32 mm length | Front & Rear |
| 280022ERL | Toyota Truck | 89-94 | 10mm x 1.0 Thread, 38.5mm length | Front & Rear |
| 280022ERL | Toyota Truck | 91-94 | 10mm x 1.0 Thread, 32.75mm length | Front & Rear |
| 280022ERL | Volvo | 94 | 10mm x 1.0 Thread, 27.5mm length | Rear |
| 280022ERL | Volvo | 83-91 | 10mm x 1.0 Thread, 27.5mm length | Front |
| 280025ERL | Volvo | 83-91 | 7mm x 1.0 thread, 32 mm length | Rear |
| 280022ERL | Volvo | 84-94 | 10mm x 1.0 Thread, 32.75mm length | Front |
| 280023ERL | Volvo | 87-92 | 1/4"-28 Thread, 59/64" length | Front |
| 280029ERL | Volvo | 87-92 | 10mm x 1.5 Thread, 25.5mm length | Rear |
| 280022ERL | Volvo | 89-92 | 10mm x 1.0 Thread, 32.75mm length | Rear |
| 280024ERL | Volvo | 91-94 | 8mm x 1.25 thread, 23.5mm length | Rear |
| 280025ERL | VW | 65-93 | 7mm x 1.0 thread, 32 mm length | Front & Rear |
| 280029ERL | VW | 75-92 | 10mm x 1.5 Thread, 25.5mm length | Front & Rear |
| 280022ERL | VW | 84-95 | 10mm x 1.0 Thread, 38.5mm length | Rear |
| 280022ERL | VW | 87-94 | 10mm x 1.0 Thread, 38.5mm length | Rear |
| 280031ERL | VW Golf, Jetta, Quantum, Rabbit, Scirocco | 74-87 | 6mm x 1.0 thread, 37.1mm length | Rear |
| 280031ERL | VW Golf, Jetta, Quantum, Rabbit, Scirocco | 93-95 | 6mm x 1.0 thread, 37.1mm length | Rear |
| 280030ERL | White Truck | | 7/16 -20 Thread, 2 5/8" length | |
| 280024ERL | Yugo | 86-90 | 8mm x 1.25 thread, 23.5mm length | Front & Rear |

PRESSURE MASTER™ HEADER SEALS

SEALING SYSTEMS

PRESSURE MASTER™ SEALS, designed and manufactured for Earl's by Parker Hannifin Corporation, were the first high performance seals developed to solve automotive sealing problems using Aerospace Technology.



REUSABILITY/ADAPTABILITY












The graphite foil sealing inserts are replaceable in the aluminum retainer, making it an economical solution to tough sealing problems.










VIRTUALLY LEAKPROOF

Leak down tests show Earl's Pressure Master™ seals up to 1200% better under pressure than leading gasket systems.

SUPERIOR TORQUE RETENTION

TORQUE TESTS show the fastener pre-load is longer lasting. Earl's 90% break loose torque compares to 65% for our nearest competition.

| PART NO. | DESCRIPTION |
|---|---|
|  CHEVY SMALL BLOCK 265-400 29D03BERL | Header Seals with 1.50" x 1.50" ports (pair) |
|  29D03B1ERL | replacement insert set (1.50" x 1.50" ports) |
|  29DA3BERL | Header Seals with D-Port LT-1 ports (pair) |
|  29D03B3ERL | replacement insert set (D-Port LT-1 ports) |
|  29DB3BERL | Header Seals with 1.36" x 1.36" ports (pair) |
|  29D03B4ERL | replacement insert set (1.36" x 1.36" ports) |
|  29DC3BERL | Header Seals with Round 1.59" Dia. ports (pair) |
|  29D03B5ERL | replacement insert set (Round 1.59" Dia. ports) |
|  29DD3BERL | Header Seals with D-Port 1.55" x 1.63" ports (pair) |
|  29D03B6ERL | replacement insert set (D-Port 1.55" x 1.63" ports) |
|  29DE3BERL | Header Seals with uncut centers (pair) |
|  29D03B2ERL | replacement insert set (uncut centers) |

| PART NO. | DESCRIPTION |
|--|---|
|  CHEVY BIG BLOCK 396-502 29D04BERL | Header Seals for Chevy with 1.50" x 1.50" ports (pair) |
|  29D04B1ERL | replacement insert set (1.50" x 1.50" ports) |
|  29D04B2ERL | replacement insert set (uncut centers) |
|  FORD SMALL BLOCK 289-302-351W 29D03AERL | Header Seals for Ford 289-302-351W (pair) (Except Boss) |
|  29D03A1ERL | replacement insert set (standard) |
|  29D03A2ERL | replacement insert set (uncut centers) |
|  FORD BIG BLOCK 429-460 29D04AERL | Header Seals for Ford 429-460 (pair) |
|  29D04A1ERL | replacement insert set (standard) |
|  29D04A2ERL | replacement insert set (uncut centers) |

PRESSURE MASTER™ COLLECTOR SEALS

SEALING SYSTEMS

EARL'S PRESSURE MASTER™ COLLECTOR SEALS have all of the superior features as our header seals to solve your exhaust sealing problems.

COLLECTOR SEALS



29D15ZERL

3 Bolt 2-1/2" Dia. (pair)



29D10ZERL

3 Bolt 3" Dia. (pair)



29D20ZERL

3 Bolt 3-1/2" Dia. (pair)

REPLACEMENT INSERTS



29D15Z1ERL

3 Bolt 2-1/2" Dia. (pair)



29D10Z1ERL

3 Bolt 3" Dia. (pair)



29D20Z1ERL

3 Bolt 3-1/2" Dia. (pair)

SEALING SYSTEMS

EARL'S PRESSURE MASTER™ VALVE COVER SEALS were developed for high performance and racing engines. The sealing material is designed for long life by use of high temperature resistant silicone elastomer.

SEALABILITY

Pressure Master™ Seals provide complete and reliable sealing without the use of adhesives.

INSTALLATION

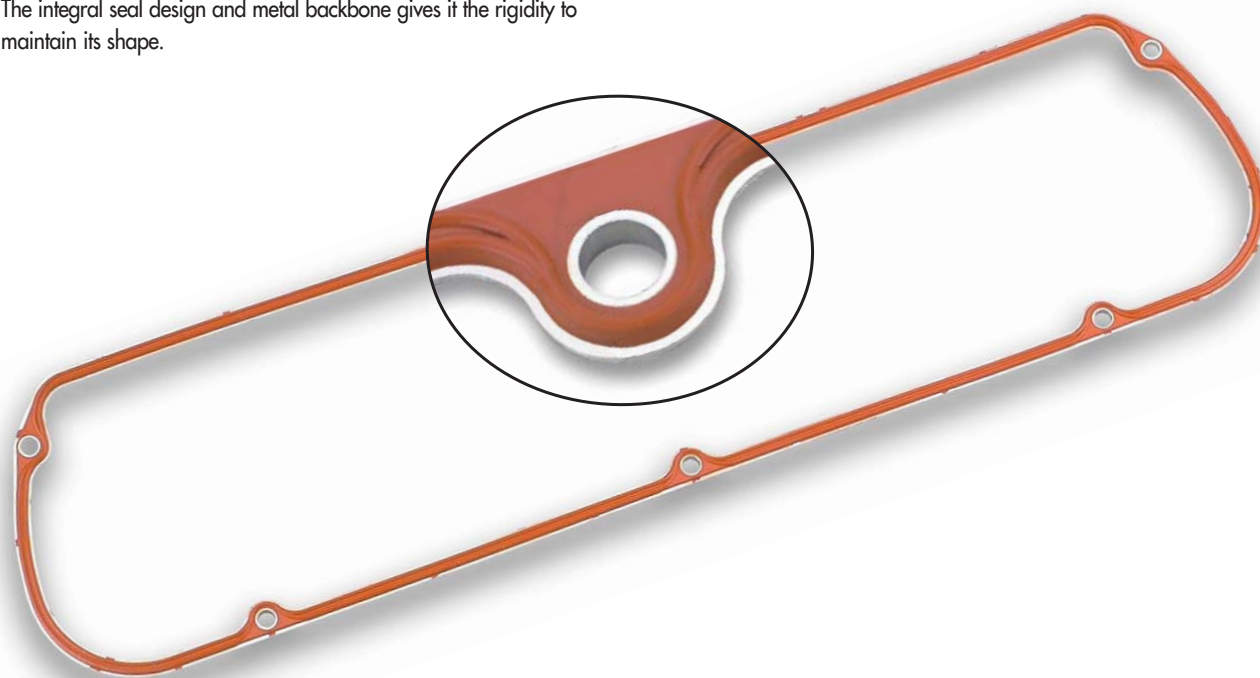
The integral seal design and metal backbone gives it the rigidity to maintain its shape.

REUSABILITY

The seals are designed for extended life by establishing optimum squeeze on the seal element. The metal inserts around the screw holes control the amount of squeeze on the rubber, preventing over tightening of the seal.

LATEST TECHNOLOGY

Bolt load is transmitted through the metal insert at the screw holes, which assures positive closure and optimum bolt pre-load



| PART NO. | DESCRIPTION |
|----------|-------------|
|----------|-------------|



29E03BERL

Small Block Chevy
265-400 (pair)



29E04BERL

Big Block Chevy
395-502 (pair)

| PART NO. | DESCRIPTION |
|----------|-------------|
|----------|-------------|



29E03AERL

Small Block Ford
289-302-351W (except boss)

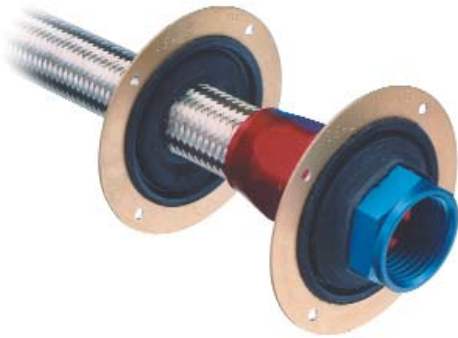


29E04AERL

Big Block Ford
429-460 (pair)

FIREWALL GROMMET SEALS

SEALING SYSTEMS



SEALS-IT has designed this unique seal that will stretch to allow the fitting to pass, yet will grip the hose, not allowing fumes or debris to pass through. Made from a fire retardant rubber bonded to an anodized aluminum bezel.

| PART NO. | DESCRIPTION |
|----------|-------------|
|----------|-------------|



29G001ERL Blank seal



29G006ERL -6 hose and fitting



29G008ERL -8 hose and fitting



29G010ERL -10 hose and fitting

| PART NO. | DESCRIPTION |
|----------|-------------|
|----------|-------------|



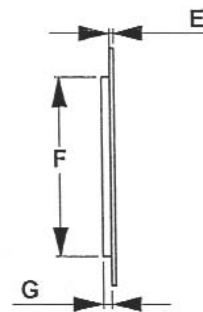
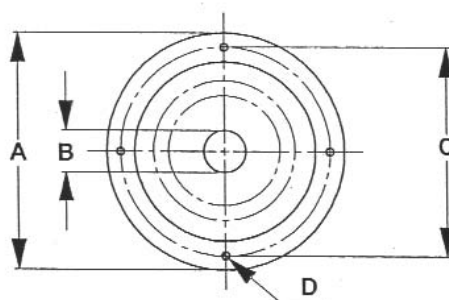
29G012ERL -12 hose and fitting



29G016ERL -16 hose and fitting



29G020ERL -20 hose and fitting



| PART NO. | A | B | C | D | E | F | G |
|-----------|-------|---------|------|------|------|-------|------|
| 29G001ERL | 3.000 | NO HOLE | 2.65 | .125 | .040 | 2.250 | .120 |
| 29G006ERL | 3.000 | .375 | 2.65 | .125 | .040 | 2.250 | .120 |
| 29G008ERL | 3.000 | .500 | 2.65 | .125 | .040 | 2.250 | .120 |
| 29G010ERL | 3.000 | .625 | 2.65 | .125 | .040 | 2.250 | .120 |
| 29G012ERL | 3.000 | .750 | 2.65 | .125 | .040 | 2.250 | .120 |
| 29G016ERL | 3.000 | .950 | 2.65 | .125 | .040 | 2.250 | .120 |
| 29G020ERL | 3.000 | 1.180 | 2.65 | .125 | .040 | 2.385 | .120 |

COMPONENTS AND ACCESSORIES

ECON-O-FIT™ HOSE CLAMPS

ECON-O-FIT™ is the original anodized aluminum hose clamp cover. Its appearance dresses up any installation. ECON-O-FIT's specially designed interior grooving prevents the hose from "hanging up" on the clamp and ensures proper placement of the worm gear type clamp with respect to the end of the hose. ECON-O-FITs are machined from aluminum alloy and are available in red, blue, chrome and black.

Body is hexagonal on sizes 3 through size 16.

Body is round on sizes 18 through size 36.



NEW!

| ECON-O-FIT SIZE | ECON-O-FIT I.D. | FITS STAINLESS HOSE SIZE | HOSE O.D. | TYPICAL APPLICATION | PART NO. RED | PART NO. BLUE | PART NO. CHROME | PART NO. BLACK |
|-----------------|-----------------|--------------------------|-------------------|---------------------------------|--------------|---------------|-----------------|----------------|
| 3 | 7/16" | 4 or 5 | 3/8" | Vacuum Line | 900103ERL | 900203ERL | 900303ERL | N/A |
| 4 | 1/2" | 4 or 5 | 7/16" - 1/2" | Fuel Lines - Vacuum Lines | 900104ERL | 900204ERL | 900304ERL | 900504ERL |
| 5 | 35/64" | 4 or 5 | 1/2" | Fuel Lines | 900105ERL | 900205ERL | 900305ERL | 900505ERL |
| 6 | 5/8" | 6 | 35/64" | Fuel Lines - Oil Lines | 900106ERL | 900206ERL | 900306ERL | 900506ERL |
| 7 | 21/32" | 7 | 5/8" | Fuel Lines - Oil Lines | 900107ERL | 900207ERL | 900307ERL | 900507ERL |
| 8 | 11/16" | 7 or 8 | 5/8" - 41/64" | Vent Lines - Oil Cooler Lines | 900108ERL | 900208ERL | 900308ERL | 900508ERL |
| 10 | 13/16" | 10 | 51/64" | Oil Cooler Lines - Heater Hoses | 900110ERL | 900210ERL | 900310ERL | 900510ERL |
| 12 | 15/16" | 12 | 15/16" | Heater Hoses | 900112ERL | 900212ERL | 900312ERL | 900512ERL |
| 14 | 1 - 1/8" | 12 or 14 | 15/16" - 1-1/32" | Heater Hoses | 900114ERL | 900214ERL | 900314ERL | 900514ERL |
| 16 | 1-3/16" | 16 | 1-5/32" | Heater - Radiator Hoses | 900116ERL | 900216ERL | 900316ERL | 900516ERL |
| 18 | 1-3/8" | 16 or 18 | 1-5/32" - 1-5/16" | Heater - Radiator Hoses | 900118ERL | 900218ERL | 900318ERL | N/A |
| 20 | 1-1/2" | 20 | 1-7/16" | Heater - Radiator Hoses | 900120ERL | 900220ERL | 900320ERL | N/A |
| 24 | 1-3/4" | 24 | 1-45/64" | Radiator Hoses | 900124ERL | 900224ERL | 900324ERL | N/A |
| 28 | 1-15/16" | 28 | 1-27/32" | Radiator Hoses | 900128ERL | 900228ERL | 900328ERL | N/A |
| 32 | 2-3/16" | 32 | 2-1/8" | Radiator Hoses | 900132ERL | 900232ERL | 900332ERL | N/A |
| 34 | 2-5/16" | ** | ** | Radiator Hoses | 900134ERL | 900234ERL | 900334ERL | N/A |
| 36 | 2-3/8" | ** | ** | Radiator Hoses | 900136ERL | 900236ERL | 900336ERL | N/A |

** No stainless braided hose this size. Intended for use with TUBE BRAID over existing radiator hose.
ECON-O-FIT HOSE ENDS ARE COVERED BY U.S. PATENTS NO 4135744-DES 251676 AND 251918

STAINLESS STEEL HOSE CLAMPS

Despite our best efforts, there are still places where it makes sense to use an old fashioned hose clamp.



| PKG. PART NO. | PKG. QTY. | I.D. MIN. | I.D. MAX. |
|---------------|-----------|-----------|-----------|
| 174002ERL | 4 | .219 | .625 |
| 174003ERL | 4 | .375 | .875 |
| 174004ERL | 4 | .500 | 1.250 |
| 174005ERL | 4 | .500 | 1.500 |
| 174006ERL | 4 | .500 | 1.750 |
| 174008ERL | 4 | .750 | 2.500 |

HOSE & TUBING SEPARATORS

Crafted from 6061-T6 billet aluminum alloy these clamps are the finest available to finish off a professional plumbing installation. Clamps come with counter sunk allen head screws in a variety of colors and sizes for separating, isolating and securing fuel, oil and brake lines.



| SIZE | RED ANODIZED | BLUE ANODIZED | POLISHED | QTY. PER PKG. | PERFORM-O-FLEX™ AUTO-FLEX™ PRO-LITE 350™ | SPEED-FLEX™ | SUPER STOCK™ |
|--------|--------------|---------------|-----------|---------------|--|-------------|--------------|
| 3/16 | 167003ERL | 167103ERL | 167203ERL | 3 | — | — | — |
| 1/4 | 167004ERL | 167104ERL | 167204ERL | 3 | — | -3 | — |
| 5/16 | 167005ERL | 167105ERL | 167205ERL | 3 | — | -4 | — |
| 3/8 | 167006ERL | 167106ERL | 167206ERL | 2 | -3 | — | — |
| 7/16 | 167007ERL | 167107ERL | 167207ERL | 2 | -4 | -6 | — |
| 1/2 | 167008ERL | 167108ERL | 167208ERL | 2 | -5 | — | -4 |
| 9/16 | 167009ERL | 167109ERL | 167209ERL | 2 | -6 | -8 | — |
| 5/8 | 167010ERL | 167110ERL | 167210ERL | 2 | — | — | -6 |
| 11/16 | 167011ERL | 167111ERL | 167211ERL | 2 | -9 | — | — |
| 3/4 | 167012ERL | 167112ERL | 167212ERL | 2 | — | — | -8 |
| 13/16 | 167013ERL | 167113ERL | 167213ERL | 2 | -10 | — | — |
| 7/8 | 167014ERL | 167114ERL | 167214ERL | 2 | -11 | — | — |
| 15/16 | 167015ERL | 167115ERL | 167215ERL | 2 | -12 | — | -10 |
| 1 | 167016ERL | 167116ERL | 167216ERL | 2 | — | — | — |
| 1-1/16 | 167017ERL | 167117ERL | 167217ERL | 2 | -14 | — | -12 |
| 17/32 | 167019ERL | 167119ERL | 167219ERL | 2 | — | — | — |
| 19/32 | 167020ERL | 167120ERL | 167220ERL | 2 | -7 | — | — |
| 21/32 | 167022ERL | 167122ERL | 167222ERL | 2 | -8 | — | — |

LINE CLAMPS



| CLAMP I.D. SIZE | RED ANODIZED | BLUE ANODIZED | POLISHED | QTY. PER PKG. | PERFORM-O-FLEX™ AUTO-FLEX™ PRO-LITE 350™ | SPEED-FLEX™ | SUPER STOCK™ |
|-----------------|--------------|---------------|-----------|---------------|--|-------------|--------------|
| 3/16 | 170003ERL | 170103ERL | 170203ERL | 6 | — | — | — |
| 1/4 | 170004ERL | 170104ERL | 170204ERL | 6 | — | -3 | — |
| 5/16 | 170005ERL | 170105ERL | 170205ERL | 6 | — | -4 | — |
| 3/8 | 170006ERL | 170106ERL | 170206ERL | 4 | -3 | — | — |
| 7/16 | 170007ERL | 170107ERL | 170207ERL | 4 | -4 | -6 | — |
| 1/2 | 170008ERL | 170108ERL | 170208ERL | 3 | -5 | — | -4 |
| 9/16 | 170009ERL | 170109ERL | 170209ERL | 3 | -6 | -8 | — |



To determine which separator or clamp will fit your hose, measure the outside diameter of your hose and check the corresponding inside size of the separator or clamp and choose the closest one.

CLAMPS, WASHERS & SEALS

COMPONENTS AND ACCESSORIES

CUSHIONED TUBING CLAMPS

These clamps are designed to support and locate hoses. They are attached to the supporting structure either with a machine screw and nut or, in blind applications, with a machine screw and a rivet or plate nut.



| PKG. PART # ALUM. FINISH | PKG. PART # RED ANODIZED | PKG. PART # BLUE ANODIZED | FITS TUBE OR HOSE O.D. | PKG. QTY. |
|--------------------------------|--------------------------------|---------------------------------|------------------------------|--------------|
| 171003ERL | 171103ERL | 171203ERL | 3/16" | 10 |
| 171004ERL | 171104ERL | 171204ERL | 1/4" | 10 |
| 171005ERL | 171105ERL | 171205ERL | 5/16" | 10 |
| 171006ERL | 171106ERL | 171206ERL | 3/8" | 10 |
| 171008ERL | 171108ERL | 171208ERL | 1/2" | 5 |
| 171010ERL | 171110ERL | 171210ERL | 5/8" | 5 |
| 171012ERL | 171112ERL | 171212ERL | 3/4" | 5 |
| 171016ERL | 171116ERL | 171216ERL | 1" | 5 |
| 171018ERL | 171118ERL | 171218ERL | 1-1/8" | 2 |
| 171020ERL | 171120ERL | 171220ERL | 1-1/4" | 2 |
| 171024ERL | 171124ERL | 171224ERL | 1-1/2" | 2 |
| 171028ERL | 171128ERL | 171228ERL | 1-3/4" | 2 |
| 171030ERL | 171130ERL | 171230ERL | 1-7/8" | 2 |
| 171032ERL | 171132ERL | 171232ERL | 2" | 2 |

AN 901 ALUMINUM CRUSH WASHERS

To be used with straight threaded adapter fittings when sealing at a port which has no relief for an "O" ring.

| PKG. PART NO. | PKG. QTY. | FTG. SIZE | I.D. |
|------------------|--------------|--------------|---------|
| 177003ERL | 10 | 3 | 3/8" |
| 177004ERL | 10 | 4 | 7/16" |
| 177005ERL | 10 | 5 | 1/2" |
| 177006ERL | 10 | 6 | 9/16" |
| 177008ERL | 5 | 8 | 3/4" |
| 177010ERL | 5 | 10 | 7/8" |
| 177012ERL | 5 | 12 | 1-1/16" |
| 177016ERL | 2 | 16 | 1-5/16" |
| 177100ERL | 10 | 10mm | 10mm |



COPPER

| PKG. PART NO. | PKG. QTY. | FTG. SIZE | I.D. |
|------------------|--------------|--------------|-------|
| 177101ERL | 10 | 10mm | 10mm |
| 177102ERL | 10 | 4 | 7/16" |



STAT-O-SEALS

The Stat-O-Seal consists of a synthetic rubber "O" ring mechanically locked to the I.D. of an aluminum washer. When tightened the "O" ring is compressed, forcing the sealing surfaces around the bolt shank. They will form a positive seal over a temperature range of -85° to +450° F.



| PART NO. | PKG. QTY. | I.D. | FITS AN FITTING |
|-----------|-----------|-------|-----------------|
| 178003ERL | 2 | 3/16" | — |
| 178004ERL | 2 | 1/4" | — |
| 178005ERL | 2 | 5/16" | — |
| 178006ERL | 2 | 3/8" | 3 |
| 178007ERL | 2 | 7/16" | 4 |
| 178008ERL | 2 | 1/2" | 5 |
| 178009ERL | 2 | 9/16" | 6 |
| 178010ERL | 2 | 5/8" | — |
| 178012ERL | 2 | 3/4" | 8 |
| 178014ERL | 2 | 7/8" | 10 |

DOWTY SEALS

Dowty seals are similar in concept to our Stat-O-Seals, but are considerably smaller in diameter (and thicker in cross section).



| PART NO. | PKG. QTY. | I.D. | FITS AN FITTING |
|-----------|-----------|---------|-----------------|
| 178103ERL | 2 | 3/16" | — |
| 178104ERL | 2 | 1/4" | — |
| 178105ERL | 2 | 5/16" | — |
| 178106ERL | 2 | 3/8" | 3 |
| 178107ERL | 2 | 7/16" | 4 |
| 178108ERL | 2 | 1/2" | 5 |
| 178109ERL | 2 | 9/16" | 6 |
| 178110ERL | 2 | 5/8" | — |
| 178112ERL | 2 | 3/4" | 8 |
| 178114ERL | 2 | 7/8" | 10 |
| 178117ERL | 2 | 1-1/16" | 12 |

"O" RINGS

EARL'S STOCKS "O" ring seals in both the traditional BUNA N synthetic rubber and in VITON®. The BUNA compound is compatible with most fuels, hydraulic fluids and lubricants up to a temperature limit of 275° F. VITON® is preferred for synthetic lubricants, oxygen bearing fuels and additives and non-ether based brake fluids. VITON® also has more scuff resistance, a longer service life and a higher temperature rating of 400° F.

Viton® is a registered trademark of DuPont Performance Elastomers



| Viton® | | | Buna N® | | |
|---------------|-----------|-----------|---------------|-----------|-----------|
| PKG. PART NO. | PKG. QTY. | FTG. SIZE | PKG. PART NO. | PKG. QTY. | FTG. SIZE |
| 176103ERL | 10 | 3 | 176003ERL | 10 | 3 |
| 176104ERL | 10 | 4 | 176004ERL | 10 | 4 |
| 176106ERL | 10 | 6 | 176006ERL | 10 | 6 |
| 176108ERL | 10 | 8 | 176008ERL | 10 | 8 |
| 176110ERL | 5 | 10 | 176010ERL | 5 | 10 |
| 176112ERL | 5 | 12 | 176012ERL | 5 | 12 |
| 176116ERL | 5 | 16 | 176016ERL | 5 | 16 |

CONICAL SEALS

IMMEDIATE AND PERMANENT field repairs for damaged hose end and 37° adapter fitting cones and seats.

Easily installed by simply pushing over the male cone and assembling the hose end in the normal manner.

| PART NO. | DESCRIPTION |
|-----------|--|
| 169101ERL | Conical Seal Assortment, contains 4 of each of the following sizes: -3, -4, -6, -8, -10, -12, -16 |
| 169103ERL | package of 4, size -3 |
| 169104ERL | package of 4, size -4 |
| 169106ERL | package of 4, size -6 |
| 169108ERL | package of 4, size -8 |
| 169110ERL | package of 4, size -10 |
| 169212ERL | package of 2, size -12 |
| 169216ERL | package of 2, size -16 |



TEFLON® TAPE

EVERY TIME you install a tapered pipe threaded fitting it is essential to use some form of anti-seize to prevent galling. Our teflon tape is not only the easiest and least messy form of anti-seize available, it also forms a positive seal.

| PKG. PART NO. | DESCRIPTION |
|---------------|-------------|
| 175002ERL | 1/2x520" |



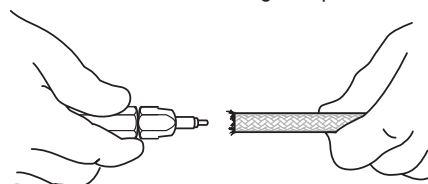
EARL'S BRAID SPREADER FOR -3 AND -4 TEFLON HOSE

IN ORDER to insert the "olive" into Speed-Flex Hose, the stainless protective braid must be separated from the teflon liner. This can be more difficult than it sounds. Earl's braid spreader solves the problem—and eliminates the tiresome probability of poking holes in your fingers. In use the tool is simply inserted into the cut end of the hose and pushed—spreading the braid. The olive is then placed on the tool mandrel, pushed over the hose liner and under the braid until the liner bottoms against the shoulder of the olive.

The tool mandrel is double ended—one for -3 hose and one for -4. The handle contains a recess for storage of spare olives.



| PART NO. | SIZE |
|----------|----------------|
| 007ERL | -3 and -4 Hose |



COMPONENTS AND ACCESSORIES

HOSE END WRENCHES

THESE WRENCHES ARE specifically designed for use with Earl's fittings and hose ends. The short handles allow usage in cramped areas and discourages over-tightening. Color coded for quick size identification. Reduces damage to aluminum.

| PART NO. | HEX SIZE | NUT SIZE | COLOR |
|-----------|----------------|----------|--------|
| 230406ERL | 11/16 | 6 Nut | Black |
| 230408ERL | 7/8 | 8 Nut | Blue |
| 230410ERL | 1" | 10 Nut | Purple |
| 230412ERL | 1-1/4 | 12 Nut | Red |
| 230416ERL | 1-1/2 | 16 Nut | Bronze |
| 230420ERL | 1-13/16 | 20 Nut | Gold |
| 230402ERL | Set of all six | | |



DOUBLE-ENDED HOSE END WRENCHES

DOUBLE-ENDED wrenches make it easier than ever to assemble Earl's hose and hose ends correctly without damaging ends. Finished in anodized color coded aluminum. Pick up a complete set for your tool box today.

| PART NO. | HEX SIZE | FITS | COLOR |
|-----------|------------------|--------------------|---------|
| 230405ERL | 9/16x1/2 | 4 nut - 3 nut | Natural |
| 230407ERL | 11/16x5/8 | 6 nut - 4 socket | Black |
| 230409ERL | 7/8x3/4 | 8 nut - 6 socket | Blue |
| 230411ERL | 1x7/8 | 10 nut - 8 socket | Purple |
| 230413ERL | 1-1/4x1-1/16 | 12 nut - 10 socket | Red |
| 230415ERL | 1-1/2x1-3/16 | 16 nut - 12 socket | Bronze |
| 230419ERL | 2"x1-7/16 | 20 nut - 16 socket | Gold |
| 230401ERL | Set of all seven | | |



ULTRA-FLEX™ HAND HELD HOSE CUTTER

Stop wasting time and material with jagged or angled cuts on your hose assemblies. This hose cutter puts precision accuracy in the palm of your hand. The special v-block ensures a straight clean cut every time. This hand held cutter will cut Earl's Super Stock™, Pro-Lite 350™ and even our new Ultra-Flex 650™ Kevlar hose. This tool weighs only 12 oz. and the best part is that the blade is dual functioning. When one edge becomes dull simply rotate the blade and you have a fresh blade ready for hundreds of cuts.

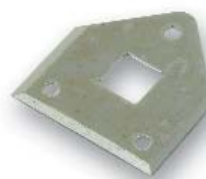
D022ERL



ULTRA-FLEX™ REPLACEMENT HOSE CUTTER BLADE

Earl's also carries a 5 blade (10 with rotation) replacement set.

D023ERL



ULTRA-FLEX™ CRIMPING ACCESSORIES

Earl's offers a full line of crimping accessories and an exclusively built mobile crimper for assembling all of our Ultra-Flex 650™ hose and Ultra-Flex™ hose ends. A complete set of dies covering all sizes -4 through -16, die rings, optional air over oil pump for direct air source, and a custom mounting plate are available. The perfect lasting investment for all of your Ultra-Flex assembly needs.

- Crimper has a cast aluminum body that weighs only 42 lbs!
- Manual pump (provided) or optional air over oil pump for direct air source.
- Full cycle time of 20 seconds to 3 minutes depending on what hose end or size of the hose is used.
- 10,000 PSI crimp force on the collar.
- Completely mobile.
- All parts designed exclusively for Earl's for the Ultra-Flex line.



D032ERL
Ultra-Flex crimping machine



D03201ERL
D032 Crimper Die Ring

D032_ERL
Ultra-Flex die set



| PART # | DESCRIPTION |
|-----------|-----------------------------|
| D032ERL | Ultra-Flex crimping machine |
| D03200ERL | D032 Mounting Plate |
| D03201ERL | D032 Crimper Die Ring |
| D03202ERL | D032 Air over Oil Pump |
| D03204ERL | -4 Ultra-Flex die set |
| D03206ERL | -6 Ultra-Flex die set |
| D03208ERL | -8 Ultra-Flex die set |
| D03210ERL | -10 Ultra-Flex die set |
| D03212ERL | -12 Ultra-Flex die set |
| D03216ERL | -16 Ultra-Flex die set |

ULTRA-FLEX HOSE & HOSE ENDS PGS. 5-8
Crimping Instructions on pg. 118,119



D03202ERL
D032 Air over Oil Pump



D03200ERL
D032 Mounting Plate

AUTO-CRIMP TOOLS & DIES

CRIMPING TOOL

Crimping tool and dies are used to crimp the aluminum collar on Auto Crimp hose ends. Designed to give a maximum pressure rating to Auto-Crimp hose ends when using Pro-Lite 350™ hose.

LEVER TYPE CRIMPING MACHINE PART NO.

D031ERL



PART NO.
D031_ERL



CRIMPING DIES

The crimping tool is sold without dies. You will need to order the correct die for each size Auto-Crimp™ hose ends. These dies will only work with Auto-Crimp hose ends. Dies are also available for Super Stock™ hose and hose ends.

| AUTO-CRIMP CRIMPING DIES PART NO. | SIZE |
|-----------------------------------|------|
| D03104ERL | 4 |
| D03106ERL | 6 |
| D03108ERL | 8 |
| D03110ERL | 10 |
| D03112ERL | 12 |
| D03116ERL | 16 |

| SUPER-STOCK CRIMPING DIES PART NO. | SIZE |
|------------------------------------|------|
| D03145ERL | 1/4" |
| D03167ERL | 3/8" |
| D03109ERL | 1/2" |
| D03111ERL | 5/8" |
| D03113ERL | 3/4" |

COMPONENTS AND ACCESSORIES

EARL'S ALUMINUM VISE JAWS FOR HOSE ASSEMBLY

THESE HANDY vise jaw liners help prevent scratching of anodized aluminum hose ends during assembly. Internal magnets hold the extruded aluminum liners securely to most popular bench vises. The jaws are available in both of the standard jaw widths and are designed to hold almost any soft part without marking its surface.

| PART NO. | DESCRIPTION |
|----------|----------------------------|
| 004ERL | Aluminum Vise Jaws 3" Wide |
| 005ERL | Aluminum Vise Jaws 5" Wide |



AUTO-CRIMP INSTALLATION WHEEL

ORIGINALLY intended for OEM and Speed Shop accounts, this simple tool allows field assembly of AUTO-CRIMP hose ends with Earl's anodized aluminum crimping sleeves. The result is an economical and extremely lightweight permanent assembly. Crimping Wheel fits Imperial-Eastman TC 1000 tube cutter (not included).

019ERL



TUBE-MATE GROOVING WHEEL

IN ORDER to use Earl's TUBE-MATE hose end, the rigid tubing to which the hose end attaches must be either grooved or beaded. Our grooving tool is available as a wheel to fit Imperial-Eastman TC 1000 (not included).

006ERL



EARL'S EZ-BEADER™ TUBING BEADER

Patent NO. 5,186,033

EARL'S patented EZ (ROLLER) BEADER is a fresh approach to an old problem. In order to securely attach rubber water hose to rigid aluminum tubing, the end of the tubing must be beaded. Compact enough to be used on already installed tubing, Earl's EZ-BEADER produces a properly positioned and perfectly radiused bead on aluminum tubing with wall thicknesses from .035" to .065". This is one tool that no serious racing mechanic can afford to be without.



| PART NO. | TUBE O.D. |
|----------|--------------|
| 008ERL | 3/8" |
| 009ERL | 1/2" |
| 010ERL | 5/8" |
| 011ERL | 3/4" |
| 012ERL | 1" |
| 013ERL | 1-1/4" |
| 014ERL | 1-1/2" |
| 015ERL | 1-3/4" |
| 016ERL | 2" |
| 018ERL | Set of all 9 |

PRESSURE TEST KITS

EVERY HOSE assembly should be pressure tested prior to installation. Earl's PRESSURE TEST KIT makes it easy to test field-assembled kits with either compressed air or nitrogen. Consists of fitting with air valve in each size and matching plugs.

Covers sizes 3 through 16.

D016ERL



ASSEMBLY LUBE

184004ERL

EARL'S ASSEMBLY LUBE is specifically mil-spec formulated to ease the installation of hose ends onto synthetic rubber hose. Comes in 8 oz. squeeze bottle.



EARL'S PIPE SEALANT

D024ERL

Earl's instant pipe sealant secures metal pipes and fittings by filling the space between threaded metal parts. Thread sealants prevent leakage caused by tape shredding, vibration loosening, solvent evaporation and damaged threads. Pipe sealant can be used for both low and high pressure applications and seals to the burst strength of most piping systems. Because of the lubricating properties, fitting assembly is easy. It works on any liquid, gas, fuel, air, oil lines and has an anti-galling compound to work with stainless and aluminum fittings. Parts can be disassembled with basic hand tools. Comes in a 50ML tube.

Operating Temperature: -65° F to +400° F

Full Cure Time: 24 Hours @ 68° F

Pressure Resistance: 10,000 PSI

NEW!



EARL'S COPPER-GRAPHITE ANTI-SEIZE

D025ERL

This versatile product is a general purpose copper paste that lubricates, resists seizing and galling and helps defend against galvanic attack. This product also prevents excessive wear and corrosion. Earl's copper-graphite anti-seize can be used on softer metals such as copper and brass, including plastics and non-metallic gaskets. It also allows studs, bolts flanges and gaskets to be removed more easily. Comes in a 4 Oz. can with an attached brush in the lid.

NEW!



EARL'S NICKEL-GRAPHITE ANTI-SEIZE

D026ERL

Earl's nickel-graphite anti-seize is a high temperature resistant anti-seize paste that lubricates during assembly, providing protection against seizing, galling and excessive wear even in the most adverse conditions. This versatile lubrication can be used in automotive, marine and aircraft applications. Nickel is a hard metal that keeps surfaces apart so this product is particularly well suited for applications that involve the use of different metals such as brass to steel. Comes in a 4 oz. can with a brush attached in the lid.

NEW!



COMPONENTS AND ACCESSORIES

PUSH-IN VALVE COVER BREATHER*

Push-In Valve Cover Breather—Machined from 6061-T6 Billet aluminum, these breathers feature a unique dual baffle design to virtually eliminate oil blowing out breather. Replaces existing push-in breathers.

Not legal for sale or use in California on pollution controlled motor vehicles.



3434112ERL

PCV BREATHER

PCV Breather—Machined from 6061-T6 Billet aluminum, the PCV Breather matches Earl's breather in appearance. The difference is the PCV Valve hidden inside. These breathers are available with either 3/8" slip-on hose connection or -6 AN hose end. Now you can eliminate that unsightly PCV valve.

Billet aluminum with Blue anodized fitting



Breathers come complete with a rubber grommet to permit installation of Earl's push-in breather on valve covers using either push-in or twist-in breathers. Breathers require minimum hole diameter of 1.22".

| PART NO. | QTY. PER PKG. | FINISH | DESCRIPTION |
|------------|---------------|--------|---------------------------|
| 3434110ERL | 1 | Mill | PCV Breather AN -6 |
| 3434114ERL | 1 | Mill | PCV Breather Slip-On 3/8" |
| 3434116ERL | 1 Pair* | Mill | PCV Breather AN -6 |
| 3434118ERL | 1 Pair** | Mill | PCV Breather Slip-On 3/8" |

* Includes 1 Each #3434112 & 3434110

** Includes 1 Each #3434112 & 3434114



3434114ERL



3434110ERL

WATER NECKS

These filler necks are CNC machined and are ready for welding. They come with a 1/4" barb overflow fitting attached



PART NO. OPENING

166014ERL 32mm



166015ERL 1.5"

PROTECTIVE HOSE COVERING

COMPONENTS AND ACCESSORIES

FLAME GUARD INSULATION

IT IS OFTEN necessary to insulate hoses (or cables) from extreme heat sources. Earl's non-asbestos flame guard is a very efficient insulating sleeve for hose assemblies. **Color:** Brick Red

| PART NO | I.D. | PERFORM-O-FLEX, PRO-LITE & AUTO-FLEX | SPEED FLEX SMOOTH BORE | SUPER STOCK |
|-----------|-------|---|---------------------------|----------------|
| 730006ERL | 3/8 | - | -3 & -4 | - |
| 730008ERL | 1/2 | -3,-4,& -5 | -6 | -4 |
| 730010ERL | 3/4 | -6,-7,-8, & -9 | -8 | -6 & -8 |
| 730012ERL | 1 | -10,-11, & -12 | - | -10 |
| 730014ERL | 1 1/4 | -14 & -16 | - | -12 |
| 730016ERL | 1 1/2 | -18 & -20 | - | - |



OPERATING TEMPERATURE
-65° F TO +500° F
W/ SPLASHES TO 2000° F

FLAME GUARD INSULATION - Full cut lengths

| PART NO | 1FT./0.3M | 3FT./0.9M | 6FT./1.8M | 10FT./3.0M |
|-----------|-----------|-----------|-----------|------------|
| 730006ERL | 730106ERL | 730306ERL | 730606ERL | 731006ERL |
| 730008ERL | 730108ERL | 730308ERL | 730608ERL | 731008ERL |
| 730010ERL | 730110ERL | 730310ERL | 730610ERL | 731010ERL |
| 730012ERL | 730112ERL | 730312ERL | 730612ERL | 731012ERL |
| 730014ERL | 730114ERL | 730314ERL | 730614ERL | 731014ERL |
| 730016ERL | 730116ERL | 730316ERL | 730616ERL | 731016ERL |

FLAME GUARD TAPE

Available in 1" width on a 12 foot roll.

Color: Brick Red



731001ERL

OPERATING TEMPERATURE
-65° F TO +500° F
W/ SPLASHES TO 2000° F

STAINLESS TUBE-BRAID™ PROTECTIVE COVERING

Earl's Tube-Braid™ is the least expensive way to finish off any custom engine modification. Stainless Tube-Braid™ is actually stainless steel that slips over existing hoses, and gives the look of the expensive line. Stainless Tube-Braid™ works ideally with Econ-O-Fit hose ends for the finished appearance of professional plumbing. They are also excellent for covering individual wires and cables and for containment of wire bundles.

| I.D. RANGE | BULK PART NO. |
|--------------|---------------|
| 1/4" to 3/8" | 920010ERL |
| 3/8" to 5/8" | 920013ERL |
| 3/4" to 1" | 920001ERL |
| 1" to 1-3/4" | 920007ERL |
| 1-1/4" to 2" | 920008ERL |
| 1-1/2" to 3" | 920004ERL |



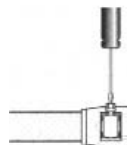
IMPORTANT NOTE 1: Whenever using Tube-Braid™ we suggest most strongly that as it makes visual inspection of the hose underneath impossible, you will need to apply it to a NEW original equipment hose to ensure as long and trouble-free hose life as possible.

IMPORTANT NOTE 2: Each size of Tube-Braid™ sleeve covers a range of hose diameters. If your hose diameter is near the top of the Tube-Braid™ size range, you are likely to need MORE length of sleeve than the actual length of the hose you are intending to cover. So make allowances when ordering!

TUBE BRAID™ HOSE COVER - STAINLESS TUBE BRAID



1. Tape end first to avoid fraying
2. Cut with fine tooth blade or shear
3. Slide Tube-Braid onto hose and clamp one end using Econ-O-Fit™ hose end
4. Work Tube-Braid along hose and stretch to fit snugly



5. Install Econ-O-Fit™ hose end on other end of hose and secure tightly

ECON-O-FIT™ HOSE ENDS



1. Slide Econ-O-Fit™ over hose
2. Slide assembly over nipple
3. Tighten onto fitting

COMPONENTS AND ACCESSORIES

ALUMINUM TUBING

ANNEALED ALUMINUM TUBING is easily hand-formed to virtually any requirement. The tubing can be used with Earl's TUBE-MATE AUTO-FIT hose ends, it can be flared and used with Earl's 5818 tube nut and 5819 tube sleeve or an adapter can be welded onto the end(s) of the tube, or the ends can be beaded and used with Earl's ECON-O-FIT hose ends or with standard hose clamps. For clamping hose, tubing should be beaded.



| PART NO. | O.D. | LENGTH | FINISH |
|-----------|------|----------|------------|
| 100031ERL | 1/4 | 10' (3m) | Unanodized |
| 100034ERL | 3/8 | 10' (3m) | Unanodized |
| 100037ERL | 1/2 | 10' (3m) | Unanodized |

INNER SUPPORT SPRING

IS USED WITH Pro-Lite 350™ hose. A Support Spring is recommended for suction applications or when very tight bends must be made.

Pro-Lite 350™ hose pg. 2

| HOSE NO. | 4' LENGTH |
|----------|-----------|
| 6 | 773406ERL |
| 8 | 773408ERL |
| 10 | 773410ERL |
| 12 | 773412ERL |
| 16 | 773416ERL |



SAFETY WIRE

Earl's safety wire is packaged in a convenient one-pound dispenser. The wire pulls and uncoils from the inside with no tangles. The wire is constructed of Mil-Spec 20995 TYPE 302 Stainless Steel wire.

| PART NO. | WIRE (DIA.) | FOOTAGE(APPROX.) |
|----------|-------------|------------------|
| D002ERL | .025 | 600 ft |
| D003ERL | .032 | 350 ft |
| D004ERL | .041 | 225 ft |



CAPS & PLUGS

Earl's plastic caps and plugs are great for plugging fittings when hoses are disconnected and for keeping debris from entering hoses when they are being stored.



| CAP PART NO. | DESCRIPTION | PLUG PART NO. | QTY. DESCRIPTION | QTY. PER PKG. |
|--------------|------------------|---------------|-------------------|---------------|
| 179103ERL | Plastic Caps -3 | 179203ERL | Plastic Plugs -3 | 25 |
| 179104ERL | Plastic Caps -4 | 179204ERL | Plastic Plugs -4 | 25 |
| 179106ERL | Plastic Caps -6 | 179206ERL | Plastic Plugs -6 | 25 |
| 179108ERL | Plastic Caps -8 | 179208ERL | Plastic Plugs -8 | 15 |
| 179110ERL | Plastic Caps -10 | 179210ERL | Plastic Plugs -10 | 15 |
| 179112ERL | Plastic Caps -12 | 179212ERL | Plastic Plugs -12 | 10 |
| 179116ERL | Plastic Caps -16 | 179216ERL | Plastic Plugs -16 | 10 |

START UP PLAN-O-GRAM & HOSE & HOSE END DISPLAY

MERCHANDISING

START UP PLAN-O-GRAM

GET INTO THE PLUMBING BUSINESS WITH ONE PART NUMBER!

EPG-1ERL

Includes:

- 50 of Earl's most popular part numbers (2 each)
 - Assortment of Swivel Seal™ and Ano-Tuff™ hose ends
 - Assortment of adapters
 - In-line #6 and #8 filters
 - #6 shut off valve
 - 10 foot sections of #6 and #8 Auto-Flex hose
 - 12" x 36" full color header card with tech data
 - 60 Reorder Reminder decals
 - 18" x 36" Earl's banner
 - 20 contingency decals
 - Diagram sheet to show you how to layout the plan-o-gram
 - 5 Earl's master catalogs
- (peg board and hooks not included)



36-341
Earl's Banner

36-282
Earl's Decal

NOTE: Banner and decals are available seperately



Reorder
Reminder
decals (36-342)
included with
plan-o-gram

HOSE & HOSE END DISPLAY

This display board explains the different hose and hose ends Earl's offers on an attractive 4 color, 2' X 2' point of purchase (POP). Hang it on your plumbing wall, under the counter or anywhere you have your Earl's Plumbing.

36-377

START & FINISH the job with EARL'S PERFORMANCE PLUMBING

Earl's has been the industry leading brand of performance plumbing for over 40 years. Earl's has the hoses, quality hose ends and hose ends available for the purpose of transferring fluid in a safe and dependable manner. Earl's has the maximum line of adapters, hose fittings, line accessories, custom hose ends and tools, and you will see that the Earl's line can easily equip modern and every plumbing requirement.

Hoses

- (1) Pro-Line™ Hose
- (2) Perform-O-Flex™ Hose
- (3) Auto-Flex™ Hose
- (4) Ultra-Flex GPO™ Hose
- (5) Super-Stack™ Hose
- (6) Power Steering™ Hose
- (7) Speed-Flex™ Hose

Hose Ends

- (A) Swivel-Seal™ Hose Ends
- (B) Auto-Pit™ Hose Ends
- (C) Auto-Mate™ & Auto-Crimp™ Hose Ends
- (D) Ultra-Flex™ Hose Ends
- (E) Super-Stack™ Hose Ends
- (F) Power Steering™ Hose Ends
- (G) Speed-Seal™ Hose Ends

Hose Ends Grid:

| Hose End | Pro-Line | Perform-O-Flex | Auto-Flex | Ultra-Flex GPO | Super-Stack | Power Steering | Speed-Flex |
|----------------|----------|----------------|-----------|----------------|-------------|----------------|------------|
| Swivel-Seal | • | • | • | • | • | • | • |
| Auto-Pit | • | • | • | • | • | • | • |
| Auto-Mate | • | • | • | • | • | • | • |
| Auto-Crimp | • | • | • | • | • | • | • |
| Ultra-Flex | • | • | • | • | • | • | • |
| Super-Stack | • | • | • | • | • | • | • |
| Power Steering | • | • | • | • | • | • | • |
| Speed-Seal | • | • | • | • | • | • | • |

www.earlspumbing.com

MERCHANDISING

RETRO T-SHIRT

10001-__ERL

Artwork is by renowned artist Chris Froggett. The back of the shirt features a vintage sprint car complete with knock off wheels, wrapped in Firestone® dirt track tires, and sporting big chrome side pipes. This little number is on its way to the races behind a customized '56 GMC pickup with candy apple scallops, chrome reverse wheels, and a spare mill in the bed. A stack-injected small block is printed on the front of the shirt proudly displaying its Earl's plumbing and Weiland accessories. Classic Earl's logos with that famous "Little Guy" complete the look and let everyone know whose high-performance plumbing you run on your ride.

- High quality Hanes 100% cotton, preshrunk Beefy-T white shirt with a cool retro graphic on front lapel and on the back.
- Available in sizes from small to triple extra large.
- Add SM, MD, LG, XL, XXL or XXXL to part number when placing order.



(Back)

(Front)



METAL SIGN

10000ERL

Dress up any shop with this retro Earl's stamped metal sign. This 24" x 8.25" Earl's metal sign with embossed logo is a must for any Earl's enthusiast.



BANNER

36-341

Hang this 18" x 36" vinyl Earl's banner in your garage and let everyone know who you turn to for performance plumbing.



The Earl's technical section contains details of what is meant by AN, NPT and various other esoteric names and numbers used in plumbing, plus outline drawings of common thread sizes. It also has instructions on assembling the various types of hose ends to the hose. We recommend that you have a look at this section before doing anything.

Automotive Plumbing is like a jigsaw puzzle, lots of bits and pieces all looking much the same and no real guide as to where they go.

The Earl's® catalog shows you the bits and pieces. The following notes will help novice plumbers to sort out which ones to use and hopefully provide a start to developing skills which will make more advanced plumbing a lot easier when you come to it.

TOOLS YOU WILL NEED

Basic plumbing requires:

- **Vice with soft jaws** to avoid marking aluminum fittings - available from Earl's® (P/N 004ERL and 005ERL - page 101)
- **Fine bladed hacksaw, angle grinder or chop saw** - for cutting hose.
- **Set of wrenches.** **NOTE:** Aluminum wrenches which reduce marking of aluminum adapters and hose ends are available from Earl's. (Page 99)
- **Ruler** - or preferably Vernier gauge - for measuring hose and barb fitting diameters.
- **Tape measure** - minimum extended length 10ft (3m) for measuring hose and hose run lengths.
- **Length of string or thin wire** - to assist in measuring lengths of existing or planned hoses.
- **Screwdrivers** - flat blade type.
- **Good straight Tin Snips** - recommended for cutting and trimming TUBE-BRAID™ sleeves.
- **Duct Tape or similar to wrap hose** - prior to cutting. (ALWAYS wrap to prevent fraying).
- **Earl's® Assembly lube (P/N 184004ERL - page 102), Sewing machine oil or clean engine oil** - used on hose end threads before assembling ends to hose.

If you intend to assemble Speed-Flex™ brake lines in sizes 3 or 4 with reusable Speed-Seal™ hose ends you will need a Earl's® braid spreader (P/N 007ERL - page 98) and a utility knife.

THE MOST IMPORTANT BASIC CONCEPTS

1. **Hose diameter.** The inside diameter of an original hose is most important - it is this which determines what sizes of stainless braided hose you will use to replace it. The outer diameter is only of use when determining which size of Earl's® Tube-Braid™ Sleeve or Flame Guard or Econ-O-Fit™ to apply if covering the old hose rather than replacing it.

2. **Hose sizes.** You will find each type in the Earl's® catalog has a size number - 4,5,6 etc. Nearly all the hose ends and adapters also have a size number. For each size, there is a whole family of parts whose part number usually ends in the size number to go with the size of hose. A hose end of 6 will fit the hose size 6. **For example:** Auto-Flex™ hose 300006ERL works with Auto-Fit™ hose ends 300106ERL, 309106ERL, etc. and adapters 981666ERL, 982206ERL, etc. And such parts as in-line filter 230106ERL.

3. **Thread sizes.** The Earl's® catalog provides outlines of the most common NPT and AN threads on pg. 111. If in complete doubt, a thread gauge may be useful to you. Metric threaded adapters to convert from metric holes to AN hose end threads are shown in the Earl's® catalog as well.

BASIC STREET MACHINE PLUMBING

You will be looking most often at the following product types: Auto-Flex™ and Pro-Lite 350™ hoses, Tube-Braid™ stainless steel sleeving, Econ-O-Fit™ clamps, Auto-Fit™ and Swivel Seal™ hose ends, fuel line kits, pipe thread to AN adapters and carburetor/power steering/fuel pump adapters.

1. **Radiator hoses.** Due to their often complex curvature and wide range of sizes pre-braided Auto-Flex™ or Perform-O-Flex™ hose usually cannot be used. Instead we recommend the use of Earl's® Tube-Braid™ sleeve (Page 104) or Form-A-Flex™ radiator hose (Page 59).

2. **Heater hoses.** These may be covered with Tube-Braid™ sleeve, but should preferably be replaced with Auto-Flex™ hose as over a long length its pre-braided cover looks much better! Usually sizes 10 or 12 is suitable. Measure either the inside diameter of the hose you are replacing or the outside diameter of the barb that the old hose pushed over and this will tell you what size of hose to use. Size 12 hose (11/16") will clamp down OK onto 5/8" barbs. Fix in place with Econ-O-Fit™ hose ends of the correct size for the hose or for the old hose + sleeve + tape. Usually sizes 10 or 12 for proper braided hose, size 14 if you used Tube-Braid™ sleeves.

3. **Fuel lines.** Normally you will do these using size 5,6,7 or 8 Pre-braided hose or Pro-Lite 350™ hose to replace the original hose, and appropriate hose ends or Econ-O-Fit™ hose clamps.

4. If you have replaced your carburetor with, lets say, a Holley® carburetor, and a Holley® regulator, you will need to look at going to a complete AN replacement for your plumbing system. Hose ends, hose, adapters and a fuel kit of the appropriate sizes.

5. **Other hoses.** There may be other hoses, breathers, overflows, etc. that you want to replace with Earl's® stainless braided hose and fittings. Just measure internal diameter and length and select the appropriate hose, hose ends or Econ-O-Fit™ clamps to suit.

6. **Oil & Transmission coolers.** If you want to fit an engine or transmission cooler to your vehicle, first work out where you want to put it and determine the space available. Select a cooler from Earl's® extensive range of Temp-A-Cure™ coolers (Page 62). Then the right sandwich adapter to enable you to plumb the cooler to the vehicle. Oil coolers generally use size 10 hose and hose ends and pipe thread to AN adapters. Transmission coolers generally use size 6 or 8 to plumb the cooler.

7. A table with suggested engine oil cooler sizes follows. Note that climactic conditions, degree of engine tune and modifications etc. may mean the suggested cooler is not to be the exact one you need - consult your dealer or Earl's® tech line **1-310-609-1602**.

| ENGINE SIZE | COOLER NO. |
|--------------|-----------------|
| 1000-1500 cc | 41310ERL |
| 1501-2500 cc | 41610ERL |
| 2501-4000 cc | 41910ERL |
| 4001-5000 cc | 42510ERL |
| 5001-6000 cc | 43410ERL |

MOST IMPORTANT OF ALL...

Don't despair if you don't get it all, or don't get it all right the first time around. If your dealer is conveniently close, don't buy everything at once. Get a little at a time until you gain confidence. And if you bought something that doesn't fit, the dealer may, although he is under no obligation to do so, take it back in part exchange for what you really needed all along, as long as you haven't damaged or marked the part you didn't want!

BRAKE HOSES

These days road-going vehicles in most countries have to have flexible brake hoses complying with various rules and regulations. So if your vehicle is street registered, we suggest you use Earl's Hyperfirm™ street legal hoses.

If your vehicle does not have to comply with such regulations, Earl's® huge range of reusable Speed-Seal™ hose ends for Speed-Flex™ Teflon™ hose will let you do pretty much anything. For adapters to suit most brake system components, check out steel brake hydraulic adapters. We strongly suggest you use sizes 2 or 3 Speed-Flex™ for brakes and size 4 Speed-Flex™ for clutch hoses.

ONLY use Earl's® Speed-Flex™ Teflon™ hose for brakes and clutches. Other types of Earl's® hose are totally unsuited to the brake and clutch application and may cause accidents leading to injury or death.

RACE CAR AND SPEED BOAT PLUMBING

Mechanics plumbing high performance competition vehicles and boats will usually have considerable experience in the use of stainless braided and other hoses, so here are only a few general notes too follow.

1. **Hose to use.** We suggest Earl's® Perform-O-Flex™ hose to provide the ultimate in reliability for almost all your needs.. If the chemicals in some modern fuels and lubricants cause a problem, sometimes shown by a smell of petrol, consider using Teflon® lined Speed-flex™ hose. Where ease of use, reduced weight and low pressure are a consideration, Earl's® Super Stock™ & Pro-Lite 350™ hose may be suitable. For high end plumbing requirements use our premium smooth bore Teflon™/Kevlar™ covered Ultra-Flex 650™ hose.

2. **Hose ends to use.** With Perform-O-Flex™ hose use Swivel-Seal™ or Auto-Fit™ hose ends. Super Stock™ hose ends should be used with Super Stock™ hose. Speed-Seal™ hose ends must be used with Speed-Flex™ hose. Pro-Lite 350™ hoses uses Swivel-Seal™, Auto-Fit™ or Auto-crimp™ hose ends. Ultra-Flex 650™ hose must use Ultra-Flex hose ends.

3. **Adapters to use.** The Earl's® catalog list a range of adapters suited to all Earl's® hose ends. Where lack of space make life awkward, consider using the special Swivel-Seal™ hose ends which have adapters built into them. Dry sump pumps and similar pumps usually work best with Earl's® Port adapters in them. Note that when using NPT pipe thread adapters you should apply Teflon® tape or pipe sealant, Loctite 567 or similar products to the tapered threads before wrenching them up.





INSTALLATION

While Earl's hose and hose ends make a pretty fool-proof combination, there are a few general rules to follow to make sure that you end up with a sanitary and trouble-free installation:

1. Make sure that there is adequate clearance between the hose ends and anything that they might be able to contact. While the hose is flexible, the hose ends are not!
2. Do not allow the hose to contact a sharp corner, nut, bolt, rivet stem or anything else that might cause damage. At any point where a hose passes through a panel, install a grommet for chafe protection.
3. Do not allow the hose to rub against anything—even if the surface on which it rubs is flat. The stainless steel braid is a very efficient low speed file and will abrade through anything that it moves against. In order to prevent chafing and to keep your hoses where you meant for them to be support the hoses every 18" or so with either a cushion clamp or a ty-wrap.
4. Do not force the hose into too tight a bend. Follow the minimum bend radius chart. Do not kink the hose, either by too tight a bend, by misalignment between the hose end and the part or adapter on short assemblies or by getting the whole assembly into a helix on long assemblies. Align the hose end with the adapters so that the hose is not placing strain on the hose end or on the adapter. The SWIVEL-SEAL design reduces these problems, but only care in installation will eliminate them. We manufacture enough hose end and adapter configurations to allow a sanitary and sound solution to just about any installation problem.
5. Keep the hoses as far away from extreme heat sources (like turbochargers and exhaust systems) as possible. If you must run close to such things, use an air gap insulating panel and/or fire resistant Flame Guard (pg 104) sheathing. Do not run fuel lines in proximity to hot fluid lines (or anything hot) or you will end up with either hot fuel and low power or vapor lock. Do not run hot fluid lines near cool fluid lines or near to the driver.
6. Do not over-tighten the hose ends onto the adapter fittings or parts. The seal is achieved by the design of the mating surfaces—not by muscle. It helps a lot to use the wrenches made for the job. (See page 99)

MAINTENANCE

Virtually no maintenance is required. Basically, maintaining Earl's high performance plumbing hose ends is a question of preventing abuse.

1. Inspect the plumbing installation frequently for signs of chafing, abrasion, kinking, crushing or seepage.
2. Take care not to crush, stretch, kink or otherwise damage the hose assemblies when changing engines etc.
3. Keep both hoses and fittings CLEAN.
 - (a) Before removing any hose end from its adapter or port, wash the assembly down with solvent—or even gasoline—and blow it clean and dry so that no grit can find its way into the threads or the sealing surfaces.
 - (b) As soon as the hose end has been removed, install a CLEAN protective plug into the hose end and a CLEAN cap onto the adapter. This will keep dirt out of the lines and the fittings and will keep the fluid off the floor, the machine and the mechanic.
 - (c) Always inspect both hose ends and adapters for dirt before reassembly.
 - (d) Correctly assembled Earl's hose ends will not leak if they, and the adapters are undamaged, clean and properly tightened. The only way to be certain that every hose end is properly tightened is to form the habit of NEVER leaving the adapter, a hose end (or anything else) loose, finger tight or partially tightened. Even when you know that you are going to take the thing right off again, correctly tighten it—every time.

LEAKS

If it leaks, it has probably been assembled incorrectly or the sealing surfaces on the adapter and the nipple have been damaged—or just possibly someone has attempted to assemble an AN 37° seat hose end into a 45° SAE cone. Damage to the cone or the seat can be caused by a multitude of sins—dirt and over-tightening being the most common.

RE-USE

All of Earl's removable hose ends are completely reusable as is the hose and as are most of the competing brands. As usual, Earl's has an edge. When disassembling a nipple and cutter type hose end, it is very common for the inner tube of the liner, which is captured between the nipple and cutter, to be torn off and to remain in place. If this happens, the rubber must be removed before the hose end can be reused—and it is a bear to get out. With SWIVEL-SEAL the chances of this happening are greatly diminished because the cutter can rotate with respect to the nipple so that the rubber is faced with only one moving surface. The procedure is as follows: Place the socket in a vise, and with a wrench on the nipple and another on the cutter, hold the nipple and turn the cutter until the socket is disengaged. Then pull the hose off the nipple. All parts of the SWIVEL-SEAL are ready for reuse as soon as they have been cleaned and relubricated.

TECHNICAL SECTION

"AN" THREAD SIZES

"AN" (Army-Navy) Sizes were established by the Aerospace industry years ago and were the designated O.D. of the rigid metal tube that each size fitting is used with. (The chart to the right will clarify this point.)

The numbers assigned equate to the O.D. (outside diameters) of the tubing in 1/16". Since tubing and hoses are to be found with assorted wall thicknesses we can now understand that the designated size number does not necessarily tell you how large the inside diameter will be. (For example, the inside diameter of an Earl's size 6 hose end is nearly as large as the inside diameter of some other manufacturers' -8 hose ends.)

Each AN size number has its own standard thread size which can be seen in column three of the chart. Again, these are the same thread sizes that have been used in aircraft and industrial applications for many years.

| AN SIZE | METAL TUBE O.D. | THREAD SIZE |
|---------|-----------------|---------------|
| 2 | 1/8 | 5/16-24 SAE |
| 3 | 3/16 | 3/8-24 SAE |
| 4 | 1/4 | 7/16-20 SAE |
| 5 | 5/16 | 1/2-20 SAE |
| 6 | 3/8 | 9/16-18 SAE |
| 8 | 1/2 | 3/4-16 SAE |
| 10 | 5/8 | 7/8-14 SAE |
| 12 | 3/4 | 1-1/16-12 SAE |
| 16 | 1" | 1-5/16-12 SAE |
| 20 | 1-1/4 | 1-5/8-12 SAE |
| 24 | 1-1/2 | 1-7/8-12 SAE |
| 28 | 1-3/4 | 2-1/4-12 SAE |
| 32 | 2" | 2-1/2-12 SAE |



National Pipe Threads (NPT) are the next most popular thread size used in "Competition Plumbing." We can actually find a resemblance between the size call outs and the I.D. (inside diameter) of the fitting as shown in the chart below.

"NPT" THREAD SIZES

Some of the most popular adapter fittings shown in our catalog are AN to NPT adapters. While many variations are offered, column four in the chart shows which AN size corresponds to each NPT size when inside diameters (flow dimensions) are considered.

All Earl's Swivel-Seal™ hose ends are designed to provide little or no restriction when used with the corresponding AN fitting size.

| PIPE THREAD SIZE | THREADS PER INCH | THEORETICAL I.D. OF FTG. | CLOSEST AN FTG. SIZE |
|------------------|------------------|--------------------------|----------------------|
| 1/16" | 27 | 1/16" | |
| 1/8" | 27 | 1/8" | 4 |
| 1/4" | 18 | 1/4" | 6 |
| 3/8" | 18 | 3/8" | 8 |
| 1/2" | 14 | 1/2" | 10 |
| 3/4" | 14 | 3/4" | 12 |
| 1" | 11-1/2 | 1" | 16 |
| 1-1/4" | 11-1/2 | 1-1/4" | 20 |
| 1-1/2" | 11-1/2 | 1-1/2" | 24 |
| 2" | 11-1/2 | 2" | 32 |

We also offer a number of Metric threads to AN fitting adapters.



B-NUT SIZES & HOSE-TO-HOSE END CHART

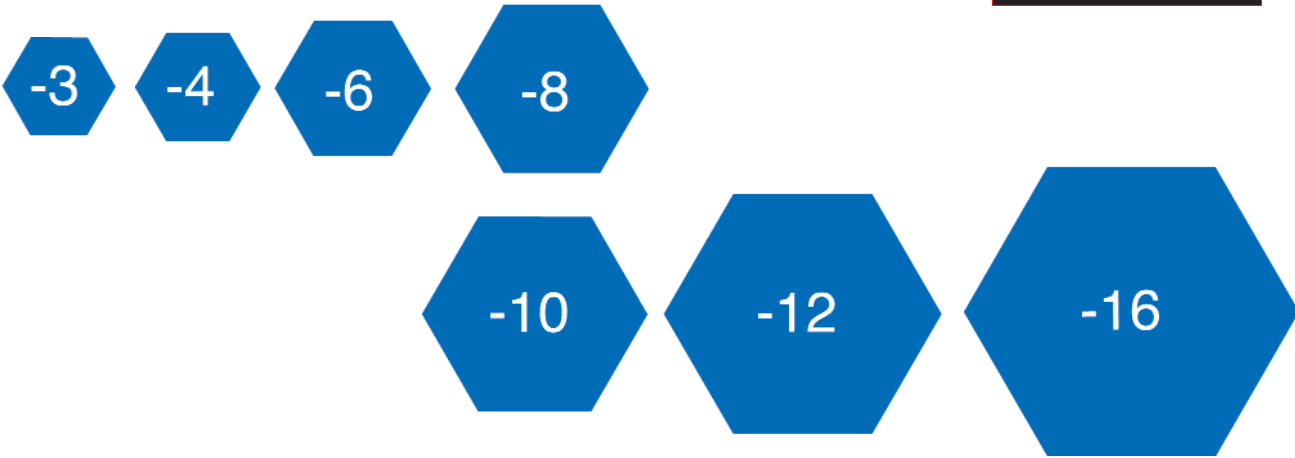
TECHNICAL SECTION

B-NUT CHART

The following chart are the actual size of B nuts used on hose ends and adapters.



Pressure Test All Hose Assemblies Before Installation!



HOSE TO HOSE END COMPATIBILITY CHART

| Hose Ends | Hoses | | | | | | |
|-----------------|--------------|-----------|-------------|------------|-------------|--------------|----------------|
| | Swivel-Seal™ | Auto-Fit™ | Auto-Crimp™ | Auto Mate™ | Ultra-Flex™ | Super Stock™ | Power Steering |
| Pro-Lite 350™ | ● | ● | ● | | | | |
| Perform-O-Flex™ | ● | ● | | ● | | | |
| Auto-Flex™ | ● | ● | | ● | | | |
| Ultra-Flex 650™ | | | | | ● | | |
| Super Stock™ | | | | | | ● | |
| Power Steering™ | | | | | | | ● |
| Speed-Flex™ | | | | | | | ● |

TORQUE VALUES & ULTRA-FLEX 650™ CRIMP DIMENSIONS

TECHNICAL SECTION

TORQUE VALUES

The table below gives the torque tightening values for JIC (AN) fittings in both stainless steel and aluminum. When a combination of aluminum and stainless steel fittings are being mated always use the aluminum fitting torque values

| DASH SIZE | ALUMINUM | | STAINLESS STEEL | |
|-----------|---------------------|---------------------|---------------------|---------------------|
| | INCH/LVS MIN-MAX | NEWTON/m MIN-MAX | INCH/LBS MIN-MAX | NEWTON/m MIN-MAX |
| -02 | 50 - 80 | 5.64 - 9.03 | 75 - 120 | 8.47 - 13.55 |
| -03 | 70 - 105 | 7.90 - 11.86 | 95 - 140 | 10.73 - 15.81 |
| -04 | 100 - 104 | 11.29 - 15.81 | 135 - 190 | 15.25 - 21.46 |
| -05 | 130 - 180 | 14.68 - 20.33 | 170 - 240 | 19.20 - 27.11 |
| -06 | 150 - 195 | 16.94 - 22.03 | 215 - 280 | 24.29 - 31.63 |
| -08 | 270 - 350 | 30.50 - 39.54 | 470 - 550 | 53.08 - 62.14 |
| -10 | 360 - 430 | 40.67 - 48.58 | 620 - 745 | 70.05 - 84.17 |
| -12 | 460 - 550 | 51.97 - 62.14 | 855 - 1055 | 96.60 - 119.18 |
| -16 | 700 - 840 | 79.08 - 94.90 | 1140 - 1370 | 128.80 - 154.78 |
| -20 | 850 - 1020 | 96.03 - 115.24 | 1520 - 1825 | 171.73 - 206.19 |
| -24 | 900 - 1080 | 101.68 - 122.02 | 1900 - 2280 | 214.67 - 257.60 |
| -32 | 1800 - 2000 | 203.37 - 255.97 | 2660 - 2940 | 300.54 - 332.17 |

The torque values apply to machined fitting connections only, not flared tube or compression. Fitting mating faces and threads should be lubricated prior to assembly. Generally the system working fluid (engine oil, hydraulic etc.) is used. If another lubricant is used, insure it is compatible with the working fluid and system. Dry assembly should be avoided if all possible.

It is important not to over tighten hose fittings to their mating adapters. Over tightening causes permanent deformation of the fitting seat (37° AN flare) and will result in the mating adapter sealing face to be made concave, this will inhibit repeated reliable use of both the fitting and the adapter.

ULTRA-FLEX 650™ CRIMP DIMENSIONS

The target settings for the Earl's Ultra-Flex 650™ Kevlar & Stainless Steel covered hose, to be applied when using the Earl's Ultra-Flex Crimper and dies, are provided to aid in establishing actual diameters. While the Earl's Ultra-Flex crimper and dies for our Ultra-Flex hose will give crimp diameters close to, or at, specified diameters, the machine operator must check to verify actual dimensions.

| SIZE | Dia. after Crimp (in.) | Dia. After Crimp (mm) |
|------|------------------------|-----------------------|
| -4 | Ø 0.465 +/- .005 | Ø11.81mm +/- .12mm |
| -6 | Ø 0.606 +/- .005 | Ø15.39mm +/- .12mm |
| -8 | Ø 0.800 +/- .005 | Ø20.32mm +/- .12mm |
| -10 | Ø 0.930 +/- .005 | Ø23.6mm +/- .12mm |
| -12 | Ø 1.151 +/- .005 | Ø29.23mm +/- .12mm |
| -16 | Ø 1.345 +/- .005 | Ø33.63mm +/- .12mm |

Failure to follow these instructions could result in serious injury or property damage during crimping. Improperly crimped fittings can be dangerous to the user of the hose assembly.

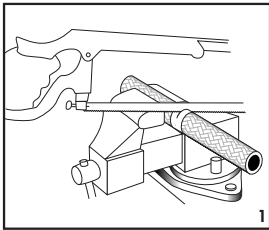
- Do not crimp Earl's hose or fittings with another manufacturer's hose or fitting.
- These dimensions are for Earl's Ultra-Flex Kevlar & Stainless covered hose and Ultra-Flex hose ends only.
- Wear safety glasses and keep hands away from moving objects.
- Always check for proper crimping dimensions

Always test assemblies for leakage prior to installation.

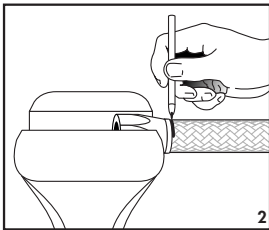


Pressure Test All Hose Assemblies Before Installation!

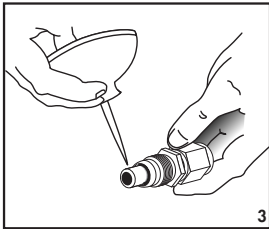
SWIVEL-SEAL™ HOSE ENDS WITH PERFORM-O-FLEX™, PRO-LITE 350™ OR AUTO-FLEX™ HOSE



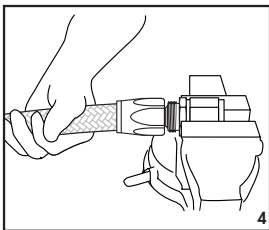
1. Cut the hose to the required length.
 - a. Measure distance between ports or adapter fittings along the path that the hose run will follow —allowing for bend radius, hose end length and offset to obtain length and hose required.
 - b. Cut the hose square with a radiac wheel or a sharp 32 teeth per inch hacksaw blade. It is necessary to wrap it tightly with electrical or masking tape before cutting and to cut through the tape. This helps to prevent the stainless wire braid from fraying.
 - c. Trim any frayed ends of the braid with a sharp pair of metal snips or diagonal cutters and remove the tape.



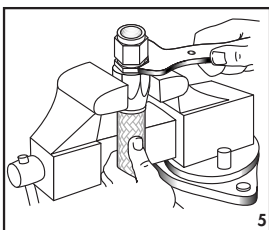
2. Place the socket in a vise and insert the end of the hose into the socket until the hose butts against the bottom of the threads provided for the cutter. Gently pull the hose back until there is a 1/16" to 1/8" gap between the end of the hose and the bottom of the threads — mark hose at bottom of socket with a felt pen so that you can detect any tendency of the hose to be pushed out as you complete the assembly.



3. Lubricate the inside of the hose, the cutter threads and the socket threads with Earl's assembly lube or engine oil. Place the nipple in a vise.



4. Holding the hose and not the socket, push the hose and the socket onto the nipple until the socket threads can be started on the cutter. Holding the hose and not the socket, start the threads and go as far as you can by hand. Depending on the size of the hose, some force may be necessary in this part of the operation.



5. To complete the assembly it doesn't matter whether the nipple or the socket is held in the vise. Holding one or the other in the vise and using a suitable wrench on the other, tighten the socket onto the cutter threads until the socket is within .060" of bottoming on the nipple. Do not use an adjustable or over-size wrench or you will damage either the nipple or the socket.



6. Check the mark that you made on the hose in Step 2. If the hose has backed more than about 1/16" out of the socket as you assembled it, return to Step 3.

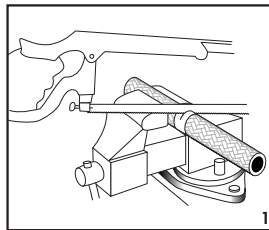


7. Clean the hose and the hose ends with CLEAN solvent.

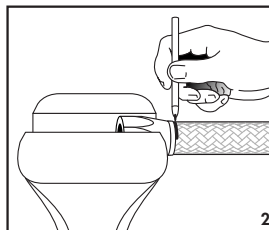


8. Pressure test the assembly before letting it out of your sight. Further check the assembly by running the system at full pressure while you observe the hose, hose ends, and adapters for leaks.

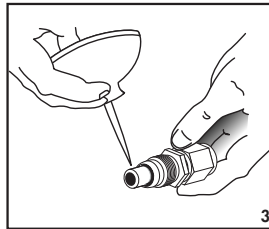
AUTO-FIT™ HOSE ENDS WITH PERFORM-O-FLEX™, AUTO-FLEX™, OR PRO-LITE 350™ HOSE



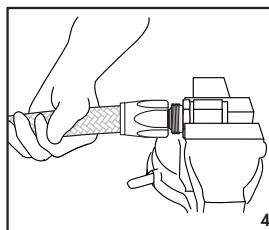
1. Cut the hose to the required length.
 - a. Measure distance between ports or adapter fittings along the path that the hose run will follow —allowing for bend radius, hose end length and offset to obtain length and hose required.
 - b. Cut the hose square with a radiac wheel or a sharp 32 teeth per inch hacksaw blade. It is necessary to wrap it tightly with electrical or masking tape before cutting and to cut through the tape. This helps to prevent the stainless wire braid from fraying.
 - c. Trim any frayed ends of the braid with a sharp pair of metal snips or diagonal cutters and remove the tape.



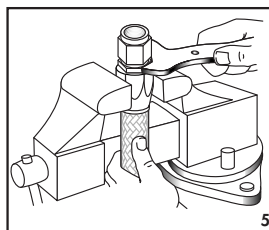
2. Place the socket in a vise and insert the end of the hose into the socket until the hose butts against the bottom of the threads. Gently pull the hose back until there is a 1/16" to 1/8" gap between the end of the hose and the bottom of the socket —mark hose at bottom of socket with a felt pen so that you can detect any tendency of the hose to be pushed out as you complete the assembly.



3. Lubricate the inside of the hose, the nipple threads and the socket threads with Earl's Assembly Lube or Engine Oil. Place the nipple in a vise.



4. Holding the hose and not the socket, push the hose and the socket onto the nipple until the socket threads can be started on the nipple. Holding the hose and not the socket, start the threads and go as far as you can by hand. Depending on the size of the hose, some force may be necessary in this part of the operation.



5. To complete the assembly it doesn't matter whether the nipple or the socket is held in the vise. Holding one or the other in the vise and using a suitable wrench on the other, tighten the socket onto the cutter threads until the socket is within .060" of bottoming on the nipple. Do not use an adjustable or over-size wrench or you will damage either the nipple or the socket.



6. Check the mark that you made on the hose in Step 2. If the hose has backed more than about 1/16" out of the socket as you assembled it, return to Step 3.



7. Clean the hose and the hose ends with CLEAN solvent.



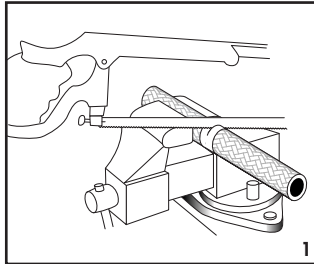
8. Pressure test the assembly before letting it out of your sight. Further check the assembly by running the system at full pressure while you observe the hose, hose ends, and adapters for leaks.

TECHNICAL SECTION

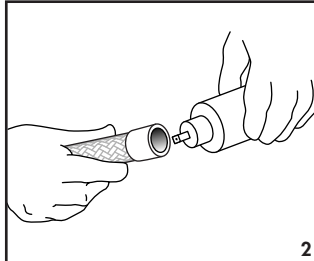


Pressure Test All Hose Assemblies Before Installation!

AUTO-CRIMP™ Hose Ends with PERFORM-O-FLEX™, PRO-LITE 350™ or AUTO-FLEX™ Hose



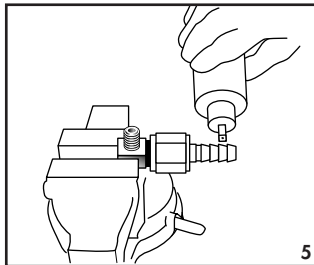
1. Cut the hose square with a radiac wheel or a fine tooth hacksaw. It is necessary to wrap the hose tightly with masking or electrical tape and to cut through the tape. This helps to prevent the stainless braid from fraying.



2. Trim any frayed ends of the braid with sharp snips or diagonal cutters and remove the tape.

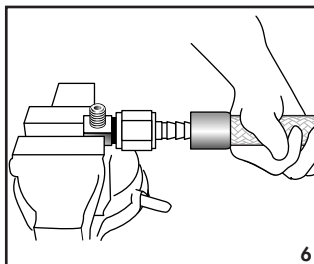
3. Slip the AUTO-CRIMP collar over the end of the hose.

4. Lubricate the inside of the hose and the outside of the AUTO-MATE nipple.



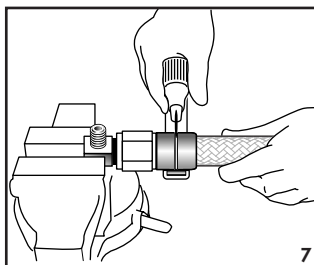
5. Place a suitable adapter fitting in a vise. Screw the AUTO-MATE hose end onto the adapter and tighten.

6. Push the AUTO-MATE hose end into the hose until it bottoms against the collar.

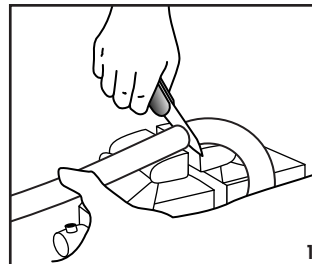


7. Place the AUTO-CRIMP tool approximately in the center of the collar. Tighten the roller until it contacts the collar. Alternately turning the handle and tightening the roller, crimp the collar until its diameter has been reduced sufficiently to show the hose end barbs as ridges in the collar.

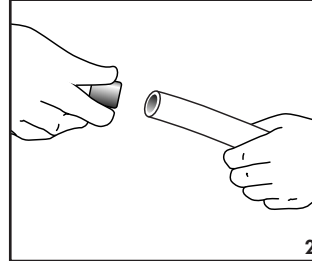
8. Blow the assembly clean and pressure test before running the car.



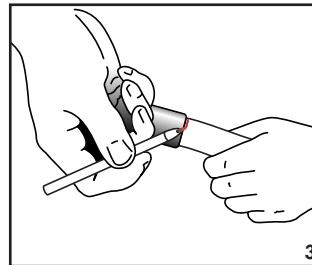
SUPER STOCK™ Hose Ends with SUPER-STOCK™ Hose



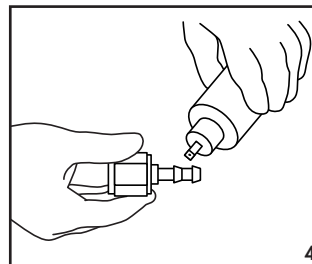
1. Cut the hose square with a sharp knife.



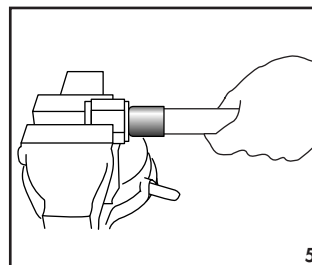
2. Slip the aluminum collar over the hose.



3. Mark the hose at the back of the collar.



4. Lubricate the inside of the hose and the outside of the nipple. Use assembly lube or engine oil. Do not use a silicon-based lube.



5. Push the hose end into the hose until it bottoms.

6. Check the mark made on the hose in Step 3 to ensure that the hose end has indeed bottomed against the end of the hose.

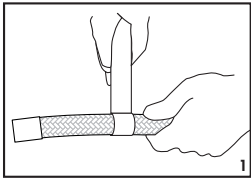
7. Blow the assembly clean and pressure test before running the car.

***Hose ends should be crimped if close to 250 PSI max.**

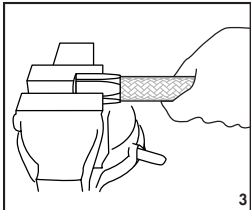


Pressure Test All Hose Assemblies Before Installation!

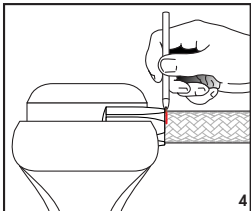
POWER STEERING HOSE ENDS WITH POWER STEERING HOSE



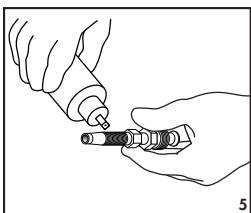
1. Cut the hose square with a ratchet wheel or a fine tooth hacksaw. It is necessary to wrap the hose tightly with masking or electrical tape and to cut through the tape. This helps to prevent the steel braid from fraying.



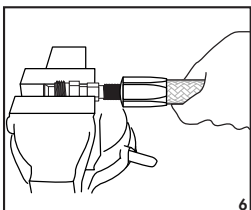
2. Trim any frayed ends of the braid with sharp snips or diagonal cutters and remove the tape.



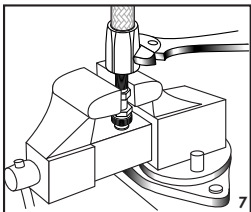
3. Thread the socket over the end of the hose until it bottoms. NOTE: Thread is left handed.



4. Mark the hose at the back end of the socket.



5. Lubricate the inside of the hose and the outside of the nipple (including the threads).



6. Push the hose end into the hose and thread the nipple onto the hose end as far as possible by hand.

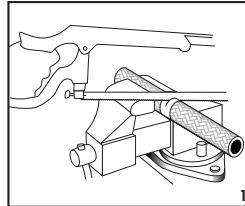


7. Clamp the nipple in a vise and tighten the hose end until it bottoms against the nipple.

8. Check the mark made on the hose in Step 3 to ensure that the hose did not back out of the socket while tightening.

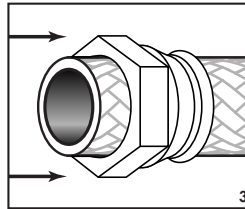
9. Blow the assembly clean and pressure test before running the car.

SPEED-SEAL™ HOSE ENDS WITH SPEED-FLEX™ HOSE

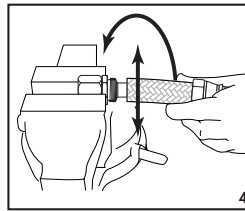


BRAKE LINES are critical items. The potential penalties for improper assembly are severe. Although there is nothing complicated about the procedure and no special tools are required, extreme care must be used in assembly. We strongly recommend that the following procedures be used:

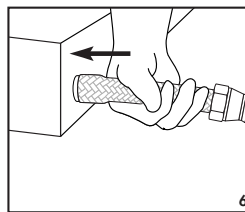
1. Cut the hose to the required length. We recommend the use of a ratchet wheel but it can be done satisfactorily with a 32 teeth per inch hacksaw blade. In either case, the hose must be tightly wrapped with electrical or masking tape and the cut made through the tape. Do not cut SPEED-FLEX hose with a chisel, snips, pliers, or a shear as these may crush the Teflon liner.



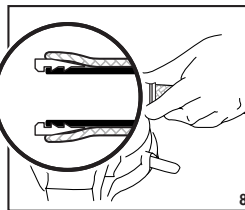
2. De-burr the Teflon and trim any loose ends of braid with sharp snips or diagonal cutting pliers.



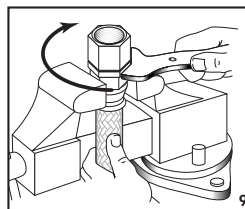
3. Install the socket on the hose with the threaded end of the socket toward the cut end of the hose. This will be a lot easier and you will end up with fewer holes in your hand if you clamp the socket in a vise. Push socket on well beyond end.



4. Place the hex portion of the nipple in the vise. Insert the end of the hose into the nipple and bottom the hose against the chamfer seat of the nipple with a rotary motion of the hose. This will size the I.D. of the Teflon tube.



5. Separate the braid from the O.D. of the Teflon tube. The best way is to use Earl's special braid spreader tool for sizes 3+4 (see Plumbing Accessories Section). In the absence of the tool, separate the braid with a small screwdriver or a scribe. Be careful not to scratch or nick the Teflon.



6. Install the sleeve between the braid and the Teflon tube. Make sure that none of the braid is trapped between the Teflon and the sleeve. Bottom the tube against the shoulder of the sleeve and make sure that the sleeve is inserted square.

7. With the nipple held in the vise, push the hose and the sleeve onto the nipple until the sleeve bottoms. Remove the hose and make sure that the Teflon tube is still bottomed against the shoulder of the sleeve and that the sleeve is still square.

8. Push the hose and sleeve back onto the nipple and bottom against the chamfer. Oil the nipple threads. Start the socket onto the nipple threads and hand tighten.

9. Place the socket in the vise and complete the assembly by tightening the nipple onto the socket with a wrench until the gap between the face of the socket and the hex of the nipple .023" to .046" —use a feeler gauge.

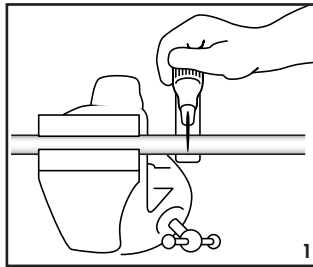
10. Blow the assembly clean and pressure test before running the car.

TECHNICAL SECTION

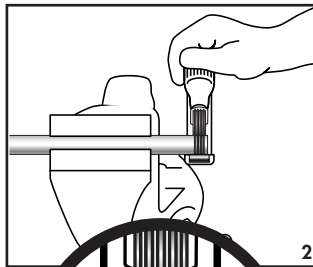


Pressure Test All Hose Assemblies Before Installation!

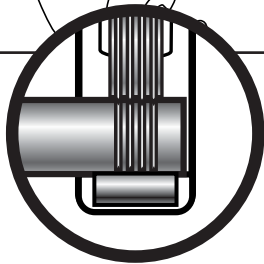
TUBE-MATE™, AUTO-FIT™ HOSE ENDS



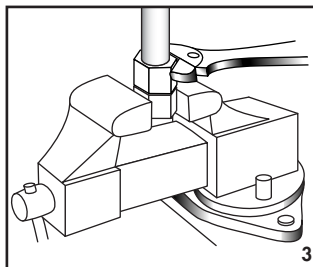
1. Assemble the tube-mate end onto the hose onto the hose per Auto-Fit hose and instructions.
2. Cut and de-burr the tubing. The cut must be square.



3. Using the TUBE-MATE grooving tool, groove the tubing. The tubing may also be beaded (or barbed). See Earl's new tube beading tool.

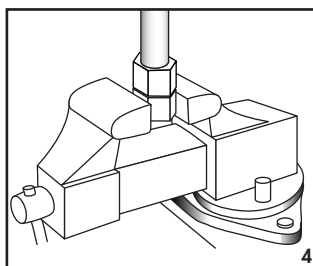


4. Push the tubing into the correct size Tube-Mate until it bottoms.



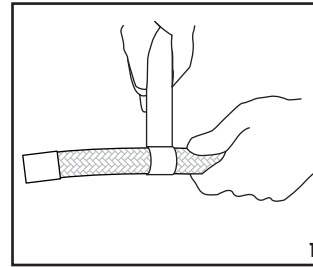
5. Tighten the TUBE-MATE nut.

6. Blow the assembly clean and pressure test before running the car.

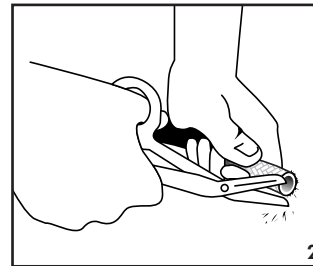


NOTE: TUBE-MATE hose ends are designed to be used only with beaded, barbed or grooved rigid tubing at no more than 25 psi working pressure.

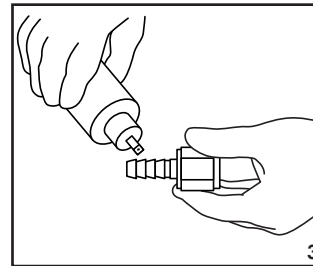
AUTO-MATE™ HOSE ENDS WITH PERFORM-O-FLEX™ AUTO-FLEX™ OR PRO-LITE 350™ HOSE



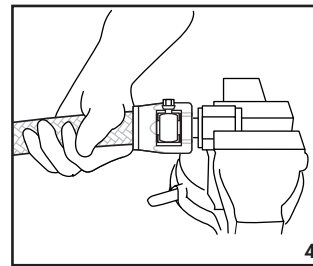
1. Cut the hose square with a Radiac wheel or a fine tooth hacksaw. It is necessary to wrap the hose tightly with masking or electrical tape and to cut through the tape. This helps to prevent the stainless braid from fraying.



2. Trim any frayed ends of the braid with sharp snips or diagonal cutters and remove the tape.

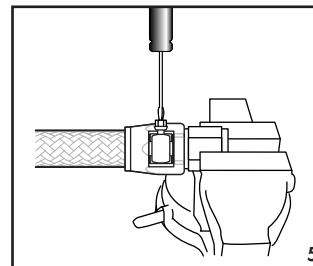


3. Slip the ECON-O-FIT collar over the end of the hose.



4. Lubricate the inside of the hose and the outside of the AUTO-MATE nipple.

5. Push the AUTO-MATE into the hose until it bottoms against the socket.



6. Tighten the ECON-O-FIT hose clamp.

7. Blow the assembly clean and pressure test before running the car.

ULTRA-FLEX™ HOSE ENDS WITH ULTRA-FLEX 650™ HOSE



1. Prepare to cut UltraFlex 650 hose. Wrap hose tightly with thin packing tape to prevent Kevlar braid from fraying during cutting.



2. Use the Earl's UltraFlex Hand Hose Cutter to cut hose. Use a sharp blade as to not crush the Teflon® hose during the cutting process.



3. Cut hose square or perpendicular to centerline of hose. No loose or fraying Kevlar braids are to be present.



4. Insert crimp collar onto UltraFlex hose. Do not remove thin tape as adhesive from tape might unravel Kevlar braid.



5. Push UltraFlex hose into crimp collar and verify that hose end bottoms inside of collar.



6. Insert UltraFlex fitting nipple into collar and hose assembly as shown.



7. Prepare the UltraFlex Crimper for operation.



8. Verify correct size crimp die. When inserting die into crimper insure that the bottom of die (shown) mates correctly with die bowl and diamond shaped features in die bowl.



9. Top of crimp die shown in die bowl. Verify die sets correctly in die bowl!

ASSEMBLY INSTRUCTIONS

TECHNICAL SECTION

ULTRA-FLEX™ HOSE ENDS WITH ULTRA-FLEX 650™ HOSE - (CONT'D)



10. Gently push down onto crimp die to insert and center die ring on top of crimp die below pusher. Verify that bottom of crimp die is seated correctly in die bowl. Prepare to install pusher onto crimper.



11. Insert and position the hose and fitting assembly into crimp from below. Verify that crimp collar seats correctly in crimp die.



12. While holding hose and fitting into position, begin pumping hand pump until die ring contacts crimper base plate. Release pressure by turning triangular knob on valve.



13. Remove hose and fitting assembly through bottom of die ring and inspect crimp on hose assembly.



14. Measure crimp diameter to ensure proper crimp diameter has been achieved. Refer to crimp chart dimension chart.

ULTRA-FLEX 650™ CRIMP DIMENSIONS

The target settings for the Earl's Ultra-Flex 650™ Kevlar & Stainless Steel covered hose, to be applied when using the Earl's Ultra-Flex Crimper and dies, are provided to aid in establishing actual diameters. While the Earl's Ultra-Flex crimper and dies for our Ultra-Flex hose will give crimp diameters close to, or at, specified diameters, the machine operator must check to verify actual dimensions.

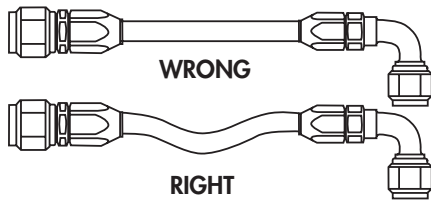
| SIZE | Dia. after Crimp (in.) | Dia. After Crimp (mm) |
|------|------------------------|-----------------------|
| -4 | Ø 0.465 +/- .005 | Ø11.81mm +/- .12mm |
| -6 | Ø 0.606 +/- .005 | Ø15.39mm +/- .12mm |
| -8 | Ø 0.800 +/- .005 | Ø20.32mm +/- .12mm |
| -10 | Ø 0.930 +/- .005 | Ø23.6mm +/- .12mm |
| -12 | Ø 1.151 +/- .005 | Ø29.23mm +/- .12mm |
| -16 | Ø 1.345 +/- .005 | Ø33.63mm +/- .12mm |

Failure to follow these instructions could result in serious injury or property damage during crimping. Improperly crimped fittings can be dangerous to the user of the hose assembly.

- Do not crimp Earl's hose or fittings with another manufacturer's hose or fitting.
- These dimensions are for Earl's Ultra-Flex Kevlar & Stainless covered hose and Ultra-Flex hose ends only.
- Wear safety glasses and keep hands away from moving objects.
- Always check for proper crimping dimensions

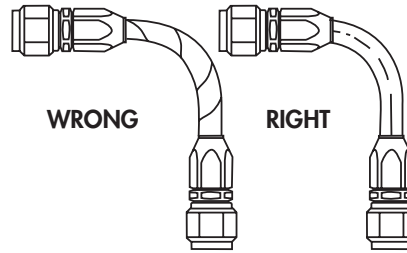
Always test assemblies for leakage prior to installation.

1. Provide for length change.



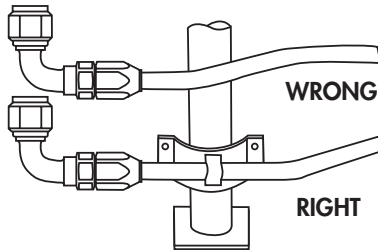
In straight hose installations, allow enough slack in the hose line to provide for changes in length that will occur when pressure is applied. This change in length can be from +2% to -4%.

2. Avoid twisting and orient properly.



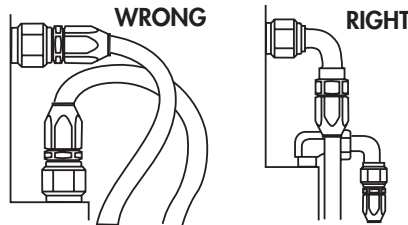
Do not twist during installation. This can be determined by the printed layline on the hose. Pressure applied to a twisted hose can cause hose failure or loosening of connections.

3. Protect from hazardous environment.



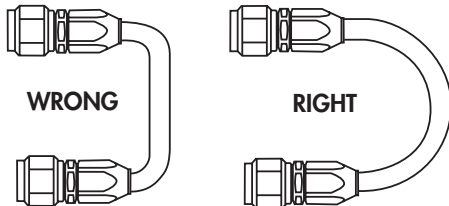
Keep hose away from hot parts. High ambient temperature will shorten hose life. If you can not route it away from heat source, insulate it.

4. Avoid mechanical strain.



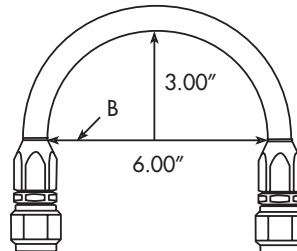
Use elbows and adapters in the installation to relieve strain on the assembly and to provide easier and neater installation that are accessible for inspection and maintenance.

5. Use proper bend radius.



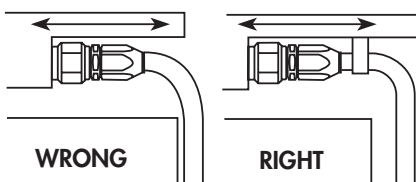
Keep the bend radius of the hose as large as possible to avoid collapsing of the hose and restriction of flow. Follow catalog specs on minimum bend radii.

6. Use proper bend radius (cont'd).



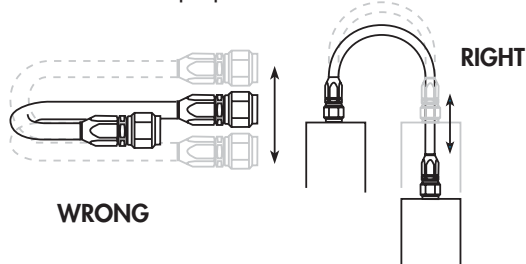
Minimum bend radius is measured on the inside bend of the hose. To determine minimum bend, divide the total distance between ends (B length) by 2. For example, B=6, minimum bend radius=3.

7. Secure for protection.



Install hose runs to avoid rubbing or abrasion. Use Earl's Hose Clamps to support long runs of hose or to keep away from moving parts. It is important that the clamps not allow the hose to move. This movement will cause abrasion and temperature hose failure.

8. Avoid improper hose movement.



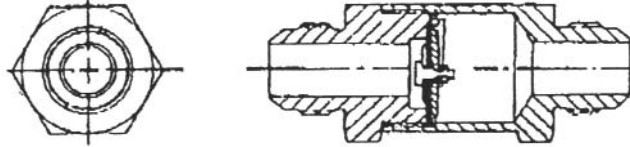
Make sure relative motion of the machine components produces bending rather than twisting of the hose. Hose should be routed so that the flex is in the same plane as the equipment movement.

CHECK VALVE FEATURES & SPECIFICATIONS

TECHNICAL SECTION

FEATURES

ZERO LEAKAGE (Less Than 1 D.P.M.)
FULL FLOW with Low Opening Pressure



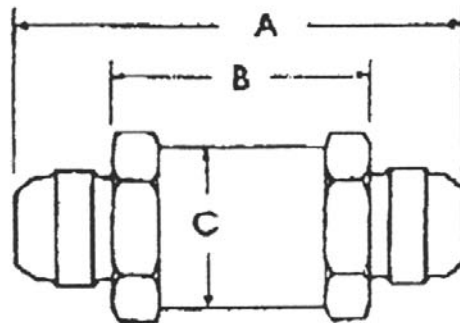
SPECIFICATIONS

Service Application: Water, Fuel, Oil
Temperature Range: -70 F to 350 F
Type of Port: Male 37 Flare with SAE thread

MATERIALS

Body and Cap: 6061 T6 Aluminum Alloy - Hard Anodized
Internal Parts: 6061 T6 Aluminum Alloy - Hard Anodized and Stainless Steel
Seal: Aluminum Crush Washer
Seat: Reinforced Viton®

Pressure Range: -6 to -12, 350 P.S.I.
Sizes: -4, -6, -8, -10, -12
Internal Leakage: .01 cc/min. Max
Mounting: Hinge Facing Up



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Check Valves pg.37

| PART NO. | SAE THREAD SIZE | TUBE SIZE | A + OR -.005 | B + OR -.005 | C + OR -.005 | HEX |
|-----------|-----------------|-----------|-----------------|-----------------|-----------------|-------|
| 253004ERL | 7/16-20 | 1/4 | 2.375 | 1.270 | .865 | 7/8 |
| 253006ERL | 9/16-18 | 3/8 | 2.370 | 1.260 | .865 | 7/8 |
| 253008ERL | 3/4-16 | 1/2 | 2.645 | 1.335 | .925 | 15/16 |
| 253010ERL | 7/8-14 | 5/8 | 3.285 | 1.770 | 1.230 | 1-1/4 |
| 253012ERL | 1-1/16-12 | 3/4 | 3.535 | 1.810 | 1.480 | 1-1/2 |

HEAT EXCHANGER VALUES & COOLING COMPARISON CHART

TECHNICAL SECTION

EARL'S HEAT EXCHANGER VALUES

BTU RATING/HOUR

0.55 GPM/TUBE @ 55MPH

| ROWS | Narrow Cooler P/N: 2XXXX 16 BTU/Min/Tube 960 BTU/HR | Wide Cooler P/N: 4XXXX 38 BTU/Min/Tube 2280 BTU/HR | Extra-Wide Cooler P/N: 8XXXX 49 BTU/Min/Tube 2940 BTU/HR |
|------|--|---|---|
| 7 | 6720 | 15960 | 20508 |
| 10 | 9600 | 22800 | 29400 |
| 13 | 12480 | 29640 | 38220 |
| 16 | 15360 | 36480 | 47040 |
| 19 | 18240 | 43320 | 55860 |
| 25 | 24000 | 57000 | 73500 |
| 34 | 32640 | 74520 | 99960 |
| 42 | 40320 | 95760 | 123480 |
| 50 | 48000 | 114000 | 147000 |
| 60 | 57600 | 136800 | 176400 |

We tested our coolers against a leading tube & fin stack plate design on a high performance engine dyno. The test compared the pressure drop between the oil inlet and outlet of each cooler and the temperature drop during the test. The heat exchangers were plumbed with -10AN Pro-Lite 350™ hose to a Chevrolet 355 cubic inch Holley carbureted engine with headers. The test engine was mounted inside an engine dyno test cell. The tests were conducted with engine water temperature stabilized at 180° Fahrenheit and engine oil temperature stabilized at 227° Fahrenheit. Test cell ambient temperature was 94° Fahrenheit. All testing was done with engine speed at 2800 RPM. To simulate road speed, a cooling fan was erected to force air through the coolers at approximately 60ft/sec (41 mph).

| Part # | 41310 | Tube/Fin |
|--------------------------------|-------------|-------------|
| Surface Area(In ²) | 34 | 67.5 |
| Engine Water Temp. (F°) | 177 | 180 |
| Oil Temp - In (F°) | 227 | 221 |
| Oil Temp - Out (F°) | 207 | 203 |
| Oil Temp Difference | -20 | -18 |
| Oil Pressure - In (PSI) | 58.6 | 59 |
| Oil Pressure - Out (PSI) | 57.6 | 56 |
| Oil Pressure Difference | -1.0 | -3.0 |
| Engine Speed (RPM) | 2800 | 2800 |

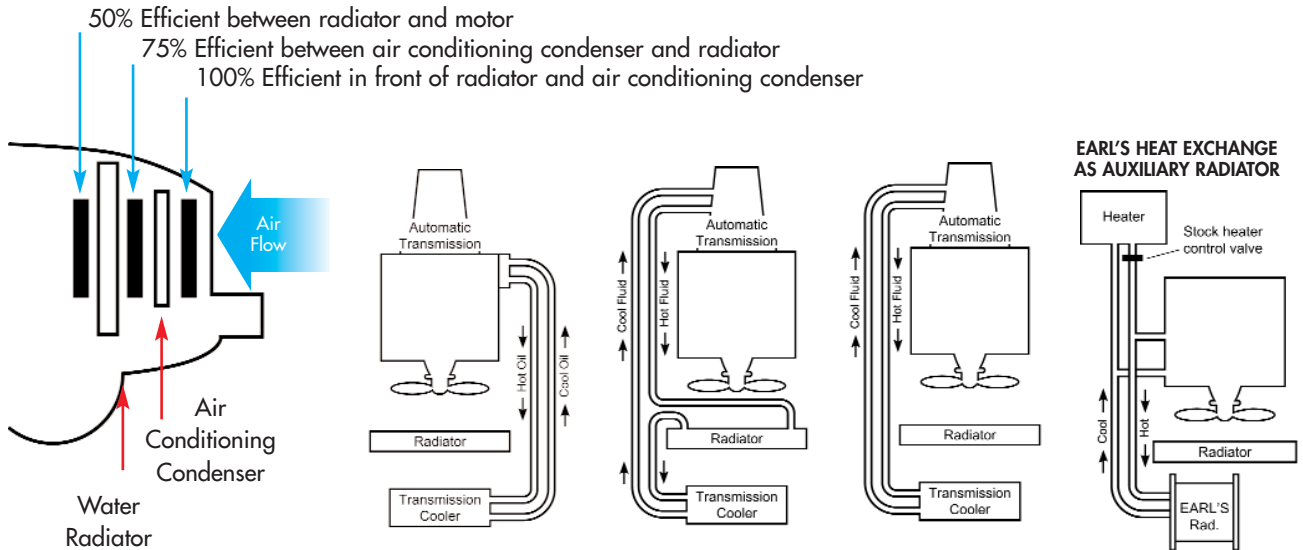
Conclusion:

Tube style & fin style cooler needed to be twice the size in surface area for the same heat rejection compared to the Earl's oil cooler.

TYPICAL PLUMBING OF COOLER

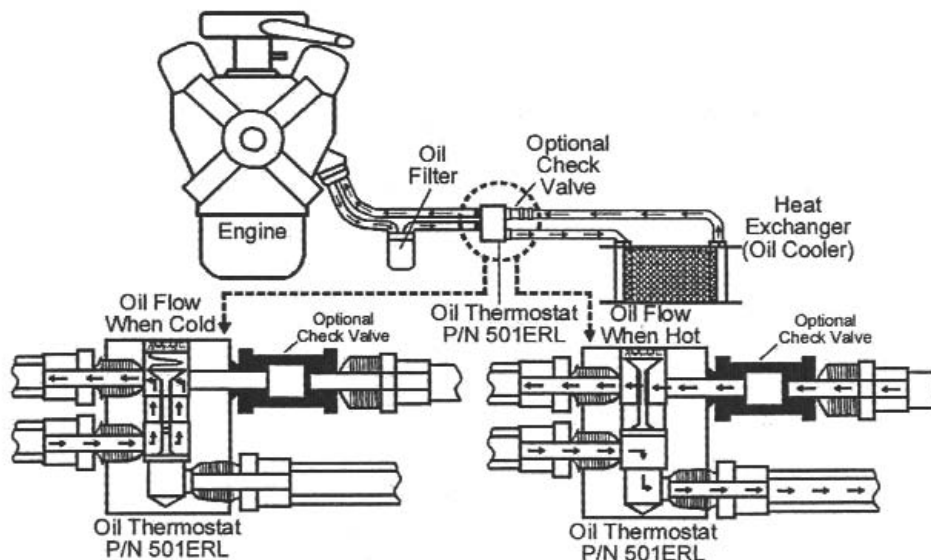
TECHNICAL SECTIONS

TYPICAL PLUMBING OF COOLER



The outstanding heat transfer characteristic of our Tep-A-Cure™ Oil Coolers is achieved in part by using very thin aluminum sheets for the oil tubes. Every cooler is tested to 175 psi at our plant. Burst tests indicate pressures of up to 350 psi are tolerated before cooler failure.

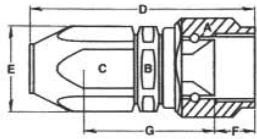
Stomping on the accelerator while the engine is still cold with a sticky bypass valve on your engine can combine to create a pressure spike far exceeding 350 psi. If you can't break the "throttle stomping while the engine is still cold" habit, you must install a check valve (FCV) and a thermostat (P/N 501ERL) in your oil system, as shown in the diagram.



1. Place the flapper Check Valve (FCV) in the return line **FROM** the cooler **TO** the thermostat.
2. The direction of free flow through the FCV **MUST** be **towards** the thermostat.
3. See the drawing for the location of the thermostat. The port marked "INLET" on the thermostat is the inlet from the engine. Be sure to plumb the thermostat according to the drawing

HOSE END SPECIFICATIONS

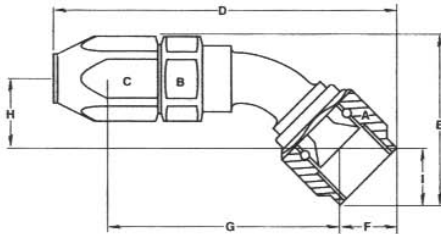
TECHNICAL SECTION



**Straight
Aluminum
Auto-Fit
Hose End**

3001

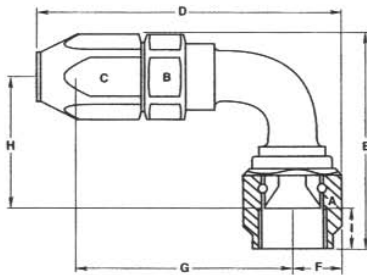
| 3001 | | 04 | 06 | 08 | 10 | 12 | 16 | 20 | 24 |
|------------------|---|-------|-------|--------|--------|--------|--------|--------|---------|
| NUT HEX | A | 9/16 | 11/16 | 7/8 | 1 | 1 1/4 | 1 1/2 | 2 | 2 1/4 |
| BODY HEX | B | 9/16 | 11/16 | 7/8 | 1 | 1 1/4 | 1 1/2 | 2 | 2 1/4 |
| SOCKET HEX | C | 5/8 | 3/4 | 7/8 | 1 1/16 | 1 3/16 | 1 7/16 | 1 3/4 | 1 15/16 |
| .O.A. LENGTH | D | 1 5/8 | 1 7/8 | 2 3/16 | 2 3/8 | 2 1/2 | 2 7/8 | 3 3/16 | 3 7/8 |
| WIDTH (MAX) | E | 23/32 | 7/8 | 1 1/32 | 1 7/32 | 1 7/16 | 1 3/4 | 2 5/16 | 2 19/32 |
| FLARE TO END | F | 11/32 | 3/8 | 7/16 | 1/2 | 17/32 | 5/8 | 11/16 | 13/16 |
| CUT-OFF | G | 7/8 | 15/16 | 1 1/8 | 1 1/4 | 1 5/16 | 15/16 | 1 9/16 | 1 5/8 |
| OPERATING P.S.I. | | 1500 | 1500 | 1500 | 1250 | 1000 | 750 | 500 | 250 |
| BURST EXCEEDS | | 6000 | 6000 | 6000 | 5000 | 4000 | 3000 | 2000 | 1000 |



**45°
Tubular
Auto-Fit
Hose End**

3046

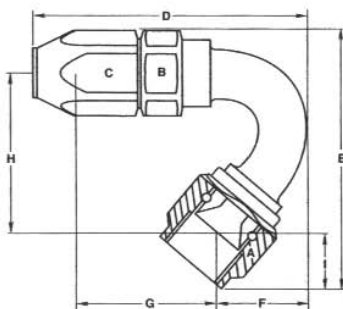
| 6150 | | 4 | 6 | 8 | 10 | 12 | 16 | 20 | 24 |
|------------------|---|--------|---------|---------|---------|--------|--------|---------|---------|
| NUT HEX | A | 9/16 | 11/16 | 7/8 | 1 | 1 1/4 | 1 1/2 | 2 | 2 1/4 |
| BODY HEX | B | 9/16 | 11/16 | 7/8 | 1 | 1 1/4 | 1 1/2 | 1 3/4 | 2 |
| SOCKET HEX | C | 5/8 | 3/4 | 7/8 | 1 1/16 | 1 3/16 | 1 7/16 | 1 3/4 | 1 15/16 |
| .O.A. LENGTH | D | 2 1/8 | 2 17/32 | 2 29/32 | 3 5/32 | 3 7/16 | 4 1/8 | 4 3/4 | 5 1/4 |
| WIDTH (MAX) | E | 1 1/8 | 1 5/16 | 1 23/32 | 1 15/16 | 2 3/16 | 2 1/2 | 2 15/16 | 3 7/16 |
| FLARE TO END | F | 7/16 | 17/32 | 9/16 | 21/32 | 3/4 | 15/16 | 1 3/16 | 1 7/16 |
| CUT-OFF | G | 1 9/32 | 1 7/16 | 1 5/8 | 1 7/8 | 2 1/16 | 2 5/16 | 2 3/4 | 3 |
| C.L. TO FLARE | H | 11/32 | 7/16 | 9/16 | 5/8 | 23/32 | 11/16 | 13/16 | 31/32 |
| EDGE TO FLARE | I | 7/16 | 1/2 | 19/32 | 23/32 | 13/16 | 1 1/32 | 1 3/16 | 1 1/4 |
| OPERATING P.S.I. | | 1500 | 1500 | 1500 | 1250 | 1000 | 750 | 500 | 250 |
| BURST EXCEEDS | | 6000 | 6000 | 6000 | 5000 | 4000 | 3000 | 2000 | 1000 |



**90°
Tubular
Auto-Fit
Hose End**

3091

| 3091 | | 4 | 6 | 8 | 10 | 12 | 16 | 20 | 24 |
|------------------|---|---------|---------|--------|--------|---------|---------|--------|---------|
| NUT HEX | A | 9/16 | 11/16 | 7/8 | 1 | 1 1/4 | 1 1/2 | 2 | 2 1/4 |
| BODY HEX | B | 9/16 | 11/16 | 7/8 | 1 | 1 1/2 | 1 1/2 | 1 3/4 | 2 |
| SOCKET HEX | C | 5/8 | 3/4 | 7/8 | 1 1/16 | 1 3/16 | 1 7/16 | 1 3/4 | 1 15/16 |
| .O.A. LENGTH | D | 1 13/16 | 2 11/32 | 2 1/2 | 2 3/4 | 3 3/16 | 3 7/8 | 4 5/8 | 5 |
| WIDTH (MAX) | E | 1 5/8 | 1 13/16 | 2 | 2 1/4 | 2 5/8 | 3 1/8 | 3 5/8 | 4 1/16 |
| FLARE TO END | F | 11/32 | 13/32 | 1/2 | 9/16 | 23/32 | 7/8 | 1 5/32 | 1 5/16 |
| CUT-OFF | G | 1 1/16 | 1 5/16 | 1 3/8 | 1 9/16 | 1 13/16 | 2 3/16 | 2 5/8 | 2 3/4 |
| C.L. TO FLARE | H | 13/16 | 1 1/32 | 1 1/16 | 1 5/32 | 1 7/16 | 1 11/16 | 2 3/32 | 2 9/32 |
| EDGE TO FLARE | I | 11/32 | 3/8 | 7/16 | 1/2 | 1/2 | 11/16 | 1 1/16 | 1 3/16 |
| OPERATING P.S.I. | | 1500 | 1500 | 1500 | 1250 | 1000 | 750 | 500 | 250 |
| BURST EXCEEDS | | 6000 | 6000 | 6000 | 5000 | 4000 | 3000 | 2000 | 1000 |



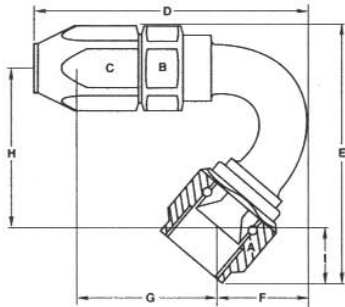
**120°
Tubular
Auto-Fit
Hose End**

3120

| 3091 | | 4 | 6 | 8 | 10 | 12 | 16 |
|------------------|---|---------|---------|--------|---------|---------|---------|
| NUT HEX | A | 9/16 | 11/16 | 7/8 | 1 | 1 1/4 | 1 1/2 |
| BODY HEX | B | 9/16 | 11/16 | 7/8 | 1 | 1 1/2 | 1 1/2 |
| SOCKET HEX | C | 5/8 | 3/4 | 7/8 | 1 1/16 | 1 3/16 | 1 7/16 |
| .O.A. LENGTH | D | 1 21/32 | 1 15/16 | 2 7/32 | 2 1/2 | 2 3/4 | 3 7/16 |
| WIDTH (MAX) | E | 1 15/16 | 2 1/16 | 2 5/16 | 2 25/32 | 3 1/8 | 3 11/16 |
| FLARE TO END | F | 7/16 | 17/32 | 5/8 | 11/16 | 13/16 | 15/16 |
| CUT-OFF | G | 15/16 | 1 5/16 | 1 3/8 | 1 9/16 | 1 13/16 | 2 3/16 |
| C.L. TO FLARE | H | 13/16 | 13/16 | 1 1/16 | 1 1/4 | 1 5/16 | 1 5/8 |
| EDGE TO FLARE | I | 1/2 | 1/2 | 9/32 | 11/16 | 3/4 | 15/16 |
| OPERATING P.S.I. | | 1500 | 1500 | 1500 | 1250 | 1000 | 750 |
| BURST EXCEEDS | | 6000 | 6000 | 6000 | 5000 | 4000 | 3000 |

HOSE END SPECIFICATIONS

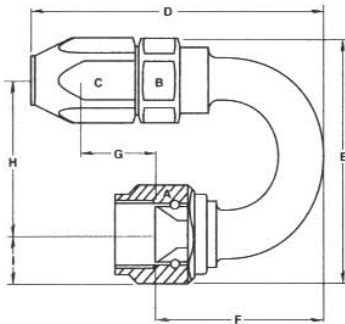
TECHNICAL SECTION



**150°
Tubular
Auto-Fit
Hose End**

3150

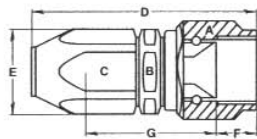
| 3150 | | 4 | 6 | 8 | 10 | 12 | 16 |
|------------------|---|-------|---------|---------|--------|---------|--------|
| NUT HEX | A | 9/16 | 11/16 | 7/8 | 1 | 1 1/4 | 1 1/2 |
| BODY HEX | B | 9/16 | 11/16 | 7/8 | 1 | 1 1/2 | 1 1/2 |
| SOCKET HEX | C | 5/8 | 3/4 | 7/8 | 1 1/16 | 1 3/16 | 1 7/16 |
| .O.A. LENGTH | D | 1 5/8 | 1 31/32 | 2 11/32 | 2 5/8 | 2 15/16 | 3 9/16 |
| WIDTH (MAX) | E | 1 7/8 | 2 3/32 | 2 1/2 | 3 | 3 5/8 | 4 5/16 |
| FLARE TO END | F | 13/16 | 13/32 | 1 1/8 | 1 1/4 | 1 11/16 | 1 1/2 |
| CUT-OFF | G | 7/16 | 5/8 | 3/4 | 13/16 | 3/4 | 1 |
| C.L. TO FLARE | H | 1 1/8 | 13/16 | 1 15/32 | 1 3/4 | 2 5/32 | 2 1/2 |
| EDGE TO FLARE | I | 13/32 | 1/2 | 9/16 | 21/32 | 13/16 | 1 |
| OPERATING P.S.I. | | 1500 | 1500 | 1500 | 1250 | 1000 | 750 |
| BURST EXCEEDS | | 6000 | 6000 | 6000 | 5000 | 4000 | 3000 |



**180°
Tubular
Auto-Fit
Hose End**

3180

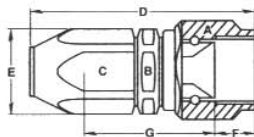
| 3180 | | 4 | 6 | 8 | 10 | 12 | 16 |
|------------------|---|---------|--------|---------|---------|--------|---------|
| NUT HEX | A | 9/16 | 11/16 | 7/8 | 1 | 1 1/4 | 1 1/2 |
| BODY HEX | B | 9/16 | 11/16 | 7/8 | 1 | 1 1/2 | 1 1/2 |
| SOCKET HEX | C | 5/8 | 3/4 | 7/8 | 1 1/16 | 1 3/16 | 1 7/16 |
| .O.A. LENGTH | D | 1 3/4 | 2 1/4 | 2 17/32 | 2 7/8 | 3 1/2 | 4 |
| WIDTH (MAX) | E | 1 13/16 | 2 5/16 | 2 17/32 | 3 3/16 | 4 7/16 | 4 11/16 |
| FLARE TO END | F | 1 7/32 | 1 7/16 | 1 5/8 | 1 15/16 | 2 9/16 | 2 5/8 |
| CUT-OFF | G | 5/16 | 5/16 | 3/8 | 11/32 | 7/16 | 1/2 |
| C.L. TO FLARE | H | 1 1/8 | 1 1/2 | 1 1/2 | 2 | 3 | 3 |
| EDGE TO FLARE | I | 11/32 | 13/32 | 1/2 | 9/16 | 23/32 | 7/8 |
| OPERATING P.S.I. | | 1500 | 1500 | 1500 | 1250 | 1000 | 750 |
| BURST EXCEEDS | | 6000 | 6000 | 6000 | 5000 | 4000 | 3000 |



**Straight
Speed Seal
Hose End**

6001

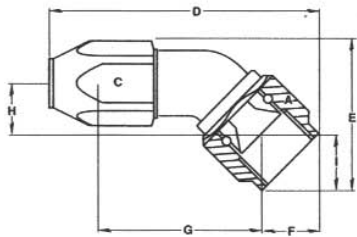
| 6001 | | 03 | 33 | 93 | 43 | 04 | 34 | 94 |
|------------------|---|-------|-------|-------|---------|--------|--------|--------|
| NUT HEX | A | 1/2 | 1/2 | 1/2 | 9/16 | 9/16 | 9/16 | 9/16 |
| BODY HEX | B | 1/2 | 1/2 | 1/2 | 9/16 | 9/16 | 9/16 | 9/16 |
| SOCKET HEX | C | 7/16 | 1/2 | 7/16 | 7/16 | 9/16 | 5/8 | 9/16 |
| .O.A. LENGTH | D | 1 3/8 | 1 3/8 | 1 3/8 | 1 13/32 | 1 9/16 | 1 9/16 | 1 9/16 |
| WIDTH (MAX) | E | 37/64 | 37/64 | 37/64 | 21/32 | 21/32 | 11/16 | 21/32 |
| FLARE TO END | F | 5/16 | 5/16 | 5/16 | 11/32 | 11/32 | 11/32 | 11/32 |
| CUT-OFF | G | 23/32 | 23/32 | 23/32 | 3/4 | 25/32 | 25/32 | 25/32 |
| OPERATING P.S.I. | | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 |
| BURST EXCEEDS | | 8000 | 8000 | 8000 | 8000 | 8000 | 8000 | 8000 |



**Straight
Speed Seal
Hose End**

6001

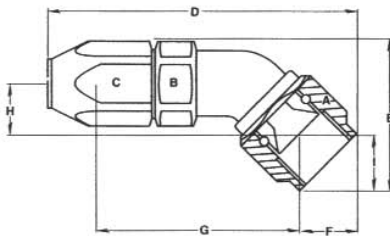
| 6001 | | 06 | 36 | 96 | 38 |
|------------------|---|---------|---------|---------|--------|
| NUT HEX | A | 11/16 | 11/16 | 11/16 | 7/8 |
| BODY HEX | B | 11/16 | 11/16 | 11/16 | 7/8 |
| SOCKET HEX | C | 11/16 | 3/4 | 11/16 | 7/8 |
| .O.A. LENGTH | D | 1 23/32 | 1 23/32 | 1 23/32 | 2 |
| WIDTH (MAX) | E | 51/64 | 7/8 | 51/64 | 1 1/64 |
| FLARE TO END | F | 3/8 | 3/8 | 3/8 | 7/16 |
| CUT-OFF | G | 27/32 | 27/32 | 27/32 | 15/16 |
| OPERATING P.S.I. | | 1500 | 1500 | 1500 | 1000 |
| BURST EXCEEDS | | 6000 | 6000 | 6000 | 4000 |



**45°
Non-Adjustable
Low Profile
Speed Seal
Hose End**

6044

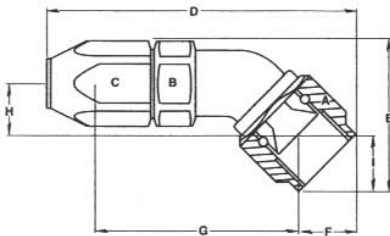
| 6044 | | 03 | 04 |
|------------------|---|-------|--------|
| NUT HEX | A | 1/2 | 9/16 |
| SOCKET HEX | C | 7/16 | 9/16 |
| .O.A. LENGTH | D | 1 5/8 | 1 3/4 |
| WIDTH (MAX) | E | 15/16 | 1 1/16 |
| FLARE TO END | F | 7/16 | 7/16 |
| CUT-OFF | G | 7/8 | 15/16 |
| C.L. TO FLARE | H | 5/16 | 5/16 |
| EDGE TO FLARE | I | 7/16 | 7/16 |
| OPERATING P.S.I. | | 2000 | 2000 |
| BURST EXCEEDS | | 8000 | 8000 |



**45°
Adjustable
Low Profile
Speed Seal
Hose End**

6045

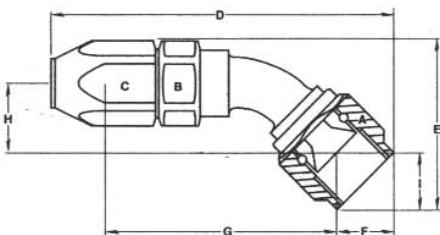
| 6045 | | 03 | 33 | 93 | 04 | 34 | 94 |
|------------------|---|-------|--------|-------|--------|--------|--------|
| NUT HEX | A | 1/2 | 1/2 | 1/2 | 9/16 | 9/16 | 9/16 |
| SWIVEL HEX | B | 1/2 | 1/2 | 1/2 | 9/16 | 9/16 | 9/16 |
| SOCKET HEX | C | 7/16 | 1/2 | 7/16 | 9/16 | 5/8 | 9/16 |
| .O.A. LENGTH | D | 1 7/8 | 1 7/8 | 1 7/8 | 2 1/32 | 2 1/32 | 2 1/32 |
| WIDTH (MAX) | E | 1 | 1 1/32 | 1 | 1 1/16 | 1 1/32 | 1 1/16 |
| FLARE TO END | F | 7/16 | 7/16 | 7/16 | 15/32 | 15/32 | 15/32 |
| CUT-OFF | G | 1 1/8 | 1 1/8 | 1 1/8 | 1 5/32 | 1 5/32 | 1 5/32 |
| C.L. TO FLARE | H | 1/4 | 1/4 | 1/4 | 5/16 | 5/16 | 5/16 |
| EDGE TO FLARE | I | 7/16 | 7/16 | 7/16 | 15/32 | 15/32 | 15/32 |
| OPERATING P.S.I. | | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 |
| BURST EXCEEDS | | 8000 | 8000 | 8000 | 8000 | 6000 | 6000 |



**45°
Adjustable
Low Profile
Speed Seal
Hose End**

6045

| 6045 | | 06 | 36 | 96 | 38 |
|------------------|---|--------|--------|--------|---------|
| NUT HEX | A | 11/16 | 11/16 | 11/16 | 7/8 |
| SWIVEL HEX | B | 11/16 | 11/16 | 11/16 | 7/8 |
| SOCKET HEX | C | 11/16 | 3/4 | 11/16 | 7/8 |
| .O.A. LENGTH | D | 2 7/32 | 2 7/32 | 2 7/32 | 2 11/16 |
| WIDTH (MAX) | E | 1 9/32 | 1 5/16 | 1 9/32 | 1 5/8 |
| FLARE TO END | F | 17/32 | 17/32 | 17/32 | 9/16 |
| CUT-OFF | G | 1 9/32 | 1 9/32 | 1 9/32 | 1 9/16 |
| C.L. TO FLARE | H | 3/8 | 3/8 | 3/8 | 9/16 |
| EDGE TO FLARE | I | 1/2 | 1/2 | 1/2 | 19/32 |
| OPERATING P.S.I. | | 1500 | 1500 | 1500 | 1000 |
| BURST EXCEEDS | | 6000 | 6000 | 6000 | 4000 |



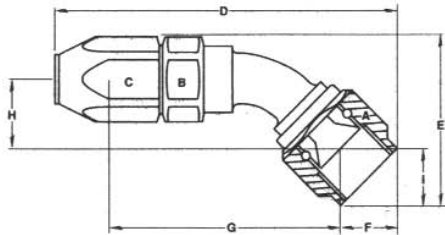
**45° Tubular
Non-Adjustable
Speed Seal
Hose End**

6046

| 6046 | | 03 | 33 | 04 | 34 |
|------------------|---|---------|---------|-------|-------|
| NUT HEX | A | 1/2 | 1/2 | 9/16 | 9/16 |
| BODY HEX | B | 1/2 | 1/2 | 9/16 | 9/16 |
| SOCKET HEX | C | 7/16 | 1/2 | 9/16 | 5/8 |
| .O.A. LENGTH | D | 1 15/16 | 1 15/16 | 2 | 2 |
| WIDTH (MAX) | E | 1 1/8 | 1 1/8 | 1 1/8 | 1 1/8 |
| FLARE TO END | F | 7/16 | 7/16 | 7/16 | 7/16 |
| CUT-OFF | G | 1 1/4 | 1 1/4 | 1 1/4 | 1 1/4 |
| C.L. TO FLARE | H | 5/16 | 5/16 | 5/16 | 5/16 |
| EDGE TO FLARE | I | 7/16 | 7/16 | 7/16 | 7/16 |
| OPERATING P.S.I. | | 2000 | 2000 | 2000 | 2000 |
| BURST EXCEEDS | | 8000 | 8000 | 8000 | 8000 |

HOSE END SPECIFICATIONS

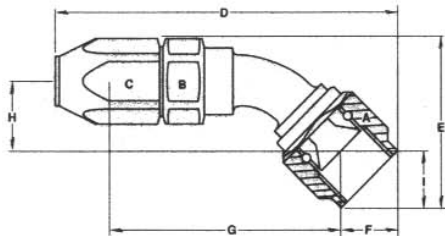
TECHNICAL SECTION



**45° Tubular
Adjustable
Speed Seal
Hose End**

6047

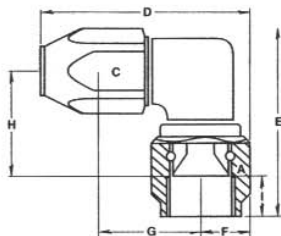
| 6047 | | 03 | 33 | 93 | 04 | 34 | 94 |
|------------------|---|--------|--------|--------|---------|---------|---------|
| NUT HEX | A | 1/2 | 1/2 | 1/2 | 9/16 | 9/16 | 9/16 |
| SWIVEL HEX | B | 1/2 | 1/2 | 1/2 | 9/16 | 9/16 | 9/16 |
| SOCKET HEX | C | 7/16 | 1/2 | 7/16 | 9/16 | 5/8 | 9/16 |
| .O.A. LENGTH | D | 2 1/16 | 2 1/16 | 2 1/16 | 2 3/16 | 2 3/16 | 2 3/16 |
| WIDTH (MAX) | E | 1 1/16 | 1 1/16 | 1 1/16 | 1 3/16 | 1 7/32 | 1 3/16 |
| FLARE TO END | F | 7/16 | 7/16 | 7/16 | 15/32 | 15/32 | 15/32 |
| CUT-OFF | G | 1 5/16 | 1 5/16 | 1 5/16 | 1 11/32 | 1 11/32 | 1 11/32 |
| C.L. TO FLARE | H | 5/16 | 5/16 | 5/16 | 11/32 | 11/32 | 11/32 |
| EDGE TO FLARE | I | 7/16 | 7/16 | 7/16 | 15/32 | 15/32 | 15/32 |
| OPERATING P.S.I. | | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 |
| BURST EXCEEDS | | 8000 | 8000 | 8000 | 8000 | 8000 | 8000 |



**45° Tubular
Adjustable
Speed Seal
Hose End**

6047

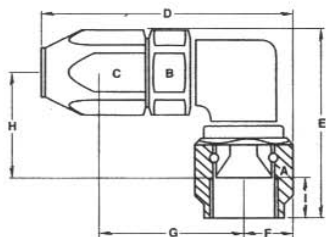
| 6047 | | 06 | 36 | 96 | 38 |
|------------------|---|---------|---------|---------|---------|
| NUT HEX | A | 11/16 | 11/16 | 11/16 | 7/8 |
| SWIVEL HEX | B | 11/16 | 11/16 | 11/16 | 7/8 |
| SOCKET HEX | C | 11/16 | 3/4 | 11/16 | 7/8 |
| .O.A. LENGTH | D | 2 5/8 | 2 19/32 | 2 5/8 | 2 15/16 |
| WIDTH (MAX) | E | 1 3/8 | 1 5/16 | 1 3/8 | 1 23/32 |
| FLARE TO END | F | 17/32 | 17/32 | 17/32 | 9/16 |
| CUT-OFF | G | 1 21/32 | 1 5/8 | 1 21/32 | 1 3/4 |
| C.L. TO FLARE | H | 17/32 | 7/16 | 17/32 | 9/16 |
| EDGE TO FLARE | I | 17/32 | 17/32 | 17/32 | 9/16 |
| OPERATING P.S.I. | | 1500 | 1500 | 1500 | 1000 |
| BURST EXCEEDS | | 6000 | 6000 | 6000 | 4000 |



**90°
Low Profile
Non-Adjustable
Speed Seal
Hose End**

6089

| 6089 | | 03 | 04 |
|------------------|---|---------|--------|
| NUT HEX | A | 1/2 | 9/16 |
| SOCKET HEX | C | 7/16 | 9/16 |
| .O.A. LENGTH | D | 1 13/32 | 1 1/2 |
| WIDTH (MAX) | E | 1 17/32 | 1 9/32 |
| FLARE TO END | F | 9/32 | 11/32 |
| CUT-OFF | G | 11/16 | 11/16 |
| C.L. TO FLARE | H | 19/32 | 5/8 |
| EDGE TO FLARE | I | 11/32 | 11/32 |
| OPERATING P.S.I. | | 2000 | 2000 |
| BURST EXCEEDS | | 8000 | 8000 |



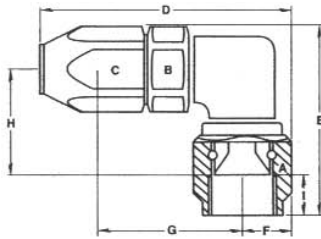
**90°
Low Profile
Adjustable
Speed Seal
Hose End**

6090

| 6090 | | 03 | 33 | 93 | 04 | 34 | 94 |
|------------------|---|---------|---------|---------|---------|---------|---------|
| NUT HEX | A | 1/2 | 1/2 | 1/2 | 9/16 | 9/16 | 9/16 |
| SWIVEL HEX | B | 1/2 | 1/2 | 1/2 | 9/16 | 9/16 | 9/16 |
| SOCKET HEX | C | 7/16 | 1/2 | 7/16 | 9/16 | 5/8 | 9/16 |
| .O.A. LENGTH | D | 1 17/32 | 1 17/32 | 1 17/32 | 1 23/32 | 1 23/32 | 1 23/32 |
| WIDTH (MAX) | E | 1 7/32 | 1 7/32 | 1 7/32 | 1 9/32 | 1 11/32 | 1 9/32 |
| FLARE TO END | F | 7/32 | 9/32 | 9/32 | 11/32 | 11/32 | 11/32 |
| CUT-OFF | G | 15/16 | 15/16 | 15/16 | 29/32 | 29/32 | 29/32 |
| C.L. TO FLARE | H | 19/32 | 19/32 | 19/32 | 5/8 | 5/8 | 5/8 |
| EDGE TO FLARE | I | 11/32 | 11/32 | 11/32 | 11/32 | 11/32 | 11/32 |
| OPERATING P.S.I. | | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 |
| BURST EXCEEDS | | 8000 | 8000 | 8000 | 8000 | 8000 | 8000 |

HOSE END SPECIFICATIONS

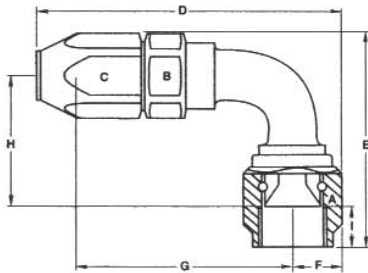
TECHNICAL SECTION



90°
Low Profile
Adjustable
Speed Seal
Hose End

6090

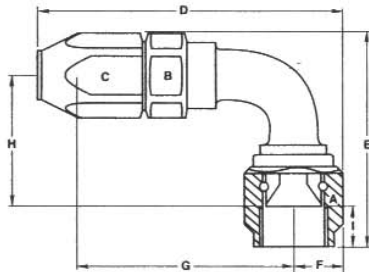
| 6090 | | 06 | 36 | 96 | 38 |
|------------------|---|---------|---------|---------|---------|
| NUT HEX | A | 11/16 | 11/16 | 11/16 | 7/8 |
| SWIVEL HEX | B | 11/16 | 11/16 | 11/16 | 7/8 |
| SOCKET HEX | C | 11/16 | 3/4 | 11/16 | 7/8 |
| .O.A. LENGTH | D | 1 15/16 | 1 15/16 | 1 15/16 | 2 11/32 |
| WIDTH (MAX) | E | 1 9/16 | 1 9/16 | 1 9/16 | 1 7/8 |
| FLARE TO END | F | 13/32 | 13/32 | 13/32 | 1/2 |
| CUT-OFF | G | 1 | 1 | 1 | 1 1/4 |
| C.L. TO FLARE | H | 3/4 | 3/4 | 3/4 | 15/16 |
| EDGE TO FLARE | I | 3/8 | 3/8 | 3/8 | 7/16 |
| OPERATING P.S.I. | | 1500 | 1500 | 1500 | 1000 |
| BURST EXCEEDS | | 6000 | 6000 | 6000 | 4000 |



90°
Non-Adjustable
Speed Seal
Hose End

6091

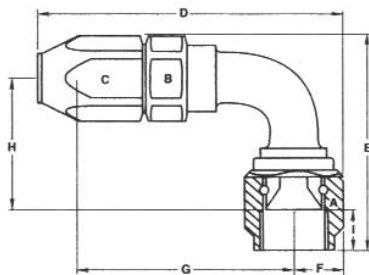
| 6091 | | 03 | 33 | 04 | 34 |
|------------------|---|--------|--------|---------|---------|
| NUT HEX | A | 1/2 | 1/2 | 9/16 | 9/16 |
| BODY HEX | B | 1/2 | 1/2 | 9/16 | 9/16 |
| SOCKET HEX | C | 7/16 | 1/2 | 9/16 | 5/8 |
| .O.A. LENGTH | D | 1 9/16 | 1 9/16 | 1 13/16 | 1 13/16 |
| WIDTH (MAX) | E | 1 5/16 | 1 3/8 | 1 9/16 | 1 5/8 |
| FLARE TO END | F | 9/32 | 9/32 | 5/16 | 5/16 |
| CUT-OFF | G | 7/8 | 7/8 | 1 1/8 | 1 1/8 |
| C.L. TO FLARE | H | 11/16 | 11/16 | 13/16 | 13/16 |
| EDGE TO FLARE | I | 11/32 | 11/32 | 11/32 | 11/32 |
| OPERATING P.S.I. | | 2000 | 2000 | 2000 | 2000 |
| BURST EXCEEDS | | 8000 | 8000 | 8000 | 8000 |



90° Tubular
Adjustable
Speed Seal
Hose End

6092

| 6092 | | 03 | 33 | 93 | 04 | 34 | 94 |
|------------------|---|--------|---------|---------|---------|---------|---------|
| NUT HEX | A | 1/2 | 1/2 | 1/2 | 9/16 | 9/16 | 9/16 |
| SWIVEL HEX | B | 1/2 | 1/2 | 1/2 | 9/16 | 9/16 | 9/16 |
| SOCKET HEX | C | 7/16 | 1/2 | 7/16 | 9/16 | 5/8 | 9/16 |
| .O.A. LENGTH | D | 1 3/4 | 1 13/16 | 1 3/4 | 2 | 2 | 2 |
| WIDTH (MAX) | E | 1 7/16 | 1 1/2 | 1 17/16 | 1 19/32 | 1 17/32 | 1 19/32 |
| FLARE TO END | F | 9/32 | 9/32 | 9/32 | 11/32 | 3/8 | 11/32 |
| CUT-OFF | G | 1 3/16 | 1 1/4 | 1 3/16 | 1 7/32 | 1 7/32 | 1 7/32 |
| C.L. TO FLARE | H | 13/16 | 7/8 | 13/16 | 1 | 7/8 | 1 |
| EDGE TO FLARE | I | 11/32 | 11/32 | 11/32 | 11/32 | 11/32 | 11/32 |
| OPERATING P.S.I. | | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 |
| BURST EXCEEDS | | 8000 | 8000 | 8000 | 8000 | 8000 | 8000 |



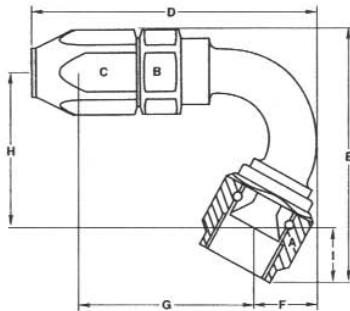
90° Tubular
Adjustable
Speed Seal
Hose End

6092

| 6092 | | 06 | 36 | 96 | 38 |
|------------------|---|---------|---------|---------|---------|
| NUT HEX | A | 11/16 | 11/16 | 11/16 | 7/8 |
| SWIVEL HEX | B | 11/16 | 11/16 | 11/16 | 7/8 |
| SOCKET HEX | C | 11/16 | 3/4 | 11/16 | 7/8 |
| .O.A. LENGTH | D | 2 13/32 | 2 5/16 | 2 13/32 | 2 19/32 |
| WIDTH (MAX) | E | 1 15/16 | 1 13/16 | 1 15/16 | 1 31/32 |
| FLARE TO END | F | 7/32 | 9/32 | 9/32 | 1/2 |
| CUT-OFF | G | 15/16 | 15/16 | 15/16 | 1 1/2 |
| C.L. TO FLARE | H | 1 1/8 | 1 1/32 | 1 1/8 | 1 1/16 |
| EDGE TO FLARE | I | 3/8 | 3/8 | 3/8 | 7/16 |
| OPERATING P.S.I. | | 1500 | 1500 | 1500 | 1000 |
| BURST EXCEEDS | | 6000 | 6000 | 6000 | 4000 |

HOSE END SPECIFICATIONS

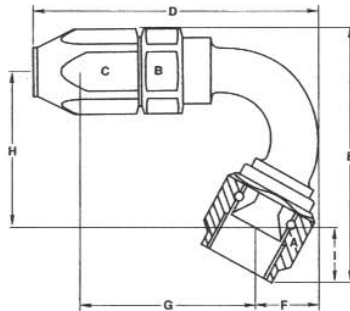
TECHNICAL SECTION



**120°
Tubular
Adjustable
Speed Seal
Hose End**

6121

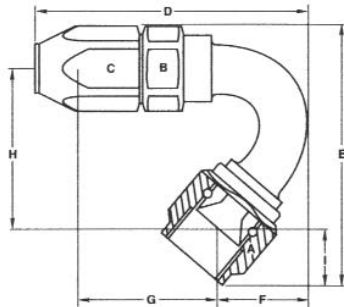
| 6121 | | 03 | 33 | 93 | 04 | 34 | 94 |
|------------------|---|---------|---------|---------|---------|---------|---------|
| NUT HEX | A | 1/2 | 1/2 | 1/2 | 9/16 | 9/16 | 9/16 |
| SWIVEL HEX | B | 1/2 | 1/2 | 1/2 | 9/16 | 9/16 | 9/16 |
| SOCKET HEX | C | 7/16 | 1/2 | 7/16 | 9/16 | 5/8 | 9/16 |
| .O.A. LENGTH | D | 1 1/2 | 1 23/32 | 1/2 | 1 15/16 | 1 7/8 | 1 15/16 |
| WIDTH (MAX) | E | 1 19/32 | 1 7/8 | 1 17/32 | 1 7/8 | 1 15/16 | 1 7/8 |
| FLARE TO END | F | 13/32 | 1/2 | 13/32 | 17/32 | 17/32 | 17/32 |
| CUT-OFF | G | 13/16 | 1 1/16 | 13/16 | 1 5/32 | 1 1/16 | 1 5/32 |
| C.L. TO FLARE | H | 7/8 | 1 1/16 | 7/8 | 1 1/8 | 1 1/8 | 1 1/8 |
| EDGE TO FLARE | I | 3/8 | 3/8 | 3/8 | 1/2 | 1/2 | 1/2 |
| OPERATING P.S.I. | | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 |
| BURST EXCEEDS | | 8000 | 8000 | 8000 | 8000 | 8000 | 8000 |



**120°
Tubular
Adjustable
Speed Seal
Hose End**

6121

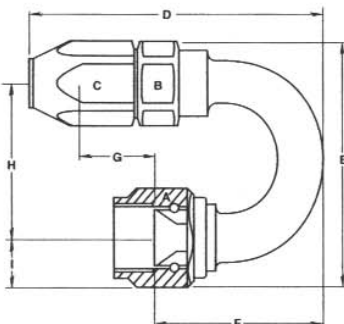
| 6121 | | 06 | 36 | 96 | 38 |
|------------------|---|--------|---------|--------|--------|
| NUT HEX | A | 11/16 | 11/16 | 11/16 | 7/8 |
| SWIVEL HEX | B | 11/16 | 11/16 | 11/16 | 7/8 |
| SOCKET HEX | C | 11/16 | 3/4 | 11/16 | 7/8 |
| .O.A. LENGTH | D | 1 1/2 | 1 23/32 | 1/2 | 1 7/8 |
| WIDTH (MAX) | E | 2 1/4 | 2 1/32 | 2 1/4 | 2 5/16 |
| FLARE TO END | F | 17/32 | 17/32 | 17/32 | 5/8 |
| CUT-OFF | G | 1 1/16 | 1 1/8 | 1 1/16 | 1 7/32 |
| C.L. TO FLARE | H | 1 1/8 | 1 1/8 | 1 1/8 | 1 1/4 |
| EDGE TO FLARE | I | 1/2 | 1/2 | 1/2 | 19/32 |
| OPERATING P.S.I. | | 1500 | 1500 | 1500 | 1000 |
| BURST EXCEEDS | | 6000 | 6000 | 6000 | 4000 |



**150°
Tubular
Adjustable
Speed Seal
Hose End**

6151

| 6151 | | 38 |
|------------------|---|--------|
| NUT HEX | A | 7/8 |
| SWIVEL HEX | B | 7/8 |
| SOCKET HEX | C | 7/8 |
| .O.A. LENGTH | D | 2 1/2 |
| WIDTH (MAX) | E | 2 1/8 |
| FLARE TO END | F | 1 1/8 |
| CUT-OFF | G | 3/4 |
| C.L. TO FLARE | H | 1 7/16 |
| EDGE TO FLARE | I | 9/16 |
| OPERATING P.S.I. | | 1000 |
| BURST EXCEEDS | | 4000 |



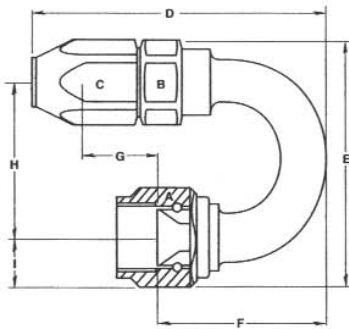
**180°
Tubular
Adjustable
Speed Seal
Hose End**

6181

| 6181 | | 03 | 33 | 04 | 34 | 06 | 36 |
|------------------|---|---------|---------|---------|-------|-------|-------|
| NUT HEX | A | 1/2 | 1/2 | 1/2 | 9/16 | 9/16 | 9/16 |
| SWIVEL HEX | B | 1/2 | 1/2 | 1/2 | 9/16 | 9/16 | 9/16 |
| SOCKET HEX | C | 7/16 | 1/2 | 7/16 | 9/16 | 5/8 | 9/16 |
| .O.A. LENGTH | D | 1 11/16 | 1 7/8 | 1 11/16 | 2 | 2 | 2 |
| WIDTH (MAX) | E | 1 9/16 | 1 11/16 | 1 9/16 | 1 1/8 | 1 1/8 | 1 1/8 |
| FLARE TO END | F | 1 | 1 1/8 | 1 | 1 1/8 | 1 1/8 | 1 1/8 |
| CUT-OFF | G | 5/16 | 7/16 | 5/16 | 7/16 | 7/16 | 7/16 |
| C.L. TO FLARE | H | 1 | 1 1/8 | 1 | 1 1/8 | 1 1/8 | 1 1/8 |
| EDGE TO FLARE | I | 9/32 | 9/32 | 9/32 | 11/32 | 11/32 | 11/32 |
| OPERATING P.S.I. | | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 |
| BURST EXCEEDS | | 8000 | 8000 | 8000 | 8000 | 8000 | 8000 |

HOSE END SPECIFICATIONS

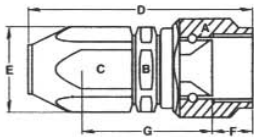
TECHNICAL SECTION



**180°
Tubular
Adjustable
Speed Seal
Hose End**

6181

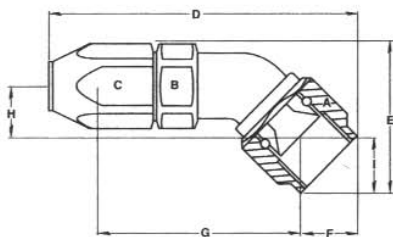
| 6181 | | 06 | 36 | 96 | 38 |
|------------------|---|---------|---------|---------|---------|
| NUT HEX | A | 11/16 | 11/16 | 11/16 | 7/8 |
| SWIVEL HEX | B | 11/16 | 11/16 | 11/16 | 7/8 |
| SOCKET HEX | C | 11/16 | 3/4 | 11/16 | 7/8 |
| .O.A. LENGTH | D | 2 11/32 | 2 11/32 | 2 11/32 | 2 5/8 |
| WIDTH (MAX) | E | 2 5/16 | 2 11/32 | 2 5/16 | 2 17/32 |
| FLARE TO END | F | 1 7/16 | 1 7/16 | 1 7/16 | 1 5/8 |
| CUT-OFF | G | 15/32 | 15/32 | 15/32 | 1/2 |
| C.L. TO FLARE | H | 1 1/2 | 1 1/2 | 1 1/2 | 1 1/2 |
| EDGE TO FLARE | I | 13/32 | 13/32 | 13/32 | 1/2 |
| OPERATING P.S.I. | | 1500 | 1500 | 1500 | 1000 |
| BURST EXCEEDS | | 6000 | 6000 | 6000 | 4000 |



**Straight
Swivel Seal
Hose End**

8001

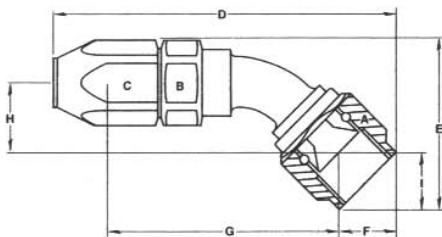
| 8001 | | 06 | 08 | 10 | 12 | 16 |
|------------------|---|---------|--------|--------|--------|---------|
| NUT HEX | A | 11/16 | 7/8 | 1 | 1 1/4 | 1 1/2 |
| CUTTER HEX | B | 11/16 | 7/8 | 1 | 1 1/4 | 1 1/2 |
| SOCKET HEX | C | 3/4 | 7/8 | 1 1/16 | 1 3/16 | 1 7/16 |
| .O.A. LENGTH | D | 1 25/32 | 2 3/16 | 2 7/16 | 2 1/2 | 2 15/16 |
| WIDTH (MAX) | E | 7/8 | 1 1/32 | 1 7/32 | 1 7/16 | 1 3/4 |
| FLARE TO END | F | 3/8 | 7/16 | 1/2 | 17/32 | 1/2 |
| CUT-OFF | G | 15/16 | 1 3/16 | 1 5/16 | 1 5/16 | 1 9/16 |
| OPERATING P.S.I. | | 1500 | 1500 | 11250 | 1000 | 750 |
| BURST EXCEEDS | | 6000 | 6000 | 5000 | 4000 | 3000 |



**45°
Low Profile
Swivel Seal
Hose End**

8045

| 8045 | | 06 | 08 | 10 | 12 | 16 |
|------------------|---|--------|---------|---------|---------|--------|
| NUT HEX | A | 11/16 | 7/8 | 1 | 1 1/4 | 1 1/2 |
| CUTTER HEX | B | 5/8 | 13/16 | 15/16 | 1 1/16 | 1 1/2 |
| SOCKET HEX | C | 3/4 | 7/8 | 1 1/16 | 1 3/16 | 1 7/16 |
| .O.A. LENGTH | D | 2 1/2 | 3 1/32 | 3 5/16 | 3 11/16 | 4 1/4 |
| WIDTH (MAX) | E | 1 5/16 | 1 5/8 | 1 13/16 | 2 3/16 | 2 1/2 |
| FLARE TO END | F | 17/32 | 9/16 | 21/32 | 3/4 | 15/16 |
| CUT-OFF | G | 1 1/2 | 1 13/16 | 1 15/16 | 2 7/32 | 2 1/2 |
| C.L. TO FLARE | H | 3/8 | 9/16 | 9/16 | 23/32 | 11/16 |
| EDGE TO FLARE | I | 1/2 | 19/32 | 23/32 | 13/16 | 1 1/32 |
| OPERATING P.S.I. | | 1500 | 1500 | 1250 | 1000 | 750 |
| BURST EXCEEDS | | 6000 | 6000 | 5000 | 4000 | 3000 |



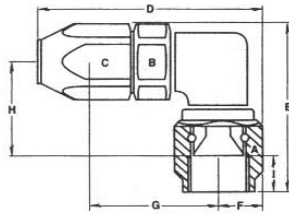
**45° Tubular
Swivel Seal
Hose End**

8046

| 8046 | | 06 | 08 | 10 | 12 | 16 |
|------------------|---|---------|---------|---------|--------|--------|
| NUT HEX | A | 11/16 | 7/8 | 1 | 1 1/4 | 1 1/2 |
| CUTTER HEX | B | 5/8 | 13/16 | 15/16 | 1 1/16 | 1 5/16 |
| SOCKET HEX | C | 3/4 | 7/8 | 1 1/16 | 1 3/16 | 1 7/16 |
| .O.A. LENGTH | D | 2 7/8 | 3 3/16 | 3 1/2 | 4 | 4 3/8 |
| WIDTH (MAX) | E | 1 5/16 | 1 23/32 | 1 15/16 | 2 3/16 | 2 1/2 |
| FLARE TO END | F | 17/32 | 9/16 | 21/32 | 3/4 | 15/16 |
| CUT-OFF | G | 1 15/16 | 2 1/8 | 2 3/16 | 2 5/8 | 2 3/4 |
| C.L. TO FLARE | H | 7/16 | 9/16 | 5/8 | 23/32 | 11/16 |
| EDGE TO FLARE | I | 1/2 | 19/32 | 23/32 | 13/16 | 1 1/32 |
| OPERATING P.S.I. | | 1500 | 1500 | 1250 | 1000 | 750 |
| BURST EXCEEDS | | 6000 | 6000 | 5000 | 4000 | 3000 |

HOSE END SPECIFICATIONS

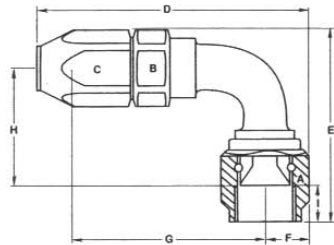
TECHNICAL SECTION



**90°
Low Profile
Swivel Seal
Hose End**

8090

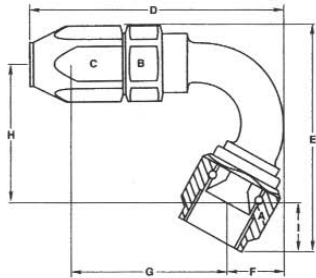
| 8090 | | 06 | 08 | 10 | 12 | 16 |
|------------------|---|--------|-------|---------|--------|---------|
| NUT HEX | A | 11/16 | 7/8 | 1 | 1 1/4 | 1 1/2 |
| CUTTER HEX | B | 5/8 | 13/16 | 15/16 | 1 1/16 | 1 5/16 |
| SOCKET HEX | C | 3/4 | 7/8 | 1 1/16 | 1 3/16 | 1 7/16 |
| .O.A. LENGTH | D | 2 1/8 | 2 1/2 | 2 13/16 | 3 5/16 | 3 45/64 |
| WIDTH (MAX) | E | 1 9/16 | 1 7/8 | 2 3/16 | 2 9/16 | 2 47/64 |
| FLARE TO END | F | 13/32 | 1/2 | 9/16 | 23/32 | 27/32 |
| CUT-OFF | G | 1 5/16 | 1 3/8 | 1 9/16 | 1 7/8 | 2 1/8 |
| C.L. TO FLARE | H | 3/4 | 15/16 | 1 1/16 | 1 3/8 | 5/8 |
| EDGE TO FLARE | I | 3/8 | 7/16 | 1/2 | 1/2 | 11/16 |
| OPERATING P.S.I. | | 1500 | 1500 | 1250 | 1000 | 750 |
| BURST EXCEEDS | | 6000 | 6000 | 5000 | 4000 | 3000 |



**90° Tubular
Swivel Seal
Hose End**

8091

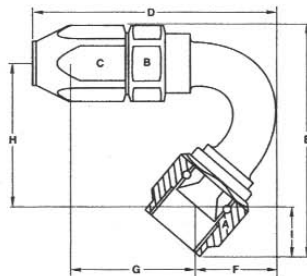
| 8091 | | 06 | 08 | 10 | 12 | 16 |
|------------------|---|---------|---------|---------|--------|---------|
| NUT HEX | A | 11/16 | 7/8 | 1 | 1 1/4 | 1 1/2 |
| CUTTER HEX | B | 5/8 | 13/16 | 15/16 | 1 1/16 | 1 5/16 |
| SOCKET HEX | C | 3/4 | 7/8 | 1 1/16 | 1 3/16 | 1 7/16 |
| .O.A. LENGTH | D | 2 7/16 | 2 25/32 | 3 1/8 | 3 5/8 | 4 3/16 |
| WIDTH (MAX) | E | 1 13/16 | 2 | 2 1/4 | 2 5/8 | 3 1/8 |
| FLARE TO END | F | 13/32 | 1/2 | 9/16 | 25/32 | 7/8 |
| CUT-OFF | G | 1 5/8 | 1 3/4 | 1 15/16 | 2 1/4 | 2 5/8 |
| C.L. TO FLARE | H | 1 1/32 | 1 1/16 | 1 5/32 | 1 7/16 | 1 11/16 |
| EDGE TO FLARE | I | 3/8 | 7/16 | 1/2 | 1/2 | 11/16 |
| OPERATING P.S.I. | | 1500 | 1500 | 1250 | 1000 | 750 |
| BURST EXCEEDS | | 6000 | 6000 | 5000 | 4000 | 3000 |



**120°
Tubular
Swivel Seal
Hose End**

8120

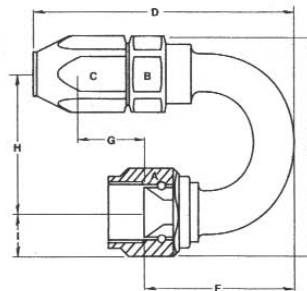
| 8120 | | 06 | 08 | 10 | 12 | 16 |
|------------------|---|--------|---------|---------|---------|---------|
| NUT HEX | A | 11/16 | 7/8 | 1 | 1 1/4 | 1 1/2 |
| CUTTER HEX | B | 5/8 | 13/16 | 15/16 | 1 1/16 | 1 5/16 |
| SOCKET HEX | C | 3/4 | 7/8 | 1 1/16 | 1 3/16 | 1 7/16 |
| .O.A. LENGTH | D | 2 3/16 | 2 17/32 | 2 27/32 | 3 3/16 | 3 3/4 |
| WIDTH (MAX) | E | 2 1/16 | 2 5/8 | 2 25/32 | 3 1/8 | 3 11/16 |
| FLARE TO END | F | 17/32 | 5/8 | 11/16 | 13/16 | 15/16 |
| CUT-OFF | G | 1 5/16 | 1 3/8 | 1 1/2 | 1 3/4 | 2 1/8 |
| C.L. TO FLARE | H | 1 1/8 | 1 1/4 | 1 17/32 | 1 13/16 | 2 1/32 |
| EDGE TO FLARE | I | 1/2 | 19/32 | 11/16 | 3/4 | 15/16 |
| OPERATING P.S.I. | | 2000 | 2000 | | | |
| BURST EXCEEDS | | 6000 | 6000 | | | |



**150°
Tubular
Swivel Seal
Hose End**

8150

| 8150 | | 06 | 08 | 10 | 12 | 16 |
|------------------|---|--------|---------|---------|---------|---------|
| NUT HEX | A | 11/16 | 7/8 | 1 | 1 1/4 | 1 1/2 |
| CUTTER HEX | B | 5/8 | 13/16 | 15/16 | 1 1/16 | 1 5/16 |
| SOCKET HEX | C | 3/4 | 7/8 | 1 1/16 | 1 3/16 | 1 7/16 |
| .O.A. LENGTH | D | 2 1/4 | 2 5/8 | 2 15/16 | 3 7/16 | 3 15/16 |
| WIDTH (MAX) | E | 2 3/32 | 2 1/2 | 3 | 3 5/8 | 4 5/16 |
| FLARE TO END | F | 13/16 | 1 1/8 | 1 1/4 | 1 11/32 | 1 1/2 |
| CUT-OFF | G | 7/8 | 1 | 1 1/8 | 1 3/8 | 1 21/32 |
| C.L. TO FLARE | H | 1 3/16 | 1 15/32 | 1 3/4 | 2 5/32 | 2 1/2 |
| EDGE TO FLARE | I | 1/2 | 9/16 | 21/32 | 13/16 | 1 |
| OPERATING P.S.I. | | 1500 | 1500 | 1250 | 1000 | 750 |
| BURST EXCEEDS | | 6000 | 6000 | 5000 | 4000 | 3000 |



**180°
Tubular
Swivel Seal**

8180

| 8180 | | 06 | 08 | 10 | 12 | 16 |
|------------------|---|--------|---------|---------|---------|---------|
| NUT HEX | A | 11/16 | 7/8 | 1 | 1 1/4 | 1 1/2 |
| CUTTER HEX | B | 5/8 | 13/16 | 15/16 | 1 1/16 | 1 5/16 |
| SOCKET HEX | C | 3/4 | 7/8 | 1 1/16 | 1 3/16 | 1 7/16 |
| .O.A. LENGTH | D | 1 1/2 | 2 7/8 | 3 1/4 | 3 15/16 | 4 3/8 |
| WIDTH (MAX) | E | 1 5/16 | 2 17/32 | 3 3/16 | 4 7/16 | 4 11/16 |
| FLARE TO END | F | 1 7/16 | 1 5/8 | 1 15/16 | 2 9/16 | 2 5/8 |
| CUT-OFF | G | 21/32 | 3/4 | 23/32 | 3/4 | 1 |
| C.L. TO FLARE | H | 1 1/2 | 1 1/2 | 2 | 3 | 3 |
| EDGE TO FLARE | I | 13/32 | 1/2 | 9/16 | 23/32 | 7/8 |
| OPERATING P.S.I. | | 1500 | 1500 | 1250 | 1000 | 750 |
| BURST EXCEEDS | | 6000 | 6000 | 5000 | 4000 | 3000 |

PART NUMBER TO PAGE INDEX

| PART NO. | PG. | PART NO. | PG. | PART NO. | PG. | PART NO. | PG. | PART NO. | PG. | PART NO. | PG. |
|-----------|-----|-----------|-----|-----------|-----|------------|-----|-----------|-----|-----------|-----|
| 004ERL | 101 | 167007ERL | 96 | 171210ERL | 97 | 20710AERL | 62 | 23412AERL | 63 | 28A100ERL | 84 |
| 005ERL | 101 | 167008ERL | 96 | 171212ERL | 97 | 20712ERL | 62 | 23412ERL | 63 | 28A100ERL | 84 |
| 006ERL | 101 | 167009ERL | 96 | 171216ERL | 97 | 20712AERL | 62 | 23416AERL | 63 | 28A100ERL | 84 |
| 007ERL | 98 | 167010ERL | 96 | 171218ERL | 97 | 20712BERL | 62 | 23416ERL | 63 | 28A100ERL | 84 |
| 008ERL | 101 | 167011ERL | 96 | 171220ERL | 97 | 20716AERL | 62 | 2377ERL | 69 | 28A110ERL | 82 |
| 009ERL | 101 | 167012ERL | 96 | 171224ERL | 97 | 20716ERL | 62 | 240103ERL | 37 | 28A110ERL | 82 |
| 010ERL | 101 | 167013ERL | 96 | 171228ERL | 97 | 20716ERL | 62 | 240104ERL | 37 | 28A110ERL | 84 |
| 011ERL | 101 | 167014ERL | 96 | 171230ERL | 97 | 21000AERL | 62 | 240106ERL | 37 | 28A110ERL | 84 |
| 012ERL | 101 | 167015ERL | 96 | 171232ERL | 97 | 21000ERL | 62 | 240108ERL | 37 | 28A120ERL | 82 |
| 013ERL | 101 | 167016ERL | 96 | 1713ERL | 66 | 21006AERL | 62 | 240110ERL | 37 | 28A130ERL | 82 |
| 014ERL | 101 | 167017ERL | 96 | 1716ERL | 66 | 21006ERL | 62 | 240112ERL | 37 | 28A140ERL | 82 |
| 015ERL | 101 | 167019ERL | 96 | 1719ERL | 66 | 21008AERL | 62 | 240116ERL | 37 | 28A150ERL | 82 |
| 016ERL | 101 | 167020ERL | 96 | 1725ERL | 66 | 21008ERL | 62 | 240303ERL | 37 | 28A150ERL | 82 |
| 018ERL | 101 | 167022ERL | 96 | 1734ERL | 66 | 21010AERL | 62 | 240304ERL | 37 | 28A150ERL | 84 |
| 019ERL | 101 | 167103ERL | 96 | 174002ERL | 95 | 21010ERL | 62 | 240306ERL | 37 | 28A160ERL | 82 |
| 10000ERL | 107 | 167104ERL | 96 | 174003ERL | 95 | 21012AERL | 62 | 240308ERL | 37 | 28A160ERL | 84 |
| 10001ERL | 105 | 167105ERL | 96 | 174004ERL | 95 | 21012ERL | 62 | 240310ERL | 37 | 28A160ERL | 82 |
| 100031ERL | 107 | 167106ERL | 96 | 174005ERL | 95 | 21016AERL | 62 | 240312ERL | 37 | 28A170ERL | 84 |
| 100034ERL | 105 | 167107ERL | 96 | 174006ERL | 95 | 21016ERL | 62 | 240316ERL | 37 | 28A170ERL | 84 |
| 100037ERL | 105 | 167108ERL | 96 | 174008ERL | 95 | 21045ERL | 62 | 241103ERL | 37 | 28A180ERL | 82 |
| 100176ERL | 36 | 167109ERL | 96 | 1742ERL | 66 | 21300AERL | 62 | 241104ERL | 37 | 28A180ERL | 84 |
| 100177ERL | 36 | 167110ERL | 96 | 175002ERL | 62 | 21300ERL | 62 | 241106ERL | 37 | 28A190ERL | 82 |
| 100178ERL | 36 | 167111ERL | 96 | 1750ERL | 66 | 21306AERL | 62 | 241108ERL | 37 | 28A190ERL | 84 |
| 100179ERL | 36 | 167112ERL | 96 | 176003ERL | 98 | 21306ERL | 62 | 241110ERL | 37 | 28A200ERL | 82 |
| 100180ERL | 36 | 167113ERL | 96 | 176004ERL | 98 | 21308AERL | 62 | 241112ERL | 37 | 28A200ERL | 84 |
| 100181ERL | 36 | 167114ERL | 96 | 176004ERL | 98 | 21308ERL | 62 | 241116ERL | 37 | 28A210ERL | 82 |
| 100182ERL | 36 | 167115ERL | 96 | 176008ERL | 98 | 21310AERL | 62 | 24200AERL | 63 | 28A220ERL | 82 |
| 100183ERL | 36 | 167116ERL | 96 | 176010ERL | 98 | 21310ERL | 62 | 24200ERL | 63 | 28A220ERL | 84 |
| 100184ERL | 36 | 167117ERL | 96 | 176012ERL | 98 | 21312AERL | 62 | 24206AERL | 63 | 28A230ERL | 82 |
| 100188ERL | 33 | 167119ERL | 96 | 176016ERL | 98 | 21312ERL | 62 | 24206ERL | 63 | 28A230ERL | 82 |
| 100190ERL | 33 | 167120ERL | 96 | 1760ERL | 66 | 21316AERL | 62 | 24208AERL | 63 | 28A240ERL | 82 |
| 100191ERL | 33 | 167122ERL | 96 | 176103ERL | 98 | 21316ERL | 62 | 24208ERL | 63 | 28A250ERL | 82 |
| 100192ERL | 33 | 167203ERL | 96 | 176104ERL | 98 | 21600AERL | 62 | 242103ERL | 37 | 28A250ERL | 82 |
| 100193ERL | 33 | 167204ERL | 96 | 176104ERL | 98 | 21604ERL | 62 | 242104ERL | 37 | 28A250ERL | 82 |
| 100194ERL | 33 | 167205ERL | 96 | 176108ERL | 98 | 21606AERL | 62 | 242106ERL | 37 | 28A270ERL | 82 |
| 100196ERL | 33 | 167206ERL | 96 | 176110ERL | 98 | 21606ERL | 62 | 242108ERL | 37 | 28A270ERL | 82 |
| 100197ERL | 33 | 167207ERL | 96 | 176112ERL | 98 | 21608AERL | 62 | 24210AERL | 63 | 28A280ERL | 82 |
| 100198ERL | 33 | 167208ERL | 96 | 176116ERL | 98 | 21608ERL | 62 | 24210ERL | 63 | 28A280ERL | 82 |
| 100199ERL | 33 | 167209ERL | 96 | 177003ERL | 97 | 21610AERL | 62 | 242110ERL | 37 | 28A290ERL | 82 |
| 100200ERL | 33 | 167210ERL | 96 | 177004ERL | 97 | 21610ERL | 62 | 242112ERL | 37 | 28A290ERL | 82 |
| 100201ERL | 33 | 167211ERL | 96 | 177005ERL | 97 | 21612AERL | 62 | 242116ERL | 37 | 28A300ERL | 84 |
| 101175ERL | 28 | 167212ERL | 96 | 177006ERL | 97 | 21612ERL | 62 | 24212AERL | 63 | 28A310ERL | 82 |
| 101176ERL | 28 | 167213ERL | 96 | 177008ERL | 97 | 21614AERL | 62 | 24214ERL | 63 | 28A320ERL | 82 |
| 101275ERL | 28 | 167214ERL | 96 | 177010ERL | 97 | 21616ERL | 62 | 24216AERL | 63 | 28A330ERL | 82 |
| 101276ERL | 28 | 167215ERL | 96 | 177012ERL | 97 | 2177ERL | 69 | 24216ERL | 63 | 28A340ERL | 82 |
| 102275ERL | 29 | 167216ERL | 96 | 177016ERL | 97 | 2178ERL | 69 | 2477ERL | 69 | 28A340ERL | 82 |
| 102276ERL | 29 | 167217ERL | 96 | 177100ERL | 97 | 21900AERL | 62 | 25000AERL | 63 | 28A390ERL | 82 |
| 103176ERL | 29 | 167219ERL | 96 | 177101ERL | 97 | 21900ERL | 62 | 25000ERL | 63 | 28A400ERL | 82 |
| 103176ERL | 31 | 167220ERL | 96 | 177102ERL | 97 | 21906AERL | 62 | 25006AERL | 63 | 28A400ERL | 82 |
| 103176ERL | 31 | 167222ERL | 96 | 1777ERL | 68 | 21906ERL | 62 | 25006ERL | 63 | 28A460ERL | 82 |
| 1118ERL | 68 | 1677ERL | 67 | 178003ERL | 97 | 21908AERL | 62 | 25008AERL | 63 | 28A470ERL | 82 |
| 1119ERL | 68 | 169101ERL | 98 | 178004ERL | 97 | 21908ERL | 62 | 25008ERL | 63 | 28A470ERL | 82 |
| 1120ERL | 68 | 169103ERL | 98 | 178005ERL | 97 | 21910AERL | 62 | 25010AERL | 63 | 28A470ERL | 84 |
| 1121ERL | 68 | 169104ERL | 98 | 178006ERL | 97 | 21910ERL | 62 | 25010ERL | 63 | 28A470ERL | 84 |
| 1177ERL | 67 | 169106ERL | 98 | 178007ERL | 97 | 21912AERL | 62 | 25012AERL | 63 | 28A480ERL | 82 |
| 1178ERL | 67 | 169108ERL | 98 | 178008ERL | 97 | 21912ERL | 62 | 25012ERL | 63 | 28A480ERL | 82 |
| 121000ERL | 59 | 169110ERL | 98 | 178009ERL | 97 | 21916AERL | 62 | 25016AERL | 63 | 28A480ERL | 84 |
| 121103ERL | 59 | 169212ERL | 98 | 178010ERL | 97 | 21916ERL | 62 | 25016ERL | 63 | 28A480ERL | 84 |
| 121121ERL | 59 | 169216ERL | 98 | 178012ERL | 97 | 22010ERL | 63 | 25100AERL | 36 | 28A510ERL | 82 |
| 121122ERL | 59 | 170003ERL | 96 | 178014ERL | 97 | 22500AERL | 63 | 25100ERL | 36 | 28A520ERL | 82 |
| 121123ERL | 59 | 170004ERL | 96 | 178103ERL | 97 | 22500ERL | 63 | 25100ERL | 36 | 28A530ERL | 82 |
| 121125ERL | 59 | 170005ERL | 96 | 178104ERL | 97 | 22506AERL | 63 | 25101ERL | 36 | 28A540ERL | 82 |
| 121241ERL | 59 | 170006ERL | 96 | 178105ERL | 97 | 22506ERL | 63 | 253004ERL | 37 | 28A580ERL | 82 |
| 121242ERL | 59 | 170007ERL | 96 | 178106ERL | 97 | 22508AERL | 63 | 253006ERL | 37 | 28A640ERL | 82 |
| 121243ERL | 59 | 170008ERL | 96 | 178107ERL | 97 | 22508ERL | 63 | 253008ERL | 37 | 28A650ERL | 82 |
| 121245ERL | 59 | 170009ERL | 96 | 178108ERL | 97 | 22510AERL | 63 | 253010ERL | 37 | 28A660ERL | 82 |
| 121361ERL | 59 | 170103ERL | 96 | 178109ERL | 97 | 22512AERL | 63 | 253012ERL | 37 | 28B010ERL | 83 |
| 121362ERL | 59 | 170104ERL | 96 | 178110ERL | 97 | 22512ERL | 63 | 253016ERL | 37 | 28B020ERL | 83 |
| 121363ERL | 59 | 170105ERL | 96 | 178112ERL | 97 | 22514AERL | 63 | 26000AERL | 63 | 28B030ERL | 83 |
| 121364ERL | 59 | 170106ERL | 96 | 178114ERL | 97 | 22514ERL | 63 | 26000ERL | 63 | 28B040ERL | 83 |
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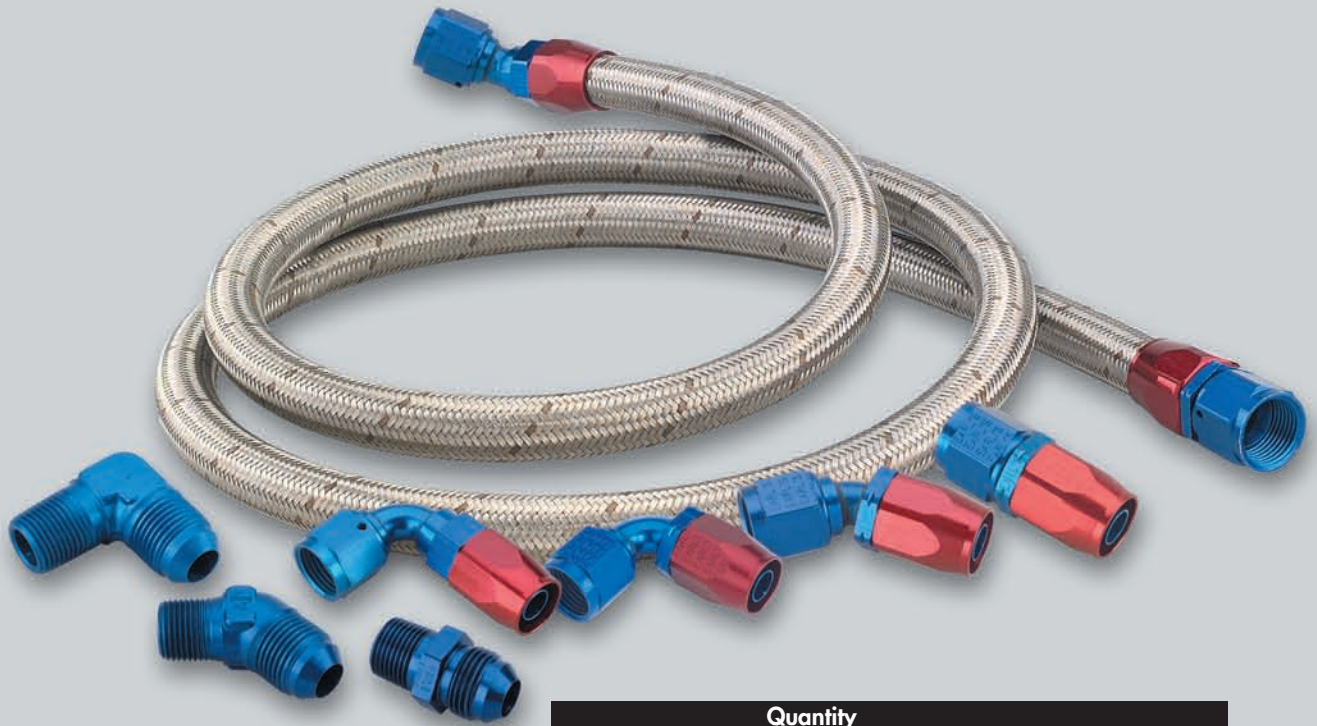
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| 849013ERL | 13 | 91006ERL | 64 | 939206ERL | 44 | 977514ERL | 56 | 9893330ERL | 38 | 989547ERL | 55 |
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| 85016ERL | 63 | 916108ERL | 43 | 964042ERL | 40 | 981412ERL | 45 | 9893355ERL | 40 | 991213ERL | 42 |
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MASTER PACKS

The basic parts that you never want to be out of, in quantities that you need to stock.

- The Master Pack Program consists of the 46 most popular part numbers, each of which is pre-packaged in Earl's four color clam shell in large quantities.
- An average of 5% savings per item buying in the bulk quantities.

| Item # | Quantity Per Pack | Part Description - Each |
|-------------|-------------------|---------------------------------|
| MP300104ERL | 40 ea - 300104ERL | -4 St. Auto-Fit |
| MP300106ERL | 80 ea - 300106ERL | -6 St. Auto-Fit |
| MP300108ERL | 80 ea - 300108ERL | -8 St. Auto-Fit |
| MP300110ERL | 40 ea - 300110ERL | -10 St. Auto-Fit |
| MP300112ERL | 20 ea - 300112ERL | -12 St. Auto-Fit |
| MP304604ERL | 40 ea - 304604ERL | -4 45 Degree Auto-Fit |
| MP309104ERL | 40 ea - 309104ERL | -4 90 Degree Auto-Fit |
| MP410004ERL | 14 ea - 410004ERL | 10 Ft. -4 Perform-O-Flex |
| MP410006ERL | 10 ea - 410006ERL | 10 Ft. -6 Perform-O-Flex |
| MP410008ERL | 8 ea - 410008ERL | 10 Ft. -8 Perform-O-Flex |
| MP410010ERL | 8 ea - 410010ERL | 10 Ft. -10 Perform-O-Flex |
| MP410012ERL | 5 ea - 410012ERL | 10 Ft. -12 Perform-O-Flex |
| MP420004ERL | 14 ea - 420004ERL | 20 Ft. -4 Perform-O-Flex |
| MP420006ERL | 10 ea - 420006ERL | 20 Ft. -6 Perform-O-Flex |
| MP420008ERL | 8 ea - 420008ERL | 20 Ft. -8 Perform-O-Flex |
| MP420010ERL | 5 ea - 420010ERL | 20 Ft. -10 Perform-O-Flex |
| MP420012ERL | 5 ea - 420012ERL | 20 Ft. -12 Perform-O-Flex |
| MP800106ERL | 80 ea - 800106ERL | -6 St. Swivel-Seal |
| MP800108ERL | 80 ea - 800108ERL | -8 St. Swivel-Seal |
| MP800110ERL | 40 ea - 800110ERL | -10 St. Swivel-Seal |
| MP800112ERL | 20 ea - 800112ERL | -12 St. Swivel-Seal |
| MP804606ERL | 40 ea - 804606ERL | -6 45 Degree Tube Swivel-Seal |
| MP804608ERL | 40 ea - 804608ERL | -8 45 Degree Tube Swivel-Seal |
| MP804610ERL | 40 ea - 804610ERL | -10 45 Degree Tube Swivel-Seal |
| MP804612ERL | 20 ea - 804612ERL | -12 45 Degree Tube Swivel-Seal |
| MP809106ERL | 40 ea - 809106ERL | -6 90 Degree Tube Swivel-Seal |
| MP809108ERL | 40 ea - 809108ERL | -8 90 Degree Tube Swivel-Seal |
| MP809110ERL | 40 ea - 809110ERL | -10 90 Degree Tube Swivel-Seal |
| MP809112ERL | 20 ea - 809112ERL | -12 90 Degree Tube Swivel-Seal |
| MP981604ERL | 80 ea - 981604ERL | St. -4 to 1/8" NPT Adapter |
| MP981606ERL | 80 ea - 981606ERL | St. -6 to 1/4" NPT Adapter |
| MP981608ERL | 80 ea - 981608ERL | St. -8 to 3/8" NPT Adapter |
| MP981610ERL | 80 ea - 981610ERL | St. -10 to 1/2" NPT Adapter |
| MP981612ERL | 40 ea - 981612ERL | St. -12 to 3/4" NPT Adapter |
| MP981666ERL | 80 ea - 981666ERL | St. -6 to 3/8" NPT Adapter |
| MP981668ERL | 80 ea - 981668ERL | St. -6 to 1/2" NPT Adapter |
| MP982204ERL | 40 ea - 982204ERL | 90 Deg. -4 to 1/8" NPT Adapter |
| MP982206ERL | 40 ea - 982206ERL | 90 Deg. -6 to 1/4" NPT Adapter |
| MP982208ERL | 40 ea - 982208ERL | 90 Deg. -8 to 3/8" NPT Adapter |
| MP982210ERL | 40 ea - 982210ERL | 90 Deg. -10 to 1/2" NPT Adapter |
| MP982212ERL | 20 ea - 982212ERL | 90 Deg. -12 to 3/4" NPT Adapter |
| MP982304ERL | 40 ea - 982304ERL | 45 Deg. -4 to 1/8" NPT Adapter |
| MP982306ERL | 40 ea - 982306ERL | 45 Deg. -6 to 1/4" NPT Adapter |
| MP982308ERL | 40 ea - 982308ERL | 45 Deg. -8 to 3/8" NPT Adapter |
| MP982310ERL | 40 ea - 982310ERL | 45 Deg. -10 to 1/2" NPT Adapter |
| MP982312ERL | 20 ea - 982312ERL | 45 Deg. -12 to 3/4" NPT Adapter |