

# Transmission, Engine and Power Steering Oil Coolers



# **The Leader in Automotive Cooling**

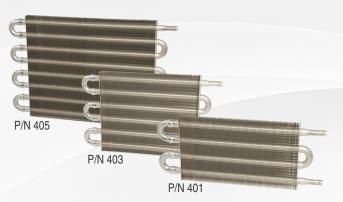
Hayden<sup>®</sup> Automotive engineers, manufactures and supplies a wide range of products designed to keep your car, truck or performance vehicle running cool. Hayden<sup>®</sup> oil coolers remove destructive heat generated in the transmission, engine and power steering systems to increase component life.

### **Ultra-Cool® Transmission Oil Coolers**

The industry's first transmission cooler, the Ultra-Cool<sup>®</sup> transmission oil cooler is available in six sizes to fit a wide range of applications from sub-compacts to motorhomes.

#### Features

- Ultrasonically soldered for reliability
- 100% pressure tested at 150 PSI for quality assurance
- High efficiency turbulation
- 3/8" push-on fittings for quick and easy installation



| PART # | SIZE<br>THICKNESS X HEIGHT X LENGTH | CORE    | <b>FITTING TYPE</b> | APPLICATION   |
|--------|-------------------------------------|---------|---------------------|---|
| 401    | 3/4" x 5" x 12-1/2"                 | 8-3/4"  | 3/8" Push-on        | Compact and sub-compact cars                                    |
| 402    | 3/4" x 5" x 15-7/8"                 | 12-1/8" | 3/8" Push-on        | Up to full size vehicles, towing up to 2,500 lbs                |
| 403    | 3/4" x 7-1/2" x 12-1/2"             | 8-3/4"  | 3/8" Push-on        | Up to full size vehicles, towing up to 2,500 lbs                |
| 404    | 3/4" x 7-1/2" x 15-7/8"             | 12-1/8" | 3/8" Push-on        | Up to class "C" motorhomes, towing up to 5,000 lbs              |
| 405    | 3/4" x 10" x 15-7/8"                | 12-1/8" | 3/8" Push-on        | Up to class "A" motorhomes, towing up to 10,000 lbs             |
| 1015   | 1-1/2" x 12" x 15-1/8"              | 11-1/8" | 3/8" Push-on        | Towing with class "A" motorhomes or towing more than 10,000 lbs |

## **Rapid-Cool® Transmission Oil Coolers**

Rapid-Cool<sup>®</sup>'s unique plate and fin design offers excellent cooling efficiency in a compact, space-efficient design.

Features

- 33% more efficient than a comparable tube fin design
- Pre-drilled mounting plates for easy installation
- Four sizes available to fit a wide range of applications
- Patented internal turbulation for increased heat transfer and minimal pressure drop (Patent No. 6478080)

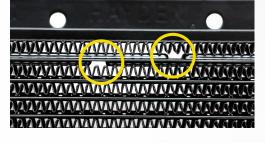


| PART # | SIZE<br>THICKNESS X HEIGHT X LENGTH | CORE     | FITTING TYPE APPLICATION  |   | GVWR   |
|--------|-------------------------------------|----------|---|---|--------|
| 676    | 3/4" x 6" x 11"                     | 3-15/16" | 3/8" Push-on  | Compact and sub-compact cars                        | 10,000 |
| 677    | 3/4" x 7-1/2" x 11"                 | 5-1/2"   | 3/8" Push-on  | Up to full size vehicles, towing up to 2,500 lbs    | 14,000 |
| 678    | 3/4" x 9-1/2" x 11"                 | 7-3/8"   | 3/8" Push-on  | Up to class "C" motorhomes, towing up to 5,000 lbs  | 18,000 |
| 679    | 3/4" x 11-5/8" x 11"                | 9-1/2"   | 3/8" Push-on  | Up to class "A" motorhomes, towing up to 10,000 lbs | 22,000 |
| 687    | 3/4" x 7-1/2" x 11"                 | 5-1/2"   | 9/16"-18, 37 JIC<br>Male Flare (-6 AN) Up to full size vehicles, towing up to 2,500 lbs |   | 14,000 |
| 689    | 3/4" x 11-5/8" x 11"                | 9-1/2"   | 9/16"-18, 37 JIC<br>Male Flare (-6 AN)  | Up to class "A" motorhomes, towing up to 10,000 lbs | 22,000 |

### **By-Pass Transmission Oil Coolers**

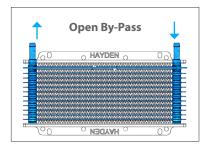
Hayden's new patented internal pressure by-pass coolers allow the vehicle's transmission to reach optimum operating temperature quickly by routing the fluid through the by-pass channel of the cooler until fluid temperature increases. This new design allows vehicles in colder climates to reach proper operating temps faster which improves fuel economy and helps reduce friction of internal components. Hayden's internal pressure by-pass design incorporates an integrated valve that eliminates the need for external valves and additional plumbing at installation.

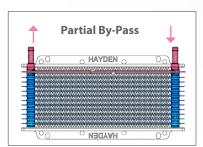


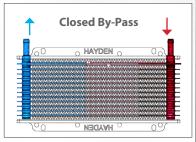


- Bi-directional flow
- 33% more efficient than traditional coolers
- · High efficiency louvered fins and special oil turbulators
- 100% brazed aluminum construction offers superior strength and reliability

| PART # | LONG<br>P/N | SIZE                 | FITTING<br>CONNECTION | SERVICE APPLICATION   | GVWR       |
|--------|-------------|----------------------|-----------------------|---|------------|
| 696    | 4541        | 3/4" x 11" x 6"      | 3/8" Push-on          | Normal Duty Driving<br>Compact and mid-size cars  | 10,000 lbs |
| 697    | 4542        | 3/4" x 11" x 7-1/2"  | 3/8" Push-on          | Medium Duty Driving<br>Mid-size and full size cars, pick ups, towing up to 2,500 lbs  | 14,000 lbs |
| 698    | 4543        | 3/4" x 11" x 9-1/2"  | 3/8" Push-on          | Heavy Duty Driving<br>8" Push-on Pick ups, vans, towing up to 5,000 lbs, class "C" motorhomes,<br>travel trailers up to 24 ft |            |
| 699    | 4544        | 3/4" x 11" x 11-5/8" | 3/8" Push-on          | Extra Heavy Duty Driving<br>Class "A" motorhomes, large travel trailers, 5th wheel trailers,<br>towing up to 10,000 lbs       | 22,000 lbs |







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### **High Performance Transmission Oil Coolers**



Available in three sizes for medium to heavy duty applications, these high performance coolers are designed to provide outstanding cooling, as well as to complement other high performance accessories.

#### Features

- SAE 45° fittings for maximum reliability
- All aluminum lightweight construction
- · Powder coated to prevent corrosion

| PART # | OVERALL SIZE<br>THICKNESS, HEIGHT, LENGTH | CORE    | FITTING SIZE          | APPLICATION   |
|--------|---|---------|-----------------------|---|
| 512    | 3/4" x 7-1/2" x 12-1/2"                   | 8-3/4"  | 9/16"-18 S.A.E. Flare | Up to full size vehicles, towing up to 2,500 lbs.   |
| 514    | 3/4" x 7-1/2" x 15-7/8"                   | 12-1/8" | 9/16"-18 S.A.E. Flare | Up to class "C" motorhomes, towing up to 5,000 lbs  |
| 516    | 3/4" x 10" x 15-7/8"                      | 12-1/8" | 9/16"-18 S.A.E. Flare | Up to class "A" motorhomes, towing up to 10,000 lbs |

### **Remote Transmission Oil Cooling Systems**

Our remote transmission coolers help keep temperatures down when ram air is unavailable. These coolers feature our 10" compact, efficient electric fan mounted to our high performance cooler (P/N 525) or our plate fin cooler (P/N 526), ready for installation out of the box. All remote coolers are compatible with all Hayden fan controllers or can be operated via manual switch (not included).

Features

- · Powder coated aluminum brackets
- Fan and cooler preassembled
- Remote mounting



P/N 526 -

Rapid-Cool®

P/N 525 - High

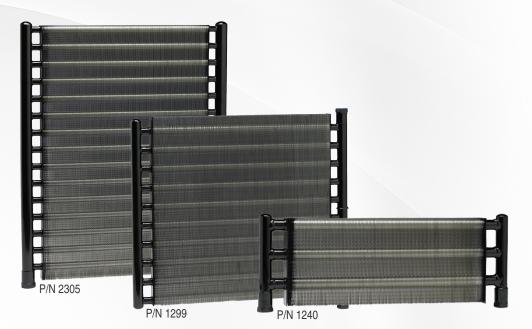
Performance

| PART # | OVERALL SIZE<br>THICKNESS, HEIGHT, LENGTH | FITTING SIZE          | APPLICATION  |  |  |  |
|--------|---|-----------------------|--|--|--|--|
| 525    | 3-1/2" x 11" x 18-1/2"                    | 9/16"-18 S.A.E. Flare | Threaded cooler fittings for maximum dependability                       |  |  |  |
| 526    | 3-1/2" x 11" x 13-4/5"                    | 3/8" Push-on          | Ultra compact design provides same cooling as the high performance model |  |  |  |

### **Heavy Duty Oil Coolers**

Designed for rugged, heavy duty use, our coolers can be used for many different cooling applications, including transmission, engine, gear box, hydraulic oils and diesel fuel.

Our heavy duty coolers feature brazed copper tubes with aluminum fin construction. Turbulators in every tube provide 3 1/2 times more cooling surface than bare tubing.



| PART             |        | INTING | OVERALL SIZE<br>HEIGHT, LENGTH, |         | NUMBER<br>OF PASSES |          | GPM<br>FLOW | COOLING BTU/HR.<br>@2500 AIRFLOW @ 100°F ITD | PACKED<br>WEIGHT |
|------------------|--------|--------|---------------------------------|---------|---------------------|----------|-------------|--|------------------|
| #                | QTY.   | P/N    | THICKNESS                       | OF ROWS | OFPASSES            | SIZE FPT | RANGE       | OIL TO AIR                                   | IN POUNDS        |
| Two-Pass Coolers |        |        |                                 |         |                     |          |             |  |                  |
| 1233             | 1      | 210    | 10 x 12-1/4 x 3/4               | 1       | 2                   | 3/8      | 2 - 10      | 7,300 - 12,000                               | 4                |
| 1299             | 3      | 238    | 22-1/8 x 24 x 1-1/2             | 1       | 2                   | 3/4      | 2.5 - 20    | 36,500 - 61,000                              | 17               |
| 1271             | 2      | 238    | 26-3/4 x 30 x 1-1/2             | 1       | 2                   | 1        | 3 - 12      | 49,300 - 89,600                              | 26               |
| One-Pa           | ass Co | olers  |                                 |         |                     |          |             |  |                  |
| 1215             | 1      | 238    | 4-1/2 x 15 x 1-1/2              | 1       | 1                   | 1/2      | 1 - 8       | 6,000 - 8,500                                | 3                |
| 1234             | 2      | 238    | 6-1/2 x 15 x 1-1/2              | 1       | 1                   | 1/2      | 1.5 - 12    | 9,000 - 12,800                               | 4                |
| 1240             | 2      | 238    | 6-1/2 x 18 x 1-1/2              | 1       | 1                   | 1/2      | 1.5 - 12    | 10,900 - 16,200                              | 4                |
| 1236             | 2      | 238    | 8-1/2 x 18 x 1-1/2              | 1       | 1                   | 1/2      | 2 - 16      | 14,500 - 21,500                              | 6                |
| 1241             | 2      | 238    | 8-1/2 x 21 x 1-1/2              | 1       | 1                   | 1/2      | 2 - 16      | 16,900 - 25,900                              | 7                |
| 1268             | 2      | 238    | 12-3/4 x 18 x 1-1/2             | 1       | 1                   | 3/4      | 3 - 24      | 21,200 - 31,200                              | 8                |
| 1260             | 2      | 238    | 12-3/4 x 24 x 1-1/2             | 1       | 1                   | 3/4      | 3 - 24      | 28,100 - 44,300                              | 11               |
| 1284             | 3      | 238    | 16-3/4 x 24 x 1-1/2             | 1       | 1                   | 3/4      | 4 - 32      | 37,500 - 59,000                              | 14               |
| 1290             | 3      | 238    | 18-3/4 x 24 x 1-1/2             | 1       | 1                   | 3/4      | 4.5 - 36    | 42,200 - 66,400                              | 15               |
| 1292             | 3      | 238    | 25 x 24 x 1-1/2                 | 1       | 1                   | 1        | 6 - 48      | 55,200 - 86,400                              | 20               |
| 2305             | 4      | 238    | 31 x 24 x 1-1/2                 | 1       | 1                   | 1        | 7.5 - 60    | 70,000 - 108,000                             | 26               |
| 2306             | 4      | 238    | 31 x 30 x 1-1/2                 | 1       | 1                   | 1        | 7.5 - 60    | 83,600 - 139,800                             | 32               |
| 1297             | 4      | 238    | 37-1/4 x 30 x 1-1/2             | 1       | 1                   | 1-1/4    | 9 - 72      | 99,000 - 164,600                             | 38               |
| 1298             | 4      | 238    | 37-1/4 x 40 x 1-1/2             | 1       | 1                   | 1-1/4    | 9 - 72      | 122,600 - 226,100                            | 51               |
| 2312             | 4      | 238    | 41-3/4 x 43 x 1-1/2             | 1       | 1                   | 2        | 10 - 80     | 149,600 - 264,500                            | 94               |
| Two-Ro           | ow Coo | lers   |                                 |         |                     |          |             |  |                  |
| 2271             | 4      | 238    | 20-1/4 x 24 x 3                 | 2       | 1                   | 1        | 9 - 36      | 89,900 - 114,300                             | 38               |
| 2292             | 1      | 107    | 26-7/8 x 24 x 3                 | 2       | 1                   | 1        | 12 - 96     | 83,500 - 152,400                             | 51               |
| 2297             | 1      | 183    | 45 x 42 x 3                     | 2       | 1                   | 2-1/2    | 18 - 144    | 235,900 - 415,700                            | 134              |

### HD-Cool<sup>™</sup> Heavy Duty

Hayden's 37mm heavy duty plate fin coolers are ideal for transmission and engine oil cooling applications requiring higher flow range and increased heat transfer capacity in a compact space.

#### Features

- Pre-drilled mounting brackets for easy installation
- 4 sizes available to handle a wide range of applications
- Patented internal turbulation for increased heat transfer and minimal pressure drop (Patent No. 6,478,080)
- 37° JIC male flare (-12 AN) fittings for maximum flow capacity



|        | P/N 77                              | 78                  | P/N / / / P/N /                                       | 6                         |                         |        |
|--------|-------------------------------------|---------------------|---|---------------------------|-------------------------|--------|
| PART # | SIZE<br>THICKNESS X HEIGHT X LENGTH | NUMBER<br>OF PLATES | FITTING<br>TYPE                                       | RECOMMENDED<br>FLOW RANGE | COOLING<br>BTU / HR (1) | GVW    |
| 776    | 1.7" x 4.3" x 12.9"                 | 7                   | Female 7/8-14 o-ring x<br>37° JIC male flare (-12 AN) | 1-5 GPM                   | 5,200-10,400            | 14,000 |
| 777    | 1.7" x 6.6" x 12.9"                 | 14                  | Female 7/8-14 o-ring x<br>37° JIC male flare (-12 AN) | 1-5 GPM                   | 7,900-18,500            | 18,000 |
| 778    | 1.7" x 9" x 12.9"                   | 21                  | Female 7/8-14 o-ring x<br>37° JIC male flare (-12 AN) | 1-5 GPM                   | 9,600-20,800            | 24,000 |
| 779    | 1.7" x 11.2" x 12.9"                | 28                  | Female 7/8-14 o-ring x                                | 1-5 GPM                   | 10,000-23,500           | 29,000 |

(1) @ 100°F oil to air differential temperature

### **HD-Cool<sup>™</sup> - Heavy Duty Commercial**

37° JIC male flare (-12 AN)



Hayden's 40mm heavy duty bar and plate coolers are ideal for commercial, high performance or off-road oil cooling. The thick core and wide length are designed for applications requiring higher flow range and increased heat transfer capacity.

#### Features

- Brazed aluminum plates
- Extended core width for maximum heat transfer
- Pre-drilled mounting brackets for easy installation
- Two 37° JIC male flare (-12 AN) fittings for maximum flow capacity

| PART # | SIZE<br>THICKNESS X HEIGHT X LENGTH | CORE  | FITTING<br>TYPE                                       | RECOMMENDED<br>FLOW RANGE | COOLING<br>BTU / HR (1) | GVW    |
|--------|-------------------------------------|-------|---|---------------------------|-------------------------|--------|
| 801    | 1.6" x 4.3" x 30.1"                 | 24.4" | Female 7/8-14 o-ring x<br>37° JIC male flare (-12 AN) | 1-6 GPM                   | 16,700-40,000           | 30,000 |

(1) @ 100°F oil to air differential temperature

### **Power Steering Oil Coolers**

Hayden's power steering oil coolers remove destructive heat generated within a power steering system, especially in vehicles with large tires such as motorhomes and off-road vehicles. Installation of a power steering oil cooler will prolong the life of the system's pump, hoses, fluid and seals.

| PART # | SIZE<br>THICKNESS X HEIGHT X<br>LENGTH | CORE    | FITTING<br>TYPE | APPLICATION   |
|--------|--|---------|-----------------|---------------|
| 1009   | 3/4" x 11" x 6"                        | 5-3/4"  | 3/8" Push-on    | Light duty    |
| 1010   | 3/4" x 11" x 7-1/2"                    | 8-3/4"  | 3/8" Push-on    | Medium duty   |
| 1011   | 3/4" x 11" x 9-1/2"                    | 5-3/4"  | 3/8" Push-on    | Heavy duty    |
| 1012   | 3/4" x 11" x 11-5/8"                   | 12-1/2" | 3/8" Push-on    | Trucks & SUVs |



### Ultra-Cool<sup>®</sup> Engine Oil Coolers - Light Duty

- · Lightweight, all aluminum construction
- Ultrasonically soldered for maximum reliability
- High-efficiency turbulators
- Part #462 specially designed for Chevrolet V8 engines
- For vehicles that require fitting M22 x 1.5, please use P/N 271

| PART # | SIZE<br>THICKNESS X HEIGHT<br>X LENGTH | CORE   | FITTING<br>TYPE | APPLICATION         |
|--------|--|--------|-----------------|---------------------|
| 459    | 3/4" x 7-1/2" x 12-1/2"                | 8-3/4" | 1/2" Push-on    | All except Chevy V8 |
| 462    | 3/4" x 7-1/2" x 12-1/2"                | 8-3/4" | 1/2" Push-on    | Chevy V8 only       |
| 1230   | 3/4" x 7-1/2" x 12-1/2"                | 8-3/4" | 1/2" Push-on    | Cooler only         |



## **Ultra-Cool® Engine Oil Coolers - Medium Duty**

- Two-pass, thin-line headered design for increased cooling
- 100% hand-brazed construction
- · Turbulators in every tube for efficient cooling
- Part #461 specially designed for Chevrolet V8 engines
- For vehicles that require fitting M22 x 1.5, please use P/N 271

| PART # | SIZE<br>THICKNESS X HEIGHT<br>X LENGTH | CORE   | FITTING<br>TYPE | APPLICATION         |
|--------|--|--------|-----------------|---------------------|
| 457    | 3/4" x 10-1/2" x 12-1/4"               | 8-5/8" | 3/8" FPT        | All except Chevy V8 |
| 461    | 3/4" x 10-1/2" x 12-1/4"               | 8-5/8" | 3/8" FPT        | Chevy V8 only       |



## Swirl-Cool® Engine Oil Coolers - Heavy Duty

- Copper header and tube construction
- · Turbulators in every tube for efficient cooling
- Vibration absorbing rubber block mounting
- 1-1/2" thick headered design for increased cooling and efficiency
- · Minimal pressure loss due to headered design
- Kit #1046 specially designed for Chevrolet V8 engines
- For vehicles that require fitting M22 x 1.5, please use P/N 271

| PART # | SIZE<br>THICKNESS X HEIGHT X<br>LENGTH | CORE    | FITTING<br>TYPE | APPLICATION         |
|--------|--|---------|-----------------|---------------------|
| 1040   | 1-1/2" x 6-1/2" x 18"                  | 14-1/4" | 1/2" FPT        | All except Chevy V8 |
| 1046   | 1-1/2" x 6-1/2" x 18"                  | 14-1/4" | 1/2" FPT        | Chevy V8 only       |







### Blue Streak Performance<sup>™</sup> Cooler Combos

Blue Streak Performance<sup>™</sup> offers two remote mounted cooler combos featuring some of our most popular cooling components that create a self-contained, compact cooling machine. Each unit comes completely assembled with powder coated brackets for increased durability.

### P/N 527 Includes:

#### 8" HD Electric Fan P/N 3660

- · Heavy duty, high performance four pole motor for increased output & endurance
- · Staggered angle, high velocity blades to maximize airflow
- Molded stabilizer ring to reduce airflow by-pass

#### 37mm HD Cooler P/N 778

- Patented baffle turbulation design
- High flow design of up to 5 GPM allows increased heat transfer with over 20,000 BTU/HR
- JIC male flare fitting (-12 AN) included





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### P/N 528 Includes:

12" Electric Fan P/N 3910

- Puller design
- · IP68 rated waterproof and dust proof
- · Compatible with all Hayden fan controllers

#### 37mm HD Cooler P/N 779

- · Patented internal turbulation for increased heat transfer and minimal pressure drop
- High flow design of up to 5 GPM allows increased heat transfer with over 23,000 BTU/HR
- 37° JIC male flare (-12 AN) fittings for maximum flow capacity



Discover other performance transmission parts on our website.