



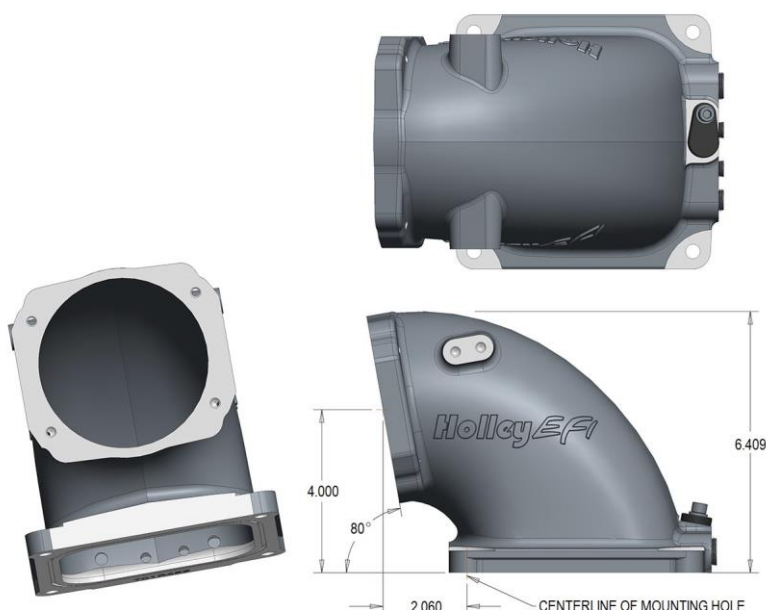
INTAKE ELBOWS (4500 FLANGE)

300-248, 300-248BK, 300-249, & 300-249BK

PRODUCT DESCRIPTION:

300-248 & 300-248BK intake elbows are designed to adapt a 105mm GM LS type throttle valve to an intake manifold with a 4500 type throttle flange. **300-249 & 300-249BK** intake elbows are designed to adapt a 105mm Ford 5.0L type throttle valve to an intake manifold with a 4500 type throttle flange.

DIMENSIONS:



300-248 shown (300-249 is the same)

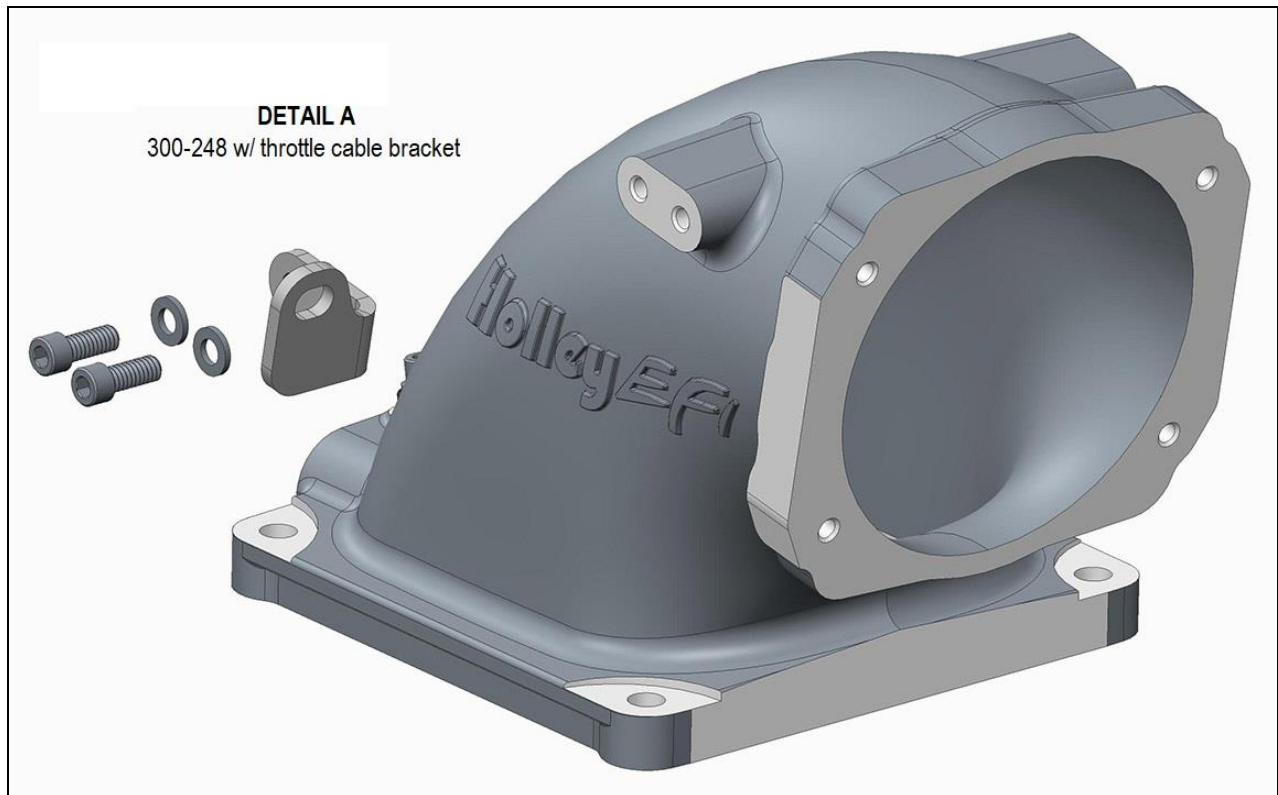
THROTTLE KIT CONTENTS:	
Qty	Description
1	Gasket, 105mm GM LS Throttle (300-248)
2	Screw, 1/4-20 Throttle Bracket Mounting (300-248)
2	Washer, Flat Throttle Bracket Mounting (300-248)
1	Gasket, 105mm Ford 5.0L Throttle (300-249)
2	Screw, 5/16-18 SHCS (300-249)
2	Flat Washer, 5/16-18 (300-249)
1	Throttle Cable Bracket

INSTALLATION KIT:	
Qty	Description
1	O-ring, 2-163 Viton
4	Stud, Double Ended Manifold Flange
4	Flat Washer, 5/16
4	Nut, 5/16-24
2	Plug, 1/8 NPT
1	Plug, 1/4 NPT
1	Plug, 3/8 NPT

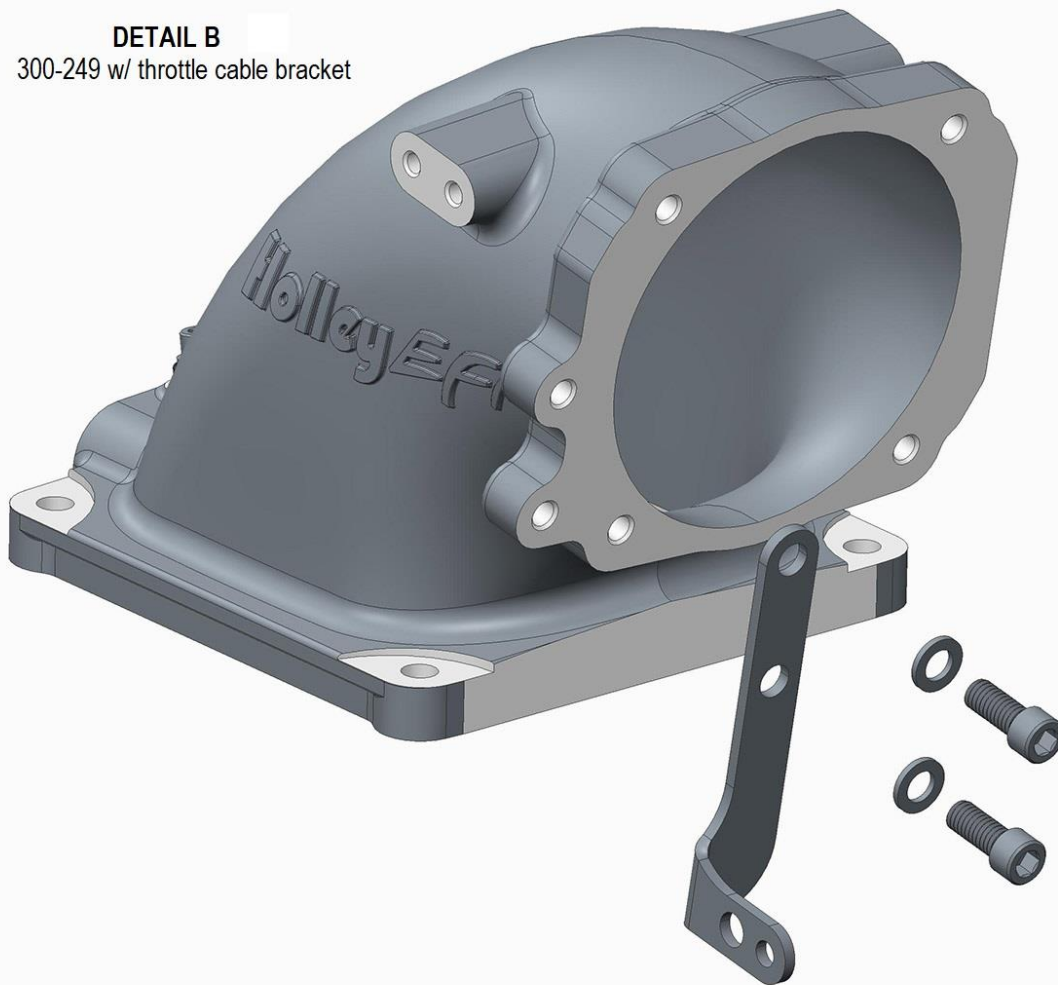
MAP COVER KIT:	
Qty	Description
1	Cover, MAP Sensor Port
1	O-Ring, 2-109 Viton
1	Screw, 1/4-20
1	Washer, Flat

INSTALLATION INSTRUCTIONS:

1. Install double ended studs into mounting flange of intake manifold.
2. Apply some silicone lubricant to the large O-ring seal. Press O-ring into groove on mounting flange of elbow.
3. Set elbow over studs and attach to manifold using the provided washers and nuts.
4. Mount throttle valve to elbow, using supplied gasket.
5. For 300-248 & 300-248BK, attach the supplied throttle bracket as shown using the supplied 1/4-20 x .63 screws and washers. See **DETAIL A**.
6. For 300-249 & 300-249BK, attach the supplied throttle bracket as shown using the supplied 5/16-18 x .75 screws and washers. See **DETAIL B**.
7. Check operation of throttle valve to ensure free movement throughout range of movement between closed and wide open. Open and close throttle several times to ensure smooth operation with no sticking or binding.
8. If using a LS3 type MAP sensor, apply silicone lubricant prior to installation. See **DETAIL C**.
9. If MAP sensor port is not needed, use silicone lubricant to install the supplied O-ring to the MAP port cover. Install the cover to the port using the provided washer and 1/4-20 x .88 screw. See **DETAIL D**.
10. Use the provided plugs to seal any of the accessory ports that are unused. See **DETAIL D**.
11. The spacing of the accessory ports allows room for a pressure sensor. See **DETAIL E**.



DETAIL B
300-249 w/ throttle cable bracket



DETAIL C
LS3 type MAP sensor
(not included)

