



## FEL-PRO INSTALLATION TIPS

### GENERAL INSTRUCTIONS

**CLEAN MATING SURFACES.** Use a degreaser.

**CLEAN THREADS** of bolts/studs; for nuts/threaded holes use a bottoming tap.

**BOLT PREPARATION:** Those **entering** coolant passages require a pliable non-hardening sealer on threads and underside of bolt heads. Those **not entering** coolant passages require oil on threads and underside of bolt heads. **Exhaust Assembly:** Apply a high temperature anti-seize lubricant to threadings.

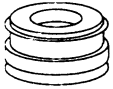
**CHECK CASTINGS** for flatness. Straighten, resurface or replace if needed. **CYLINDER HEAD AND BLOCK:** Refer to OEM manual to determine flatness tolerances and resurfacing limitations.

**FINAL ASSEMBLY:** Torque all fasteners to OEM specifications unless noted. **CYLINDER HEAD** torquing is critical; we recommend that you confirm with OEM.

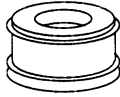
### HEAD GASKET

Follow any directional markings shown on gasket(s). If no markings exist, install gasket(s). **Fiber Faced Gasket(s):** Install dry. **Metal Faced Gasket(s):** Requires a thin even coat of sealer applied to the metal side(s) of gasket.

### VALVE STEM SEALS



Positive Intake



Positive Exhaust

Use the valve stem seals included in this set for the applications indicated

**POSITIVE GUIDE SEAL:** Use the plastic installation sleeve(s), included in this set, to prevent damage to the lip of the seal. Trim the plastic sleeve so it extends 1/16" below the keeper groove. Place the sleeve on the stem. Carefully start valve stem seal over sleeve.

Remove plastic installation sleeve and reuse for installing remaining seals. **FOR RUBBER JACKET SEALS:** Push seal down over valve guide until it bottoms.

**FOR SOLID OR METAL JACKET SEALS:** The use of an OEM service tool is recommended. If tool is unavailable, use a deep socket or rigid tube of appropriate diameter. Center tool (or socket) over the shoulder of the seal and tap the seal down over the guide until it bottoms.

### VALVE COVER/PUSH ROD COVER

**ATTACH AND ALIGN GASKET(S):** Use a quick drying adhesive, applied sparingly. If gasket has installation tabs, adhesive is not required. **IMPORTANT:** If gasket is rubber, install dry.

### INTAKE MANIFOLD GASKET

**V-TYPE ENGINES - FIBER SIDE GASKET(S) ALONG WITH FRONT AND REAR END SEAL(S):** Attach and align gasket(s) and end seals using a quick-drying adhesive sparingly. **PRIOR TO INSTALLING INTAKE MANIFOLD** apply a dab of silicone sealer where all gaskets and seals meet.

**INLINE ENGINES:** Attach and align gaskets to cylinder heads.

**IMPORTANT: WHEN INSTALLING STEEL SHIM GASKETS(S):**

Apply sealer around intake ports on both sides. If gasket(s) have water ports, apply a 1/8" continuous bead of silicone sealer around each water port on both sides. While sealer is wet, install intake manifold.

### EXHAUST MANIFOLD GASKET

**ATTACH AND ALIGN GASKET(S).** If gasket has only one steel faced side, install steel side towards manifold.

### WATER OUTLET, WATER PUMP, FUEL PUMP AND TIMING COVER GASKETS

If a supplementary sealer is desired, apply a thin coat of gasket sealer to both sides of gasket(s).



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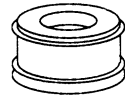
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