Instructions

Exhaust Manifold Repair (EMR)
With PowerDrive Accessory

Thank you for your purchase of a ProMAXX® engineered performance device! Our tools have the highest quality and precision in the market delivering the most productive repair. All ProMAXX® tools are manufactured in the United States of America from American materials and craftsmanship. We proudly provide limited lifetime warranties and free unlimited technical support. If you need help with a repair, call us! Youcan reach ProMAXX® Technical Support at 724-941-0941.

1. Mount the ProPlate™ to the cylinder head using the ProFasteners (PMXPPF008500) according to the enclosed cylinder head schematic. Torque ProFasteners to a minimum of 20 FT-LBS.
2. Start with the smallest ProBushing™ and insert into the ProPlate™. Insert the corresponding ProDrill™ machine grade tooling bit into an air-powered, angled-style drill. Using drill depth gauge machined into the ProPlate™. Set the proper depth of the bit and mark as necessary. Apply one drop of ProLube™ (PMXPPL001) to the end of the bit. **AVOID USING PENETRATING OIL/SPRAY OR OTHER LUBRICANTS WHICH ELEVATE CUTTING EDGE TEMPERATURES CAUSING THE BIT TO BURN AND CEASE CUTTING.**
3. Attach the included PowerDrive PMXPDT250 to your 1/4" air ratchet or using the adapter to attach it to a standard 3/8" or ½" drill. You can also attach the PowerDrive to the ProMaxx® ProRatchet PMXPPR5260 or ProDrill PMXPPD2800PRO. The included drill bits PMXPSSC125 / PMXPSSC188 / PMXPSSC266 will screw directly into the PowerDrive accessory or ProDrill PMXPPD2800PRO.
4. **SET THE CUTTING EDGE:** While applying light pressure, activate your drill both on and off five times in one second intervals (ten times if utilizing an air ratchet). **This is the MOST CRITICAL step of this repair,** creating precise alignment (a seat) for the tooling bit to stay on center and not follow the angular broken surface of the stud; apply load evenly across the entire cutting edge. Once seated, drill continuously at the proper RPM (speed chart Included with your kit).
5. **EXTRACTOR OPTION: Prepare to Extract Remnant.** Remove the ProPlate™ and if your kit included the optional ProCutter™ deburring tool, (PMXPPC007A), then replace the ProDrill™ with the ProCutter™. Insert the protruding portion of the arbor into drilled hole. Toggle the drill on andoff for five one-second intervals to remove the burr, clean the tapped hole, and flatten the broken stud. With ProTractor™ (PMXPPT125 or 188), place a mark approximately ¼" from the end and lightly hammer the ProTractor™ into the remnant to the ¼" depth line. **DO NOT INSERT THE PROTRACTOR ANY FURTHER THAN 1/4" depth line.** Place the included slip-nut over the ProTractor™ and slide it up against the cylinder head. While holding the opposite end of the ProTractor™ and using a high-quality calibrated torque wrench, slowly and carefully apply torque, first in theclockwise direction, and then in the counterclockwise direction to loosen the damaged stud. Repeat this motion three ro four times with caution **NOT EXCEEDING 75 IN-LBS FOR THE PMXPPT125, or 135 IN-LBS FOR THE PMXPPT188.**
6. **EXTRACTORLESS™ TOOLING OPTION:** If you purchased the EXTRACTORLESS™ option with or added to your EMR kit, you have the option to remove with an extractor OR go EXTRACTORLESS™ drilling out the broken remnant. For EXTRACTORLESS™, follow the sequence of the PMXPSSC125/188/266 for an aluminum head, or PMXPSSC125/188/270 for a cast iron head drill steps. When finished drilling, insert the tap ProBushing™ into the mounted ProPlate™ and use the ProTap PMXPPT008 to chase the threads clean. Apply one drop of ProLube PMXPPL001 to each flute of the ProTap. Turn one full turn of the ProTap when you begin, then turn counterclockwise 1/4-1/2 turn frequently. Using compressed air, clean the cutting debris free by sending compressed air down each flute of the tap to remove any remaining material. This step will remove obstacles in the threads to reduce probability of tap failure.

NOTE: In the unlikely event an extractor fails or a tap breaks, **contact technical support at 724-941-0941 for recommendations and procedures.**
(ProMAXX® Broken Extractor kits available at www.promaxxtool.com)

NOTE: ProMAXX® ***does not*** recommend tapered left-handed screw extractors as they have the potential to deform the remnant in the cylinder head increasing complexity of extraction. In addition, these extractors cannot be turned clockwise to unlock the damaged remnant. See included drill chart with recommended operating RPM for each step and tooling bit size.

NOTE: Some air ratchets may not generate sufficient RPM under load to be effective. Visit www.promaxxtool.com to see ProMAXX® drilling solutions for optimum efficiency and maximum productivity: ProRatchet PMXPPR5260 OR PowerDrill™ PMXPPD2800PRO

All PROMAXX® machine grade tooling is made in the USA and are specially engineered to close tolerances of (+) .000" and (-) .001". They are ground straight to ensure accurate and repeatable results reducing walk and increasing efficiency when completing these repairs.
Specify PROMAXX® genuine replacement parts and tooling for optimum performance and extended warranty coverage. Always use appropriate OSHA approved safety glasses/goggle and protective gloves while using this device and performing this operation.

For video instruction, check out the QR code to the left! Simply hover your phone camera over the image and it will connect you to our fast, easy Youtube tutorial.

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