WET-END PARTS DIAGRAM

Wet-end parts can vary in shape and size depending on the pump line and series configuration. All of our pumps share the same build principles and assembly techniques. If you require assistance, our service department is available to help from 8am-4pm MST. Call us at 719-634-8202.



WARNING: EYE PROTECTION IS RECOMMENDED DURING INSTALLATION



REQUIRED TOOLS

Safety Glasses	Rubber Gloves	7/16" Wrench, x2	9/16" Wrench	Large Flathead Screwdriver
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Small Flathead Screwdriver	Rubber Mallet or Hammer	Slip Joint Pliers	Large Socket Set	*Arbor Press
<u>f</u>	Jos Jos	AB	*Size is Based on Model	*Additional Options Provided

Large Socket set: Sequence[®] 750's= 1 1/8" Advance 1000, 3000, 4000=1 5/16"

REQUIRED MATERIALS AND PARTS

Replacement Seal	Gasgacinch® or Silicone Sealant	Paper Towels	Lint Free Tissue
Seal Head & Seal Seat *Standard and Impenetra® Vary in Shape			

Rubbing Alcohol	Silicone Grease	Lubricant, P80	Optional: Magnifying Glass
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WARNING: EYE PROTECTION IS RECOMMENDED DURING INSTALLATION



STEP 1 REMOVE VOLUTE 1. Place motor on its rear so it stands vertically. 2. Remove bolts from volute with two corresponding wrenches (see chart below). 3. Remove volute, exposing the impeller. WRENCH SIZING CHART SERIES 750 = 3/8" • SERIES 1000, 4000 = 7/16" • SERIES 3000 = 1/2" **STEP 2** REMOVE IMPELLER 1. Place motor on its base and slide small flathead screwdriver into the center of fan cover to hold the shaft in place. 2. Remove the impeller from the motor shaft by rotating counter-clockwise when facing the pump. *If impeller is difficult to remove, use a pair of pliers to hold the shaft in place. SCREWDRIVER PLACEMENT FOR FAN MAY VARY. **ROTATE COUNTER-CLOCKWISE STEP 3** REMOVE BRACKET 1. Stand motor vertically and use the corresponding wrench to remove the brackets bolts (see chart below). 2. Remove bracket from motor. Note: For Series 750, once bolts are loosened, use slight turn counter-clockwise to release bracket from motor.

WRENCH SIZING CHART SERIES 750 = 1/4" • SERIES 1000, 3000, 4000 = 9/16"



STEP 4

REMOVE AND INSPECT SEAL HEAD

- Place bracket face down, then use a hammer and a large screwdriver to knock out the old seal head from the backside
- 2. Inspect seal head for signs of being run dry. Height of seal face edge may be worn down.



CAUTION Be sure to not damage the bore wall.



STEP 5 *REMOVE SEAL SEAT*

Option A: Remove the old seal seat from the impeller hub by using a pair of slip joint pliers and twist the seat off impeller (preferred). **Option B**: Use a small flathead screwdriver and pry the seat out of the impeller.

Note: Look for evidence of being run dry including grooves made by the rubber boot (may be brittle). No water or fluid inside of pump body. If impeller is damaged you will need to replace it. Inspect impeller for damage.



STEP 6 CLEAN BRACKET BORE HOLE AND SEAT HUB

- 1. Clean bore hole on bracket with paper towel.
- 2. Clean seal seat hub on the impeller with paper towel.











STEP 7

APPLY SEALANT TO BORE AND SEAL HEAD

For Mechanical Seals

- 1. Apply Gasgacinch® to bracket bore.
- 2. Apply Gasgacinch[®] to the seal head and lip of collar.
- 3. Bypass steps 8-9 and advance to step 10.

For Impenatra® Seals

- 1. Skip Step 7.
- 2. Go to step 8.



STEP 8

CLEAN TOP EDGE OF BRACKET BOREHOLE

For Impenatra® Seals

Wipe away sealant on top surface of borehole where gasket makes contact on the bracket. Use a paper towel then use lint free tissue.



STEP 9

APPLY SEALANT TO SEAL HEAD

For Impenatra® Seals

- 1. Remove gasket from seal case.
- Coat top half of seal case with Gasgacinch[®] or equivalent sealant.
- 3. Place on paper towel or lint free tissue. Let cure for 10-15 minutes.
- 4. Replace gasket.











STEP 10

CORRECTLY POSITION SEAL SEAT INTO IMPELLER

Impenatra seat will face up with smooth side facing towards bracket / seal head. Grooved side will face down into impeller hub.

Note: mechanical seal rubber boot will be present and facing towards bottom.

STEP 11

PRESS SEAL HEAD INTO BRACKET

- 1. Using your hands, evenly place seal head with sealant onto bracket.
- Then place the bracket onto arbor press and press the seal head into the bracket with socket (see chart below).
- Rotate bracket 90 degrees four times for one full rotation to get an even press.

Option 1: Arbor press (preferred) **Option 2:** Hammer and socket



CAUTION

Replacement parts should fit without extreme force.

*Be sure seal head and seat are pressed evenly. Damage may occur when pressed crooked.



STEP 12 INSPECT FOR SEAL DAMAGE

Check the seal head inner wall for cracks.

*If Seal Head did crack remove and replace with a new one. If no cracks were detected then let Sealant dry for 30 minutes.





GROOVED













ROTATE BRACKET 90 DEGREES FOUR TIMES FOR ONE FULL ROTATION TO GET AN EVEN PRESS.

SOCKET SIZING CHART SERIES 750 = 1 1/8" • SERIES 1000, 3000, 4000 = 1 5/16"

UNDAMAGED





STEP 13

LUBRICATE & PRESS SEAL SEAT INTO IMPELLER

- Apply lubricant (P-80, or a light coat of silicone grease) to impeller seat hub wall.
- Install seal seat by laying a paper towel on a solid surface to protect seal seat face and placing the seal seat (ceramic face is facing up) into impeller hub.
- 3. Place impeller face down (Ceramic Surface is facing towards the Paper Towel) and press the seat into Impeller Hub.

*Seat must be Bottomed Out and Flat.



STEP 14 CLEAN SEAL HEAD AND SEAL SEAT FACES

Clean off seal head and seal seat faces with rubbing alcohol and lint free tissue.

*Be sure there are no dust particles or debris on seal faces for these will cause a Leak.



STEP 15

INSTALL BRACKET

- 1. Install slinger and leave 1/4" gap between motor face and slinger.
- 2. Stand motor up vertically on its fan cover and install bracket to motor with the four bolts using the corresponding wrench (see chart below).

Note: For Series 750, place bracket on motor and use slight turn clockwise to position, then tighten bolts..







SEAT MUST BE FLAT



PRESS FIRMLY ON PAPER TOWEL SPIN 90 DEGREES 4 TIMES FOR EVEN DISTRIBUTION





WRENCH SIZING CHART SERIES 750 = 1/4" • SERIES 1000, 3000, 4000 = 9/16"





LABELS OF MATERIALS



TROUBLESHOOTING

ѕумртом	PROBLEM	RESOLUTION
Excessive Noise	Slinger contacting motor face	Use flathead screwdriver to pry slinger away from motor face leaving a gap
Pump Run Dry	Damaged impeller	Replace impeller
	Damaged seal	Replace with new seal kit
	Damaged seal and impeller	Replace impeller and new seal kit
Seal Leak	Impeller not bottomed out	Tighten impeller using step 2
	Seal Faces are not clean	Reclean seal faces
	Leaks between motor shaft & seal head	Clean off seal faces or replace seal
Bracket Bore Leak (Impenatra®)	Seal case gasket incorrectly installed	Reinstall seal case gasket
Bracket Bore Leak (Mechanical)	Leak between bracket bore and seal case	New bracket required



MDM INCORPORATED 3345 N. Cascade Ave • Colorado Springs, CO • 80907 Phone (719) 634-8202 • Fax (866) 425-1346 www.mdminc.com • sales@mdminc.com

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