

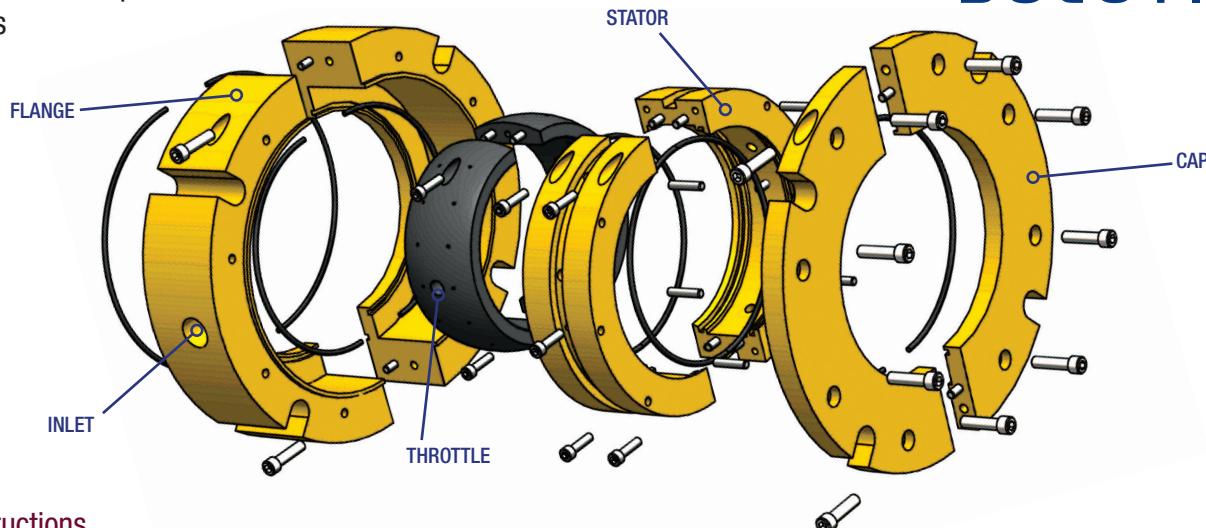
# AM (AIR MIZER®) SOLUTIONS INSTALLATION INSTRUCTIONS

## AM SMOOTH BORE (HT, ATEX), AM FOOD GRADE (ATEX) - SPLIT



### Supplied Components

- (1) AM Smooth Bore Split Shaft Seal
- (3) Hex Keys



### Installation Instructions

**Caution:** Protective cut resistant gloves are recommended as split edges may be sharp.

#### 1- Separate the Seal Halves:

Separate the component halves by removing the cap from the flange, taking care not to mar the mating surfaces. (figure A) *Note: Do not pry the halves apart with a screw driver or other hard tool.*

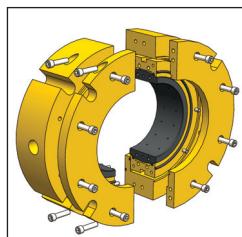


fig. A

#### 2- Clean the Sealing Location:

Thoroughly clean the shaft surface where the AM Solutions shaft seal is to be installed to ensure the sealing location is free of debris before installation on the shaft. (figure B)

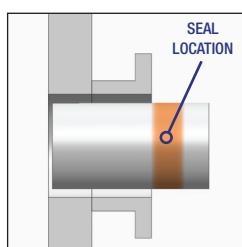


fig. B

#### 3- Measure for Shaft Misalignment:

Use a machinist square, or other suitable instrument, to check for perpendicularity with respect to the stuffing box face or equipment housing. (figure C) Consult Inpro/Seal engineering if the measurement appears to be greater than 1.5 degrees out of square.

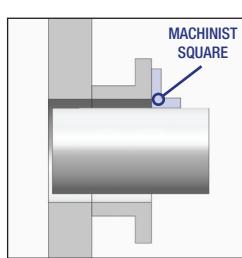


fig. C

#### 4- Measure Radial Runout and Center:

If possible, measure the radial "run out" of the shaft with a dial indicator. This is best accomplished when the shaft is de-coupled and can be moved manually. Identify the shaft center in its rotating range. This will maximize capability of the AM Solutions shaft seal. (figure D) Consult Inpro/Seal engineering if the measurement appears to be greater than .125 in (3.175 mm).

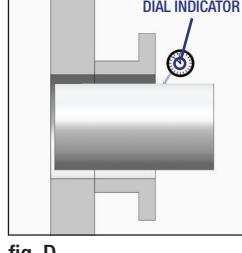


fig. D

#### 5- Assemble the Throttle Assembly:

Set the throttle assembly centered over the shaft at the previously cleaned installation location. Join together with supplied cap screws and/or dowel pins. (figure E)



fig. E

#### 6- Assemble the Stator Assembly:

Set the stator assembly centered around the throttle with pins facing away from the vessel. Place the anti-rotation cap screws inside the drilled holes in the throttle. Join together with supplied cap screws. (figure F)

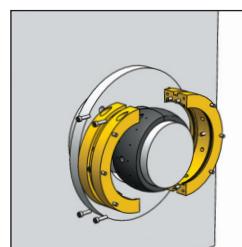


fig. F

#### 7- Assemble the Flange Assembly:

Apply a very thin layer of sealant (typically RTV) to one side of the flange assembly. (optional) Set the flange assembly centered around the stator. Join together with supplied cap screws. (figure G) Wipe off excess sealant if applicable.

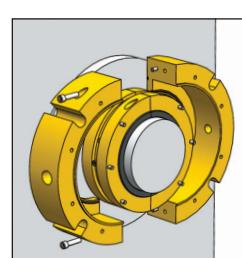


fig. G

#### 8- Assemble the Cap Assembly:

Apply a very thin layer of sealant (typically RTV) to one side of the cap assembly. (optional) Set the cap assembly centered around the shaft. Join together with supplied cap screws. (figure H) Wipe off excess sealant if applicable.

*(continue on back)*

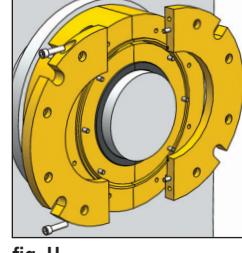


fig. H



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### Installation Instructions (cont.)

#### 9- Connect the Cap to the Flange:

Assemble the cap to the flange by locating inside holes over the anti-rotation feature. Join the cap to the flange using supplied cap screws. (figure I)

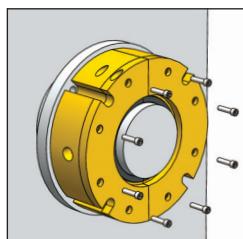


fig. I

#### 10- Mate the Seal to the Vessel:

Align the Face Gasket, or apply a thin layer of sealant (typically RTV), to the seal against the stuffing box face or vessel housing. (figure J)

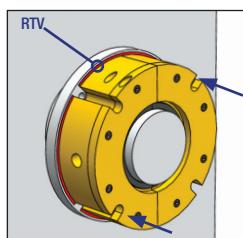


fig. J

#### 11- Bolt the Seal to the Vessel:

Loosely bolt the seal to the vessel to hold it in place. (figure K)

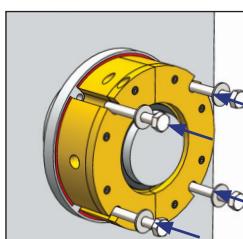


fig. K

#### 12- Align the Seal:

To maximize the shaft misalignment and run-out capabilities, always install the AM Solutions shaft seal to as close to a centered position as practical. Place the three hex keys (provided) between the shaft and the stator to align the seal concentrically to the shaft. (figures L and M)

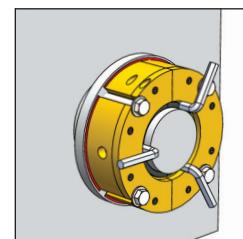


fig. L

#### 13- Secure the Seal:

Once the seal is aligned concentrically to the shaft, tighten the bolts to secure the seal to the vessel.

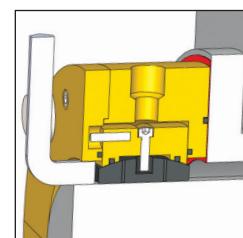


fig. M

#### 14- Supply Air/Gas to the Seal:

Plumb a 1/2" (or greater) air/gas line to the seal and install pressure gauge on opposite inlet (figure N).

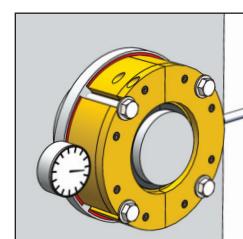


fig. N

#### 15- Set Air/Gas Pressure:

Set air/gas pressure to a minimum of 5-10 PSI (0.35-0.69 BAR) over stuffing box pressure.

*Note: AM Solutions shaft seals require a constant supply of air/gas for proper function. Included is a proper schematic of AM Solutions shaft seal air/gas supply setup. Always ensure air/gas flow prior to equipment setup.*

### AM Solutions Air/Gas Supply Schematic

- Each AM Solutions shaft seal should have a dedicated air/gas supply as shown in the schematic below. Multiple seals should never be operated from a single air/gas regulator.
- Piping- 1/2" (or greater) air/gas line is recommended.
- Pressure Gauge- The selected pressure gauge should have a full scale pressure where optimal pressure is the middle half (25% - 75%) of the scale. The full scale pressure should be approximately twice the intended operating pressure.

