



A UNIBLOC® BRAND

The simplest ideas are often the best

Flotronic 'One - Nut' Pumps

Installation Operation and Maintenance Manual

E Series EHEDG 2" Hygienic Slim Pump E1766TT6S & E1766UT6S

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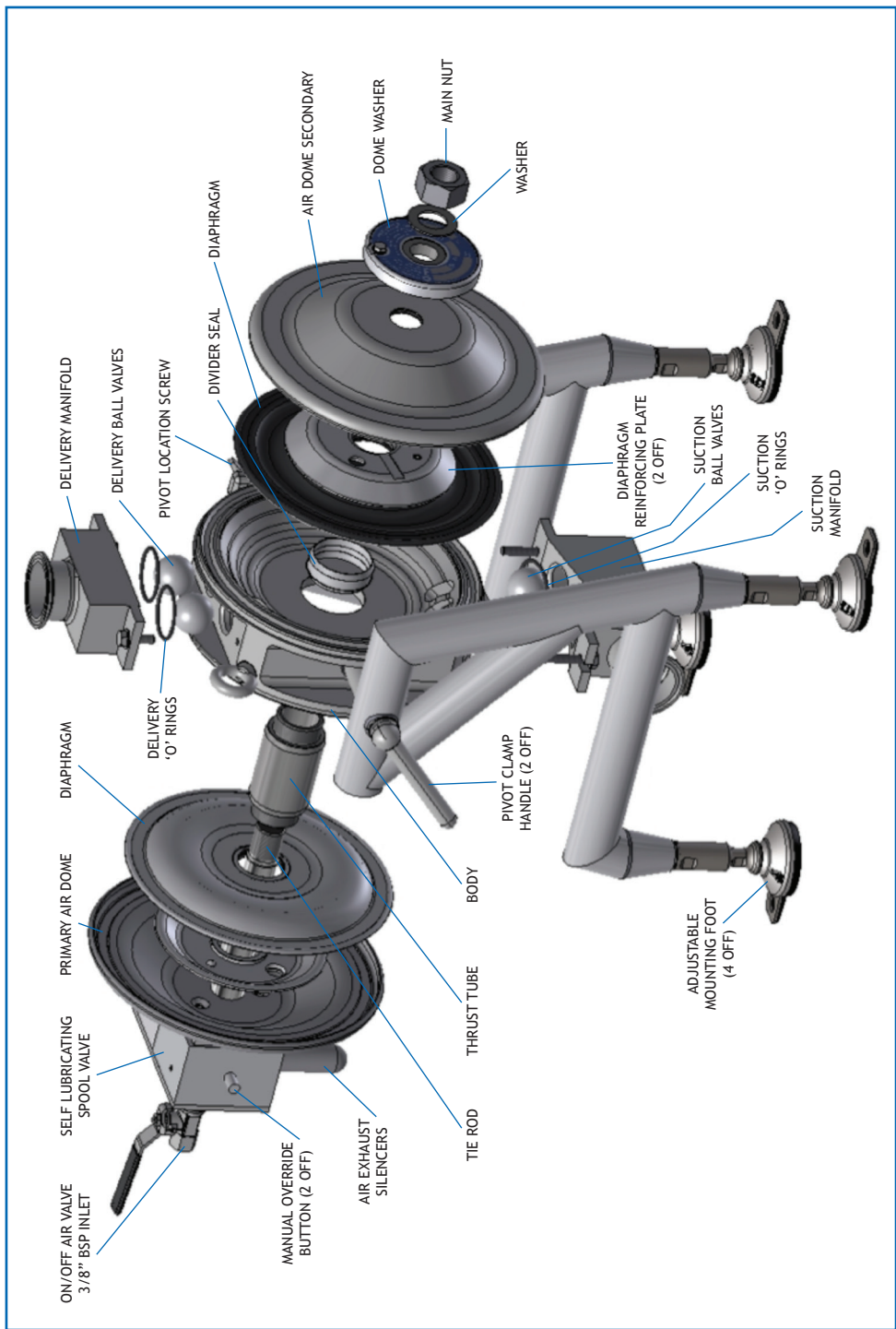
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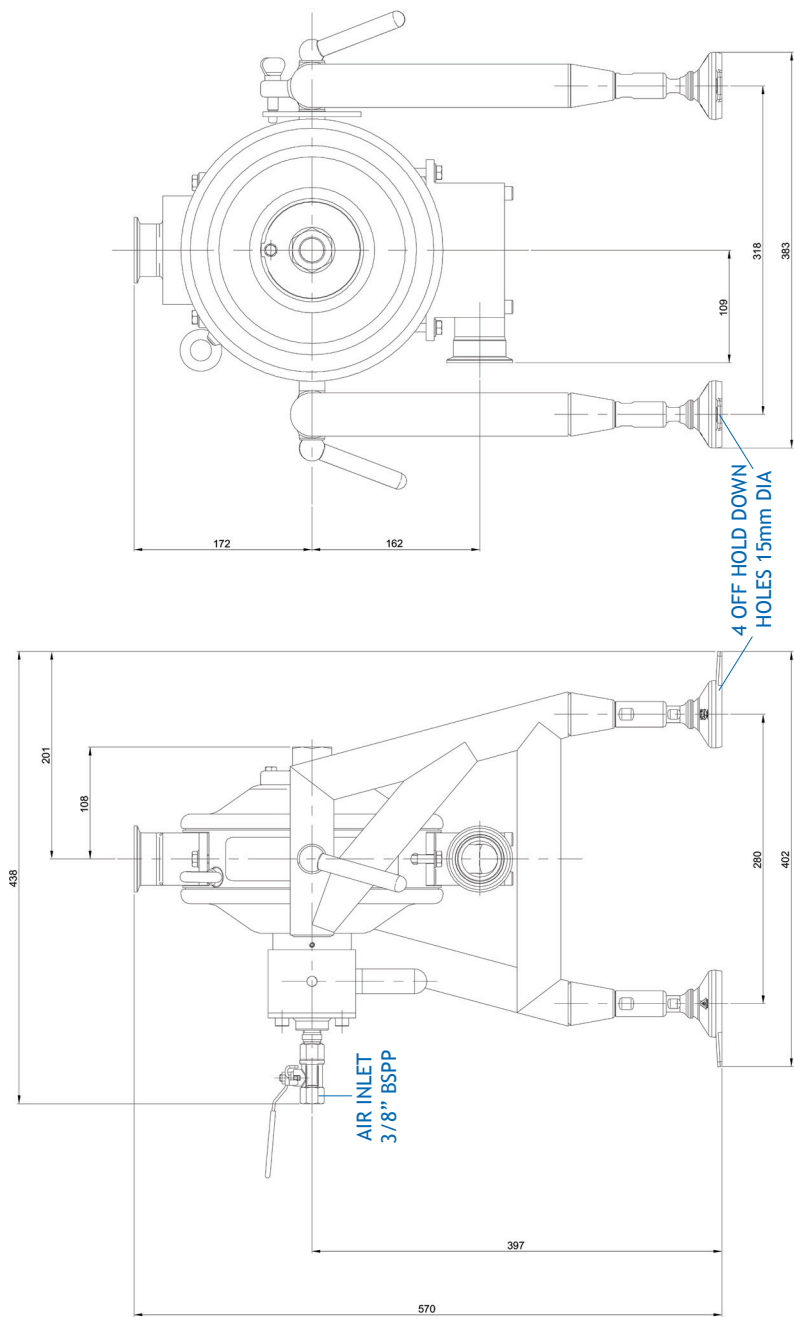
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PLEASE KEEP FOR
FUTURE REFERENCE



UNIBLOC®
Hygienic Technologies





TOTAL EQUIPMENT WEIGHT 36kg

INSTALLATION DIMENSIONS

INSTALLATION, OPERATION AND MAINTENANCE

PUMP MOUNTING

The pump support stand is supplied with EHEDG approved height adjustable, vibration absorbing mounting feet with integral fixing holes.

The mounting feet must be adjusted to ensure that any surfaces slope at a minimum of 3° from horizontal.

It is strongly recommended that the pump is bolted securely to a rigid frame or surface using the fixing holes provided. If it is chosen not to bolt the pump down, the exposed mounting holes must be suitably plugged to prevent ingress of liquid.

It is important that the instructions for mounting stated in the NGI XH/XHT Floor Fixing product data sheet on page 9 are observed.

All installation, maintenance and other instructions stated in the FPL Installation Operation and Maintenance Manual up to and including Section 10 apply.

In addition the following procedures apply.

NOTE

It must be ensured that no lubricants are allowed to make contact with any product wetted surfaces.

SUCTION AND DELIVERY PIPEWORK

Suction and delivery pipework should be correctly sized, flexible and fully supported to avoid any adverse loads and stresses on the pump connections. Pipe connections must use EHEDG approved gaskets according to the Position Paper 'Hygienic process connections to use with hygienic components and equipment' (current version). Refer to www.ehedg.org

DRAINING OF SUCTION AND DELIVERY PIPEWORK

To ensure effective draining, all pipes must slope a minimum of 3° with no horizontal surfaces and be provided with drain valves at the lowest points. The pipework valves must be opened for draining of the pipes and pump.

PUMP BODY AND MANIFOLD DRAINING

The pump may be inverted for draining with the suction pipework connected or disconnected as appropriate.

To achieve this, unscrew the single pivot location screw until clear of the plate. Then loosen the two pivot clamp handles allowing the pump body to rotate freely. **Do not unscrew the pivot clamps completely.** The pump body may then be rotated to 90° or 180°. At the desired position screw in the location screw and retighten the clamp handles.

ACCESS TO BALL VALVES

The suction and delivery balls may be accessed with the pump body remaining attached to the stand.

For the delivery balls, the pump should be positioned in the normal operating orientation. Remove the two manifold bolts and detach the manifold, exposing the balls and seat 'O' rings which can now be inspected. The balls may be reused if serviceable but it is always recommended to fit new 'O' rings on reassembly.

For the suction balls, the pump should be inverted on its stand in the drainage position. Loosen the two bolts and then remove the bolt from the full-hole end. The bolt at the connection end of the manifold remains loosened in the pump body whilst the manifold can be freed from the dowels and detached by provision of the slot.

With the manifolds detached, the seat faces should be carefully inspected for any signs of damage which could affect pump performance and possible hygienic integrity.

Reassembly is a reverse of the above ensuring that the 'O' rings remain seated correctly in their corresponding grooves and the manifold bolts are tightened to the correct torque as stated in Section 8 of the IOM.

ACCESS TO DIVIDER SEAL

Dismantle the air system and remove the diaphragms and thrust tube as described in Section 10 of the IOM.

The divider seal may then be inspected for condition in situ or removed and replaced as appropriate. In any event it is recommended that the divider seal be checked and if necessary replaced according to site protocol.

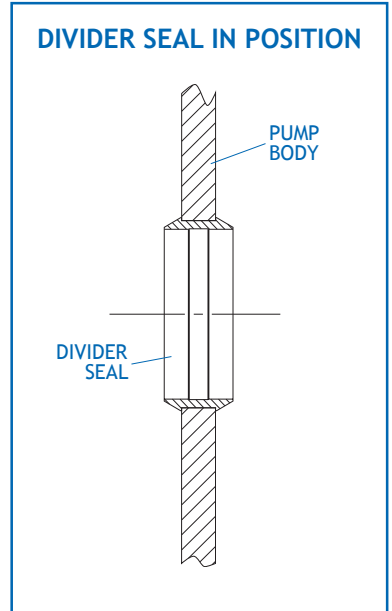
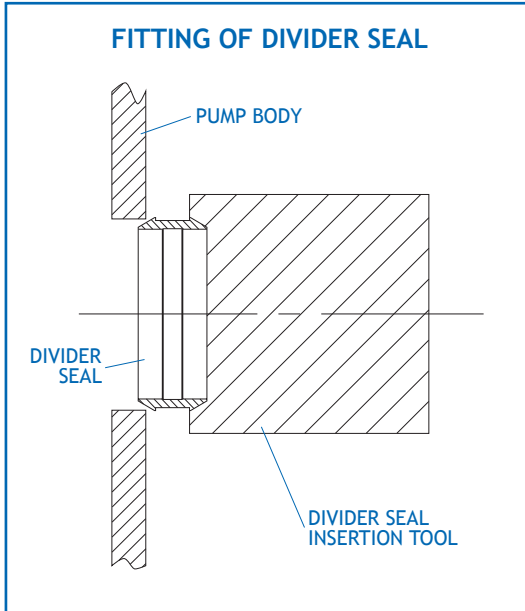
If replacement is deemed necessary, it will be easier to undertake this with the body rotated and locked in the intermediate position, so that the centre line through the body is vertical.

The divider seal may be pushed out with a suitable blunt tool whilst taking care not to damage the face of the body. The body can then be cleaned and dried ready for the replacement divider seal.

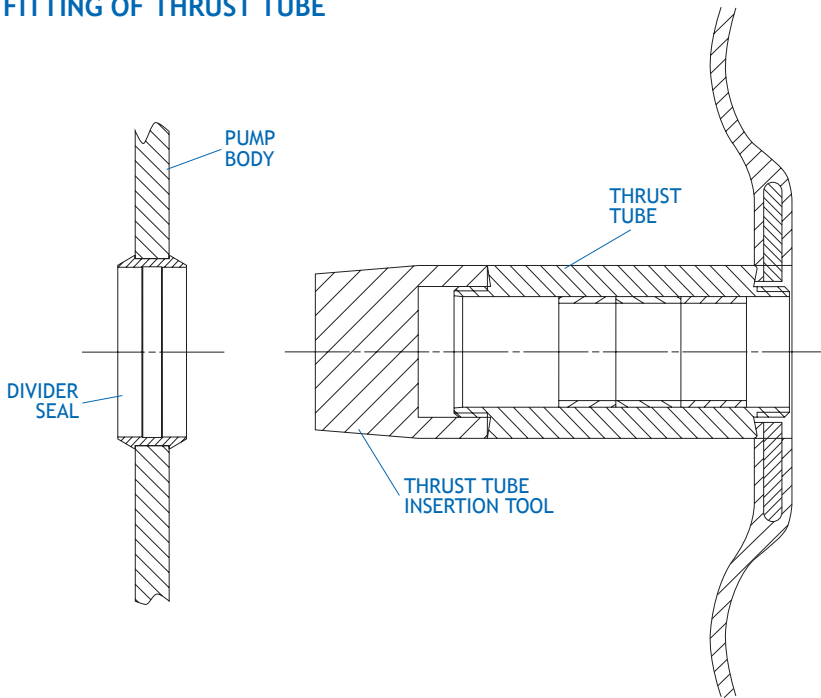
Position the new seal into the bore and using the Divider Seal Insertion Tool, apply a sharp, tap with a light mallet or similar, ensuring that the seal is held central and square to the body. The raised edges of the seal must be checked to ensure that they have engaged fully and correctly on both body faces.

When reinserting the thrust tube, it is important to use the Thrust Tube Insertion Tool in order to avoid damaging the divider seal edges.

The pump body may then be returned to its operating position.



FITTING OF THRUST TUBE



FITTING OF THRUST TUBE

Reassemble the diaphragms and other air system components as described in Section 10 of the IOM, tightening all fasteners to the torque specified in Section 8. Note that the pivot location screw should be in position to facilitate correct tightening of the main nut. Failure to do this may result in the pump attempting to rotate against the tightening torque.

PUMP CLEANING

FPL E Series Hygienic pumps for food and pharmaceutical applications have been designed for clean in place (CIP), allowing internal cleaning without the need for dismantling.

The pump shall be cleaned by flushing with a suitable CIP fluid dependent upon the application and compatibility with the pump wetted component materials.

The fluid used may typically include sodium hydroxide (caustic) with mild acid and sanitizers for rinsing.

CIP fluid temperatures are normally up to approximately 90°C although a maximum of 100°C may be used if required.

CIP shall be performed by an independently pressurized system whilst operating the pump slowly with low air pressure at approximately 100 cycles /min.

Due to the cleaning method, reinforced type diaphragms are fitted as standard to the pump. The CIP fluid must pass through the pump at a minimum velocity of 1.5m/s in the normal flow direction at an internal pump pressure of 1.5 barg. The flow rate should be approximately 160 l/min.

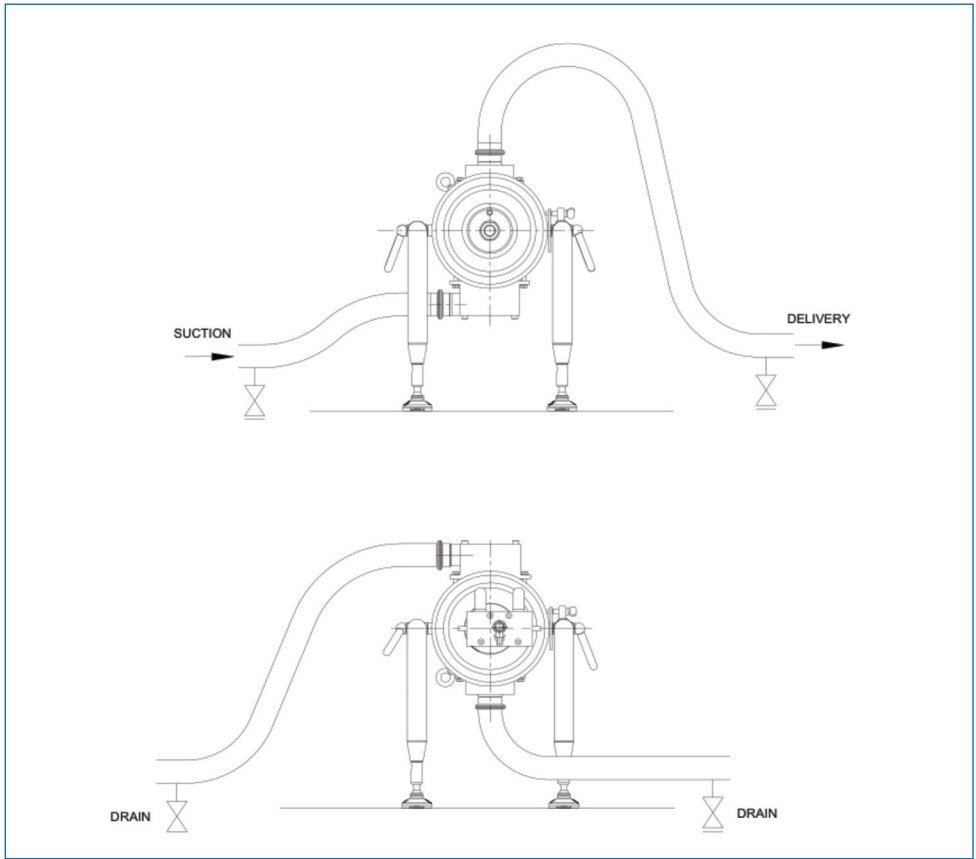
PUMP DRAINING

After CIP has been performed, the pump is drained by means of rotation on the support stand.

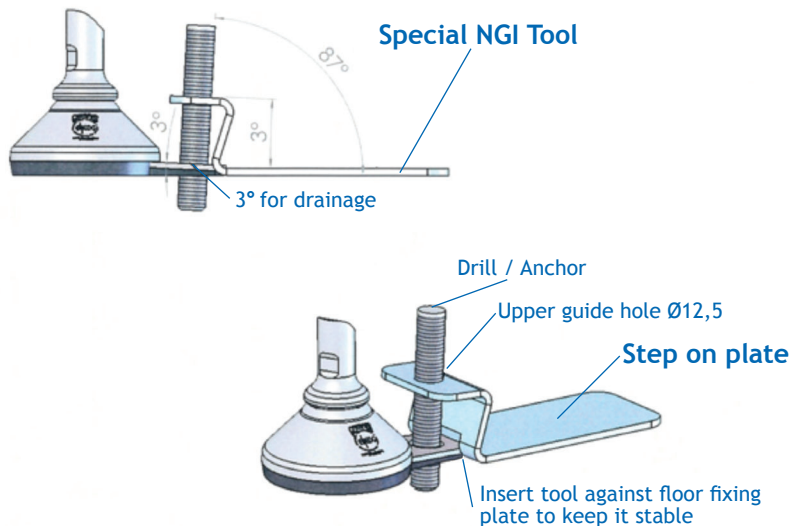
Full 360° rotation is possible with the process pipes disconnected, or alternatively the pipes may remain connected, in which case 180° rotation is still possible.

For pump rotation the two clamp handles must be loosened and the clamp location screw disengaged.

After draining, the pump should be returned to its operating position with the location screw engaged and the clamp handles tightened before pump operation.

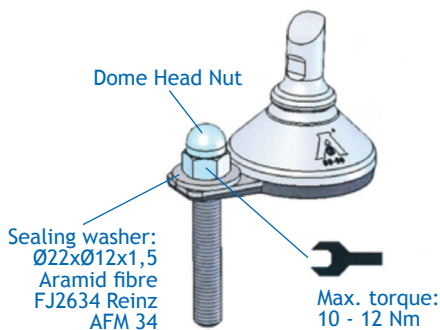


FLOOR FIXING INSTRUCTION



Floor Fixing Instruction

1. Use the **special NGI tool** to drill the anchor hole in the correct angle, very important!
2. Insert the tool against the floor fixing plate and step on the flat part.
3. Drill the hole Ø12 through the upper guide hole - through the fixing plate hole, down into the floor.
4. After drilling remove **NGI tool**.
5. Clean hole - inject bonding material when "glue" anchor is used and insert anchor. Let it dry according to product information.
OR simply use an expanding anchor.
6. Use prescribed sealing washer and fasten with dome car nut.
Max. torque: 10 - 12 Nm.



Additional Specific Floor Fixing Instruction
for XH / XHT Machine Foot

NGI



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For authentic pump spares go to: www.unibloctech.com

'Flotronic' is a UK registered trade mark.

Specifications subject to change without notice.