

The simplest ideas are often the best

Flotronic 'One - Nut' pumps

Installation Operation and Maintenance Manual

F Series Minichem All PTFE Pumps



ATEX APPROVED PUMPS



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FUTURE REFERENCE



F Series Minichem All PTFE Pumps

Screwed or flanged connections are available as standard BSPT/NPT/ANSI/DIN16. Other special connections can be supplied upon request.

1/2" / 3/4" / 1" Air Driven Double Diaphragm Pumps in PTFE

INDEPENDENT ACCESSIBILITY TO CONSUMABLE PARTS

Only one nut to access Diaphragms, Balls and Seats with pump 'In Line'
Only four screws to maintain Air Valve with pump 'In Line'

- Self Priming (suction lifts 2m/6.5ft dry and 7.6m/25ft wet)
- Will Run Dry
- Can stop/restart against closed/open valve without pressure relief or damage

AIR SYSTEM

A unique design incorporating self lubricating Thrust tube bearings and a bolt on Spool valve, including manual override buttons.

Latest designs eliminate costly internal air mechanisms and mid position stall normally associated with Double Diaphragm Pumps. No lubrication required.

Specification is available with Spool valve in Polypropylene, PTFE or Stainless Steel.

MAINTENANCE

All previous maintenance and other instructions stated in the Installation and Operation Manual up to and including Section 10 apply. In addition the following procedures apply.

Access to the suction and delivery valve balls and seats for inspection and replacement may be achieved as follows:-

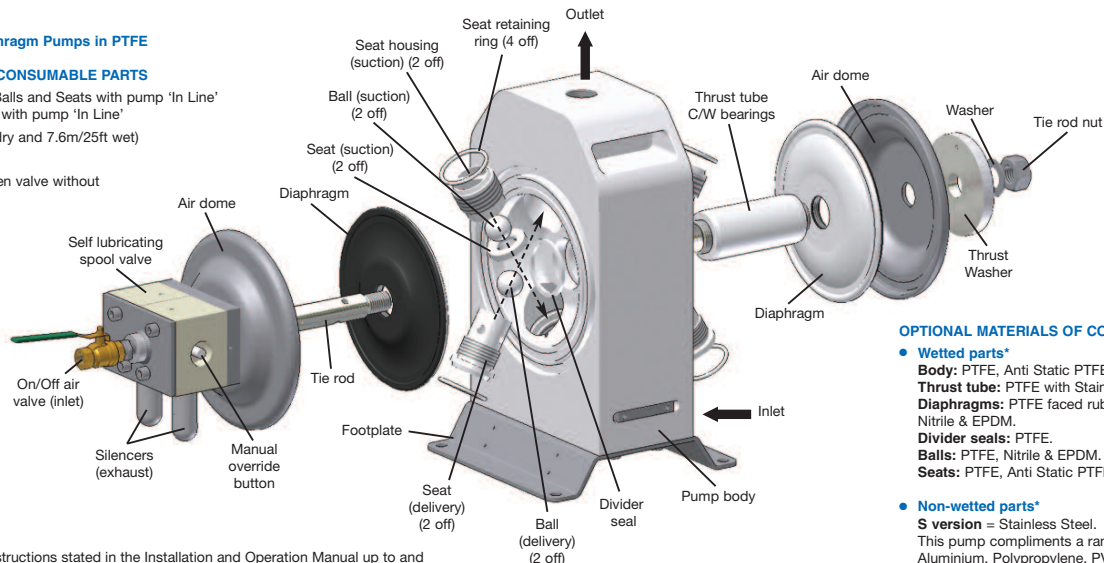
Remove the tie rod assembly, diaphragms and thrust tube as described in Section 10. Carefully remove the four seat retaining 'O' rings from the pump body by prising them from their grooves, using a narrow bladed blunt instrument in the recesses provided.

Unscrew the delivery seats using tool part no. T-MC001 with a 19mm socket spanner, engaging the seat cross bar fully in the slot of the tool. Withdraw the seats complete with the delivery balls.

Unscrew the suction seat housings in the same way and withdraw them from the body. Remove the suction balls and then lift out the suction seats.

Carefully inspect the components, paying particular attention to the condition of the seat faces and the threads, as the optimum performance of the pump is significantly affected by these components. Also inspect and thoroughly clean the threads and associated machined bores in the pump body. Replace any components that show damage or uneven wear.

Reassemble the suction seats, which may be inserted either way up depending on condition, into the body followed by the balls and seat housings. Screw the seat housings in fully and finally tighten to 6 Nm (4.5 lb/ft) using tool no. T-MC001.



OPTIONAL MATERIALS OF CONSTRUCTION

• Wetted parts*

- Body:** PTFE, Anti Static PTFE.
- Thrust tube:** PTFE with Stainless Steel Core.
- Diaphragms:** PTFE faced rubber, Nitrile & EPDM.
- Divider seals:** PTFE.
- Balls:** PTFE, Nitrile & EPDM.
- Seats:** PTFE, Anti Static PTFE.

• Non-wetted parts*

- S version =** Stainless Steel.
- This pump compliments a range of pumps in Aluminium, Polypropylene, PVC, PVDF & 316 Stainless Steel.
- *All Stainless Steel parts can be Electropolished if required.

Place the delivery balls into the delivery seats and insert into the body. Screw in the seats and also tighten to 6 Nm using the fitting tool.

Insert the four retaining 'O' rings into the seat bores and ensure they locate fully into their respective grooves.

To replace the divider seal, follow the instructions given for the F Series 500 Style Pump in Section 11 taking care to avoid damaging the body.

If removing the pump from the process pipework for maintenance, ensure care is taken to avoid damaging the threaded ports in the body. Do not over tighten the connections or allow any pipework to exert a side loading on the body. This also applies to flanged versions.

Reassemble the air system components as described in Section 10, tightening all fasteners to the torque specified in Section 8. Note the main nut torque is 80 Nm (60 lb/ft).

Further Assistance

Remember!

If you require any further assistance, please call us on our **Helpline Number 01444 881871** or Email us at sales@flotronicpumps.co.uk

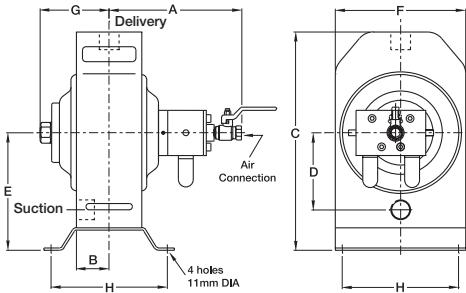
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Hastelloy® is a registered trademark of Haynes International

Flotronic Pumps Limited also provide:

- Planned maintenance programmes to suit your needs carried out by one of our Specialist Engineers
- Pulsation Dampers
- Alarm Systems
- Jacketed Pumps
- Metering Systems

And much more...

Customised products are a speciality.



Minichem Virgin & Anti Static PTFE										
Size	A	B	C	D	E	F	G	H	Wt/kg	Diaphragm Diameter
½" - 1"	225	55	368	130	198	220	116	196	23	7"

Maximum operating pressure 7.2 bar (105 PSIG)

Dimensions in mm

TIGHTENING TORQUES - IMPORTANT			
	LB/FT	NM	KGM
MAIN NUT STAINLESS STEEL / MILD STEEL	60	80	8
MAIN NUT SILVER PLATED	60	80	8
SEATS	4.5	6	0.6
FOOTPLATE	10	14	1.4

Specifications subject to change without notice.



Flotronic Pumps

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