

Introduction

Diaphragm dosing pumps are characterized by their leakage-free operation. They are therefore particularly well suited for metering aggressive and toxic media. Diaphragm wear, which obviously cannot be avoided, can lead to media leakage.

Although the standard diaphragm flanges (13) have a drainage socket for leakage, the flange consists of epoxy resin-coated aluminum.

The uPVC/PE separating chamber in the design shown below is therefore recommended. It can be mounted on any diaphragm dosing pump when first supplied, or subsequently.

When ordering additional equipment the pump type and diaphragm diameter must be indicated.

Operation

The diaphragm is normally clamped between the dosing head (1) and the diaphragm flange (13). The metal diaphragm flange (13), which is subject to corrosion, is therefore supplemented by the uPVC separating chamber (5), which has the same contour as the diaphragm flange. An associated bolt (4) is used to extend the diaphragm rod. A drainage pipe (7) discharges any leaks that may occur. On the diaphragm opening a deflector plate (6) is fitted which prevents the medium from flowing from the separating chamber to the metal housing.

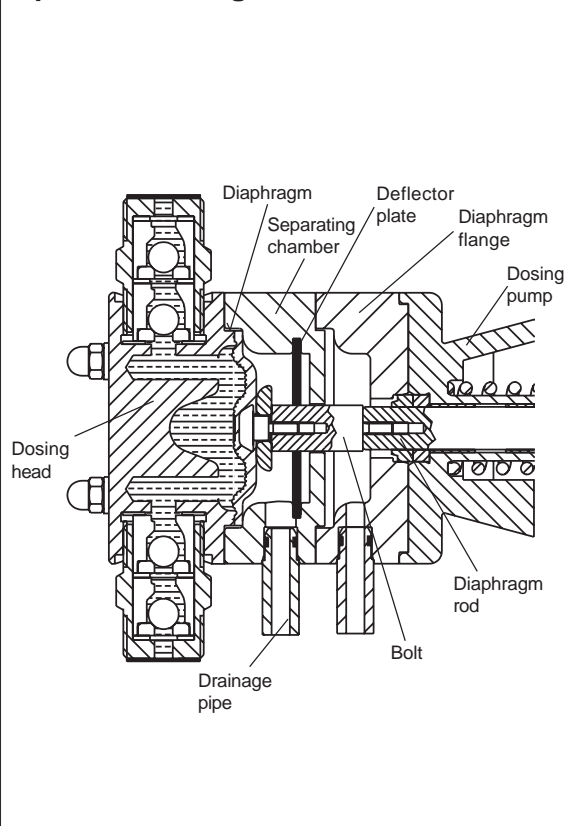
Leakage alarm

A defective diaphragm can be detected immediately with the leakage probe according to MB 1 31 01, and the dosing pump switched off.

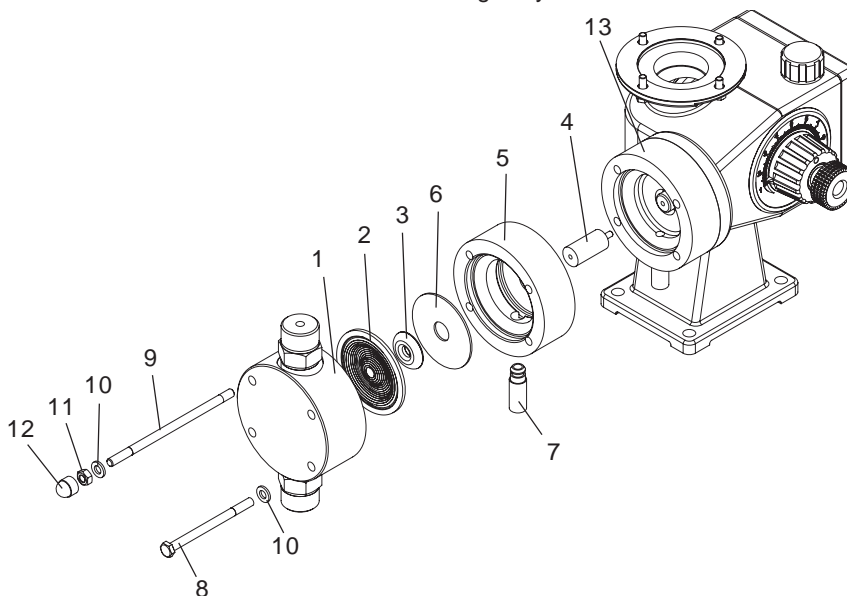
Retrofitting existing dosing pumps

1. Switch off the dosing pump and relieve pressure.
2. Unscrew dosing head (1).
3. Remove diaphragm (2), support bush (3) and deflector plate (6).
4. Extend diaphragm rod with bolt (4). (Tighten firmly).

Operational Diagram

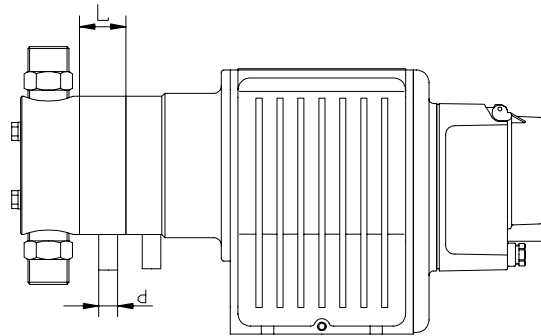


5. Hold separating chamber (5) and deflector plate (6) in front of diaphragm flange (13). The deflector washer (6) must be pushed in as far as the stop. (Drainage hole is visible).
6. Screw in diaphragm (2) and, if provided, supporting bush (3).
7. Tighten dosing head (1) (8-12).
8. Connect any hose for drainage. Always run with a gravity fall.



Note !

The drainage connection must **not be** run **directly** into the storage tank, otherwise gas may escape behind the diaphragm. A space of 50 mm must therefore be left beneath drainage pipe and collection funnel, which can be fed back into the tank via the cover or, if the medium permits this, it may be run to a gully with a gravity fall. Under no circumstances must the drainage pipe be run higher than the dosing head, otherwise back pressure will be generated in the event of leakage. The space between the drainage pipe and the collection funnel also enables any leakage to be observed.

Dimensional diagram

**Separating chamber conversion kit
technical data and Part Nos:**

Diaphragm Ø	Pump type	Dimension		Part numbers	
		L	Ø	Metering head of:	
				Plastic	Stainl. St.
32	DE/DX 03, E 03, EL 03, FL 03 DE/DX 07, E 07, EL 07, FL 07	25	12	12825860	12825860
32	LT 02, LT 06	25	12	12837589	12837589
32	LT 1	25	12	12837588	12837588
32	DE/DX 2, E 2, EL 2, FL 2, LT 3, LT 4 DE/DX 4, E 4, EL 4, FL 4, LT 6	25	12	12821863	12821863
38	DE/DX 8, E 8, EL 8, FL 8, LT 10 A 3, A 5, A 8	25	12	12821864	12821864
52	DE/DX 12, E 12, EL 12, FL 12, LT 17 A 14, A 24	25	12	12821865	12821865
52	E/DX 4...26	25	12	12835246	12835246
64	DE/DX 20	30	12	12821866	12821866
64	E/DX 50...76	30	12	12835295	12835295
90	DE/DX 40	45	16,4	12828588	12821867
90	E/DX 110...156	45	21,5	12832303	12832304
90	MR 50, MR 75, MR 115	45	21,5	12828589	12828590
120	DE/DX 100	45	16,4	12828586	12821868
120	MR 140, MR 210 E/DX 160...260	45	21,5	12828587	12828591
150	MR 290	45	21,5	12821908	12828592
185	MR 400, MR 600, MR 980	45	21,5	12825262	12828593