

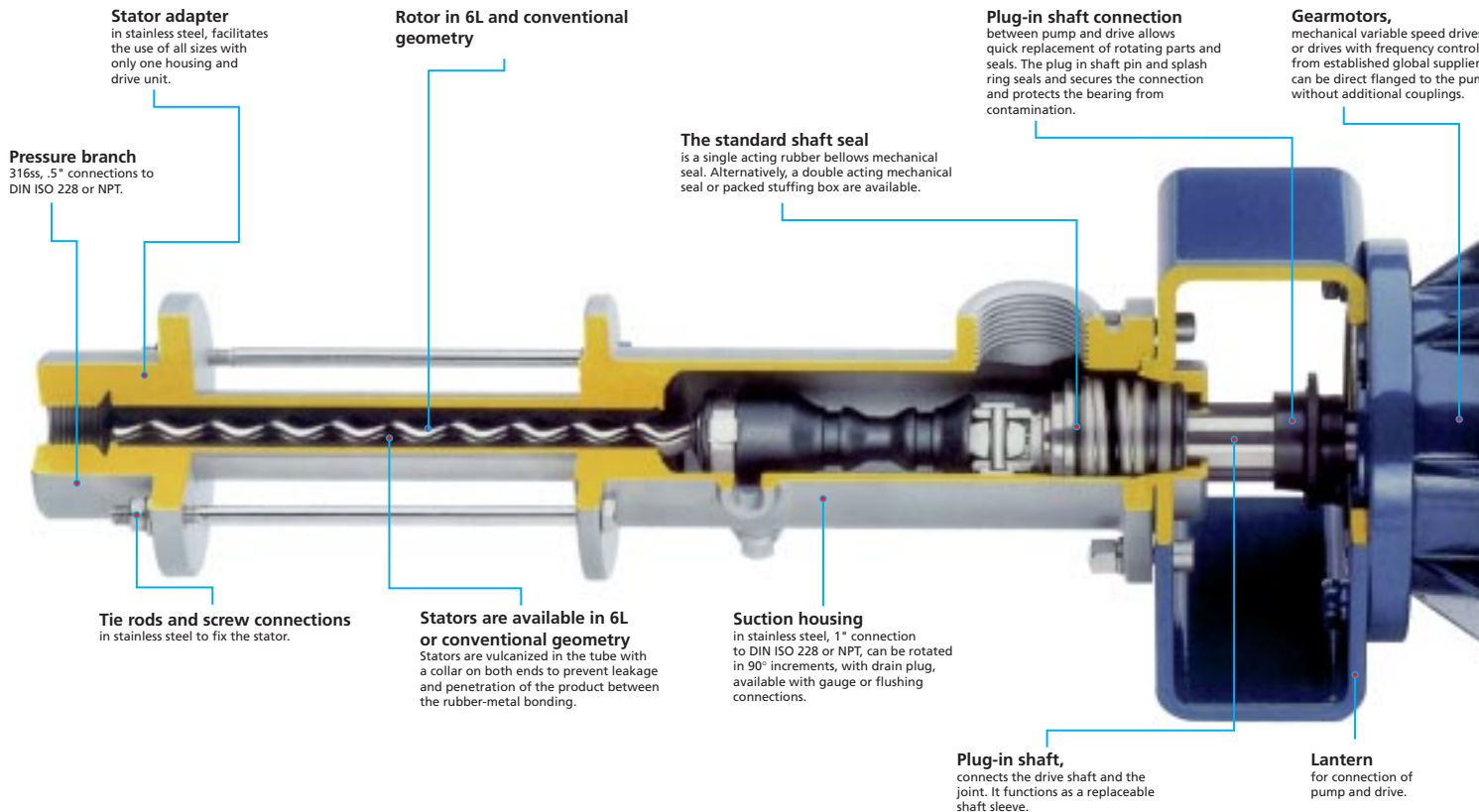
Design Group D

seepex pumps, range **D**, are used to meter and dose small fluid capacities in nearly all industries. They can deliver thin to highly viscous liquids, as well as corrosive and solids laden chemicals. The repeatable accuracy has $\leq 1\%$ fluctuation. Available in five (5) capacities and three (3) pressure ranges, flow rates range from 0.1-1,000 l/h at 6, 12 or 24 bars differential pressure.

The modular construction of the range **D** pumps allows easy change-out of the rotor, stator and other wetted parts. The range **D** consists of six (6) interchangeable designs in block design, as seen on [pages 3, 4 and 5](#). The construction features of the range **MD** with 316 stainless steel housings are shown in detail ([see next screen](#)).



Construction of range MD



Click to magnify



Click to demagnify



Use hand to navigate



Table of ranges

Range MD

The pumps of range **MD** are available with housings made of plastic (RCH1000) or stainless steel.

For the metering of chemically aggressive fluids, Hastelloy C (2.4610) or titanium (3.7035) wetted parts are available.



Range MDP

The pumps of the new range **MDP** have stainless steel housings with threaded connections to accommodate the stator.

The special feature is the one piece, jointless and wear-resistant rotating unit made of plastic (Nylon), patent pending.

In combination with stators made of PTFE, the pumps can be used for the first time to pump and meter carbonaceous medias including colors, polymers, lacquers, solvents, softening agents, etc.

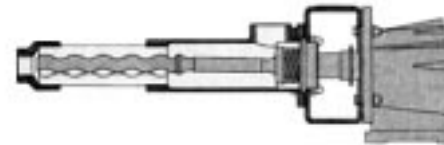


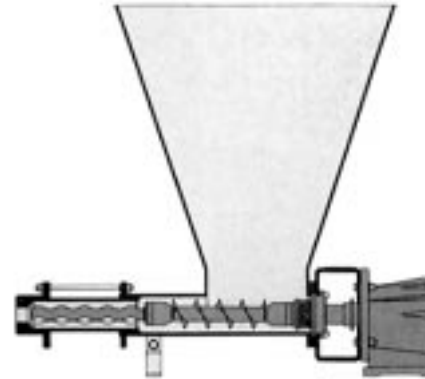
Table of ranges *(continued)*

Range MDT

The pumps of range **MDT** have an open hopper with a cylindrical compression zone.

Medias with poor ability to flow are delivered into the pumping elements with the auger on the coupling rod.

Optimal filling of the chambers is achieved by the indication action in the compression zone.



Range MDC

The pumps of range **MDC** are equipped with the new **seepex** CIPable joints. They meet the most rigid requirements of cleanliness and corrosion resistance.

This is achieved through the special design of the rotor and plug-in shaft heads and the coupling rod. They are easily disassembled without special tools.

Pumps of group **MDC** carry the 3A Sanitary Symbol Council Authorization.

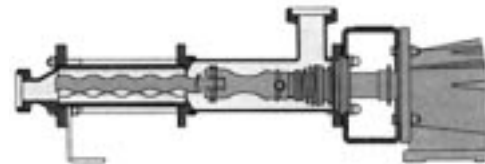
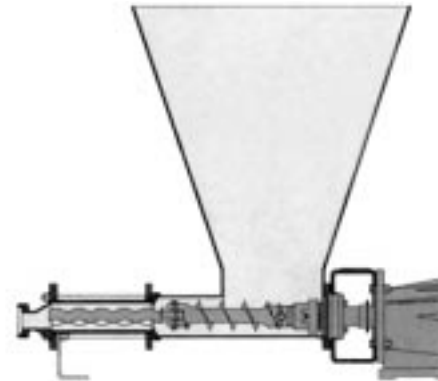


Table of ranges *(continued)*

Range MDTC The pumps of range **MDTC** have an open hopper with a cylindrical compression zone. Goods with poor ability to flow are delivered into the pump elements by the auger on the coupling rod.

Optimal filling of the chambers is achieved by induction action in the compression zone.

The pumps of the range **MDTC** are equipped with the open joints of range **MDC** and are in accordance with the 3A Sanitary Standards.



Range MDF The pumps of range **MDF** are used to empty open and closed drums with 2" bung holes.

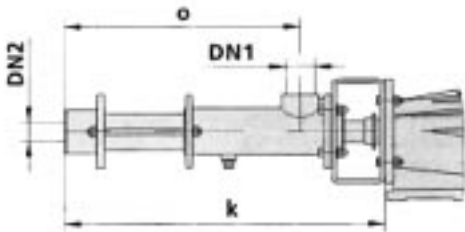
The positive pressure on the suction side makes it possible to empty drums with viscous and pasty medias.

With a handle attached, the pump can be easily carried.

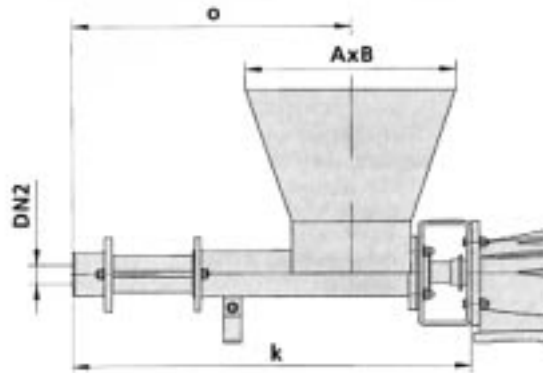


Dimensions

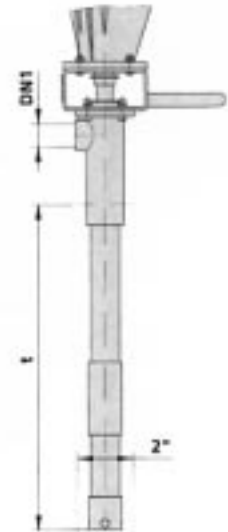
Range MD



Range MDT



Range MDF



Dimensions *(continued)*



Range	MD plastic body		MD/MDP 316ss body		MDC		MDT		MDTC		MDF	Fitting dimensions				Feed hopper	
	0	k	o	k	o	k	o	k	o	k		t	MD/MDT/MDF ISO 288	MDC/MDTC ISO 11851 or Triclamp		A	B
Size Pressure stage												DN1	DN2	DN1	DN2		
0015-24	227	322	211	306	254.5	364.4	260	394	282.5	418.4	970	G 1"	G 1/2"	25/1"	20 ³ / ₄ "	360	300
003-12	227	322	211	306	254.5	346.4	260	394	282.5	418.4	970	G 1"	G 1/2"	25/1"	20 ³ / ₄ "	360	300
003-24	-	-	288	383	331.5	423.4	337	471	359.5	495.4	-	G 1"	G 1/2"	25/1"	20 ³ / ₄ "	360	300
006-12	250	345	245	340	288.5	380.4	292	430	316.5	452.4	1000	G 1"	G 1/2"	25/1"	20 ³ / ₄ "	360	300
006-24	-	-	355	450	398.5	490.4	402	540	426.5	562.4	-	G 1"	G 1/2"	25/1"	20 ³ / ₄ "	360	300
012-12	270	365	265	360	308.5	400.4	312	448	336.5	472.4	1000	G 1"	G 1/2"	25/1"	20 ³ / ₄ "	360	300
012-24	-	-	395	490	-	-	442	578	-	-	-	G 1"	G 1/2"	25/1"	20 ³ / ₄ "	360	300
025-6L	270	365	265	360	308.5	400.4	312	448	336.5	472.4	1000	G 1"	G 1/2"	25/1"	20 ³ / ₄ "	360	300

All weights and dimensions are subject to change without notice.

Note: mm/25.40 CIP connection 20³/₄" inch dimension



Range MDP



seepex is pleased to present the new MDP metering pump. This exciting product is designed to allow progressive cavity pumps to be competitive in the low cost metering pump market. The **MDP pumps have suggested end user prices which start at less than \$1,000**, complete with electronic variable speed drive, which will accept a 4-20 ma process control signal and have a 50:1 turndown ratio. The pumps and drives are stocked.

The MDP is made with a one-piece polyamide rotating unit (Patent pending). This one piece replaces nine machined parts and the rubber joint cover. It is completely interchangeable with the previous assembly and has performance characteristics which, in most cases, exceed the characteristics of the metal parts. Some of the original prototypes are still running after hundreds of millions of bending cycles. The material being used is a DuPont compound, Zytel® ST801, and it is extremely resistant to abrasion. It is the same material used for the wheels on "in line" roller skates.



Range MDP *(continued)*

Due to the self lubricating nature of the Zytel® part, fitting of the shaft assembly to the drive is much easier and shaft “galling” is virtually eliminated. **The wetted wearing parts can be replaced in less than five minutes at a cost of less than \$200.**

To meet market needs we offer two different drives. For most applications, customers will choose the integrated DC motor and SCR drive. This unit is close-coupled to the pump and it utilizes a special DC motor that operates at a

maximum speed of 600 rpm. The integrated SCR allows for the unit to run as slow as 12 rpm. It requires 1 x 115 VAC, 60 Hz power, has a three position H-O-A switch (Manual-Off-Automatic), a ten-turn Vernier manual potentiometer with 0-1000 scale, 4 foot power cord with plug installed and will accept a 4-20 ma signal. The unit also has internal controls to set the maximum and minimum speeds and the acceleration and deceleration functions. It also has a handle for portable operation.



Range MDP *(continued)*

An alternative manual drive is also offered (see photograph on the cover). It accepts 3 x 230/460 VAC, 60 Hz power, is rated for 410 watts (0.6 HP) and has a speed range of 0-1000 rpm. The drive has stops so you can set minimum and maximum rpm. It has a speed indicator on the control dial. The driver can only be operated manually; but, it is an ideal choice for installations where voltage fluctuations are common, like the agricultural or petroleum production markets.

MDP metering pumps:
a new standard
for performance,
reliability, service
and value.



*The new **seepex** MDP Pump
with mechanical variable speed
drive for 0-1000 rpm.*

Range MDP *(continued)*

seepex also offers a **bare shaft version** of the MDP. The close-coupled versions of the MDP with the DC motor are also available without the integrated SCR, so customers can buy their own controller.

The MDP pump is available in four sizes: 0015-24, 003-12, 006-12 and the 012-12. In addition to the wide performance capability offered by the two stock variable speed drives, any of the above units can be interchanged in the field. (Note that two DC motors are offered and only the two smallest pumps can be operated with the smaller DC motor.)

For metering applications where wide turn down ratios or non-pulsating performance is required, the MDP is an ideal choice. Many of the new polymers used for water treatment can cause the valves in reciprocating pumps to foul. This won't happen in the MDP. Back pressure regulators and pulsation dampers are not needed. Since the external structure is all metal, the MDP is one tough pump. But if your fork lift driver does back into it, all parts and drives are stocked by **seepex** and by **seepex** distributors.



The seepex MDP Bareshaft Pump.

Range MDP *(continued)*

The MDP pump is an excellent choice for a variety of **chemical feed applications**, like:

- | | |
|--------------------|----------------------|
| Polymer Flocculant | Ink |
| Paper Chemicals | Dispersants |
| Lime Slurries | Liquid Fertilizer |
| Alum Slurries | PAM Soil Conditioner |
| Enzymes | Algaecides |
| Calcium Stearate | Herbicides |
| Deodorizers | Insecticides |
| Rosin Size | Surfactants |
| Corn Starch | Corrosion Inhibitors |
| Dyes | Bleach |
| Colorants | Optical Brighteners |
| Glue | Sampling |
| | Diatomaceous Earth |

Note: Due to a high coefficient of friction, EPDM stators can not be used.

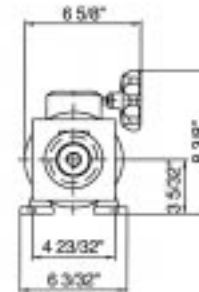
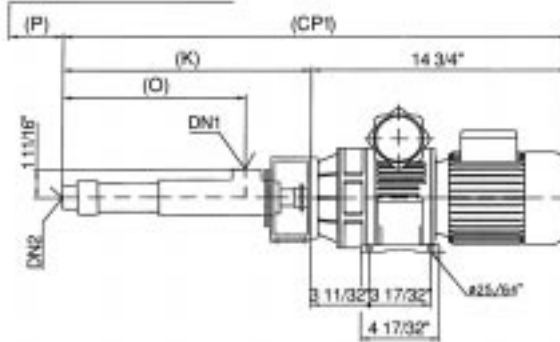
Typical MDP Performance (H2O @ 70°F): gallons per hour

Model	0015-24		003-12		006-12		012-12	
Speed (rpm)	100 psi	350 psi	50 psi	175 psi	50 psi	175 psi	50 psi	175 psi
100	0.975	0.845	2.38	2.14	4.20	3.75	9.51	7.95
200	1.93	1.80	4.76	4.46	8.43	7.77	19.02	16.86
300	2.90	2.75	7.13	6.82	12.66	11.76	28.5	25.8
400	3.88	3.70	9.51	9.14	16.88	15.77	38.0	34.7
500	4.86	4.65	11.89	11.47	21.1	19.79	47.6	43.6
600	5.81	5.60	14.25	13.83	25.3	23.8	57.1	52.5
700	6.76	6.55	16.61	16.19	29.5	27.8	66.6	61.4
800	7.71	7.50	18.97	18.55	33.8	31.9	76.1	70.3
900	8.66	8.45	21.3	20.9	38.0	35.9	85.6	79.2

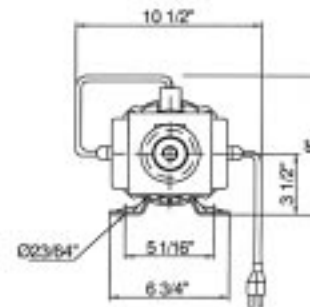
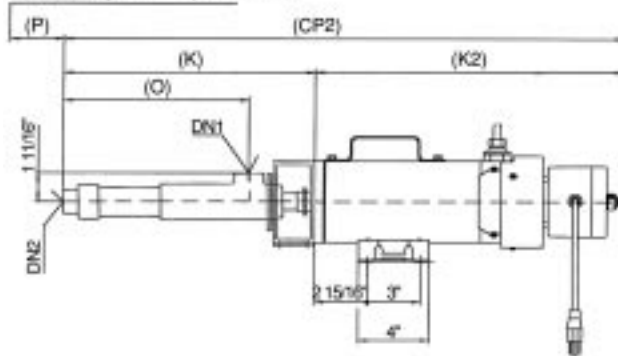
Additional information on the performance and dimensions of MDP pumps is listed in the **seepex** on CD disc. If you have any questions at all, contact your local **seepex** representative.

Range MDP *(continued)*

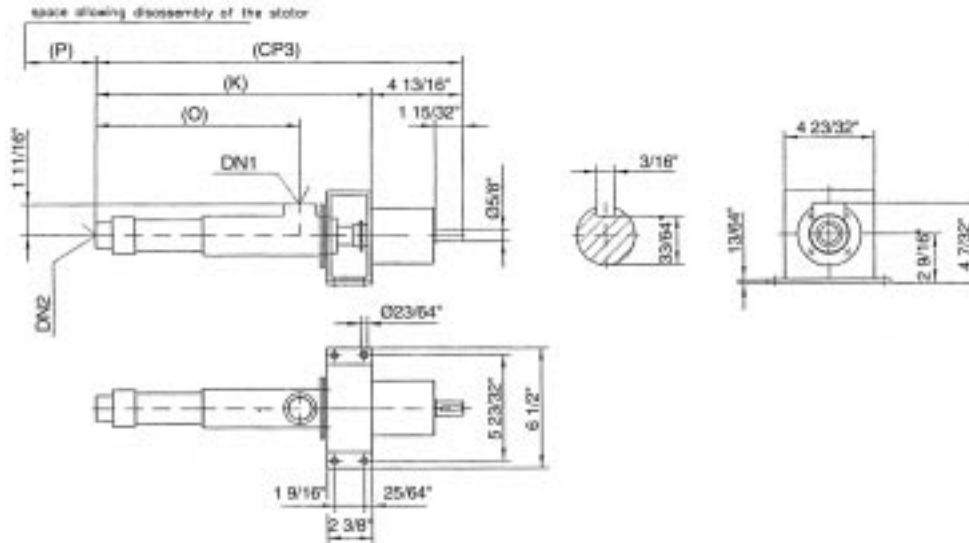
space allowing disassembly of the stator



space allowing disassembly of the stator



Range MDP (continued)



MDP Dimensions
(Inches)

Model	CP1	CP2	CP3	DN1	DN2	K	K2	O	P
0015-24	26.81	27.56	16.94	1" NPT	3/8" NPT	12.16	15.50	8.44	2.75
003-12	26.81	27.56	16.94	1" NPT	3/8" NPT	12.16	15.50	8.44	2.75
006-12	28.13	30.88	18.44	1" NPT	3/4" NPT	13.66	17.50	9.91	3.94
012-12	28.94	31.69	19.25	1" NPT	3/4" NPT	14.44	17.50	10.72	4.72