

Welore

Dosing Pumps & Chemical Injection Packages

About Us

Swelore has over 35 years of Liquid Metering Application engineering experience and has acquired all the capabilities for designing & manufacturing of their wide range of chemical dosing / metering pumps and chemical injection dosing packages.

Swelore Metering pumps now offers complete range of models with variety of liquid end combination to cover and handle every specific metering task.

Continuous investment in the advanced modern machinery & state of art technology had made Swelore “the leader in the field of metering pumps and package systems”

Why Use SWELORE METERING PUMPS?

Swelore Products & services are advantageous over others because :

- ▶ A Pioneer with over 35 years of experience & service records.
- ▶ Having a vast population of more than 12000 pumps working satisfactorily with Refineries, Petrochemicals, Fertilizers, Oil & Gas, Chemical & other prominent industrial sectors in India & abroad.
- ▶ Pumps supplied before three decades are still in operation.
- ▶ Track record of having executed maximum numbers of project orders during past 30 years.
- ▶ Company & its products are approved with all engineering consultants of India & Abroad.
- ▶ Offers complete range of metering pumps & system to suite wide application areas.
- ▶ An **ISO 9001 - 2000** accredited company.
- ▶ Excellent after sales & services through all India Network.

Quality

Each & every pump manufactured at Swelore is made under strict quality control norms & with material traceability records.

- ▶ Welore series pumps meets API 675 & Hydraulic Institute standard requirement assures guaranteed performance for design & safety.
- ▶ Each pump is individually tested before despatch.
- ▶ Inspection authorities like : EIL, LLOYDS, DNV, UHDE, PDIL, NTPC, DALAL and H&G have been inspecting welore pumps regularly.
- ▶ All projects orders are supplied with necessary contractual documents like GA & CS drawings, material test certificates manufacturing record book, O&M manual etc. In requisite copies.

FEATURES & BENEFITS

Capability

- Flow Rate as low as 100 ml / Hr.
- Flow Rate as high as 6000 Ltr / Hr. in simplex design.
- Pressure rating upto 500 Kg / Cm.²

Multiplexing

All models can be multiplexed & driven by common drive for high capacity requirement or multi point injection.

Stroke Adjustment

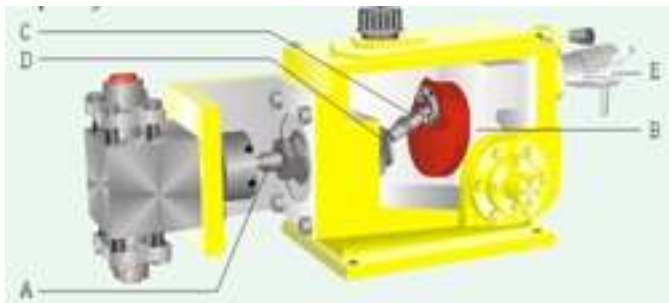
Micromatic stroke adjustment is supplied as a standard options of :
Pneumatic & Electro Pneumatic,
Electrical & Electronic, Speed Control
units are available for automatic
operation of pumps.

Accuracy

Steady state $\pm 1\%$
Linearity better than $\pm 3\%$
Repeated accuracy better than $\pm 3\%$

Stroke Adjustment Mechanism

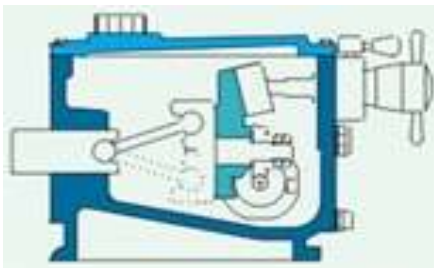
Welore metering pumps use proven welcrank mechanism which is POSITIVE RETURNED plunger mechanism



A	Plunger
B	Worm reduction assembly
C	Connecting rod
D	Cross head
E	Stroke adjustment knob

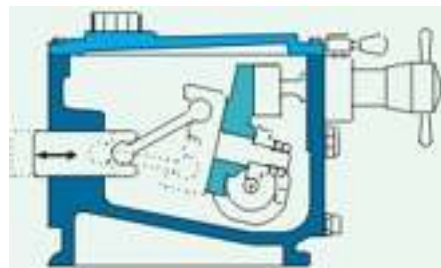
The pump assembly consists of worm reduction gear, eccentric, connecting rod, cross head, plunger, cylinder & valves.

Zero stroke



When coupled with motor & stroke adjustment knob set at "0", gear assembly & eccentric revolves without producing reciprocating motion of plunger.

Full or Partial Stroke



When stroke adjustment knob set at full or partial stroke setting, gear assembly & eccentric revolves in inclined position corresponding to the stroke setting. This produces reciprocating motion with respect to desired stroke length.

Jacketing

Plunger & Diaphragm pumps can be supplied with heating or cooling jacket arrangement for handling difficult liquids.

Remote Heads

Remote head pumps can be supplied for Radio active, Toxic High temp liquids.

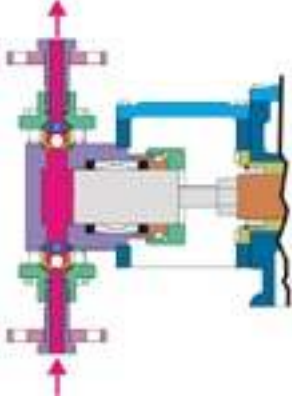
Long Life

As all the power end components are immersed in oil and run at low speed. Welore pumps have long service life & minimum parts replacement.

Liquid end designs

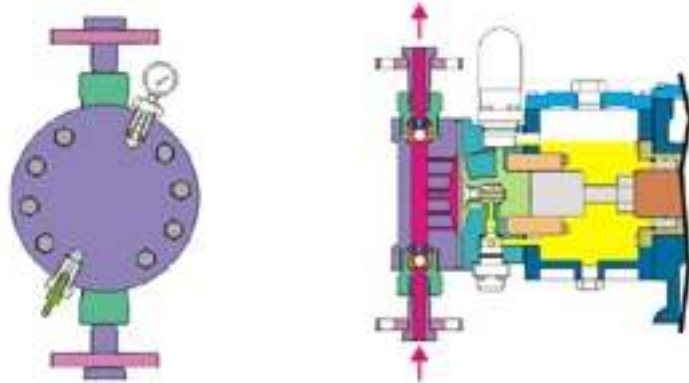
Swelore offers wide variety of liquid end designs to suit various metering applications

Plunger Type

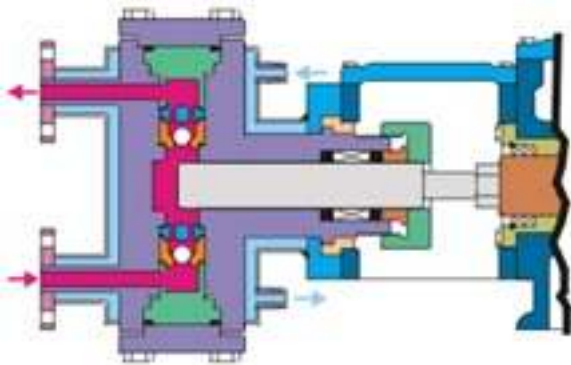


Standard plunger design with option of single or double valve & gland flushing arrangement.

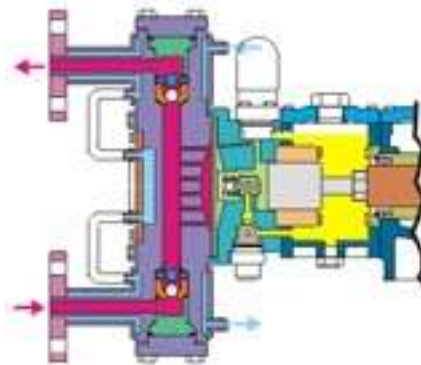
Diaphragm Type



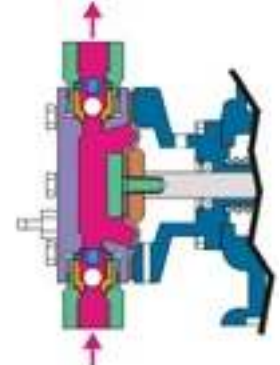
Hydraulically flexed single & double diaphragm for handling liquid without leakages. Option of diaphragm rupture indication device is available.



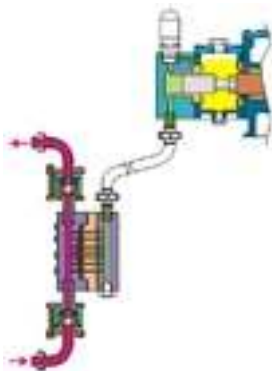
Jacketed plunger head for cooling or heating of pumping liquid.









Complete jacketed single or double diaphragm for the liquids requires heating or cooling mandatorily.



Mechanical diaphragm with diaphragm rupture indication



Remote head diaphragm for handling hazardous, toxic & radio active liquids.

- | | |
|---|---|
|  Pumping Chamber |  Hydraulic Chamber |
|  Process Fluid |  Hydraulic Oil |
|  Pressurized Hydraulic Oil |  Steam or Brine |

Standard Material of Liquid ends

Plunger

Material Code	Liquid End cylinder	Plunger	Valve Assembly	Plunger Seal
M01	SS316/CF8M	SS 316	SS 316	PTFE Braided
M05	SS304/CF8	SS 304	SS 304	PTFE Braided
M03	ALLOY-20	ALLOY-20	ALLOY-20	PTFE Braided
P01
P02

Diaphragm

Material Code	Liquid End cylinder	Diaphragm	Valve Assembly	Plunger Seal
M01	SS316/CF8M	P.T.F.E.	SS 316	Glandless
M05	SS304/CF8	P.T.F.E.	SS 304	Glandless
M03	ALLOY-20	P.T.F.E.	ALLOY-20	Glandless
P01	PP	P.T.F.E.	PP / PVC	Glandless
P02	PTFE/PTFE LINED	P.T.F.E.	PTFE	Glandless

Note : Option of other materials like Hastalloy-C, Titanium, PVDF, etc, are available on request.

Accessories

▶ Safety Valve

Releases pressure & provides better safety in discharge line.

▶ Back pressure regulator

Provides artificial pressure on pump discharge to avoid syphoning of liquid

▶ Pulsation dampeners

Minimises pressure & flow pulsations in pump discharge line. Available designs are

- Vessel type
- Diaphragm type
- Bladder type

Swelore offers a widest range of all the metering pump system components for different metering applications

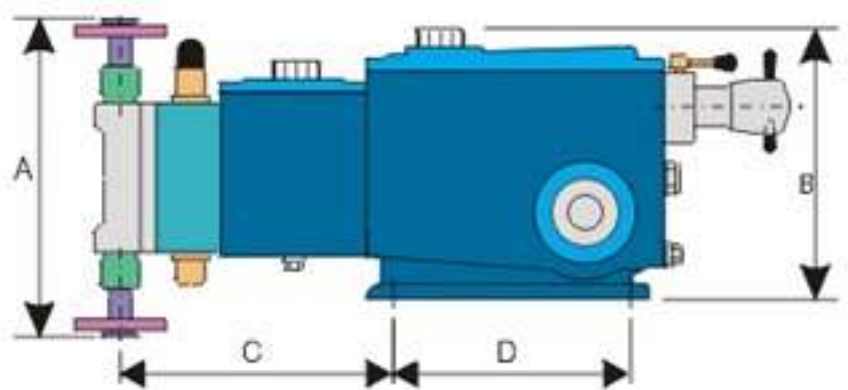
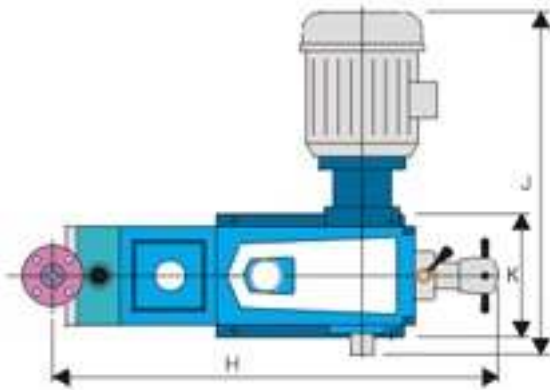
▶ Strainer / Filter

Filters suction liquid & Ensures foreign particle free entry to pump chamber

▶ Calibration pot

Allows periodic verification of pump flow rate.

Overall Dimensions



Dimensions

Model		1125	1750	2250	3000	5000
Plunger	B	238	285	325	430	565
	D	195	270	350	458	610
	J	450	477	590	662	1130
Diaphragm	K	152	190	252	306	442
	A	255	305	365	442	650
	C	190	212	266	286	400
Diaphragm	H	516	638	792	933	1288
	A	328	360	510	570	760
	C	240	278	349	366	487
	H	566	705	875	1013	1375

Note : Due to our program of continuous product improvement, features & specifications provided in this catalogue are subject to change.

Capacity Table

Plunger Dia.	SPM	Capacity L / H	Disch. Press (Kg / Cm ²)	Connection size	
Model 1125					
8	36	2	239	1/2" x 1/2" F	
	100	5			
12	150	8	106		
	100	10			
16	150	15	60		
	100	20			
25	150	30	24		
	100	50			
36	150	75	12		
	100	100			
50	150	150	4	3/4" x 3/4" F	
	100	200			
	150	300			
Model 1750					
16	100	25	112	1/2" x 1/2" F	
	150	40			
25	100	60	45		
	150	95			
48	100	200	12	3/4" x 3/4" F	
	150	300			
56	100	325	9		
	150	475			
70	100	500	5		1" x 1" F
	150	750			
Model 2250					
20	100	60	99	1/2" x 1/2" F	
	150	100			
36	100	200	30	3/4" x 3/4" F	
	150	300			
56	100	500	13		
	150	750			
70	100	800	8	1" x 1" F	
	150	1250			
80	100	1000	6	1-1/2" x 1-1/2" F	
	150	1600			
85	100	1200	5		
	150	1800			
Model 3000					
16	100	50	350	1/2" x 1/2" F	
	150	80			
22	100	100	197		
	150	200			
33	100	200	87	3/4" x 3/4" F	
	150	350			
52	100	500	33		
	150	850			
60	100	750	26		1" x 1" F
	150	1150			
70	100	1000	19	1-1/2" x 1-1/2" F	
	150	1500			
100	100	2000	10		
	150	3000			
110	100	2500	6		
	150	3800			
Model 5000					
40	100	500	131	1" x 1" F	
	150	800			
56	100	1000	67	1-1/2" x 1-1/2" F	
	150	1500			
80	100	2000	32		
	150	3200			
95	100	3000	23	2" x 2" F	
	150	5000			
108	100	4000	18		
	150	----			
130	100	5000	12		
	150	----			

Note : Above performance is based on 90% volumetric efficiency when handling water.
Disch. pressure is based on max plunger thrust consult swelore for final selection.

Chemical injection packages

Tailor made chemical dosing systems supplied by Swelore are self contained, ready to operate units, which only requires to be connected to your chemical supply line & injection points. Swelore Chemical Injection Systems are designed to individual customers requirements complete with Pumps, Pipe work & storage vessel all skids mounted. The vessels are equipped with all instrumentations normally associated with such Dosing systems. Swelore Dosing Packages are built confirming to applicable National and International standards.



Typical pumps



Diaphragm pump for molten sulphur service



Plunger pump with pneumatic actuator



Swel series mechanical diaphragm & plunger pumps.

Triplex pumps Manufactured by associate M/s. Hiro Nisha Systems Pvt. Ltd.



Triplex pump capability

- ▶ Flow rate up to 60 m³/hr.
- ▶ Pressure rating up to 1000 Kg / cm²
- ▶ API 674 compliance

Agents

NEW DELHI	Thoms Marketing Pvt. Ltd.
BARODA	Saurabh Industrial Corporation
CALCUTTA	Teflex Project (India)
ALLAHABAD	Shubham Fluid Controls & Dynamics
CHENNAI	Easwer Engineering Company
HYDERABAD	Srvin Engineering Company
VISAKHAPATNAM	Flow Technics

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