

→ ACHIEVEMENTS

100+ SUCCESSFUL PROJECTS

→ TENETS

CREDIBILITY & TRUST

→ FOUNDATION

QUALITY CONTROL

→ PRIDE

TOTAL CUSTOMER SATISFACTION

→ SERVICE

365 DAYS CUSTOMER SERVICE

→ ASSETS

1000 SATISFIED CUSTOMERS

→ STRENGTH

HARD WORK

ISO 9001

BUREAU VERITAS  
Certification



**DOSING SYSTEMS**

**Your Metering Partner!**

**DESIGN & MANUFACTURING OF CHEMICAL DOSING / METERING PUMPS**

## ABOUT US

Unique Dosing Systems is an ISO 9001 certified company with an eye to further explore and become the market leader in all types of chemical dosing / metering pumps & systems. With a young and dynamic team composed of experienced and expert engineers & technicians, our company has made an indelible mark as manufacturer, supplier and service provider of quality pumps & dosing systems in just a short span of time, since its inception in 2004.

We offer various models of Plunger and Diaphragm type pumps and various types of chemical dosing systems as per customer's requirements. MOC of the liquid head is selected as per compatibility of the liquid. We offer AISI 304, AISI 316, Monel, Alloy 20, Hastalloy B/C, Polypropylene, PTFE, PVC, GFT and Ceramic coated liquid heads. All the components are manufactured & tested as per international standards by qualified engineers. We also offer solutions for the customized requests. Our pumps and other products come with innovative design, quality workmanship and reliability.

## QUALITY

We employ stringent quality control as per ISO 9001. Sophisticated testing procedures for each of our products in all its stages of its production so that our customers are provided the best. We are a team of quality conscious engineers, who normally work with a standard quality assurance plan from selection of raw material to dispatch the products. Each and every activity is monitored to ensure that our standard quality assurance plan is strictly maintained. The pumps are tested as per API 675 standard. Our pumps are tested on our sophisticated test bed to ensure total trouble free long term operation. Sophisticated testing arrangement and quality consciousness in every step of manufacturing is our speciality.

## WHAT WE OFFER

We provide basic as well as customized pumps in all segments. These are positive displacement reciprocating pumps, consist of two mechanisms, namely drive end and liquid end. The drive end mechanism is enclosed in a housing filled with oil to get proper lubrication. The liquid head being important, the MOC is selected as per the compatibility of the liquid being pumped. The drive mechanism is a modified crank mechanism by a worm gear reduction rotating about its axis in vertical plane. These Pumps are manufactured & tested as per API 675. These pumps are driven by single / three phase electrical motors. The discharge of the pump can be regulated as per your requirement with the help of a knob provided on top of the pump. The pump discharge is controlled by adjusting the stroke length, it can be varied from 0 to 100% by rotating the control knob. The accuracy of our Pumps are  $\pm 1\%$ , linearity and repeatability are  $\pm 3\%$ . The power consumed is so less than other centrifugal pumps. We offer a nationwide after sales service and prompt supply of spares.



### PLUNGER TYPE PUMP

These are positive displacement pumps that displace a particular amount of fluid on each cycle stroke of operation. We provide this product in different models as per customers' requirement. It can achieve flow rates up to 10000 ltr/hr & delivery pressures up to 400 kg/cm<sup>2</sup>.

#### Key Features:

- Steady state metering accuracy of  $\pm 1\%$  of pump output, at single setting of stroke from 10% to 100%. (turn down ratio 10:1)
- Repeatability better than  $\pm 3\%$  of set point
- Easily handles corrosive, abrasive or viscous fluids.
- Heating & cooling jackets for liquid head also available.
- Low NPSH requirement.
- Flow Metering accuracy is almost independent of back pressure of liquid.
- Discharge Flow rate is linear to variation of stroke length.



### HYDRAULIC OPERATED DIAPHRAGM TYPE PUMP

We offer pumps with PTFE Diaphragm between hydraulic oil and the metered fluid. As these pumps are gland less to avoid leakages of your corrosive, toxic and costly fluids. The pump capacity range is up to 10000 ltr/hr and pressure up to 100 Kg /cm<sup>2</sup>. Doubled diaphragm with diaphragm failure indication is also available for your costly liquids. It can be delivered in simplex, duplex or multiple heads for handling different chemicals.

#### Key Features:

- Steady state metering accuracy of  $\pm 1\%$  of pump output, at single setting of stroke from 10% to 100%. (turn down ratio 10:1)
- Repeatability better than  $\pm 3\%$  of set point, Low NPSH requirement.
- Easily handles corrosive, abrasive or viscous fluids.
- Flow Metering accuracy is almost independent of back pressure of liquid.
- Discharge flow rate is linear to variation of stroke length
- Automatic air bleeding from the hydraulic oil to ensure better metering accuracy
- arrangement of in-built pressure relief valve to protect the pump from pressure exceeding the rated pressure.
- Diaphragm is always balanced between the pressure exerted by the hydraulic oil and the liquid to be dosed.





### MECHANICALLY OPERATED DIAPHRAGM PUMPS

Primarily used in water and waste water treatment chemical plants. Capacity Range from 0 to 1150 LPH and pressure up to 4 Kg/Cm<sup>2</sup>. These pump is used for low capacity & low pressure.

#### Key Features:

- Motor driven with mechanically linked diaphragm.
- Steady state accuracy up to  $\pm 3\%$ .
- Accuracy at repeatability  $\pm 3\%$ .
- Well suitable for continuous duty.
- Suitable to handle most corrosive fluids.
- PTFE Coated diaphragm supported by a steel core & temperature resistant material.
- Simplex, Duplex and Multiplex arrangements of pumps available for universal use



### SOLENOID OPERATED ELECTRONIC DIAPHRAGM PUMP

We provide one of the most cost effective solutions for repeatable precision dispensing of precise, small volume fluid doses. It is highly used in maintaining the accuracy of ingredient concentration, product efficiency and batch to batch consistency. These pumps are controlled by an Electronic circuit comprising of professional PCB & electronic components of proven quality for high reliability to the user.

#### Key Features:

- Capacity up to 23 LPH. and Discharge pressure Up to 10 bar (kg/cm<sup>2</sup>)
- Stroke speed Up to 120 spm
- Pump head (liquid end): PP, PVC / SS316 / PTFE
- Corrosion resistant GFPP housing & Teflon faced hypalon diaphragm for long lasting operation
- Suction lift up to 1.5 mWc, steady state accuracy:  $\pm 3\%$ , repeatability :  $\pm 3\%$



### SHRIKHAND & SLURRY TRANSFER PUMP

We take pride to introduce ourselves as one of the leading manufacturer of Shrikhand transfer pumps required for transfer of Shrikhand from one place to another place. These pumps can be used for ointments, Ice Creams, Shrikhand, Ghee, Milk, Slurry etc. The contact parts of the transfer pump are made out of SS 304 material to maintain safety precautions of food or pharmaceutical industries.

#### Key Features of Shrikhand Transfer Pump:

- We are the first to indigenously manufacture shrikhand transfer pump for dairy application.
- Shrikhand Transfer ranging up to 3000 kg/hr as per the requirement of the industry.
- Single head pump for easy cleaning and maintenance .
- Perfect design of the non-Return valves for passing the cashews and pista pieces.
- Shrikhand transfer pumps available in full SS version or SS cladding version.
- Significant increase in the quality of Shrikhand after transferring through the pump.
- Saves the Shrikhand which remains in chamber and pipeline after use.



### HIGH PRESSURE TRIPLEX PUMP.

Our High pressure triplex pumps are positive displacement reciprocating pumps that are configured with three plungers. Our pumps are best designed for its usage in various industrial and domestic applications with its ability to handle a wide range of fluid types, including corrosive fluids, abrasive fluids, and slurries containing relatively large particulars. This product can be used in applications that require continuous pumping.

#### Some of its application areas are:

- Hydro testing at tanks, valves, hoses and vessels.
- Boiler feed, gland sealing, reverse osmosis, water and waste treatment.
- Pressure cleaning of vehicles, tanks, shop floors, pipes, aircrafts and wagons
- Spraying in agriculture, fire fighting, spray drying etc.

## COMPLETE SKID MOUNTED CHEMICAL DOSING SYSTEM

We design & manufacture the dosing systems as per international standards & customer requirements. Each and every component is checked as per the quality standards before manufacturing the dosing system. All components are calculate as per the discharge pressure of the dosing pump for safety precautions of the system. These skid mounted dosing packages are used for chlorine dosing system, boiler chemical dosing, oil heating & pumping units and other such duties.

### The system incorporates the following components:

- Single or compartment solution preparation tank.
- Pressure relief valve
- Chemical dosing pumps single or multiple.
- Pulsation Dampener, Interconnecting piping
- Instruments like Pressure Gauges, Level Gauges & Level Switches, Sensors etc.
- Control panel including interconnecting cabling.
- Stirrer (Agitator), Valves & Fittings

## HYDROSTATIC TESTING PUMP

These Pumps are manufactured carefully by qualified Engineers for a safe long-term operation. Each and every components are checked as per the quality plan by qualified engineers before manufacturing the pump. These Pumps consists different components i.e. Pressure Relief Valve, Dampner, Pressure Gauge, Ball Valves, Non Return Valve, Back Pressure Valve etc. All components calculate as per the discharge pressure of the dosing pump for safety precautions.

### Key Features:

- Use for Hydro testing of pipes, cylinders & boiler tubes
- Smooth and consistent flow assured +90% pulsations eradicated
- Offers a reinforced seal and uses chrome plated plungers for tight alignment and long life in high pressure applications,
- High performance non return valve non suction and delivery side.

## AGITATORS (STIRRERS)

We manufacture agitators that are designed in accordance with the client's requirements. All these agitators are used across several industries. All these agitators not only withstand excessive wear and tear but also can be installed with great ease. All these agitators require high precision and are also flawless in performance.

### Types of Agitator/Stirrer based on following:

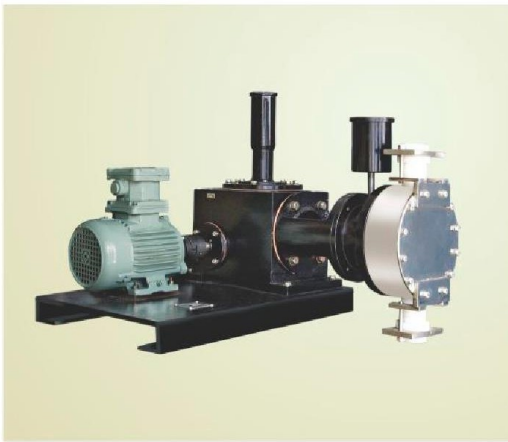
- Orientation Top Entry, Bottom entry, Angular entry, Speed variable / fixed / self adjustable (PLC based)
- Tank size
- Stirring Media

## ACCESSORIES FOR PUMPS AND DOSING SYSTEMS



● Pulsation Dampener ● Antisiphoning Valve ● " Y" Type Stainer ● Pressure Relief Valve ● External Back Pressure Valve ● Fan ●





### FILTER PRESS PUMP

We manufacture Dosing Pumps for filter press application. These are used for sludge transfer with pressure to filter press for build cakes with low percentage of water. After using these pump our customer saves lot of treated water, which is not saves with centrifugal pump due to high pressure application. With use of centrifugal pumps customer having filter press cake with liquid form (40-50% water).

Unique make filter press pump saves your man power, electricity, space and keep surface clean of plant area.e heads for handling different chemicals with a common motor to facilitate the whole operation.

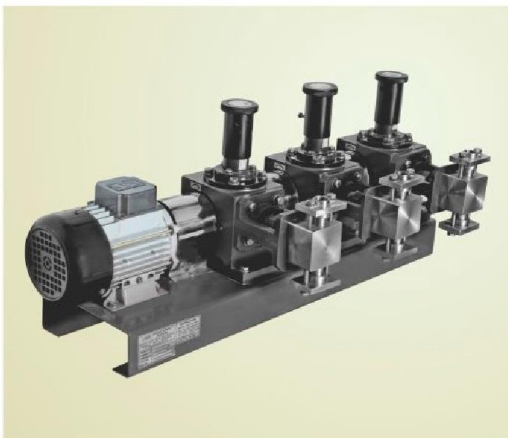


### JACKETED PLUNGER & DIAPHRAGM PUMPS

We Manufacture steam jacketed metering dosing pumps for molten liquids. The jacketed pump enclose the Non Return Valves and Chamber. The valves are cartridge type and can be removed for servicing without dismantling the suction and discharge connections.

Our pumps are useful for accurate dosing and mixing of acids, alcoholics, slurries, viscose liquids etc.

They are used in sugar factories, Chemical plant, Fertilizer plant, Water Treatment plant, Soap plant, paper Industries, pharmaceutical Industries, Thermal power projects, and plastic Industries.



### MULTI HEAD DOSING PUMP

These type pump available simplex, duplex or multiple heads for handling different chemicals with a common motor to facilitate the whole operation. Each head is independently connected and the capacity of each head is also independently adjustable. These pumps have 2/3/4 different suction and 2/3/4 variable discharges. This facility saves not only electricity but also the cost of 2/3 motors. All the pumps can be made to dose as per customer requirement. If the customer wants to stop the dosing of 1 / 2/ 3 or all the 4 pumps can be done without any hassles. In these system, pumps are coupled together & fitted in one base plate with single motor.

These pumps are commonly used in sugar industries for mill sanitation dosing where chemicals are dosed in three or four points in variable capacities. This can be used in other process industries also where two or more liquids/chemicals required to be dosed in different proportions.



### GREASE TRANSFER PUMP

These type pump are specially manufactured for use of grease transfer and they can be used in various industries like mining, automobiles, various industrial applications where greasing is essential. These type pump available simplex, duplex or multiple heads for handling various grades of grease.

**CUSTOM DESIGNED CHEMICAL DOSING SYSTEMS**



**POLYELECTROLYTE DOSING SYSTEM**



**FERROUS SULFATE DOSING SYSTEM**



**CHLORINE DOSING SYSTEM**



**MIST GENERATION UNIT**



**PROSPERIC ACID DOSING SYSTEM**



**BOILER CHEMICAL DOSING SYSTEM**



**SODIUM DOSING SYSTEM**



**ALUM DOSING SYSTEM**



**LIME DOSING SYSTEM**



## PUMP SELECTION CHART

### HYDRAULIC OPERATED DIAPHRAGM TYPE PUMP

PUMP SPEED: 100 SPM			PUMP SPEED: 200 SPM			
Pr. kg/cm <sup>2</sup>	NB	CAP. LPH	MODEL	CAP. LPH	NB	Pr. kg/cm <sup>2</sup>
30	8	4.2	UDH 1010	7.8	8	30
30	8	6.1		11.3	8	30
30	15	11.0		20.0	15	30
30	15	17.0		31.0	15	30
21	15	24.0		45.0	15	21
16	15	37.0		66.0	15	16
12	15	48.0		80.0	15	12
7	15	68.0		125.0	15	7
6	15	82.0		152.0	15	6
50	15	27		55	15	50
50	15	34	68	15	50	
34	15	49	98	15	34	
19	15	87	174	15	19	
12	15	136	271	25	12	
10	25	164	328	25	10	
9	25	195	391	25	9	
7	25	247	495	25	7	
5	25	326	652	40	5	
5	25	358	716	40	5	
4	25	381	761	40	4	
100	15	59	UDH 2020	119	15	100
75	15	86		171	15	75
44	25	152		304	25	44
28	25	238		475	25	28
19	25	342		684	40	19
15	25	433		866	40	15
11	25	571		1142	40	11
10	40	627		1255	40	10
8	40	770		1540	40	8
6	40	1023		2046	40	6
5	40	1203	2406	40	5	
4	40	1484	2968	40	4	
100	15	102	UDH 3535	204	15	100
100	25	147		293	25	100
75	25	261		521	25	75
50	25	407		815	25	50
34	25	587		1173	40	34
25	40	742		1485	40	25
20	40	979		1957	40	20
19	40	1076		2151	40	19
15	40	1320		2639	40	15
12	40	1753		3506	80*50	12
9	40	2061	4122	80*50	9	
7	80*50	2546	5089	80*50	7	
6	80*50	3080	6158	80*50	6	
5	80*50	3664	7329	80*50	5	
100	15	102	UDH 6060	204	15	100
100	25	147		293	25	100
75	25	261		521	25	75
50	25	407		815	25	50
34	25	587		1173	40	34
25	40	742		1485	40	25
20	40	979		1957	40	20
19	40	1076		2151	40	19
15	40	1320		2639	40	15
12	40	1753		3506	80*50	12
9	40	2061	4122	80*50	9	
7	80*50	2546	5089	80*50	7	
6	80*50	3080	6158	80*50	6	
5	80*50	3664	7329	80*50	5	

### MECHANICALLY ACTUATED DIAPHRAGM PUMPS

Pump Model	Capacity max (l/hr)	Pressure max (kg/cm <sup>2</sup> )
UMD10	0-300	2
UMD 20	0-600	2
UMD 30	0-1000	2
UMD 40	0-1200	2

### PLUNGER TYPE PUMP

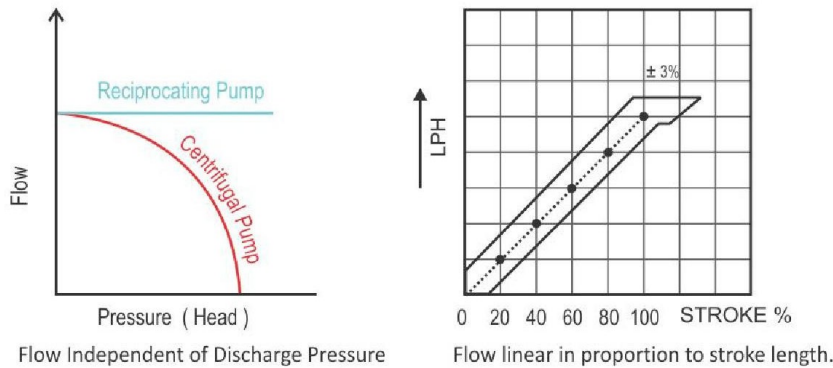
PUMP SPEED: 100 SPM			PUMP SPEED: 200 SPM			
Pr. kg/cm <sup>2</sup>	NB	CAP. LPH	MODEL	CAP. LPH	NB	Pr. kg/cm <sup>2</sup>
60	10	2.7	UDP 1010	5.5	10	60
60	10	4.2		8.5	10	60
60	10	6.0		12	10	60
60	15	8.0		16	15	60
60	15	11		20	15	60
60	15	17		31	15	60
42	15	24		45	15	42
32	15	37		66	15	32
24	15	43		80	15	24
15	15	68		125	15	15
12	15	86	159	15	12	
9	15	106	196	15	9	
99	15	27	UDP 2020	55	15	99
99	15	34		68	15	99
69	15	49		98	15	69
38	15	87		174	15	38
25	15	136		271	25	25
17	25	195		391	25	17
13	25	247		495	25	13
10	25	326		652	25	10
9	25	358		716	25	9
8	25	415		831	25	8
275	15	48	UDP 3535	96	15	275
222	15	59		117	15	222
155	15	86		171	15	155
87	15	152		304	25	87
56	25	238		475	25	56
39	25	342		684	25	39
31	25	433		866	25	31
23	25	571		1142	25	23
17	40	770		1540	40	17
13	40	1023		2046	40	13
11	40	1203	2406	40	11	
9	40	1545	3090	40	9	
7	40	1797	3594	80*50	7	
6	40	2138	4277	80*50	6	
366	15	102	UDP 6060	204	15	366
143	25	261		521	25	143
63	25	587		1173	40	63
38	40	979		1957	40	38
28	40	1320		2639	40	28
21	40	1754		3507	80*50	21
18	40	2062		4124	80*50	18
14	80*50	2648		5295	80*50	14
12	80*50	3080		6161	80*50	12
10	80*50	3666		7332	80*50	10

### SOLENOID ACTUATED ELECTRONIC DIAPHRAGM PUMPS

Pump model	Capacity max (l/hr)	Pressure max (kg/cm <sup>2</sup> )
UDE 10	0-12	1
	0-6	4
UDE 20	0-20	2

◆ Unique Dosing Systems can provide custom solution as per customer requirement.

## PUMP PERFORMANCE CHARACTERISTICS



The volume of liquid (flow rate) to be delivered can be varied by simple micro metric adjustment of the metering system. Unique make metering pumps are positive displacement type, hence, are self priming in operation. They have low NPSH requirement and are capable of delivering precise volume of liquid in specified time. Unique make metering pumps have flow rate, which is independent of discharge pressure & linear in proportion to stroke length.

## OUR TEAM

Our team comprises of experienced and efficient professionals who are focused on bringing constant innovation and to bring the latest technologies at our customers' doorstep. With our extensive network of customers and their feedback, our team and its research and development initiatives have been the prime reason for performance enhanced quality products.

## APPLICATION SECTORS

### FOOD & PHARMACEUTICAL INDUSTRIES

- Tablet coating
- Cream filling
- Effluent treatment
- Transfer of viscous slurries like shrikhand
- Ointment
- Honey

### PAPER INDUSTRIES

- Melamine and resin additions
- Perfume addition
- Alum dosing
- Slimicide injection
- Stock preparation in continues bleaching

### CHEMICAL INDUSTRIES

- Metering of resins & catalyst
- Pilot plants & laboratories
- Water effluent treatment plants
- Acid dosing
- Polyelectrolyte dosing
- Flocculent dosing
- Chemical dosing systems

### OIL INDUSTRIES

- Odorizing of natural gas
- Scale inhibitors, Wax inhibitors
- Demulsifiers, Oxygen Scavengers, Glycol and Biosides
- Propane injection
- Amines to steam line to prevent corrosion
- Boiler feed water dosing systems

### SUGAR INDUSTRIES

- Alum dosing
- Flocculent dosing
- Mill sanitation ( bioside dosing )
- Phosphoric acid dosing
- Hydrostatic testing of boiler tubes & valves
- Boiler feed water dosing system ( low pressure & high pressure )
- Anti scalent dosing



**AUTHORISED DISTRIBUTOR:**

**MANUFACTURED BY:**

**UNIQUE DOSING SYSTEMS**

**DESIGNERS & MANUFACTURING OF CHEMICAL DOSING & METERING PUMPS**

F-1/3, MIDC, Ambad, Nashik- 422010. Maharashtra , INDIA.

TEL. :- +91 253 6695621, 6695341, FAX +91 - 253 6695341, Cell.:- +91 9822420535

Email: - info@uniquedosing.com, sales @uniquedosing.com

web :- www.uniquedosing.com

<http://uniquedosing.com>