



INDIA'S MOST TRUSTED PLUNGER TYPE

# **DOSING CHEMICAL PUMP**

**#SMARTERLIQUIDDOSING** 

# NENITY









www.infinityequipments.com

### **I-P-DP Series**



## **PLUNGER TYPE**

#### **CHEMICAL DOSING PUMP**

Designed For Large-Capacity, High Flow, High pressure Applications

INFINITY introduce **I-P-DP Series** plunger type chemical dosing pumps draws a fixed volume of a chemical into the chamber, and then injects it into a pipe or a tank that may contain water or fluid to be dosed. The pump is driven by an air actuator or an electric motor.

#### **MAJOR ADVANTAGES**

Simple Design, easy to operate

Zero leakage Low NPSHR design

Flame Proof design

Oil bath splash type lubrication for longer life

Economical & maintenance free

Variable eccentric design to prevent hydraulic shock

Stroke adjustment can be adjusted while pump is running

or stopped

Designed for Flow volumes up to 7000 LPH

Fine-grained capacity adjustment through lockable

micrometre stroke adjustment mechanism

Oil bath lubrication for all drive components

High strength and corrosion resistance material used

PTFE Valve seat ensures long life under most demanding application

Wetted parts suitable for most aggressive chemicals

Heavy duty construction designed for several Industrial applications

Internal worm gear mechanism

Low investment cost

High volumetric efficiency and metering accuracy achieved

Wide choice of wetted materials: SS 316 L

Other materials available upon request





#### **PRESSURE RANGE**

Stainless steel head standard pressure up to 300 kg/cm2

Special head up to 1000 kg/cm2

**FLOW RANGE** 

100 ml/hr. to 7000 LPH

Higher capacities can be achieved by multiplexing head

#### **TEMPERATURE RANGE**

30 Degree Celsius to 300 Degree Celsius

## **MATERIAL OF CONSTRUCTION**

Reagent head : AISI SS 316
Liquid end : AISI SS 316
NRV seat/cage : AISI SS 316
NRV ball : AISI SS 316
Seal NRV : PTFE/Teflon

**Worm wheel**: Phosphorous bronze

Gear Housing : IS210 FG 216 CI

Mounting Base : MS

Coupling guard : SS 304

Metal Gearbox : Cast Iron

# **MODULAR CONFIGURATION**

#### Simplex, Duplex, Triplex and Quadriplex

Turn down ratio 10:1

Accuracy ± 1% within 10-100% of rated capacity.

No Welds on Wet End Parts.

Flushing or leakage recovery system can be provided.

Manual stroke length control standard (optional VFD).

Micro-metric stroke adjustment while pump running or stopped.

Available in variable / fix stroke

Process Temperature from - 20°C to 220°C

INFINITY INTELLIGENT

# **I-P-DP Series**



#### **TECHNICAL SPECIFICATION**

Model : INFINITY I-P-DP 50

**Operating Type** : PLUNGER TYPE metering dosing

**Application Standards**: API 675 standards

**Duty cycle** : Continuous **Temperature** : ambient

**Lubrication type** : Oil splash type **Lubricant** : 460 gear oil

#### **DESIGN SPECIFICATION**

Flow rate : 0 to 50 LPH stoke adjustable

Suction : flooded

Working pressure : 40 bar

Design pressure : 50 bar

Hydro testing pressure : 50 bar

**Speed (SPM)** : 185\* (Change per design)

Stoke length :10 mm/20 mm

Gear ratio : 15:1

Metering control : 0-100% Manual with Inbuilt Interlocking Screw

Pump rotation : clockwise

NRV : ball type NRV

**Suction discharge size** : 15 mm BSP (F) threaded type

#### **MOTOR SPECIFICATION**

Motor make : Impel/Hindustan/Crompton equiv.

Supply system : IE2 / 3PHASE INDUCTION/AC 380 V/50Hz

**Rating (KW/HP)** : 0.5/2 **Speed (RPM)** : 1440

Mounting : B3 foot mounted Pole/ protections : 4 pole / IP55

Base frame : MS fabricated with paint

Insulation/ enclosure : STD TEFC/IP 55

# **I-P-DP Series**



# **APPLICATION**

Oil & Gas,

Pharmaceuticals,

Power, Chemicals & Fertilizers,

Paper Industries,

Water, Waste Water Treatment, ETP & STP,

Petrochemicals,

Paints,

Steel,

Detergents,

Cosmetics,

Food & Beverages,

Nuclear Reactor,

Textiles,

Mines,

Institutes,

**Consultancy Agencies** 

# **MODELS VS SPECIFICATION**

#### **SS 316**

MODEL	CAPACITY	PRESSURE	STROKE	MOTOR POWER
I-P-DP 30 SS316	0-30 LPH	10 BAR	10 mm	0.5HP / 0.37KW
I-P-DP 50 SS316	0-50 LPH	10 BAR	10 mm	0.5HP / 0.37KW
I-P-DP 100 PP SS316	0-100 LPH	10 BAR	10 mm	0.5HP / 0.37KW
-P-DP 200 PP SS316	0-200 LPH	10 BAR	10 mm	0.5HP / 0.37KW
I-P-DP 300 PP SS316	0-300 LPH	10 BAR	20 mm	1.0HP / 0.74KW
I-P-DP 500 PP SS316	0-500 LPH	10 BAR	20 mm	1.0HP / 0.74KW
I-P-DP 1000 PP SS316	0-1000 LPH	10 BAR	20 mm	1.0HP / 0.74KW





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HYDRAULICALLY ACTUATED OPERATED

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#### HYDRAULIC ACTUATED DIAPHRAGM PTFE HEAD PUMP

Hydraulic Actuated Diaphragm PTFE Head Pump offered are developed in accordance with defined mechanical standards and compliances as followed internationally. Coming with hydraulic by-pass drive mechanism which makes these suitable for use in water and waste water treatment chemicals, these also feature compact, light weight finish which makes them economical in terms of performance. Further, its hydraulically operated working support also makes them suitable for safe and secure handling of aggressive chemicals. We also provide these pumps with support of pressure sensing device that allows sensing of rupture of any one of diaphragms.

#### **FEATURES**

- Precision engineered range of pumps developed in accordance with defined mechanical standards and compliance as followed internationally
- Featuring hydraulic by-pass drive mechanism which makes these suitable for use in water and waste water treatment chemicals
- Featuring compact, light weight finish which makes them economical in terms of performance
- Coming in corrosion resistant finish, these can be made available in different working capacities
- Hydraulically operated working support also makes these suitable for safe and secure handling of aggressive chemicals
- Coming with hermetic sealing support
- Comes with support of pressure sensing device that allows sensing of rupture of any one of diaphragms
- Coming with detachable liquid head of drive side which makes them suitable for use in hazardous conditions e

#### **APPLICATION**

Because of its compact size, durable construction, and reliable performance, the metering pump has applicability in a wide variety of applications. The most common applications include the injection of chemicals such as coagulants, biocides, disinfectants, polymers, softening agents, acids and bases for pH control, scale and corrosion inhibitors, oxygen scavengers, process additives, and many more.

Water and wastewater treatment. Water and wastewater must be treated efficiently, costeffectively and within the appropriate quality standards. Not only can pumps effectively and safely deliver a wide range of chemical additives, they are well-known for their reliability. With preventative maintenance, these metering pumps can perform at peak levels for decades, leading to less shutdowns and long-term cost benefits.

**Chemical and petrochemical processing.** The durable design of the pump enables it to effectively withstand the toxic nature of processing fluids while its flow control capability can endure temperature and pressure variations during production.

**Oil and gas production.** pumps are ideal for onshore oil and natural gas production because it can consistently inject methanol, corrosion inhibitors, oxygen binders, and other corrosive substances in the harshest conditions in the most remote locations.

# I-H-DP Series



# **OVERVIWE**

- Hydraulically driven high performance diaphragm liquid end
- Steady State Accuracy of +1% if rated flow
- Repeatability +3%
- Linearity +3%
- Turn Down Ratio 10:1
- Accurate flow adjustment through 10 Turn Knob rotation
- Amplitude modulated positive stroke return by Sliding Crank mechanism
- Robust Cast Iron construction
- Stroke adjustment : Can be adjusted while pump is running or stopped
- Oil bath lubrication for all drive components
- High precision Check Valves
- Maximum Liquid Temperature upto 150'C
- Capacity adjustment by
  - Lockable micrometer stroke adjustment(Std)
  - Variable Speed Drive (Optional)
- Liquid end Material of Construction in SS-316, other materials on request
- End connections available in both threaded & Flanged versions

# **PRODUCT DERAILS**

Flow Rate	0-3000 LPH	
Pressure	0-200 Kg/Cm2.	
Liquid End Parts	Ss304, SS316, PTFE, P.P.CPVC & PVC	
System Contains	RV, Vaccum Assembly & Pressure Gauge	
Brand	INFIDOSE	
Material	PTFE	