

SAMJIN HYDRAULIC TYPE METERING PUMPS
for Chemical/Petrochemical Industries and
Textile/Paper/General Industries

SIC

Hi-Reliability
Hi-Endurance

NEW
HM3 Series



 **SAMJIN Industrial Co., Ltd.**

Features and Uses

SAMJIN metering pumps have been manufactured since 1991 by our own research and development.

These pumps are mainly used for chemical and petrochemical industry and general industries with high quality control, high efficiency, reliability and durability.

■ Features

1) Long durability

Crank and cam are manufactured with special material suitable for high speed revolution. Special oil supply system was applied to the rotating part. Durable and flexible diaphragm with PTFE material enables high reliability and long durability.



2) High accuracy / High linearity

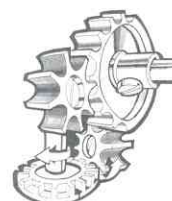
Steady discharge flow accuracy within $\pm 3\%$ over turn down ratio of 100:10 by flow controller.

Steady discharge pressure accuracy within $\pm 1\%$ over turn down ratio of 100:10.



3) Versatile combination

Multiplex combinations, i.e, duplex, triplex and quadruple are available for different liquids or same liquid without causing particular pulse.



4) Versatile flow control system

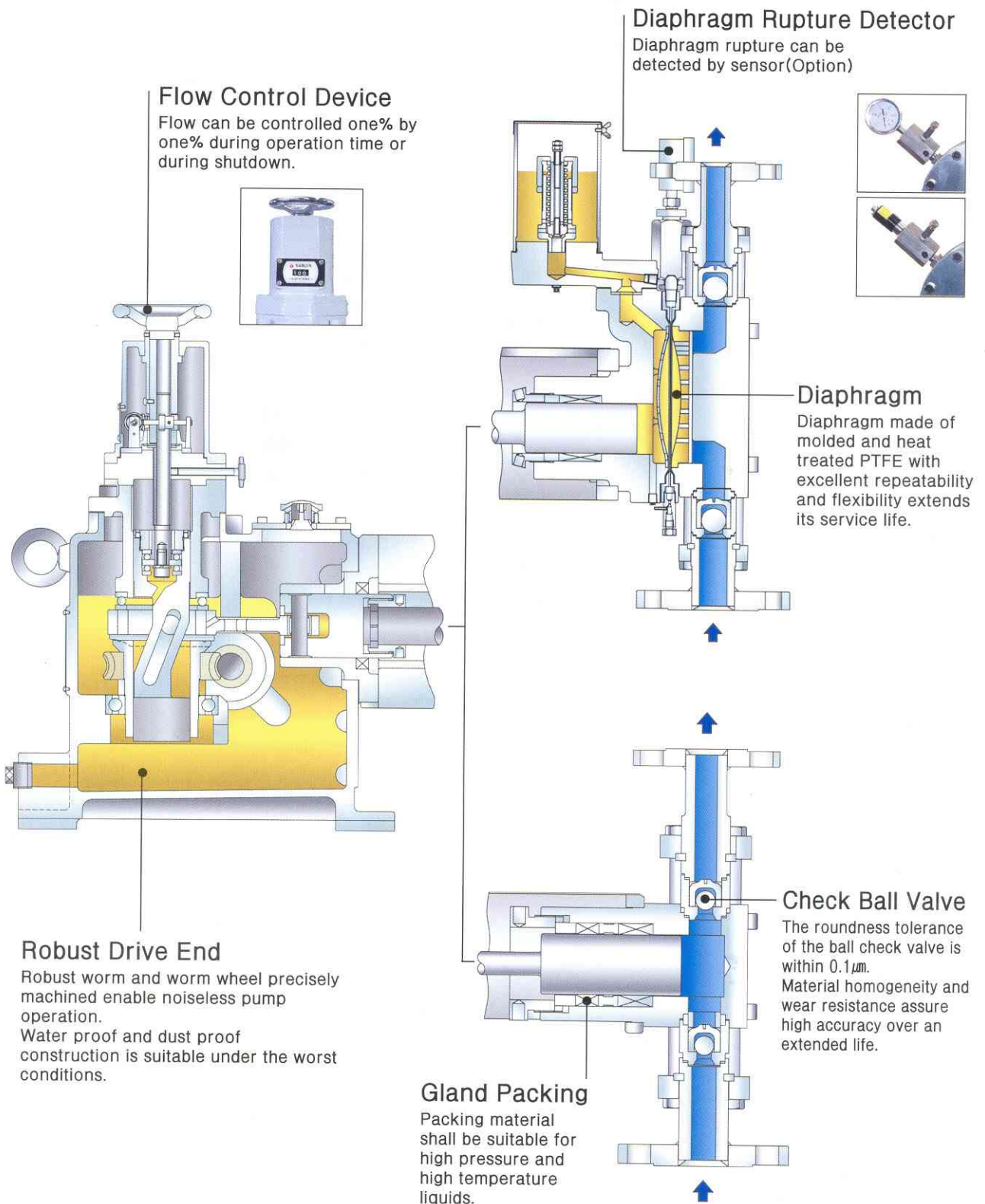
Process automation is available by proportional injection incorporated with the external input signal utilizing servo motor, air cylinder, air motor, stroke counter, inverter motor and variable speed motor etc.



■ Uses

Used for various liquid handled in chemical and petrochemical industries, textile, paper, plastic, synthetic rubber, fat/food industries and waste water treatments.

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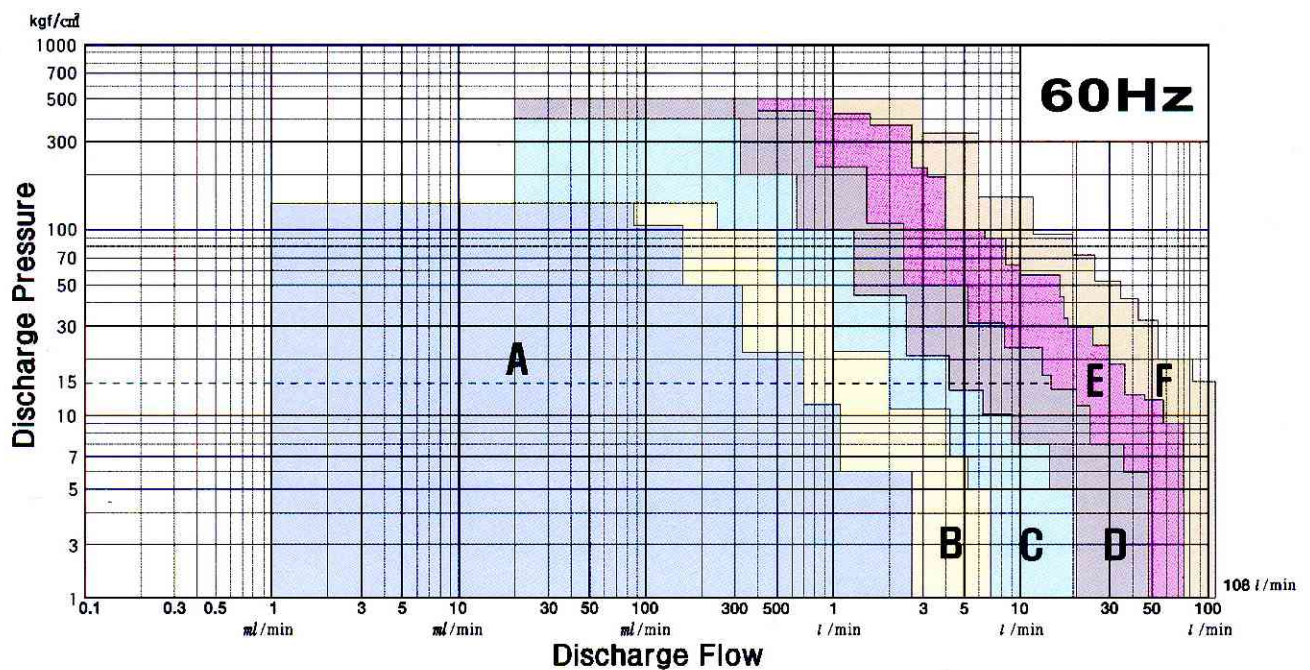
Technical Specifications

60Hz

■ HM3 Series Specifications

Discharge Flow	Max. 108 ℓ /min	Frequency	60 Hz
Discharge Pressure	Max. 500 kgf/cm ²	Motor Output	0.2 kW~15 kW
Liquid Temp	Max. 500 °C	No. of Poles	4P
Viscosity	Max. 25000 cP	Rated Voltage	220V, 230V, 380V 440V, 460V, 480V
Liquid End Material	Stainless Steel, Nickel Alloy, Carpenter 20, Hastelloy, Titanium, Zirconium	Explosion Proof Grade	Flameproof type (Outdoor) Increased safety type (Outdoor)

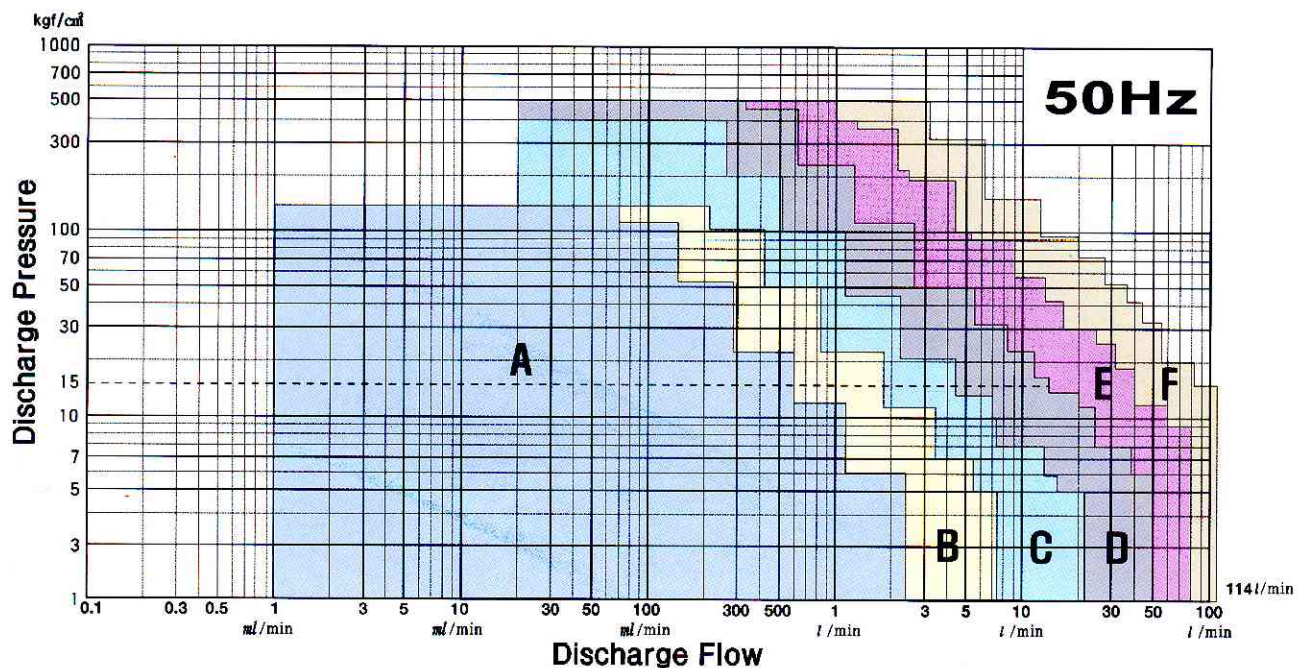
■ HM3 Series Performance Curves



■ HM3 Series Specifications

Discharge Flow	Max. 114 ℓ /min	Frequency	50 Hz
Discharge Pressure	Max. 500 kgf/cm ²	Motor Output	0.2 kW~15 kW
Liquid Temp	Max. 500 °C	No. of Poles	4P
Viscosity	Max. 25000 cP	Rated Voltage	200V, 380V, 400V
Liquid End Material	Stainless Steel, Nickel Alloy, Carpenter 20, Hastelloy, Titanium, Zirconium	Explosion Proof Grade	Flameproof type (Outdoor) Increased safety type (Outdoor)

■ HM3 Series Performance Curves



Check List for Selection

■ Items to be checked for model selection

1) Uses	Item No.		

2) Liquid characteristics			
Liquid name	Temperature (max./nor./min.)		°C
Spec.Grav.	Vapor pressure		kgf/cm ² G
Concentration	Compressibility		
Viscosity (max./nor./min.)	cp	Specific heat	kcal/kgf°C
Melting point	Corrosiveness		
Slurry condition	Slurry name		
Slurry content rate	Slurry spec. grav.		
Slurry particle size	_____		

3) Operation condition			
Flow(max./nor./min.)	m ³ /h	Head(max./nor./min.)	m
Suction pressure(max./nor./min.)	kgf/cm ² G	Discharge pressure(max./nor./min.)	kgf/cm ² G
Differential pressure(max./nor./min.)	kgf/cm ² G	NPSHa	m
Flow controller type	_____		
Ambient temperature(max./nor./min.)	°C	Daily operation hour(max./nor./min.)	hours

4) Power source	Phase × Frequency × Voltage		

5) Piping condition			
Suction flange spec.	Discharge flange spec.		
Other auxiliary piping spec.	_____		

6) Material specification	_____		

7) Pump specification			
Flow	m ³ /h	Head	m
Suction flange bore	mm	Discharge flange bore	mm
NPSH r	m	Minimum flow	m ³ /h

8) Motor specification			
Power source	Phase ×	Hz ×	V
Explosion proof grade	Insulation class		
Starting method	Protecting sensor		
Conduit tap.	Enclosure grade		
Location(indoor/outdoor)	_____		

9) Delivery	_____		

10) Other requirement	_____		

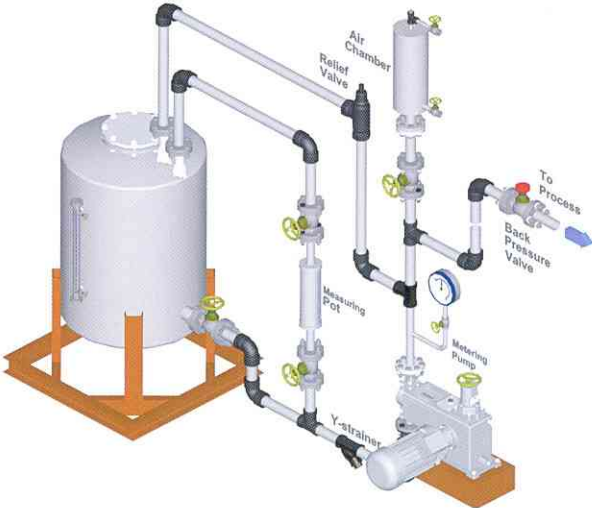
Types of Installations

■ Side View Illustration

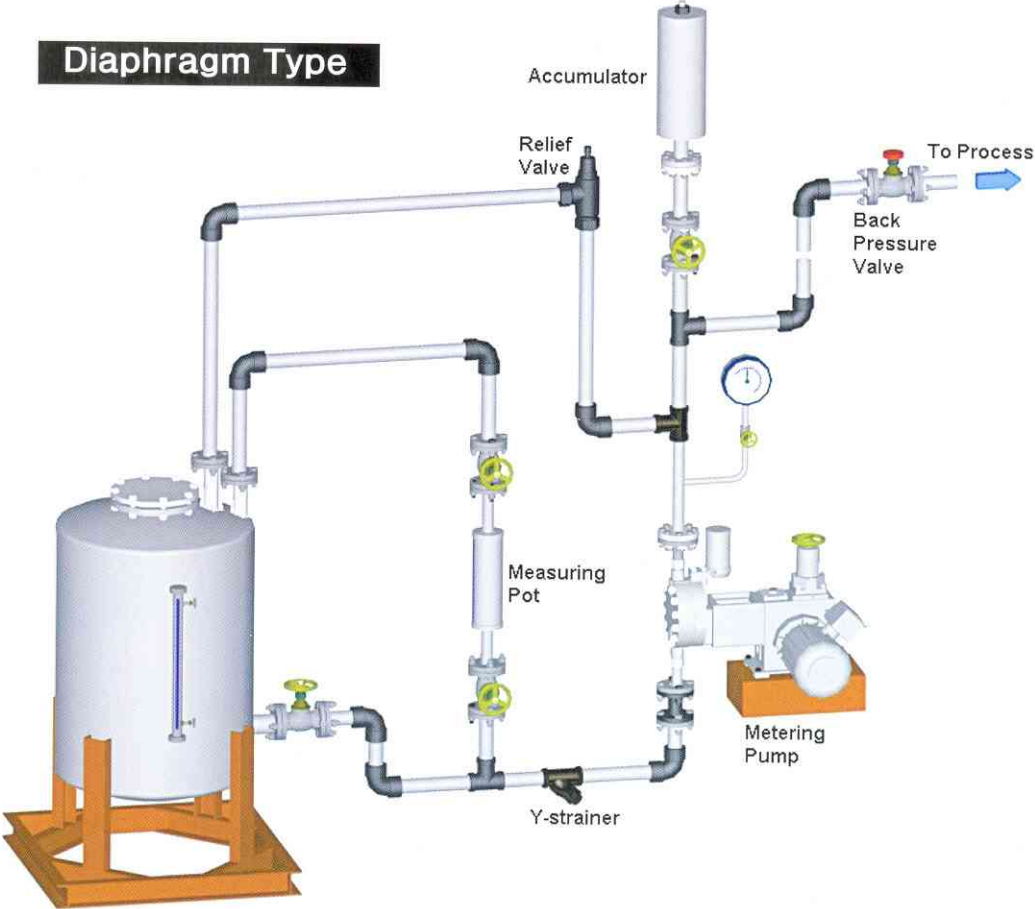
Diaphragm Type



Plunger Type



Diaphragm Type



SIC
CAT. NO. 20040604

**SAMJIN HYDRAULIC TYPE
METERING PUMPS**

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