

MEGARROYAL® Series Diaphragm Process Pump

*Expanded Range
to 252 bar
(3,655 psi)*



The **Power** to Perform

Optimal leak-proof performance for high-volume chemical injection

Designed for your most critical industrial processing needs, the MEGARROYAL process pump provides a reliable, leak-proof performance in a convenient design.

Engineered for the injection and transfer of hazardous chemicals, the MEGARROYAL is capable of handling flow rates of up to 12,680 gph or 211 gpm (48 m³/h or 800 L/min) with discharge pressures to 3,655 psi (252 bar) in a footprint that is up to 25% smaller when compared to similar competitive options.

The MEGARROYAL pump provides the reliability you expect from Milton Roy with the power you want to meet all your chemical dosing needs.



Applications:

- Oil & Gas – applications requiring high pressure liquid injection and transfer to prevent hydrate formation, reduce corrosion, scales and much more.
- Chemical and Petrochemical Processing – metering of chemicals in refinery processes such as separation / distillation, transformation / conversion and finishing/refining of products.
- Water Treatment and General Industry - Slurry fluid transfer such as bauxite, coal water slurry and sewage.
- Ideal for industries requiring zero-leakage and control of critical process liquids.

Specifications:

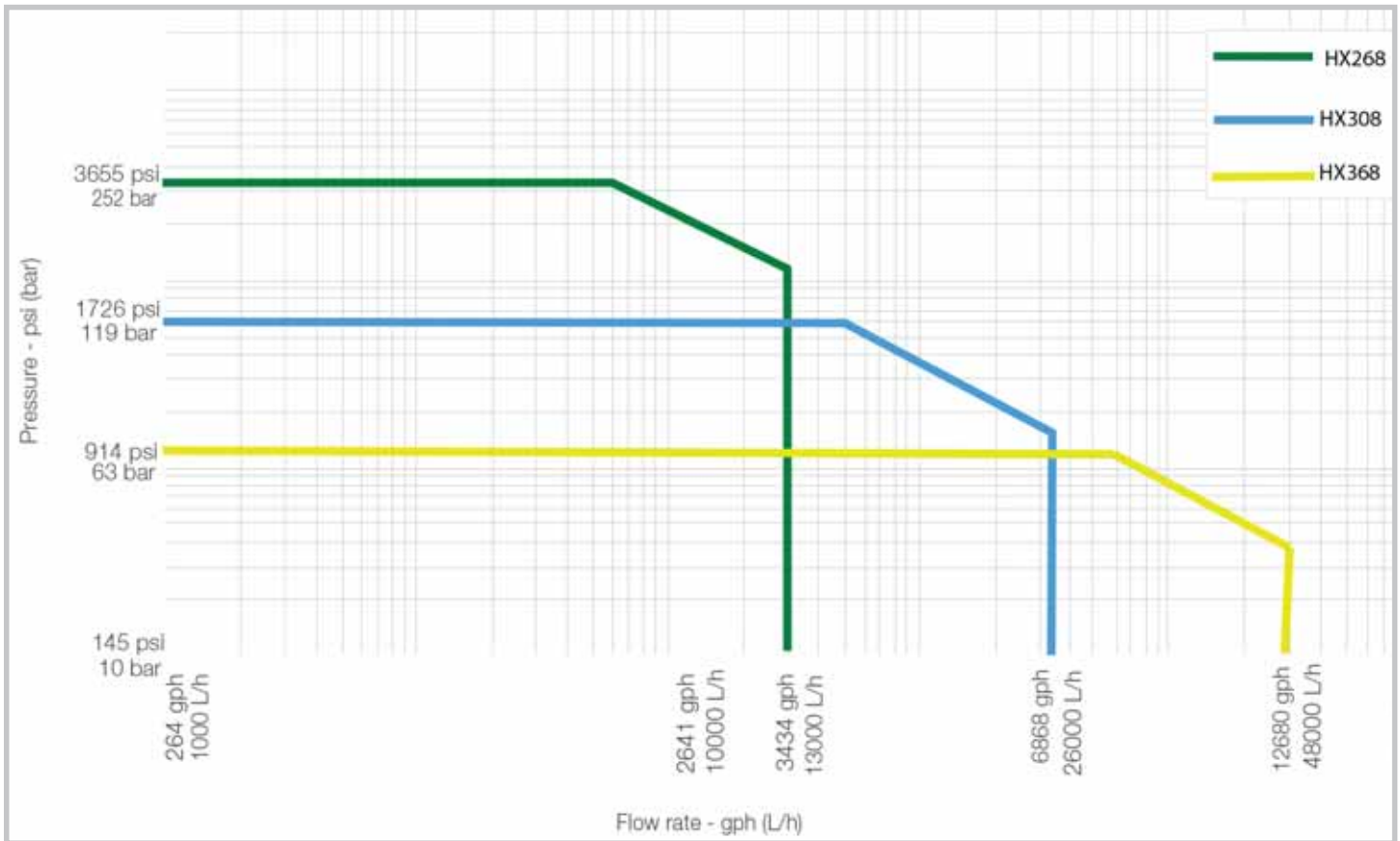
- Maximum capacity: 12,680 gph or 211 gpm (48 m³/h or 800 L/min)
- Maximum discharge pressure: 3,655 psi (252 bar)
- Maximum motor power: 100 hp (75 kW)
- Pumped fluid temperature: 14°F to 203°F (-10°C to 95°C)
- Capacity adjustment: By variable frequency drive (VFD) with variable frequency motor

Features and Benefits:

- High reliability in critical chemical delivery applications for optimum performance.
- Compact design with a 25% smaller footprint, making it the right fit when space is limited.
- Patented diaphragm design with service life of over 20,000 hours reduces maintenance costs while protecting against leakages.
- Unique lubrication system reduces wear, minimizes maintenance, and extends equipment life.
- Equipped with a double-diaphragm detection system to monitor via local or remote alarm in the unlikely event of a rupture.
- API 675 compliant*

*Consult factory for details

Flow and Pressure Range



HX268



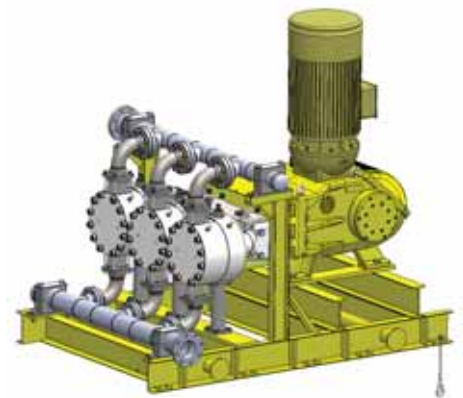
Application: Chemicals
 Fluid: Heavy Oil
 Temp: 166° F / 130° C
 Capacity: 39.6 & 50.6 gph / 9 m³/h & 11.5 m³/h
 Pressure: 1,465 psig / 101 barg
 Motor Power: 55kW/75kW

HX308



Application: Oil & Gas
 Fluid: Condensate
 Temp: 98° F / 36.5° C
 Capacity: 6.6 - 79.5 gph / 3.78-18 m³/h
 Pressure: 667 psig / 46 barg
 Motor Power: 45kW

HX368



Application: Chemicals
 Fluid: PH=2~5 Acid water
 Temp: 140° F / 60° C
 Capacity: 141 gph / 32 m³/h
 Pressure: 696 psig / 48 barg
 Motor Power: 75kW

Features

Critical Sub-Assembly

Provides Operating Efficiencies and Savings

Features and Benefits

- Wear-resistant copper alloy worm gear, runs efficiently and provides a long service life.
- Moving parts lubricated in oil bath to reduce wear.
- Connecting rods with standard bearing for convenient maintenance.
- Unique cross-head seal structure protects against leakage.
- Forged alloy steel crankshaft ensures reliable performance and a long product life.
- Advanced bearing configuration, maintains a smooth and predictable movement of the suction and discharge.

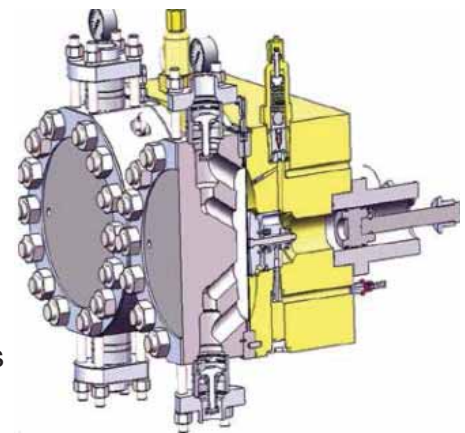


Unique 3-headed Liquid-End

Achieves high discharge pressures to 3,655 psig / 252 bar

Features and Benefits

- Leak-resistant design protects the process and the environment from dangerous and costly contamination.
- Patented diaphragm design with service life over 20,000 hours reduces maintenance costs while protecting against leakages.
- Integrated air-bleed valve for accurate “control” of flow.
- Patented MARS refill system automatically controls the hydraulic oil to protect the diaphragm from rupture while increasing the overall pump reliability and reducing maintenance time and expense.
- Equipped with a double-diaphragm detection system to monitor via local or remote alarm in the unlikely event of a rupture.



Multiple Options Available

The MEGAROYAL pump offers a variety of options to customize the pump to meet specific application requirements. Contact the factory for details.

Features & Benefits

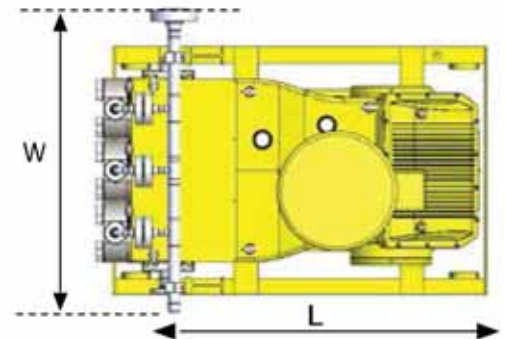
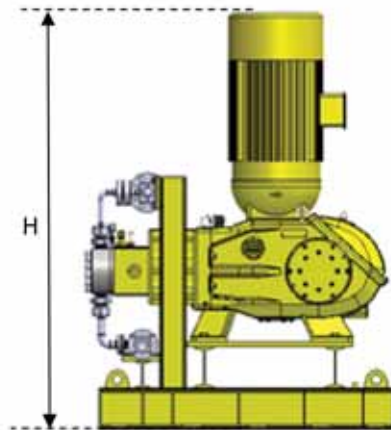
- Specially designed suction and discharge valves for the greatest pump efficiency.
- Consistent performance in low and high temperatures.
- Jacket insulation provides added protection.
- Specific design to handle difficult to pump slurry applications with ease.
- Choose from a variety of liquid end materials to meet your specific application requirements.
- Built with corrosion-resistant materials to withstand the harshest environments and applications.

Dimensions

HX268	
in.	79.3 × 68.9 × 99.6
mm	2015 × 1750 2530

HX308	
in.	106.8 × 75.2 × 99.6
mm	2715 × 1910 × 2530

HX368	
in.	115.4 × 83.9 × 99.6
mm	2930 × 2130 2530



TYPE HX 268 - 50 and 60 Hz Motors

Plunger Diameter Code	Swept Volume	50 Hz Motor						60 Hz Motor						Connections	Check Valve
		Stroke Speed Max.	Motor Speed Max.	Flow Rate Max. L/h		P. Max Suction (bar)	Max. Pres. (bar) @ 75 kW	Stroke Speed Max.	Motor Speed Max.	Flow Rate Max. gph		P. Max Suction (psi)	Max. Pres. (bar) @ 100 hp		
				@ 10 bar	@ P. Max.					@ 145 psi	@ P. Max.				
55	285.1	146	1440	6968	5582	70	252	140	1728	1770	1418	1015	3654	Inlet 4"-HH3, Outlet 3"-HH3	Ø50-NS
60	339.3	146	1440	8471	6982	70	212	140	1728	2152	1774	1015	3074	Inlet 4"-HH3, Outlet 3"-HH3	Ø50-NS
63	374.1	146	1440	9336	7766	64	192	140	1728	2372	1973	931	2784	Inlet 4"-HH3, Outlet 3"-HH3	Ø50-NS
65	398.2	146	1440	9941	8362	60	181	140	1728	2526	2124	874	2622	Inlet 4"-HH3, Outlet 3"-HH3	Ø50-NS
70	461.8	146	1440	11530	9952	52	155	140	1728	2928	2528	754	2248	Inlet 4"-HH3, Outlet 3"-HH3	Ø50-NS
75	530.1	146	1440	13236	11564	45	135	140	1728	3361	2938	657	1958	Inlet 4"-HH3, Outlet 3"-HH3	Ø50-NS

TYPE HX 308 - 50 and 60 Hz Motors

Plunger Diameter Code	Swept Volume	50 Hz Motor						60 Hz Motor						Connections	Check Valve
		Stroke Speed Max.	Motor Speed Max.	Flow Rate Max. L/h		P. Max Suction (bar)	Max. Pres. (bar) @ 75 kW	Stroke Speed Max.	Motor Speed Max.	Flow Rate Max. gph		P. Max. Suction (psi)	P. Max. (bar) @ 100 hp		
				@ 10 bar	@ P. Max.					@ 145 psi	@ P. Max.				
80	603.2	146	1440	15058	13315	40	119	140	1728	3825	3383	577	1725	Inlet 5"-HH3, Outlet 4"-HH3	Ø70-NS
85	680.9	146	1440	17000	15175	35	105	140	1728	4319	3855	511	1522	Inlet 5"-HH3, Outlet 4"-HH3	Ø70-NS
90	763.4	146	1440	19059	17138	31	94	140	1728	4842	4354	456	1363	Inlet 5"-HH3, Outlet 4"-HH3	Ø70-NS
95	850.6	146	1440	21236	19224	28	84	140	1728	5395	4883	409	1218	Inlet 5"-HH3, Outlet 4"-HH3	Ø70-NS
100	942.5	146	1440	23530	21796	25	76	140	1728	5977	5537	369	1102	Inlet 5"-HH3, Outlet 4"-HH3	Ø70-NS
105	1039.1	146	1440	25942	24167	23	69	140	1728	6590	6139	335	1000	Inlet 5"-HH3, Outlet 4"-HH3	Ø70-NS

TYPE HX 368 - 50 and 60 Hz Motors

Plunger Diameter Code	Swept Volume	50 Hz Motor						60 Hz Motor						Connections	Check Valve
		Stroke Speed Max.	Motor Speed Max.	Flow Rate Max. L/h		P. Max Suction (bar)	Max. Pres. (bar) @ 75 kW	Stroke Speed Max.	Motor Speed Max.	Flow Rate Max. gph		P. Max. Suction (psi)	P. Max. (bar) @ 100 hp		
				@ 10 bar	@ P. Max.					@ 145 psi	@ P. Max.				
110	1140.4	146	1440	28471	26585	21	63	140	1728	7233	6754	305	913	Inlet 6"-HH3, Outlet 5"-HH3	Ø110-NS
115	1246.4	146	1440	31118	29153	19	57	140	1728	7905	7406	279	826	Inlet 6"-HH3, Outlet 5"-HH3	Ø110-NS
120	1357.2	146	1440	33883	31894	18	53	140	1728	8608	8102	256	768	Inlet 6"-HH3, Outlet 5"-HH3	Ø110-NS
125	1472.6	146	1440	36765	34830	16	48	140	1728	9340	8848	236	696	Inlet 6"-HH3, Outlet 5"-HH3	Ø110-NS
130	1592.8	146	1440	39766	37761	15	45	140	1728	10102	9593	219	652	Inlet 6"-HH3, Outlet 5"-HH3	Ø110-NS
135	1717.7	146	1440	42883	40889	14	41	140	1728	10894	10387	203	594	Inlet 6"-HH3, Outlet 5"-HH3	Ø110-NS
140	1847.3	146	1440	46119	44047	13	39	140	1728	11716	11190	188	565	Inlet 6"-HH3, Outlet 5"-HH3	Ø110-NS
145	1981.6	146	1440	49472	47389	12	36	140	1728	12568	12039	176	522	Inlet 6"-HH3, Outlet 5"-HH3	Ø110-NS

Notes:

About Ingersoll Rand Inc.

Ingersoll Rand Inc. (NYSE:IR), driven by an entrepreneurial spirit and ownership mindset, is dedicated to helping make life better for our employees, customers and communities. Customers lean on us for our technology-driven excellence in mission-critical flow creation and industrial solutions across 40+ respected brands where our products and services excel in the most complex and harsh conditions. Our employees develop customers for life through their daily commitment to expertise, productivity and efficiency. For more information, visit www.IRCO.com.



To learn more about the MEGAROYAL® Series, contact your local representative or visit www.miltonroy.com.

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