

Piston Accumulator



Description

Piston accumulators are hydraulic components used to store energy in a hydraulic system. They function by using a piston to separate two fluids: typically, a hydraulic fluid and a compressible gas (such as nitrogen).

Functions of piston accumulators include:

- Energy Storage
- Pulsation
- Impact Absorption(Decrease)
- Leakage Compensation
- Volume Compensation
- Vibration Absorption
- Balance
- Fluid Separation

In summary, piston accumulators are crucial for optimizing the performance and efficiency of hydraulic systems by storing and regulating energy, reducing pressure fluctuations, and enhancing overall system stability.

Advantages:

- **Efficient Energy Storage:** They can store a significant amount of energy in a relatively small volume.
- **Improved System Performance:** By stabilizing pressure and absorbing shocks, they contribute to smoother operation and reduced wear on other system components.
- **Reduced Pump Wear:** By providing supplemental pressure and energy, they can reduce the load on hydraulic pumps.

Corrosion Protection

For use with certain aggressive or corrosive fluids, or in a corrosive environment, MILEHERTZ offers protective coatings and corrosive resistant materials (*i.e. stainless steel*) for the parts that interface with the fluid or are exposed to the hostile environment.

Mounting Position

MILEHERTZ piston accumulators operate in any position. Vertical installation is preferable with the gas side at the top, to prevent contaminant particles from the fluid settling on the piston seals. For hydraulic accumulators with certain piston position indicators, vertical installation is essential.

System Mounting

MILEHERTZ piston accumulators are designed to be screwed directly onto the system(less than 1L). For strong vibrations and volumes above 1L, fixed with bracket or accumulator mounting sets are recommended to minimize the risk of failure due to system vibrations.

Applications

Several applications possible, e.g. in:

- **Pressure Stabilization:** They help maintain consistent pressure in hydraulic systems, compensating for pressure fluctuations.
- **Energy Storage:** They store energy that can be used to absorb shocks or sudden demands in the system.
- **Shock Absorption:** They can dampen pressure spikes and reduce the impact of sudden changes in system load.
- **Leak Compensation:** They help compensate for fluid leaks or losses in the system by providing a reserve of hydraulic fluid.

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Model Code

HXQ L / 20 - 10 - Y

Product Name: _____

HXQ:Piston Accumulator

Connection Type: _____

L: Thread connection

F: Flange connection

Nominal Volume: _____

$$0.22 = 0.22 \text{ Liters}$$
$$0.49 = 0.49 \text{ Liters}$$
$$1 \text{ } = \text{ } 1\text{Liters}$$

2 = 2Liters

$$2.5 = 2.5 \text{ Liters}$$

...see tables on following pages for complete list of sizes, and which versions they are available in

200 = 200Liters

250 = 250Liters

300 = 300Liters

350 = 350Liters

Nominal Pressure: _____

10: 10Mpa

20: 20Mpa

31.5: 31.5Mpa

Custom made(10~99Mpa)

Working Medium: _____

Y: Hydraulic oil

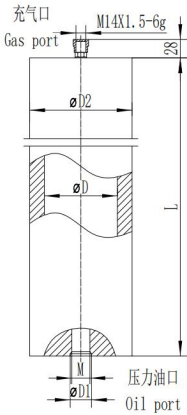
R: Emulsion

Q: Others

Charging Valve Port : M14X1.5

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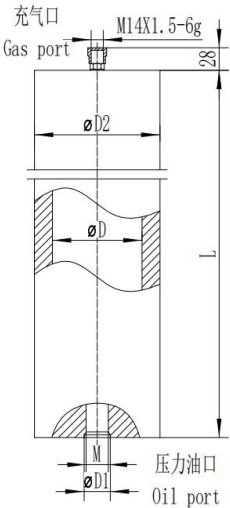
Dimensions



Model	Nominal Pressure(MPa)	Volume(L)	Dimensions(mm)					Weight(kg)		
			ΦD	M	ΦD1	ΦD2	L			
HXQ-※-0.22/※-※-※	10~99	0.22	63	M22×1.5	35	83	225	7.1		
HXQ-※-0.49/※-※-※		0.49					310	8.5		
HXQ-※-1/※-※-※		1					470	11.5		
HXQ-※-2/※-※-※		2					795	17.5		
HXQ-※-1/※-※-※	10~35	1	80	M27X2		108	380	22		
HXQ-※-2/※-※-※		2					580	28		
HXQ-※-2.5/※-※-※	10~99	2.5	100			127	510	31		
HXQ-※-3.5/※-※-※	10~35	3.5					640	36		
HXQ-※-5/※-※-※		5					830	44		
HXQ-※-6/※-※-※		6					955	49		
HXQ-※-7.5/※-※-※		7					1145	57		
HXQ-※-2/※-※-※	10~35	2	125	M42X2	50	163	390	44.5		
HXQ-※-4/※-※-※		4					555	55.5		
HXQ-※-5/※-※-※		6					635	61		
HXQ-※-6/※-※-※		6					715	66.5		
HXQ-※-6/※-※-※		6	150			194	600	86		
HXQ-※-8/※-※-※		8					715	97		
HXQ-※-10/※-※-※		10					830	107.5		
HXQ-※-12/※-※-※		12					940	118		
HXQ-※-10/※-※-※			180			M60X2	70	219	670	90.5
HXQ-※-16/※-※-※		16							910	114
HXQ-※-25/※-※-※		25							1250	146
HXQ-※-32/※-※-※		32							1540	174
HXQ-※-35/※-※-※	35	1655		198						
HXQ-※-40/※-※-※	40	1850		218						
HXQ-※-45/※-※-※	45	2050		238						
HXQ-※-50/※-※-※	50	2245		258						
HXQ-※-25/※-※-※	20	25	195	1116	121.5					
HXQ-※-30/※-※-※		30		1285	131.5					
HXQ-※-40/※-※-※		40		1620	151.5					
HXQ-※-50/※-※-※		50		1955	172.5					
HXQ-※-40/※-※-※	10~35	40		200		245	1615	280.5		
HXQ-※-45/※-※-※		45					1770	301.5		
HXQ-※-50/※-※-※		50					1930	322.5		
HXQ-※-60/※-※-※		60					2250	365.5		
HXQ-※-20/※-※-※		20		220			267	850	192	
HXQ-※-32/※-※-※		32						1165	250	
HXQ-※-40/※-※-※		40						1380	267	
HXQ-※-50/※-※-※		50						1640	323	
HXQ-※-60/※-※-※	60	1905	341							
HXQ-※-70/※-※-※		80		2430			443			

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Dimensions



型号	公称压力(MPa)	公称容积 (L)	基本尺寸(mm)					重量(kg)
			ΦD	M	ΦD1	ΦD2	L	
HXQ-※-40/※-※-※	10~35	40	250	M72X2	80	299	1025	229
HXQ-※-50/※-※-※		50					1410	263
HXQ-※-60/※-※-※		60					1615	297
HXQ-※-80/※-※-※		80					2020	364
HXQ-※-100/※-※-※		100					2430	432
HXQ-※-120/※-※-※		120					2840	500
HXQ-※-60/※-※-※		60	310			377	1245	482
HXQ-※-70/※-※-※		70					1380	525
HXQ-※-80/※-※-※		80					1510	563
HXQ-※-90/※-※-※		90					1645	605
HXQ-※-100/※-※-※		10					1775	645
HXQ-※-110/※-※-※		110					1910	686
HXQ-※-120/※-※-※		120					2040	726
HXQ-※-130/※-※-※		130					2175	770
HXQ-※-140/※-※-※		140					2305	810
HXQ-※-150/※-※-※		150					2440	850
HXQ-※-160/※-※-※		160					2570	590
HXQ-※-100/※-※-※		100	350			406	1560	730
HXQ-※-120/※-※-※		120					1770	788
HXQ-※-130/※-※-※		130					1870	817
HXQ-※-150/※-※-※		150					2080	876
HXQ-※-200/※-※-※		200					2600	1023
HXQ-※-215/※-※-※		215					2755	1067
HXQ-※-130/※-※-※		130	400			500	1620	1345
HXQ-※-150/※-※-※	150	1780		1343				
HXQ-※-180/※-※-※	180	2020		1566				
HXQ-※-200/※-※-※	200	2180		1656				
HXQ-※-250/※-※-※	250	2570		1872				
HXQ-※-350/※-※-※	350	3370		2316				

注意：1Mpa=10bar=10.2kg/cm²。