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	=	0.22Liters
0.49	=	0.49Liters
1	=	1Liters
2	=	2Liters
2.5	=	2.5Liters

...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

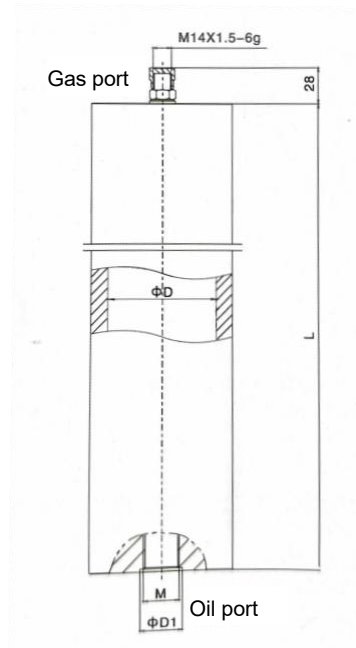Custom made(10~99Mpa)

Working Medium:

Y: Hydraulic oil

R: Emulsion

Q: Others

Charging Valve Port : M14X1.5

Piston Accumulator

Dimensions

Model	Pressure(MPa)	Volume(L)	Dimension(mm)				Weight(kg)
			ΦD	M	ΦD1	L±3	
HXQ-※-0.22/※-※-※	10~99	0.22	63	M22×1.5	35	225	9.5
HXQ-※-0.49/※-※-※		0.49				310	10.9
HXQ-※-1/※-※-※		1				470	13.8
HXQ-※-2/※-※-※		2				800	19.8
HXQ-※-0.49/※-※-※		0.49	65	M27×1.5	35	280	-
HXQ-※-1/※-※-※		1				430	-
HXQ-※-1/※-※-※		1	80			380	19.4
HXQ-※-2/※-※-※		2				580	24.3
HXQ-※-2.5/※-※-※		2.5	100	M42×2	50	530	36.5
HXQ-※-3.5/※-※-※		3.5				660	41.4
HXQ-※-5/※-※-※		5				850	48.6
HXQ-※-6/※-※-※		6				975	53.4
HXQ-※-7.5/※-※-※		7.5				1170	60.7
HXQ-※-2/※-※-※	10~35	2	125	M42×2	50	390	37
HXQ-※-4/※-※-※		4				555	48
HXQ-※-5/※-※-※		5				635	54
HXQ-※-10/※-※-※	10~35	10	180	M60×2	70	655	86.8
HXQ-※-16/※-※-※		16				890	140.4
HXQ-※-20/※-※-※		20				1050	155.8
HXQ-※-25/※-※-※		25				1250	175
HXQ-※-32/※-※-※		32				1520	200.9
HXQ-※-35/※-※-※		35				1645	213.9
HXQ-※-40/※-※-※		40				1800	227.7
HXQ-※-45/※-※-※		45				2030	249.8
HXQ-※-50/※-※-※		50				2235	270

Note:The number in bracket is the size of O-seal ring which meets GB/1235-76, 1Mpa=10bar=10.2kg/cm².

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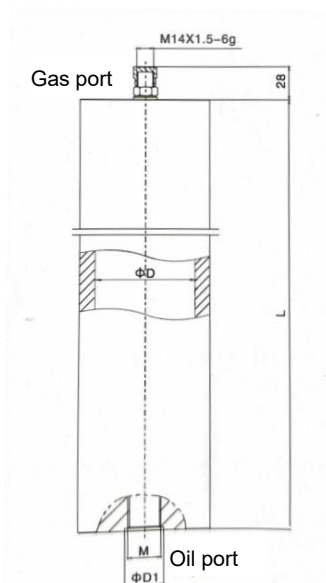
Model	Pressure(MPa)	Volume(L)	Dimension(mm)				Weight(kg)
			ΦD	M	ΦD1	L±3	
HXQ-※-8/※-※-※	20	8	195	M60×2	70	550	-
HXQ-※-10/※-※-※		10				615	-
HXQ-※-20/※-※-※		20				950	-
HXQ-※-32/※-※-※		32				1350	-
HXQ-※-40/※-※-※		40				1620	-
HXQ-※-50/※-※-※		50				1955	-
HXQ-※-20/※-※-※	10~35	20	220	M60×2	70	850	179
HXQ-※-32/※-※-※		32				1165	223
HXQ-※-40/※-※-※		40				1380	253
HXQ-※-50/※-※-※		50				1640	290
HXQ-※-60/※-※-※		60				1905	327
HXQ-※-80/※-※-※		80				2430	400
HXQ-※-40/※-※-※	10~35	40	250	M60×2	70	1205	299
HXQ-※-50/※-※-※		50				1410	334
HXQ-※-60/※-※-※		60				1615	368
HXQ-※-80/※-※-※		80				2020	435
HXQ-※-100/※-※-※		100				2430	503
HXQ-※-120/※-※-※		120				2840	572
HXQ-※-100/※-※-※	10~35	100	350	M72×2	80	1560	836
HXQ-※-120/※-※-※		120				1770	912
HXQ-※-130/※-※-※		130				1870	948
HXQ-※-150/※-※-※		150				2080	1025
HXQ-※-200/※-※-※		200				1600	1113
HXQ-※-215/※-※-※		215				2755	1171
HXQ-※-130/※-※-※	10~35	130	400	M72×2	80	1620	1136
HXQ-※-150/※-※-※		150				1780	1206
HXQ-※-180/※-※-※		180				2020	1310
HXQ-※-200/※-※-※		200				2180	1379
HXQ-※-250/※-※-※		250				2570	1548
HXQ-※-300/※-※-※		300				2965	1823
HXQ-※-350/※-※-※		350				3370	1896

Note:The number in bracket is the size of O-seal ring which meets GB/1235-76, 1Mpa=10bar=10.2kg/cm².

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