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NXQ Series
Bladder Accumulator
Operating Manual

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and oil box, and installs a pressure gage before the check-valve.

Open the check-valve slowly to let pressure oil return to oil box and watch the pressure gage simultaneously. The pointer of gage at first turn down slowly, turns down rapidly to zero at a certain point. The changed value of moving speed of pointer is the gas charging pressure.

Besides, gas charging tool could be used to inspect pressure, but gas will be discharged a bit during each inspection.

3. When accumulator is not used for a long period, the check-valve shall be closed to ensure that the oil pressure is above that charging pressure.

4. If the accumulator does not take effect, check whether there is leakage. If there is no nitrogen in the bladder and oil is out of gas-valve, please check the bladder.

5. Drain the oil before demount accumulator. First let out the nitrogen with the charging device, then the parts can be demounted.

6. If there is leakage because of loosening of nuts in the process of transportation and testing, please check that seal ring is in the slot. Place the seal ring in the right place and revolve the nut. If leakage still exists, please change the parts.

VIII. Appendix

1. Before debugging, air in the pipe shall be expelled.

2. Place a safety-valve in the oil-inlet when accumulator is larger than 10L.

3. Check the nitrogen pressure before the accumulator take effect.

4. Oxygen and flammable gas are prohibited in avoidance of explosion.

I.Functions

Accumulator functions as following in a hydraulic system: Storing of energy, stabilizing of pressure, reduction of power, compensation of leakage, absorbing of fluctuation of pressure and buffering of impact.

II. Interpretation of designation

(B)NXQ $\boxed{1}$ - $\boxed{2}$ / $\boxed{3}$ - $\boxed{4}$ - Y

NXQ:normal bladder accumulator

BNXQ: stainless steel bladder accumulator

1:Structure: A:bottom repair structure/AB:top repair structure

2:Nominal Capacity

3:Nominal Pressure

4:Connection Type: L:thread/Y:flanged

Y:Medium: hydraulic oil

III. Specification

1.Structure: Bottom repair Structure /Top repair Structure

2.Fastening Method: Dead Ring/Bearing

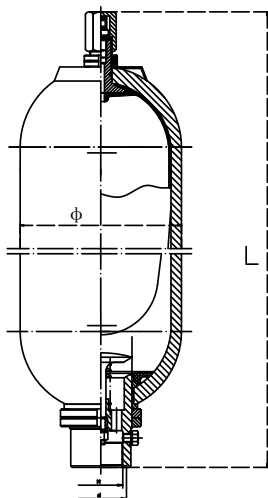
3.Installation: Vertical

4.Medium: Hydraulic Oil

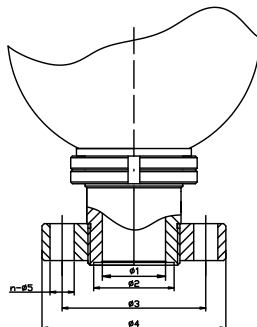
5.Working Temperature: $-10^{\circ}\text{C} \sim 70^{\circ}\text{C}$

6.Gas filled in the bladder: Nitrogen (**CAUTION!!!:PROHIBIT FROM USING OXYGEN,AIR OR OTHER NON INERT GAS!!!**)

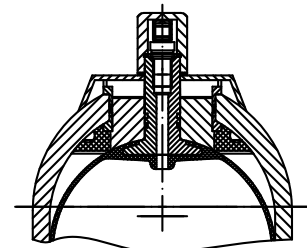
IV.Model and Size



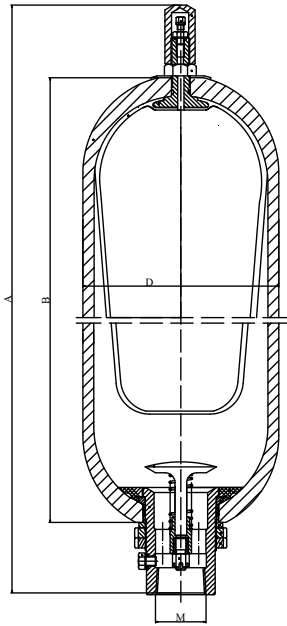
NXQA-Thread(L)



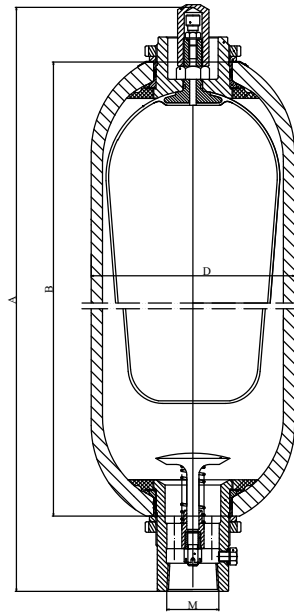
NXQA-Flange(F)



NXQAB



Bottom Repair Construction(A)



Top Repair Construction(AB)

Model	Nominal Pressure (Mpa)	Nominal capacity (L)	Size(mm)									Weight (kg)		
			M	d	Φ1	Φ2	Φ3	Φ4	n-Φ5	L	Φ			
NXQ△-0.63/*-Y	10	0.63									320		3.5	
NXQ△-1/*-Y		1									330	114	5.5	
NXQ△-1.6/*-Y		1.6	M42×2	50	42	50	97	130	6-Φ17			365	152	12.5
NXQ△-2.5/*-Y		2.5										430		15
NXQ△-4/*-Y		4										540		18.5
NXQ△-6.3/*-Y		6.3										710		25.5
NXQ△-10/*-Y	10		M60×2	70	55	65	125	160	6-Φ21			219	48	
NXQ△-16/*-Y	16	870											63	
NXQ△-20/*-Y	20	985											72	
NXQ△-25/*-Y	25	1170											84	
NXQ△-32/*-Y	32	1400											101	
NXQ△-40/*-Y	40	1680											119	
NXQ△-20/*-Y	20	20	M72×2	80	70	80	150	200	6-Φ26			299	92	
NXQ△-25/*-Y		25											780	105
NXQ△-40/*-Y		40											1050	135
NXQ△-50/*-Y		50											1230	161
NXQ△-63/*-Y		63											1470	191
NXQ△-80/*-Y		80											1810	241
NXQ△-100/*-Y	100										2190		290	
NXQ△-150/*-Y	31.5	150	M80 ×3.1	90	80	90	170	230	6-Φ26		2450	351	445	
NXQ△-125/*-Y		125	M100	100	110	130	220	255	8-Φ26		1660	426	430	
NXQ△-160/*-Y		160	×3.1								1985		482	

V. Installation

1. Accumulator shall be installed vertically with the gas valve upright. Inspection space shall be retained near gas valve.
2. Accumulator shall be fixed tightly on the supporter or wall.
3. When used for buffering and absorbing the fluctuation, accumulator shall be placed near the fluctuation source.
4. Check valve shall be placed between accumulator and hydraulic pump to prevent return flow of oil for the accumulator when the electric machine of pump stops working.
5. Stop valve shall be placed between accumulator and pipe system to be used in gas charging, draining speed adjusting or long term stopping.
6. Welding shall not be applied in fixing the accumulator.

VI. Charging of Nitrogen

1. Accumulator shall be inspected before nitrogen is charged.
2. Nitrogen shall be charged slowly to ensure the bladder be not broken by quickly charging.
3. Oxygen, compact air or other flammable gas shall not be used.
4. Gas charging tool shall be used in charging the Nitrogen. Gas charging tool is inseparable part of accumulator to be used in charging, draining, measuring and adjusting the charging pressure.

Specifications of gas charging tools (Choose according to the pressure of the accumulator):

Pressure of Accumulator (MPa)	Model of the Gas Charging Tool	Specification of Pressure Gage		Hose Inner Dia.
		Pressure Range(MPa)	Accuracy Degree	
10	CQJ-16	0-16	1.5	Φ 6
20	CQJ-25	0-25	1.5	Φ 6
31.5	CQJ-40	0-40	1.5	Φ 6

5. Determining of charging pressure
 - 1) Buffering impact: Charging pressure shall be the normal pressure of installation site or a little above.
 - 2) Absorbing fluctuation: Charging pressure shall be 60% of average pressure of fluctuation.
 - 3) Storage of energy: Charging pressure shall be lower than 90% of minimum working pressure (generally 60%-80%) and higher than 25% of maximum working pressure.
 - 4) Compensation for hot swelling: Charging pressure shall be the minimum pressure of close circuit of hydraulic system or a little lower.

VII. Inspection and repair

1. **Inspection of leakage:** After installation, check the gas pressure in bladder every week. A month later, check every month, half a year later, check every half year.
2. **Inspection Method:** Place a check-valve in the oil pipe connects the accumulator oil-inlet