

奉化溪口文昌阁



宁波科力远液压有限公司

地址：浙江省宁波市奉化区尚田镇翁家66号

邮编：315511 电话：0574-88639848

传真：0574-88639111

E-mail：keliyy0574@163.com

网址：http://www.keliyy.net

KOREO
BLADDER ACCUMULATORS
科力远液压蓄能器



宁波科力远液压有限公司

Ningbo KELIYY HYDRULICS CO.,LTD.

Brief introduction/简介

宁波科力远液压有限公司是一家专业生产液压蓄能器及其相关配套产品的制造型企业，是中国液气密协会的骨干成员单位。公司生产的蓄能器及其附件种类繁多，规格齐全。其中，根据国标GB/T20663-2006生产的NXQ型全系列液压囊式蓄能器在国内具有很高的声誉。在此基础上，公司还提供按照美国ASME标准及欧盟PED规范要求生产的系列囊式蓄能器。另外，公司还生产HXQ系列活塞式蓄能器、FGXQ系列非隔离式蓄能器（无焊缝高压气瓶）。根据用户要求，公司还可提供蓄能器组或其他综合性的解决方案。

公司由国内最早生产液压蓄能器的“地方国营奉化液压件厂”的技术、生产、销售骨干在国企改革后重新组建，技术力量雄厚。公司具有完备的生产三类压力容器所需的一整套检验检测设备（包括力学测试、无损检测、水压试验、整机试验等设备）和生产设备。检验人员中多人持有国家级检验资格证书。为进一步提高产品的技术含量和企业的核心竞争力，公司还与浙江工业大学化机研究所建立了长期的技术合作关系，积极开展人才培训和新产品的设计开发等一系列活动。

近几年来，随着我国机械装备业的迅速崛起，液压蓄能器在生产中的应用日益广泛，几乎涉及到了现代工业的各个方面：工程机械、冶金、煤炭、石油化工、塑料机械、特种车辆、船舶、军工、航空航天等等。

我公司秉承“诚信为本、质量至上”的企业宗旨，努力为新老客户提供最优质的产品和最贴心的服务。您的成功，是我们最大的荣耀。

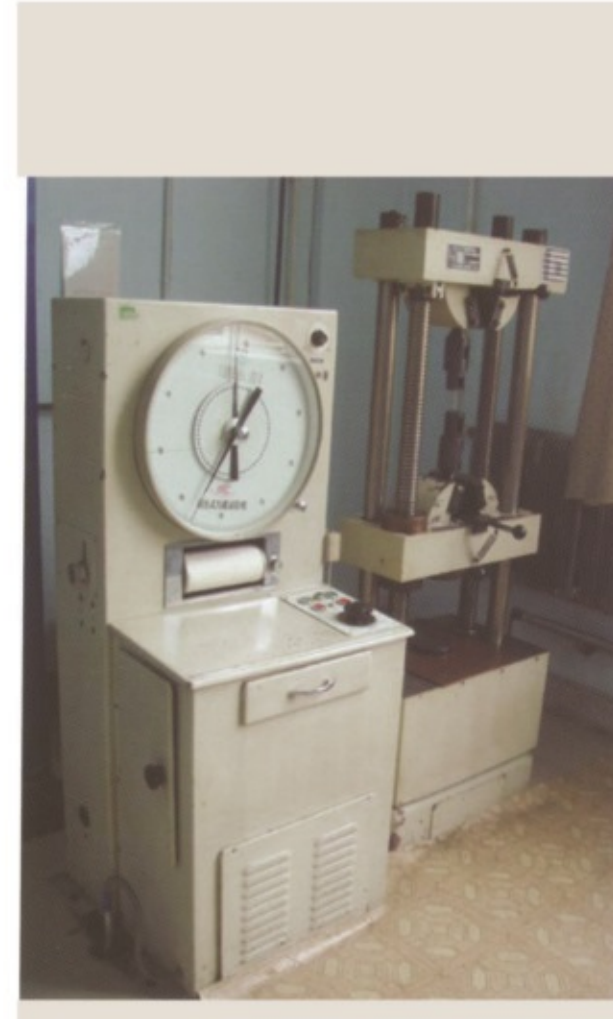
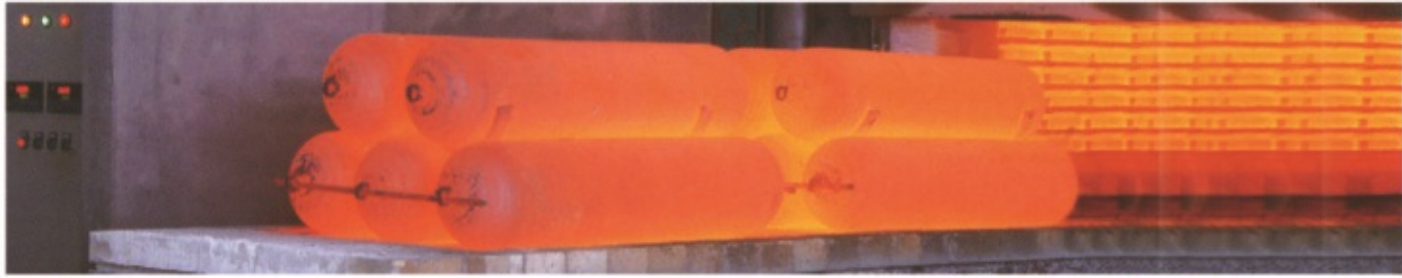
Ningbo Keliyy Hydraulic Co.,Ltd. is a well-known company in China. We are good at producing accumulators and high pressure seamless gas cylinder. We have the manufacturing license of special equipment A1, ISO9001 international quality system certification.

Our company covers an area of 6500 square meters and 3800 square meters building area. we have the advanced and complete producing, testing equipment, we also have a staff group whose main partner is professional and technical personnel, all these enable us to respond to the needs of producing, innovation, supplying and service quickly. Our products are widely used in petroleum industry, coal industry, construction machinery, chemical industry, metallurgy industry, wind power equipment, lathe and vehicle manufacturing etc. our products has formed series of varieties, the quality of the product is well accepted national wide, you can find our product from the equipment which is produced by many famous enterprises at home and abroad.

The company has a complete and effective quality assurance system of pressure vessel, set the high standards and procedures as management principles, set improving the quality to improve the value as quality management philosophy, always insists on the following policy "to attain market through high quality, to achieve effectiveness through administration, to make development through sincerity, to produce safe product, to develop international market." we abide by the company tenet of "development through sincerity" to improve our core competitiveness and make our company as a new modern and constant developing enterprise.

Our company is located in beautiful famous city of Jiangnan (the former residence of Chiang Kai-shek) - Fenghua City, where the transportation is convenient and the logistics is smooth. Pursuing the excellence, challenging the future, we sincerely welcome all customers new or old to visit our company to discuss the business, let's work together for a better tomorrow.





求实,创新,开拓,进取

企业宗旨: 诚信为本、质量至上

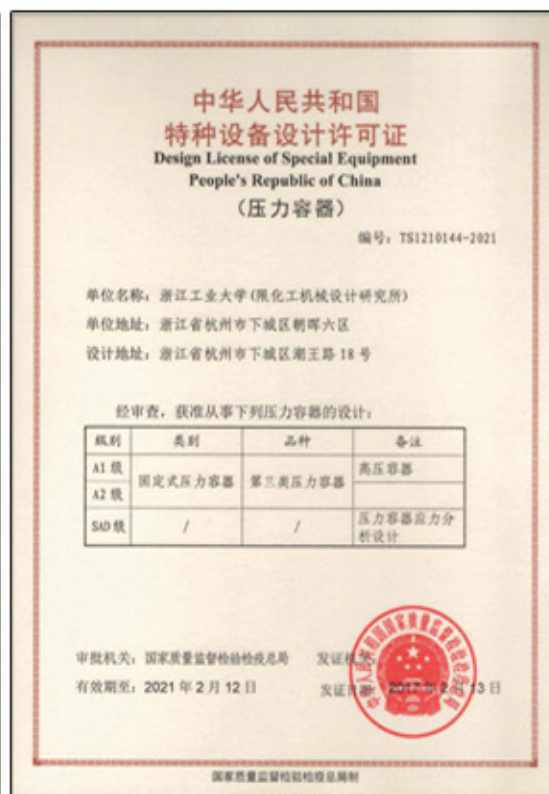
企业资质 Qualification of company

质量认证, 企业全球化的通行证, 也是企业管理的起点。

Quality certification is the passport for company globalization and also the start point for company management.



生产、设计许可证每四年换证一次



监检单位: 宁波市特种设备检测研究院

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一、产品介绍 INTRODUCTION

蓄能器是液压系统的重要组成部分，有储存能量、稳定压力、补偿漏油、吸收油压脉动和缓和冲击等多种功能。能显著降低系统额定功率，从而节约能源和操作成本。还能减少液压部件的磨损和管路的破裂，从而降低维护费用。它已广泛应用于冶金、矿山机械、石油化工设备、塑料机械、工程机械、液压机床、船舶、发电机组、水利工程、航空、包装机械、农业机械、游艺机等诸多主机产品的液压系统中。

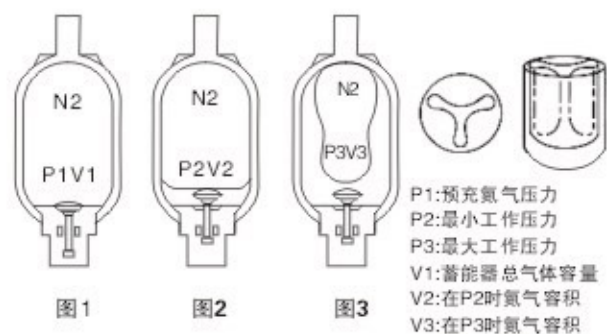
囊式蓄能器由壳体、胶囊、充气阀、油阀、放油螺塞、密封组件等零部件组成。常用蓄能器大都以石油基液压油为工作介质。工作温度在-10~+70°C之间。若工作介质改变（如淡水、海水、水-乙二醇、磷酸脂等），或工作温度超出以上温度范围，则胶囊和其他零部件需特别设计制造。用户需特殊订货。

蓄能器一般需要垂直安装，并将其固定。联接方式分螺纹和法兰两种。根据壳体上端开孔大小不同，又分为A型（1型：小开口）和AB型（2型：大开口）。AB型便于胶囊更换，因此在大规格蓄能器中被更多地选用。

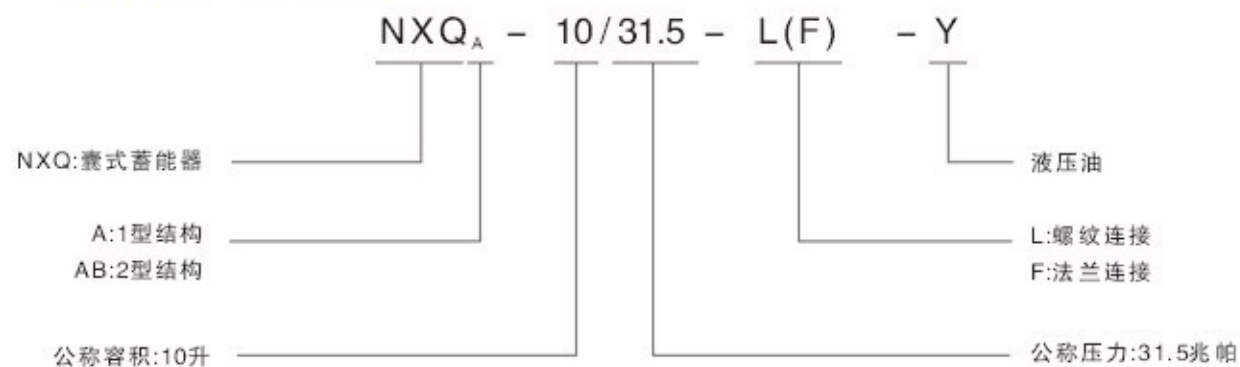


二、工作原理 THE PRINCIPLE OF OPERATION

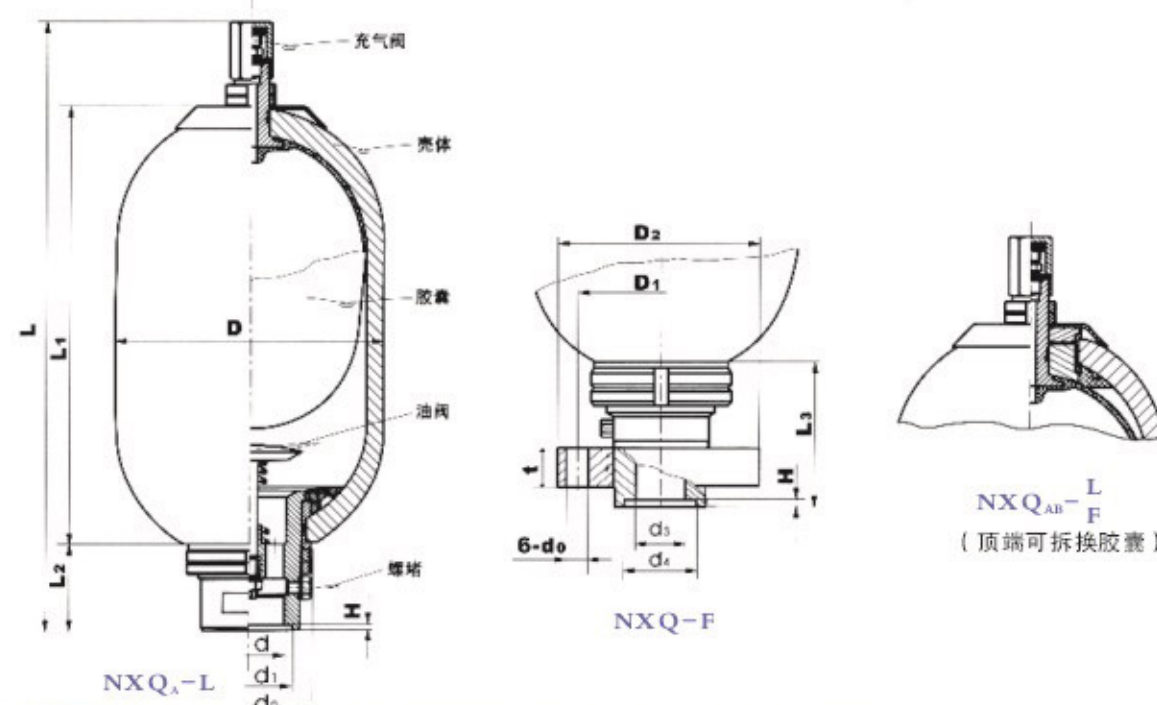
囊式蓄能器由胶囊分隔，从而形成两个空间。囊内预充氮气或其它惰性气体（绝对禁止充装氧气或其它易燃、易燃气体的，以免发生危险！）（图1）。当系统中的液压泵将液压油压入蓄能器时，胶囊收缩变形（而呈三叶状），气体体积随压力增加而减小，液压油被逐渐储存（图3）。当液压系统压力下降时，压缩的氮气膨胀，驱使液压油流回系统。蓄能器回到平衡状态（图2）。



三、型号说明 MODEL CODE



四、结构简图 SCHEME OF STRUCTURE



五、规格及基本尺寸 SPECIFICATIONS AND BASIC SIZE

型号 MODEL	容积 (L)	基本尺寸(mm)															重量 (kg)				
		D	d	d ₁	d ₂	L	L ₁	L ₂	L ₃	H	D ₁	D ₂	T	d ₃	d ₄	d ₀					
NXQ _A -0.40/-L-Y	0.40	Φ89	M27×2 -6H	Φ32	Φ58	260	155	50													3.0
NXQ _A -0.63/-L-Y	0.63					290	185														3.5
NXQ _A -1.0/-L-Y	1.0					425	320														4.5
NXQ _A -1.0/-L-Y	1.0	Φ114				320	205														5.0
NXQ _A -2.0/-L-Y	2.0					435	320														9.0
NXQ _A -1.6/-L(F)-Y	1.6					365	215														65
NXQ _A -2.5/-L(F)-Y	2.5	430	280	14																	
NXQ _A -4/-L(F)-Y	4	540	390	16																	
NXQ _A -6.3/-L(F)-Y	6.3	710	560	22																	
NXQ _A -10/-L(F)-Y	10	650	490	40																	
NXQ _A -16/-L(F)-Y	16	860	700	54																	
NXQ _A -20/-L(F)-Y	20	Φ219	M60×2 -6H	Φ70	Φ110	985	825	86	102	Φ125	Φ160	32	Φ55	Φ65H9	Φ21	62					
NXQ _A -25/-L(F)-Y	25					1160	1000									74					
NXQ _A -32/-L(F)-Y	32					1400	1240									90					
NXQ _A -40/-L(F)-Y	40	1680	1520	110																	
NXQ _A -20/-L(F)-Y	20	Φ299	M72×2 -6H	Φ80	Φ135	680	490	106	121	Φ150	Φ200	40	Φ70	Φ80H9	Φ26	80					
NXQ _A -25/-L(F)-Y	25					770	580									90					
NXQ _A -40/-L(F)-Y	40					1050	860									120					
NXQ _A -63/-L(F)-Y	63	1470	1280	175																	
NXQ _A -80/-L(F)-Y	80	1810	1620	215																	
NXQ _A -100/-L(F)-Y	100	2190	2000	260																	

备注: 1、"△"--结构形式: A型(1型:小开口) AB型(2型:大开口);
 2、"*"--公称压力: 10Mpa, 20Mpa, 31.5Mpa三种压力等级;
 3、联系方式: L--螺纹连接, F--法兰连接。

订货说明 Ordering Note

1.订货时须写明型号代号全称,如:工作压力为31.5MPa,公称容积为40L,壳体结构为小口,介质为液压油,连接方式为螺纹连接的Φ219囊式蓄能器:NXQ-A-40/31.5-L-Y(Φ219).

1.The model and the codes must be entirely indicated when ordering, for example, accumulator NXQ-A-40/31.5-L-Y means: working pressure:31.5Mpa, nominal volume : 40L, cylinder structure: small opening, bottom repair the medium : hydraulic oil,connection way: threaded ,diameter: Φ219.

型号 Model	NXQ-A(AB)-Φ/10	NXQ-A(AB)-Φ/20	NXQ-A(AB)-Φ/31.5
公称压力 Nominal Pressure MPa	10	20	31.5
耐压试验压力 Testing Pressure Mpa	13	26	41
允许充气压力范围 Allowance inflating pressure	小于液压系统最低工作压力的/Less than the Min. operating pressure of the hydraulic system 90% 大于液压系统最高工作压力的/More than the Max. operating pressure of the hydraulic system 25%		
最大排放流量 Max. discharging flow rate	螺纹连接 Threaded connection	0.4-1L	1L/S
		1.6-6.3L	3.2L/S
		10-40L	6L/S
	法兰连接 Flanged connection	40-100L	10L/S
		150L	15L/S
		1.6-6.3L	6L/S
	10-40L	10L/S	
	40-100L	15L/S	
	150L-200L	25L/S	
固定方式 Fixation	含1升以下的直接安装在管路上,含1升以上用紧固环及支承座 Containing 1 liter direct installation of the pipeline, including more than 1 liter fastening ring and bearing in		
安装方式 Installation	垂直安装 Vertical installation		
使用温度 Working temperature℃	-40℃~+93℃		
使用介质 Working medium	液压油、乳化液 Hydraulic Oil, Emulsion		特殊订货/special order
	水-乙二醇 Water glycol		
	磷酸脂 Phosphate		

注:(1)不得用焊接、铆接或机械加工等方法来固定蓄能器;
(2)蓄能器严禁充氧气或空气。必须充氮气或其它惰性气体;
(3)作能量储存时,充气压力应低于液压系统最低工作压力的90%(一般为60-80%);
(4)蓄能器安装后,应检查接口处是否漏气,漏油;
(5)蓄能器设置后,应按定期进行气压检查。

Note: (1) Welding, reventing and mechanical machining is not applied to fix the accumulator.
(2) Oxygen or air is forbidden to filling the accumulator, only use nitrogen or other inert gas.
(3) When the accumulator is used as saving the energy, the filling pressure should be lower than 90% of the lowest working pressure of the hydraulic system (generally 60%-80%)
(4) Check the connecting port for leaks when installing the accumulator.
(5) Check the pressure as required timely after the accumulator is settled down.

2.订货时,遇到相同容积,不同直径系列的蓄能器规格,如用户选择大直径系列的蓄能器,请在产品型号的后面注上直径系列的规格。例如:Φ219系列和Φ299系列都有40L规格,用户选用Φ299系列的40L。压力等级为31.5MPa大口结构,螺纹连接,介质为液压油的蓄能器:NXQ-AB-40/31.5-L-Y(Φ299)。如选择小直径系列的蓄能器,可省略。

2.When the user choose the big diameter series accumulator of the same capacity, please note the diameter on the back of the model and code. For example, there are two kind of pipe for 40L accumulator, one is Φ219 and the other is Φ299, if the user need Φ299 diameter, working pressure:31.5Mpa, cylinder structure: big opening/top repair, the medium : hydraulic oil, connection way: thread. this kind of the accumulator should be expressed as following: NXQ-AB-40/31.5-L-Y(Φ299).

If the user choose a small diameter series, the diameter is not required to note.

3.若对蓄能器有特殊要求时,请同本企业商洽。

3.If you have special requirements on the accumulator, please negotiate with the technical person of our company.

六、安装 Installation

1.蓄能器原则上应该使气阀朝上垂直安装,为便于维护和检查,气阀处应留有一定空间。
2.蓄能器的固定:蓄能器必须牢固地固定在托架或壁上。
3.用于缓冲和吸收脉动时,应尽可能装在靠近振动源处。
4.蓄能器与液压泵之间应装设单向阀,当泵电机停止运转时防止蓄能器中所储存的压力油倒流。
5.蓄能器与管路系统间设置操作简便的截止阀,此阀供充气,调节放油速度或长时间停机时使用。
6.不得用焊接方法来固定蓄能器。

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.

七、氮气的充装 Charing of Nitrogen

1.蓄能器在充装氮气前必须对蓄能器进行检查。
2.在充装氮气时应缓慢进行,以防冲破胶囊。
3.蓄能器严禁使用氧气,压缩空气或其它可燃气体。
4.氮气的充装用充气工具进行。充气工具为蓄能器不可缺少的部件之一。用于蓄能器充气,排气,测定和修正充气压力等。
5.充气压力的确定:

充气压力可参考下列数值:

(1)冲击缓冲:以蓄能器设置点的常用压力或稍高一点的压力作为充气压力;
(2)脉动阻尼:以脉动的平均压力的60%作为充气压力;
(3)能量储存:充气压力应在低于系统最低工作压力的90%(一般为60-80%)和高于最高工作压力的25%范围内确定;
(4)热膨胀补偿:以液压系统封闭回路中的最低压力或稍低一点的压力作为充气压力。

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 device shall be used in charging the Nitrogen. Gas charging device is inseparable part of accumulator to be used in charging, draining measuring and adjusting the charging pressure Gas Charging Device.

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 (generally60%-80%) and higher than25% 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

八、维修和检查 Inspection and repair

1.检查漏气:
蓄能器设置后,开始每周检查气囊气压一次;一个月后,每月一次,半年后,半年检查一次;一年后,每年检查一次。定期检查可以保持最佳使用条件,并及早发现渗漏及时修复使用。

检查方法:

在蓄能器的进油口和油箱连接的油路上设置一个截止阀,并在截止阀前装上一个压力表。慢慢打开截止阀,使压力油流回油箱,同时注意压力表,压力表指针先是慢慢下降。达到某压力值后急速降到零,指针移动的速度发生变化的数值,就是充气压力。此外,还可以利用充气工具检查压力,但每检查一次都会放掉一点气体。

2.装置长期停止使用时,应关闭油口与压力油管之间的截止阀,保持蓄能器的油压在充气压力以上。

3.若蓄能器在装置中不起作用,请检查是否由于气阀漏气引起,以便给予补充氮气。若气囊内没有氮气,气阀处冒油,请拆卸检查皮囊是否损坏。

4.卸下蓄能器前必须卸去压力油,使用充气工具放掉皮囊中的氮气,然后才能拆下各零部件。

5.因运输或试压过程中出现蓄能器紧固螺母松动,造成蓄能器向外漏油时,请检查密封圈是否被挤出密封槽外。安装平整后,旋紧螺母。最好在系统压力最高值时旋紧螺母。若仍然漏油,请卸换有关零件。

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.

Inspection Method:

Place a check-valve in the oil pipe connects the accumulator oil-inlet 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 device could be used to inspect pressure, but gas will be discharged abit during each inspection.

2.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.

3.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.

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

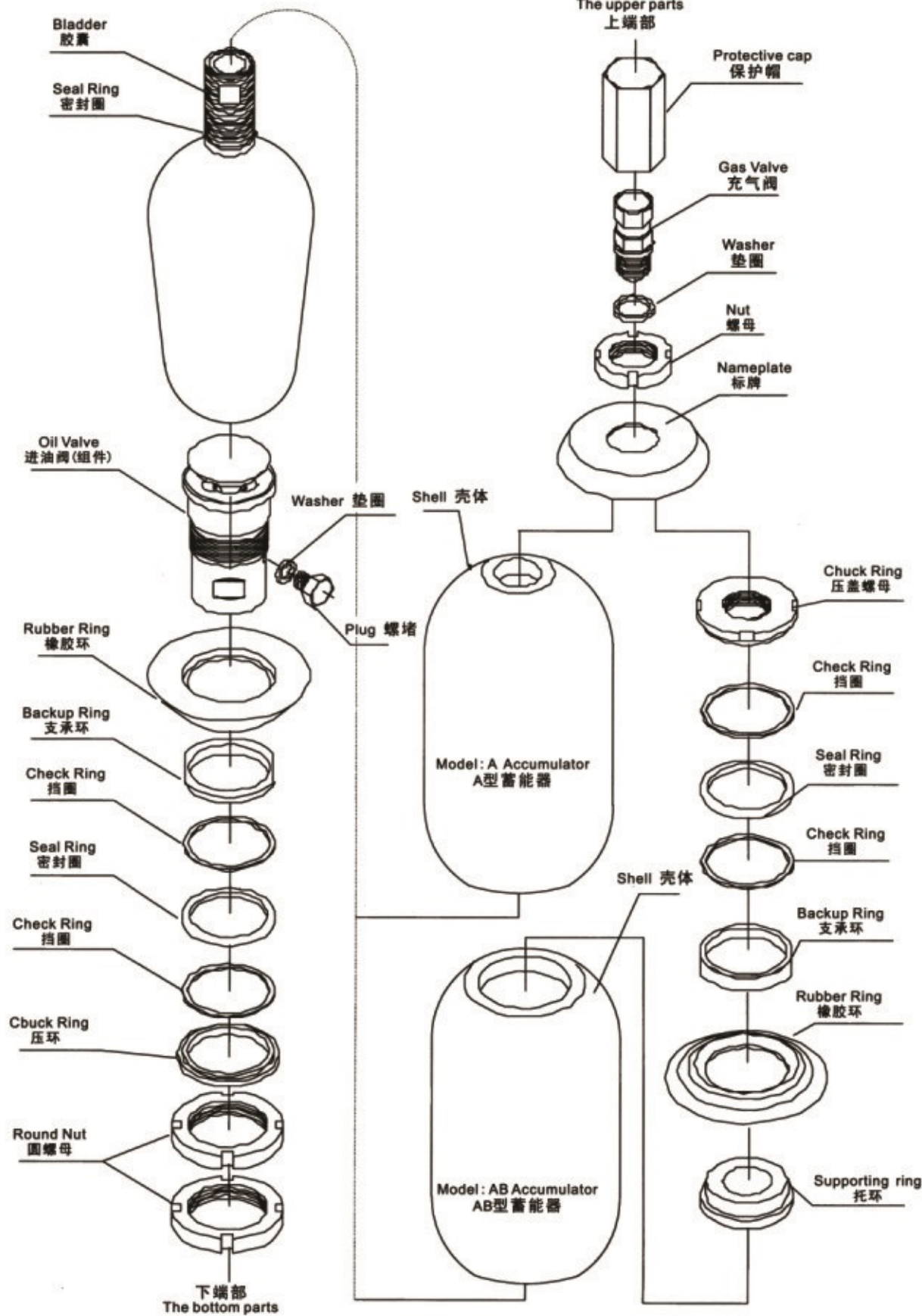
5.If there is leakage because of loosening of nuts in the process of transportation and testing, please check that seal ring is in the slot. Place the seal ring in the right place and revolve the nut. If leakage still exists, please change the parts.

九、附则 Appendix

1.系统调试前,应排尽管道内空气。
2.10L以上蓄能器,必须在进油口设置安全阀。
3.蓄能器作用前必须检查囊内氮气压力是否符合充气压力确定值。
4.蓄能器严禁充装氧气及可燃气体,以避免引起爆炸。

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.

囊式蓄能器装配示意图 Bladder accumulator assembly schematic drawing



一：工作原理 Mechanism

蓄能器内腔由皮囊分为两个部分：囊内装氮气，囊外充液压油。当液压泵将液压油压入蓄能器时，皮囊就受压变形，气体体积随压力增加而减少。液压油被逐渐储存。若液压系统工作需要增加液压油，则蓄能器将液压油排出，使系统的能量得到补偿。

Inner space of accumulator is divided into two parts by bladder: nitrogen is filled in bladder and hydraulic oil is filled the bladder. When hydraulic oil is pressed into accumulator by hydraulic valve, bladder deform by the pressure, volume of gas decreases with the increasing of pressure. Hydraulic oil is stored gradually. If hydraulic system need hydraulic oil to work, accumulator discharge the hydraulic oil and compensate the system energy.

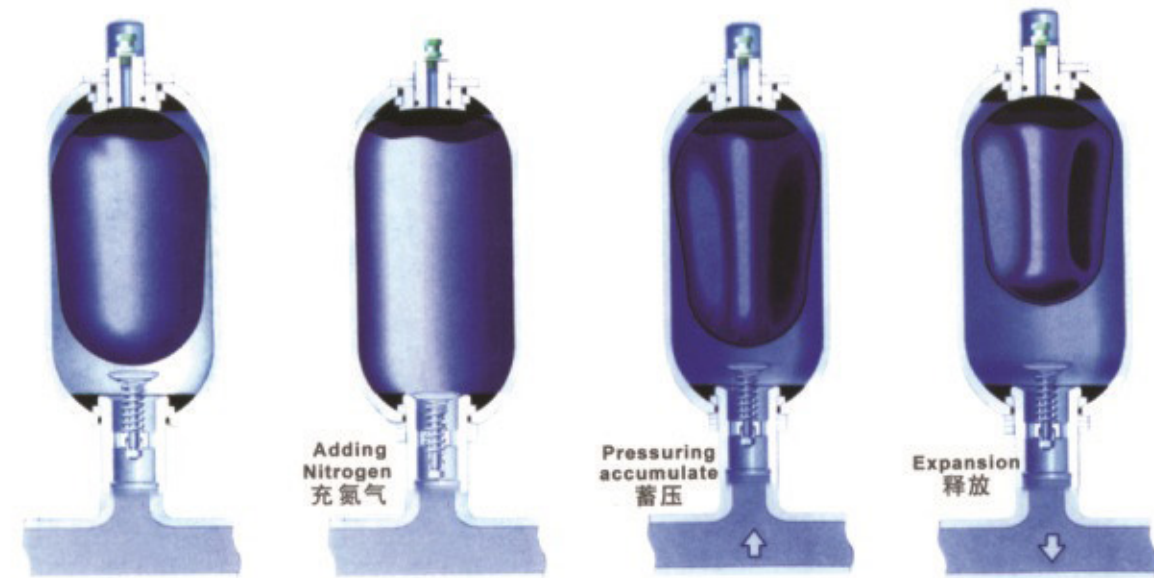


图1 Fig.1 蓄能器工作示意图

二：蓄能器的典型应用 Typical applications of the accumulator

如果在液压回路中短时间内流量变化较大，使用蓄能器就能选用较小的泵和电机，从而降低了设备费用和操作费用。图2所示的运行周期需要一个具有 Q_2 流量的泵。如果应用蓄能器，在时间周期 (t_2-t_1) 和 (t_4-t_3) 内蓄油，因为此时需要的油流量很小，或者甚至不需要用油。当所要求的流量高于泵送量 Q_1 时，在 t_1 和 t_3-t_2 周期内可使用蓄能器供油。选择泵送量 Q_1 须满足 $V_1+V_2 \leq V_3+V_4$ 。

In the case of hydraulic circuits where a large flow rate is required for a short period, alternating with a low or no flow condition, the use of an accumulator allows smaller pumps and motors to be used, thus reducing both installation and operating costs. The operation cycle shown in fig.2 would require a pump having a capacity Q_2 . If an oil-pneumatic accumulator is used, it is possible to store oil during the time periods (t_2-t_1) and (t_4-t_3) when requirement is very low or zero, and to re-utilize. During t_1 and (t_3-t_2) , when the required flow rate is higher than the pump capacity Q_1 . This pump must be selected to have the volumes $V_1+V_2 \leq V_3+V_4$.

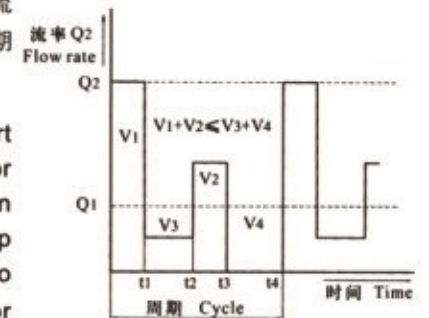


图2 Fig.2

1、柱塞泵和隔膜泵在运行时会在液压回路里不可避免地产生脉动，这既不利于运动又有害于部件的使用寿命。在靠近泵的出口侧装上囊式蓄能器，可吸收脉动，使脉动降到满意的程度（图3）。典型的用途如：用于定量泵及活塞数较少的柱塞泵等。

Both piston and diaphragm pumps create pulsation or pressure peaks during operation, this being undesirable and detrimental to both the smooth operation and operational life of components. The fitting of an accumulator adjacent to down stream of the pump will dampen the pulsation to an acceptable level (fig.3) Typical applications are dosing pumps, pumps with a small number of pistons etc.



图3 Fig.3

2、在动力突然损失的情况下，例如管道或接头故障、泵破损等，蓄能器能够提供足够的能量来完成运行循环或使传动机构、阀门等重新恢复到安全的位置，从而防止损坏设备或产品。在一些必须获得紧急动力源的情况下，如为关闭安全门、电器开关、安全阀、紧急制动器等所需要的液动源。

另一个典型用途是将燃油紧急提供给电厂的锅炉。图4B处所示的引起损失的故障，可通过手动操纵电子阀A而消除，这时就使用了蓄能器储备的能量。

In the case of a sudden power loss, e.g. pipe or joint failure, pump break-down etc. the accumulator can provide sufficient energy to complete an operational cycle or to allow actuators, valves etc. to reset to a "safe" position, and so prevent damage to equipment or product.

The availability of such an emergency power source is essential in cases where a hydraulic power supply is required for closing a safety door, electrical switch, safety valve, emergency brakes etc.

A typical application is the emergency supply of fuel oil to power plant burners. Fig.4 illustrates that a failure at "B" causing a loss of energy can be offset by manually overriding the electro valve "A" thus utilizing the potential energy of the accumulator.

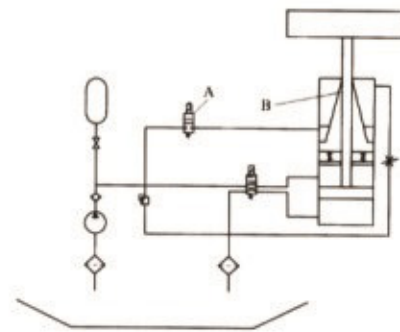


图4 Fig.4

3、在闭式液路中，由于热膨胀，温度的上升会导致压力上升。

在线安装的蓄能器可补偿油的容积变化，从而保护阀门、垫片、压力表等不出故障。炼油厂和远距离油管是其常的用途（图5）

In a closed hydraulic circuit, thermal expansion can cause an increase in pressure due to a rise in temperature.

An accumulator installed in the line will protect the valves, gaskets, pressure gauges etc. Common applications are found in refineries and pipelines (Fig.5)

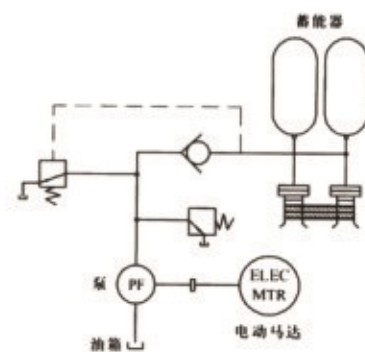


图5 Fig.5

4、流体传输 Fluid separator (transfer barrier)

在一个系统中，当作用在回路一侧的液体压力增加必须转换到回路另一侧液体中，而又不使两种液体混合，胶囊蓄能器可有效地解决这一问题（图9）。

蓄能器的胶囊犹如一个挠性屏障作用于液体和气液之间，提供瞬间响应而不减小系统的压力。

In a system where fluid pressure developed on one side of the circuit must be transferred, to another fluid without any possibility of the two fluids intermixing, the bladder accumulator provides the satisfactory solution (Fig.9).

The accumulator bladder acts as a flexible barrier between the two fluids or between a gas and a fluids providing instantaneous response without reducing the system pressure.

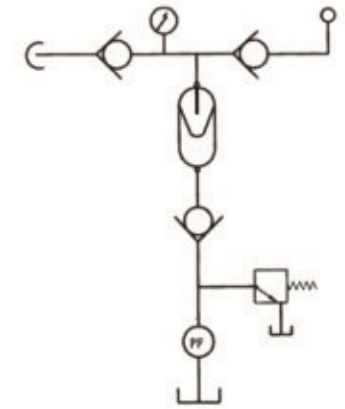


图9 Fig.9

三、蓄能器的选择 Selection

选择蓄能器时必须明确以下技术参数

The following parameters are involved in the selection of an accumulator, the most important are.

1、工作压力 Working pressure

最小和最大工作压力 (P_1 、 P_2)，其中最大允许工作压力不应大于被选用的蓄能器所规定的最大工作压力。

The minimum and maximum working pressure (P_1 、 P_2), and the value of the maximum allowable working pressure must be lower or equal to the maximum authorized working pressure of the accumulator to be chosen for safety reasons.

2、工作容积 Working volume

可储存或利用的液体容积 (ΔV)。

Volume (ΔV) of liquid to be stored or utilized is required in addition to the maximum and minimum working pressure for correct sizing of the accumulator.

3、工作介质 Working mediums

一般为氮气和液压油或乳化液，特殊介质请咨询。

In general, the working mediums are nitrogen and hydraulic oil or emulsion, for special medium, please consults us first.

4、工作温度 Working temperature

工作温度决定着胶囊材料和壳体材料的选择,而且对初始负载压力、蓄能器容积确定也有影响。

The materials selection of bladder and shell will be determined on the operating temperature, also influence on the pre-loading pressure, and consequently on the accumulator volume.

5、当长时间需要恒定静态压力时，蓄能器是必不可少的，因为它将补偿由于接头、密封等渗漏而造成的压力损失，而且能平衡在循环运行过程中可能发生的压力波动。典型用途为夹紧系统（如图6）、负载平台、筑路压力机润滑系统等。

As a constant static pressure is required for a long period, an accumulator is indispensable as it will compensate for pressure loss due to leakage through joints, seals etc. as well as balancing pressure peaks which may occur during the operating cycle. Typical applications are found in closing system(Fig.6), loading platforms, curing presses, machine tools, lubricating systems, etc.

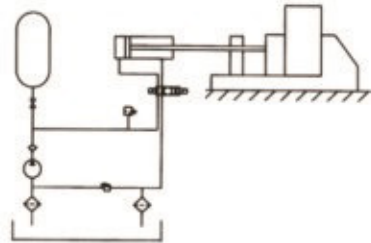


图6 Fig.6

6、阀的快速关闭会产生冲击波（水锤现象），导致管子、接头、阀等部件的损坏。使用蓄能器能大大地减少冲击。典型用途为水管（图7）、燃油和油的远距离管路、洗涤设备等。

Rapid valve closure can produce shock waves (water hammer) resulting in over pressurization of pipes, joints, valves etc. The use of a suitable accumulator can neutralize or significantly reduce the shock. Typical applications are water (fig.7), fuel and oil distribution circuits, washing equipment etc.

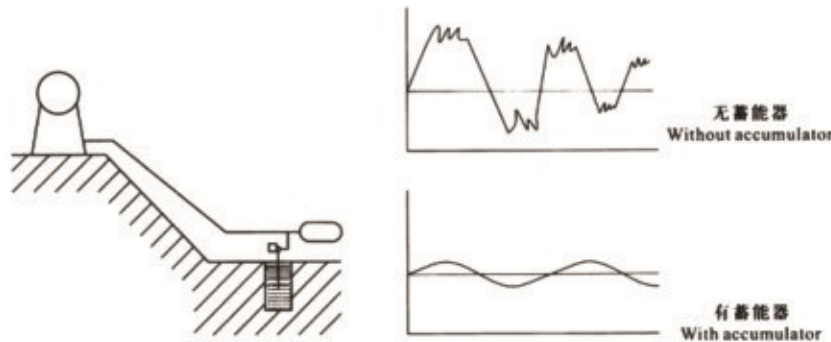
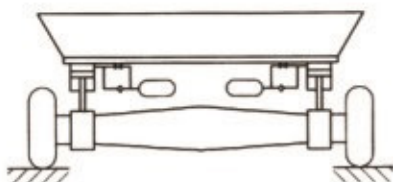


图7 Fig.7

7、液压设备中的机械振动可被蓄能器吸收，用于叉式提升机的驱动和悬挂系统、移动吊车、农用和市政设备、石块破碎机。（图8所示）

Mechanical shocks in hydraulically driven equipment can be absorbed by accumulators. Possible applications are in drive and suspension systems for fork-lifts, mobile cranes, agricultural and civil engineering machinery, rock crusher etc.(Fig.8)



最大流量 Maximum flow rate

8、对于相同容积(ΔV),流量与蓄能器规格和反应速度有关。

For the same ΔV the size or accumulator connection can be influenced by the immediate flow rate necessary.

使用场所 Location

9、确定蓄能器的最终使用场所非常重要,这样可以使设计能够满足该场所设计参数和试验参数的要求。

It is important to know the eventual designation of the accumulator in order that the design can meet local design and test parameter.

容积计算 Volume calculation

应用场合	容积计算公式 formula	说明 note
辅助动力源 Fluid power storage	$V_0 = \frac{V_1(P_1/P_0)^{1/n}}{1-(P_1/P_2)^{1/n}}$	V_0 -所需蓄能器的容积(m ³);Volume required P_0 -充气压力Pa,且:0.9P ₁ >P ₀ >0.25P ₂ V_1 -蓄能器的工作容积(m ³) efficient volume P_1 -系统最低工作压力(Pa) min. Operating pressure P_2 -系统最高工作压力(Pa) max. Operating pressure n-指数,等温时取n=1,绝热时取n=1.4 n coefficient n=1, isothermal condition; n=1.4 adiabatic condition
吸收泵的脉动 Pulsation damper	$V_0 = \frac{AkL(P_1/P_0)^{1/n} \times 10^3}{1-(P_1/P_2)^{1/n}}$	A-缸的有效面积(m ²) efficient volume L-柱塞行程(m) length k-与泵的类型有关的系数 Coefficient relation with pump 泵的类型 type of pump 系数coefficient 单缸单作用1piston, single acting 0.60 单缸双作用1piston, double acting 0.25 双缸单作用2piston, single acting 0.25 双缸双作用2piston, double acting 0.15 三缸单作用3piston, single acting 0.13 三缸双作用3piston, double acting 0.05 -充气压力,按系统工作压力的60%充气; -Pre-charge pressure, equal to 60% of operating pressure
吸收冲击 Absorb emergency energy	$V_0 = \frac{m}{2} v^2 \left(\frac{0.4}{P_0} \right) \left[\frac{10^3}{(P_2/P_0)^{0.285} - 1} \right]$	m-管路中液体的总质量(Kg); General quality of hydraulic oil circuit v-管中流速(m/s) Fluid flow rate -充气压力(Pa),按系统工作压力的90%充气; -Pre-charge pressure, equal to 90% of operating pressure

注:1.充气压力按应用场合选用。Pre-charging pressure shall be determined according to application location.

2.蓄能器工作循环在3min以上时,按等温条件计算,其余均按绝热条件计算。

n=1, in case compression or expansion of nitrogen takes place so slow (over 3 minutes) that a complete interchange of heat is allowed between gas and environment, that is at constant temperature, the condition is isothermal n=1.4, when operation is so quick that no inter change of heat can take place, the condition is adiabatic.

一、型号说明 Model Designation

BNXQ - □-□/□-□-□
1 2 3 4 5 6

- 1 不锈钢囊式蓄能器/Stainless Steel Bladder Accumulator
- 2 结构型式/Structure A: 小口/small opening; AB: 大口/big opening
- 3 公称容积/Nominal Capacity: L
- 4 公称压力/Nominal Pressure: MPa
- 5 连接型式/Connection type | L: 螺纹连接/thread | F: 法兰连接/flanged
- 6 工作介质/Medium | Y: 液压油/Hydraulic oil | R: 乳化液/Emulsion



二、型号与尺寸 Model and Size

型号 Model	公称压力 (Mpa) Nominal Pressure	公称容积 (L) Nominal capacity	基本尺寸 Size(mm)										连接方式 Connection 螺纹 Thread 法兰 Flange		重量 (kg) Weight
			M	d	Φ1	Φ2	Φ3	Φ4	n-Φ5	L1	H	Φ			
BNXQ-0.4/*-L(F)-*	10/15	0.4	M27X2	/	22	30	85	115	4-Φ17	52	22	260	270	89	3/3
BNXQ-0.63/*-L(F)-*		315										325	3.5/3.5		
BNXQ-1/*-L(F)-*		430										440	4.5/4.5		
BNXQ-1.6/*-L(F)-*		330										340	5/5.5		
BNXQ-2.5/*-L(F)-*		M42X2	1.6	50	42	50	97	130	6-Φ17	66	28	365	380	152	11/12.5
BNXQ-4/*-L(F)-*												430	445		14/15
BNXQ-6.3/*-L(F)-*												540	555		16/18.5
BNXQ-10/*-L(F)-*												710	725		22/25.5
BNXQ-16/*-L(F)-*		M60X2	2.5	70	55	65	125	160	6-Φ21	90	32	650	665	219	39/48
BNXQ-20/*-L(F)-*												860	875		54/63
BNXQ-25/*-L(F)-*												985	1000		62/72
BNXQ-32/*-L(F)-*												1160	1175		74/84
BNXQ-40/*-L(F)-*		M72X2	4	80	70	80	150	200	6-Φ26	106	40	1400	1415	299	90/101
BNXQ-50/*-L(F)-*												1680	1695		108/119
BNXQ-63/*-L(F)-*												680	695		80/91
BNXQ-80/*-L(F)-*												770	785		90/102.5
BNXQ-100/*-L(F)-*		M85X2	6.3	95	83	95	170	230	6-Φ26	110	40	1050	1065	351	118/136
BNXQ-125/*-L(F)-*												1230	1245		138/159.5
BNXQ-150/*-L(F)-*												1470	1485		171/197
BNXQ-180/*-L(F)-*												1810	1825		213/246
BNXQ-200/*-L(F)-*	M85X2	10	95	83	95	170	230	6-Φ26	110	40	2190	2205	299	253/293	
BNXQ-25/*-L(F)-*											3125	3140		335/393	
BNXQ-32/*-L(F)-*											1170	1185		170/185.5	
BNXQ-40/*-L(F)-*											1395	1410		206/225	
BNXQ-50/*-L(F)-*	M85X2	15	95	83	95	170	230	6-Φ26	110	40	1660	1675	299	250/273	
BNXQ-63/*-L(F)-*											1990	2005		304/332	
BNXQ-80/*-L(F)-*											2310	2325		356/389	
BNXQ-100/*-L(F)-*											2450	2465		379/414	
BNXQ-125/*-L(F)-*	M85X2	20	95	83	95	170	230	6-Φ26	110	40	2700	2715	299	420/459	
BNXQ-150/*-L(F)-*											2980	2995		466/509	
BNXQ-180/*-L(F)-*															
BNXQ-200/*-L(F)-*															

1. 订货说明: 如有特殊要求, 请与本公司商洽。
1. Ordering note: if you have special requirements, contact our company.

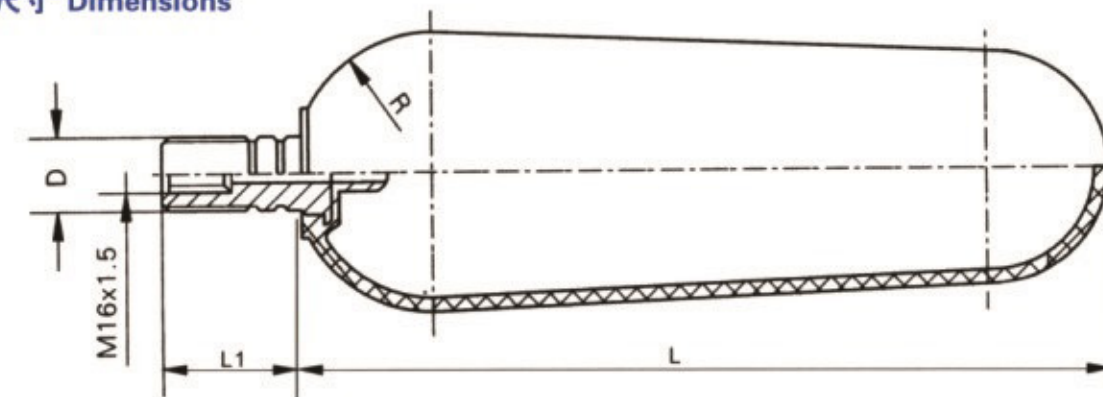
一、简介 Brief Introduction

本系列胶囊在NXQ系列使用中, 起着储存能量、稳定压力、补偿容量、吸收脉冲等多种作用。本系列胶囊符合HG2331标准。本系列胶囊具有耐油、耐酸碱、耐屈挠、变形小、强度高特点。During the using of the NXQ series accumulator, this series of the bladder plays the role of storing energy, stability the pressure, compensating the capacity and absorbing the pulse. The series of the bladder is consistent with HG2331 standards, and it has the characteristics of resistanting oil, acid and flexing, small deformation, high strength etc.

三、技术参数 Technical data

公称压力 / Nominal pressure
10, 20, 31.5MPa
适用介质 / Medium
胶囊内: 氮气; 胶囊外: 液压油和乳化液
In the bladder: nitrogen; outside the bladder: hydraulic oil or emulsion

四、外形尺寸 Dimensions



1). NXQ系列蓄能器胶囊(Ø89-Ø219)/Accumulator bladder

蓄能器容积(L) Accumulator volume	基本尺寸 Size(mm)				蓄能器容积(L) Accumulator volume	基本尺寸 Size(mm)			
	D	L	L1	R		D	L	L1	R
0.4	M24 x 1.5	74	44	38.5	6.3	M30 x 1.5	486	49	66
0.63		144			10		365		
1	M30 x 1.5	250	49	66	16	M30 x 1.5	569	60	95
1.6		144			25		877		
2.5	M30 x 1.5	206	49	66	40	M30 x 1.5	1405	60	95
4		312							

2). NXQ系列蓄能器胶囊(Ø299) NXQ Accumulator bladder

蓄能器容积(L) Accumulator volume	基本尺寸 Size(mm)			
	D	L	L1	R
20	M30 x 1.5	380	60	131
25		470		
40		740		
63		1180		
80		1440		
100		1880		

五、订货说明 Ordering Note

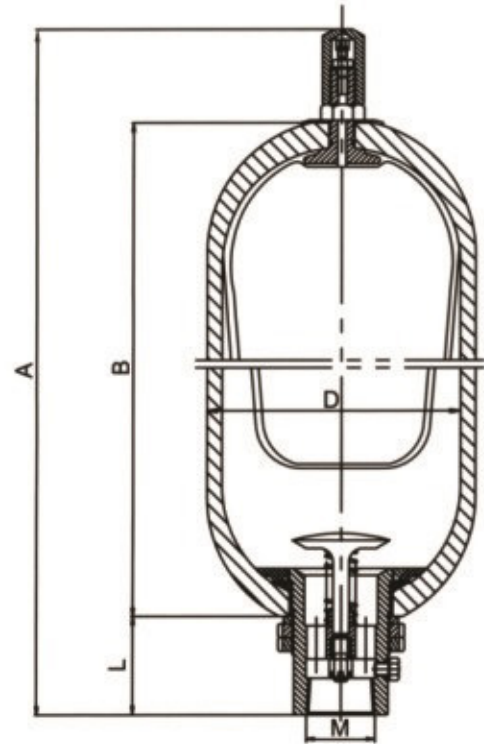
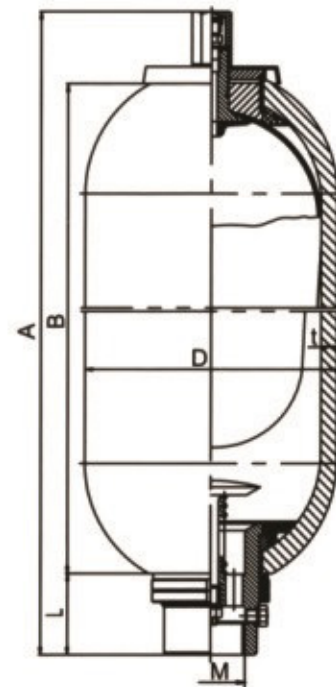
1. 订货时须写明型号代号全称, 如: 工作压力为31.5MPa, 容积为40L, 长度为1405mm的(NXQ系列)蓄能器胶囊: 40LX1405-A
2. 若其他规格的胶囊尺寸及对胶囊有特殊要求时, 请同本公司商洽。
1. The model and the code should be entirely indicated when ordering. for example, working pressure: 31.5Mpa, the nominal volume: 40L, length: 1405mm, (NXQ series), this kind of the bladder should be expressed as following: 40L×1405-A.
2. If other size or special requirement is need on the bladder, please contact our company.

一、型号说明 (美标ASME) Model Designation
M B 2.5 / 3000
 ① ② ③ ④

- ① ASME 美标
- ② B:底拆式/Bottom Repair T: 顶拆式/Top Repair
- ③ 公称容积为/Nominal Capacity 2.5Gal
- ④ 公称压力为/Nominal pressure 3000Psi


二、特性Specification

- 1.结构形式: 底拆, 顶拆结构。/ Structure: bottom repair structure, top repair structure.
- 2.固定方式: 紧固环或支承座。/ Fastening Method: dead ring or bearing.
- 3.安装方式: 原则上垂直安装。/ Installation: vertical.
- 4.工作介质: 液压油、乳化液。/ Medium: hydraulic oil, emulsion.
- 5.工作温度: -10℃—+93℃。/ Working Temperature: -10℃—+93℃。
- 6.胶囊内充入气体: 氮气。/ Gas filled in the bladder: nitrogen.


 Bottom Repair Construction
 底拆式结构

 Top Repair Construction
 顶拆式结构

三、型号与尺寸 (美标) Model and Size (ASME)

型号 Model	压力 Pressure psi	容积 Volume		重量 Weight		基本尺寸 Size(mm)				
		gal	L	lbs	kg	D	L	A	B	M
		mm	mm	mm	mm	mm	mm	mm	mm	NPT
MB0.25/3000	3000	0.25	1	11	5	Φ114	50	325	195	3/4"
MB1/3000		1	4	32	14.5	Φ168	60	385	315	1 1/4"
MB2.5/3000		2.5	10	95	43	Φ229	87	565	410	2"
MB5/3000		5	19	140	64			865	710	
MB10/3000		10	38	230	104			1435	1280	
MB11/3000		11	42	240	109			1540	1385	
MB14/3000		14	53	276	126			1875	1720	
MB15/3000		15	57	290	132			1985	1830	
MT2.5/3000		2.5	10	95	43			555	410	
MT5/3000		5	19	140	64			855	710	
MT10/3000		10	38	230	104			1425	1280	
MT11/3000		11	42	240	109			1530	1385	
MT14/3000		14	53	276	126	1865	1720			
MT15/3000		15	57	290	132	1975	1830			
MB0.25/4500		4500	0.25	1	12	5.5	Φ114	50	325	195
MB1/4500	1		4	44	20	Φ168	60	385	315	1 1/4"
MB2.5/4500	2.5		10	128	58	Φ232	87	555	400	2"
MB5/4500	5		19	185	84			860	700	
MB10/4500	10		38	300	136			1450	1295	
MB11/4500	11		42	322	146			1570	1415	
MB14/4500	14		53	392	178			1935	1780	
MB15/4500	15		57	403	183			2005	1850	
MT2.5/4500	2.5		10	128	58			545	400	
MT5/4500	5		19	185	84			845	700	
MT10/4500	10		38	300	136			1440	1295	
MT11/4500	11		42	322	146			1560	1415	
MT14/4500	14		53	392	178	1925	1780			
MT15/4500	15		57	403	183	1995	1850			

 1.订货说明: 如有特殊要求, 请与本公司商洽。
 1.Ordering note: If you have special requirements, contact our company.

一、简介 Brief Introduction

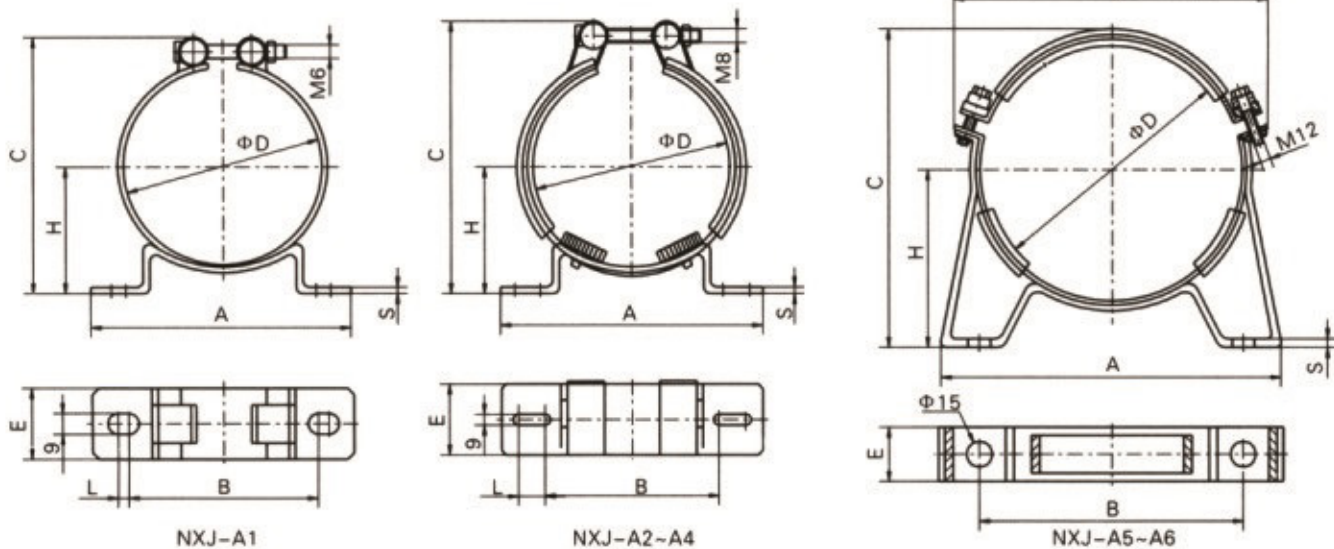
支座及紧固箍是专门固定蓄能器而设计的专用装置。其具有固定可靠结构紧凑，连接灵活，操作方便等特点。The pedestal and fastener are the professional equipment designed for fixing the accumulator. they have the characteristic of compact structure, reliable fix, flexible connection, convenient operation.

二、型号说明 Model Designation

NXJ-A □
① ②

- ① 蓄能器紧固箍 / Accumulator fastener
- ② 结构序列号 / Structure No.

三、外形尺寸 Dimensins



型号 Model	A	B	C	ΦD	H	E	L	S	K	配套蓄能器型号 Matching accumulator/Model	重量/Weight(kg)
NXJ-A1	120	85	112	89-92	51-52.5	40	8			NXQΔ-L0.4~L0.63	0.17
NXJ-A2	156	100	143	106-114	62.5-66	60	18	3		NXQΔ-L1	0.41
NXJ-A3			191	152-159	87-91						
NXJ-A4	236	152	256	216-224	120-124		32			NXQΔ-L10~L40	0.77
NXJ-A5	332	280	322	299	190	40	Ø15	4	370	NXQΔ-L20~L100	2.05
NXJ-A6	422	360	378	351	190						

注:选用紧固箍时应以ΦD为基准。
Note: Choosing the type of the fastener should based on the valve of ΦD.



紧固箍/Fastener

一、型号说明 (美标ASME) Model Designation

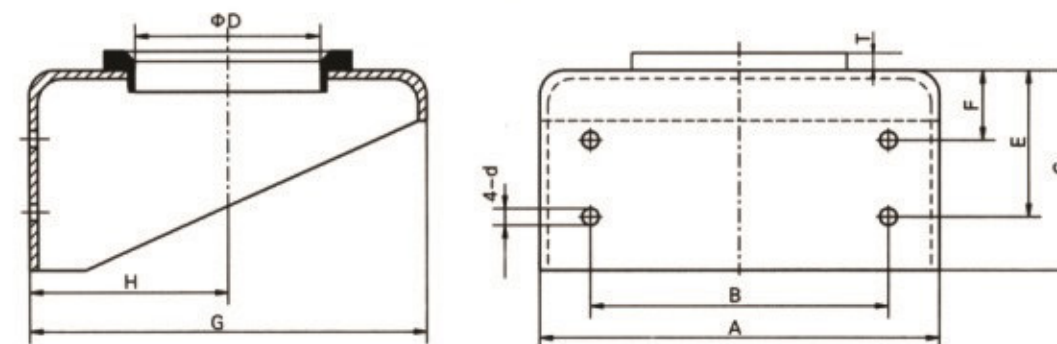
NXJ-B □
① ②

- ① 蓄能器支座/Accumulator pedestal
- ② 尺寸序号/Dimension No.

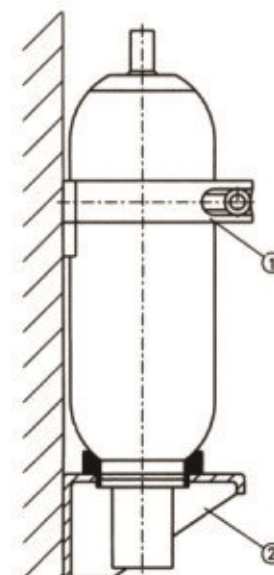


支座/Pedestal

二、外形尺寸 Dimensions



型号 Model	A	B	C	ΦD	H	E	L	S	K	配套蓄能器型号 Matching accumulator/Model	重量/Weight(kg)	
NXJ-B1	260	180	100	104	15	75	35	225	92	14	NXQΔ-L1.6-L16.3	2.5
NXJ-B2				159							250	123
NXJ-B3	380	260	240	200	20	180	60	380	190	22	NXQΔ-L20-L150	19.1



注:①紧固箍/Fasten ②支座/Pedestal

各种规格蓄能器配套紧固箍、支座
All kinds of fasten, pedstal which is special designed for matching the accumulator

数量 Number 型号 Model	容积(L) Volume	1.6-6.3	10-16	25-40	20-25	40-6.3	80-100	150
NXJ-A3	1							
NXJ-A4			1	2				
NXJ-A5					1	2	3	
NXJ-A6								3
NXJ-B1	1							
NXJ-B2			1	1				
NXJ-B3					1	1	1	1

一、简介 Brief Introduction

非隔离式蓄能器是以储气方式储存能量，作为气动力源，或在液压系统中起储能、稳定压力、补偿液压损耗等作用。具有容量大、功率损耗少、占地面积小等优点。

本公司生产的非隔离式蓄能器采用无缝钢管热压成形工艺，具有结构可靠、外形美观、性能稳定的特点。已广泛应用于轻工机械和军工等行业中。

本公司产品使用方便，系列齐全。特殊的规格和连接尺寸可根据要求生产，欢迎广大用户订购。

Non-separated accumulators saving the energy by stored the gas. As the gas power source, it functions as Storing of energy, stabilizing of pressure, compensation of leakage. it has the advantages of big capacity, low power consumption and small location sharing.

We adopt the process of hot spinning that is applicable to the closing of seamless steel pipe. Because of the following features: compact design, beautiful outlook, stability performance. the non-separated accumulator is widely used in light industry machinery and military industries.

The products are convenient to use, the product's models are enough. we can custom the accumulator according to the user's special requirements.



二、型号说明 Model Designation

FGXQ 1 - 10/20 - A

1 2 3 4 5

① 非隔离式蓄能器 /Non-separated Accumulator

2 1:1型结构 2:2型结构/1:1 type structure 2:2 type structure

3 表示公称容积为10L /Nominal volume: 10L

4 表示设计压力为20MPa /Design pressure: 20MPa

5 A表示壳体外径为Φ219, B为Φ299, C为Φ351, D为Φ426

A means outer diameter of the cylinder Φ219, B is Φ299, C is Φ351, D is Φ426

三、结构简图 Structure diagram

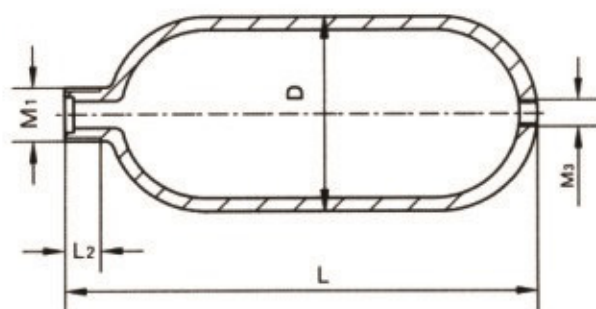


图1为FGXQ1型结构
Fig. 1 shows the structure FGXQ1

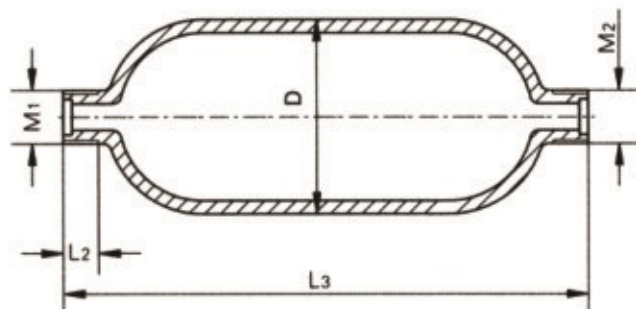


图2为FGXQ2型结构
Fig. 2 shows the structure FGXQ2

四、使用说明 Operating note

1. 非隔离式蓄能器使用时应垂直安装。
2. 不得用焊接、铆接方法来固定非隔离式蓄能器。
3. 非隔离式蓄能器充气压力，应低于系统最低工作压力的90% (一般为60-80%)
4. 安装后，应检查接口处是否漏气，并按规定进行定期检验。

1. The non-separated accumulator should be installed vertically.
2. Welding, riveting is not applied to fix the non-separated accumulator.
3. The inflating pressure should be lower than 90% of the lowest working pressure of the hydraulic system (generally 60% -80%)
4. Check the connecting port for leaks when installing the accumulator and check the pressure as required timely.

型号 Model	公称压力 Design Pressure (Mpa)	公称容积 (L) Nominal capacity	尺寸 Size(mm)					重量/Weight (kg)														
			D	L3	L	L ₁	M ₁	L ₂ 或L ₃	G ₁	G ₂												
FGXQΔ-10/12-A	12	10	Φ219	610	550	40	M60X2	M2: M60X2 M3: M30X1.5	35	36												
FGXQΔ-10/20-A	20								28	29												
FGXQΔ-10/31.5-A	31.5								35	36												
FGXQΔ-16/12-A	12	16		Φ219	820				760	40	M60X2	M2: M60X2 M3: M30X1.5	48	49								
FGXQΔ-16/20-A	20												39	40								
FGXQΔ-16/31.5-A	31.5												48	49								
FGXQΔ-20/12-A	12	20			Φ219				950				890	40	M60X2	M2: M60X2 M3: M30X1.5	55	56				
FGXQΔ-20/20-A	20																46	47				
FGXQΔ-20/31.5-A	31.5																55	56				
FGXQΔ-250/12-A	12	25							Φ219				1120				1060	40	M60X2	M2: M60X2 M3: M30X1.5	65	66
FGXQΔ-25/20-A	20																				54	55
FGXQΔ-25/31.5-A	31.5																				65	66
FGXQΔ-32/12-A	12	32	Φ219			1360	1300	40					M60X2				M2: M60X2 M3: M30X1.5				80	81
FGXQΔ-32/20-A	20																				67	68
FGXQΔ-32/31.5-A	31.5																				80	81
FGXQΔ-36/12-A	12	36		Φ219		1505	1445			40	M60X2	M2: M60X2 M3: M30X1.5									88	89
FGXQΔ-36/20-A	20																				74	75
FGXQΔ-36/31.5-A	31.5																				88	89
FGXQΔ-40/12-A	12	40			Φ219	1640	1580							40	M60X2	M2: M60X2 M3: M30X1.5					97	98
FGXQΔ-40/20-A	20																				81	82
FGXQΔ-40/31.5-A	31.5																				97	98
FGXQΔ-50/12-A	12	50				Φ219	1975		1915									40	M60X2	M2: M60X2 M3: M30X1.5	117	118
FGXQΔ-50/20-A	20																				98	99
FGXQΔ-50/31.5-A	31.5																				117	118
FGXQΔ-20/12-B	12	20	Φ299				620	560	45				M80X2				M2: M80X2 M3: M48X2				59	61
FGXQΔ-20/20-B	20																				51	53
FGXQΔ-20/31.5-B	31.5																				59	61
FGXQΔ-25/12-B	12	25		Φ299			710	650		45	M80X2	M2: M80X2 M3: M48X2									69	71
FGXQΔ-25/20-B	20																				60	62
FGXQΔ-25/31.5-B	31.5																				69	71
FGXQΔ-32/12-B	12	32			Φ299		845	785						45	M80X2	M2: M80X2 M3: M48X2					84	86
FGXQΔ-32/20-B	20																				74	76
FGXQΔ-32/31.5-B	31.5																				84	86
FGXQΔ-40/12-B	12	40				Φ299	990	930										45	M80X2	M2: M80X2 M3: M48X2	100	102
FGXQΔ-40/20-B	20																				88	90
FGXQΔ-40/31.5-B	31.5																				100	102
FGXQΔ-50/12-B	12	50	Φ299				1170	1110	45				M80X2				M2: M80X2 M3: M48X2				120	122
FGXQΔ-50/20-B	20																				106	108
FGXQΔ-50/31.5-B	31.5																				120	122
FGXQΔ-63/12-B	12	63		Φ299			1410	1350		45	M80X2	M2: M80X2 M3: M48X2									147	149
FGXQΔ-63/20-B	20																				129	131
FGXQΔ-63/31.5-B	31.5																				147	149
FGXQΔ-72/12-B	12	72			Φ299		1600	1540						45	M80X2	M2: M80X2 M3: M48X2					168	170
FGXQΔ-72/20-B	20																				148	150
FGXQΔ-72/31.5-B	31.5																				168	170
FGXQΔ-80/12-B	12	80				Φ299	1750	1690										45	M80X2	M2: M80X2 M3: M48X2	184	186
FGXQΔ-80/20-B	20																				163	165
FGXQΔ-80/31.5-B	31.5																				184	186
FGXQΔ-100/12-B	12	100	Φ299				2130	2070	45				M80X2				M2: M80X2 M3: M48X2				226	228
FGXQΔ-100/20-B	20																				200	202
FGXQΔ-100/31.5-B	31.5																				226	228
FGXQΔ-140/20-C	20	140		Φ351			2090	60 50		M115X3	M140X3	297										
FGXQΔ-250/14-D	14	250		Φ426			2320	60 50		M140X3	M140X3	338										

注: 1. "Δ" 为结构型式1,2; G1, G2分别表示1,2型的重量。

2. 连接螺纹尺寸如有特殊要求需特殊规格, 可根据用户要求生产。

Note: 1. "Δ" means structure type 1 or 2, G1, G2 stand for the weight of 1,2

2. If special requirements of the thread is needed by the user's, we can custom it.

一、简介 Brief Introduction

CDZ型充氮车是用来对液压-囊式蓄能器、活塞式蓄能器、液压隔膜式蓄能器及其他高压容器进行充装并增加氮气压力的专用设备。

通常氮气瓶直接对蓄能器充氮时,其最高充氮压力为13.5MPa。若蓄能器内所需预充的氮气压力超过13.5MPa,则使用本充氮车就可以实现。最高压力可达42MPa。

CDZ series nitrogen charging cart is the professional equipment applies to filling nitrogen or increasing the nitrogen pressure of hydraulics-bladder accumulator, piston accumulator, hydraulic diaphragm accumulators and other high-pressure container.

Filling the nitrogen to the accumulator with nitrogen bottle directly, its highest nitrogen pressure is 13.5MPa. If the precharge pressure of the accumulator is over 13.5MPa, the nitrogen filling cart can achieved. The maximum pressure can up to 42MPa.

二、型号说明 Model Designation

CDZ - 25 - Y1

- | | |
|------------------------|--|
| ① 名称代号: CDZ —— 充氮车 | ① Code: CDZ-- Nitrogen charging cart |
| ② 最高充气压力: 25、35、42MPa | ② Max. charging pressure: 25, 35, 42MPa |
| ③ 充气缸换向方式: Y1 —— 液控先导式 | ③ Charging cylinder reversing type: Y1--hydraulic pilot type |



CDZ型 充氮车
CDZ Nitrogen charging cart

三、工作原理 Working Principle

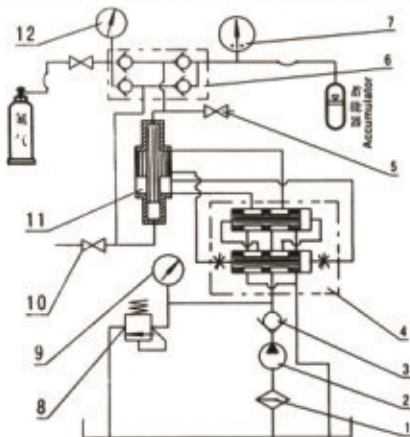
本型号充氮车由液压系统、气路、电路三部分组成。液压系统的先导换向阀控制双向增压器不断往复运动,一气缸从氮气瓶吸入氮气,另一气缸将已吸入的氮气通过阀装置压入蓄能器或高压容器。当蓄能器内氮气压力达预设值时,电接点压力表发信号使液压系统停止工作。

工作原理图见下图。

This type of nitrogen filling cart is composed by the three parts of the hydraulic system, pneumatic and circuit. Pilot reversing valve of the hydraulic system controls two-way forcing valve doing the reciprocating motion continuously, inhaled nitrogen from nitrogen bottles to the gas chamber, and the other gas chamber would press the nitrogen which have been inhaled through a valve into the storage device or pressure vessel. When accumulator pressure reaches the preset tone value of nitrogen, the hydraulic system stop to work when the pressure gauge for electric connection gives the signal. The working schematic diagram showed as below.

四、技术规格 Specifications

型号 Model	氮气输入压力(Mpa) Nitrogen working pressure	最高输出压力(Mpa) Max output pressure	油泵/Oil pump		增压器/Pressure booster	
			压力/Pressure(Mpa)	流量/Pressure(Mpa)	增压比/Pressure ration	增压次数(min/No of Pressure boost cycles)
CDZ-25Y1	3.0-13.5	25	7	9	1: 4	8
CDZ-35Y1		35			1: 6	6
CDZ-42Y1		42	8	14-16	1: 7	7.5



1. 滤油器/Oil Filter
 2. 叶片泵/Vane pump
 3. 单向阀/Non-return valve
 4. 先导换向阀/Pilot reversing valve
 5. 上放气阀/The upper exhausting valve
 6. 气阀装置/Gas valve device
 7. 电接点压力表
Electric contact pressure gauge
 8. 溢流阀/Overflow valve
 9. 油压压力表/Hydraulic oil pressure gauge
 10. 下放气阀/The down exhausting valve
 11. 双向增压器/Two-way forcing valve
 12. 进气压力表/Inflating pressure gauge
- 说明: 1) 充氮车外形尺寸(长×宽×高)mm 800×600×1500
Note: 1) Nitrogen charging cart dimension(LxWxH)
2) 随充氮车提供:
CQJ型充气工具(胶管长3000mm)一套
接气源的胶管(长1500mm)一根
2) The parts which we will supply together with the nitrogen charging cart:
CQJ Inflating tool (Rubber Hose 3000mm) 1 set
Connection rubber hose (length 1500mm) 1 root

五、使用及订货注意事项 Ordering and using note

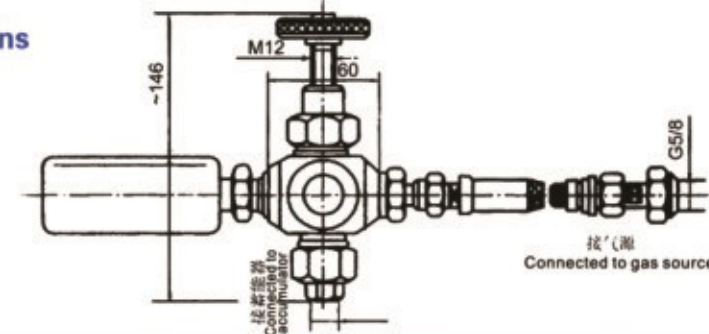
1. 本产品仅适用于氮气,严禁使用氧气或其他可燃、腐蚀性气体。
2. 本产品出厂时已根据用户要求将充氮压力调定,可不必再进行调节,接上电源就可以使用。若要改变充氮压力,只要重新调整电接点压力表的电触点位置即可。
3. 订货时除完整写明型号的所有代号外,也应标明实际使用的充氮压力。
1. Only use nitrogen, oxygen or other flammable, corrosive gas is prohibited to use.
2. It's no need to adjust the filling pressure, for the pressure has been set according to the requirement of the user's. Just connect the power you can use the product. If it's need to change the nitrogen pressure, please re-adjustment the electrical contacts of the electrical contact pressure gauge.
3. When ordering, indicate not only complete codes of the model, but also the actual working pressure.

一、简介 Brief Introduction

充气工具是蓄能器进行充气、补气、修正压力和检查充气压力等专用工具。它具有结构紧凑、使用方便、安全可靠、承高压、耐冲击等特点。

Inflating tool is a special tool to inflate or replenish the accumulator with gas, adjust and check its air pressure. It is characterized by compact design, convenient operation, high reliability, resistance to high pressure and impact.

二、外形尺寸 Dimensins



CQJ-※ 充气工具
CQJ-※ Inflating Tool

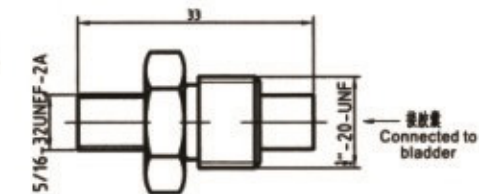
型号 Model	公称压力 Nominal Pressure (Mpa)	与蓄能器连接尺寸 Size of connection to accumulator	配用蓄能器型号 Model of matching accumulator	配用压力表/Matching pressure gauge		胶管规格/Hose spec		重量(kg) Weight
				刻度范围 Scale range	精度等级 Accuracy grade	内径×钢丝层数 IO' No. of steel wire layers	长度/Length (mm)	
CQJ-16	16	M14×1.5	NXQ-LF*/10	P=16	1.5	P=16	1000	1.7
CQJ-25	25		NXQ-LF*/20	P=25		P=25	至	1.7
CQJ-40	40		NXQ-LF*/31.5	P=40		P=40	2000	1.7

QXF 2-4、QXF1-5 充气阀 /Inflating Valve

一、简介 Brief Introduction

QXF型充气阀是蓄能器充装氮气用的单向阀,该阀借助充气工具向蓄能器充气,充气完毕,拆下充气工具后即可自行关闭。本阀亦可用于非腐蚀性气体的充装。本阀具有体积小、承压高、自封性能好的特点。

The QXF inflating valve is a non-return valve for charging accumulator with nitrogen. The valve inflates the accumulator through an inflating tool, and will shut off when the inflating tool is removed on completion of inflation. The valve may also be used to charge with non-corrosive gases. It is characterized by small size, resistance to high pressure and good self-sealing performance.

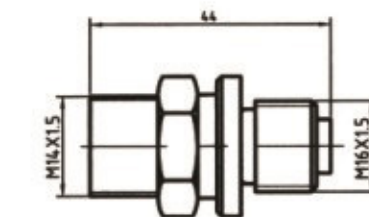


QXF2-4

二、型号说明 Model Designation

QXF - □ - □

- 1 充气阀/Inflating Valve
- 1: 国标/(Chinese Standard)
- 2: 美标/(ASME Standard)
- 3 公称通径/Nominal Diameter



QXF1-5

三、技术规格 Specifications

型号 Model	充气压力范围(Mpa) Inflating Range	公称通径 Nominal Diameter (mm)	螺纹连接 Thread Connection		配用蓄能器型号 Accumulator	重量(kg) Weight
			进口 Input	出口 Output		
QXF1-5	4-40	5	M14X1.5	M16X1.5	NXQ-※0.6-100/※-H	0.07
QXF2-4	4-40	4	5/16-32UNEF	1/2-20UNF	MB(T)-0.25-15/※	0.03

一、简介 Brief Introduction

AQF型安全球阀主要用于液-囊式蓄能器作为安全、断流和卸荷的蓄能器附件。安全阀可保持系统中的压力调定值。当压力超过调定值时，安全阀开启，防止系统过载，特别是封闭系统中的蓄能器更不可缺少，而防止外负荷的突然加大所造成系统的危害。

特点：结构紧凑、体积小、安全方便、操作简单。

AQF safety ball valve is mainly used as accessory of hydraulic-bladder accumulator for the purpose of safety, flow cutoff and load relief. A safety valve may maintain the set value of pressure in the system. When the pressure exceeds the set value, the safety valve will open to avoid overload of the system. It is especially indispensable to the accumulator in an enclosed system in preventing damage to the system in the event of sudden increase of external load.

Features: compact design, high safety and convenient operation



AQF型蓄能器安全球阀
AQF Type Safety Ball Valves for Accumulator Control

二、型号说明 Model Designation

AQF - L 32 H * - A / M42X2

① ② ③ ④ ⑤ ⑥

- | | |
|--|---|
| ① 名称代号: AQF—安全球阀 | ① Code: AQF— Safety Ball Valve |
| ② P油口连接方式: L—直通式内螺纹
LS—直角式外螺纹 LW—三通式外螺纹 | ② Connected to P oil port:
L—straight through female threaded connection
LS—Right angle through male thread connection
LW—3-way male through thread connection |
| ③ 公称通径: 25、32、40mm | ③ Nominal diameter: 25, 32, 40, ...mm |
| ④ 压力调节范围: H1—10MPa
H2—20MPa H3—31.5MPa | ④ Nominal pressure range: H1--10MPa
H2--20MPa H3--31.5MPa |
| ⑤ 安全阀结构: A—直动形溢流阀 | ⑤ Type of structure: A—Straight overflow valve |
| ⑥ 蓄能器接头螺纹: M27X2、M42X2、
M60X2、M72X2 | ⑥ The connecting thread to the accumulator: M27X2, M42X2,
M60X2, M72X2 |

三、技术规格及外形尺寸 Specifications and Overdimensions

型号Model	公称流量(L/min)		连接尺寸/Connection size(mm)			蓄能器(L) Matching accumulator	重量 Weight kg
	安全阀/Safety valve	球阀/Ball valve	H	Ds	Dp		
AQF-L25H*-A	40	100	31	M27 x 2	M33 x 2	1.6-10	29
AQF-LS25H*-A			42	M42 x 2	M42 x 2		
AQF-LW25H*-A			31	M42 x 2	M42 x 2		
AQF-L32H*-A	63	160	42	M60 x 2	M52 x 2	10-100	29.5
AQF-LS32H*-A			31	M42 x 2	M42 x 2		
AQF-LW32H*-A			42	M60 x 2	M60 x 2		
AQF-L40H*-A	100	250	31	M60 x 2	M48 x 2	10-100	30
AQF-LS40H*-A			42	M72 x 2	M60 x 2		
AQF-LW40H*-A			31	M60 x 2	M60 x 2		

型号Model	do	d	D	h	Do	L	L1	L2	重量/Weight
QF-L25	M60 x 2	M42 x 2	50	2.4	80	50	35	28	1.52
QF-L40	M72 x 2	M60 x 2	70		90	60	42	38	2.15

五、变径过渡接头 Adaptor

对于不同连接螺纹规格的蓄能器和安全球阀之间的连接，可利用变径过渡接头（补芯）解决。例如：连接螺纹为M72X2的蓄能器与32通径的安全球阀（S11螺纹M60X2）的连接，采用QF-L40接头即可。同理，各种蓄能器（包括进口的）和安全球阀（含其它系列的）之间的连接，都可采用此法。

The adaptor can help to connect the two different thread of accumulator to safety ball valve. For example, the thread of the accumulator connector: M72X2, the thread of the AQF safety ball valve: M60x2, the QF-L40 adaptor can help to connect them. In this way, all kind of the accumulator and safety ball valve can connect together.

六、使用及订货注意事项 Ordering and using note

1. 调试、维修后投入使用时，必须将小截止阀拧紧。
2. 订货时应完整写明型号的所有代号。例如：工作压力31.5Mpa，公称通径32mm，P油口连接方式为直角外螺纹，蓄能器接口螺纹M60X2的安全球阀型号是AQF-LS32H3-A/M60X2。
3. 需要变径过渡接头（补芯）的，在合同中另行写明其型号，如：QF-L40。
4. 外螺纹是与焊接螺母、焊接管、GB1235-76标准O形密封圈配套使用的，具体规格见CJZD型球阀部分。
5. 文字无法表达清楚地特殊要求，请提供书面技术资料（草图）。

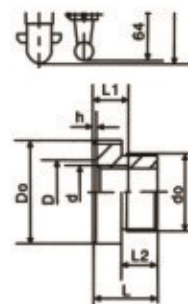
1. Tightening the small stop valve when the safety ball valve is put into use after debugging or repair.

2. The model and the code should be entirely indicated when ordering, for example, AQF-LS32-A/M60 x 2 means the following information, working pressure: 31.5Mpa, the nominal diameter: 32mm, P port connector: right angle through male thread, the thread of the accumulator connect: M60x2.

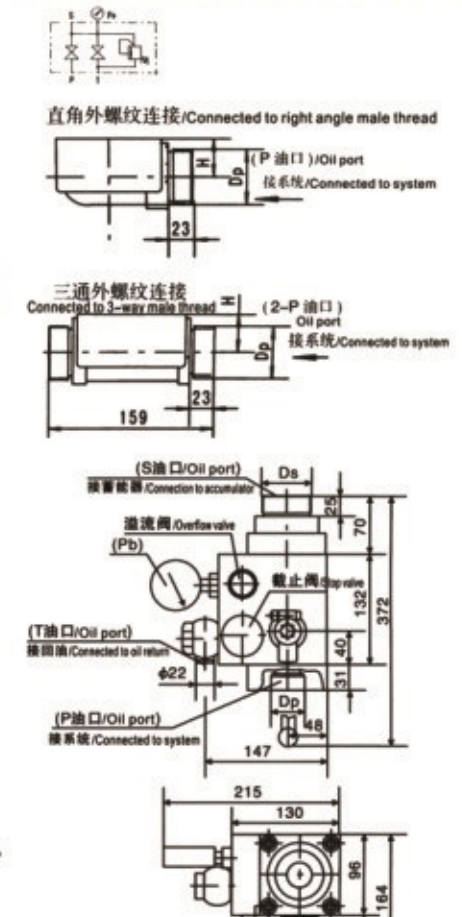
3. If the user need the adaptor, please indicate it clearly in the contract, for example: QF-L40

4. Male thread is matched with welded nut, welded pipe, and o ring(GB1235-76 Standard), the detailed specification are listed in CJZQ ball valve chapter.

5. If the special requirements can not be expressed clearly by words, please provide written technical file (draft).



四、液压原理图 Hydraulic principle



一、简介 Brief Introduction

蓄能器控制阀组由高压球芯截止阀、直控式溢流阀及一个小型截止阀组成。以高压球芯截止阀为手动主开关阀，直控溢流阀作为安全阀，小型截止阀为泄荷阀，是液压系统内蓄能器回路中不可缺少的三种阀的组合件。QFZ型蓄能器控制阀组另一主要特点是选用法兰直接焊接外连接结构，可大大降低蓄能器排列高度。

The combination valve for accumulator control is made up of high-pressure ball stop valve, direct-control overflow valve and a small stop valve. The high-pressure ball stop valve serves as a manual-operated main switch valve, the direct-control overflow valve as a safety valve and the small stop valve as a load relief valve. It is a valve combination indispensable to the circuit of accumulator in a hydraulic system. Another characteristic of QFZ combination valve for accumulator control is that connection is achieved through direct welding of flange, which may significantly lower the installation position of accumulators.

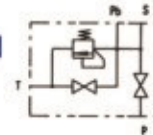
二、型号说明 Model Designation

QFZ - H * 25 F

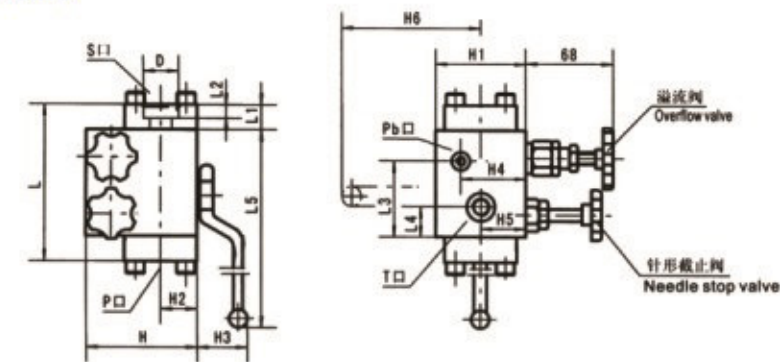
① ② ③ ④ ⑤

- | | |
|---|---|
| ① 名称代号: QFZ—蓄能器控制阀组 | ④ 公称通径/Nominal diameter: 15、25、40、50mm |
| Name code: QFZ—Accumulator control valve group | ⑤ P、S11连接方式: F—法兰
P、S connection type: F—Flanged |
| ② 公称压力/Nominal pressure: H—31.5MPa | |
| ③ 调压范围/Range of set pressure: b—2-10MPa
c—8-20MPa d—16-31.5MPa | |

三、液压原理符号 Hydraulic principle Symbol



四、外形尺寸 Dimensins



图中: P—接系统/Connected to system; S—接蓄能器/Connected to accumulator; T—回油箱/Connected to oil return tank; Pb—接压力表/Connected to pressure gage

型号/Model	L	L1	L2	L3	L4	L5	H	H1	H2	H3	H4	H5	H6	D	T	Pb	重量(kg) Weight
QFZ-H*15F	115	20	11	55	25	169	90	75	28	36	60	40	129	22.5	M14 x 1.5	M10 x 1	5
QFZ-H*25F	155	25	14	75	30	240	110	90	36	52	65	45	175	35	M18 x 1.5	M10 x 1	9
QFZ-H*40F	180	30	15	90	35	283	140	100	48	60	65	45	210	52	M18 x 1.5	M14 x 1.5	19
QFZ-H*50F	230	35	15	115	56	322	160	120	60	66	70	45	217	64	M22 x 1.5	M14 x 1.5	27

五、使用及订货注意事项 Ordering and using note

1. 使用时必须把针形截止阀拧紧。
2. 订货时应完整地写明型号的所有代号。例如：公称通径25mm，安全阀的调压范围16-31.5Mpa，其型号是QFZ-Hd25F
3. 用文字无法表达清楚地特殊要求，请提供书面技术资料（如草图）。

1. Tightening the needle stop valve when the safety ball valve is put into use.

2. The model and the code should be entirely indicated when ordering, for example, QFZ-Hd25F means the following information, the nominal diameter: 25mm, the pressure adjusting range from 16 to 31.5Mpa.

3. If the special requirements can not be expressed clearly by words, please provide written technical file (draft).



QFZ 型蓄能器控制阀组
QFZ Type Combination Valve for Accumulator Control

一、简介 Brief Introduction

蓄能器控制阀组，安装在蓄能器和液压系统之间，用于控制蓄能器液压油通断、溢流、泄压、工况的组合阀件。

AJ型蓄能器控制阀组具有操作方便，性能可靠，结构紧凑等优点。本产品的阀体均采用优质钢材锻件，表面进行化学镀镍处理。

AJ型蓄能器控制阀组由球阀、安全阀和卸荷阀等组成，其中：安全阀有螺纹插装式溢流阀、卸荷阀有手动控制（手动控制为螺纹针型阀）。

The combination valve for accumulator control is installed between the accumulator and the hydraulic system and controls the on/off, overflow, pressure relief and working condition of the hydraulic oil.

The AJ combination valve for accumulator control is characterized by convenient operation, reliable performance and compact design. The valve body is made of premium steel castings and is subjected to nickel plating process.

The AJ combination valve for accumulator control is made up of ball valve, safety valve and relief valve. The safety valve may be a threaded insertion type overflow valve, and the relief valve may be manual operated (threaded needle).



AJ型蓄能器控制阀组
AJ Type Combination
Valve for Accumulator Control

二、型号说明 Model Designation

AJ * S - 32 H Z / * - E24

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

① 控制阀组代号

② T油口相对P油口位置：无——同侧 1——异侧

③ 卸荷形式：S——手动

DK——断电卸荷(装B型电磁球阀)

DB——通电卸荷(装K型电磁球阀)

④ 公称通径：10、20、32 (mm)

⑤ 安全阀最大调节压力：a——6.3MPa b——16MPa

c——25MPa H——31.5MPa 无——不带安全阀

⑥ 溢流阀结构代号：

Z——螺纹插装式直动形溢流阀

C——二通插装式溢流阀 无——不带安全阀

⑦ S口(蓄能器)接头螺纹：M27X2或M42X2 (DN10)

M42X2或M60X2 (DN20) M60X2或M72X2 (DN32)

⑧ 电控制卸荷电压：E24—直流24V B220—交流本整220V

① Model of combination valve

② location of T port to P port. "1" means not on the same side. If they're on the same side, no need to indicate.

③ Method of pressure relief: S--manual-operated pressure relief

DK: power off pressure relief (equipped with B-type electromagnetic valve)

DB: power on pressure relief (equipped with K-type electromagnetic valve)

④ Nominal diameter: 10,20,32(mm)

⑤ Max. adjusting pressure of the combination valve: a-6.3Mpa,b-16MPa,

c-25Mpa,h-31.5MPa, none-without combination valve

⑥ Structure code of the overflow valve:

Z - threaded inserting straight through overflow valve

C - two way inserting overflow valve None: without combination valve

⑦ Thread diameter of S shape port connector (accumulator):M27X2 or M72X2(DN10)

M42X2 or M60X2(DN20) M60X2 or M72X2(DN32)

⑧ Unloading voltage controlled by electricity:E24-DC 24V B220-220V AC of the whole

三、外形尺寸 Dimensins

(1) AJS-**Z/*手动卸荷式(T口与P口同侧) DN10—32

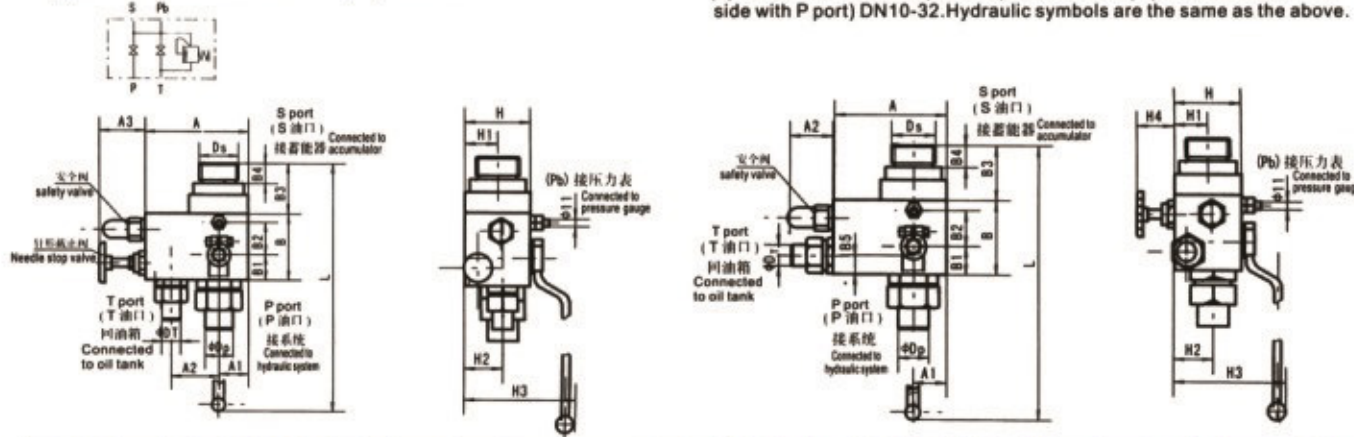
(1) AJS-**Z/* manual-operated pressure relief

(T port is on the same side with P port) DN10-32.

(2) AJIS-**Z/*手动卸荷式(T口与P口异侧) DN10—32

(2) AJIS-**Z/* manual-operated pressure relief(T port isn't on the same

side with P port) DN10-32. Hydraulic symbols are the same as the above.

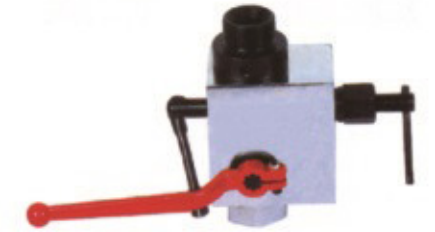


D ₁	A	B	H	L	A1	A2	A3	B1	B2	B3	B4	H1	H2	H3	DS	D _p	D ₁
10	90	85	50	236	25	45	68	21	39	43	16/23	25	27.5	85	M27X2/M42X2	18	16
20	145	90	90	333	45	59	68	30	40	63	23	45	57.5	149	M42X2/M60X2	28	28
32	155	100	90/95	340	45	72	68	38	47	75	30	45/47.5	52/54.5	154/159	M60X2/M72X2	42	28

一、简介 Brief Introduction

AJF型安全截止阀是一种蓄能器配套使用的新型液压元件，装在蓄能器与系统相连的管道之间，具有使蓄能器与系统通断，限压、放油卸压等保护蓄能器的功能。阀体上设有测压油口，可检测蓄能器的工作压力。本阀组由球形截止阀、杠杆式调压卸压组合阀等组成，结构独特、操作方便。

AJF safety ball valve is a new type hydraulic parts matched with the accumulator, it's set between the accumulator and hydraulic system, this kind of valve has the functions of safety protection, flow cutoff and load relief for the accumulator in the hydraulic system. A pressure testing port is set on the valve to check the working pressure of the accumulator. The combination valve is consist of ball stop valve, safety valve and relief valve and so on. it's characterized by convenient operation, reliable performance and compact design.



AJF型 安全截止阀
AJF Type Safety Stop Valve

二、型号说明 Model Designation

AJF - H* 40 L*

① ② ③ ④

① 名称代号：AJF——安全截止阀

① Code: AJF-- Safety Stop Valve

② 公称压力：H1——10 MPa

② Nominal Pressure: H1--10MPa

H2——20 MPa

H2--20MPa

H3——31.5 MPa

H3--31.5MPa

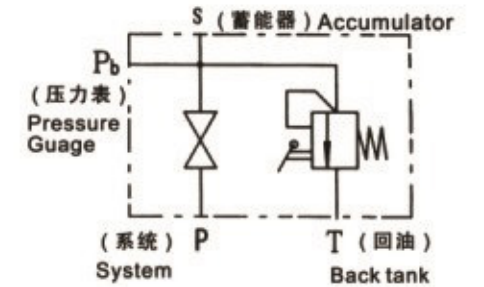
③ 公称通径：25、40、50mm

③ Nominal diameter: 25,40,50,...mm

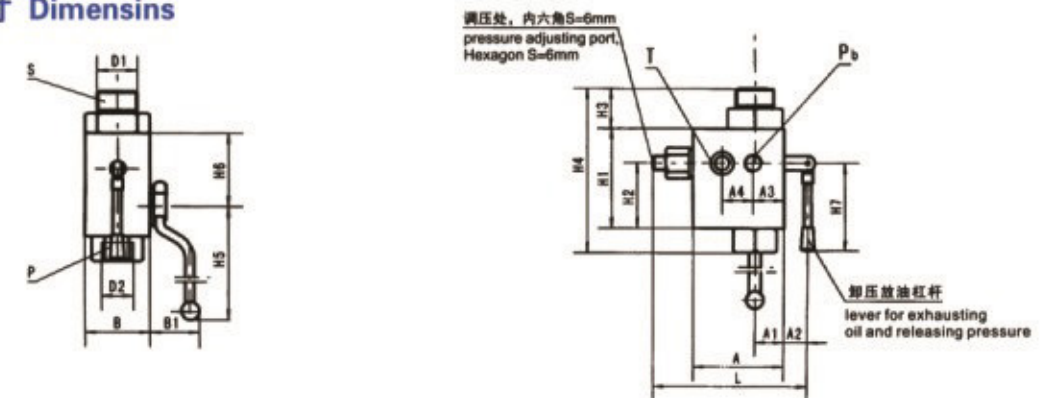
④ 连接方式：L——直通螺纹

④ Connection type: L--Straight thread connection

三、液压符号 Hydraulic Symbol



四、外形尺寸 Dimensins



型号/Model	A	A1	A2	A3	A4	B	B1	H1	H2	H3	H4	H5	H6	H7	L	D1	D2	T	Pb
AJF-HX25L	100	34	26	34	34	68	52	110	72	43	179	175	78	94	171	M42X2	M33X2	M18X1.5	
AJF-HX40L	130	48	29	48	45	96	60	146	103	55	234	210	104	105	222	M60X2	M48X2	M22X1.5	M20X1.5
AJF-HX50L	140	55	29	48	58	110	66	160	113	60	262	217	106	105	232	M72X2	M60X2	M22X1.5	

五、使用及订货注意事项 Ordering and using note

1. 本阀组的卸压放油均由杠杆完成，它可在轴心平面360度范围内转动，用户按任意决定其位置。

1. The safety ball valve realized releasing pressure and exhausting oil by operating the lever, it can turn around the center axis at 360 degree, so it's possible to make according to the requirement of the user's.

2. 推荐与蓄能器配套使用的对应规格：

2. You're suggested to buy the relating valve whose specification matched with the accumulator.

AJF通径N/Diameter(mm)	25	40	50
蓄能器容积/Accumulator volume(L)	1.6-6.3	10-40	63-100

3. 订货时请完整地写明型号的所有代号。例如：公称压力31.5MPa，通径40mm的安全截止阀型号是 AJF - H3 40L

3. The model and the code should be entitly indicated when ordering, for example, AJF-H340L means the following information, the nominal diameter:40mm, the nominal pressure: 31.5Mpa.

4. 用文字无法表达清楚的特殊要求，请附书面技术资料。

4. If the special requirements can not be expressed clearly by words, please provide written technical file (draft).

一、简介 Brief Introduction

XJF截止阀为蓄能器专用截止阀。主阀芯为液压平衡锥阀式，本阀专为蓄能器拆卸设计了排放油口。
本阀的特点是开启力小、密封可靠、体积小、重量轻。结构简单，性能优良，可代替HIROSE, VLAVE,IND-USTRY,COLTD公司的蓄能器截止阀。

XJF stop valve is specially designed for use in accumulator. The main plug is one for hydraulic balanced conical valve, with a special oil drain designed for accumulator.
The valve is characterized by small opening force, reliable sealing, small size, light weight, simple structure and good performance. It can be used as substitute for the accumulator stop valves of Hirose Valve Industry Co., Ltd.

二、型号说明 Model Designation

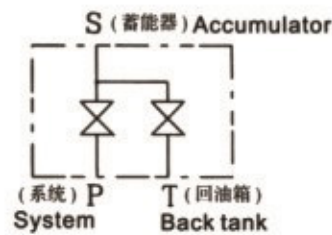
XJ*F - * / 10
① ② ③

- ① 阀组代号: XJF—P油口焊接式法兰 ① Valve group code: XJF-P Oil port welded type flange
XJ1F—P油口外螺纹 XJ1F-P Oil port male thread
② 公称口径: 10、20、32、40mm ② Nominal diameter: 10,20,32,40mm
③ 排放口口径: 10mm ③ Drain diameter: 10mm



AJ型蓄能器控制阀组
AJ Type Combination
Valve for Accumulator Control

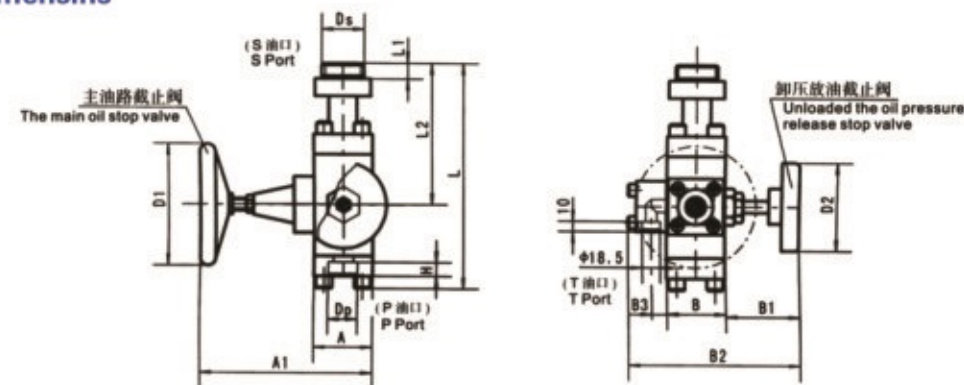
三、液压原理符号 Hydraulic Principles Symbol



四、技术参数 Technical Specifications

型号/Model	公称压力/Nominal Pressure(MPa)	公称口径/Nominal diameter(mm)	公称流量/Nominal flow(L/min)	排放口径/Drain diameter(mm)	配用蓄能器容积 L / Model of matching accumulator
XJF-10/10	31.5	10	40	10	1.6-6.3
XJF-20/10		20	100		
XJF-32/10		32	160		
XJF-40/10		40	250		10-100

五、外形尺寸 Dimensins

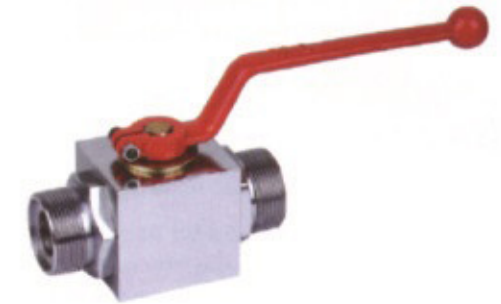


型号/Model	A	A1	B	B1	B2	B3	L	L1	L2	D1	D2	H	Dp	Ds	重量/Weight(kg)
XJF-10/10	58	170	58	67	163	15	236	15	163	125	90	9	18.5	M42X2	
XJF-20/10	58	170	58	67	163	15	244	15	163	125	90	10	28.5	M42X2	
XJF-32/10	85	226	76	74	197	18.5	295/299	26/30	201	160	90	16	43	M60X2/M72X2	
XJF-40/10	85	226	76	74	197	18.5	295/299	26/30	201	160	90	-20	50	M60x2/M72x2	

一、简介 Brief Introduction

QJ H - 15 *
① ② ③ ④

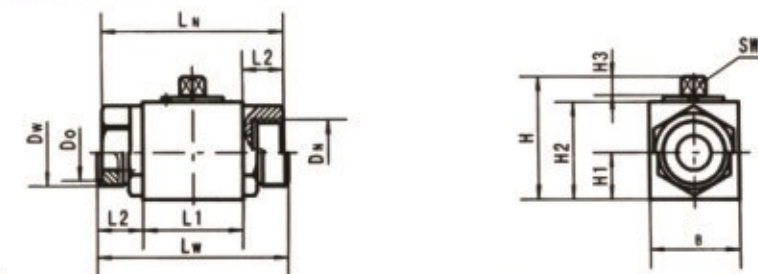
- ① 名称代号: QJ—球芯截止阀 ① Code: QJ--Ball Core Stop Valve
② 压力等级: H—31.5MPa ② Pressure class: H--31.5MPa
③ 公称口径: 10、15、20...mm ③ Nominal diameter: 10,15,20,...mm
④ 连接方式: NL—内螺纹 WL—外螺纹 B—板式 F—螺栓连接圆法兰 F1—焊接式法兰
F1--Welded type flange



QJH型高压球芯截止阀
QJH Type High-pressure Stop Valve

二、外形尺寸 Dimensins

1. 内螺纹连接和外螺纹连接 /Female threaded connection and male thread connection



内螺纹连接/Female thread connection size:

型号/Model	B	LN	L1	L2	H	H1	H2	H3	DN	SW
QJH-6NL	30	68	36	16	36	12	30	9	M16x1.5	9
QJH-10NL	35	76	42	17	54	17.5	40	9	M18x1.5	9
QJH-15NL	42	88	48	20	58	21.5	44	9	M27x2	9
QJH-20NL	48	102	60	21	72	24	55	12	M33x2	12
QJH-25NL	58	116	64	26	79	29.5	62	12	M42x2	12
QJH-32NL	68	129	76	26.5	89	34	72	13	M48x2	14
QJH-40NL	80	148	84	32	108	42	90	13	M60x2	14

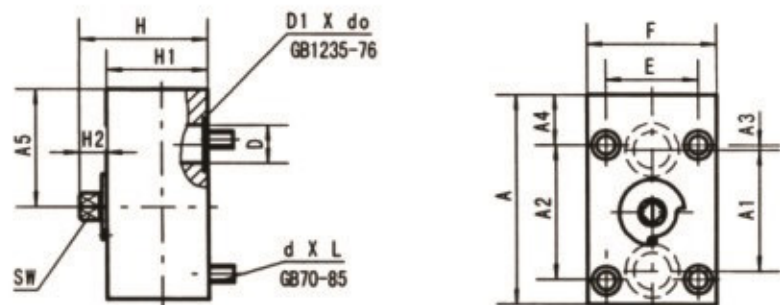
外螺纹连接/Male thread connection size:

型号/Model	B	W	L1	L2	H	H1	H2	H3	D _o	DN	SW
QJH-6WL	30	70	36	17	36	12	30	9	11	M16x1.5	9
QJH-10WL	35	86	42	22	54	17	40	9	16	M22x1.5	9
QJH-15WL	42	96	48	24	58	21.5	44	9	22	M30x1.5	9
QJH-20WL	48	112	60	27	72	24	55	12	28	M36x2	12
QJH-25WL	58	122	64	29	79	29.5	62	12	35	M42x2	12
QJH-32WL	68	145	76	24.5	89	34	72	13	40	M52x2	14
QJH-40WL	80	162	84	39	108	42	90	13	50	M60x2	14

注: 外螺纹与焊接式接管、螺母和GB1235-76标准O形密封圈配套使用。用户可自行配置,也可由我厂配齐,但须另行订货。(对应关系如下表:)
Note: the welded pipe, nut and O ring of GB1235-76 standard work with male threaded connection. we can supply them under the requirement of the user's. Indicate them in the contract according to the following table.

型号/Model	QJH-6WL	QJH-10WL	QJH-15WL	QJH-20WL	QJH-25WL	QJH-32WL	QJH-40WL
焊接式管接头螺母 / JB981-77 Nut, welded pipe connector/JB981-77	M16x1.5	M22x1.5	M30x1.5	M36x2	M42x2	M52x2	M60x2
焊接式管接头接管 / JB2099-77 Pipe, welded pipe connector/JB2099-77	10	14	22	28	34	42	50
O形密封圈/O-ring/ GB1235-76	11x1.9	16x2.4	22x2.4	28x3.1	35x3.1	40x3.1	50x3.1

2. 板式连接/Plate connection

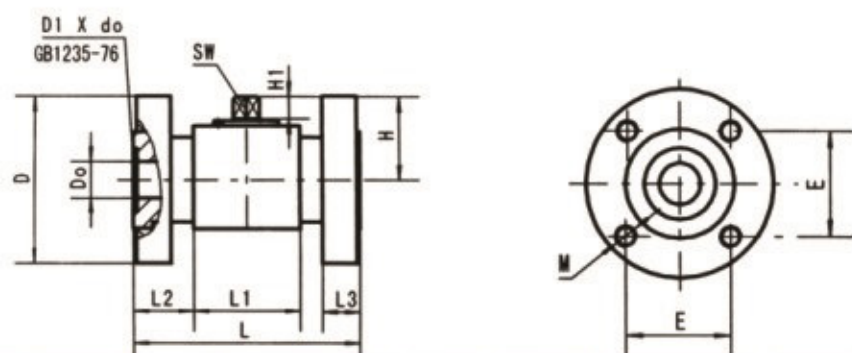


型号/Model	E	F	A	A1	A2	A3	A4	A5	H	H1	H2	D	d x L	D1 x do	SW
QJH-10B	38	54	81	45	60	11	13	48.5	56	42	9	10	M6 x 40	16 x 2.4	9
QJH-15B	42	60	92	52	56	6	20	54	60	46		13	M8 x 45	20 x 2.4	
QJH-20B	50	70	108	60	70	7.5	21.5	61	67	50	12	18	M10 x 55	25 x 2.4	12
QJH-25B	55	77	125	72	80	3	30	70	77	60		22	M10 x 60	32 x 3.1	
QJH-32B	75	100	161	99	120	14	23	87	89	72	13	30	M12 x 70	40 x 3.1	14
QJH-40B	90	122	187	112	150	23	20	99.6	108	90		36	M16 x 90	50 x 3.1	

注：需要安装螺钉者，请在订货时说明。在选用口径25-40mm板式阀时，请注意参阅后面的“特别警告”。

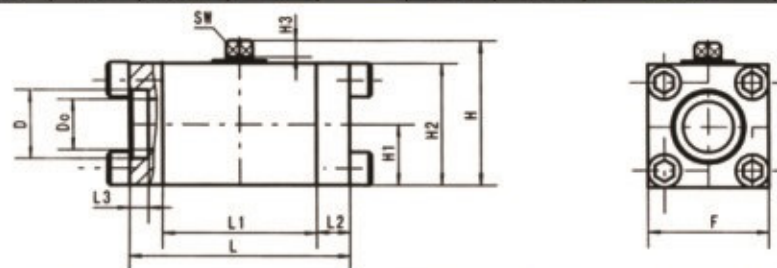
Note: if the installing screws are needed by the user, please indicate them when ordering. When ordering the plate connecting valve whose nominal diameter is from 25 mm to 40 mm, please read the "special warning" on the back carefully.

3. 螺钉连接圆法兰
Screw connection round flange



型号/Model	L	L1	L2	L3	H	H1	D	D ₀	D1 x do	E	M	SW
QJH-10F	103	42	30.5	14.5	34	9	68	10	22 x 2.4	36	M10	9
QJH-15F	114	48	33	16.5	36.5		75	13	24 x 2.4	40		
QJH-20F	118	60	29	20.5	48	12	78	18	30 x 3.1	42	M12	12
QJH-25F	136	64	36	22.5	49.5		100	22	38 x 3.1	56		
QJH-32F	148	76	36	26.5	55	13	110	30	45 x 3.1	62	M16	14
QJH-40F	178	84	46	30.5	66		130	36	55 x 3.1	73		

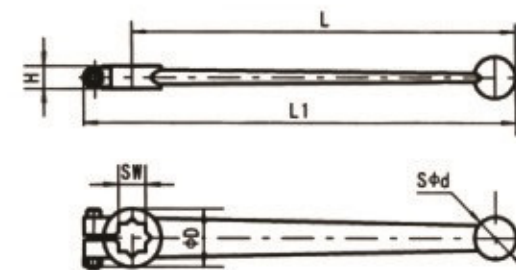
4. 焊接式法兰/Welded flange



型号/Model	D ₀	L	L1	L2	L3	D	H	H1	H2	H3	F	SW
QJH-50F1	46	200	140	30	17	62	129	55	110	14	110	17
QJH-65F1	60	250	160	45	22	77	149	65	130		130	
QJH-80F1	70	265	175		25	91	175	75	150	20	150	24
QJH-100F1	95	294	194	50	30	116	230	95	195	28	95	28

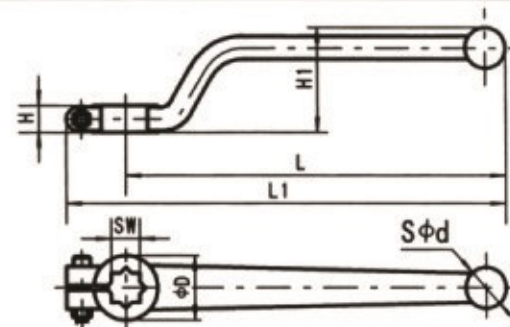
三、手柄 Handle

1. 直柄 (抱箍式)
Straight handle (Furrled)



Sw	L	L1	H	D	d	螺钉/Bolt/GB70-85	螺母/Nuts	重量Weight/kg
9	150	170	10	22	15	M4 x 20	M4	
12	173	195	12	28	22	M5 x 20	M5	
14	200	226	12	32	24	M5 x 25	M5	
17	240	270	14	36	26	M6 x 35	M6	

2. 曲柄 (抱箍式)
Bend handle (Furrled)



Sw	L	L1	H	H1	D	d	螺钉/Bolt/GB70-85	螺母/Nuts	重量Weight/kg
9	129	147	9	36	24	18	M4 x 20	M4	
12	175	198	11	48	28	21	M5 x 25	M5	
14	211	236	12	61	33	22	M6 x 30	M6	
17	240	271	14	68	38	26	M6 x 30	M6	
24	400		20	40					
28	445		28	55					

四、订货须知及型号事例 Ordering note and model desingnat ion

- 产品出厂时均带曲柄手柄，如需直柄者应说明。
- 型号完整写法示例

公称口径 20mm，连接方式为螺钉连接的圆法兰的本系列球阀： QJH-20F
公称口径 32mm，连接方式为外螺纹的本系列球阀： QJH- 3 2WL
注：如需配齐接管、螺母者的写法 QJH- 3 2 WL (带接管、螺母)

1. Bend handle will be supplied with the QJH high pressure stop valve, please notify us if straight handle is needed.
2. Model designation
QJH-20F means nominal diameter: 20mm, connection method: Screw connection round flange.
QJH-32WL means nominal diameter: 32mm, connection method: male threaded connection.
Note: if pipe and nut need to be supplied with the valve, then indicated as: QJH-32WL (with pipe, nut).

五、特别警告 Special Warning

公称口径25-40mm板式阀的螺孔、油口安装尺寸，国内某些厂家产品样本上的数据，与本厂不同，但与本厂YJZQ系列相同口径的板式阀完全一致。因此，当需要的阀安装尺寸参照其他厂家确定而与本厂不同时，可改用本厂YJZQ系列板式阀。

This kind plate connection valve, nominal diameter from 25 to 40mm, the installing size of thread hole and oil port is different with the product made by any other manufacturer, but their data is same with our YJZQ product. Therefore, the installing size can refer to the other manufacturers.

一、型号说明 Model Designation

JZQ - H 20 F
① ② ③ ④

- ① 名称代号: JZQ —— 高压手动球阀
Name code: JZQ High-pressure Manual Ball Valve
- ② 公称压力/Nominal pressure: H —— 31.5MPa
- ③ 公称通径/Nominal diameter: ... 10、15、20 mm

- ④ 连接形式/Connection type: L —— 外螺纹连接/Male thread connection
F —— 法兰/Flange connection
G —— 内螺纹连接/Female thread connection
B —— 板式连接/Plate connection

二、外形尺寸 Dimensins

1. JZQ外螺纹连接式/Male thread connection type



NG	d	L ₁	L ₂	L ₃	L	b	M	D	H ₁	H ₂	H ₃	密封面 密封面 Sealed with O-ring
6	6	100	1.4	12	74	32	M16x1.5	11	40	64	11x1.9	
10	10	100	1.8	12	77	32	M22x1.5	16	40	64	16x2.4	
16	16	100	1.8	14	82	40	M30x1.5	24	46.5	68	24x2.4	
20	20	140	2.4	16.5	103	50	M36x2	30	57.5	90	30x3.1	
25	25	140	2.4	20	122	60	M42x2	35	68.5	95	35x3.1	
32	32	180	2.4	22	142	72	M52x2	40	80	119	40x3.1	
40	40	180	2.7	24	160	82	M60x2	48	91	127	48x3.5	

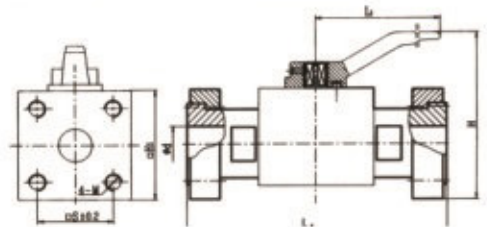
注: 采用GB1235-76标准O型密封圈
Note: O ring complied with GB1235-76 standard.

2. JZQ内螺纹连接式/Female thread connection type



NG	d	L ₁	L ₂	b	H ₁	M	H
6	6	100	72	32	40	M14x1.5	64
10	10	100	76	32	40	M18x1.5	64
16	16	100	81	40	46.5	M27x2	79
20	20	140	92	50	57.5	M33x2	90
25	25	140	100	60	68.5	M42x2	104
32	32	180	124	72	80	M48x2	119
40	40	180	146	82	91	M48x2	127

3. JZQ法兰连接式/Flange connection type



NG	d	L ₁	L ₂	M	S	H	H ₁
10	10	100	124	M8	28.3	72	48
16	16	100	141	M8	35.4	86	53
20	20	140	149	M10	43.8	97	65
25	25	140	160	M12	51.6	108	77
32	32	180	180	M14	60.1	124	88
40	40	180	202	M16	69.3	136	100

注: 本系列板式阀的安装连接尺寸与KHP系列相同, 仅尺寸标注的方向不同。推荐选用KHP系列板式球阀。
Note: the installing size of this series of plate valve is the same with KHP series, the small difference is the direction of marking.
I recommend you buy KHP type plate valve.

三、订货须知 Ordering note

1. 请完整地写明型号的全部代号。如公称通径 20mm, 法兰连接的本系列球阀: JZQ-H20F
2. 有特殊要求, 请与本厂商洽。文字表达不清楚的, 须提交书面技术资料。
3. 手柄内容见 QJH 型部分, 手柄随阀提供。

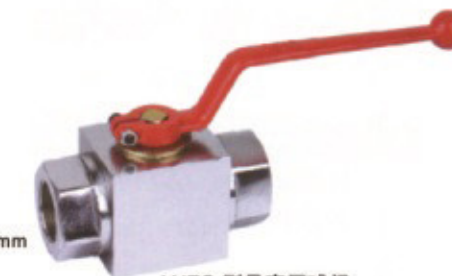
1. Please indicate all the codes of the model, for example: JZQ-H20F means nominal diameter 20mm, flange connection
2. Please contact the company under the special demand. if the special requirements can not be expressed clearly by words, please provide written technical file.
3. handle will be supplied with the valve. Please read the handle specification on QJH chapter.

一、型号说明 Model Designation

Y JZQ - J 15 *
① ② ③ ④ ⑤

- ① 属性代号: Y —— 液压
② 产品名称代号: JZQ —— 球阀截止阀
③ 公称压力: J —— 31.5MPa
④ 公称通径: 10、15、20、25、32、40、50mm
⑤ 连接形式: N —— 内螺纹 (NG —— 11制管螺纹)
W —— 外螺纹 B —— 板式

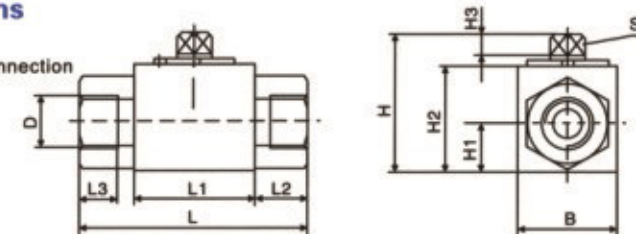
- ① Code: Y--Hydraulic
② Product code: JZQ--Ball stop valve
③ Nominal pressure: J--31.5MPa
④ Nominal diameter: 10,15,20,25,32,40,50mm
⑤ Connection type: N--Female thread
(NG--British pipe thread)
W--Male thread B--Plate type



YJZQ 型号高压球阀
YJZQ Type High-pressure Ball Valves

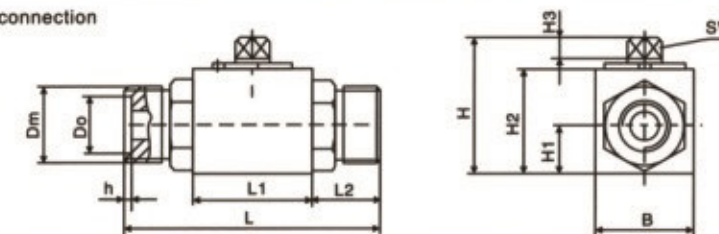
二、外形尺寸 Dimensins

1. 内螺纹连接/Female thread connection



型号/Model	L	L1	L2	L3	B	H	H1	H2	H3	D		SW
										M	G	
YJZQ-J10N	79	42	18.5	14	35	54	17.5	40	9	M18x1.5	G3/8"	9
YJZQ-J15N	86	48	19	16	35	54	17.5	40	9	M22x1.5	G1/2"	
YJZQ-J20N	108	60	24	18	48	71	24	55	12	M27x2	G3/4"	12
YJZQ-J25N	116	64	26	20	58	78	30.5	62	12	M33x2	G1"	
YJZQ-J32N	136	76	30	22	68	89	34	72	13	M42x2	G1 1/4"	14
YJZQ-J40N	148	84	32	24	80	108	42	90	13	M48x2	G1 1/2"	
YJZQ-J50N	180	108	36	26	98	129	50	110	14	M64x2	G2"	17

2. 外螺纹连接/Male thread connection



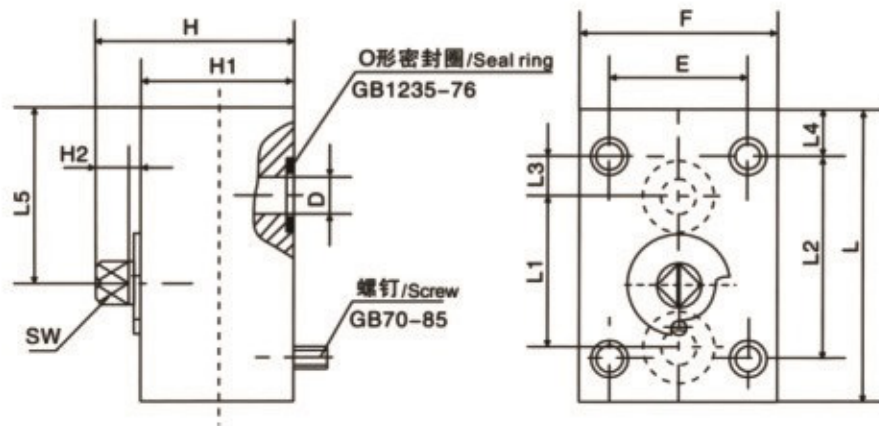
型号/Model	L	L1	L2	B	H	H1	H2	H3	h	D _m	D _o	SW
YJZQ-J15W	96	48	24	35	54	17.5	40	9	1.8	M30x1.5	22	
YJZQ-J20W	112.5	60	26.2	48	71	24	55	12	2.4	M36x2	28	12
YJZQ-J25W	122	64	29	58	78	30.5	62	12	2.4	M42x2	35	
YJZQ-J32W	145	76	34.5	68	89	34	72	12	2.4	M52x2	40	14
YJZQ-J40W	157.5	84	36.7	80	108	42	90	13	2.4	M64x2	50	
YJZQ-J50W	190	108	41	98	129	50	110	14	2.4	M72x2	60	17

注: 外螺纹与焊接式接管、螺母和GB1235-76标准O形密封圈配套使用, 用户可自行配置, 也可由我厂配齐, 但须另行订货。对应关系如下表: (接管、螺母的尺寸参阅本样本资料部分)

Note: Male thread is used with welded nut, welded pipe, and a ring (GB1235-76 Standard), it's up to the user whether buying them or not. it's necessary to indicate them clearly in the order when the user need them. Read the following table before ordering. (read the size of the welded pipe and welded nut on files chapter)

型号/Model	YJZQ-J10W	YJZQ-J15W	YJZQ-J20W	YJZQ-J25W	YJZQ-J32W	YJZQ-J40W	YJZQ-J50W
焊接式管接头螺母/ JB981-77 Welded pipe joints nut/ JB981-77	M27x1.5	M30x1.5	M36x2	M42x2	M52x2	(自配)	M72x2
焊接式接管/Welded hose/ JB2099-77	18	22	28	34	42	50	65
O形密封圈/O-ring/GB1235-76	20x2.4	22x2.4	28x3.1	35x3.1	40x3.1	50x3.1	60x3.1

3. 板式连接/Plate connection



型号/Model	E	F	L	L1	L2	L3	L4	L5	H	H1	H2	D	SW	O形圈/ring	螺钉/Screw
YJZQ-J10B	38	54	81	45	56	11	13	48.5	56	42	9	10	9	16×2.4	M6×40
YJZQ-J15B	42	60	92	52	60	6	20	54	60	46	9	13	9	20×2.4	M8×45
YJZQ-J20B	50	70	108	60	70	7.5	21.5	61.3	67	50	12	18	12	25×2.4	M10×55
YJZQ-J25B	55	77	118	65	80	11	21.5	64.2	77	60	12	22	12	32×3.1	M10×60
YJZQ-J32B	75	100	154	90	120	19	18	84.5	89	72	13	30	14	40×3.1	M12×70
YJZQ-J40B	90	122	185	110	150	23	20	99.6	108	90	13	36	14	50×3.1	M16×90

注：(1) O形密封圈随阀提供，标准号为GB1235-76。
(2) 螺钉强度10.9级；需要者请在订货时说明。

Note: (1) O ring will be supplied with the valve, the o ring is complied to GB1235-76 standard.
(2) The strength of the screw is 10.9 class, indicate it in the contract when necessary.

三、使用及订货注意事项 Using and ordering note

订货时应完整写明型号每个代号及附说明。例如

- (1) 公称压力31.5MPa, 公称口径20mm, 公制内螺纹连接的本型球阀, 其型号为YJZQ-J20N
- (2) 公称压力31.5MPa, 公称口径15mm, 公制时制管螺纹连接的本型球阀, 其型号为YJZQ-J15NG
- (3) 公称压力31.5MPa, 公称口径32mm, 外螺纹连接, 带接管和螺母的本型球阀, 其型号为YJZQ-J32W(带接管、螺母)
- (4) 公称压力31.5MPa, 公称口径10mm, 板式连接, 带螺钉的本型球阀, 其型号为YJZQ-J10B(带螺钉)

Please indicate all the codes of the model when ordering, for example

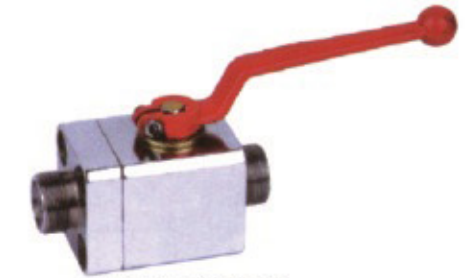
- (1) Nominal pressure: 31.5Mpa, nominal diameter: 20mm, metric female thread connection of this type valve, indicated as: YJZQ-J20N.
- (2) Nominal pressure: 31.5Mpa, nominal diameter: 15mm, inch pipe threaded connection of this type valve, indicated as: YJZQ-J15N.
- (3) Nominal pressure: 31.5Mpa, nominal diameter: 32mm, male threaded connection, pipe and nut supplied as part of this type valve, indicated as: YJZQ-J32W(with pipe, nut)
- (4) Nominal pressure: 31.5Mpa, nominal diameter: 10mm, plate connection, screw supplied as part of this type valve, indicated as: YJZQ-J10B(with screw).

一、型号说明 Model Designation

C JZQ - F * H

① ② ③ ④ ⑤

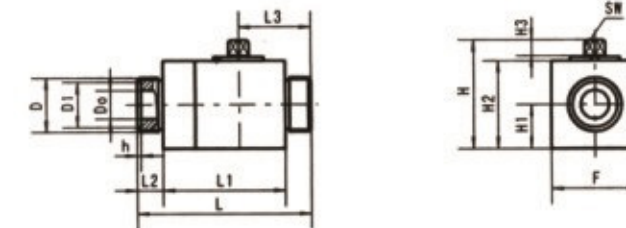
- | | |
|--------------------------------|--|
| ① 主要应用领域: C——船用。 | ① Main of application domain: C--Boat |
| ② 名称代号: JZQ——球形截止阀 | ② Code: JZQ-- Ball stop valve |
| ③ 连接方式: L——螺纹
F——法兰 | ③ Connection type: L--Thread
F--Flange |
| ④ 公称口径: 10、15、20...mm | ④ Nominal diameter: 10,15,20...mm |
| ⑤ 公称压力: H——31.5MPa
F——20MPa | ⑤ Nominal pressure: H--31.5MPa
F--20MPa |



YJZQ 型球形截止阀
YJZQ Type Ball Stop Valves

二、外形尺寸 Dimensins

1. 外螺纹连接/Male thread connection

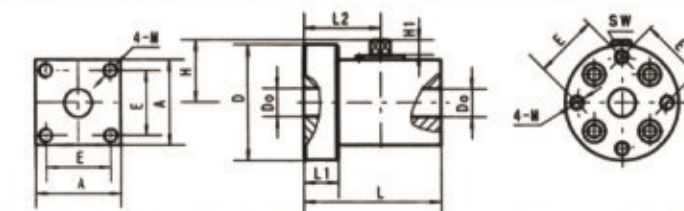


型号/Model	Do	F	L	L1	L2	L3	H	H1	H2	H3	D1	h	SW	D	重量Weight/kg
CJZQ-L6H	6	32	72	48	12	26.5	43	16	32	11	11	1.4	7	M16×1.5	
CJZQ-L10H	10	52	100	70	15	40.5	66	26	52	9	20	1.8	9	M27×1.5	
CJZQ-L15H	13	56	105	73	16	42.5	70	28	56		24			M30×1.5	
CJZQ-L20H	18	65	121	85	18	49	82	32.5	65	12	30		12	M36×2	
CJZQ-L25H	22	68	135	95	20	56	85	34	68		35		14	M42×2	
CJZQ-L32H	30	85	160	116	22	70.6	103	42.5	85	13.5	40	2.4	14	M52×2	
CJZQ-L40H	36	90	180	120	30	78.5	108	45	90		45		17	M60×2	
CJZQ-L50F	46	120	206	136	35	96	139	60	120	14.5	55		17	M72×2	

注：外螺纹与焊接式接管、螺母及GB1235-76标准的O形密封圈配套使用。用户可自行配置，也可由我厂配齐。但须另外订货。对照表如下：
Note: male thread is used with welded nut, welded pipe, and o ring(GB1235-76 Standard), it's up to the user whether buying them or not. it's necessary to indicate them clearly in the order when the user need them. Read the following table before ordering.

型号/Model	YJZQ-L6H	YJZQ-L10H	YJZQ-L15H	YJZQ-L20H	YJZQ-L25H	YJZQ-L32H	YJZQ-L40H	YJZQ-L50H
焊接式管接头螺母 / JB981-77 Welded pipe joints nut/JB981-77	M16×1.5	M27×1.5	M30×1.5	M36×2	M42×2	M52×2	M60×2	M72×2
焊接式管接头接管 / JB2099-77 Welded pipe joints hose/JB2099-77	10	18	22	28	34	42	50	65
O形密封圈/O-ring / GB1235-76	11×1.9	20×2.4	24×2.4	30×3.1	35×3.1	40×3.1	45×3.1	55×3.1

2. 法兰连接/Flange connection



型号/Model	Do	A	L	L1	L2	D	H	H1	E	M	SW	重量Weight/kg
CJZQ-F10H	10	52	88	22	50.5	68	40	9	28.3	M8	9	
CJZQ-F15H	13	56	91	23	51.5	74	42	9	35.4	M8	9	
CJZQ-F20H	18	65	97	25	60	86	49.5	12	43.8	M10	12	
CJZQ-F25H	22	68	111	28	62	92	51	12	51.6	M12	12	
CJZQ-F32H	30	85	131	30	74.4	113	61	13.5	60.1	M14	14	
CJZQ-F40H	36	90	141	34	80.6	123	63	13.5	69.3	M16	14	
CJZQ-F50F	46	120	171	35	95	156	79	14.5	83.4	M20	17	
CJZQ-F63F	60	142	165	38	96	187	90	14.5	102.5	M20	17	
CJZQ-F80F	70	180	225	40	130	218	115	20	113.1	M24	24	
CJZQ-F100F	95	200	260	55	147	260	135	28	140	M30	28	

一、型号说明 Model Designation

Q * I NS - 31.5 - 20

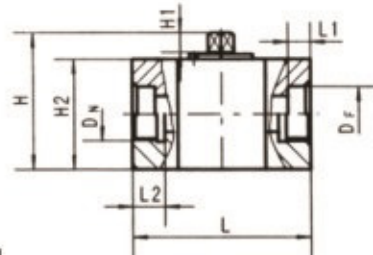
① ② ③ ④ ⑤ ⑥

- ① 名称代号/Name Code: Q—球阀/Ball valve ④ 密封材料: 尼龙、聚四氟乙烯
② 连接方式: 1—内螺纹/Female thread Seal material: Nylon, PTFE
2—外螺纹/Male thread ⑤ 压力等级/Pressure grade: 31.5—31.5MPa
F—焊接式法兰/Welded flange 20—20MPa 10—10MPa
③ 结构形式: 1—直通式/Straight through type ⑥ 公称通径/Nominal diameter: 10、15、20...mm
Structure type



Q*INS 型球阀
Q*INS Type Ball Valve

二、外形尺寸 Dimensins



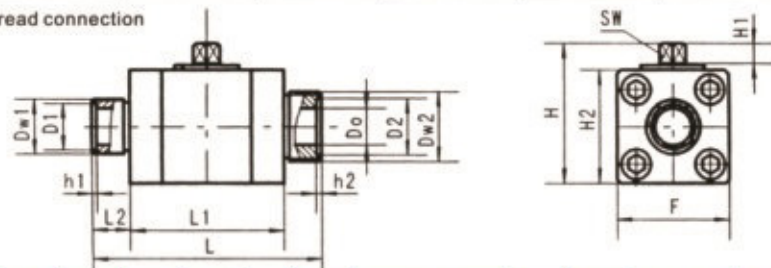
1. QIINS-*—*螺纹连接/Thread connection

型号/Model	F	H	H1	H2	L	L2	DN	SW	重量Weight(kg)
Q1INS-*—10	52	66	9	52	85	14	M18×1.5	9	
Q1INS-*—15	56	70		16		M22×1.5			
Q1INS-*—20	65	82	12	65	110	18	M27×2	12	
Q1INS-*—25	68	84		20		M33×2			
Q1INS-*—32	85	103	13.5	85	135	22	M42×2	14	
Q1INS-*—40	90	108		24		M48×2			

2. QFINS-*—*焊接式法兰/Welded flange

型号/Model	F	H	H1	H2	L	L1	DF	SW	重量Weight(kg)
QFINS-*—25	68	84	12	68	110	14	33.5	12	
QFINS-*—32	85	103	13.5	85		16	43		
QFINS-*—40	90	108	14.5	90	135	18	50	14	
QFINS-*—50	100	119		20		62	17		

3. Q2INS-*—*外螺纹连接/Male thread connection



型号/Model	Do	F	H	H1	H2	L	L1	L2	Dw1	D1	h1	Dw2	D2	h2	SW	重量Weight(kg)
Q2INS-*—20	18	65	82	12	65	125	89	18	M27×2	22	1.8	M27×2	22	1.8	12	
Q2INS-*—25	22	68	84		68	139	93	23	M33×2	28			M42×2	35		
Q2INS-*—32	30	85	103	13.5	85	164	104	30	M42×2	35	2.4	M60×2	45	2.4	14	
Q2INS-*—40	36	90	108		90				M48×2	40			M60×2	45		

订货须知 Ordering note

1. 本系列球阀各种连接方式的规格不太一致, 请予注意。
2. 外螺纹连接的, 与焊接式标准螺母、接管不配套的, 请自行配置。
3. 完整的型号示例: 公称压力31.5MPa, 公称通径32mm, 外螺纹连接的阀型号是 Q2INS-31.5-32
公称压力20MPa, 公称通径50mm, 法兰连接的阀型号是 QFINS-20-50

1. Pay attention to the specification of the ball valve. It's different from all the connection type.
2. If the male threaded connection will not match the welded standard nut and welded pipe, pls find your way.
3. Model designation: nominal pressure 31.5Mpa, nominal diameter 32mm, male threaded connection, the model indicated as: Q2INS-31.5-32; nominal pressure 31.5Mpa, nominal diameter 50mm, flange connection, the model indicated as: QFINS-20-50

一、型号说明 Model Designation

Q 1 1 F - 16 C - 15

① ② ③ ④ ⑤ ⑥ ⑦

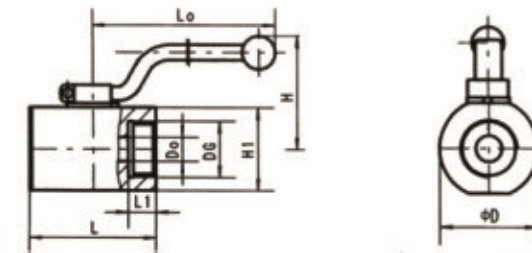
- ① 名称代号: Q—球阀 ① Name code: Q—Ball valve
② 连接形式: 1—内螺纹 ② Connection type: 1—Female thread
4—法兰(螺栓连接) 4—Flange(Bolt connection)
6—焊接 6—Welded
③ 结构形式: 1—直通式 ③ Structure type: 1—Straight type
④ 密封面材料代号: F—氟塑料 ④ Seal material code: F—FPM
N—尼龙 N—Nylon
⑤ 公称压力: 16—1.6MPa; 315—31.5MPa ⑤ Nominal pressure: 16—1.6MPa; 315—31.5MPa
⑥ 阀体材料代号: C—碳钢 ⑥ Body material code: C—Carbon steel
P—1Cr18Ni9Ti 不锈钢 P—1Cr18Ni9Ti stainless steel
T—铜合金 T—Copper alloy
⑦ 公称通径: 10、15、20...mm ⑦ Nominal diameter: 10、15、20...mm



Q型球阀
Q Type Ball Valve

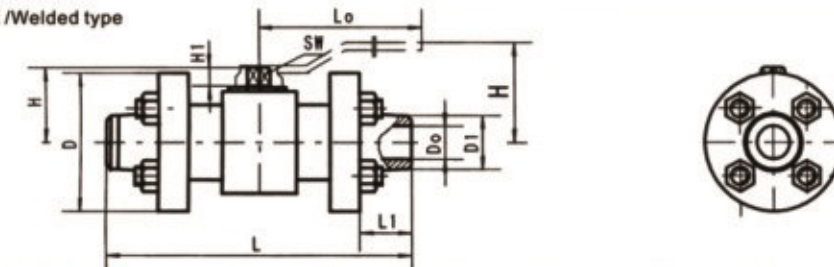
二、外形尺寸 Dimensins

1. Q11-16C-*—*内接螺纹式/Female thread connection



型号/Model	公称压力 Nominal Pressure	Do	DG	D	L	L1	Lo	H	H1	重量(kg) Weight
Q11F-16C-10	1.6	6.5	G3/8"	40	60	10	105	58	33	
Q11F-16C-15		8	G1/2"	42	65	12	105	58	38	
Q11F-16C-20		10	G3/4"	44	75	18	120	62	38	
Q11F-16C-25		13	G1"	54	80	20	120	68	46	
Q11F-16C-32		18	G1 1/4"	68	95	18	140	75	62	
Q11F-16C-40		22	G1 1/2"	78	110	22	180	86	72	
Q11F-16C-50		30	G2"	94	130	24	200	98	85	

2. Q61N-315-*—*焊接式/Welded type



型号/Model	公称压力 Nominal Pressure	Do	D	D1	L	L1	H	H1	SW	重量(kg) Weight
Q61N-315-10	31.5	10	68	18	150	30	40	9	9	
Q61N-315-15		13	74	23	170	35	42	9	9	
Q61N-315-20		18	86	29	190	39.5	49.5	12	12	
Q61N-315-25		22	92	36	205	35	51	12	12	
Q61N-315-32		30	114	43	230	40	61	13.5	14	
Q61N-315-40		36	123	50	260	40	63	13.5	14	
Q61N-315-50		46	156	62	320	60	79	14.5	17	
Q61N-200-65	20	62	168	79	360	70	115	35	18	
Q61N-200-100		87	215	116	400	60	132	34	28	

注: 通径10-50mm的手柄见QJH型球阀部分。DN65的Lo=480; DN100的Lo=580。
Note: Read handle of 10-50mm nominal diameter from QJH ball valve chapter, the length of the handle (L_o) 480 mm for DN65; L_o: 580 for DN100.

一、简介 Brief Introduction

本阀适用于液压系统和化工系统的各种管路上，作截止用。（可代替LF型节流阀）
This valve is used in various pipelines of hydraulic system and chemical system to provide cut off function. (It can be used as substitute of LF throttle valve.)
公称压力/Nominal pressure: 31.5MPa
实验压力/Test pressure: 48MPa
工作温度/Working temperature: -20~+60°C
适用介质: 液压油、水-乙二醇、其它混合液体。
Applicable medium oil: water-ethylene glycol and other compound liquid.



JZFS 高压液压截止阀
JZFS High-pressure Hydraulic Stop Valve

二、型号说明 Model Designation

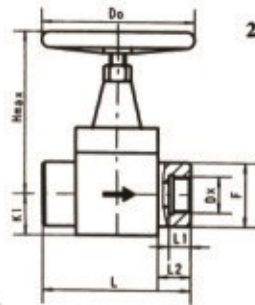
JZFS - J20 *

- ① 名称代号/Name code: JZFS — 截止阀/Stop valve ③ 控制形式/Control type: S — 手动/Manual
② 公称压力/Nominal pressure: J — 31.5MPa ④ 公称通径/Nominal diameter: 10, 15, 20... mm
H — 20MPa ⑤ 连接形式: (见下表)/Connection type: (see table below)

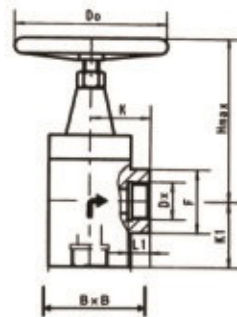
型式/Type	连接方式/Connection type	代号/Code	型式/Type	连接方式/Connection type	代号/Code
螺纹/Thread	直通制细牙螺纹/Straight through metric fine thread	LTM	法兰/Flange	直通式焊接法兰/Straight through welded flange	FH
	直通制圆柱管螺纹/Straight through inch pipe thread	LTG		直角式焊接法兰/Right angle welded flange	FJ
	直通英制圆锥管螺纹/Straight through inch conical thread	LTZ		直通式公制细牙螺纹法兰/Straight through metric fine thread flange	FM
	直角制细牙螺纹/Right angle metric fine thread	LJM		直通式制圆柱管螺纹法兰/Straight through inch pipe thread flange	FG
	直角制圆柱管螺纹/Right angle inch pipe thread	LJG		直通式英制圆锥管螺纹法兰/Straight through inch conical thread flange	FZ
	直角英制圆锥管螺纹/Right angle inch conical thread	LJZ		板式法兰/Panel flange	BF
板式/Plate	垂直板式/Vertical Plate type	B1	法兰板式 Flange plate type	板式法兰 I 型/Panel flange I	BFI
	水平板式/Horizontal Plate type	BII		法兰板式/Flange plate type	FB
	仿日水平式/Japanese horizontal Plate type	B		法兰板式 I 型/Flange plate type I	FBI

三、外形尺寸 Dimensins

1. 直通内螺纹 Straight through female thread



2. 直角内螺纹 Right angle female thread



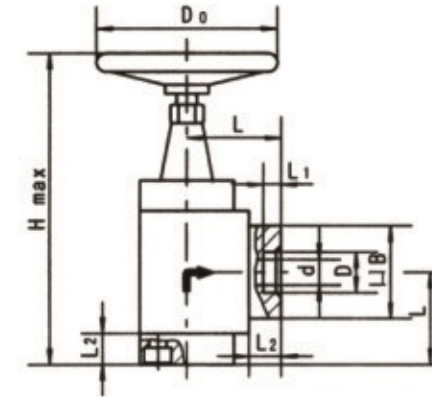
直通内螺纹/Straight through female thread

型号/Model	DM	DG	DZ	F	H	K1	L	L1	L2	D0	重量/Weight(kg)	
JZFS-J10LTM	JZFS-J10LTG	JZFS-J10LTZ	M18 x 1.5	G3/8"	Rc3/8	36	122	22.5	80	14	17.5	65
JZFS-J15LTM	JZFS-J15LTG	JZFS-J15LTZ	M22 x 1.5	G1/2"	Rc1/2	40	130	27.5	100	16	22.5	90
JZFS-J20LTM	JZFS-J20LTG	JZFS-J20LTZ	M27 x 2	G3/4"	Rc3/4	50	158	32.5	115	18	25	125
JZFS-J25LTM	JZFS-J25LTG	JZFS-J25LTZ	M33 x 2	G1"	Rc1	58	178	37.5	135	20	30	125
JZFS-J32LTM	JZFS-J32LTG	JZFS-J32LTZ	M42 x 2	G1 1/4"	Rc1 1/4	68	202	42.5	145	22	30	160
JZFS-H40LTM	JZFS-H40LTG	JZFS-H40LTZ	M48 x 2	G1 1/2"	Rc1 1/2	76	226	45	155	24	32.5	160
JZFS-H50LTM	JZFS-H50LTG	JZFS-H50LTZ	M64 x 2	G2"	Rc2	90	250	50	190	26	45	200

直角内螺纹/Right angle female thread

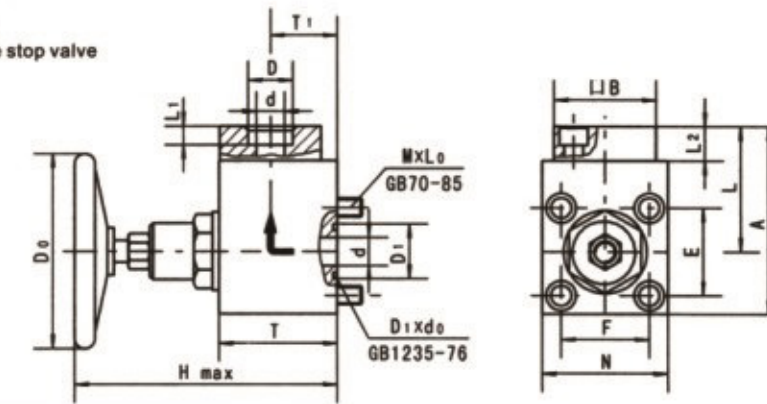
型号/Model	DM	DG	DZ	B	F	H	K	K1	L1	D0	重量/Weight(kg)	
JZFS-J10LJM	JZFS-J10LJG	JZFS-J10LJZ	M18 x 1.5	G3/8"	Rc3/8	50	36	122	40	37	14	65
JZFS-J15LJM	JZFS-J15LJG	JZFS-J15LJZ	M22 x 1.5	G1/2"	Rc1/2	55	40	130	45	45	16	90
JZFS-J20LJM	JZFS-J20LJG	JZFS-J20LJZ	M27 x 2	G3/4"	Rc3/4	65	50	158	50	50	18	125
JZFS-J25LJM	JZFS-J25LJG	JZFS-J25LJZ	M33 x 2	G1"	Rc1	75	58	178	55	60	20	125
JZFS-J32LJM	JZFS-J32LJG	JZFS-J32LJZ	M42 x 2	G1 1/4"	Rc1 1/4	85	68	202	60	65	22	160
JZFS-H40LJM	JZFS-H40LJG	JZFS-H40LJZ	M48 x 2	G1 1/2"	Rc1 1/2	90	76	226	70	75	24	160

3. 直角焊接法兰式截止阀 /Right angle welded flange type stop valve



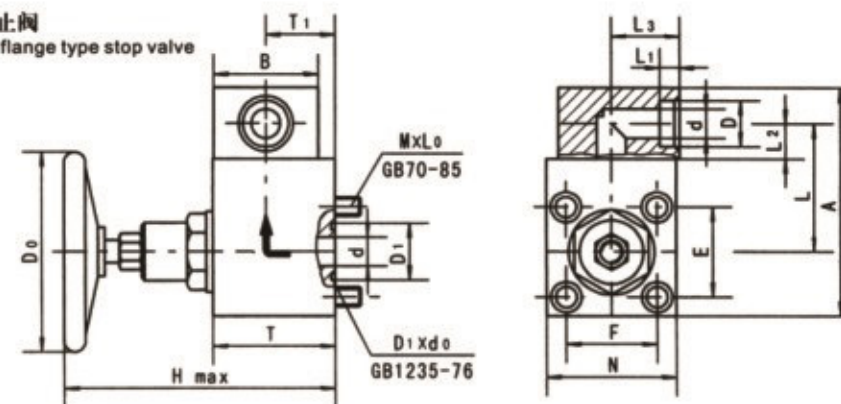
型号/Model	d	D	L1	L2	L	B	D0	H
JZFS-J10FJ	10	18.5	9	20	54	50	65	188
JZFS-J20FJ	18	28.5	12	22	65	65	125	222
JZFS-J32FJ	30	43	16	28	80	85	160	292

4. 板式焊接法兰式截止阀 Panel welded flange type stop valve



型号/Model	d	D, x d0	D	L	L1	L2	L	E	F	N	A	B	T	T1	D0	H	M x L
JZFS-J10BF	10	22 x 2.4	18.5	9	20	64	48	42	60	96	50	30	55	65	136	M8x55	
JZFS-J20BF	18	35 x 3.1	28.5	12	22	80	56	56	80	120	65	43	76	125	176	M12x70	
JZFS-J32BF	30	45 x 3.1	43	16	28	100	73	73	105	152	85	56	100	160	262	M16x100	

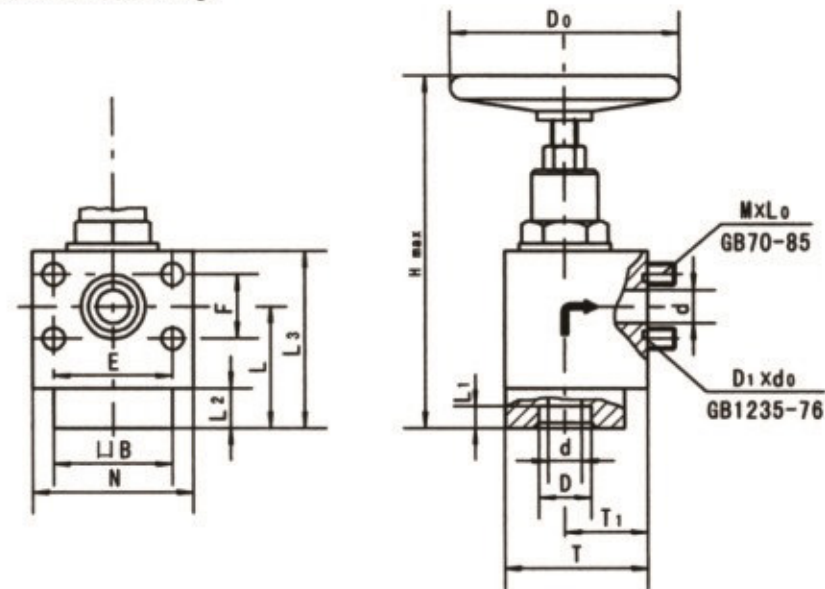
5. 板式直角焊接法兰式截止阀 Panel right angle welded flange type stop valve



注: D口按需要可旋转180度安装 /Note: D port should be installed 180° reversing according to the requirements.

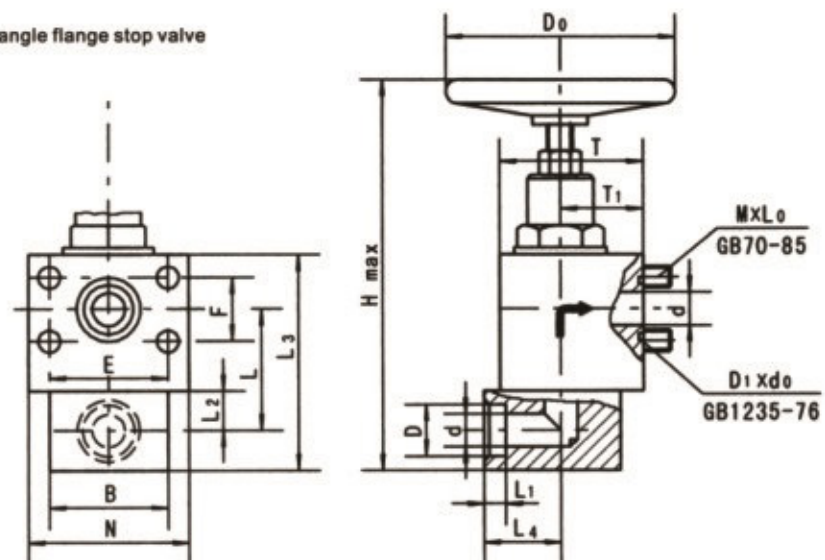
型号/Model	d	D, x d0	D	L	L1	L2	L	E	F	N	A	B	T	T1	D0	H	M x L
JZFS-J10BFI	10	22 x 2.4	18.5	9	20	30	64	48	42	60	116	50	30	55	65	136	M8x55
JZFS-J20BFI	18	35 x 3.1	28.5	12	22	42	80	56	56	80	142	65	43	76	125	176	M12x70
JZFS-J32BFI	30	45 x 3.1	43	16	33	55	105	73	73	105	190	85	56	100	160	262	M16x100

6. 焊接法兰板式截止阀 / Stop valve with welded flange



型号/Model	d	D ₁ × d ₁	D	L ₁	L ₂	L ₃	L	E	F	N	B	T ₁	T	D ₀	H	M × L
JZFS-J10FB	10	22 × 2.4	18.5	9	20	74	54	50	20	68	50	32	57	65	165	M8 × 70
JZFS-J20FB	18	35 × 3.1	28.5	12	22	97	67	65	35	88	65	45	78	125	201	M12 × 80
JZFS-J32FB	30	45 × 3.1	43	16	28	123	92	92	42	122	85	60	103	160	282	M16 × 100

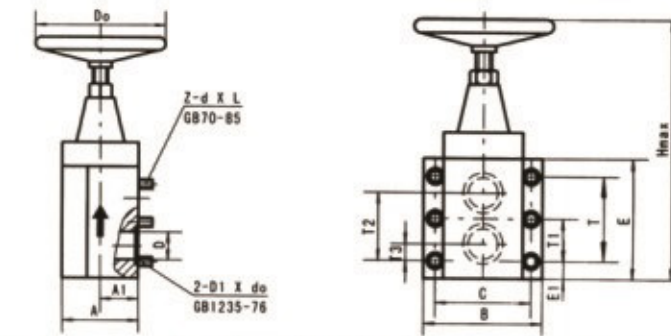
7. 直角法兰板式截止阀 / Right angle flange stop valve



型号/Model	d	D ₁ × d ₁	D	L ₁	L ₂	L ₃	L ₄	L	E	F	N	B	T ₁	T	D ₀	H	M × L
JZFS-J10FBI	10	22 × 2.4	18.5	9	20	94	30	54	50	20	68	50	32	57	65	185	M8 × 70
JZFS-J20FBI	18	35 × 3.1	28.5	12	22	119	42	67	65	35	88	65	45	78	125	223	M12 × 80
JZFS-J32FBI	30	45 × 3.1	43	16	33	161	55	92	92	42	122	85	60	103	160	320	M16 × 100

8. 垂直板式截止阀

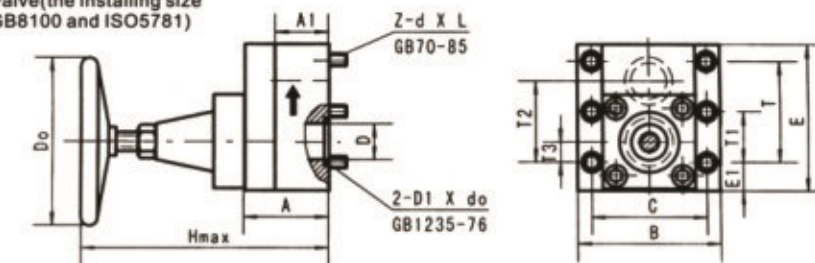
(安装尺寸符合GB8100-87及ISO5781的规定)
Vertical plate type stop valve
(the installing size complied with the code of GB8100 and ISO5781)



型号/Model	A	A1	B	C	E	E1	T	T1	T2	T3	D3	D0	H	Z	d × L	D1 × do	重量/Weight(kg)
JZFS-J10BI	65	32.5	90	66.7	86	22	42.9	-	35.7	7.1	10	65	184	4	M10 × 35	22 × 2.4	
JZFS-J20BI	72	36	105	79.4	103	21.3	60.3	-	49.2	11.1	18	125	217	4	M10 × 50	32 × 3.1	
JZFS-J32BI	82	41	120	96.8	120	18	84.1	42.1	67.5	16.7	30	160	256	6	M10 × 60	40 × 3.1	

9. 水平板式截止阀 (安装尺寸符合GB8100-87及ISO5781的规定)

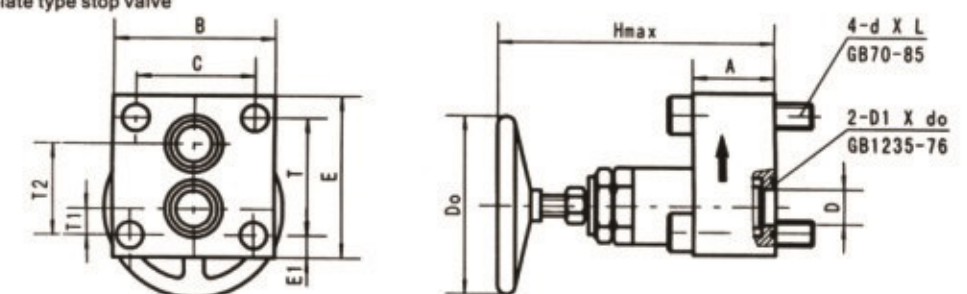
Horizontal plate type stop valve (the installing size complied with the code of GB8100 and ISO5781)



型号/Model	A	A1	B	C	E	E1	T	T1	T2	T3	D3	D0	H	Z	d × L	D1 × do	重量/Weight(kg)
JZFS-J10BII	50	30	90	66.7	77	18	42.9	-	35.7	7.1	9	65	148	4	M10 × 35	22 × 2.4	
JZFS-J20BII	56	36	105	79.4	100	21.4	60.3	-	49.2	11.1	18	125	170	4	M10 × 40	32 × 3.1	
JZFS-J32BII	70	45	120	96.8	122	24.3	84.1	42.1	67.5	16.7	30	160	206	6	M10 × 50	40 × 3.1	

10. 仿日水平板式截止阀

Japanese horizontal plate type stop valve



型号/Model	A	B	C	D	E	E1	T	T1	T2	D0	H	d × L	D1 × do	重量/Weight(kg)
JZFS-B8	30	65	47	8	65	9	47	11.5	35.5	65	135	M8 × 45	20 × 2.4	
JZFS-B10	30	70	50	9	85	10	65	18.5	46.5	65	124	M8 × 45	22 × 2.4	
JZFS-B20	45	97	65	18	113	16	81	22.2	68.2	125	146	M16 × 70	35 × 3.1	
JZFS-B32	65	127	92	28	127	17.5	92	20.6	71.4	160	220	M20 × 100	45 × 3.1	
JZFS-B50	82	160	120	48	180	30	120	20	100	200	270	M20 × 120	65 × 3.1	

注: 1) 板式阀的安装面必须精加工, 其表面应达右边视图的要求。

2) 对于黑色金属材料的安装面, 固定螺钉螺纹旋入深度为 1.25D-1.5D (D 为螺钉直径), 螺钉孔深度应保证螺钉完全拧入。

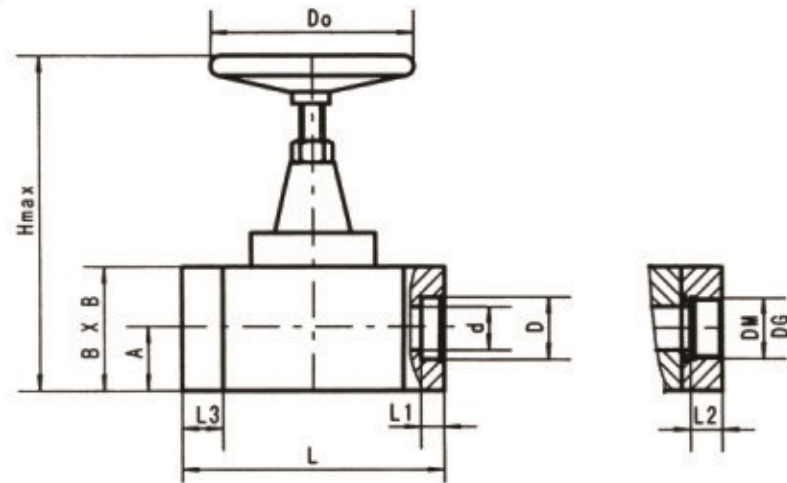
3) 螺钉强度 10.9 级, 需要者另外订货。

Note: 1. The installing surface of the plate type stop valve should be fine machined, the roughness of the surface should up to the class marked in the right figure.

2. For the installing surface of ferrous materials, the threaded depth is 1.25D-1.5D (D is the diameter of the thread), the depth of the screw hole should assure the threaded depth.

3. The strength class of the screw is 10.9, order it under the user's need.

11. 直通焊接法兰及螺纹方法兰
With rectangular threaded flange



焊接式法兰/Welded flange

型号/Model	A	B	Do	d	D	L	L1	L3	H	重量/Weight(kg)
JZFS-J10FH	25	50	65	10	18.5	110	9	20	148	
JZFS-J15FH	27.5	55	90	13	22.5	120	11	20	159	
JZFS-J20FH	32.5	65	125	18	28.5	130	12	22	190	
JZFS-J25FH	37.5	75	125	22	34.5	160	14	25	215	
JZFS-J32FH	42.5	85	160	30	43	180	16	28	245	
JZFS-H40FH	45	90	160	38	52	200	16	30	270	
JZFS-H50FH	50	100	200	48	65.5	214	18	32	300	
JZFS-H65FH	65	130	200	58	78	260	22	40	340	
JZFS-H80FH	75	150	250	70	91	330	25	45	387	
JZFS-H100FH	91	182	250	85	110	400	30	50	465	

螺纹法兰/Thread flange

型号/Model	DM	DG	A	B	Do	d	L	L2	L3	H	重量/Weight(kg)
JZFS-J10FM	JZFS-J10FG	M18 x 1.5	G 3/8	25	50	65	10	114	14	22	148
JZFS-J15FM	JZFS-J15FG	M22 x 1.5	G1/2	27.5	55	90	13	124	16	22	159
JZFS-J20FM	JZFS-J20FG	M27 x 2	G3/4	32.5	65	125	18	134	18	24	190
JZFS-J25FM	JZFS-J25FG	M33 x 2	G1	37.5	75	125	22	166	20	28	215
JZFS-J32FM	JZFS-J32FG	M42 x 2	G1 1/4	42.5	85	160	30	180	22	28	245
JZFS-H40FM	JZFS-H40FG	M48 x 2	G1 1/2	45	90	160	38	212	24	36	270

注：圆锥管螺纹法兰的，其他外形尺寸与公制细牙螺纹的相同，规格见“直通内螺纹”部分。
Note: Taper pipe thread flange, the dimensions are the same as metric fine thread. the detail specifications see "straight female thread".

四、使用及订货注意事项 Ordering and using note

- 本系列截止阀为座阀式结构，略加开启，过流面积就较大，节流效果较差，故不推荐作节流阀使用。本厂另有L F型节流阀，欢迎使用。
- 本系列截止阀的连接方式、螺纹品种较多，订货时请务必完整地写明型号的每个代号。
例如：公称通径20mm，直通公制细牙螺纹的截止阀型号 JZFS-J20LTM
公称通径32mm，水平板式安装的截止阀型号 JZFS-J32BII
- 如有特殊要求，请与本厂商洽，文字表达不清楚的，须提供书面技术资料（如草图）。
1. The structure of this series stop valve is seat type. The flow rate is larger after slightly open, less effective throttle, so the valve is not recommended for the use of throttle.
2. There are a lot of connection way and thread types for this type of the stop valve. Be sure to indicate all codes of the model when ordering.
For example: DN 20mm, metric fine thread, straight stop valve indicated as: JZFS-J20LTM
DN 20mm, horizontal plate type stop valve indicated as: JZFS-J32B11
3. Please contact the company under the special requirements, if the special requirements can not be expressed clearly by words, please provide written technical file.

一、简介 Brief Introduction

YJF系列液压截止阀是专为液压系统设计制造的，其阀芯为液压平衡式，开启力小，密封可靠，体积小，制造简单，本产品有管式、法兰式、板式等连接形式，广泛用于液压系统管路，集成油路，可代替HIRISEVAL VEIND USTRYCLTD等公司液压用截止阀。

YJF stop valves are designed for use in hydraulic system. The valve has a hydraulic balanced plug which allows opening with less force, reliable sealing and small size. The valves come in tubular, flanged or panel connection types, and are widely used in pipelines of hydraulic system and integrated oil circuits. It may be used as substitute for the hydraulic stop valves of Hirose Valve Industry Co., Ltd.

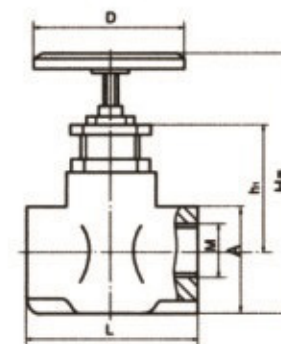
二、型号说明 Model Designation

YJF - 10 H
① ② ③ ④

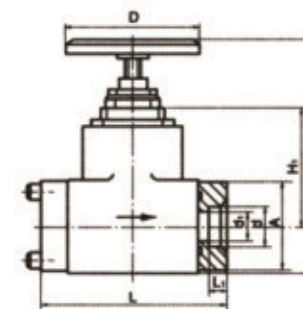
- 截止阀/Stop valve
- 连接形式 L: 管式连接 F: 法兰连接 B: 板式连接
Connection type L: Tubular connection F: Flanged connection B: Panel connection
- 公称通径/Nominal diameter: 10 . 15 . 20 . 25 . 32 . 40 . 50mm
- 公称压力/Nominal pressure: 31.5MPa



三、外形尺寸 Dimensins

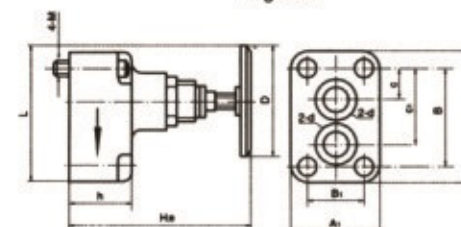


型号/Model	H ₀	h ₁	L	D	A	M	重量/Weight(kg)
YJF-L10H	162.5	74	90	φ65	50 x 50	M18 x 1.5	2.0
YJF-L15H	181.5	82	90	φ90	54 x 54	M22 x 1.5	2.5
YJF-L20H	202	100	120	φ125	58 x 58	M27 x 2	4.0
YJF-L25H	220	93	135	φ125	68 x 68	M33 x 2	6.5
YJF-L32H	241	113	150	φ160	76 x 76	M42 x 2	11.0



图二
Figure II

型号/Model	H ₀	H1	L	L1	d1	d	D	A	重量/Weight(kg)
YJF-F10H	162.5	74	120	10	φ12.5	φ18.5	φ65	50 x 50	3.5
YJF-F15H	181.5	82	132	11	φ16	φ22.5	φ90	54 x 54	3.6
YJF-F20H	202	100	140	12	φ20	φ28.5	φ125	58 x 58	4.2
YJF-F25H	220	93	185	13	φ25	φ34.5	φ125	68 x 68	8.9
YJF-F32H	241	113	204	16	φ32	φ43	φ160	76 x 76	11.8
YJF-F40H	280	120	230	18	φ38	φ51	φ160	90 x 90	12.8
YJF-F50H	318.5	138	245	20	φ48	φ61	φ200	100 x 100	15.5



型号/Model	H ₀	L	D	h	A	A1	B	B1	C	C1	φ	d	M	重量/Weight(kg)
YJF-B10H	142.5	106.5	φ65	40	80	70	65	50	18.5	46.5	φ22	φ10	M10	2.3
YJF-B20H	197	130	φ125	70	113	97	81	65	22.2	68.2	φ35	φ20	M16	5.5
YJF-B25H	225	135	φ125	75	117	112	85	85	24	72	φ30	φ25	M16	6.5
YJF-B32H	246	160	φ160	80	127	127	92	92	20.6	71.4	φ45	φ30	M20	9.2

一、产品介绍 Introduction

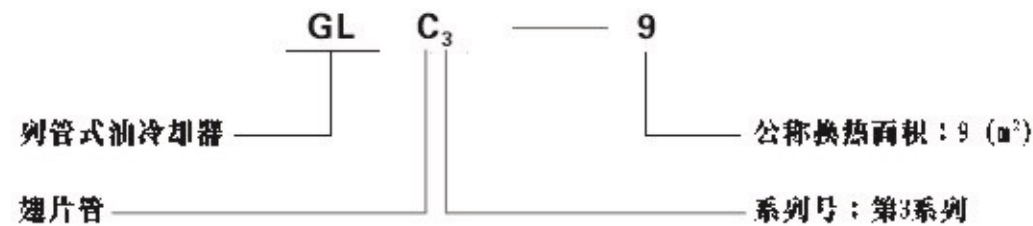
GLC系列列管式翅片管油冷却器,是我公司技术人员根据原机电部重型机械标准:“JB/ZQ4004-86”要求,通过吸收国内外先进技术,进行改革创新,设计开发的一种新型冷却器。具有体积小、重量轻、换热效果好等优点。已广泛用于冶金、轻工、电力、金属压机、陶瓷机械、塑料机械、液压机械、锻压机床等诸多主机产品的液压系统中。

冷却器由前盖、壳体、后盖及冷却芯组成。冷却器上的热交换管束采用螺纹式低肋紫铜管,与裸管式冷却器可比指标对照,传统面积提高150%,体积缩小了35%左右。管束单端固定,另一端浮动,因而有效地避免了因热膨胀而引起的结构故障。冷却芯可以从壳体中抽出,以便于检查、清洗与维修。水腔中可加装锌棒,可有效防止和减轻水侧的点化腐蚀,延长冷却器的使用寿命。

本公司还生产GLL系列油冷却器,也可根据用户的不同需要提供非标冷却器。欢迎广大用户咨询、订购。



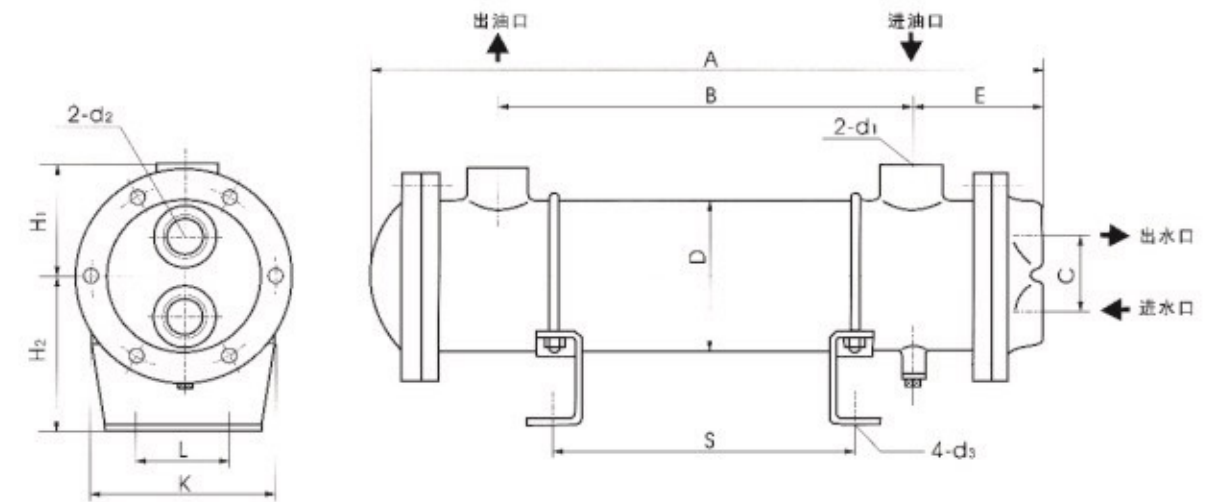
二、型号说明 Model Code



三、技术参数 Duty Requirements

型号	冷却面积 (m ²)	压力 (Mpa)			温度 (°C)				介质粘度 (10 ⁻⁶ m ² /S)	油流量范围 (L/min)	油/水流量比	热交换量 (Kca1/h)	重量 (kg)
		工作压力	油侧压降	水侧压降	工作水温	工作油温	进油温度	出油温度					
GLC ₁ -0.4	0.4	1	≤0.1	≤0.05	25~30	≤100	55	≤64	10~50	1:1	1300~3300	9	
-0.6	0.6												
-0.8	0.8												
-1.0	1.0												
-1.2	1.2												
GLC ₂ -1.3	1.3												
-1.7	1.7												
-2.1	2.1												
-2.6	2.6												
-3.0	3.0												
-3.5	3.5												
GLC ₃ -4	4	0.63	≤0.1	≤0.05	25~30	≤100	55	≤64	10~50	1:1	14500~34500	42	
-5	5												
-6	6												
-7	7												
-8	8												
-9	9												
-10	10												
GLC ₄	8~27												
50~850	30000~22000												92~238

四、结构简图 Scheme of strucre

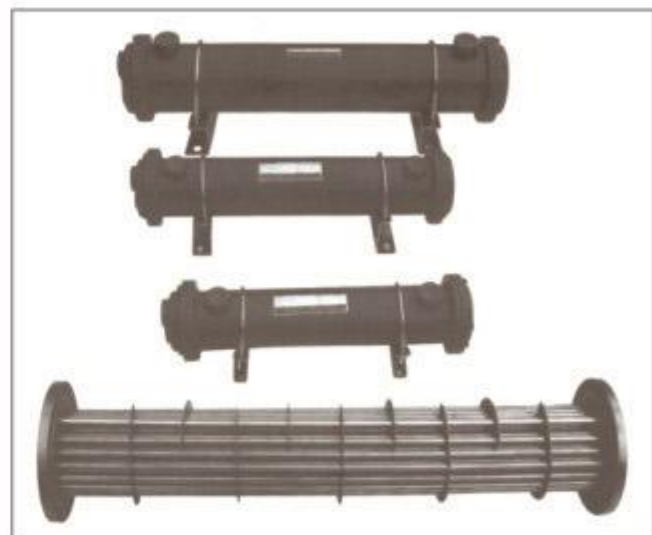


五、规格及基本尺寸 Specifications and dimensions

参数	A	B	S	E	C	K	L	D	H1	H2	d1	d2	d3	冷却面积 m ²							
GLC ₁ -0.4	370	240	145	67	52	132	102	Φ89	65	74	G1"	R _{3/4} "	Φ11	0.4							
-0.6	535	405	310											0.6							
-0.8	660	530	435											0.8							
-1.0	795	665	570											1.0							
-1.2	935	805	715											1.2							
GLC ₂ -1.3	560	375	225	98	78	175	145	Φ121	85	96	G1"	R ₁ "	Φ11	1.3							
-1.7	685	500	350											1.7							
-2.1	820	635	485											2.1							
-2.6	965	775	630											2.6							
-3.0	1110	925	780											3.0							
-3.5	1270	1085	935	3.5																	
GLC ₃ -4	840	570	380	152	100	210	170	Φ168	115	120	G1 1/2"	R _{1 1/4} "	Φ15	4							
-5	990	720	530											5							
-6	1140	870	680											6							
-7	1310	1040	855											7							
-8	1470	1200	1010											8							
-9	1630	1360	1170								9										
-10	1800	1530	1340								10										
GLC ₄ -8	880	590	350								197	140	270	230	Φ219	142	158	G2"	R ₂ "	Φ19	8
-9	960	670	430																		9
-10	1040	750	510																		10
-11	1110	820	580	11																	
-12	1195	905	665	12																	
-13	1275	985	745	13																	
-15	1435	1145	905	15																	
-17	1595	1305	1065	17																	
-19	1765	1475	1235	19																	
-21	1945	1655	1415	21																	
-23	2110	1825	1585	23																	
-25	2295	2005	1765	25																	
-27	2465	2175	1935	27																	

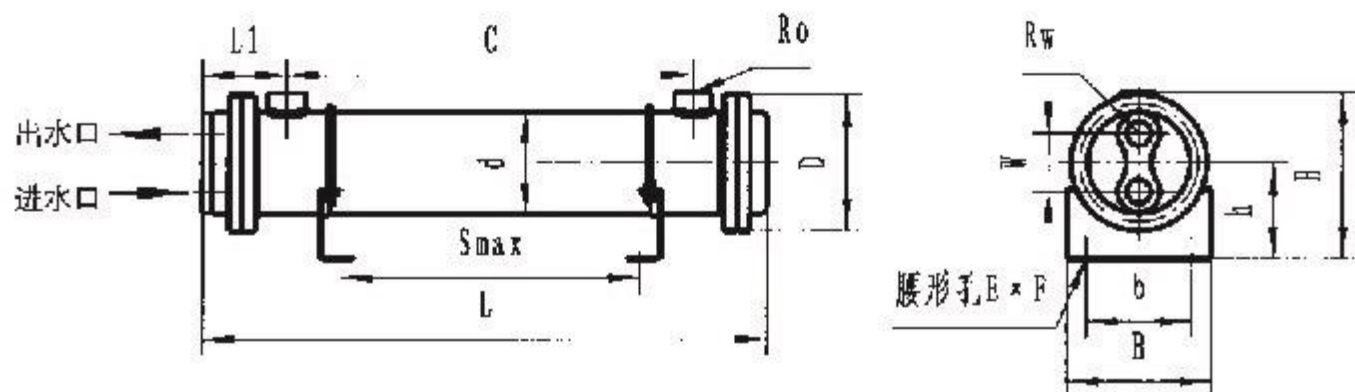
1、简介

OR 型冷却器采用光滑换热管，抗污染，适用于较脏和高粘度油液的冷却，也适用于水对水、水对气的热交换。



2、型号、技术参数、尺寸

参数 尺寸 型号	工作压力(油): <1.0MPa		介质粘度: (20~200) × 10 ⁻³ m ² /s (厘沱)														重量 Kg
	参考 流量 L/min	换热 面积 m ²	L	C	L1	S	φ	φ	B	φ	U	h	Re _油	Re _水	W	E×F	
OR-60	60	0.25	455	305	57	250	φ89	φ120	115	35	140	77	Re _油 ¹	Re _水 ¹	46	7×16	8.5
OR-100	100	0.38	555	405	80	320	φ102	φ135	144	106	166	96	Re _油 ¹	Re _水 ¹	58	10×20	12.5
OR-150	150	0.62	560	385		300											19
OR-250	250	1.3	760	585	100	500	φ140	φ175	174	130	213	117	Re _油 ¹	Re _水 ¹	70	13×16	24
OR-350	350	2	1155	990		300											32.5
OR-600	600	2	1725	950		850											49
OR-800	800	3	1700	1490	135	1400	φ165	φ207	205	160	248	138	Re _油 ²	Re _水 ¹	80	13×16	54
OR-1000	1000	3.7	2140	1850		1800											62
OR-1200	1200	4.4	2530	2270		2180											72

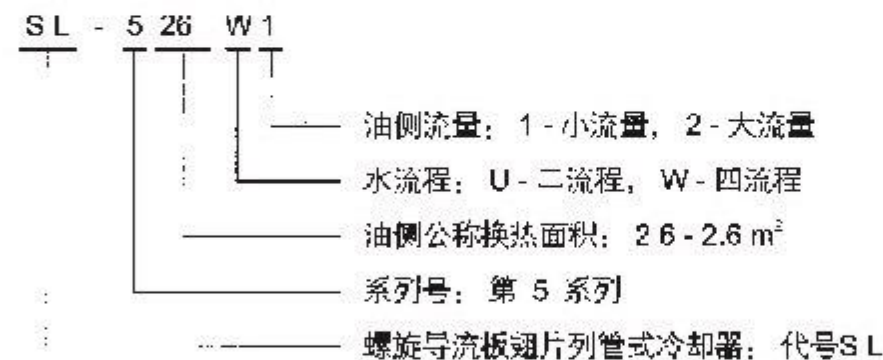


1、简介

SL 型冷却器采用轧制翅片换热管，螺旋导流板结构迫使油在壳程内成螺旋状流动；油流量有大流量（大导程导流板）和小流量（小导程导流板），水流有二流程和四流程，品种多样，可适用于多种场合。



2、型号说明

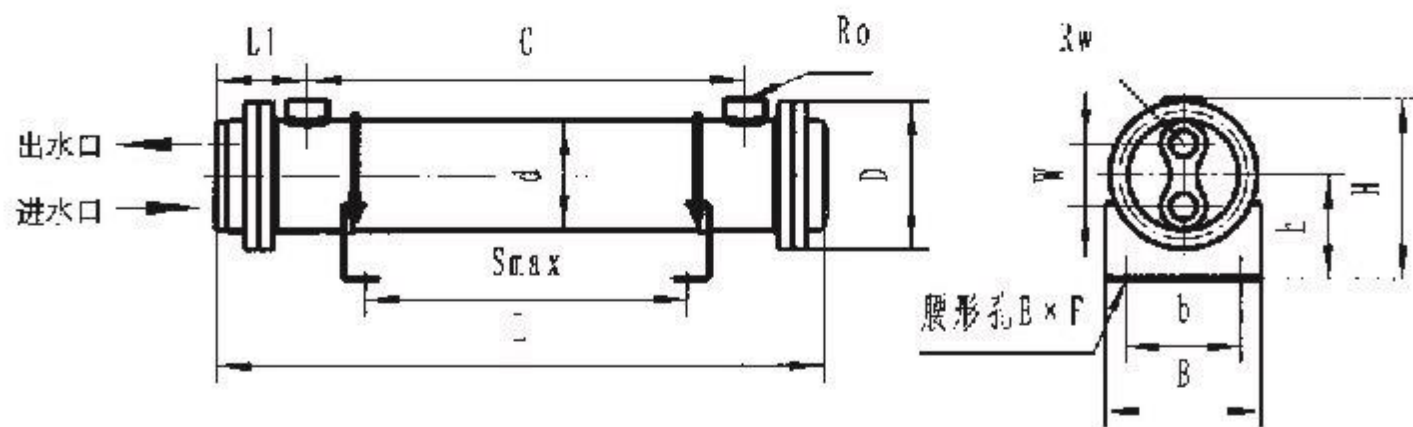


3、技术参数

系列型号	换热面积 m ²	工作压力 (油) MPa	工作温度 (油) ℃	壳程(油) 压力率 MPa	工作压力 (水) MPa	油流量 范围 L/min	油水流量比		介质粘度 10 ⁻³ m ² /s (厘沱)	换热系数 W/m ² ·℃
							水二流程 U	水四流程 W		
SL3	0.3~1.1					25~140				
SL4	0.8~2.1	1.0	<100℃	<0.15	<0.5	30~180	2:1左右	4:1左右	10~100	400~450
SL5	0.9~4.2					40~340				

4. 外形尺寸

型号	换热面积 m ²	L	C	L1	S	d	D	B	b	Π	h	Ro	Rw	W	E×F	重量 kg
SL-303	0.3	309	152		107											5.5
SL-304	0.4	331	224		179											6
SL-305	0.5	453	296		251											6.5
SL-307	0.7	527	440	81	335	φ89	φ120	95	53	149	87	30 ³ Rc1	30 ³ Rc1	45	11×20	7
SL-309	0.9	741	584		539											8
SL-311	1.1	835	728		583											9
SL-408	0.8	469	284		240											13
SL-411	1.1	613	428		384											16
SL-415	1.5	757	572	95	528	φ114	φ150	150	110	212	125	Rc1 ¹ / ₂	Rc1 ¹ / ₂	60	18×22	18
SL-418	1.8	901	716		672											21
SL-421	2.1	1045	860		816											24
SL-509	0.9	484	270		235											24
SL-518	1.8	638	406		342											26
SL-526	2.6	854	622	121	558	φ140	φ180	180	120	255	160	Rc1 ¹ / ₂	Rc1	70	18×25	31
SL-534	3.4	1070	838		774											36
SL-542	4.2	1286	1054		990											42



1. 简介

SLQ 型冷却器采用轧制翅片换热管，螺旋导流板结构迫使油在壳程内呈螺旋状流动；适用于压铸机等震动大的机器油液冷却。



2. 型号、技术参数、尺寸

参数 尺	工作压力(油): <1.0MPa										介质温度: (10~300) × 10 ³ m ³ /s (厘施)						重量 kg
	工作压力(水): <1.0MPa										换热系数: 400~450W/m ² ·K (330~380Kcal/m ² ·h·°C)						
型号	换热面积 m ²	L	C	L1	S	d	D	B	b	Π	h	Ro	Rw	W	E	F	重量 kg
SLQ-1100	1.3	523	317		266												24
SLQ-2100	1.3	523	317		266												24
SLQ-150	1.9	553	443		388												27
SLQ-175	2.1	753	471	112	420	φ140	φ175	153	120	275	160	R8					28
SLQ-250	2.6	833	533		530												31.5
SLQ-350	3	940	730		670												34.5
SLQ-400	3.4	1148	878		778												37.5

