

XL-1

**VOLUMETRIC METERING VALVES
FOR OIL AND GREASE OPERATION**
用于润滑油和润滑脂操作的容积计量阀

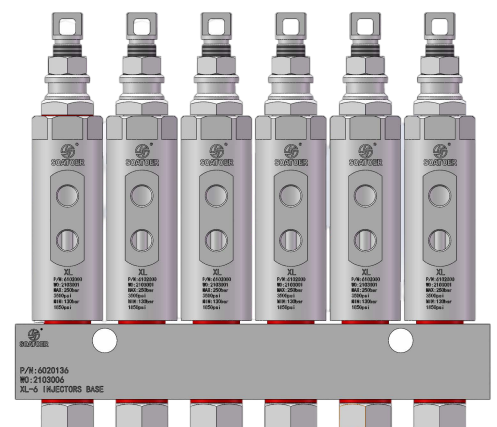


TABLE OF CONTENTS 目录

General information 基本信息	3
Operation 操作	4
Adjustment 调节	5
System structure 系统结构	6
Valves for Distributor 分配阀	7
Spare parts 备件	8



All SOATOER products must only be used for their intended purposes, as specified in this brochure and in all instructions. If the product is supplied together with user instructions, the user is required to read them and comply with them. Not all lubricants are suitable for centralised lubrication systems. SOATOER lubrication systems or relative components cannot be used together with gas, liquid gas, pressurised gas in solution and liquids with vapour pressure exceeding normal atmospheric pressure (1013 bar) by more than 0.5 bar, maximum temperature permitted. Any type of dangerous materials, namely those classified as such by European Community Directive (EC) 67/548/EEC, Article 2 (2), can only be used in SOATOER centralised lubrication systems or relative components upon consultation with SOATOER and after having received written approval from the company.

所有SOATOER产品只能用于本手册和所有说明书中规定的目的。如果产品与用户说明一起提供，用户被要求阅读并遵守它们。并不是所有的润滑油都适合集中润滑系统。SOATOER润滑系统或相关部件不能与气体、液化气、溶液中的加压气体和蒸汽压力超过正常大气压(1013巴)0.5巴(允许的最高温度)的液体一起使用。任何类型的危险材料，即欧共体指令(EC) 67/548/EEC第2(2)条规定的危险材料，只有在与SOATOER协商并获得公司的书面批准后，才能用于SOATOER集中润滑系统或相关组件。

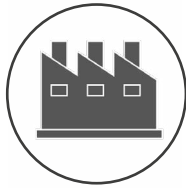
General information 基本信息

XL-1 metering valves are used in centralised lubrication single-line systems operating with oil or grease. They are installed on 1-to- 6-output distributor blocks: each single valve can be easily removed for inspection or replacement. Valves and distributor blocks are made of steel, with Viton seals, suitable for high temperature applications. The flow rate is externally adjustable and the valve is equipped with a visual indicator for checking operation. XL-1计量阀用于使用油或润滑脂的集中润滑单线系统。它们安装在1到6输出分配器上:每个单阀门可以很容易地拆卸,以便进行检查或更换。阀门和分配器块由钢制成,具有Viton密封,适用于高温应用。流量是外部可调的,阀门配置了一个可视指示器,用于检查操作。

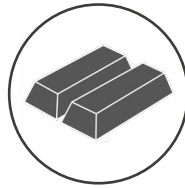
Applications 应用



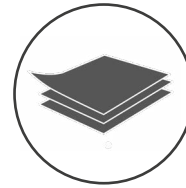
Processing Mining
采矿业



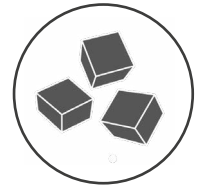
Heavy Industry
重工业



Steel Industry
冶金



Paper Processing
造纸



Sugar Processing
食品

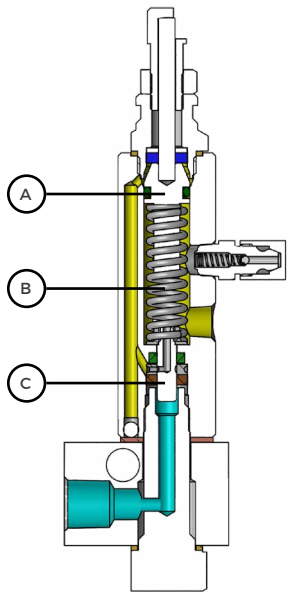
Technical data 技术参数

Lubricants 润滑剂	Oil 50 cSt – 2000 cSt	Grease up to NLGI 2
Working pressure PSI [Bar] (min-max) 最大最小工作压力	750 [52] - 1000 [69]	1850 [127] - 3500 [241]
Flow rate (min-max) 最大最小流量	.008 [.131] - 0.080 [1.31]	.008 [.131] - 0.080 [1.31]
Release pressure PSI [Bar] 释放压力	150 [10]	600 [41]
Temperature 温度	from -30 °C to +150 °C	
Seals 密封	VITON	
Block inlet 底座进口螺纹	3/8" G (F)	
Valve output 阀出口螺纹	1/8" G (F)	
Valve Material 阀材料	Steel	
Distributor material 分配器材料	Steel	

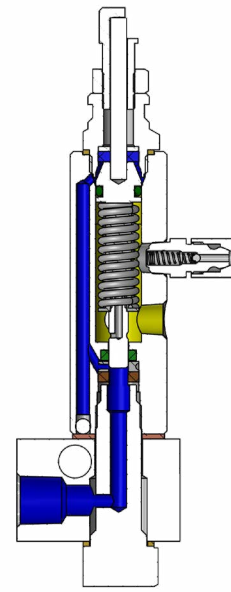
Important: the data provided above are theoretical and subject to variation based on the extension of the system, the size of the main pipe, the type of lubricant used and the working temperature.

重要:上面提供的数据是理论的,并且会根据系统的扩展、管道的尺寸、使用的润滑剂的类型和工作温度而有所变化。

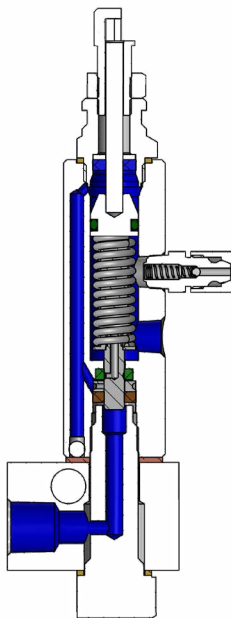
Operation 操作



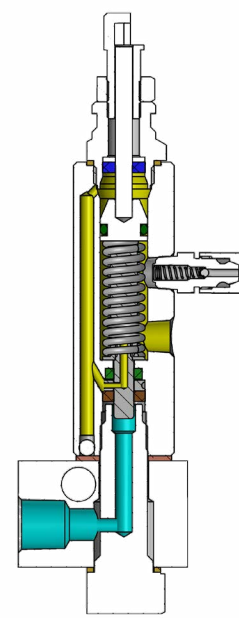
STEP 1 - Main piston C is in its rest position. Metering chamber (B) is full of lubricant from the previous cycle. 步骤1 - 主活塞C在其静止位置。计量室(B)充满了上一个循环的润滑剂。



STEP 2 - The pressure on the lubricant moves main piston C so as to open the passage for conveying the lubricant above metering piston A. 步骤2 - 润滑剂上的压力移动主活塞C以便开启输送润滑油的通道，供计量活塞A以上使用。



STEP 3 - The pressurised lubricant moves metering piston A which sends lubricant to the point. In addition, it moves main piston C until it shuts off the pressurised lubricant flow. 步骤3 - 加压润滑剂移动计量活塞A，将润滑剂送到点。此外，它移动主活塞C，直到它关闭高压润滑油流动。

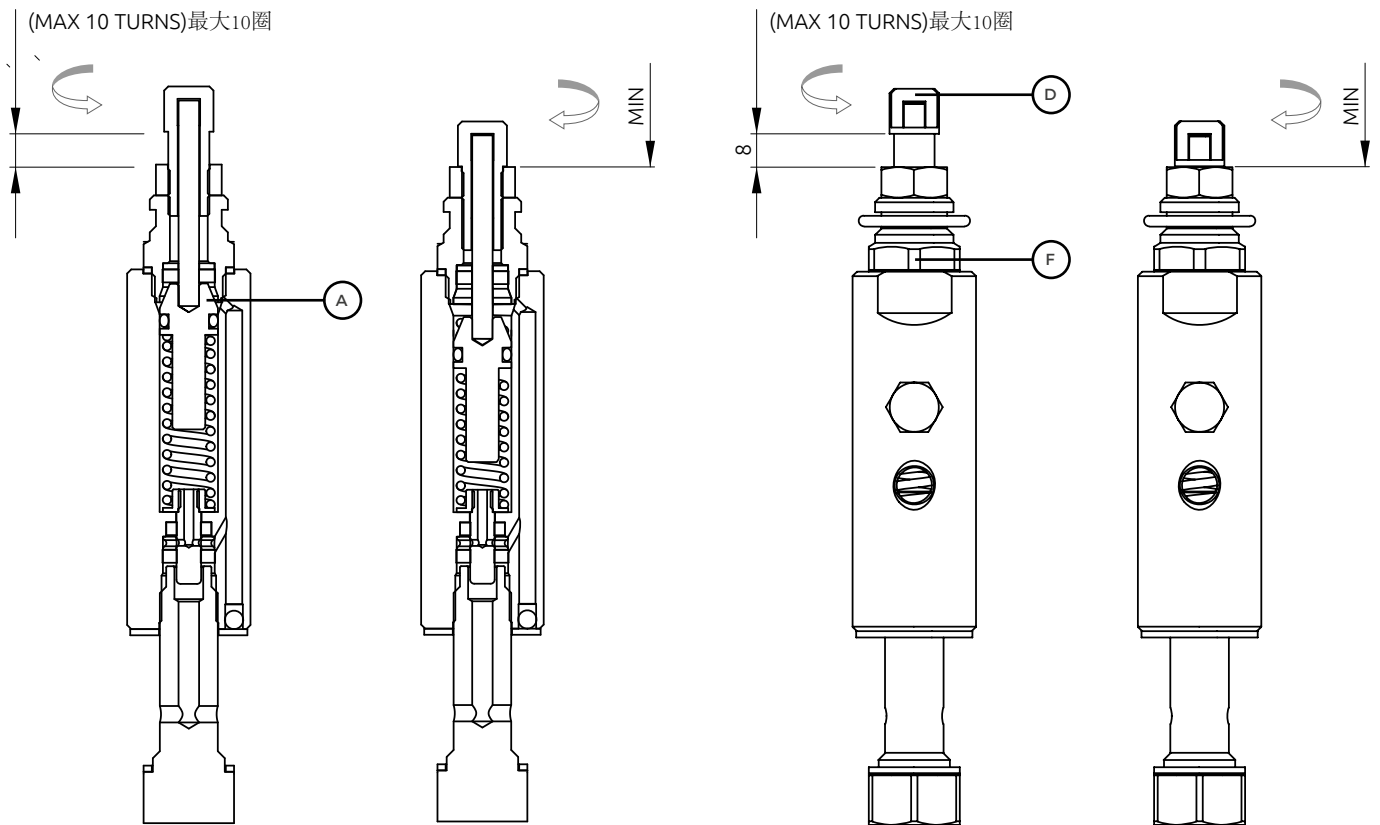


STEP 4 - When the pump stops and the main line is released, the spring returns the metering piston (A) to its rest position allowing metering chamber B to be filled. 步骤4 - 当泵停止和主线，弹簧返回计量活塞(A)到它的静止位置，允许计量室填B。

Adjustment 调节

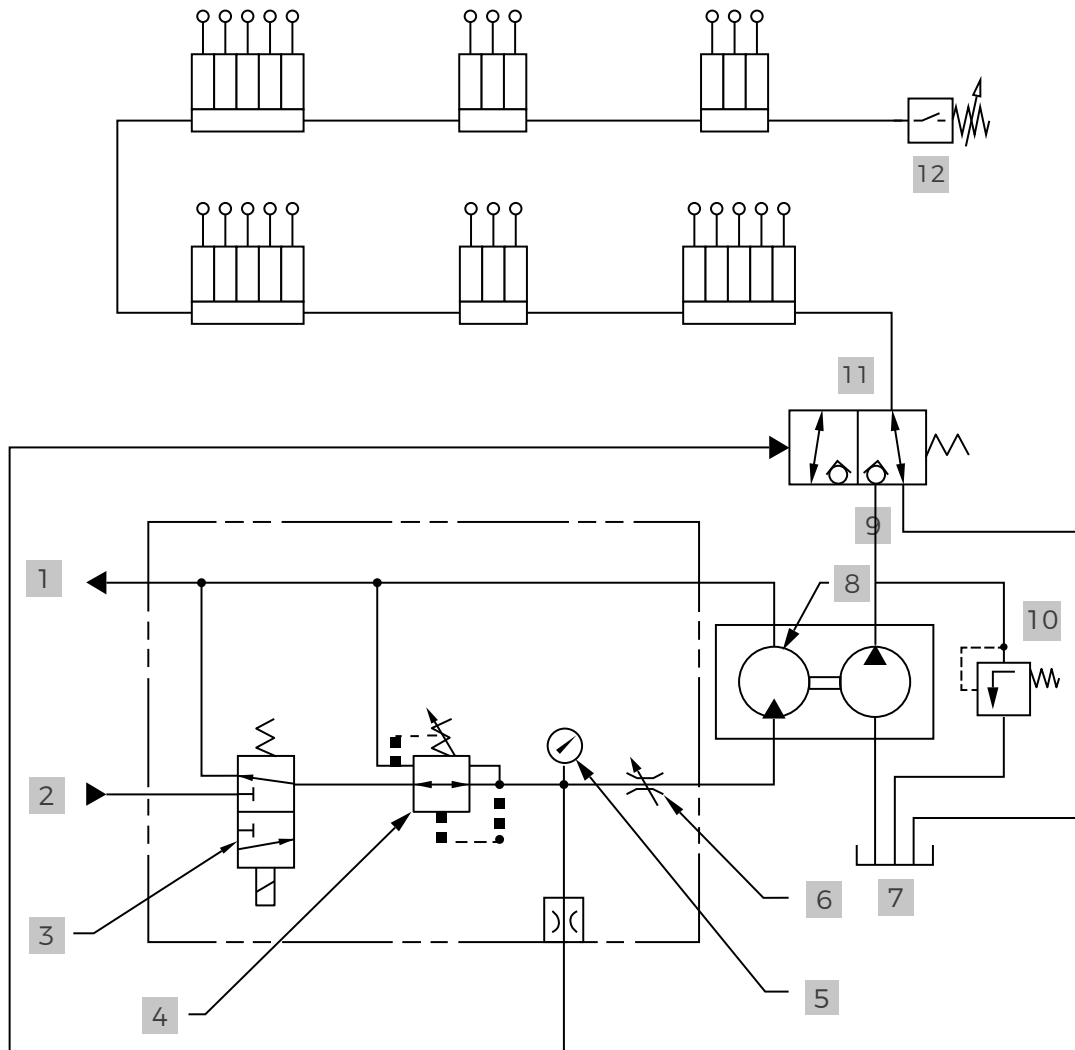
The flow rate of the valve is determined by adjusting nut D which limits the stroke of metering piston A. To reach the minimum flow rate, (0.131 cc / 0.008 cu. in.), screw counter nut F up to the valve body, screw the ring nut D by hand up to the mechanical stop and then loosen by about 1/2 turn. By unscrewing ring nut D by ten turns, the maximum flow rate 阀门的流量是通过调节螺母D来决定的，螺母D限制了计量活塞a的行程。旋紧螺母F向上至阀体，用手旋紧螺母D向上至机械止动器，然后左右转动松开。通过旋下环形螺母D 10圈，最大流量

of about 1.31 cc / 0.080 cu. in. will be obtained. Beyond this position, the valve will not operate smoothly. When the valve has been adjusted to the desired flow rate, counter nut F must be tightened against adjusting nut D. 约1.31 cc / 0.080 cu. 在。将获得的。超过这个位置，阀门将不能平稳运行。当阀门被调节到所需的流量时，必须将调节螺母F旋紧到调节螺母D上。



A	D	F
Metering Piston 计量活塞	Adjusting nut 调节螺母	Counter nut 锁紧螺母

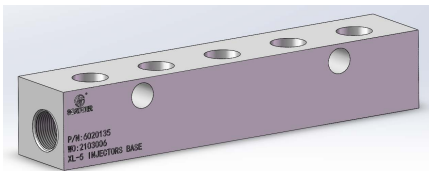
NOTE 注意:
 Any output set below 1/2 turn must be monitored to check the actual flow rate volume.
 任何输出设置在1/2转以下必须监控，以检查实际流量体积。



- | | | | |
|---|----------------------------------|----|------------------------------------|
| 1 | Return to hydraulic line 液压回路 | 7 | Lubricant Tank 润滑油桶 |
| 2 | Hydraulic Oil Inlet 液压油进口 | 8 | Hydraulic Motor 液压马达 |
| 3 | Solenoid valve 电磁阀 | 9 | Lubricant output 润滑输出 |
| 4 | Pressure Reducing Valve 减压阀 | 10 | Pressure Limiter Valve 安全阀 |
| 5 | Pressure gauge 压力表 | 11 | Release Valve 泄压阀 |
| 6 | Flow Rate Adjustment Valve 流量调节阀 | 12 | End of line pressure switch 末端压力开关 |

XL-1

Valves 阀



6000101

Single valve

Grease

6002000

Valve+Block

Grease

Outputs

6002001

1

6002002

2

6002003

3

6002004

4

6002005

5

6002006

6

Blocks 底座

Part no.

Outputs

6020131

1

6020132

2

6020133

3

6020134

4

6020135

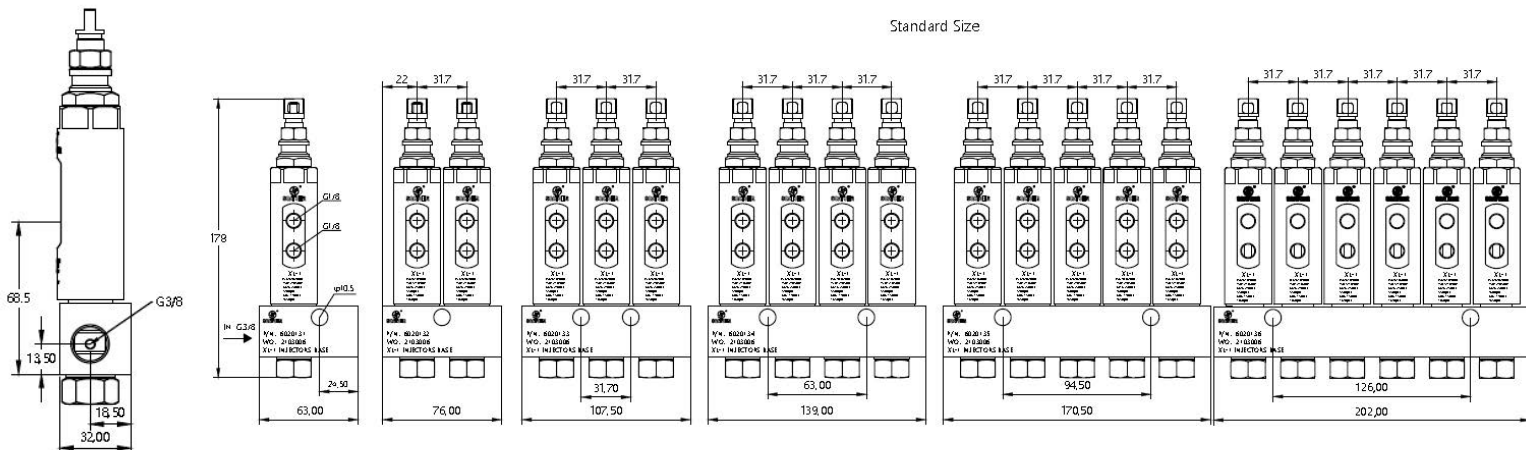
5

6020136

6

Two outputs can be joined with the bridge joint on request. 6000101: in this case, the two outputs of the XL-1 valves will add up.

两个输出可根据要求与桥接头连接。6000101:在这种情况下，XL-1阀门的两个输出相加。

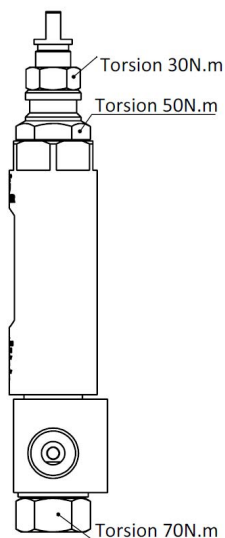


XL-1

Spare parts 备件



Ref.	Part no.	Description 描述
1	6020107	XL-1 injector valve cylinder
2	6020117	Copper washer size 28.5x14.5x1.5
3	6020121	Brass gasket size 22x18x1.5
4	6020119	Valve XL-1 hollow bolt 9/16"x18
5	6020102	Valve XL-1 nut 10x0.75 h.7.5
6	6020101	Valve XL-1 adjustment screw
7	6020103	Valve XL-1 ending fitting
8	6020113	Flat gasket 11x5.9x3.16 fkm 80sh green
9	6020114	Valve XL-1 diverter spacer
10	6020104	Valve XL-1 gasket block disk
11	6020105	Flat gasket 12.8x5x3.16 fkm 80sh blue
12	6020115	Flat gasket 12.8x5.9x3.16 fkm 80sh brown
13	6020112	XL-1 injector valve pilot piston
14	6020108	XL-1 injector valve metering piston
15	6020122	Cylindrical spring for cx-1 valve grease
16	5082031	Or 3037 9.19x2.62 Viton green 90 sh
17	6020123	1/8 g straight grease nipple with protection
18	6020126	Ball stuck
19	6020127	Or 3068-122 17.13x2.62 Nbr 70 sh
20	6020128	Epdm ee-730-1500 cap



Soatoer Fluid System (Shanghai) Co.,Ltd -201612- Songjiang Shanghai -China

Phone +86 21 54888200 - Fax +86 21 54888020 - www.soatoer.com - sales@soatoer.com