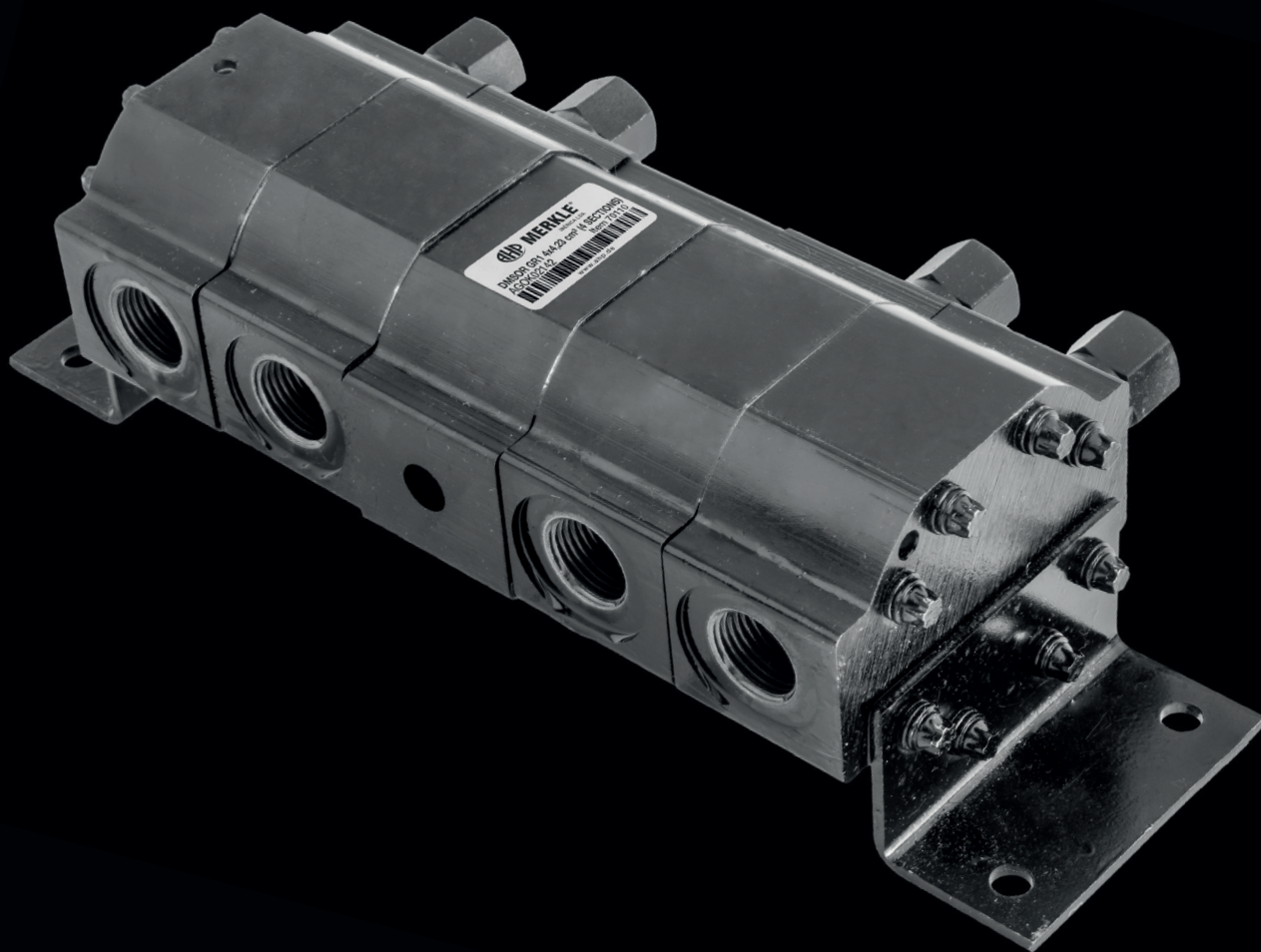




BEWEGT

液压缸

www.ahp.de



液压 分流器

FLOW DIVIDERS

区段间可调节针阀

先导式止回阀

ADJUSTABLE NEEDLE VALVE BETWEEN SECTIONS
PILOT-OPERATED CHECK VALVE

分流器在液压缸回路中的应用

APPLICATION OF A FLOW DIVIDER IN A CYLINDER CIRCUIT

旋转齿轮分流器设计的初衷是用来保证液压缸在同一个方向上同步工作（使他们运行到相同行程长度）。

这要求液压缸在一个方向上完全顶出（运动到行程终点）。

同步的实现是因为多余的液压油经分流器内部的泄压阀排出，并供应给较迟到达行程终点的液压缸。

如果翻转液压缸的工作方向，分流器可以起到集流器的作用，效率和分流时相同。

请注意，集流器并不能限制液压缸速度，因此需要流量控制器来控制最大流量。

Rotary Gear Flow Dividers are designed to synchronize hydraulic cylinders (bring them to equal stroke length) in one direction only. This needs to be in a direction where the cylinders bottom out (go to the end of their stroke).

The synchronizing is accomplished because excess fluid is bled off over the flow divider's internal relief valves to feed the cylinder that is late getting to the end of its stroke.

Reversing the direction of the cylinders, the Rotary Gear Flow Divider will act as a combiner with the same efficiency as a divider.

Please note that a combiner doesn't regulate cylinder speed, so a flow control is required to limit maximum flow.

不同区段间的可调节针阀

ADJUSTABLE NEEDLE VALVE BETWEEN SECTIONS

为了只允许设定的流量为驱动马达提供所需的差速效果。还可以根据需要调整不同转速。

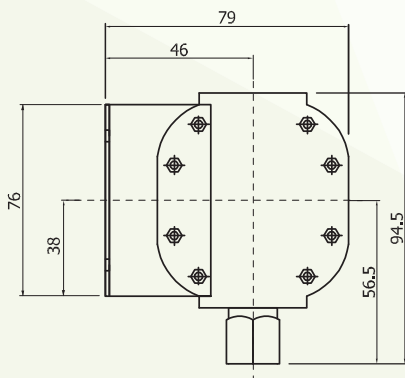
To allow only the set amount of flow providing the desired differential effect for drive motors.

It can also be adjusted for varying tire ratios.

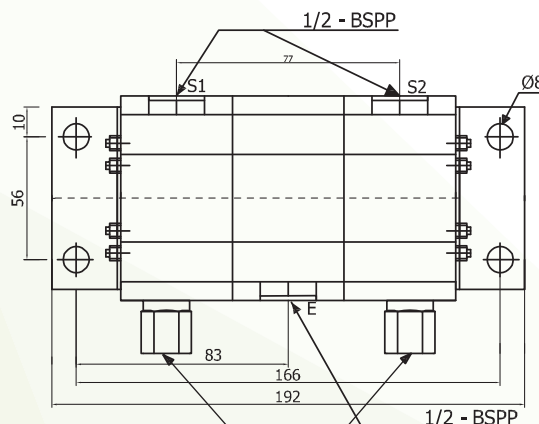
型号 MODEL	容量 CAPACITY	最大压力 MAX. PRESSURE	速度 (rpm) SPEED (rpm)			公称流量 NOMINAL FLOW		
70112	2 x 2,11	210	最小值 Min	1500	E	6 L/min	S	3 L/min
			最大值 Max	4500		18 L/min		9 L/min
70111	2 x 4,23	210	最小值 Min	1500	E	12 L/min	S	6 L/min
			最大值 Max	4500		38 L/min		19 L/min

转速推荐：3500 rpm

Rotation speed recommended: 3500 rpm

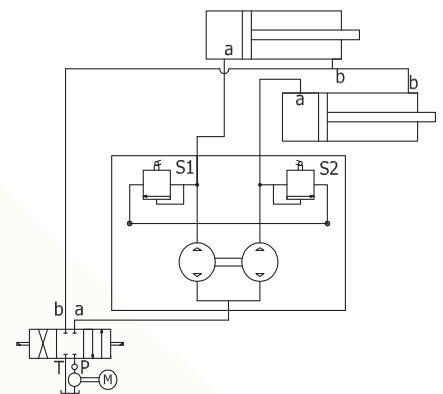


E: 进油口
E: Inlet port
S: 出油口
S: Outlet ports



压力限制器
Pressure limiter

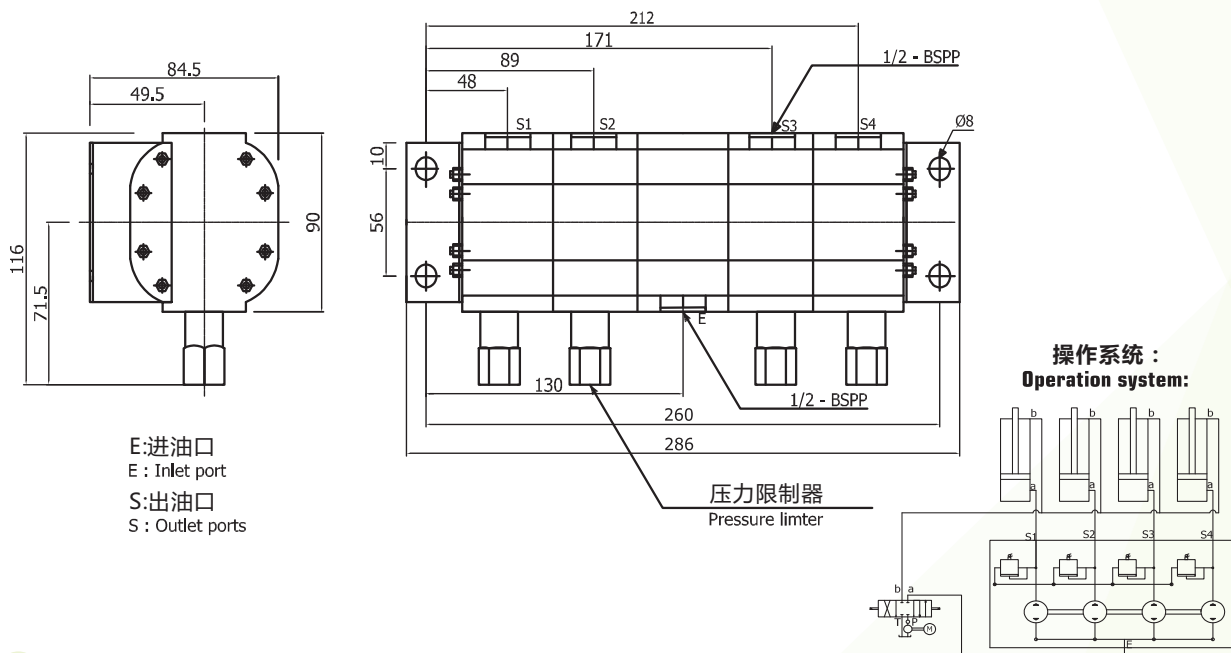
操作系统：
Operation system:



型号 MODEL	容量 CAPACITY	最大压力 MAX. PRESSURE	速度 (rpm) SPEED (rpm)			公称流量 NOMINAL FLOW		
70109	4 x 2,11	210	最小值 Min	1500	E	12 L/min	S	3 L/min
			最大值 Max	4500		36 L/min		9 L/min
70110	4 x 4,23	210	最小值 Min	1500	E	24 L/min	S	6 L/min
			最大值 Max	4500		76 L/min		19 L/min

转速推荐 : 3500 rpm

Rotation speed recommended: 3500 rpm



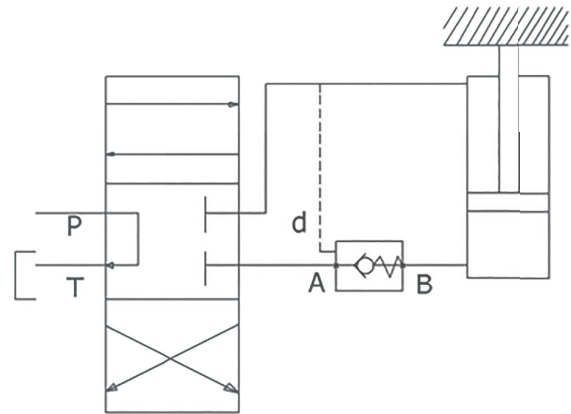
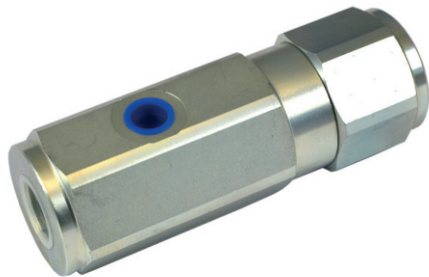
- **齿轮分流器**是被设计用来使2或4个单作用或双作用式液压缸进行高精度同步运动的。
Geared flow dividers are designed to enable a high-precision synchronized feeding of 2 or 4 single-acting or double-acting hydraulic cylinders.
- **所有齿轮都连接在同一个轴上**：它们以相同的速度旋转，分流率与每个腔室中的排量精确成比例。
Both gearings are linked by a common axle; they rotate at the same speed and the flow split rate is precisely proportional to the displacement in each cylinder chamber.

每个齿轮都配备了压差限制器，用来：

Each gearing is equipped with differential pressure limiters designed to:

- 保护分流器以防止机械干扰。
Protect the flow dividers in case of mechanical jamming.
- 补偿液压缸上下位置可能出现的偏差，以避免累计的行程差。
Compensate for possible deviations at lower and upper end positions of the cylinders to avoid cumulated stroke differences.
- **单个液压缸容量**：2.11cc/rev和4.23cc/rev。
Single cylinder capacity: 2, 11 cc/rev and 4,23 cc/rev.
- **旋转速度范围**：最小1500rpm 最大4500rpm。
Rotation speed range: min. 1,500 rpm max. 4,500 rpm.
- **转速推荐**：3500rpm。
Rotation speed recommended: 3500 rpm.
- **最大输入压力**：210bar。
Max. inlet pressure: 210 bars.
- **压差限制器**，低压可逆，无外部排液。
Differential pressure limiter, low pressure reversible, no external drain.

先导式止回阀 PILOT-OPERATED CHECK VALVE



功能 FUNCTION

先导式止回阀使油在一个方向上自由通过，并在相反方向上切断整个流量—B到A方向切断，A到B方向打开。

通过向液压先导接头“d”供油，可以打开之前关闭的B到A方向。

建议将阀门直接安装到液压缸上，以避免液压软管的弹性导致活塞杆的轻微位移。

这个阀的使用允许在行程终点位置时液压缸内保持压力，即使液压泵已经关闭。

典型的应用，是注塑或压铸模具中，液压缸取代了注塑压力的放射芯的对比。

The pilot-operated check valve permits the free passage of oil in one direction and shuts off the entire flow rate in the opposite direction - direction B to A shut, direction A to B open.

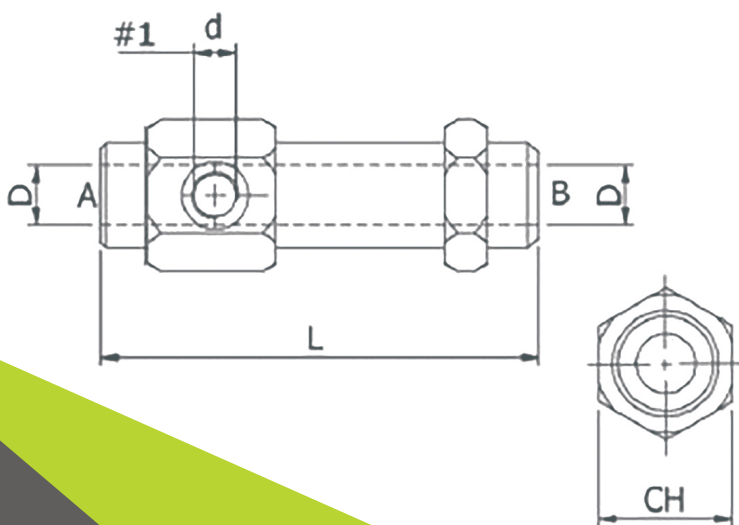
The closed direction B to A can be opened by feeding oil to the hydraulic pilot connection “d”.

It is recommended that the valve has to be mounted directly to the cylinder to avoid the elasticity of hydraulic hoses causing slight displacement of the rod.

The use of this valve permits to keep the oil in pressure inside the cylinder at the end stroke position even if the oil pump pressure has been switched off.

Typical application will be the contrast of the injection pressure on a radial core displaced by an hydraulic cylinder, on a plastic injection or die casting mold.

	CH	D	d	L	先导比 Pilot ratio	Kg
物料 70538 – VBPSL 01 1/4"	36	1/4 BSPP	1/4 BSPP	100	1:08	0.68
物料 70508 – VBPSL 02 3/8"	41	3/8 BSPP	1/4 BSPP	109	1:5,5	0.80



技术特性 Technical features	
最大压力bar/PSI Max pressure Bars/PSI	300/4350
最小打开压力bar/PSI Min. opening pressure Bars/PSI	0.5/7,3
流量 Flow rate	l/min
最大油温 Max oil temperature	100°C/212°F
过滤性 Filtration	25μ
外壳材料 Body material	钢铁 Steel
油类型 Oil Type	矿物油 Mineral

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