

MONOBLOCK VALVES

FEATURES

Monoblock valves for flow up to 150 l/min (40 US gpm) and pressure up to 350 bar (5100 psi).

The very compact casting is made of special high resistance cast iron. The spools are made of hardened and tempered special steel, nickel plated.

The standard valve is fitted with a main relief valve and a main supply check valve.

The standard circuit is parallel but SD 5 and SD 11 are also available with series circuit.

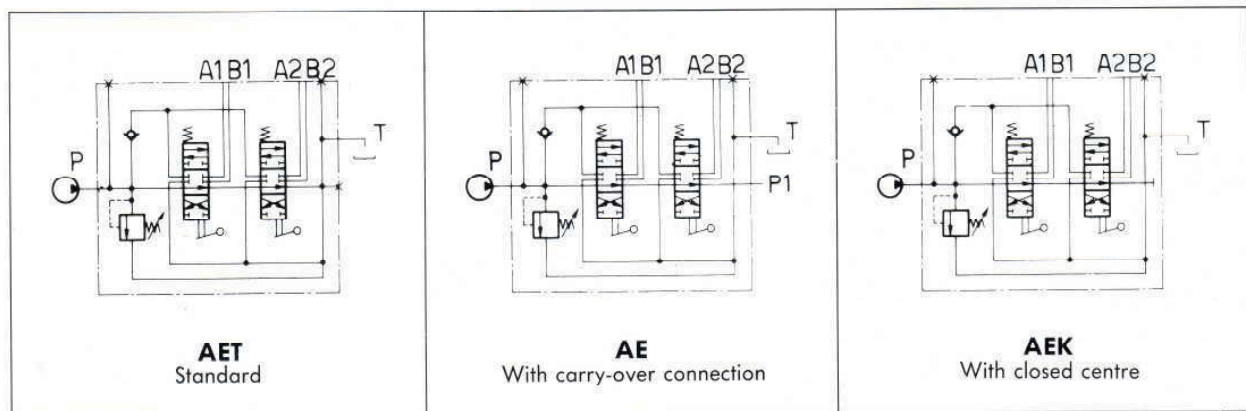
A range of service port and circuit valves (main relief valves, anti-shock valves, anti-cavitation valves, pilot operated check valves, regenerative valves) are available on request.

The standard operation is manual but hydraulic, electrohydraulic, pneumatic, electro-pneumatic, electric, flexible cables and special controls are also available.

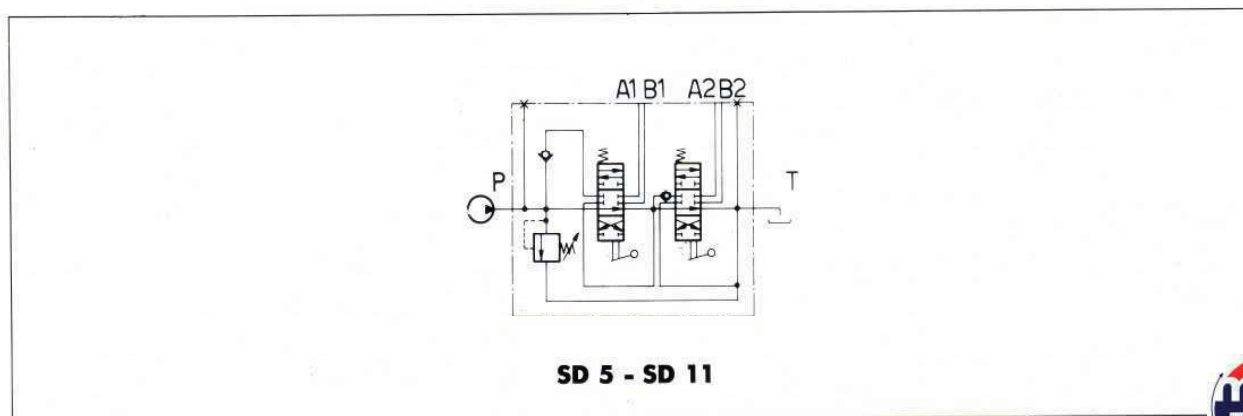
CONFIGURATIONS

TYPE	Diameter of passage		N° of spools	Circuit	Prearrangement on body			Standard spool	Standard relief valve	Check valve
	mm	in			Carry-over AE	Closed centre AEK	Top P-T			
SD 4	11	0.43	1	Parallel				Positive	VMPK5	
SD 5/1-N	11	0.43	1	Parallel			●	Negative	VMPK5	●
SD 5/1-D			1				●			●
SD 5/...-P			1+6	●	●	●	●			
SD 5/...-S			2+6		Series					●
SD 11/1-N	15	0.59	1	Parallel			●	Negative	VMPK10	●
SD 11/...-P			1+6		●	●	●			●
SD 11/...-S			2+6		Series					●
SD 14	17	0.66	1	Parallel			●	Positive	VMPY10	
SD 18/...-P	19	0.74	1+4	Parallel	●	●	●	Negative	VMPK20	●

PARALLEL CIRCUIT



SERIES CIRCUIT



SD 5 - SD 11



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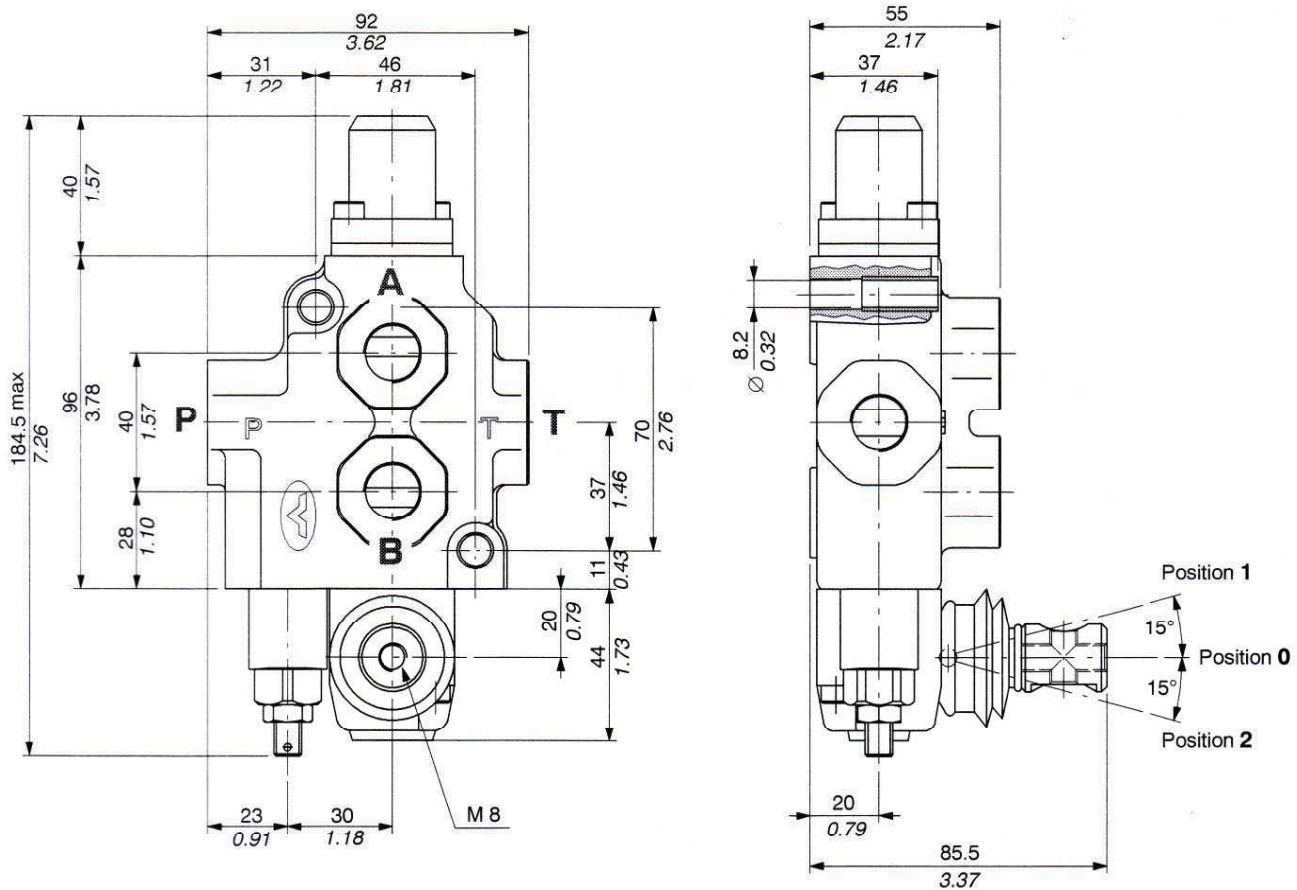
SD4

This catalogue shows technical specifications and diagrams measured with mineral oil of 46 mm²/s - 46 cSt viscosity at 40°C temperature.

Nominal flow rating	45 l/min	
Operating pressure (maximum)	250 bar	3600 psi
Back pressure (maximum)	on outlet port T	25 bar / 260 psi
Internal leakage A(B)→T	$\Delta p=100$ bar - 1450 psi fluid and valve at 40°C - 104 F	3 cm ³ /min / 0.18 in ³ /min
Fluid	Mineral base oil	
Fluid temperature	with NBR (BUNA-N) seals	from -20° to 80°C
	with FPM (VITON) seals	from -20° to 100°C
Viscosity	operating range	from 15 to 75 mm ² /s / from 15 to 75 cSt
	min.	12 mm ² /s / 12 cSt
	max.	400 mm ² /s / 400 cSt
Max level of contamination	19/16 - ISO 4406	
Ambient temperature	from -40° to 60°C	



NOTE - For different conditions please contact Sales Dept.



Standard threads

PORT	BSP (ISO 228/1)	UN-UNF (ISO 11926-1)	METRIC (ISO 262)
Inlet P		3/4-16 UNF-2B (SAE 8)	
A and B ports	G 3/8	9/16-18 UNF-2B (SAE 6)	M18x1.5
Outlet T		3/4-16 UNF-2B (SAE 8)	



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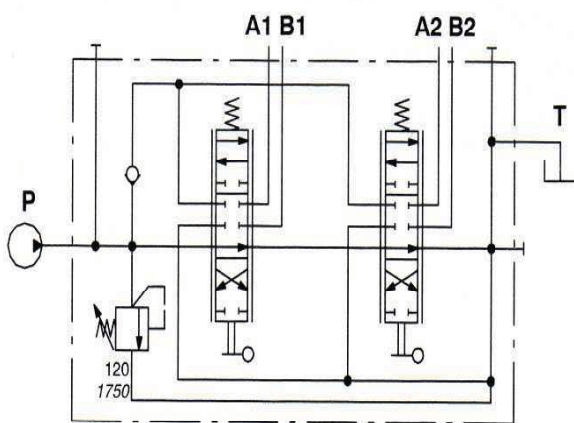
SD5

Nominal flow rating		45 l/min	
Operating pressure (maximum)	<i>parallel or tandem circuit</i>	315 bar	4600 psi
	<i>series circuit</i>	250 bar	3600 psi
Max. back pressure	<i>on outlet port T</i>	25 bar	360 psi
Internal leakage A(B)→T	<i>Δp=100 bar - 1450psi</i>	3 cm ³ /min	0.18 in ³ /min
	<i>with fluid and valve at 40°C</i>		
Hydraulic fluid		Mineral base oil	
Fluid temperature	<i>with NBR seals</i>	from -20° to 80°C	
	<i>with FPM seals</i>	from -20° to 100°C	
Viscosity	<i>operating range</i>	from 15 to 75 mm ² /s	from 15 to 75 cSt
	<i>minimum</i>	12 mm ² /s	12 cSt
	<i>maximum</i>	400 mm ² /s	400 cSt
Max. level of contamination		19/16 - ISO 4406	
Ambient temperature		from -40° to 60°C	



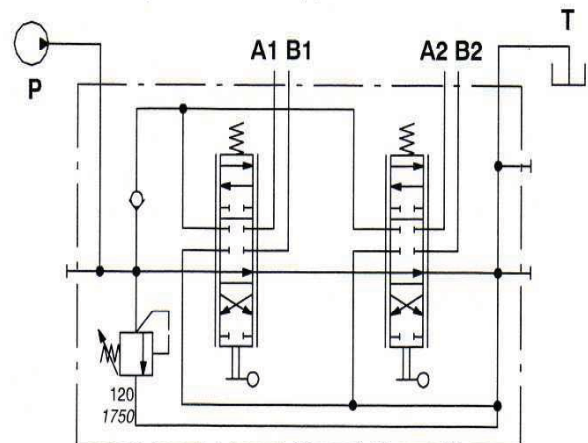
NOTE - For different conditions please contact Sales Dept.

Standard configuration



Ex.: SD5/2-P(JG3-120)/18L/18L/AET

Configuration with upper inlet and outlet



Ex.: SD5/2-P(JG3-120)/18L/18L/AET-PSA

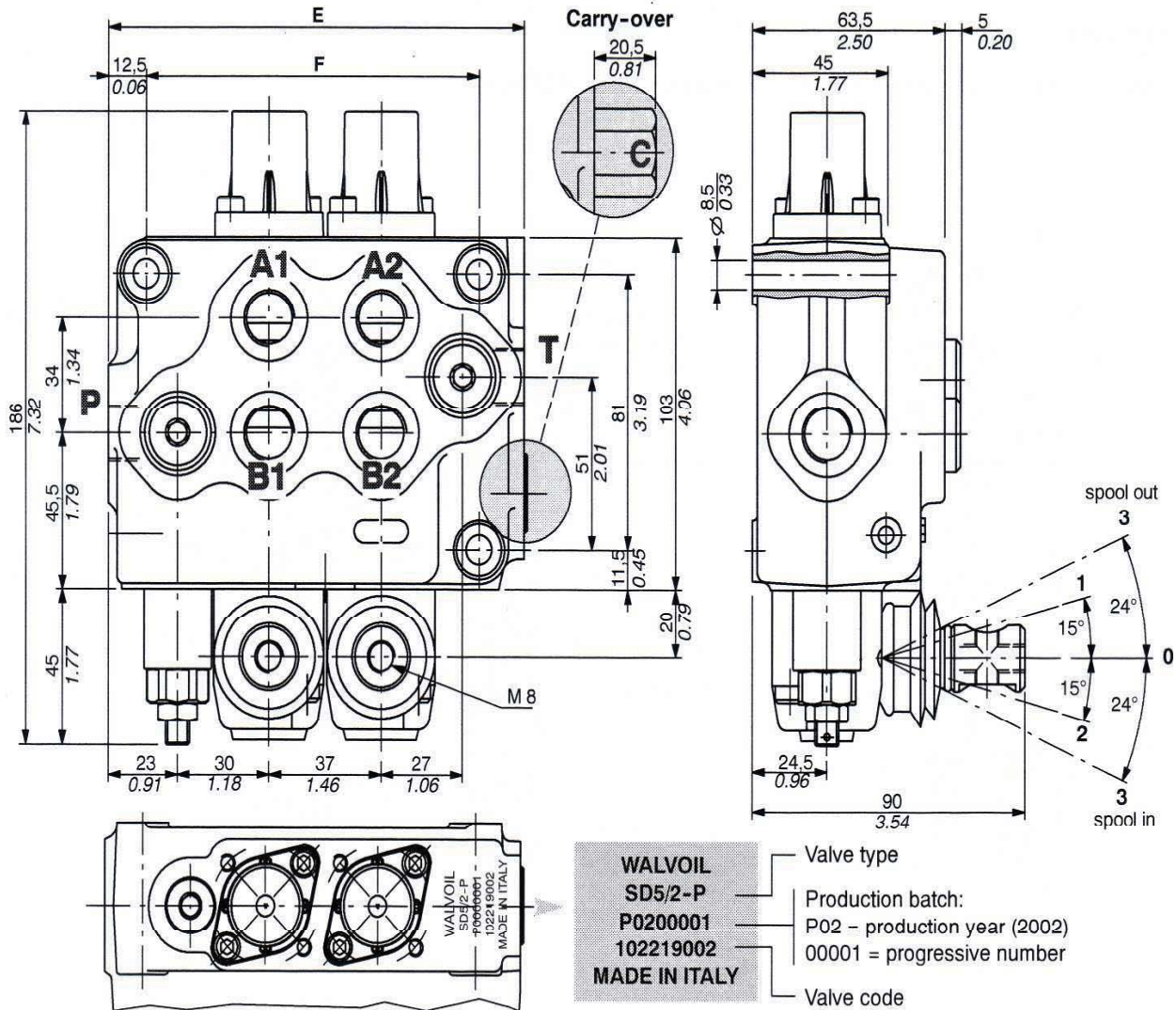
Standard threads

PORTS	BSP (ISO 228/1)	UN-UNF (ISO 11926-1)	METRIC (ISO 262)
Inlet P and carry-over C	G 3/8	3/4-16 UNF-2B (SAE 8)	M18x1.5
A and B ports	G 3/8	9/16-18 UNF-2B (SAE 6)	M18x1.5
Outlet T	G 3/8	3/4-16 UNF-2B (SAE 8)	M18x1.5
PILOT PORTS			
Pneumatic	NPTF 1/8-27	NPTF 1/8-27	NPTF 1/8-27
Hydraulic	G 1/4	9/16-18 UNF-2B (SAE 6)	G 1/4



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SD5



TYPE	E		F		Weight	
	mm	in	mm	in	kg	lb
SD5/1-P	100.5	3.96	73	2.87	3.5	7.7
SD5/2-P	137.5	5.41	110	4.33	5.2	11.5
SD5/3-P	174.5	6.87	147	5.79	6.9	15.2
SD5/4-P	211.5	8.33	184	7.24	8.1	17.9

TYPE	E		F		Weight	
	mm	in	mm	in	kg	lb
SD5/5-P	248.5	9.78	221	8.70	10.1	22.3
SD5/6-P	285.5	11.24	258	10.16	11.7	25.8
SD5/7-P	322.5	12.70	295	11.61	13.2	29.1

