



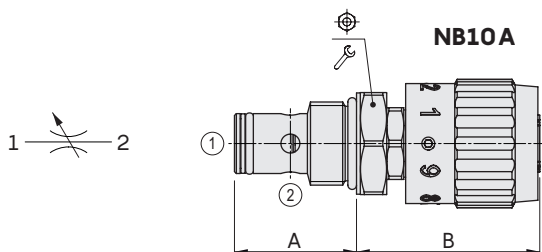
NB..A type needle valves - 2 way

- Poppet type
- Different types of manual adjustment
- Prepared for copped adjustment
- Ideal use in the circuit as bleed off
- From SAE08 to SAE16 cavities

Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

	NB08A	NB10A	NB12A	NB16A
Nominal flow	15 l/min (3.9 US gpm)	30 l/min (7.9 US gpm)	60 l/min (16 US gpm)	100 l/min (26 US gpm)
Max. pressure	350 bar (5100 psi)			
Fluid	mineral based or synthetic hydraulic fluid with lubricating properties			
Viscosity	10-200 cSt			
Max level of contamination	20/18/14 ISO4406			
Fluid temperature	with NBR seals+PTFE with FPM seals	from -25°C (-13°F) to 90°C (194°F) from -20°C (-4°F) to 110°C (230°F)		
Environmental temp. for working conditions	from -20°C (-4°F) to 60°C (140°F)			
Cavity	SAE 08/2	SAE 10/2	SAE 12/2	SAE 16/2
Weight	0.180 kg (0.40 lb)	0.200 kg (0.44 lb)	0.280 kg (0.62 lb)	0.500 kg (1.10 lb)

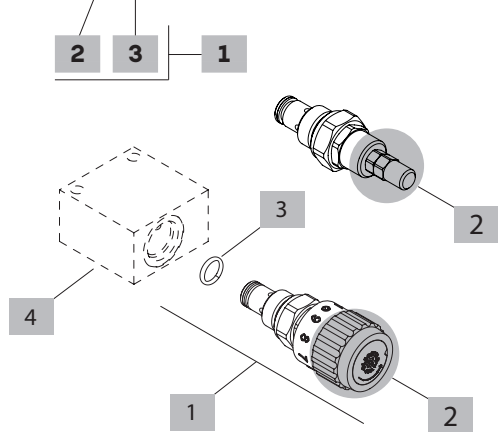
NOTE - For different conditions, please contact Walvoil Sales Dpt.



Valve type	A		B		⊕			
	mm	in	mm	in	Nm	lbft		
NB08 A/A	M	27.6	1.09	55.5	2.19	24	30	22
	S	27.6	1.09	49.5	1.95	24	30	22
NB10 A/A	M	32.5	1.28	47.5	1.87	27	50	37
	S	32.5	1.28	46.5	1.83	27	50	37
NB12 A/A	M	46	1.81	53.4	2.10	32	80	59
	S	46	1.81	46.3	1.82	32	80	59
NB16 A/A	M	45.2	1.78	71.6	2.82	41	100	74
	S	45.2	1.78	60.9	2.40	41	100	74

Ordering codes and description composition

NB08A/AMOB



2 Adjustments

TYPE	DESCRIPTION
S	Screw
M	Handknob calibrated
W	Copped adjustment

3 Seals

TYPE	DESCRIPTION
B	NBR (Buna)+PTFE o-ring seals, std configuration
V	FPM (Viton) o-ring seals, contact Sales Dept

1 Cartridges

TYPE	CODE	DESCRIPTION
SAE cavity 08/2		
NB08A/AMOB	ONB08002000	Handknob adjustment
NB08A/ASOB	ONB08002001	Screw type adjustment
SAE cavity 10/2		
NB10A/AMOB	ONB10002003	Handknob adjustment
NB10A/ASOB	ONB10002001	Screw type adjustment
SAE cavity 12/2		
NB12A/AMOB	ONB12002002	Handknob adjustment
NB12A/ASOB	ONB12002001	Screw type adjustment
SAE cavity 16/2		
NB16A/AMOB	ONB16002000	Handknob adjustment
NB16A/ASOB	ONB16002002	Screw type adjustment

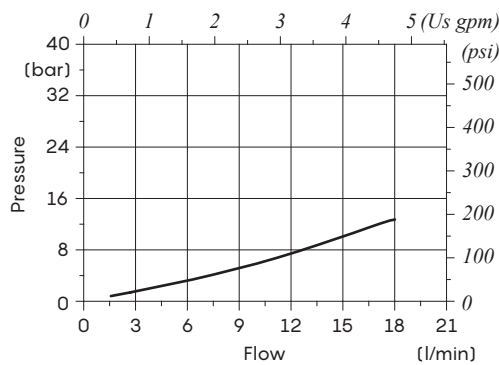
4 Valve body

TYPE	CODE	DESCRIPTION
SAE08/2-SAE8	3CC0820K11	Aluminium body for cavity 08 valve, SAE8 std thread
SAE10/2-SAE8	3CC1020K11	Aluminium body for cavity 10 valve, SAE8 std thread
SAE12/2-SAE10	3CC1220L11	Aluminium body for cavity 12 valve, SAE10 std thread
SAE16/2-SAE12	3CC1620M11	Aluminium body for cavity 16 valve, SAE12 std thread

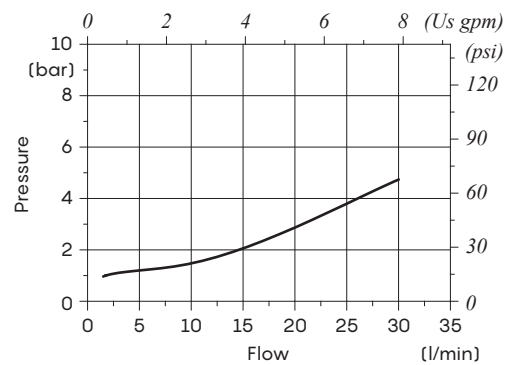
Note: aluminium body can stand up to 210 bar (3050 psi)
For steel bodies or different threading see from page 208

Rating diagrams

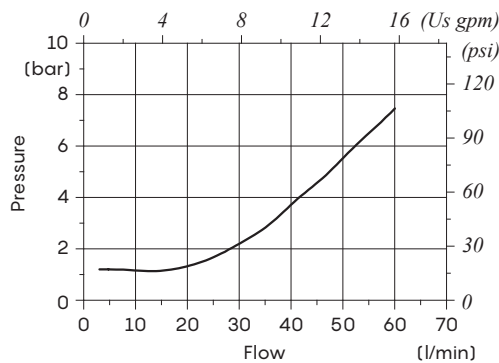
NB08A: pressure drop vs. flow 1->2 - 2->1, fully open



NB10A: pressure drop vs. flow 1->2 - 2->1, fully open



NB12A: pressure drop vs. flow 1->2 - 2->1, fully open



NB16A: pressure drop vs. flow 1->2 - 2->1, fully open

