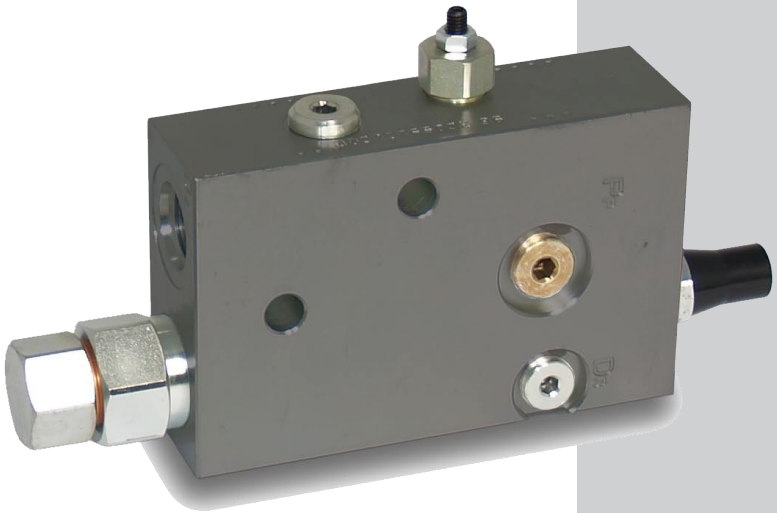
NEW

new range

VBL

Boom Lock Valves

The ideal solution for earth moving machines



walvoil
HYDRAULIC CONTROL SYSTEMS

New range VBL Boom Lock Valves

- ☐ **If properly set, the VBL valves can become part of load handling systems compliant to ISO 8643 security standard**
- ☐ **Zinc-plated steel manifolds**

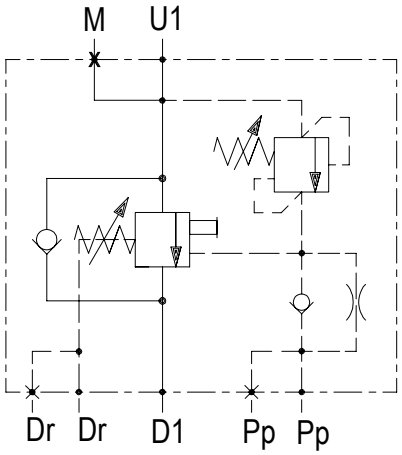
The **VBL** family is a full range of valves specifically designed for earth moving machines to provide load lowering control and hose failure protection under every condition of usage. The valves are remotely controlled by the joystick pilot pressure and, with specific adjustments, can guarantee compliance to the **ISO 8643** international standard.

Working conditions	**VBL/78**	**VBL/1116**	**VBL/1516**
Flow	30 l/min *(10.5 US gpm)*	60 l/min *(21 US gpm)*	150 l/min *(52.5 US gpm)*
Max. pressure	420 bar *(6000 psi)*	420 bar *(6000 psi)*	420 bar *(6000 psi)*
Fluid	Mineral oil		
Leakage from U1 to D1 at 80% of the setting pressure	with oil viscosity 46 cSt 0,25 cm^3 *(0.015 in^3/min)* 5 drops		
Fluid temperature range	*with NBR o-rings* from -20° *(-4°F)* to 90° C *(194°F)*		
Viscosity	*min.* 10 cSt *max.* 200 cSt		
Environmental temperature for working conditions	from -20° *(-4°F)* to 50° C *(122°F)*		

Thread reference standard

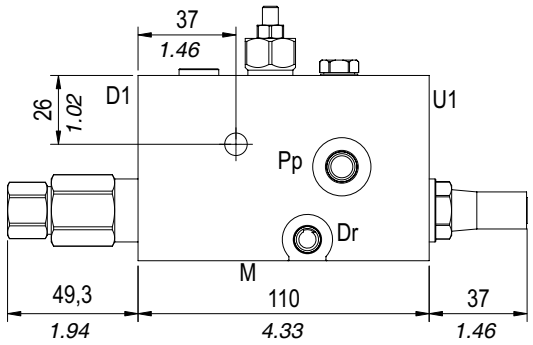
		BSP	**UN-UNF**
Thread according to		ISO 228/1	ISO 263
		BS 2779	ANSI B1.1 unified
Cavity dimension	ISO	1179	11926
according to	SAE		J2244
	DIN	3852-2 shape x or y	

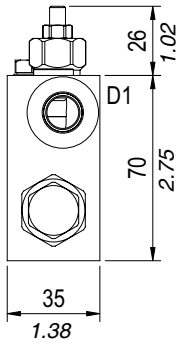
Hydraulic Circuit



NEW

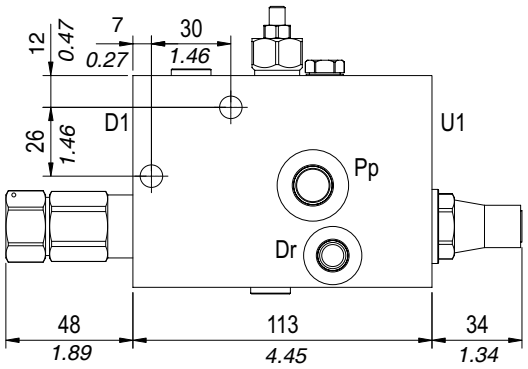
VBL/78 dimensions

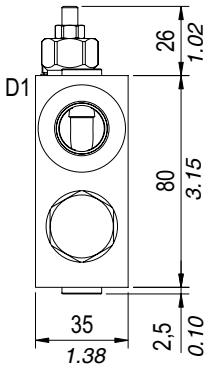




	PORT			
THREAD	D1-U1	Pp	Dr	M
BSP	G3/8	G1/4	G1/8	G1/8
UN-UNF	3/4-16 (SAE 8)	7/16-20 (SAE4)	3/8-24 (SAE3)	3/8-24 (SAE3)

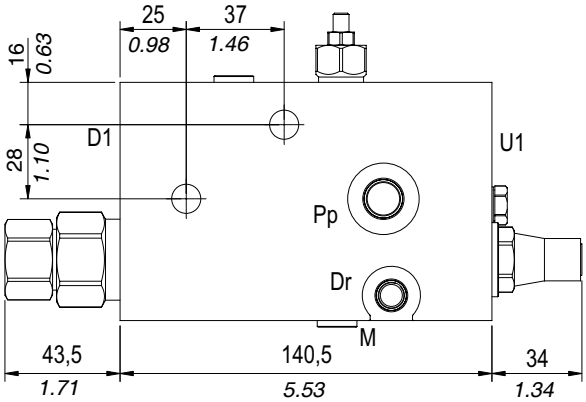
VBL/1116 dimensions

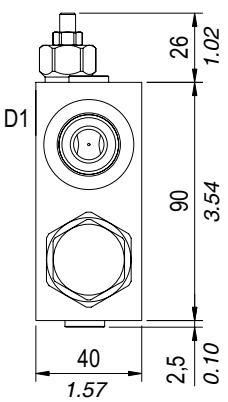




	PORT			
THREAD	D1-U1	Pp	Dr	M
BSP	G1/2	G3/8	G1/4	G1/4
UN-UNF	7/8-14 (SAE 10)	9/16-18 (SAE 6)	7/16-20 (SAE4)	7/16-20 (SAE4)

VBL/1516 dimensions





	PORT			
THREAD	D1-U1	Pp	Dr	M
BSP	G3/4	G3/8	G1/4	G1/4
UN-UNF	1"1/16-12 (SAE 12)	9/16-18 (SAE 6)	7/16-20 (SAE4)	7/16-20 (SAE4)

Features

- All the valves in the range are equipped with a relief section to prevent overpressures;
- a manual command to allow emergency lowering of the load, and a gauge port for load pressure monitoring as required by international security standards;
- symmetrical design with twin pilot and drain ports provides valves that can suit several piping patterns;
- different port sizes for error-proof assembly.

Compliance with standard

If properly set, the VBL valves can become part of load handling systems compliant to ISO 8643 security standard.
The international standard states that in case of failure of a flexible hose connecting the main directional valve to the boom cylinder, the boom lowering valve shall provide protection:
- during raising and holding position: the load shall not fall by more than 10 mm per second;
- during lowering: the increase of load lowering speed shall not exceed 100% of the initial value.

Applications

Pipe mounting on boom and arm cylinders of hydraulic excavators and wheel-backhoe loaders.

Configuration and options

Customized portings and solutions available on demand.