



P.A. – S.p.A. – EQUIPAGGIAMENTI TECNICI DEL LAVAGGIO

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VB 200/280 Unloader valve



Technical manual: E 269

Pressure regulating unloader valve. At gun closure the water flow is discharged in bypass, lowering the pressure in the circuit upstream of the valve.

DN 25

1" G FF

- 60.4300.00 VB 200/280



- High flow rate
- Brass body and Sst internal parts
- Adjustable with screw and counter nut to secure the working pressure
- Slots for screw fastening

Technical specifications

Construction material					Brass body and Sst internal parts							
Rated temperature (1)					90°C (195°F)							
Part number	Rated pressure		Permissible pressure		Minimum adjustable pressure		% decrease of pressure to reset working pressure (2)	Max. Flow Rate		Weight		Inlet Outlet Bypass
	bar	Psi	bar	Psi	bar	Psi		%	l/min	USGpm	g	
60.4300.00	280	4050	310	4500	28	410	22	200	53	3440	7.6	G 1" F

- 1) The valve has been designed for a continuous use at a water temperature of 60°C. It can resist for short periods at a maximum temperature of 90°
- 2) When the valve is in bypass mode, this is the decrease of pressure that has to occur in the circuit downstream of the valve, in order that the valve can restore the working pressure in the system. The indicated figure is expressed as a percentage of the pressure setting (working pressure).

At gun closure, a pressure increase occurs in the circuit downstream of the valve. This pressure increase is used to activate the valve and discharge all the flow in bypass. The value of the pressure increase can not be calculated. It depends on the correct setting of the valve (see PRESSURE ADJUSTMENT/SETTING) and on the layout of the system: flow rate, working pressure, length and characteristic of the tubes, closing time of the gun.

PRESSURE REGULATION/SETTING

The desired working pressure must be adjusted while the system is in operation and gun opened. Alter the pressure by screwing or unscrewing the adjustment screw. The operation is easier if the correct nozzle has been chosen (see paragraph "installation"). Pressure is increased by rotating the adjustment knob. In case pressure does not increase despite turning of the knob, **do not force**, but check that the nozzle flow rate/pressure ratio is correct.

ATTENTION: The nut in position 16 is a mechanical security device that limits the maximum pressure; it must absolutely not be removed.

TROUBLE SHOOTING: CAUSES AND SOLUTIONS

PROBLEMS	PROBABLE CAUSES	SOLUTIONS
Frequent unloader recycles	Damaged check valve O ring Leaking connections Restricted bypass	Replace Check and renew Clean or adapt
Unloader does not reach pressure	Piston O rings worn out Debris between seat and shutter Worn out nozzle	Replace Clean the seat Replace
Pressure peaks	There is not a min of 5% of total flow in bypass Excessive flow in bypass Spring totally compressed	Reset Change type of valve or adjust passages Loosen screw and change nozzle
Unloader does not bypass at low pressure	Jammed check valve Debris on check valve	Clean or replace Clean

MAINTENANCE

STANDARD: every 400 working hours, check and lubricate the seals with water resistant grease.

SPECIAL: every 800 working hours, control the wear of the seals and internal parts and if necessary, replace with original PA parts taking care, during installation, to lubricate with water resistant grease.

Maintenance has to be carried out by specialized technicians.

The manufacturer is not to be considered responsible for damage as a result from incorrect fitting and maintenance.

REGULATIONS : see Norm Manual

The accessory hereby described bears the CE marking in accordance with the standards and directives published in the Declaration of conformity.

For a correct utilization, follow the directions described in this manual and re-print them on the Use and Maintenance manual of the machine.

If needed ask for the original Conformity Declaration for the accessory chosen. The present manual is valid for all unloader valves named **VB 200/280**.

Technical data, descriptions and illustrations are indicative and liable to modification without notice.

Instruction manual, maintenance, installation, spare parts.	n. 12.9269.50
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