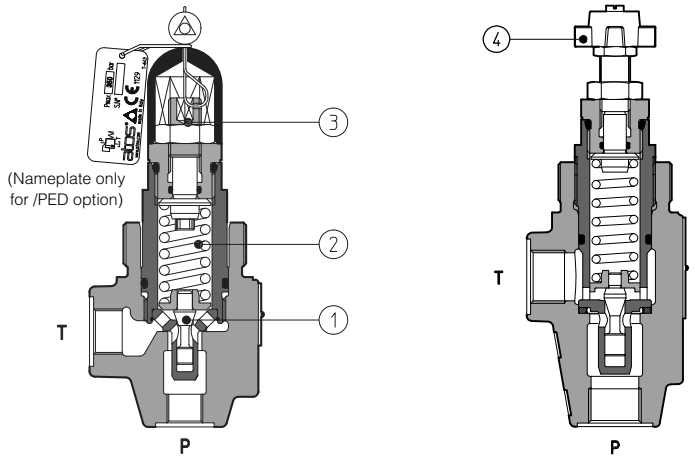
Pressure relief valves type ARE

direct operated, in line mounting - G 1/4” and G 1/2” threaded ports



ARE-06-*/RS /PED**

ARE-15-*/V**

ARE are poppet type, directed operated pressure relief valves, with threaded ports for in line mounting.

The flow P→T is permitted when pressure force acting on the poppet ① overcomes the force of the spring ②.

Regulation is operated by means of a screw ③ or optionally by means of a handwheel ④ acting on the spring.
Clockwise rotation increases the pressure.

These valves are available in two sizes, with port P=G 1/4” or G 1/2”.

Also available in safety options with sealed regulation:
/RS conforming to Machine Directive (2006/42/CE). The factory preset regulation required by the costumer corresponds to the valve’s cracking pressure.
/PED conforming to PED Directive (97/23/CE). The valves are factory set at the pressure level required by the costumer with a flow through the valve as shown in section 5.
For this version, the P, Q limits are shown in section 7.

Max flow: 100 l/min:
Max pressure: 500 bar.

1 MODEL CODE

ARE – 06 / 350 * /* ** / *

ARE= pressure relief valve with thread connections
Availble also in cartridge execution,see table C010

Size:
06 = port P G 1/4” **15** = port P G 1/2”

Setting:

for size 06:		for size 15:	
50	= 2 → 50 bar	**15**	= 2 → 15 bar
100	= 3 → 100 bar	**50**	= 3 → 50 bar
210	= 10 → 210 bar	**75**	= 4 → 75 bar
350	= 15 → 350 bar	**150**	= 8 → 150 bar
500	= 30 → 500 bar	**250**	= 8 → 250 bar

(1) For handwheel and knob features and avaibility, see section 7 and technical table K150.

(2) Possible combined options:
/RV = reduced leakages and regulating handweel
/RVF = reduced leakages and regulating knob
/RVS = reduced leakages and regulating knob with safety locking

Options (1)(2):
/R = reduced leakage for special applications
/RS = as /R, plus conforming to 2006/42/CE
/PED = as /R, plus conforming to 97/23/CE

Only for standard and /R option:
/V = regulating handwheel
/VF = regulating knob
/VS = regulating knob with safety locking

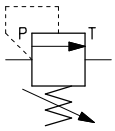
Only for RS, PED options:
280 = factory pressure setting to be defined depending to the customer requirement (example 280 = 280 bar)

Series number

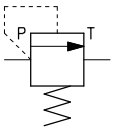
Synthetic fluids:
WG = water-glycol
PE = phosphate ester

2 HYDRAULIC SYMBOLS

Hydraulic symbol



ARE-06
ARE-15



ARE-06 **/RS /PED
ARE-15 **/RS /PED

3 HYDRAULIC CHARACTERISTICS

Valve model		ARE-06					ARE-15				
Setting		/50	/100	/210	/350	/500	/15	/50	/75	/150	/250
	/RS		/220	/270	/320	/350		/150	/190	/230	
	/PED		/100	/210	/350				/75	/150	/250
Pressure range [bar]		2÷50	3÷100	10÷210	15÷350	30÷500	2÷15	3÷50	4÷75	8÷150	8÷250
	/RS		200÷250	250÷290	290÷350	310÷370		130÷170	170÷210	210÷250	
	/PED		25÷100	100÷210	210÷350				25÷75	75÷150	150÷250
Max flow [l/min]		40					75				
	/RS, /PED	60					100				

4 MAIN CHARACTERISTICS OF PRESSURE RELIEF VALVES TYPE ARE

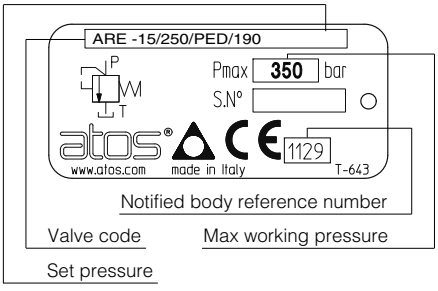
Assembly position	Any position
Subplate surface finishing	Roughness index $\sqrt{}^{0.4}$, flatness ratio 0,01/100 (ISO 1101)
Ambient temperature	-20°C + 70°C
Fluid	Hydraulic oil as per DIN 51524...535; for other fluids see section 1
Recommended viscosity	15÷100 mm²/s at 40°C (ISO VG 15÷100)
Fluid contamination class	ISO 19/16, achieved with in line filters at 25 µm value and $\beta_{25} \geq 75$ (recommended)
Fluid temperature	-20°C +60°C (standard and /WG seals) -20°C +80°C (/PE seals)

5 SETTING OF VALVES WITH /PED OPTION

The /PED valves are factory set at the pressure level required by the costumer (every 1 bar) at the following flow shown in the table.
The set pressure is marked on the valve nameplate, see section 5.1

VALVE MODEL	FLOW FOR FACTORY PRESSURE SETTING (l/min)
ARE-06	30
ARE-15	50

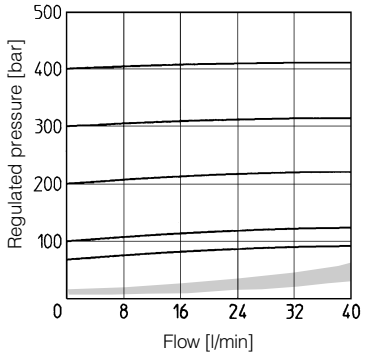
5.1 EXAMPLE OF NAMEPLATE FOR /PED OPTION



6 **REGULATED PRESSURE VERSUS FLOW DIAGRAMS** based on mineral oil ISO VG 46 at 50°C

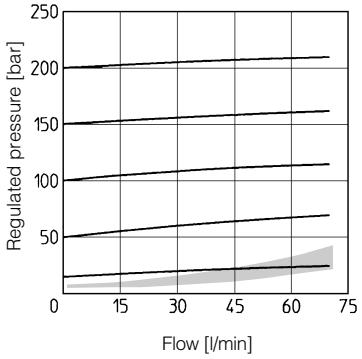
ARE-06

Min. regulated pressure

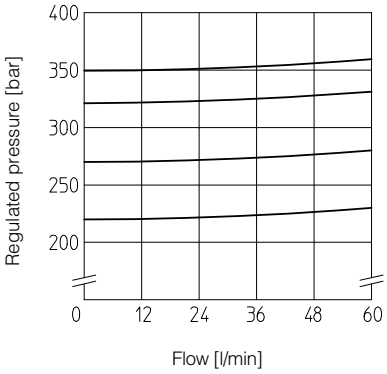


ARE-15

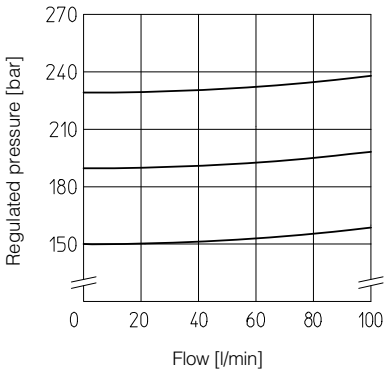
Min. regulated pressure



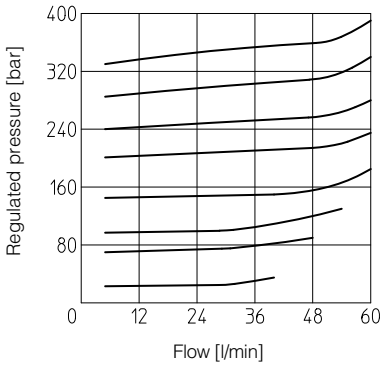
ARE-06 **/RS



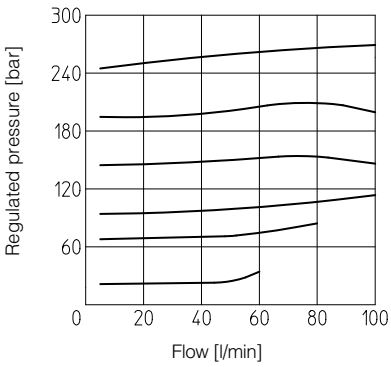
ARE-15 **/RS



ARE-6 **/PED

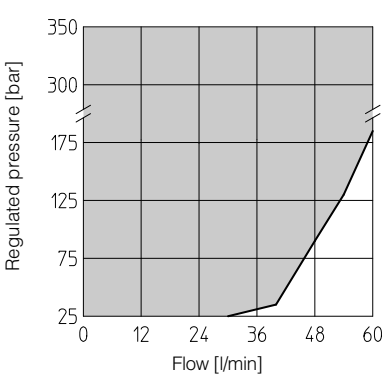


ARE-15 **/PED

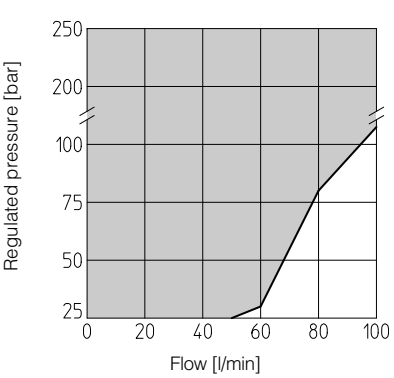


7 **PERMISSIBLE RANGES** (shaded area)
based on mineral oil ISO VG 46 at 50°C

ARE-6 **/PED



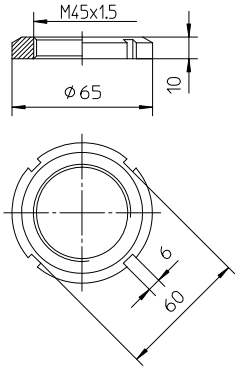
ARE-15 **/PED

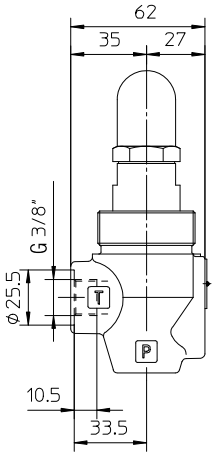


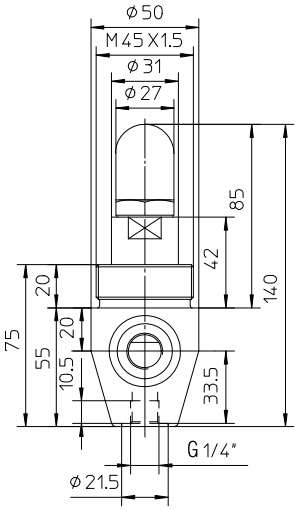
8 DIMENSIONS [mm]

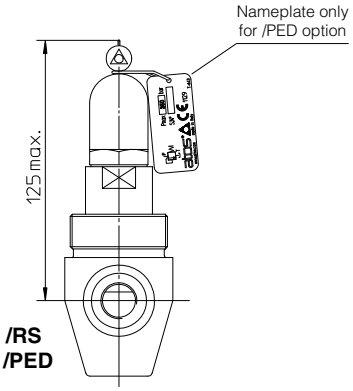
ARE-06

P = INLET PORT G 1/4"
T = OUTLET PORT G 3/8"
Locking ring for fastening the valve.
Model code: SP-6-RE-310030

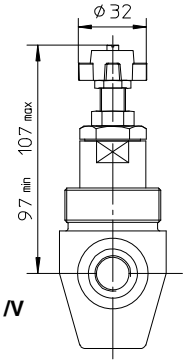




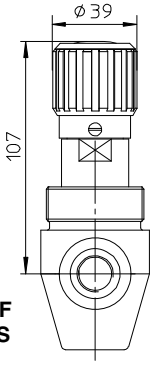




Option /RS /PED



Option /V

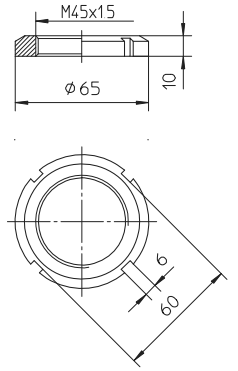


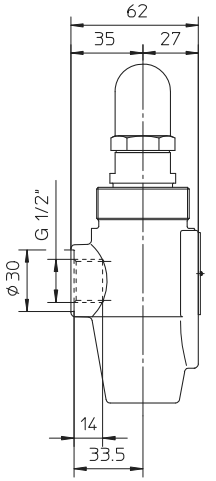
Option /VF /VS

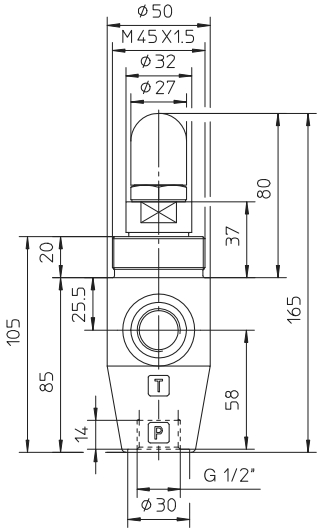
Mass: 1 Kg

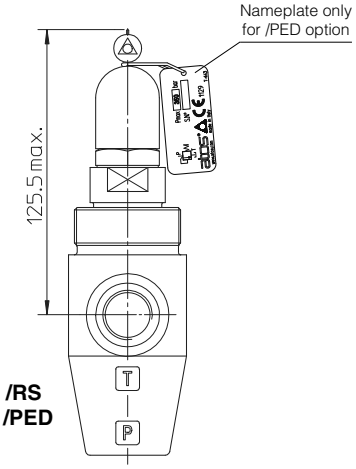
ARE-15

P = INLET PORT G 1/2"
T = OUTLET PORT G 1/2"
Locking ring for fastening the valve.
Model code: SP-6-RE-310030

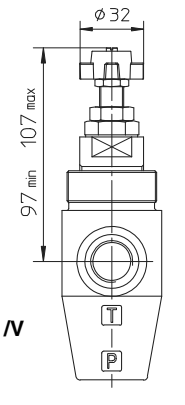




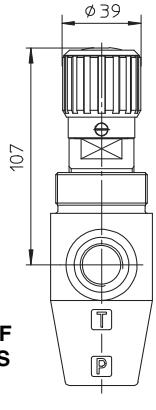




Option /RS /PED



Option /V



Option /VF /VS

Note:
For handwheel features, see technical table K150.

Mass: 1,3 Kg