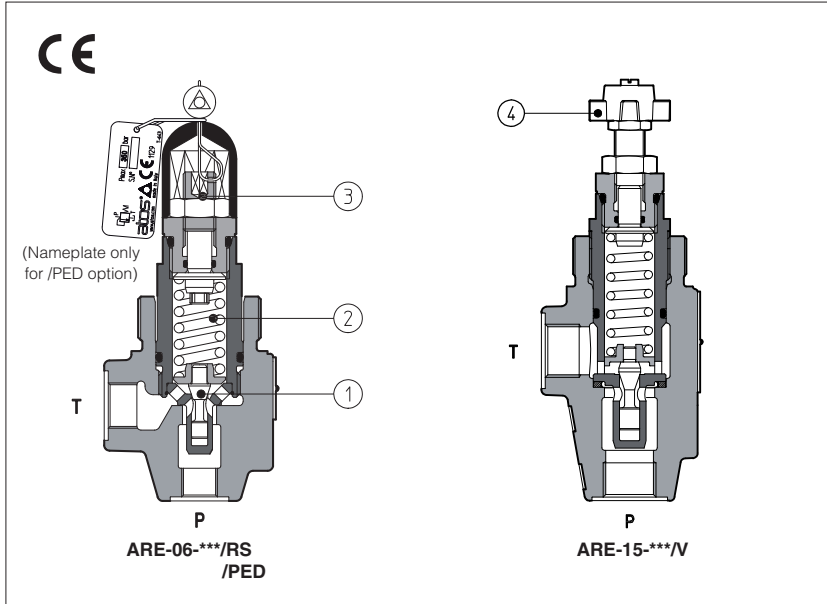


Pressure relief valves type ARE

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



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 customer 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 customer 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
Available also in cartridge execution, see tab. 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 availability, see section 7 and technical table K150.

(2) Possible combined options:

- /RV** = reduced leakages and regulating handwheel
- /RVF** = reduced leakages and regulating knob
- /RVS** = reduced leakages and regulating knob with safety locking

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

Series number

Only for RS, PED options:

280 = factory pressure setting to be defined depending to the customer requirement (example 280 = 280 bar)

Options (1)(2):

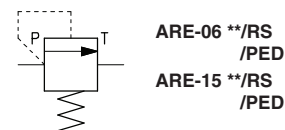
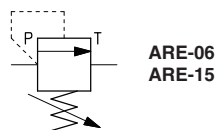
- /R** = reduced leakage for special applications
- /RS** = as /R, plus conforming to 2006/42/CE
- /PED** = as /R, plus conforming to 97/23/CE

Only for standard and /R option:

- /V** = regulating handwheel
- /VF** = regulating knob
- /VS** = regulating knob with safety locking

2 HYDRAULIC SYMBOLS

Hydraulic symbol



3 HYDRAULIC CHARACTERISTICS

Valve model		ARE-06					ARE-15				
Setting	Standard, /R	/50	/100	/210	/350	/500	/15	/50	/75	/150	/250
	/RS		/220	/270	/330	/350		/150	/190	/230	
	/PED		/100	/210	/350			/75	/150	/250	
Pressure range [bar]	Standard, /R	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]	Standard, /R	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 mm ² /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)

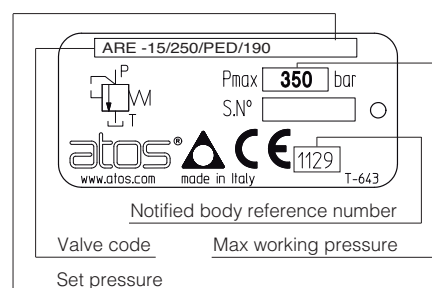
5 SETTING OF VALVES WITH /PED OPTION

The /PED valves are factory set at the pressure level required by the customer (every 1 bar) at the following flow shown in the table.

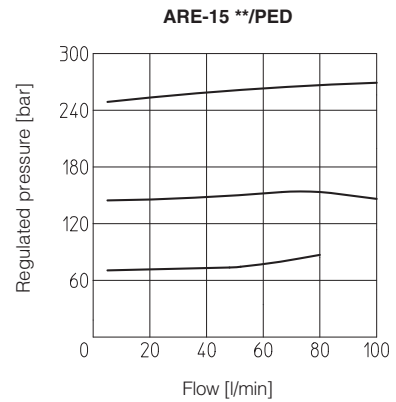
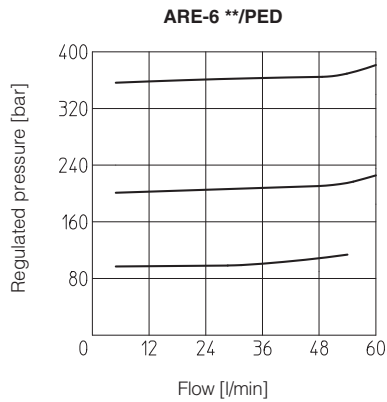
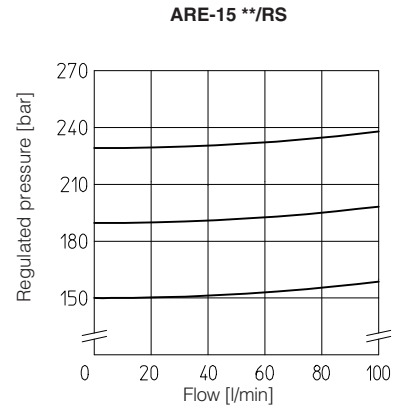
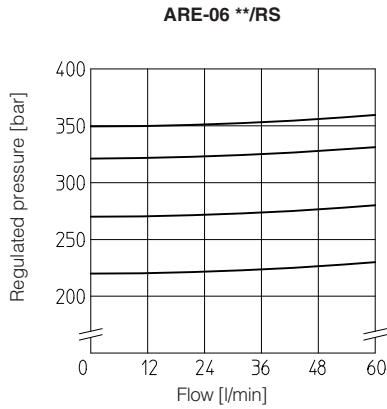
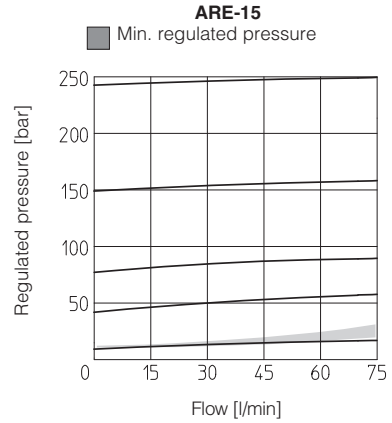
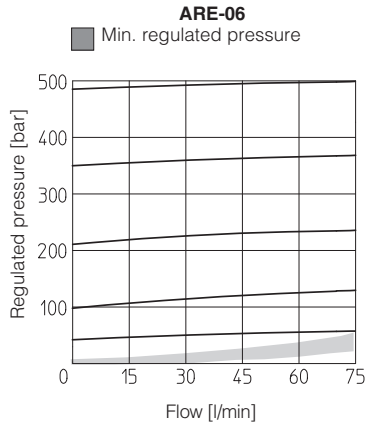
The set pressure is marked on the valve nameplate, see section 5.1

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

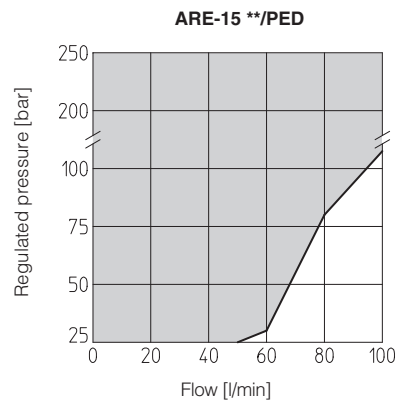
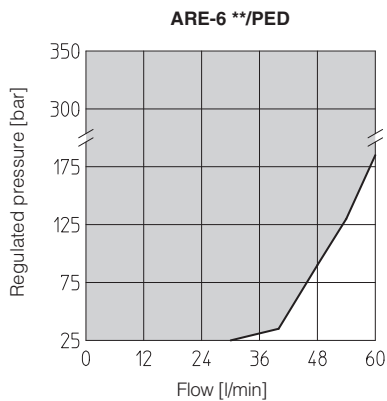
5.1 EXAMPLE OF NAMEPLATE FOR /PED OPTION



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



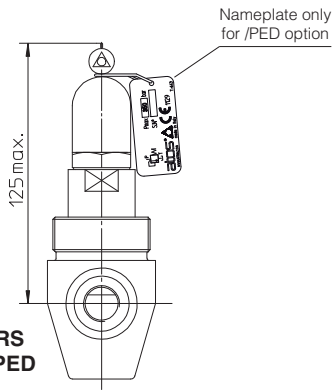
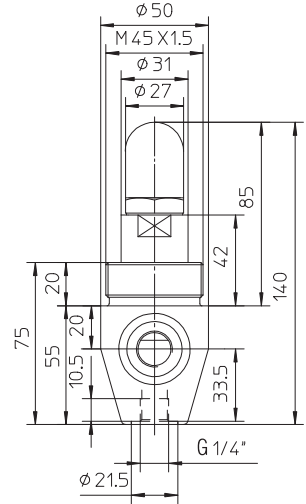
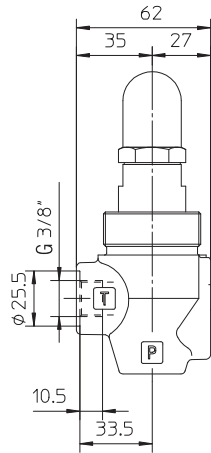
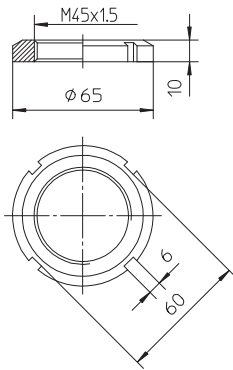
7 PERMISSIBLE RANGES (shaded area)
based on mineral oil ISO VG 46 at 50°C



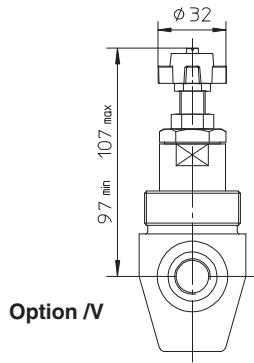
8 DIMENSIONS [mm]

ARE-06

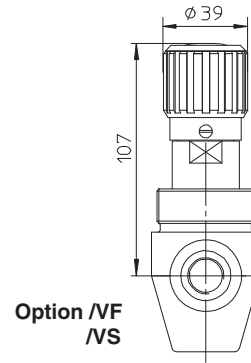
P = INLET PORT G 1/4"
T = OUTLET PORT G 3/8"
 Locking ring for fastening the valve.
 Model code: SP-6-RE-310030



**Option /RS
/PED**



Option /V

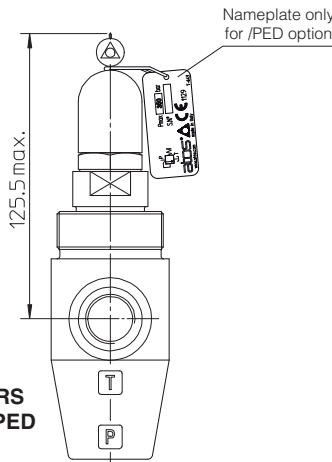
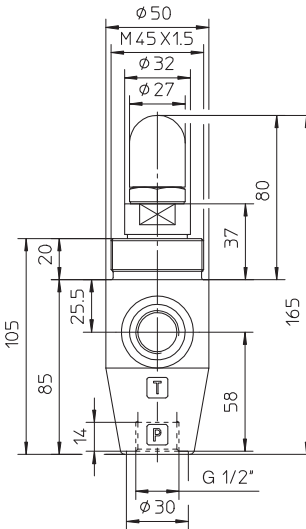
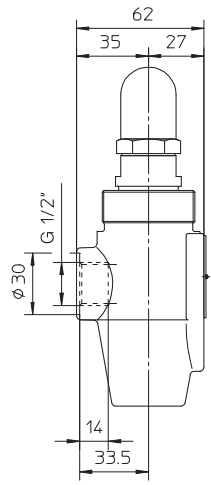
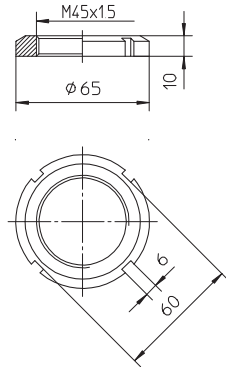


**Option /VF
/VS**

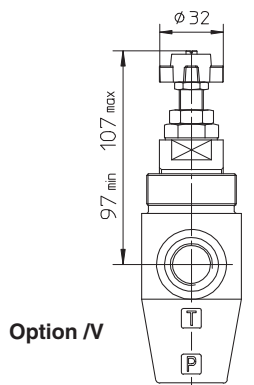
Mass: 1 Kg

ARE-15

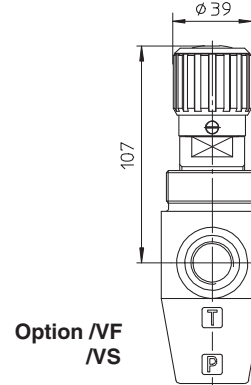
P = INLET PORT G 1/2"
T = OUTLET PORT G 1/2"
 Locking ring for fastening the valve.
 Model code: SP-6-RE-310030



**Option /RS
/PED**



Option /V



**Option /VF
/VS**

Mass: 1,3 Kg

Note:
 For handwheel features, see technical table K150.