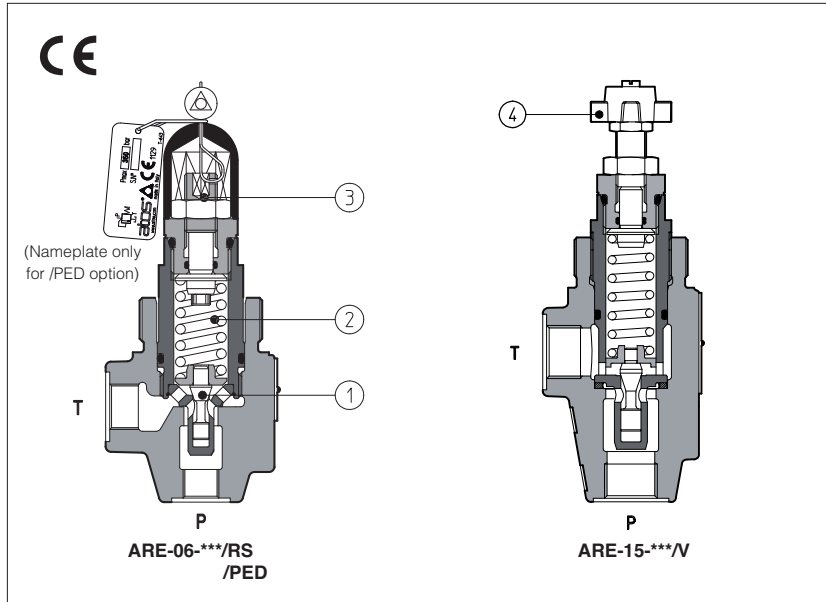


Pressure relief valves type ARE

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 (2014/68/UE). 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: up to **100 l/min**:

Max pressure: ARE-06 up to **500 bar**

ARE-15 up to **420 bar**

1 MODEL CODE

ARE	-	06	/	350	/	*	/	*	/	**	/	*																
<p>ARE = pressure relief valve with thread connections Available also in cartridge execution, see tab. C010</p> <p>Size: 06 = port P G 1/4" 15 = port P G 1/2"</p> <p>Setting:</p> <table border="0"> <tr> <td>for size 06:</td> <td>for size 15:</td> </tr> <tr> <td>50 = 2 → 50 bar</td> <td>15 = 2 → 15 bar</td> </tr> <tr> <td>100 = 3 → 100 bar</td> <td>50 = 3 → 50 bar</td> </tr> <tr> <td>210 = 10 → 210 bar</td> <td>75 = 4 → 75 bar</td> </tr> <tr> <td>350 = 15 → 350 bar</td> <td>150 = 8 → 150 bar</td> </tr> <tr> <td>500 = 30 → 500 bar</td> <td>250 = 8 → 250 bar</td> </tr> <tr> <td></td> <td>350 = 30 → 350 bar</td> </tr> <tr> <td></td> <td>420 = 30 → 420 bar</td> </tr> </table>													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		350 = 30 → 350 bar		420 = 30 → 420 bar
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																											
	350 = 30 → 350 bar																											
	420 = 30 → 420 bar																											
										<p>Seals material, see section [4]:</p> <ul style="list-style-type: none"> - = NBR PE = FKM BT = HNBR (3) <p>Series number</p>																		

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 2014/68/UE

Only for standard and /R option:

V = regulating handwheel

VF = regulating knob

VS = regulating knob with safety locking

(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

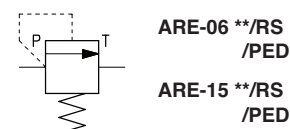
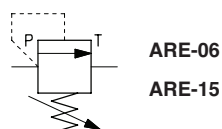
RVF = reduced leakages and regulating knob

RVS = reduced leakages and regulating knob with safety locking

(3) Not available for PED certified valves

2 HYDRAULIC SYMBOLS

Hydraulic symbol



3 HYDRAULIC CHARACTERISTICS

Valve model		ARE-06					ARE-15						
Setting	Standard	/50	/100	/210	/350	/500	/15	/50	/75	/150	/250	/350	/420
	/R	/50	/100	/210	/350	/500	/15	/50	/75	/150	/250	/420	
	/RS	/220	/270	/330	/350		/150	/190	/230				
	/PED	/100	/210	/350			/75	/150	/250				
Pressure range [bar]	Standard	2÷50	3÷100	10÷210	15÷350	30÷500	2÷15	3÷50	4÷75	8÷150	8÷250	30÷350	30÷420
	/R	2÷50	3÷100	10÷210	15÷350	30÷500	2÷15	3÷50	4÷75	8÷150	8÷250	30÷420	
	/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 pressure port T [bar]		50					50						
Max flow [l/min]	Standard, /R	40					75						
	/RS, /PED	60					100						

4 MAIN CHARACTERISTICS, SEALS AND FLUIDS - for other fluids not included in below table, consult our technical office

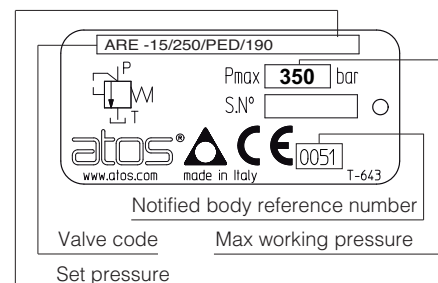
Assembly position	Any position		
Ambient temperature	Standard execution = -30°C ÷ +70°C /PE option = -20°C ÷ +70°C /BT option = -40°C ÷ +70°C		
Seals, recommended fluid temperature	NBR seals (standard) = -20°C ÷ +60°C, with HFC hydraulic fluids = -20°C ÷ +50°C FKM seals (/PE option) = -20°C ÷ +80°C HNBR seals (/BT option) = -40°C ÷ +60°C, with HFC hydraulic fluids = -40°C ÷ +50°C		
Recommended viscosity	15÷100 mm ² /s - max allowed range 2,8 ÷ 500 mm ² /s		
Fluid contamination class	ISO 4406 class 21/19/16 NAS 1638 class 10, in line filters of 25 µm (β ₂₅ ≥ 75 recommended)		
Hydraulic fluid	Suitable seals type	Classification	Ref. Standard
Mineral oils	NBR, FKM, HNBR	HL, HLP, HLPD, HVLP, HVLPD	DIN 51524
Flame resistant without water	FKM	HFDR, HFDR	ISO 12922
Flame resistant with water	NBR, HNBR	HFC	

5 SETTING OF VALVES WITH /PED OPTION

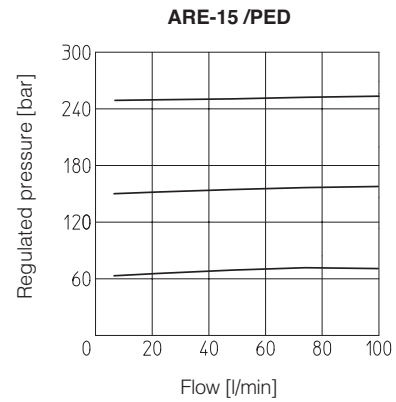
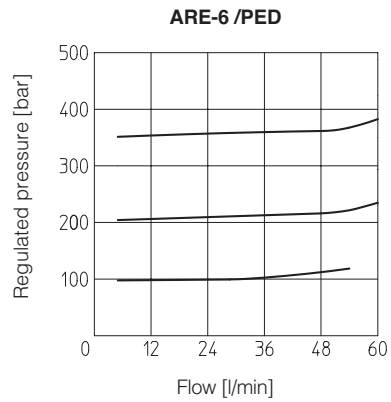
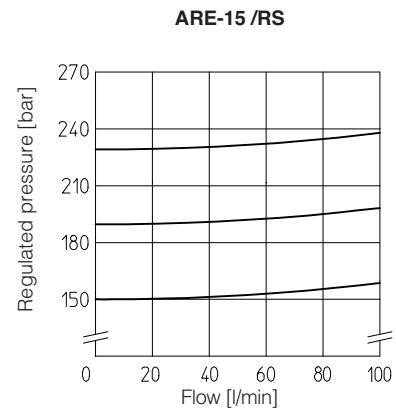
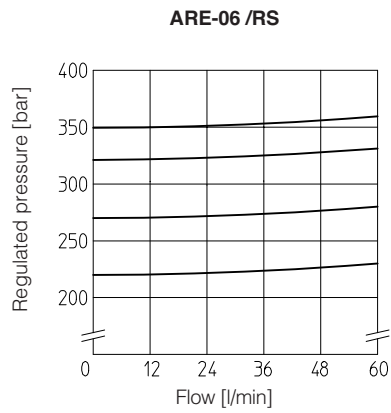
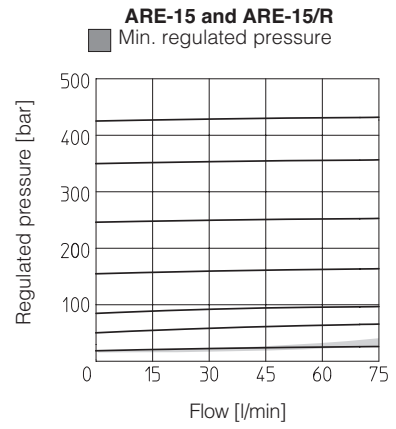
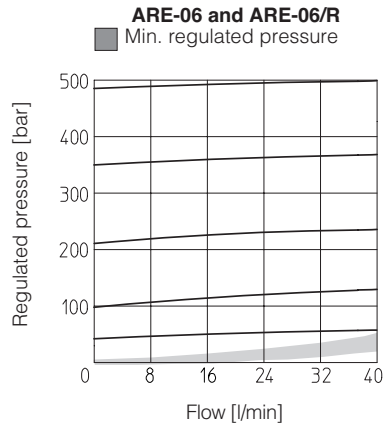
The /PED valves are factory set at the pressure level required by the customer (every 1 bar) at the following flow shown in the table. The set pressure is marked on the valve nameplate, see section 5.1

VALVE MODEL	FLOW FOR FACTORY PRESSURE SETTING (l/min)
ARE-06	12
ARE-15	12

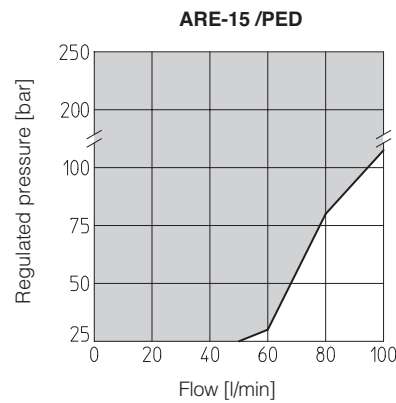
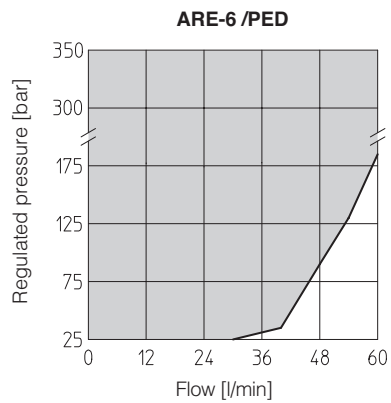
5.1 EXAMPLE OF NAMEPLATE FOR /PED OPTION



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]

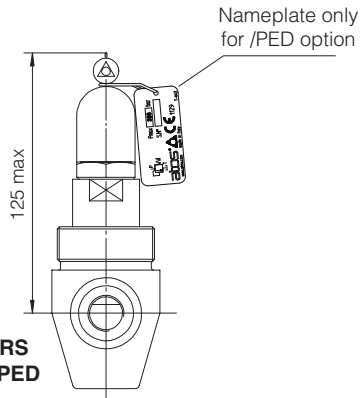
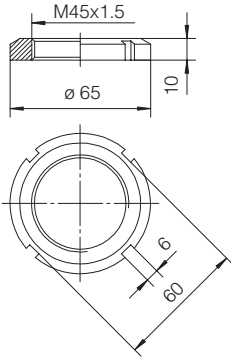
ARE-06

P = INLET PORT G 1/4"

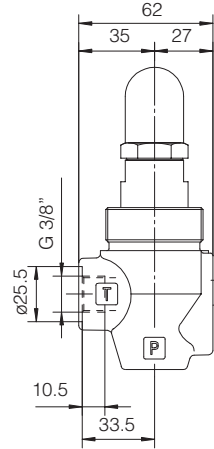
T = OUTLET PORT G 3/8"

Locking ring for fastening the valve.

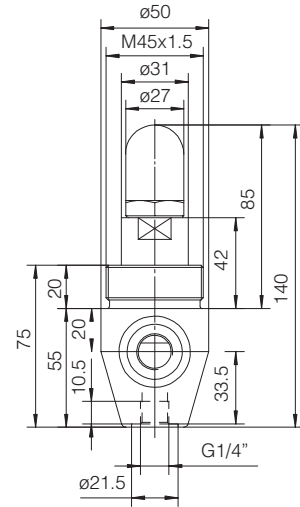
Model code: SP-6-RE-310030



**Option /RS
/PED**



Option /V



**Option /VF
/VS**

Mass: 1 Kg

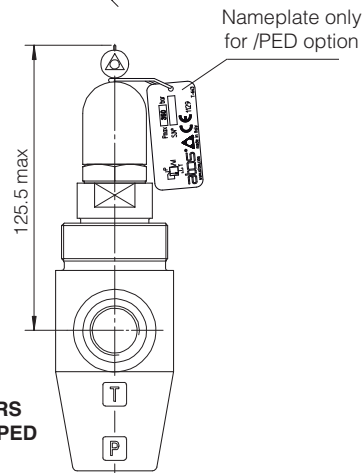
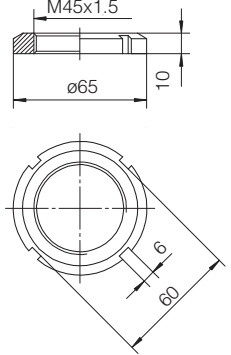
ARE-15

P = INLET PORT G 1/2"

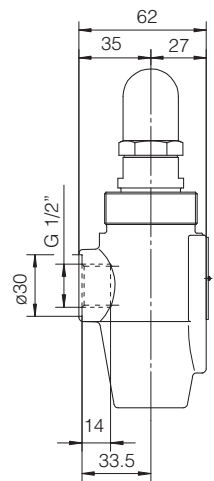
T = OUTLET PORT G 1/2"

Locking ring for fastening the valve.

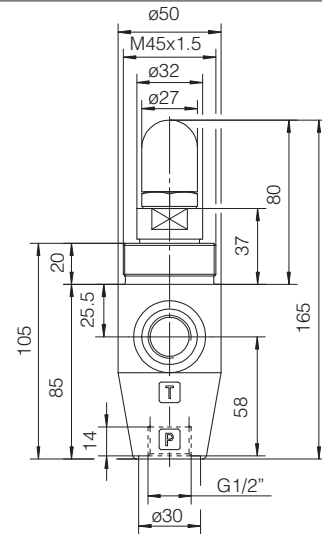
Model code: SP-6-RE-310030



**Option /RS
/PED**



Option /V



**Option /VF
/VS**

Mass: 1,3 Kg

Note:
For handwheel features, see technical table K150.