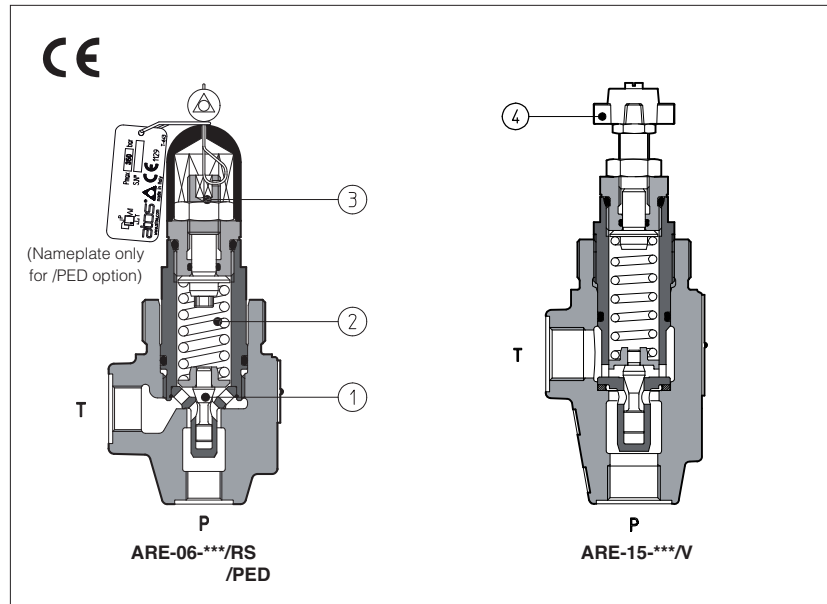


## Pressure relief valves type ARE

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

<b>ARE</b>	-	<b>06</b>	/	<b>350</b>	/	<b>*</b>	/	<b>*</b>	/	<b>**</b>	/	<b>*</b>
<p><b>ARE</b> = pressure relief valve with thread connections Available also in cartridge execution, see tab. C010</p>										<p>Seals material, see section ④: - = NBR <b>PE</b> = FKM <b>BT</b> = HNBR (3)</p>		
<p>Size: <b>06</b> = port P G 1/4"    <b>15</b> = port P G 1/2"</p>										<p>Series number</p>		
<p>Setting:</p>		<p>for size 15:</p>								<p>Options (1)(2):</p>		
<p>for size 06:</p>		<p><b>15</b> = 2 → 15 bar</p>								<p><b>R</b> = reduced leakage for special applications</p>		
<p><b>50</b> = 2 → 50 bar</p>		<p><b>50</b> = 3 → 50 bar</p>								<p><b>RS</b> = as /R, plus conforming to 2006/42/CE</p>		
<p><b>100</b> = 3 → 100 bar</p>		<p><b>75</b> = 4 → 75 bar</p>								<p><b>PED</b> = as /R, plus conforming to 2014/68/UE</p>		
<p><b>210</b> = 10 → 210 bar</p>		<p><b>150</b> = 8 → 150 bar</p>								<p>Only for standard and /R option:</p>		
<p><b>350</b> = 15 → 350 bar</p>		<p><b>250</b> = 8 → 250 bar</p>								<p><b>V</b> = regulating handwheel</p>		
<p><b>500</b> = 30 → 500 bar</p>		<p><b>350</b> = 30 → 350 bar</p>								<p><b>VF</b> = regulating knob</p>		
		<p><b>420</b> = 30 → 420 bar</p>								<p><b>VS</b> = regulating knob with safety locking</p>		

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

(2) Possible combined options:

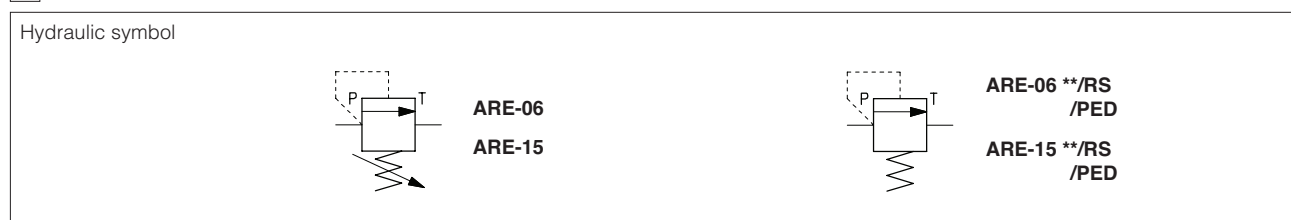
**RV** = reduced leakages and regulating handwheel

**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



### 3 HYDRAULIC CHARACTERISTICS

Valve model		ARE-06					ARE-15						
Setting	<b>Standard</b>	/50	/100	/210	/350	/500	/15	/50	/75	/150	/250	/350	/420
	<b>/R</b>	/50	/100	/210	/350	/500	/15	/50	/75	/150	/250	/420	
	<b>/RS</b>	/220	/270	/330	/350		/150	/190	/230				
	<b>/PED</b>	/100	/210	/350			/75	/150	/250				
Pressure range [bar]	<b>Standard</b>	2÷50	3÷100	10÷210	15÷350	30÷500	2÷15	3÷50	4÷75	8÷150	8÷250	30÷350	30÷420
	<b>/R</b>	2÷50	3÷100	10÷210	15÷350	30÷500	2÷15	3÷50	4÷75	8÷150	8÷250	30÷420	
	<b>/RS</b>	200÷250	250÷290	290÷350	310÷370		130÷170	170÷210	210÷250				
	<b>/PED</b>	25÷100	100÷210	210÷350			25÷75	75÷150	150÷250				
Max pressure port T [bar]		50					50						
Max flow [l/min]	<b>Standard, /R</b>	40					75						
	<b>/RS, /PED</b>	60					100						

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

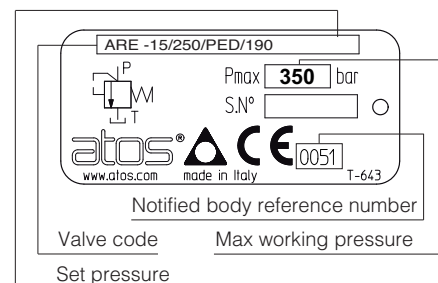
Assembly position	Any position		
Ambient temperature	Standard execution = -30°C ÷ +70°C /PE option = -20°C ÷ +70°C /BT option = -40°C ÷ +70°C		
Seals, recommended fluid temperature	NBR seals (standard) = -20°C ÷ +60°C, with HFC hydraulic fluids = -20°C ÷ +50°C FKM seals (/PE option) = -20°C ÷ +80°C HNBR seals (/BT option) = -40°C ÷ +60°C, with HFC hydraulic fluids = -40°C ÷ +50°C		
Recommended viscosity	15÷100 mm <sup>2</sup> /s - max allowed range 2,8 ÷ 500 mm <sup>2</sup> /s		
Fluid contamination class	ISO 4406 class 21/19/16 NAS 1638 class 10, in line filters of 25 µm (β <sub>25</sub> ≥ 75 recommended)		
<b>Hydraulic fluid</b>	<b>Suitable seals type</b>	<b>Classification</b>	<b>Ref. Standard</b>
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

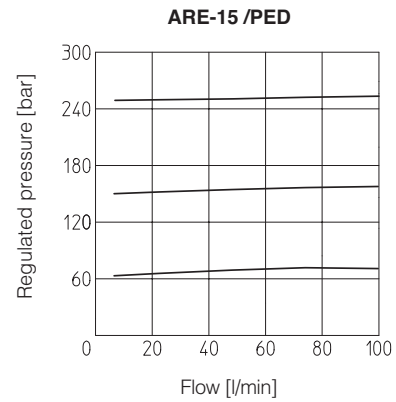
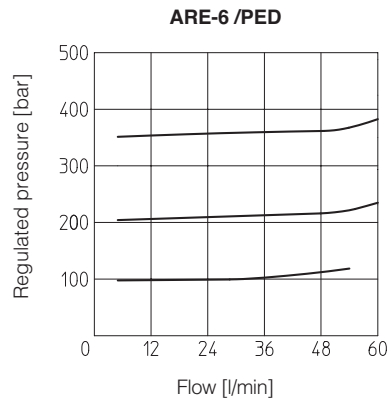
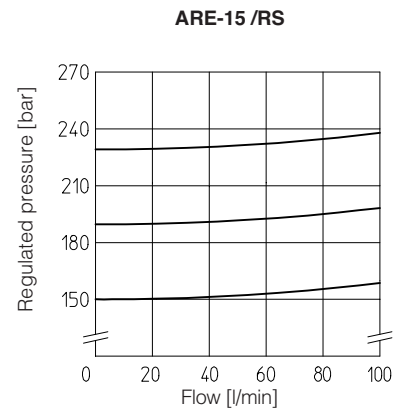
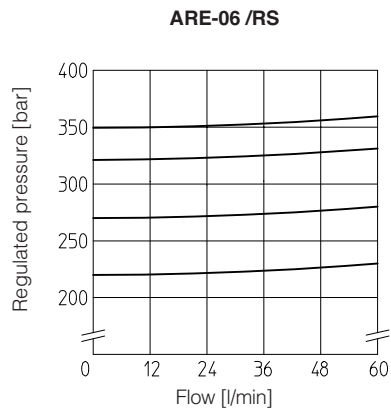
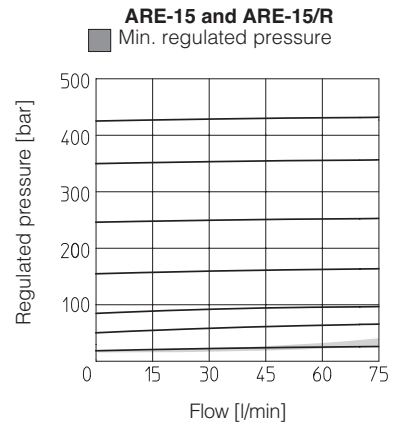
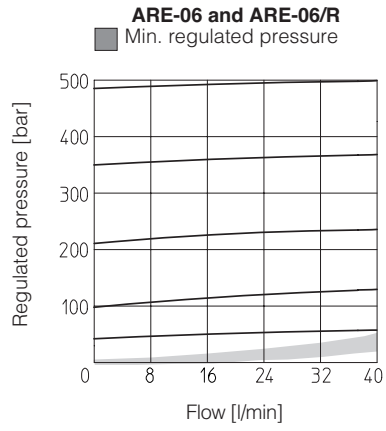
The /PED valves are factory set at the pressure level required by the customer (every 1 bar) at the following flow shown in the table. The set pressure is marked on the valve nameplate, see section 5.1

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

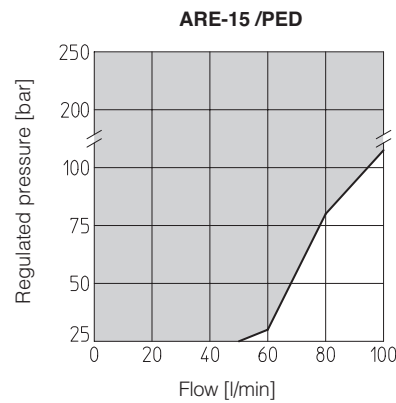
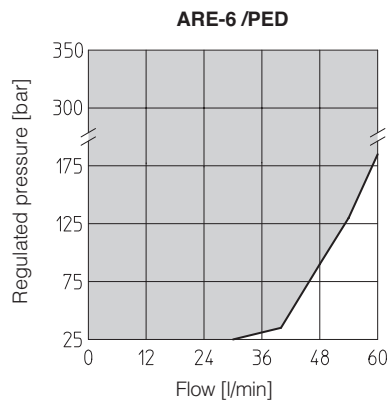
### 5.1 EXAMPLE OF NAMEPLATE FOR /PED OPTION



**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]**

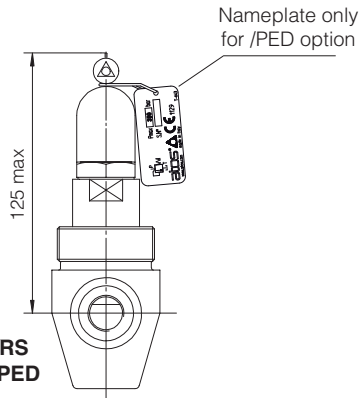
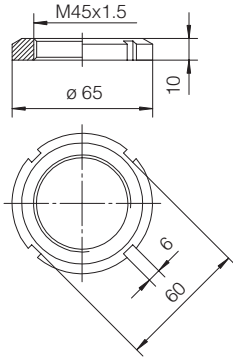
**ARE-06**

**P** = INLET PORT G 1/4"

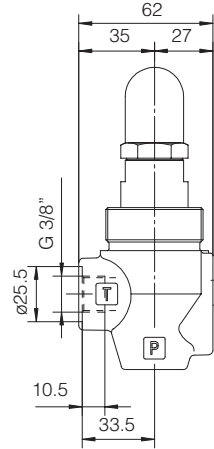
**T** = OUTLET PORT G 3/8"

Locking ring for fastening the valve.

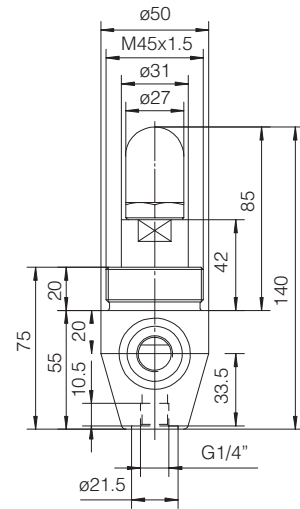
Model code: SP-6-RE-310030



**Option /RS  
/PED**



**Option /V**



**Option /VF  
/VS**

Mass: 1 Kg

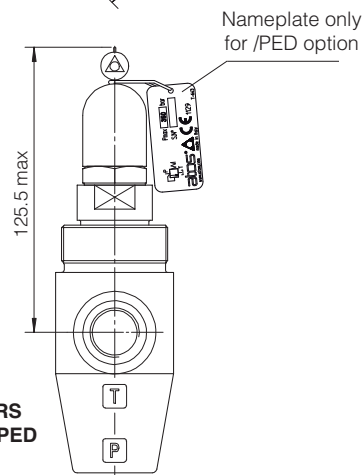
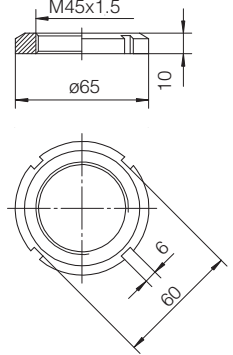
**ARE-15**

**P** = INLET PORT G 1/2"

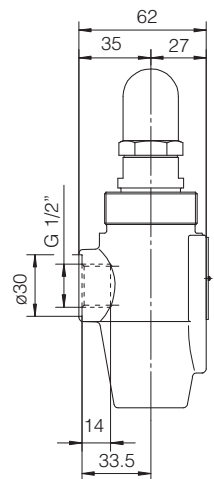
**T** = OUTLET PORT G 1/2"

Locking ring for fastening the valve.

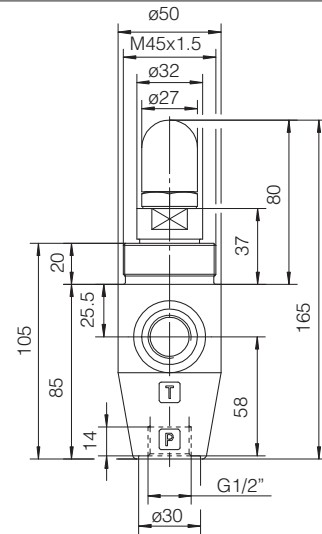
Model code: SP-6-RE-310030



**Option /RS  
/PED**



**Option /V**



**Option /VF  
/VS**

Mass: 1,3 Kg

Note:  
For handwheel features, see technical table K150.