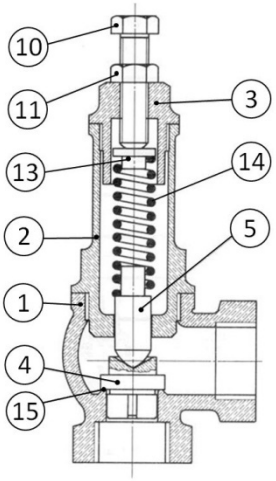
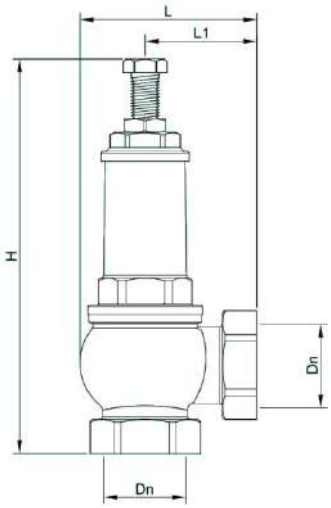
Art3190
Brass Pressure Relief Valve (Conveyed Discharge)

Features
1. Brass construction (see material list) 2. Maximum working pressure: • 16 bar (PN 16) from 3/8" to 2" and 4" • 10 bar (PN 10) 2.1/2" and 3" 3. Pressure regulation range (P_{nr}) with standard spring: • 0 - 10 bar (sizes from 3/8" to 3") • 5 - 10 bar (size of 4") 4. Overpressure: 10% of P_{nr} 5. Reclosing value: 20% of P_{nr} 6. Threaded gas (BSP) F-F acc/ to ISO 228/1 7. Shell strength test: Test P10-EN 12266-1 8. Seat tightness test: Test P12-EN 12266-1 9. Compatible fluids: Water, Stem and non dangerous gases 10. PTFE sealing 11. Working temperature: from 0º C to +180º C





Nº	Name	Size	Material	Standard
1	Body	3/8" - 3"	Brass	EN 1982 - CC754S
		4"	Bronze	EN 1982 - CC419K
2	Bonnet	3/8" - 1 1/2"	Brass	EN 12165 - CW617N
		2" - 3"	Brass	EN 1982 - CC754S
		4"	Bronze	EN 1982 - CC419K
3	Cap	3/8" - 3/4"	Brass	EN 12164 - CW614N
		1" - 2"	Brass	EN 12165 - CW617N
		2 1/2" - 4"	Brass	EN 1982 - CC754S
4	Disc	3/8" - 3"	Brass	EN 12164 - CW614N
		4"	Bronze	EN 1982 - CC419K
5	Stem	3/8" - 3"	Brass	EN 12164 - CW614N
		4"	Brass	EN 1982 - CC754S
10	Bolt	3/8" - 4"	Brass	EN 12164 - CW614N

11	Nut	3/8" - 4"	Brass	EN 12164 - CW614N
13	Washer	3/8" - 3"	Brass	EN 12164 - CW614N
		4"	Brass	EN 1982 - CC754S
14	Spring	3/8" - 4"	Zinc Plated Steel	EN 10270-1
15	Seat	3/8" - 4"	Pure PTFE (Teflon)	

Ref	PN	Size	Dimensions (mm)			Weight (Kg)
			L	L1	H	
3190 03	16	3/8"	46	28,5	115	0,295
3190 04	16	1/2"	56	35	130	0,340
3190 05	16	3/4"	64	39	158	0,610
3190 06	16	1"	76	47	163	0,900
3190 07	16	1 1/4"	90	57.5	192	1,380
3190 08	16	1 1/2"	100	62	215	1,830
3190 09	16	2"	124	75.5	247	2,875
3190 10	10	2 1/2"	135	79.5	280	5,800
3190 11	10	3"	145	83.7	293	7,500
3190 12	16	4"	175	110	380	14,850

Assembling & Installation

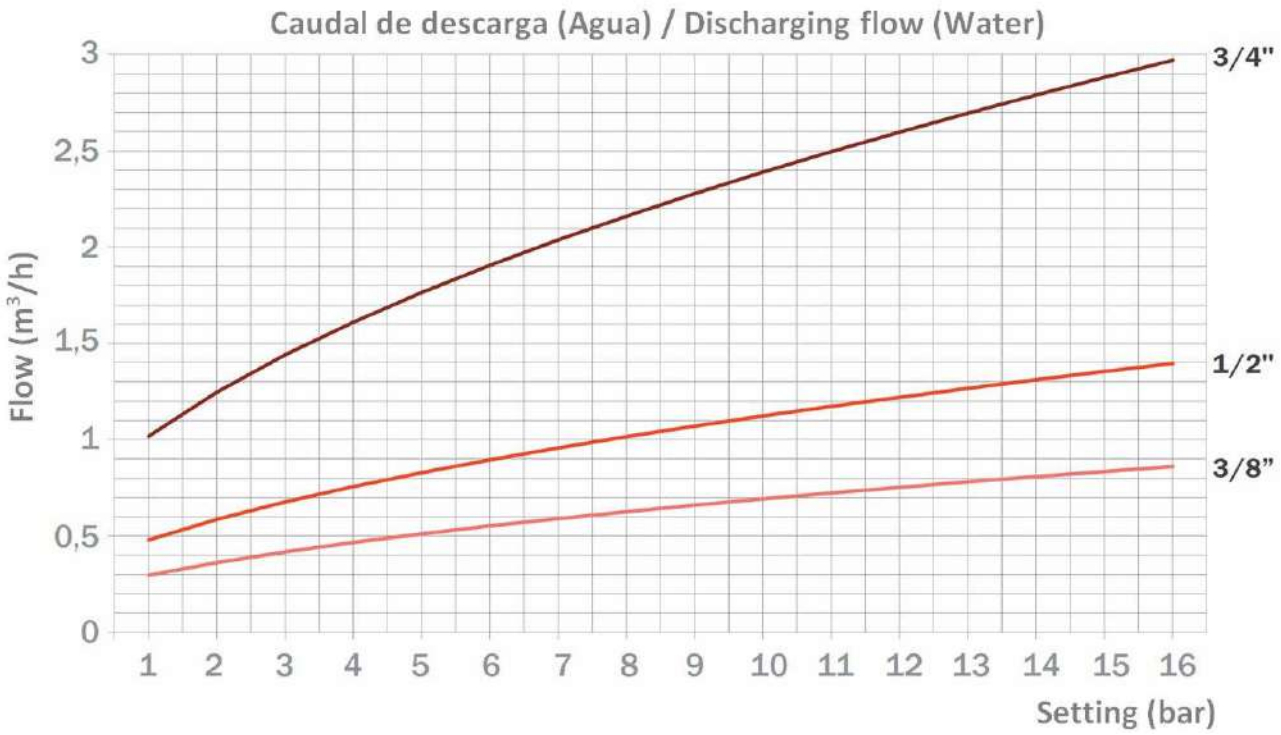
In order to have a right assembly set the valve following its flow direction-arrow marked on the body. **This valve must be assembled vertically, if not it can compromise its functionality.**
For a good holding of the thread use the proper material, according to the type of fluid passing through.
Screw-down the valve on the threaded pipes placing the key only on the proper hexagonal parts till reaching the locking of the valve on its pipe (in this article the pipe leans at the end of the thread thanks to a stopping point).
Do not play any strength on the regulation screw.
The drain-pipe must be properly supported as to avoid pressing on the body of the valve therefore use only heavy holdfast to hold pipes.
Drained fluid must be properly conveyed and deflected towards the lower part to avoid that the drained fluid went back to the valve causing a change of the setting pressure.
If you use a pipe you must give a slight inclination.

Maintenance

Maintenance is not expected.
Check and, if that is the case, remove impurities from the fluid which could damage the good functionality of the valve.
Do not remove leaden-seal, do not disassemble the valve, only change the setting pressure just operating the screw.
Use protective gloves when passing fluids in critical temperature.

Hydraulic Features

The pressure relief valve with conveyed discharge is a self-regulating valve capable of maintaining the pressure of the system (P_{nr}) constant within a specified range, using the energy of the fluid, conveyed and discharge, and regulating the position of the obturator by a spring (direct action). Once the reference point for pressure P_{nr} is established, the pressure relief valve automatically adjusts itself by either increasing or decreasing the flow section, and thus the discharge capacity, in order to keep the system's pressure constant. In case the system's pressure drops below the reference pressure P_{nr}, the valve will close automatically. The discharge side of the body cannot convey and therefore it is perfect use with non dangerous gases and steam. Below it illustrates graphically the flow values according to valve size.



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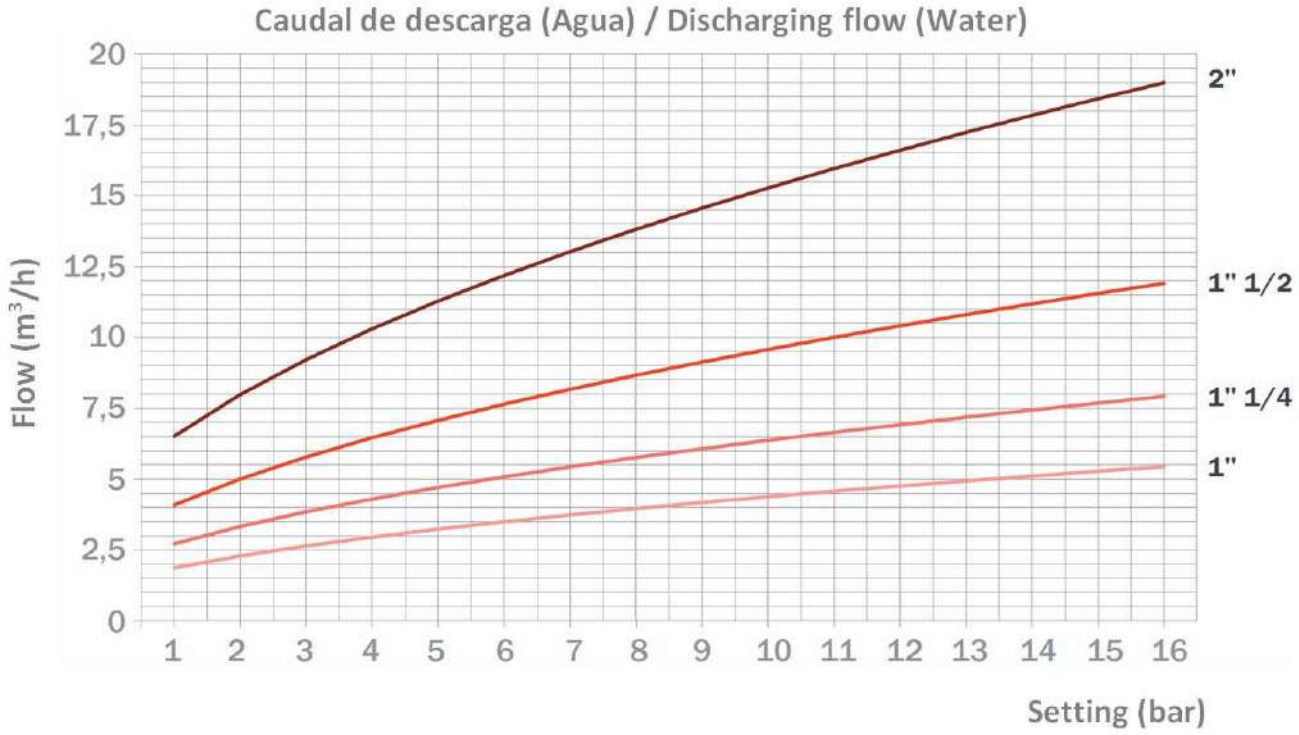

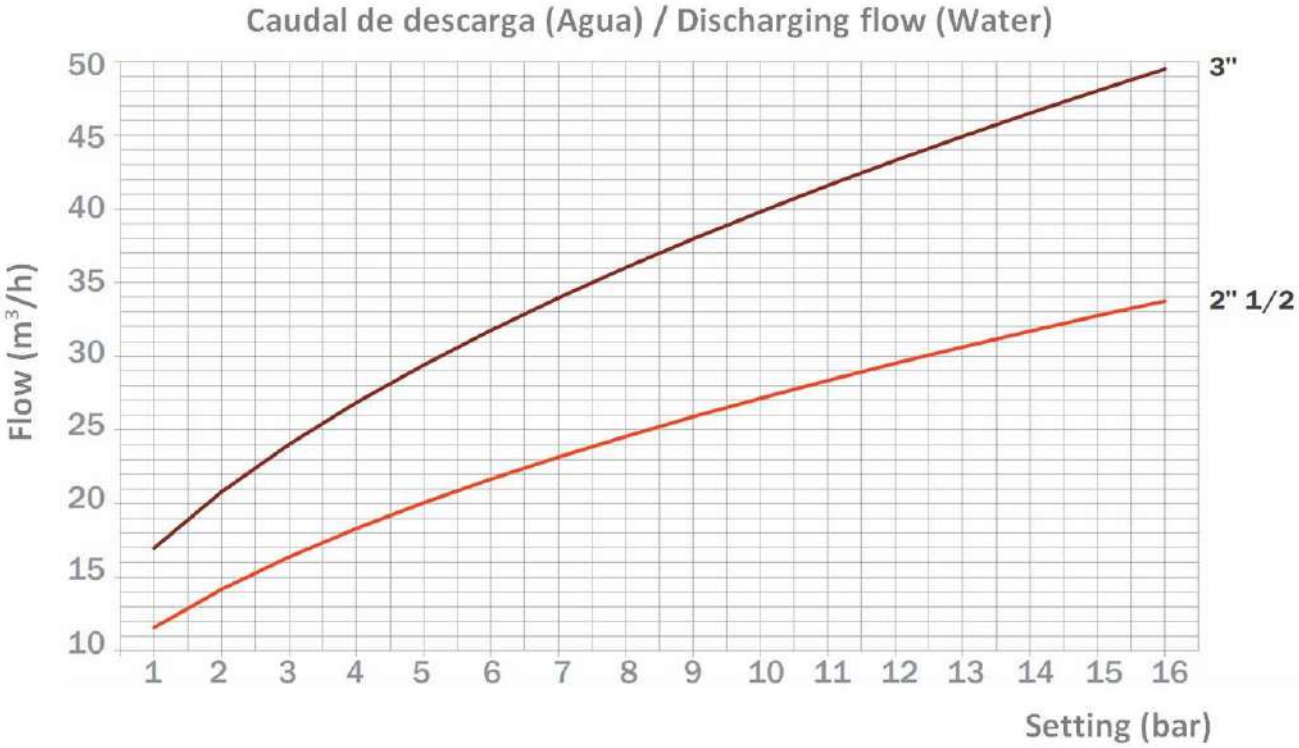

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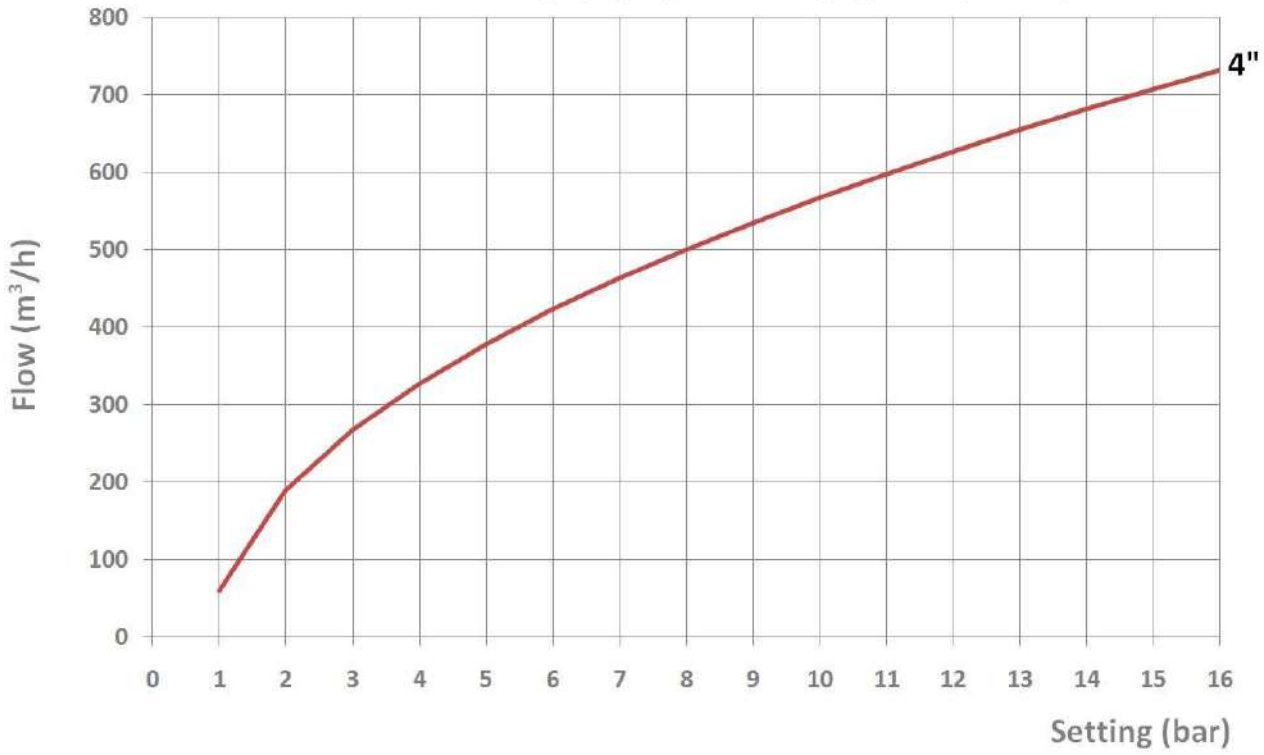
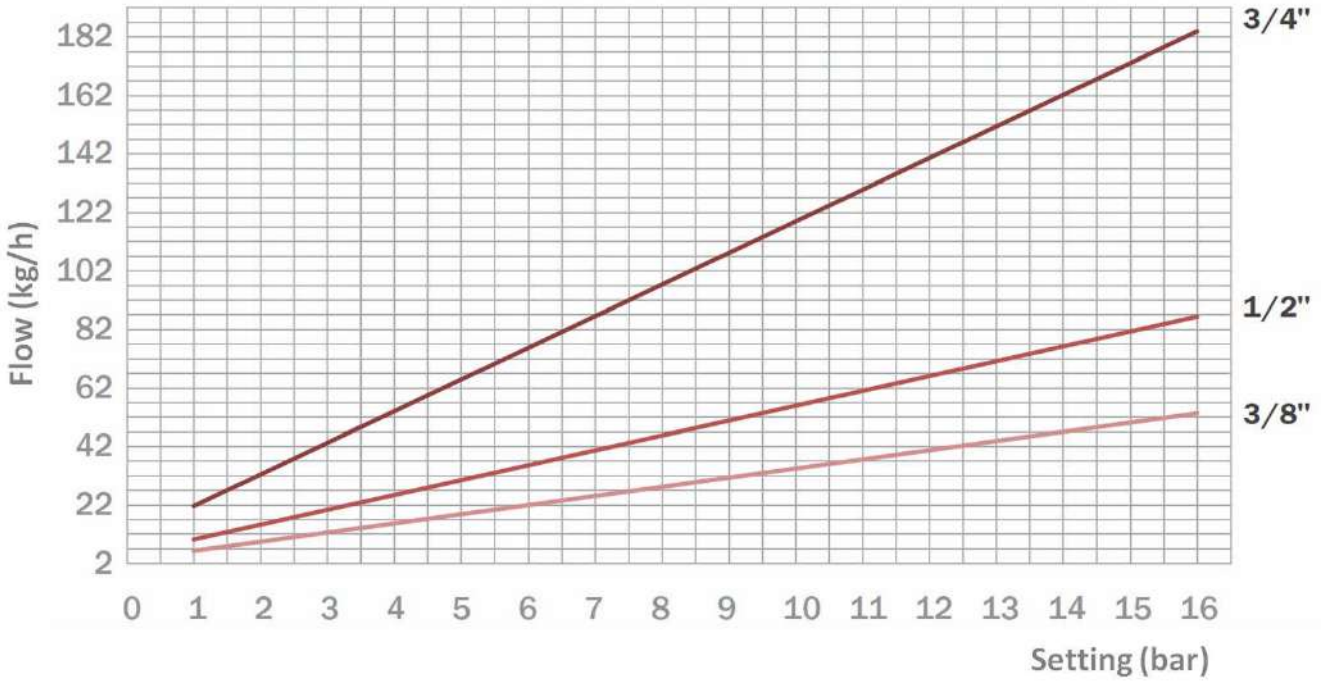
Caudal de descarga (Agua) / Discharging flow (Water)



Caudal de descarga (Aire comprimido) / Discharging flow (Compressed Air)



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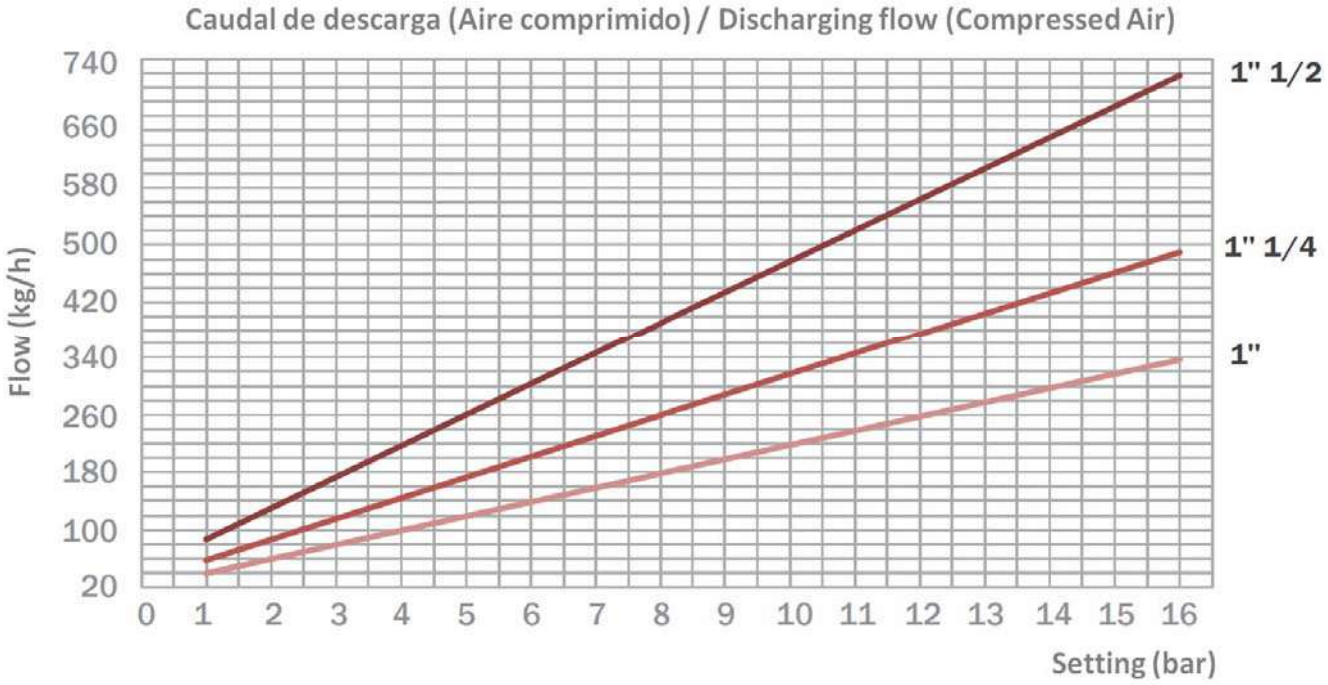

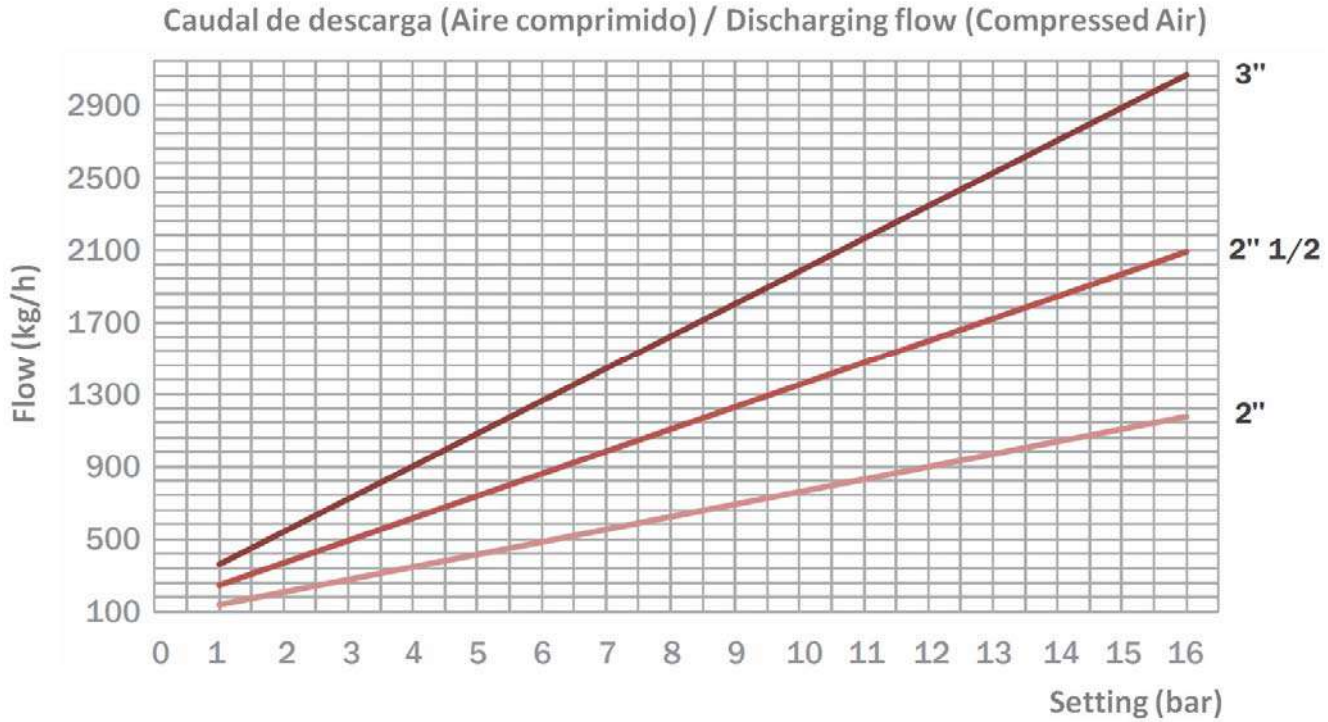

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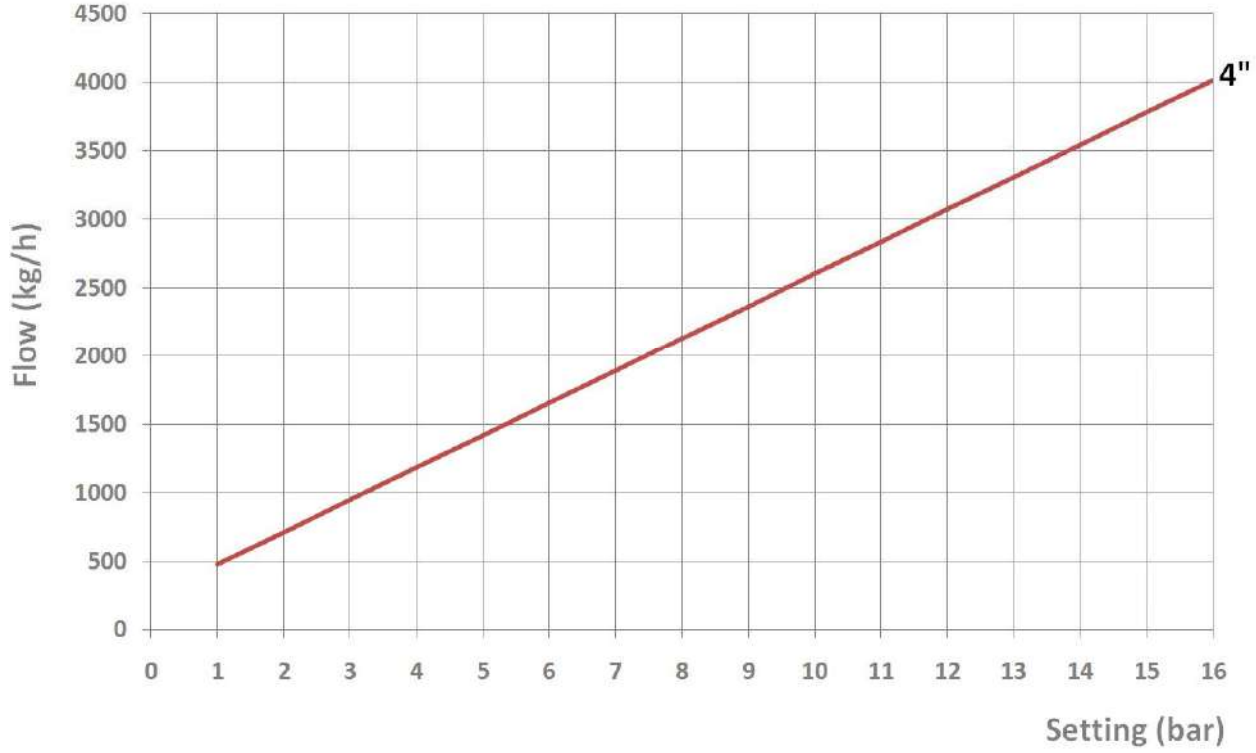
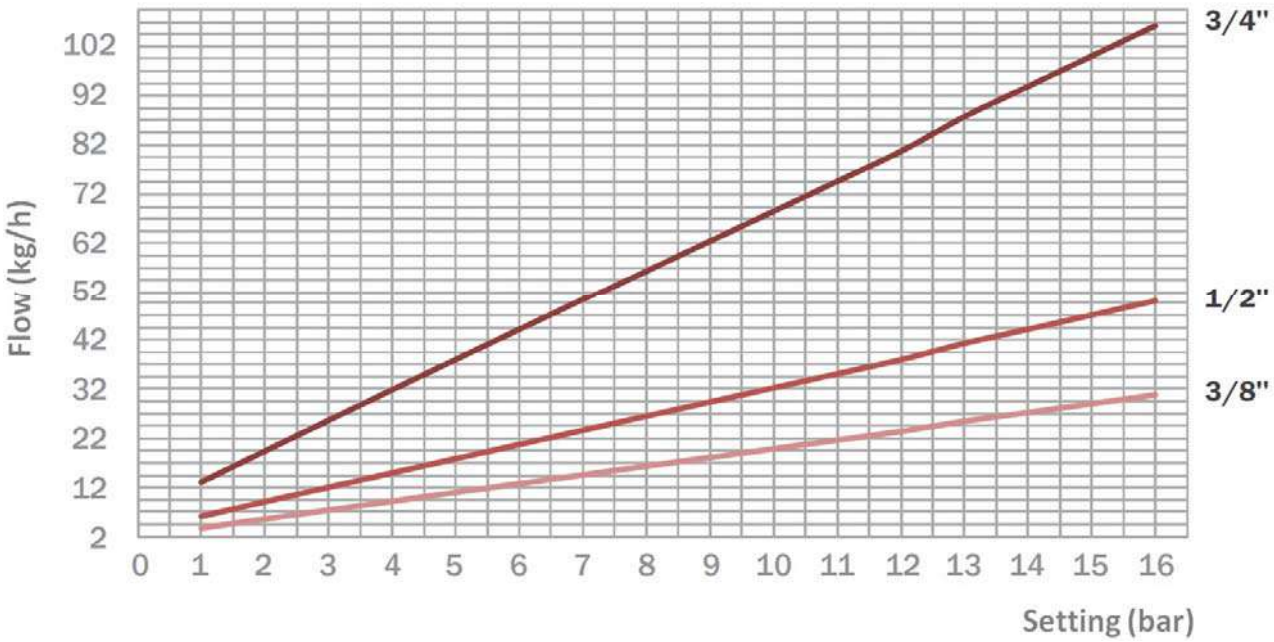
Caudal de descarga (Aire comprimido) / Discharging flow (Compressed Air)



Caudal de descarga (Vapor) / Discharging flow (Steam)



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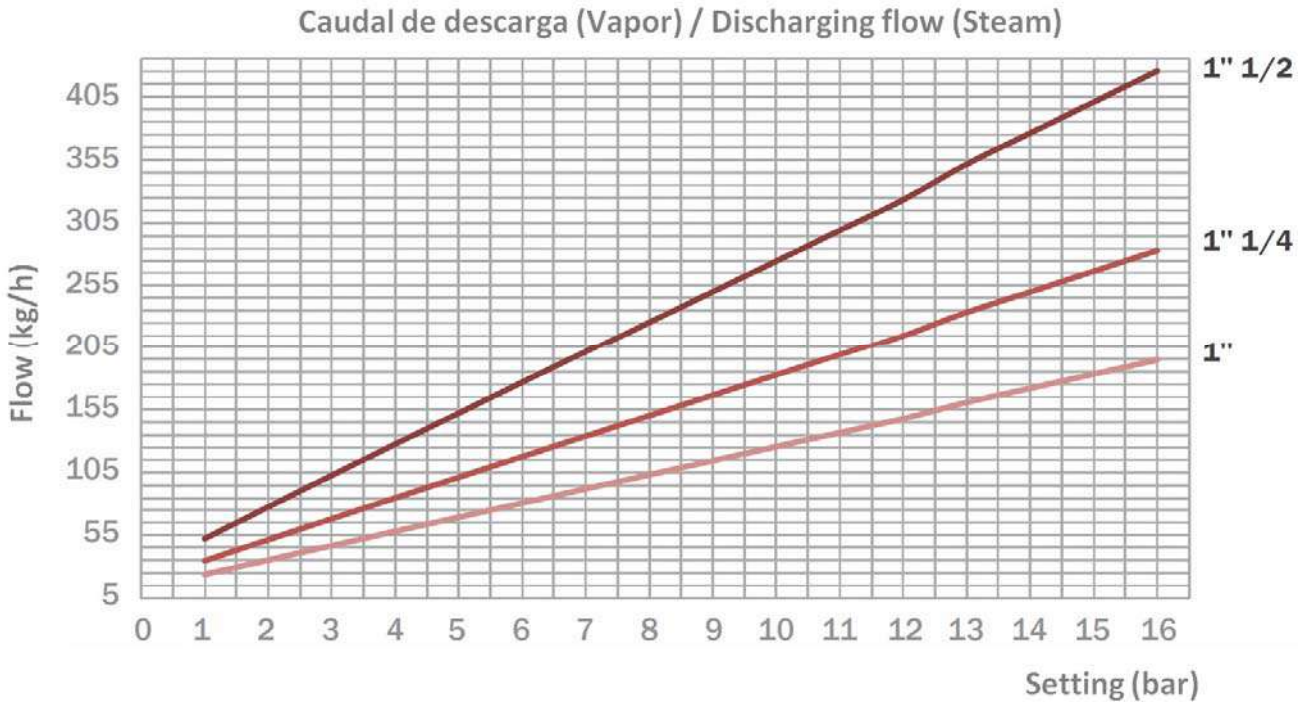

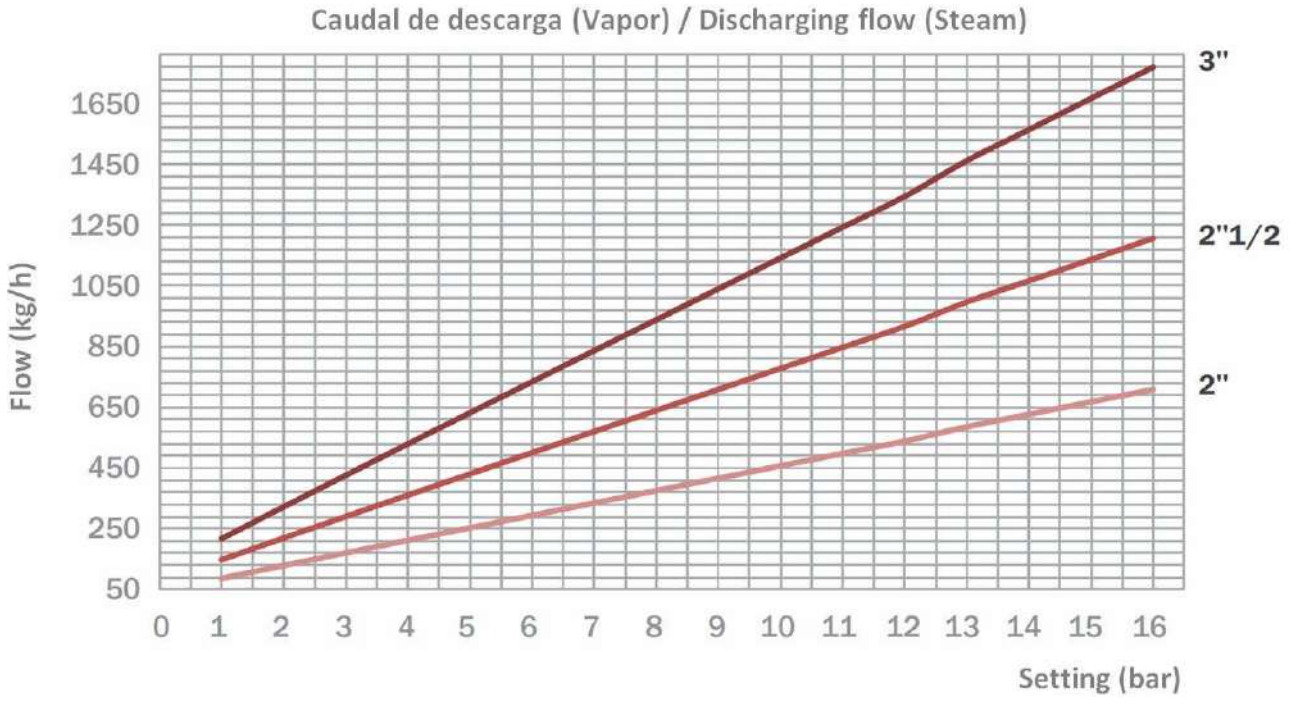

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