

A800

FLUID CONTROL ACCESORIES



ABAC SRL

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Reliable solutions for high requirement applications

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Optional

OXYGEN APPLICATION: Some models may be provided degreased for oxygen use.
Consult our technical department.

Caution: All technical data contained in this publication is valid at the time of its release, and ABAC reserves the right to modify them at any time without notice. This data offers options on products and/or systems to give more information to trained users with technical expertise. Due to the different operative conditions and applications of these products, it will be the designer's and/or user's responsibility to choose the appropriate model for its specific use, as well as to ensure correct mounting, operation and maintenance process.

Este catálogo está disponible también en español en www.abac.com.ar.

LP Pressure Limiter

Device destined to protect gauges, pressure switches, pressure transmitters and others critical and expensive instruments against overpressures that could damage it. When, for any cause, pipeline pressure exceeds the maximum admitted value by the instrument, the limiter isolates it automatically from the circuit. When process pressure decreases to normal values, the limiter reconnects the instrument to the pipeline automatically, as well.

Special features

- Easy installation
- Low gap
- “Dry” spring, the fluid does not touch it
- Six standard ranges of pressures
- Continuously changeable outer calibration between limit values of each range
- Also available with sensitive bellow for a higher accuracy and lower hysteresis (LP1D model)
- Upon request it could be delivered calibrated to the requested value and with its respective identification

Technical data

Maximum overpressure:	LP1	2000 psi
	LP3 to LP18	3000 psi
	LP40 to LP 80	6000 psi

Service Temperature:	10 to 400 °F
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Accuracy:	± 10%	with piston-rod
	± 5%	with bellow

Hysteresis*:	± 10%	with piston-rod
	± 5%	with bellow

Valid if the pressure increase to the adjusted set in a time higher than 5 seconds and if, once closed, the pressure decrease at least 20% to close again in the indicated set.

**Difference between the closing of the valve when the pressure increases, and the opening when the pressure decreases.*

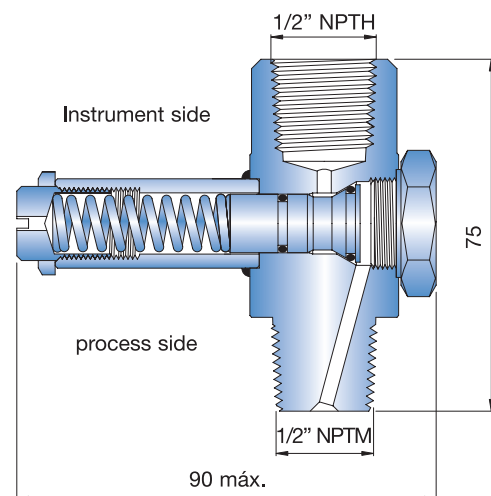
Standard materials:

Body	Plug	Bellow (when it is applied)	Seals
316 SS	316 SS	316 SS	Fluoroelastomer

How to Order

Model	Adjustable Range
	(Bar)
With bellow	
LP1D-I	1-3
With piston-rod	
LP1-I	1-3
LP3-I	3-6
LP6-I	6-18
LP18-I	18-40
LP40-I	40-80
LP80-I	80-160

Installment required dimensions



Warning: For a trouble-free performance, the fluids must be “clean”, that is to say, without particles in suspension and non-viscous. Is recommended to add a filter to avoid particles entering the system.

VRL Standard Check Valve

Prevent reversed flow to protect solenoids, regulators and pumps. Retain pressure in hydraulic and pneumatic cylinders, etc. Have return spring and poppet closure with o-ring for a smooth and reliable performance.

Other features

- Available in different materials.
- Screw and double ferrule connections.
- The design assured a minimum flow resistance
- Easy maintenance
- 100% tested in factory



Technical data

Pressure rating @70°F:

Brass	3000 psi
316 SS	5000 psi

Service temperatures:

buna seal	9 to 250°F
fluoroelastomer seal	10 to 400°F

Cracking pressure:

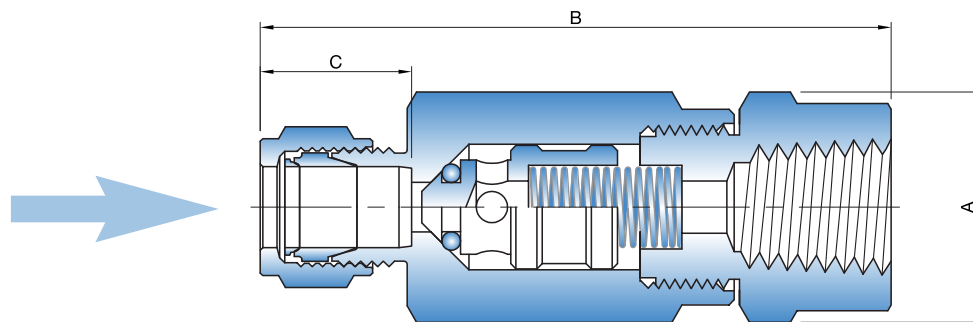
≤ 10 psi (fix)

Standard materials:

Type	Body	Poppe	Standard Seat and Joint (*)	pring
Brass	Brass	316 SS	Buna	302 SS
Stainless Steel	316 SS	316 SS	Fluoroelastomer	302 SS

(*) Other materials upon request

Installment required dimensions



Inlet and Outlet Connections	Model		Orificie [mm]	Flow Coefficient Cv	Dimensions [mm]		
	Brass Valves	Steel Valves			A (hex.)	B	C
1/8 NPT F	VRL 12-B	VRL 12-I	4.75	0.56	19	60	-
1/8 NPT M	VRL 12M-B	VRL 12M-I	4.75	0.56	19	56	-
1/4 NPT F	VRL 25-B	VRL 25-I	4.75	0.56	19	62	-
1/4 NPT M	VRL 25M-B	VRL 25M-I	4.75	0.56	19	66	-
1/4 Tube	VRL 25T-B	VRL 25T-T	4.75	0.56	19	75.8	16.4
3/8 Tube	VRL 38T-B	VRL 38T-I	4.75	0.56	19	78.2	18.6
1/2 NPT F	VRL 50-B	VRL 50-I	9.50	2.15	27	81.0	-
1/2 Tube	VRL 50T-B	VRL 50T-I	9.50	2.15	27	96.5	24

VRS Severe service check valve

High flow poppet check valve with spring return, recommended for severe service, including CNG applications.

Special features

- Chatter is greatly reduced
- Blowout-proof o'ring seat design
- Stronger spring that reduces the risk of material fatigue failure
- Good performance in alternating flow
- High Cv flow rates
- NPT connections
- 100% tested in factory



Technical data

Pressure rating @ 70°F:

Standard	6.000 psi
Optional	10.000 psi

Service temperature:

10 to 400 °F

Cracking pressure:

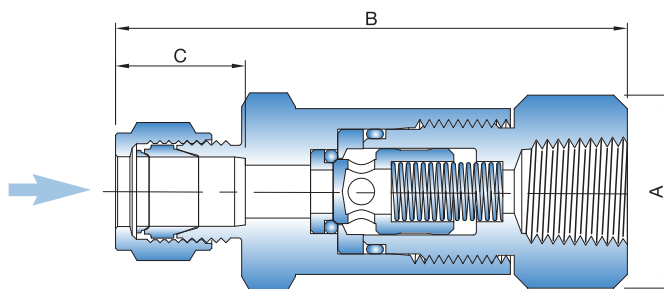
Standard	≤ 10 psi (fix)
Optional	70 psi ± 20%

Standard materials:

Body	Poppet	Standard Seat and Joint (*)	Spring
316 SS	316 SS	Fluoroelastomer	302 SS

(*) Otros materiales a pedido.

Installment required dimensions



How to Order

VRS 25 I

Model

Optional
HS: MWP 10.000 psi
5 : c. pressure 70 psi ± 20%

Connection
25: 1/4 NPT F
50: 1/2 NPT F
75: 3/4 NPT F

Material
I: Stainless steel

Inlet/Outlet connections (*)	Model	Pressure rating @ 70°F	Orifice [mm]	flow coefficient CV	Dimensions [mm]		
					A (hex.)	B	C
1/4" NPT F	VRS25-I	6000	5.75	0.82	22.2	59.0	-
1/4" Tube	VRS25T-I	6000	4.70	0.56	22.2	73.8	16.4
1/2" NPT F	VRS50-I	6000	11.50	4.00	31.7	84.5	-
1/2" Tube	VRS50T-I	6000	10.50	3.20	31.7	107.5	24.0
1/2" NPT F	VRS50-I-HS	10000	10.00	3.00	34.9	84.5	-
3/4" NPT F	VRS75-I	6000	15.20	6.00	34.9	104.0	-

(*) Other connections upon request

CV Gauge Siphon

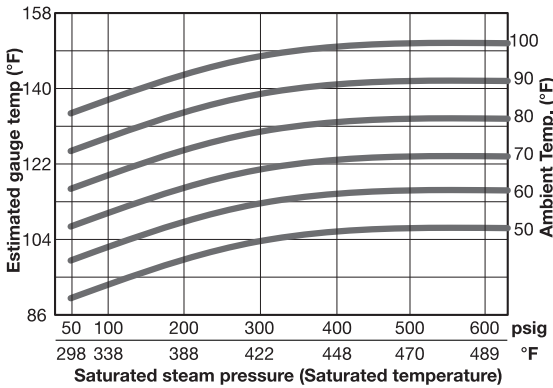
The **CV** gauge siphon is designed to replace the old style "Pig Tail" siphon and to improve its purpose. It provides a thermal barrier between hot steam and the instrument, acting as condensate trap. It reduces the amount of gauge whip on vibrating lines by bringing the gauge closer to the process connection.

Technical data

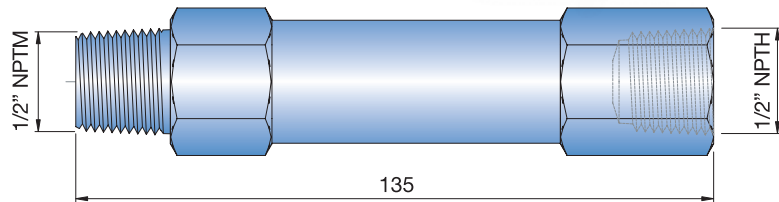
Pressure rating:	3000 psi	
Maximum temperature:	Carbon steel	840 °F
	Stainless steel	1000 °F

Standard materials:

Model	Body	Inner Parts
CVC	Carbon steel	304 SS
CVI	316 SS	304 SS



By knowing the saturated steam conditions and ambient temperature, the chart can estimate the gauge temperature, when the ABAC 's CV is used



TP/TPM Bleed Plugs

ABAC bleed plugs provide a cheaper method for gases and liquids venting, directly mounted in any NPT threaded port. The **TPM** Bleed Plug has a handle for manual operation. The **TP** version can be operated by any 7/16" wrench.

Special Features

- Back stop stem , prevents accidental disassembly
- Handle or wrench operation
- Available in stainless or carbon steel
- Pressure rating @ 70°F: 10.000 PSI



How to Order

Model	TPM 25 I
TPM: with handle for manual operation	
TP: to operate with 7/16" wrench	
Conection	Material
25: 1/4 NPT M	C: Carbon Steel
50: 1/2 NPT M	I: 316 SS
75: 3/4 NPT M	
80: 1 NPT M	

APM Adjustable Pulse damper

ABAC **APM** is useful in cases where a pressure gauge or transmitter pressure is installed in pulsating pressure lines. This accessory eliminates unwanted pulsations or fluctuations, thereby allowing a good reading of the instrument and extending its life span.

Special features

- Precise external calibration; no removal of the instrument is required
- Stainless steel inner parts
- Elastomeric seal to prevent leak through stem
- Back stop stem, prevents accidental disassembly
- 1/2" NPT M-F connections

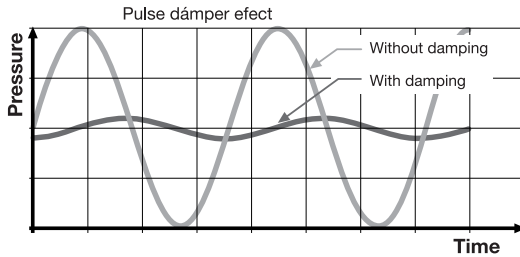
Technical data

Pressure rating @ 70°F: 3000 psi

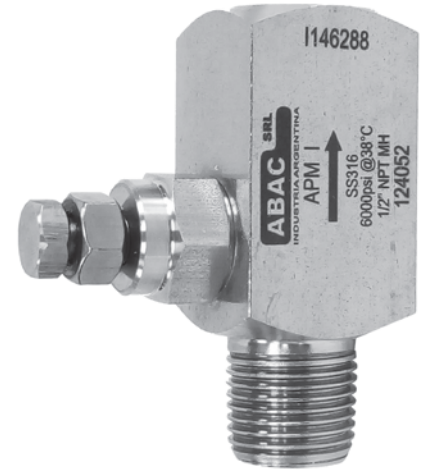
Maximum temperature: See table

Standard Materials

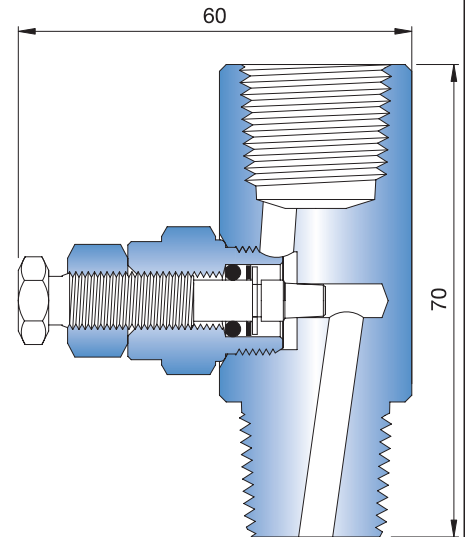
Model	Body	Inner Parts	Seal	Operating Temperature (°F)	
				Min.	Máx.
APM-B	Brass	316 SS	Buna	-31	250
APM-C	Carbon Steel	316 SS	Buna	-31	250
APM-I	316 SS	316 SS	Fluorelastomer	-20	400



Warning: During calibration, make sure not to completely clog the fluid pass.



Installment required dimensions



APF Fixed Pulse damper

ABAC **APF** protect gauges and instruments from system pressure surges and shocks. Pressure damping is accomplished through the use of porous sintered 316 SS element assembled into the fitting body. When an ABAC **APF** damper is installed, the instrument response time is increased and generally it varies according to the pressure differential inside the porous metal element, allowing the instrument to slowly and safely reach system pressure.

Technical data

Pressure Rating @ 70°F: 5000 psi

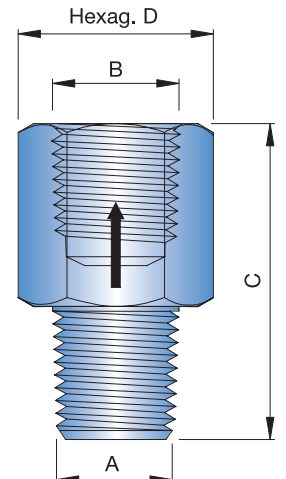
Air flow @ 14.5 psi differential pressure: 10 ± 2 lts/min

Flow for oil of 250 to 1000 SUS(*) @10 psi differential pressure: 1 ± 0.2 lts/min

(*) Saybolt Universal Seconds.

Materials and installment required dimensions

Model	Body	Sintered element	Sintered area [mm ²]	Dimensions [mm]		
				A/B	C	D
APF-25-I	316 SS	316 SS	40	1/4"NPT	36	19
APF-50-I	316 SS	316 SS	40	1/2"NPT	49	27



Relief Valves

ABAC relief valves assure a reliable and accurate pressure relief, simultaneously providing a tight shut off for a wide range of pressures. When the upstream pressure overcomes the closing force exerted by the spring, the valve opens, allowing flow through the valve.

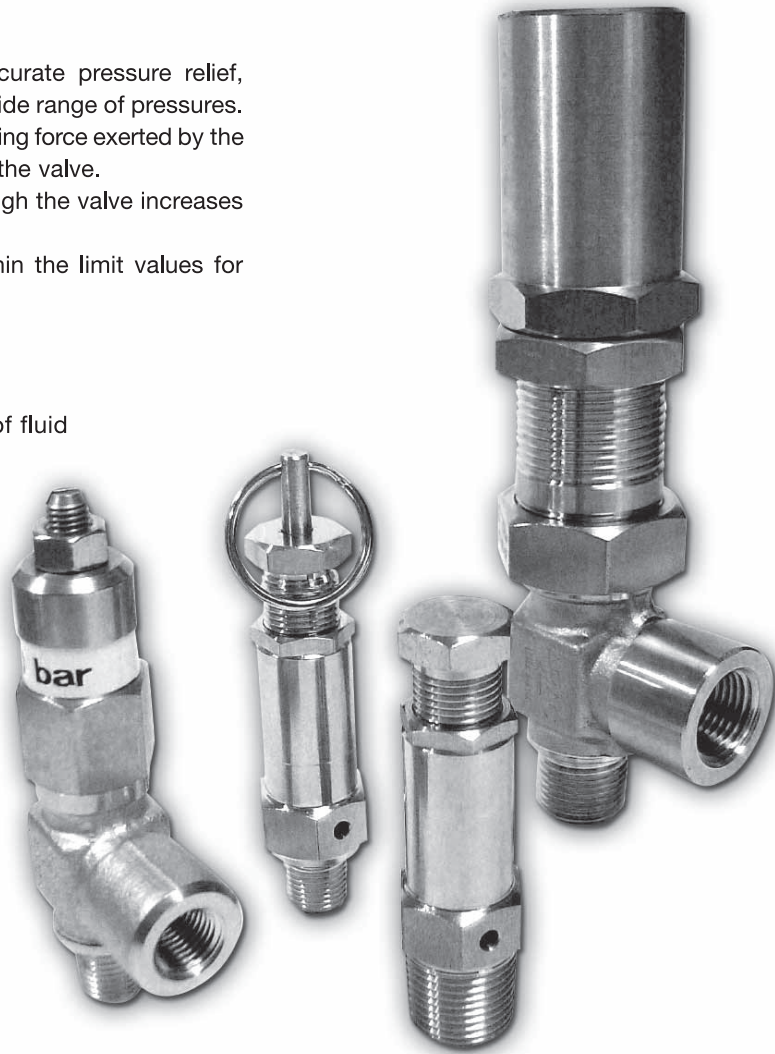
As the upstream pressure increases, flow through the valve increases proportionately.

Generally, this set pressure is adjustable, within the limit values for each range.

Definitions:

Set point: Pressure value where indications of fluid are detected in the outlet. The specified precision is after the first opening and with the pressure raising slowly.

Reseal pressure: is the pressure to which the valve returns to close itself completely in such a way that indications of fluid are not detected in the outlet. Reseal pressure is always lower than set point.



Models

- **VAR:** Straight valves with atmospheric discharge
- **VAAD:** Angle valves with differential stem
- **VAAB:** Angle valves with balanced stem

In VAR and VAAD models, the set point pressure is defined as the difference between the inlet pressure and the outlet pressure (back pressure). (Differential stem)

In the VAAB model, set point pressure is only sensitive to inlet pressure and is not affected by outlet pressure. (Balanced stem)

Spare Parts

Spare parts kits are available for all valves models. Please, contact us or call to our sales & service authorized representatives.

Warning

- Valves that are not actuated for a period of time may initially crack to a value higher than the set crack pressure.
- An appropriate filtrate of the fluid to prevent damage to seals is recommendable.
- ABAC Relief valves are proportional valves, that is, that opens gradually as the pressure inlet increases.
Consequently, they do not fulfill with code ASME nor other codes like safety valve.

VAR Straight Relief Valve

This model discharge excess pressure straight to the atmosphere through small holes. The Set point value is adjusted by the regulating screw, externally, without disassembling.

Special Features

- Zero-leak until the set point
- External adjustment
- Optional factory pre-set
- External range engraving
- Low hysteresis
- 100% tested and calibrated in factory
- Low cost
- Optional manual operation

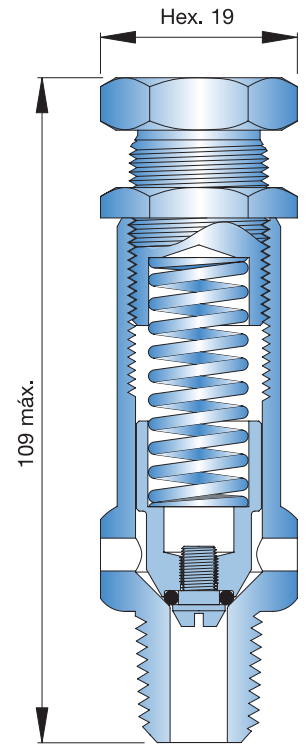
Technical data

Accuracy:	±10% set point
Reseal pressure:	≥ 80% set point
Orifice:	Ø 6.5mm (valve full open)
Coefficient CV:	0.85 (valve full open)
Maximum operating temperature:	See How to Order
Maximum service pressure @ 70°F:	300 psi

Standard materials:

Body (*)	Inner Parts	Seal (*)	Spring
316 SS	316 SS	Fluoroelastomer	302 SS

(*) Other materials upon request



How to Order

VAR 25-3 I B T

Model

Inlet Connection

25: 1/4NPT M

50: 1/2NPT M

Set point range

3: 7 - 40 psi

13: 40 - 180 psi

T: manual override (optional)

O'ring

Blank: fluoroelastomer

(-20 °F to 400 °F)

B: buna N

(-40 °F to 250 °F)

E: ethylene propylene

(-70 °F to 300 °F)

S: silicone

(-70 °F to 450 °F)

Material

I: Stainless steel

VAA D Angle Relief Valve. Differential stem.

This valve is designed in such form that when the difference between the upstream pressure and the downstream pressure overcomes the force exerted by the spring, the plug opens, allowing flow through the outlet connection.

The flow through the valve increases proportionally to the increase of that pressure difference.

To increase the cracking pressure of the valve, the spring must be compressed by turning the adjustment cap clockwise.

Special Features

- Angle pattern
- External adjustment without disassembly the valve
- Zero leak until the set point
- External range engraving.
- Lock wire feature secures a given pressure setting
- Low internal friction, reducing hysteresis.
- Reliable retention of the sealing o'ring.
- High flow capacity
- Male and female connections
- 100% tested and calibrated in factory



Technical data

Accuracy: $\pm 10\%$ set point

Reseal pressure: $\geq 85\%$ set point Ranges 20 and 75
 $\geq 50\%$ set point Range 5

Orifice: $\varnothing 5.5$ mm (valve full open)

Coefficient CV: 0.72 (valve full open)

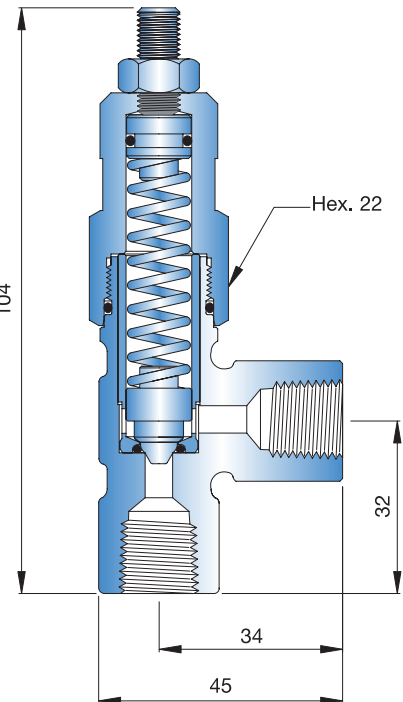
Maximum operating temperature: See How to Order

Maximum service pressure @ 70°F: 3000 psi

Standard materials:

Body (*)	Inner Parts	Seal (*)	Spring
316 SS	316 SS	Fluoroelastomer	302 SS

(*) Other materials upon request.



How to Order

VAA D 25 - 20 - I -

Model

Inlet Connection

25: 1/4NPT F
25M: 1/4NPT M

Set point range

5: 14 - 70 psi
20: 70 - 280 psi
75: 280 - 1060 psi

O'ring

Blank: fluoroelastomer (-20 °F to 400 °F)
B: buna N (-40 °F to 250 °F)
E: ethylene propylene (-70 °F to 300 °F)
S: silicone (-70 °F to 450 °F)

Material

I: Stainless steel

VAA B Angle Relief Valves. Balanced stem.

The design of this relief valve ensures that the breakdown pressure is only sensitive to the inlet pressure and not affected by the outlet pressure.

Special Features

- External adjustment without disassembly the valve
- External range engraving
- Lock wire feature secures a given pressure setting
- Reliable retention of the sealing o'ring
- "Dry" spring, fluid does not touch it
- with ultra-hard plated and mirror finish for minimum friction
- 100% tested and calibrated in factory

Technical Data

Accuracy:

± 5% set point

Reseal Pressure:

≥ 50% set point	Ranges 15-5 and 5-50
≥ 80% set point	Ranges 50-100 and 100-300

Coefficient CV:

See installment required dimensions

Maximum operating temperature:

See How to Order.

Maximum service pressure @ 70°F:

3000 psi	Ranges up to 50
5000 psi	Ranges 50-100 and 100-300

Standard materials:

Body (*)	Inner parts	Regulation Cap and lock nut	Seal (*)	Spring
316 SS	316 SS	304 SS (VAAB25 model) Nickel brass (VAAB50 model)	Fluoroelastomer	302 SS

(*) Other materials upon request.

How to order

VAA B 50M - 100 - I -

Model

Inlet connection

See Table

Set point range

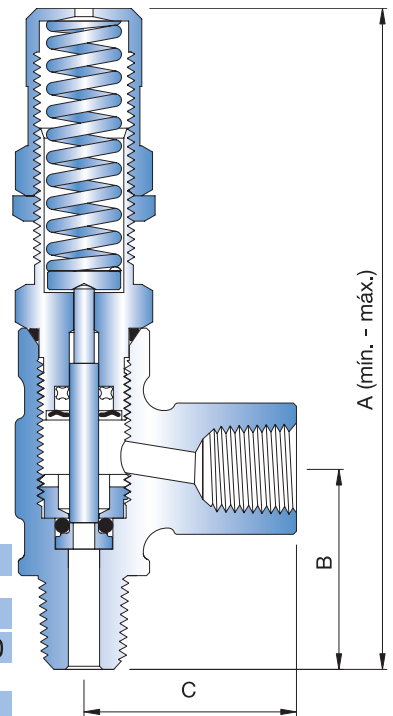
See Table

O'ring

Blank: fluoroelastomer	(-20 °F to 400 °F)
B: buna N	(-40 °F to 250 °F)
E: ethylene propylene	(-70 °F to 300 °F)
S: silicone	(-70 °F to 450 °F)

Material

I: Stainless steel



Installment required dimensions

Conections		Model	Orifice [mm]	CV (*)	Dimensions [mm]			Code	Adjustable range [psi]
inlet	outlet				A (min/max)	B	C		
1/4" NPTF	1/4" NPTF	VAAB 25-	3.5	0.45	94 / 111	32	34	15	72~218
1/4" NPTM	1/4" NPTF	VAAB 25M-	3.5	0.45	94 / 111	32	34	50	218~725
3/8" NPTM	3/8" NPTF	VAAB 38M-	6	1.00	127 / 161	39	39	100	725~1450
1/2" NPTF	1/2" NPTF	VAAB 50-	10	2.40	160 / 200	41	41	300	1450~4350
1/2" NPTM	1/2" NPTF	VAAB 50M-	10	2.40	160 / 200	41	41		
3/4" NPTM	3/4" NPTF	VAAB 75M-	14	4.80	206 / 242	63	41		

(*) Valve full open

Set Point

Valve Fittings and Wellhead accessories.

Wide range of lubrication accessories such as: grease fitting, vented valve, check valves and packing injector fittings and other oil equipment.

Covers requirements of both maintenance and repair services as OEM's manufacturers.

This valves are made with stainless or carbon steel body. Inner parts, balls and springs are made of stainless steel. For service pressure to 10.000 psi

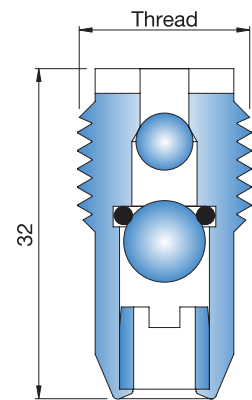
Some models available in version NACE MR-75-01, for service with Sour Gas. Please, consult.



VDR Double Ball Check Valve

Internal check valve. With double ball and o'ring seal.

Model	Thread	Material		
		Body	Balls	O'ring
VDR 38 C NPS	3/8" NPS	Zinc. carbon steel	SAE 52100	Buna N
VDR 38 C BSP	3/8" BSP	Zinc. carbon steel	SAE 52100	Buna N
VDR 38 I NPS	3/8" NPS	316 SS	316 SS	Fluoroelastomer
VDR 38 I BSP	3/8" BSP	316 SS	316 SS	Fluoroelastomer



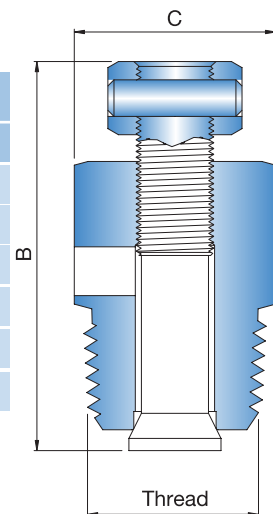
Maximum pressure service @70°F: 6000 psi

VENT Vent fitting

ABAC **VENT** has a strong back stop stem with hexagonal head. The design prevents impurities from blocking the vent orifice.

Model	Thread	Material		Dimensions [mm]	
		Body	Stem	B	C
VENT 50 C	1/2" NPT	Zinc. carbon steel	420 SS	48	22.2
VENT 60 C	3/4" NPT	Zinc. carbon steel	420 SS	48	28.5
VENT 80 C	1" NPT	Zinc. carbon steel	420 SS	54	35
VENT 50 I	1/2" NPT	316 SS	316 SS	48	22.2
VENT 60 I	3/4" NPT	316 SS	316 SS	48	28.5
VENT 80 I	1" NPT	316 SS	316 SS	54	35

Maximum pressure service @70°F: 10000 psi

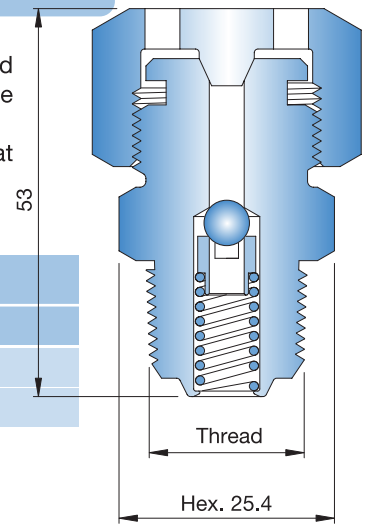


ECBT Vented Cap Button head grease fitting

ABAC **ECBT** have vented cap with giant button head. Has UNS 1"x14hpp thread and retention ball with spring return. Ball support allows the passage of grease through the center of the spring, reducing the tendency to "pack-off". Another feature of this standard body grease fitting is the heavy-duty radial rivet crimp that provides the best "blow-out" protection.

Model	Thread	Material		
		Body and cap	Ball	Spring
ECBT50 C	1/2" NPT	Zinc. carbon steel	SAE 52100	302 SS
ECBT50 I	1/2" NPT	316 SS	316 SS	302 SS

Maximum pressure service @70°F: 10000 psi

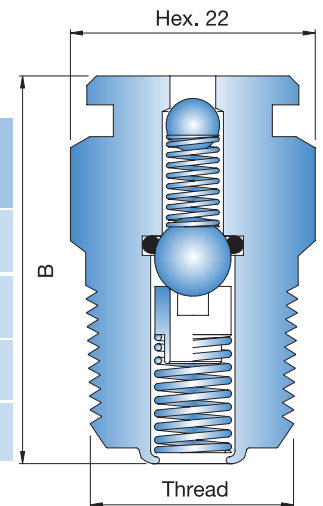


ECB Button head grease fitting

ABAC **ECB** have giant button head and double ball retention, with spring return. Elastomeric main seal to assure zero leak

Model	Thread NPT	Material				(mm)
		Body	Ball	Seal	Spring	B
ECB25-C	1/4"	Zinc carbon steel	SAE 52100	Buna	302 SS	37
ECB50-C	1/2"	Zinc carbon steel	SAE 52100	Buna	302 SS	41
ECB25-I	1/4"	316 SS	316 SS	Fluoro elastomer	302 SS	37
ECB50-I	1/2"	316 SS	316 SS	Fluoro elastomer	302 SS	41

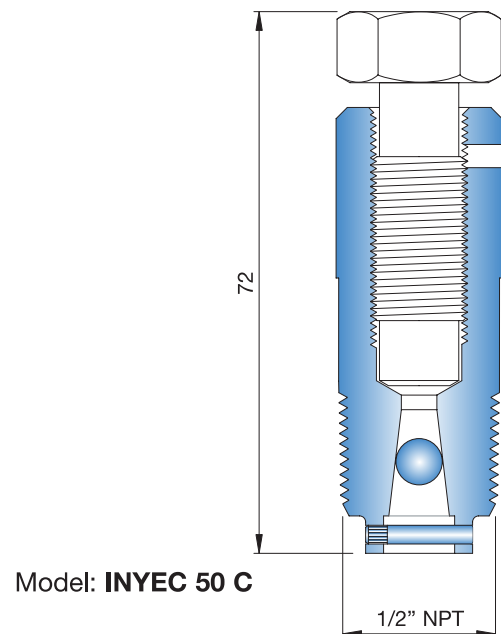
Maximum pressure service @ 70°F: 10000 psi



INyec Sealing Injector

Accessory for manual injection of the sealant. Hexagonal wrench operation. Body and injector screw of zincated carbon steel. SAE 52100 ball. 1/2" NPTM connection.

Maximum pressure service @ 70°F: 10000 psi



Model: **INyec 50 C**

Condensation and sealing pots

Condensate and sealing cylinders Available in carbon and stainless steel AISI 316.

Standard sizes 2" and 3" NPS, in Schedule 40 and 80, 1/2" NPT connections.

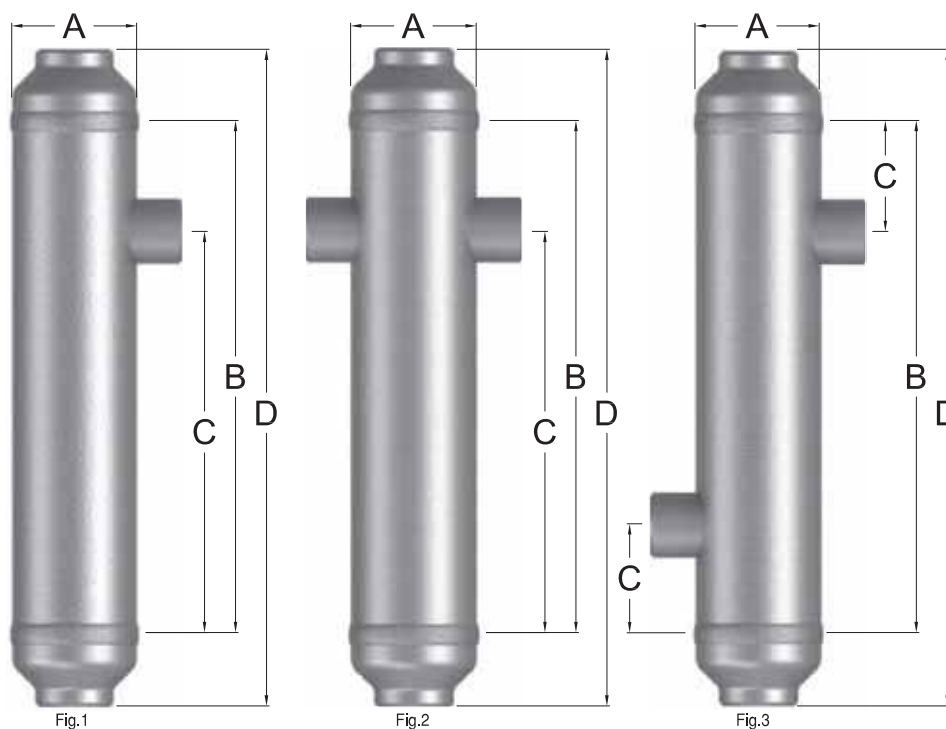
Under order, it would be supplied in other dimensions, connections or materials.

Technical data

- Materials in accordance with ASME standards
- Threads NPT compliance with ANSI B1.20.1
- All specimens are tested at 1.5 times each Max Working Pressure
- Operating Pressure until 3000 psi
- Welding RX optional



Installment required dimensions



Type	Fig	Nominal size	Standard Dimensions [mm]			
			A	B	C	D
Condensate 3 outlets	1	2"	60.3	250	196	322
		3"	88.0	250	196	350
Condensate 4 outlets	2	2"	60.3	250	196	322
		3"	88.0	250	196	350
Sealing	3	2"	60.3	250	54	322
		3"	88.0	250	54	350

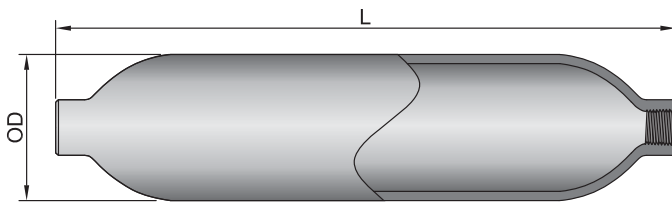
CTM Sample Cylinders

ABAC **CTM** cylinders allows the extraction of samples from a remote process and provide a reliable container for storage and transportation. These cylinders have a service pressure of 1800 psi at room temperature for liquids and gases. They are mainly employed in sampling of carbohydrates in refineries, gas samples for chromatography, fossil fuels condensation, amongst many other applications.



Characteristics and technical data:

- Compliance with DOT 3 E standards. Service pressure 1800 psi.
- Built from a single piece of AISI 316L.
- Threaded 1/4 NPT F connections in both ends.
- Standard capacity of 300 and 500 ml (other capacities upon request)
- Upon request, VTM sample cylinder valves are provided at both ends.
- Corroless interior coating model available, which provides enhanced resistance to corrosion and low contaminants adherence.
- Traceability marked on body.



Model (*)	Cap. cc.	L mm.	OD mm.	Wall Thickness mm.	Weight kg.
CTM 3	300	227	50.8	2.4	0.73
CTM 3 N	300	227	50.8	2.4	0.75
CTM 5	500	351	50.8	2.4	1.20
CTM 5 N	500	351	50.8	2.4	1.22

(*) Letter N denotes model with interior coating.

TMP Distribution Manifold

Multiple connections that allow flow distribution, saving accessories, space and cost. The standard model has a main inlet/outlet connection and multiple side ports. The distance between the side ports connections is optimized to allow the installation of elbows, gauge of Ø 50 mm outside diameter, and other accessories, without interference. Special models upon request.

Technical data:

Maximum pressure service @70°F: 6000 psi.

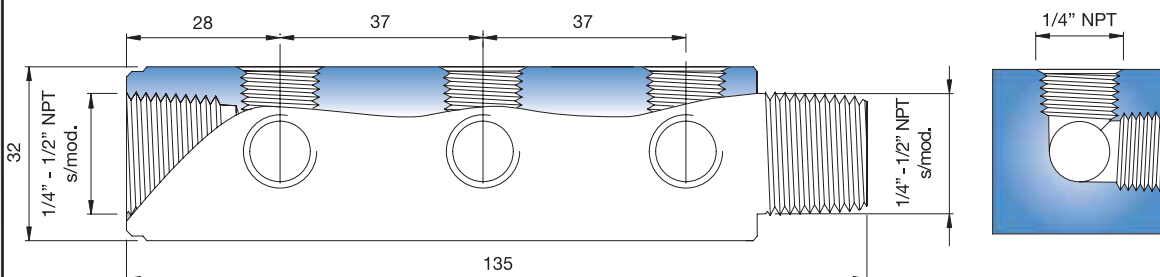


How to order

TMP 4 - 6 C

<p>Model</p> <p>Main inlet/outlet connection</p> <p>2 : 1/4" NPT MF</p> <p>4 : 1/2" NPT MF</p>	<p>Material</p> <p>C: carbon steel</p> <p>I: stainless steel, 316 SS</p> <p>Side connections quantity</p> <p>3 : 3 connections 1/4"NPTF</p> <p>6 : 6 connections 1/4"NPTF</p>
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Dimensions



NOTE: 6 connections 1/4" NPT version are shown.
In the 3 outlets version, the connection of one face are eliminated.



The widest variety of pressure, flow and fluid control components:

- *Needle valves*
- *Instruments manifolds*
- *Fluid control components*
- *Ball valves*
- *Tibe and pipe fittings*
- *Thermic insulation systems*
- *High pressure components and units*



• *For more information about these products please contact us, visit our web site or call to our Sales & Service authorized Reps.*