

NEEDLE VALVES



I.T.E.
INDUSTRIAL TECHNICAL EQUIPMENT

INTRODUCTION



I.T.E. is an Italian company established in 1998 from the merge between 2 companies, one specialized in trading and one in machining activities, both operating in the Oil & Gas field since 1980. I.T.E. is one of the largest Italian and European manufacturers of valves and fittings for the installation of industrial instruments, mainly in O&G and Energy sectors, with a huge production of: **Needle Valves, Instrument Manifolds, Ball Valves, Pots & Siphons, Compression Fittings, Check Valves, Forged Globe Needle Valves, Adapters/Fittings, Fire Sensors, Sampling Systems, Protection Boxes.**

I.T.E. is specialized also on tailor-made solutions, on request complete packages can be provided to meet customer's needs.

I.T.E. is a flexible and customer oriented company, the manufacturing plant is equipped with different CNC machines, automatic welding machines and an automatic warehouse with different semi-finished standard products, this structure allows us to be reliable partner with a fast response to the customer needs.

I.T.E. products are 100% engineered, manufactured, assembled and tested in Italy, all the products have the traceability system so that we are able to provide the best assistance to customers also specially during maintenance activities providing the right product/component.



FAILURE, IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

This document and other information from I.T.E. s.r.l., its authorized distributors provide product and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application and review the information concerning the product or system in the current product catalog. Due to the variety of operating conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection of the products and systems and assuring that all performance, safety and warning requirements of the application are met. The products described herein, including without limitation, product features, specifications, designs, availability and pricing, are subject to change by I.T.E. s.r.l. and its subsidiaries at any time without notice.

CONTENTS

FEATURES

PAGE 06

BONNET FEATURES

PAGE 07

CONNECTIONS

PAGE 08

HAND VALVES

PAGE 09

GAUGE VALVES

PAGE 11

MULTIPORT GAUGE VALVES

PAGE 14

ACCESSORIES

PAGE 16



FEATURES

Across years of experience in instrumentation sector and increasing its know-how, today I.T.E. is able to offer a wide range of manual instrument valves and accessories for several application and sector. All products shown on this catalogue are available with integral compression ends (performance system improved, safety factors, size and weight reduction). R&D dept. is constantly committed to refining and improving the quality of the products.

STANDARD FEATURES

PTFE and GRAPHOIL packing available for all valve types.

Bore size 4mm.

Wetted parts according to **NACE MR.0175/MR.0103** as standard.

Shell test and seat leakage test are performed according to **API 598** and **ASME B16.34** (1.5 of max rating pressure).

Certificate 3.1 certificate according to EN 10 204 on valve body material.

Valves and manifold are not supplied with plugs unless specified

SPECIAL FEATURES

Bore size 10mm on request

O-Ring packing

Oxygen service PTFE packing cleaned and degreased

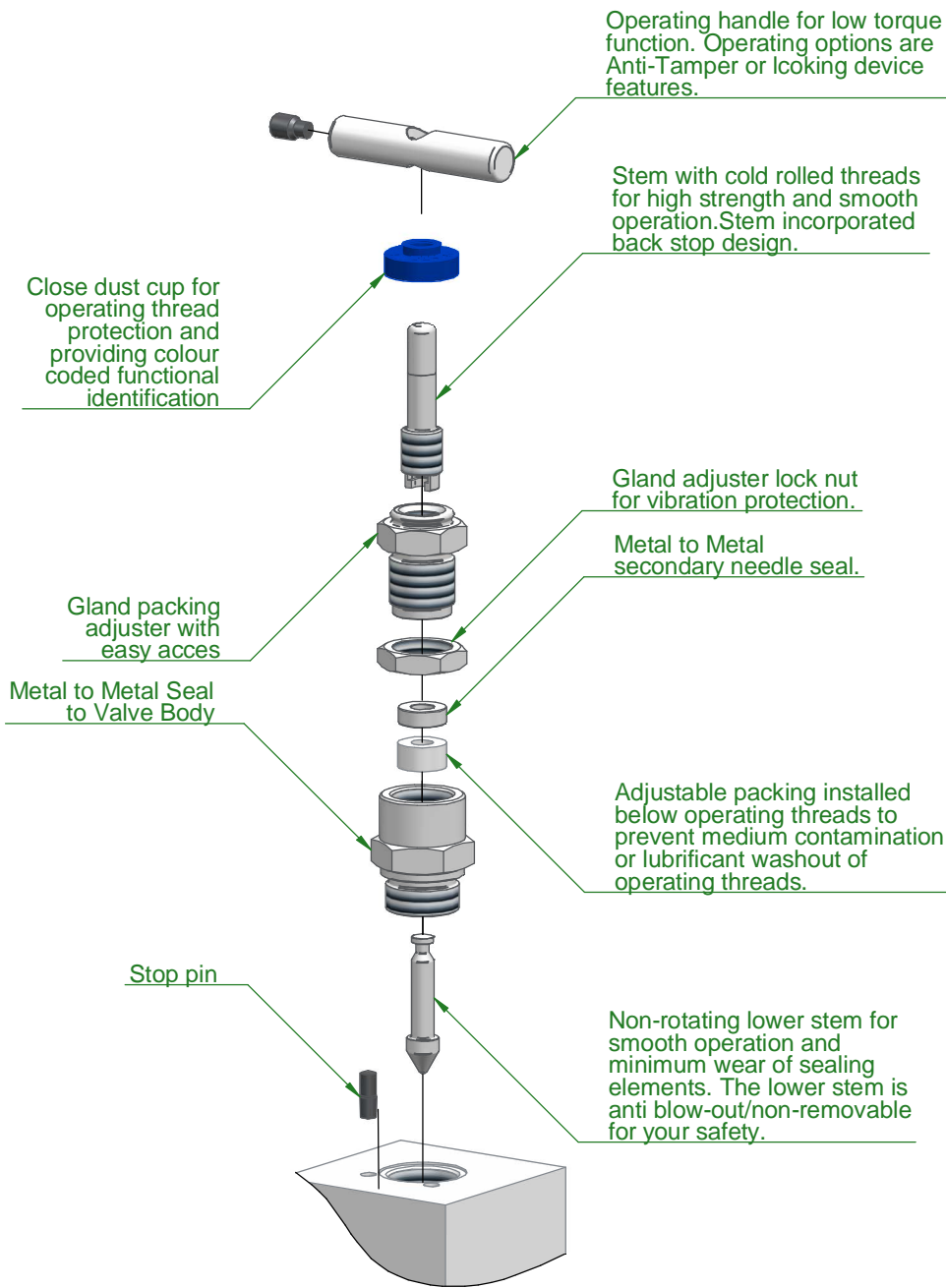
MATERIAL

MATERIAL GROUP	I.T.E. DESIGNATION	ASTM	UNS	AVAILABILITY ON STOCK
Stainless Steel	316/316L	316/316L	S31600	YES
	6Mo		N08367	ON REQUEST
Ferritic Stainless Steel	Duplex	F51	S31803	YES
	Superduplex	F55	S32750	YES
Carbon Steel	LF2	LF2		ON REQUEST
	A105	A105		ON REQUEST
Alloy	Alloy 400		N04400	YES
	Alloy C276		N10276	ON REQUEST
	Alloy 625		N06625	ON REQUEST
	Alloy 825		N08825	ON REQUEST
Titanium	Ti Gr.2		R50400	ON REQUEST

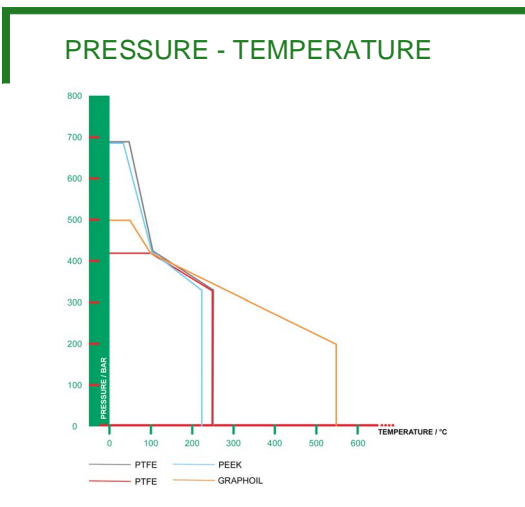


Bonnet is specifically designed for operation with any fluid up to 10.000 PSI rating. Complete with standard PTFE gland packing and self centering non rotational tip, it guarantees total sealing efficiency during service operations. In addition to standard version, I.T.E. provides variants with locking system or anti-tamper configuration.

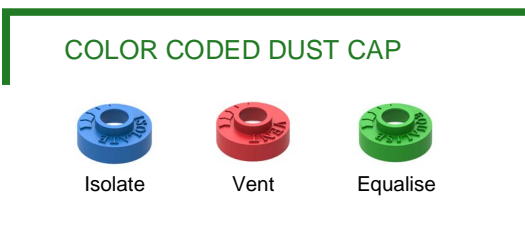
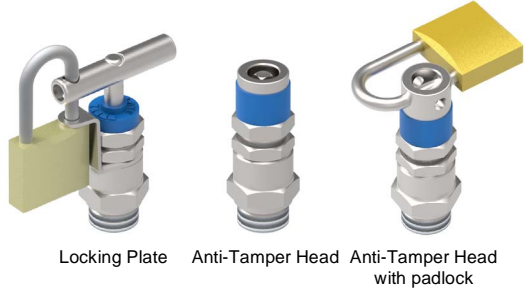
BONNET FEATURES



- ### SPECIFICATION
- Maximum standard pressure up to 6.000 psig (414 barg).
 - Maximum optional pressure up to 10.000 psig (689barg).
 - Temperature range -54°C to +530°C.
 - PTFE standard gland packing (Graphoil optional).
 - Max. temperature PTFE 260°C.
 - Max. temperature Graphoil 530°C.
 - Low operating torque.
 - Packing below threads to prevent lubricant washout.



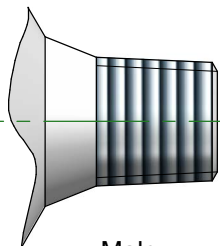
OPTIONAL CONFIGURATION



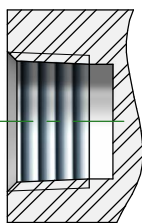
CONNECTIONS

I.T.E. manufactures a lot of different connections and combinations. Below are some of the most used. If you don't find your option please contact us.

TAPERED PIPE THREADS



Male

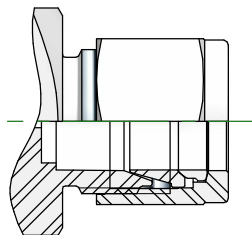


Female

NPT threads acc. to ASME B 1.20.1

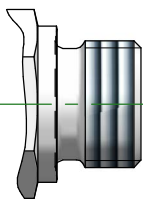
BSPT threads acc. to ISO 7/1

TWIN FERRULE TUBE FITTINGS

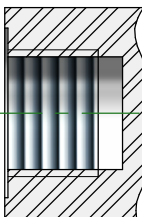


The direct pipe connection is available in both metric and inch sizes. All components are made by I.T.E. s.r.l.

PARALLEL PIPE THREADS (1) (2)



Male

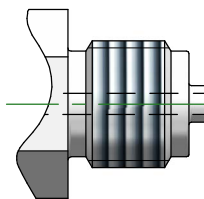


Female

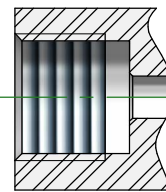
BSPP threads acc. to ISO 228-1
ISO 1179-1

Metric threads acc. to ISO 261

PARALLEL PIPE THREADS - GAUGE CONN. (1)



Male

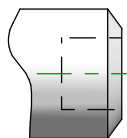


Female

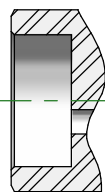
G Threads acc. to ISO 228-1
EN 837-1

Metric threads acc. to ISO 261

WELD ENDS



Male



Female

Butt weld (male) acc. to ASME B16.9

Socket Weld (female) acc. to ASME B16.11

NOTE

(1) Cylindrical connection for fittings hydraulic or gas applications. The seal between male and female is made by metal to metal contact between two parallel surfaces.

(2) Pressure connection for use with pressure gauges. The end can be fixed or rotatable according to the needs of use. The seal is carried out by means of a flat gasket placed at the bottom of the female thread.

Size from 1/8" to 1"
Metric size: M20 x 1.5

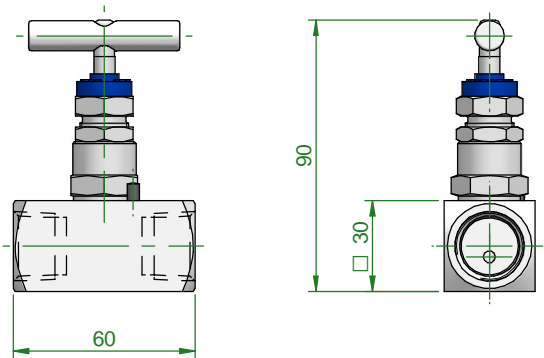


HAND VALVES

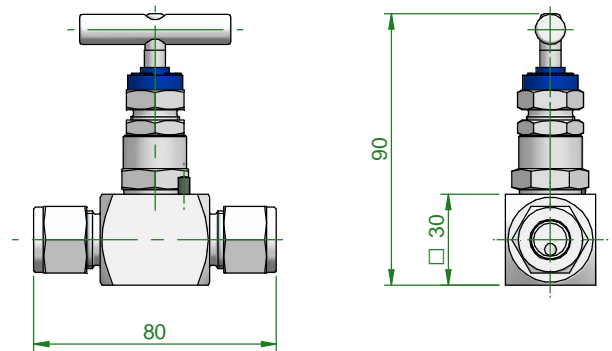


Bar stock needle valves are specifically designed valves for operation with any fluid up to 10.000 PSI rating. Complete with standard PTFE gland packing and self centering non rotational tip, it guarantees total sealing efficiency during service operations. I.T.E. Hand Valves are available with a lot of options. *We are showing on this page just the standard types.*

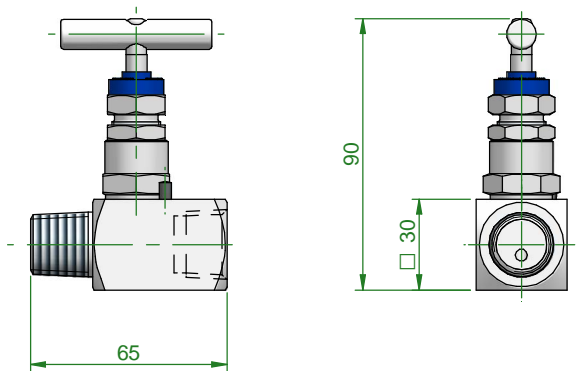
V41 - FEMALExFEMALE THREADED



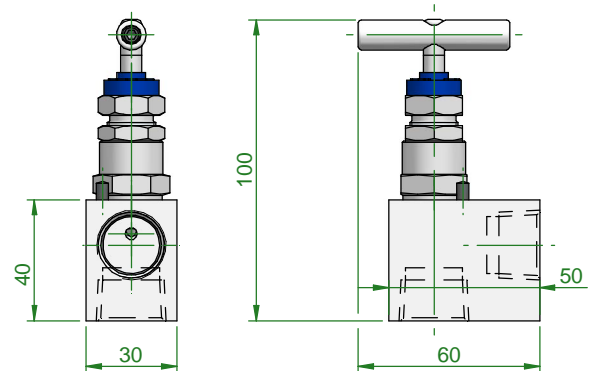
V59 - COMPRESSION CONNECTIONS



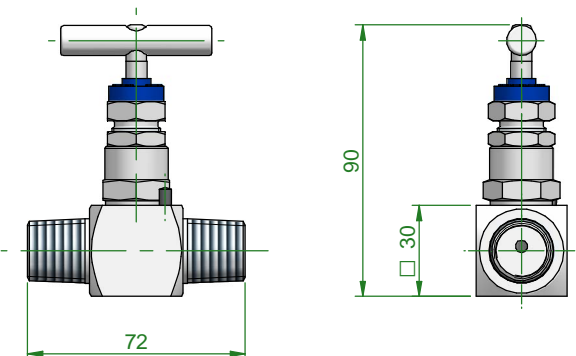
V42 - MALExFEMALE THREADED



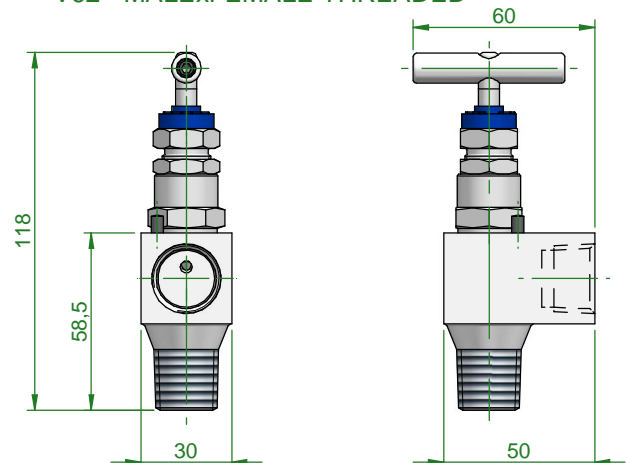
V61 - FEMALExFEMALE THREADED



V43 - MALExMALE THREADED



V62 - MALExFEMALE THREADED



HAND VALVES - HOW TO ORDER

V 4 1 - 0 6 S T 8 I 8 I P M

MODEL

- V41 Needle vlv F/F
- V42 Needle vlv MF
- V43 Needle vlv MM
- V61 Needle vlv F/F 90°
- V62 Needle vlv MF 90°
- V62S Needle vlv MF 90°

RATING

- 06 Series 6.000 PSI
- 10 Series 10.000 PSI

MATERIAL

- | | | | |
|---|------------------|---|------------|
| S | Aisi 316L | F | Alloy 400 |
| A | A105 | G | Alloy C276 |
| D | Duplex F51 | H | 6 Mo/F44 |
| E | Super Duplex F55 | I | Alloy 625 |

PACKING

- T PTFE
- G Graphoil

IN

- | | | | |
|---|------|----|-----------|
| 4 | 1/4" | 12 | 3/4" |
| 6 | 3/8" | 16 | 1" |
| 8 | 1/2" | 20 | M20 x 1,5 |

THREAD

- | | | | |
|---|---------------------------|---|--|
| N | NPT | K | BSPT R/RC (ISO 7) |
| B | Butt Weld | I | BSPP GAS (ISO 1179) |
| S | Socket Weld | R | BSPP GAS (EN 837-1) - Gauge connection |
| M | Metric (similar EN 837-1) | | |

OUT (Same as "IN" standard)

- | | | | |
|---|------|----|-----------|
| 4 | 1/4" | 12 | 3/4" |
| 6 | 3/8" | 16 | 1" |
| 8 | 1/2" | 20 | M20 x 1,5 |

THREAD (Same as "IN" standard)

- | | | | |
|---|---------------------------|---|--|
| N | NPT | K | BSPT R/RC (ISO 7) |
| B | Butt Weld | I | BSPP GAS (ISO 1179) |
| S | Socket Weld | R | BSPP GAS (EN 837-1) - Gauge connection |
| M | Metric (similar EN 837-1) | | |

DRAIN

- /
- 4 1/4" NPT
- D M8X1

OPTIONS

- | | | | | | |
|----|------------------------------|----|------------------------------------|----|-----------------------------|
| B | All components 316L | L | Lox cleaning | PM | Panel mounting |
| C | Special testing | TI | Isolate Anti-tamper | EX | Up to 130mm extended lenght |
| D | Custom marking | K | Padlock for all anti tamper bonnet | T | Mounted plug drain |
| KT | Padlock for all T-bar bonnet | CR | Cryogenic Version | P8 | Internal bore 8mm |

Attention - Above guideline show s all possible product configuration. Tailor-made solutions must be evaluated and approved by ITE technical dept before accepting and processing your order

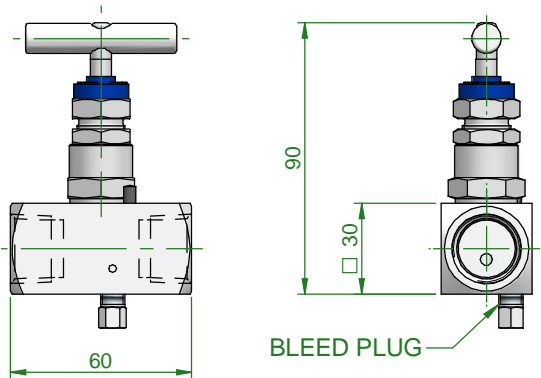


GAUGE VALVES

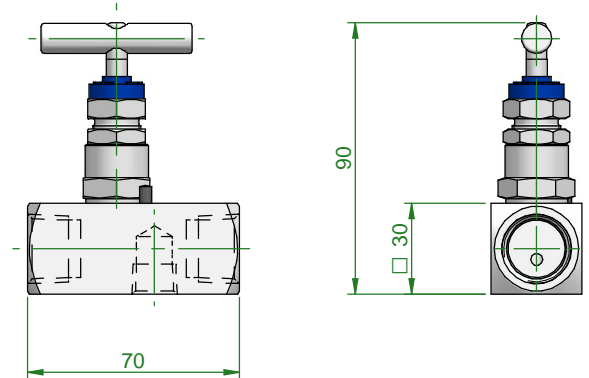


Bar stock gauge valves are designed for mounting to Pressure Gauge, Pressure Transmitters and Pressure Switches. Gauge valve works with any fluid up to 10.000 PSI rating. Complete with standard PTFE gland packing and self centering non rotational tip, it guarantees total sealing efficiency during service operations. I.T.E. Gauge Valves are available with a lot of options. *We are showing on this page just the standard types.*

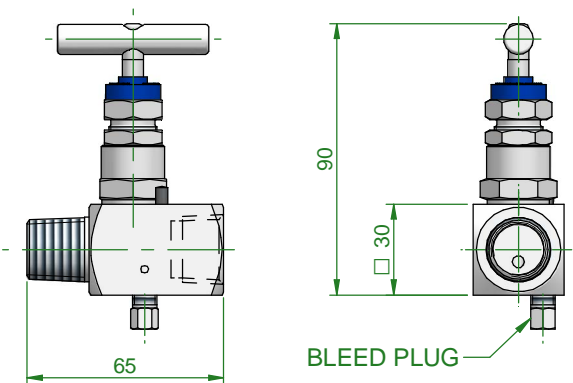
V51 - FEMALExFEMALE THREADED



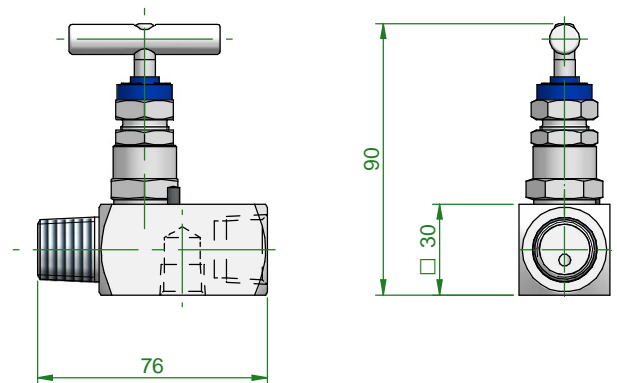
V511 - FEMALExFEMALE THREADED WITH DRAIN



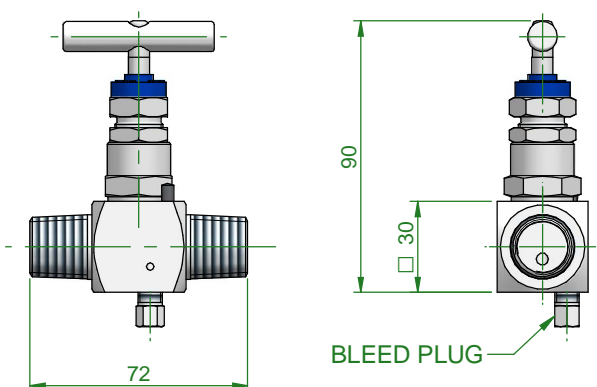
V52 - MALExFEMALE THREADED



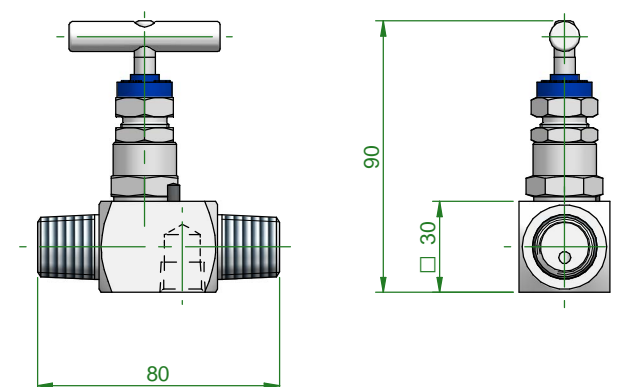
V521 - MALExFEMALE THREADED WITH DRAIN



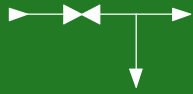
V52M - MALExMALE THREADED



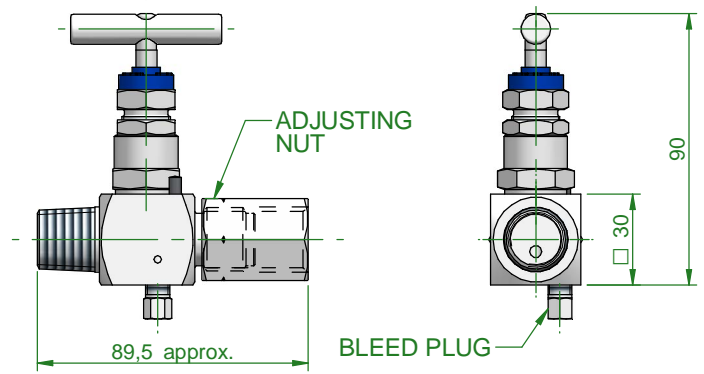
V522 - MALExMALE THREADED WITH DRAIN



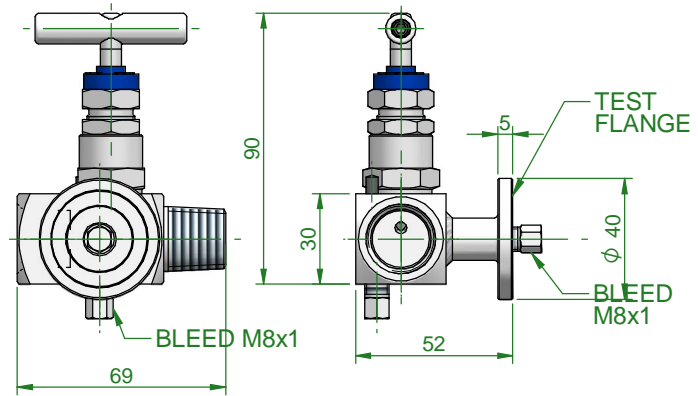
GAUGE VALVES



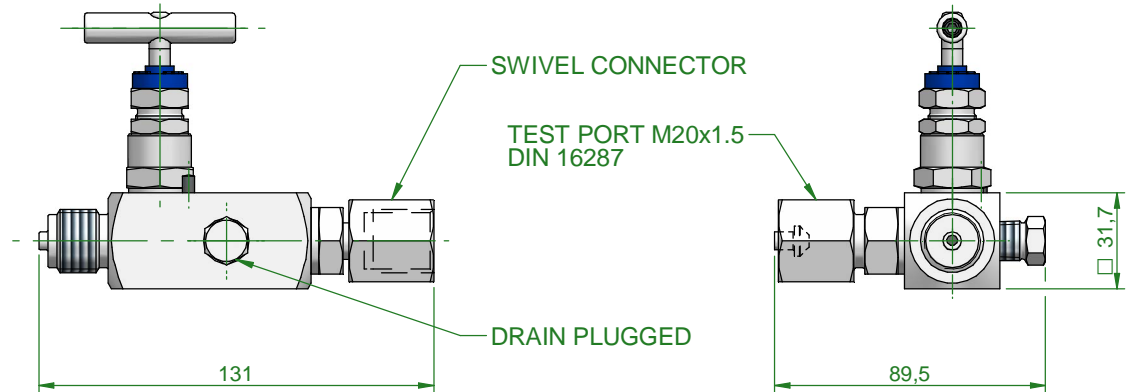
V53 - MALExFEMALE THREADED



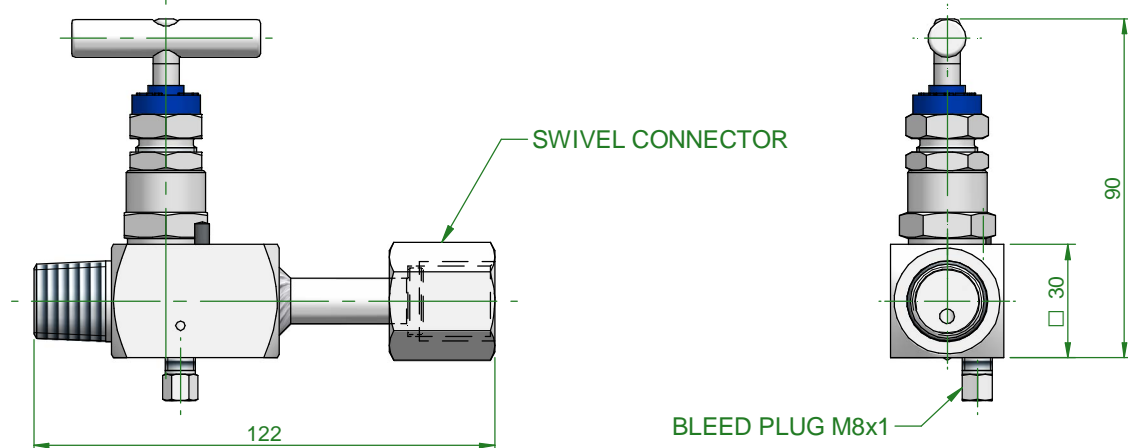
V55 - MALExFEMALE THREADED



V58 - MALExFEMALE THREADED WITH TEST PORT



V60 - MALExFEMALE THREADED



GAUGE VALVES - HOW TO ORDER

V 5 1 - 0 6 S T 8 N 8 N 4 P 8

MODEL

- V51 Needle vlv F/F w ith bleed M8x1
- V52 Needle vlv M/F w ith bleed M8x1
- V52M Needle vlv M/M w ith bleed M8x1
- V53 Needle vlv M/F w ith bleed M8x1 and sw ivel OUT
- V55 Needle vlv M/F w ith bleed M8x1 and test flange
- ...

RATING

- 06 Series 6.000 PSI
- 10 Series 10.000 PSI

MATERIAL

- | | | | |
|---|------------------|---|------------|
| S | Aisi 316L | F | Alloy 400 |
| A | A105 | G | Alloy C276 |
| D | Duplex F51 | H | 6 Mo/F44 |
| E | Super Duplex F55 | I | Alloy 625 |

PACKING

- T PTFE
- G Graphoil

IN

- | | | | |
|---|------|----|-----------|
| 4 | 1/4" | 12 | 3/4" |
| 6 | 3/8" | 20 | M20 x 1,5 |
| 8 | 1/2" | | |

THREAD

- | | | | |
|---|---------------------------|---|--|
| N | NPT | K | BSPT R/RC (ISO 7) |
| B | Butt Weld | I | BSPP GAS (ISO 1179) |
| S | Socket Weld | R | BSPP GAS (EN 837-1) - Gauge connection |
| M | Metric (similar EN 837-1) | | |

OUT (Same as "IN" standard)

- | | | | |
|---|------|----|-----------|
| 4 | 1/4" | 12 | 3/4" |
| 6 | 3/8" | 20 | M20 x 1,5 |
| 8 | 1/2" | | |

THREAD (Same as "IN" standard)

- | | | | |
|---|---------------------------|---|--|
| N | NPT | K | BSPT R/RC (ISO 7) |
| B | Butt Weld | I | BSPP GAS (ISO 1179) |
| S | Socket Weld | R | BSPP GAS (EN 837-1) - Gauge connection |
| M | Metric (similar EN 837-1) | | |

DRAIN

- /
- 4 1/4" NPT
- D M8X1

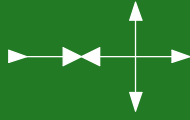
OPTIONS

- | | | | | | |
|----|------------------------------|----|------------------------------------|----|-----------------------------|
| / | | | | | |
| B | All components 316L | L | Lox cleaning | PM | Panel mounting |
| C | Special testing | TI | Isolate Anti-tamper | EX | Up to 130mm extended lenght |
| D | Custom marking | K | Padlock for all anti tamper bonnet | T | Mounted plug drain |
| KT | Padlock for all T-bar bonnet | CR | Cryogenic Version | P8 | Internal bore 8mm |

Attention - Above guideline show s all possible product configuration. Tailor-made solutions must be evaluated and approved by ITE technical dept before accepting and processing your order

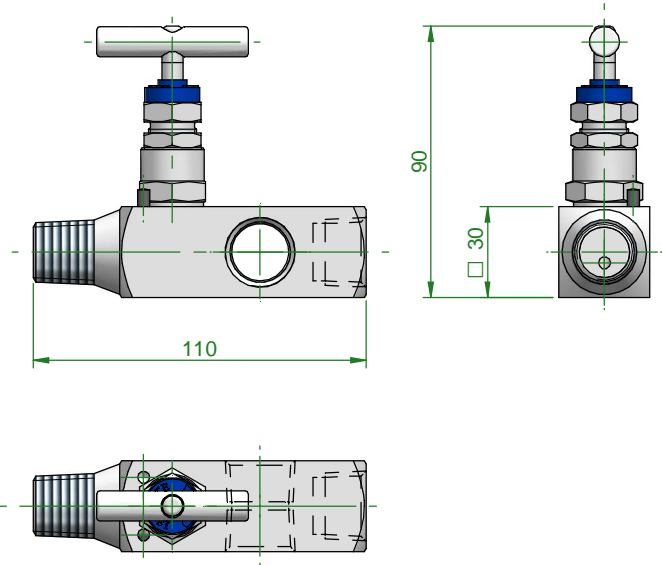


MULTIPOINT VALVES

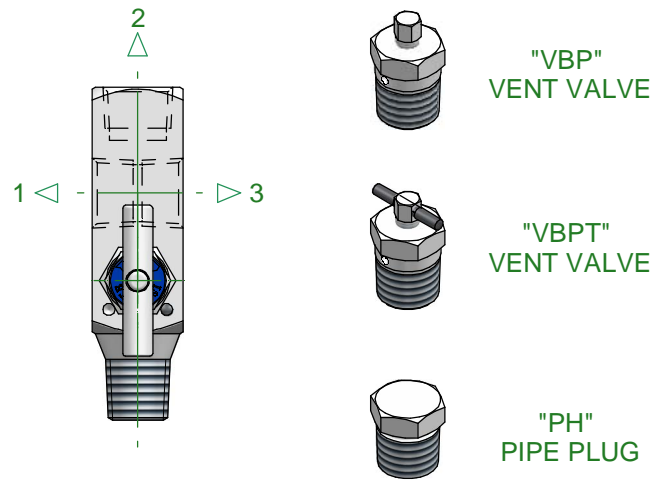


Bar stock multiport gauge valves are designed for installation of Pressure Gauge, Pressure Transmitters and Pressure Switches. Standard types are provided with 3 female outlet ports so that they are suitable for vertical or horizontal installation. Multiport gauge valves model works with any fluid up to 10.000 PSI rating. Complete with standard PTFE gland packing and self centering non rotational tip, it guarantees total sealing efficiency during service operations. I.T.E. Multiport Gauge Valves are available with a lot of options. *We are showing on this page just the standard types.*

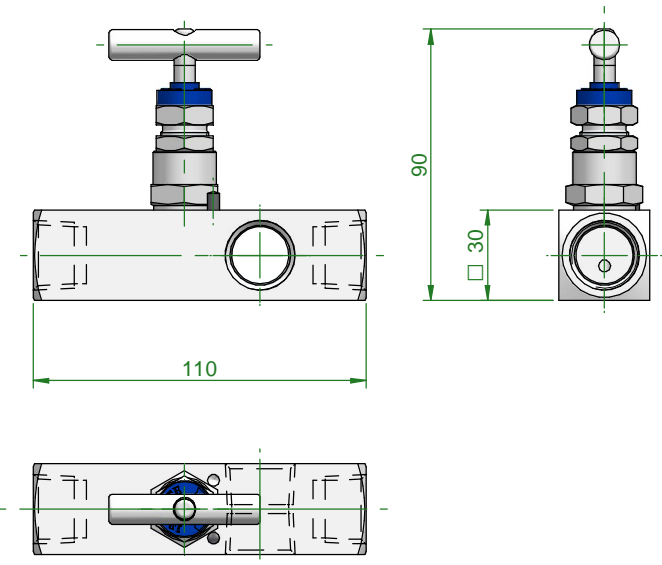
V71 - MALExFEMALE THREADED



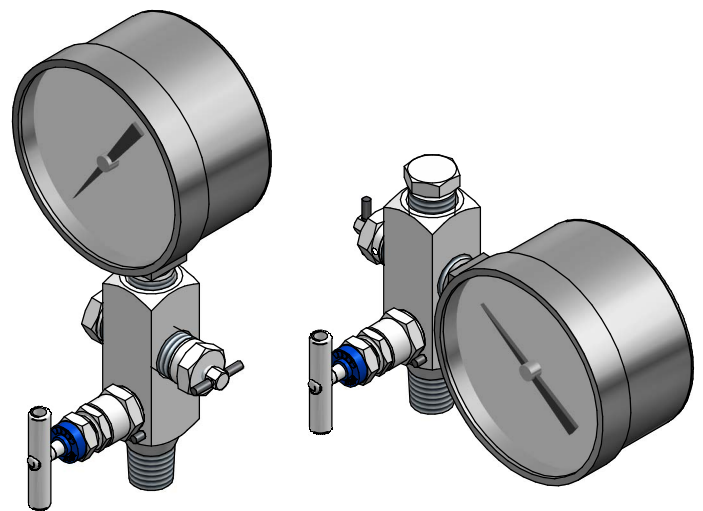
OUTLET OPTIONS



V72 - FEMALExFEMALE THREADED



INSTALLATION EXAMPLE



MULTIPOINT GAUGE VALVES - HOW TO ORDER

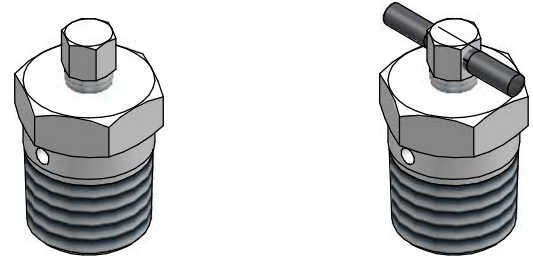
	V	7	1	-	0	6	S	T	8	N	8	N	P	M	
MODEL															
V71	Needle multiport vlv M/F														
V72	Needle multiport vlv F/F														
RATING															
06	Series 6.000 PSI														
10	Series 10.000 PSI														
MATERIAL															
S	Aisi 316L				F	Alloy 400									
A	A105				G	Alloy C276									
D	Duplex F51				H	6 Mo/F44									
E	Super Duplex F55				I	Alloy 625									
PACKING															
T	PTFE														
G	Graphoil														
IN															
4	1/4"			12	3/4"										
6	3/8"			20	M20 x 1,5										
8	1/2"														
THREAD															
N	NPT				K	BSPT R/RC (ISO 7)									
B	Butt Weld				I	BSPP GAS (ISO 1179)									
S	Socket Weld				R	BSPP GAS (EN 837-1) - Gauge connection									
M	Metric (similar EN 837-1)														
OUT (1/2" NPT as standard)															
4	1/4"			12	3/4"										
6	3/8"			20	M20 x 1,5										
8	1/2"														
THREAD (1/2" NPT as standard)															
N	NPT				K	BSPT R/RC (ISO 7)									
B	Butt Weld				I	BSPP GAS (ISO 1179)									
S	Socket Weld				R	BSPP GAS (EN 837-1) - Gauge connection									
M	Metric (similar EN 837-1)														
OPTIONS															
/															
B	All components 316L				L	Lox cleaning				PM	Panel mounting				
C	Special testing				TI	Isolate Anti-tamper				EX	Up to 130mm extended length				
D	Custom marking				K	Padlock for all anti tamper bonnet				T	Mounted plug drain				
KT	Padlock for all T-bar bonnet				CR	Cryogenic Version				P8	Internal bore 8mm				

Attention - Above guideline show s all possible product configuration. Tailor-made solutions must be evaluated and approved by ITE technical dept before accepting and processing your order

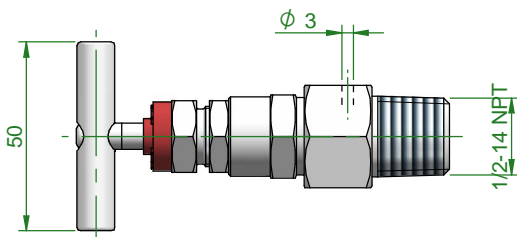


ACCESSORIES

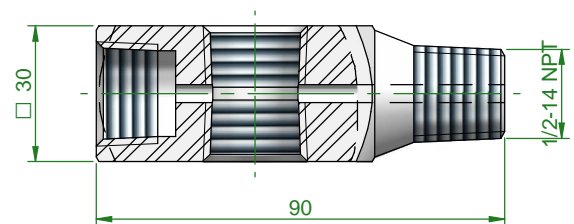
VBP / VBPT - VENT VALVE



VBV - ADJUSTABLE VENT VALVE



VBT - BAR STOCK BLEED TEE



HOW TO ORDER

V B V - 0 6 S T 4

MODEL

- VB T Bar stock bleed TEE
- VB V Adjustable VENT valve
- VB PT Vent valve
- VB V Vent valve

RATING

- 06 Series 6.000 PSI
- 10 Series 10.000 PSI

MATERIAL

- | | | | |
|---|-----------------|---|------------|
| S | Aisi 316L | F | Alloy 400 |
| A | A105 | G | Alloy C276 |
| D | Duplex F51 | H | 6 Mo/F44 |
| E | Superduplex F55 | I | Alloy 625 |

PACKING (VBV ONLY)

- T PTFE
- G Graphoil

CONNECTIONS

- 4 1/4"
- 6 3/8"
- 8 1/2"

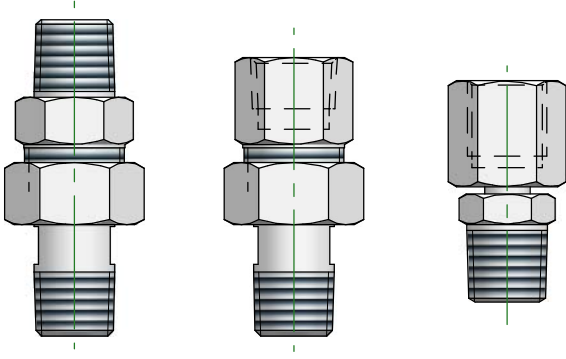
THREAD

- / NPT
- K BSPT R/RC (ISO 7)
- I BSPP GAS (ISO 1179)
- R BSPP GAS (EN 837-1) - Gauge connection

Attention - Above guideline show s all possible product configuration. Tailor-made solutions must be evaluated and approved by ITE technical dept before accepting and processing your



SGC - 3 PIECES SWIVEL ADAPTER



ACCESSORIES

HOW TO ORDER

S G A - 2 0 M F 8 G M - 0 6 S

MODEL

SGA SWIVEL GAUGE ADAPTER - SCREWED

SGC SWIVEL GAUGE ADAPTER - WELDED

INLET DIMENSION

4	1/4" NPT	4G	1/4" BSPP (G)*
8	1/2" NPT	8G	1/2" BSPP (G)*
12	3/4" NPT	4K	1/4" BSPT***
16	1" NPT	8K	1/2" BSPT***

20M M20x1,5 *

4I	1/4" BSPP (G)**
6I	3/8" BSPP (G)**
8I	1/2" BSPP (G)**

CONNECTION

F FEMALE
M MALE

OUTLET DIMENSION

4	1/4" NPT	4G	1/4" BSPP (G)*
8	1/2" NPT	8G	1/2" BSPP (G)*
12	3/4" NPT	4K	1/4" BSPT***
16	1" NPT	8K	1/2" BSPT***

20M M20x1,5 *

4I	1/4" BSPP (G)**
6I	3/8" BSPP (G)**
8I	1/2" BSPP (G)**

CONNECTION

F FEMALE
M MALE

RATING (SGA ONLY)

06 6,000 PSI
10 10,000 PSI

MATERIAL

S	Aisi 316L	F	Alloy 400
A	A105	G	Alloy C276
D	Duplex F51	H	6 Mo/F44
E	Super Duplex F55	I	Alloy 625

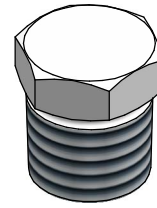
* EN 837-1 DESIGN

** ISO 1179 DESIGN ("MA" ONLY)

*** ISO 7/1

Attention - Above guideline shows all possible product configuration. Tailor-made solutions must be evaluated and approved by ITE technical dept before accepting and processing your order






HOW TO ORDER


		8	P	H	-	0	6	S
CONNECTIONS								
2	1/8"	8						
4	1/4"	12						
6	3/8"	16						
MODEL								
PH HEX MALE PLUG								
RATING								
06	Series 6.000 PSI							
10	Series 10.000 PSI							
MATERIAL								
S	Aisi 316L	F	Alloy 400					
A	A105	G	Alloy C276					
D	Duplex F51	H	6 Mo/F44					
E	Super Duplex F55	I	Alloy 625					
THREAD								
/	NPT							
K	BSPT R/RC (ISO 7)							
I	BSPP GAS (ISO 1179)							
R	BSPP GAS (EN 837-1) - Gauge connection							


Attention - Above guideline show s all possible product configuration. Tailor-made solutions must be evaluated and approved by ITE technical dept before accepting and processing your order

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