MONOFLANGES







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 Neelde 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.



3 | INTRODUCTION I.T.E. s.r.l.



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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 monoflanges and accessories for several application and sector. All products shown on this catalogue are available with integral compression ends (performance system improved, safety factors, reduction size and weight). Monoflanges are designed to replace conventional multiple-valve installation currently in use for interface with pressure measuring system. R&D dept. is constantly committed to refining and improving the quality of the products.

STANDARD FEATURES

PTFE and GRAPHOIL packing avaible for all types.

Bore size 5 mm.

ASME B16.5 flange connection.

OUT 1/2" NPT-F / DRAIN 1/4" NPT-F

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.

Monoflanges are not supplied with plugs.

MATERIAL

SPECIAL FEATURES

API Flange connections (up to 10.000 PSI)

EN 1092-1 Flange connections

Integral swivel gauge connections

NOTE

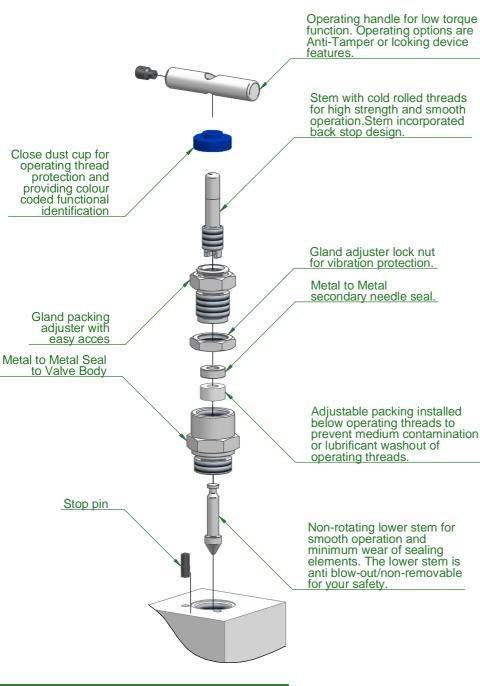
Due to internal bore size and internal volumes up to and including 1"-inch/25mm, products offered in this catalog comply with S.E.P. (Sound Engineering Practicle) article 3, paragraph 3 of the Pressure Equipment Directive P.E.D. 97/23/EC and therefore CE marking is not applicable.

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



6 | FEATURES I.T.E. s.r.l.

Screwed Bonnet is specifically designed for operation with any fluid up to 10.000 PSI rating. Complete with 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.

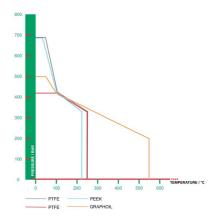


BONNET FEATURES

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.

PRESSURE - TEMPERATURE



COLOR CODED DUST CAP







Locking Plate Anti-Tamper Head Anti-Tamper Head with padlock

OPTIONAL CONFIGURATION









BONNET FEATURES WWW.ITE-SRL.COM | 7

BONNET FEATURES

Outside Screw & Yoke bolted Bonnet (O.S.&Y.) is specifically designed for operation with any fluid up to 10.000 PSI rating. Complete with standard 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.

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.

PRESSURE - TEMPERATURE

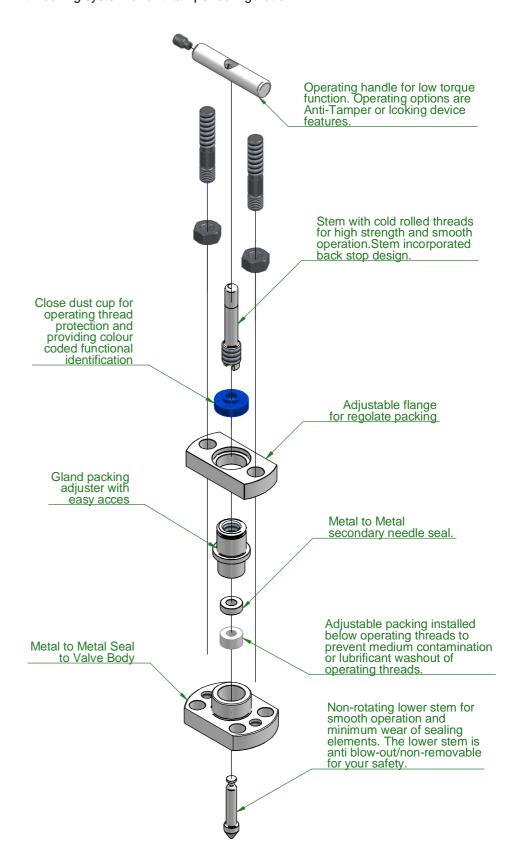
COLOR CODED DUST CAP







Vent Equalise



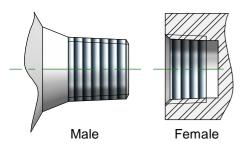


8 | BONNET FEATURES I.T.E. s.r.l.

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

CONNECTIONS

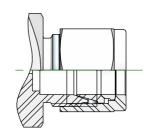
TAPERED PIPE THREADS



NPT threads acc. to. **ASME B 1.20.1**

BSPT threads acc. to. ISO 7/1

TWIN FERRULE TUBE FITTINGS

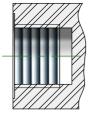


The direct pipe connection is available in both metric and inch sizes. All components are made by I.T.E. s.r.l.

PARALLEL PIPE THREADS (1) (2)



Male

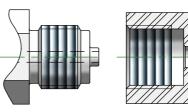


Female

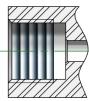
BSPP threads acc. to. ISO 228-1 ISO 1179-1

Metric threads acc. to. **ISO 261**

PARALLEL PIPE THREADS - GAUGE CONN. (1)



Male

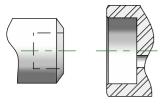


Female

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

Metric threads acc. to. ISO 261

WELD ENDS



Male

remale

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.

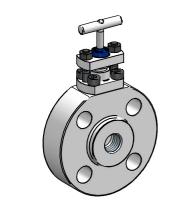
Size from 1/8" to 1" Metric size: M20 x 1.5

WWW.ITE-SRL.COM | 9 CONNECTIONS

MONOFLANGE CONFIGURATION

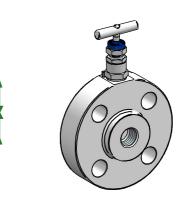
Monoflange is designed to replace conventional multiple-valve installations currently in use for interface with pressure measuring systems, combining customer's specified valves into a single manifold. Above solution provides reduced leakage path numbers together with a lowered system mass reduction of stress and vibration. Various flow and valve configurations available as well as a variety of flange sizes and outlet connections.

M81 - SINGLE BLOCK - PRIMARY ISOLATE O.S.&Y.



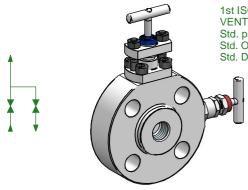
1st ISOLATE: O.S.&Y. Std. packing: GRAPHOIL Std. OUT: 1/2" NPT-F

M81 - SINGLE BLOCK - PRIMARY ISOLATE NEEDLE



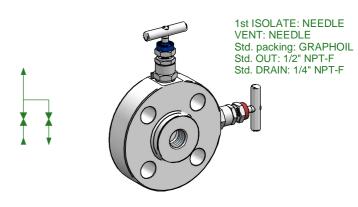
1st ISOLATE: NEEDLE Std. packing: GRAPHOIL Std. OUT: 1/2" NPT-F

M82 - BLOCK/BLEED - PRIMARY ISOLATE O.S.&Y.

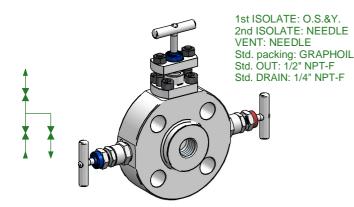


1st ISOLATE: O.S.&Y. VENT: NEEDLE Std. packing: GRAPHOIL Std. OUT: 1/2" NPT-F Std. DRAIN: 1/4" NPT-F

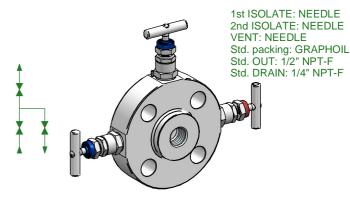
M82 - BLOCK/BLEED - PRIMARY ISOLATE NEEDLE



M83 - DOUBLE BLOCK & BLEED - PR. ISOLATE O.S.&Y.



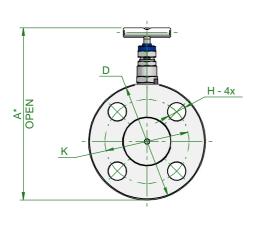
M83 - DOUBLE BLOCK & BLEED - PR. ISOLATE NEEDLE

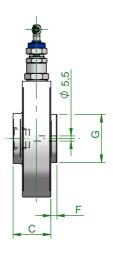


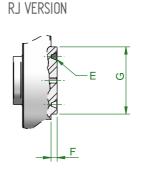


Block monoflange valve manifold with flanged inlet and threaded outlet connection. Complete with standard GRAPHOIL gland packing and self centering non rotational tip, it guarantees total sealing efficiency during service operations. We are showing on this page just the standard types.

M81 MODEL







	SIAI	NUA	IVD IAI	ODLL		PES, DII	AILI	4010		, vv	LIG	1111	J		
1st ISOLATE	DN FLG	IN	RATING	OUT	DRAIN	WEIGHT***	Α	В	С	D	K	Н	F	G	Е
			150			1,5 Kg	147			88,9	60,3		4.0		
		RF	300			1,6 Kg	454			05.0	00.7	15,9	1,6	35	
1/2" (DN 15)	4 (OII (DN 45)		600			1,7 Kg	154			95,2	66,7			1	
		900			2,3 Kg	181			120,6	82,5		6,4	60,3	R	
	RJ	1500			2,3 Ng	101			120,6	62,5	22,2	0,4	60,3	K	
			2500			3,3 Kg	193		40	133,3	88,9			65,1	R
		150			1,9 Kg	156			96,4	69,8	15,9	1.6			
		RF	300			2,7 Kg	176			117,5	82,5	19	1,0	42,9	
3/4" (DN 20)	3/4" (DN 20)		600			2,7 Ng	170			117,5	02,5	13			
		900			3,4 Kg	189			130,2	88.9		6.4	66.7	R	
		RJ	1500							· ·	,-	22,2	0, 1	/	
			2500			3,9 Kg	199		41,7	139,7	95,2			73	F
			150			2,4 Kg	166		1	107,9	79,4	15,9	1.6		_
		RF	300			3 Kg	183			123,8	88,9	19	,-	50,8	
TEE BAR	1" (DN 25)		600	1/2" NPT-F -	-	3,1 Kg		-	40		,				
	, ,		900			4,2 Kg	208			149,2	101,6	05.4	6,4	71,4	F
		RJ	1500								25,4	·		_	
			2500			5,5 Kg	218		44	158,7	107,9			82,5	F
			150			3,3 Kg	186			127	98,4	15,9	1,6		
		RF	300	_		4,7 Kg	215		40	155,6	114,3	22,4		73	
	1"-1/2 (DN 40)		600	_		4,8 Kg									
		Б.	900			6,4 Kg	238		41,7	177,8	123,8	28,6	6,4	92,1	F
		RJ	1500 2500	_		11,2 Kg	263		49,4	203,2	146	31,7	7,9	114,3	F
			150			4,7 Kg	212		49,4	152,4	120,6	31,7	7,9	114,3	- 17
		RF	300**	-		4,7 Ng	212		40	132,4	120,0	19	1,6	92	
		IXI	600**			5,3 Kg	200		40	165,1	127	19	6,4	92	
2" (DN 50)	2" (DN 50)	." (DN 50)	900**										0,7		\vdash
	2 (255)	RJ	1500**			11,4 Kg	244		48,1	215,9	165,1	25,4	7.9	123,8	R
		0	2500**			16,7 Kg	261		55.8	234.9	171.4	28.6	.,0	133.3	R

^{*}In models with primary isolate O.S. & Y. dimension "A" increases by approximately 14mm

M81 MODEL WWW.ITE-SRL.COM | 11

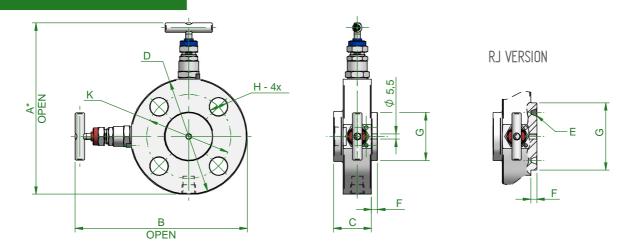


^{**}In the models marked the number of holes "H" is 8x

^{***}Weights are theoretical and based on AISI 316 material

M82 MODEL

Block & Bleed monoflange valve manifold with flanged inlet and threaded outlet connection. Complete with standard GRAPHOIL gland packing and self centering non rotational tip, it guarantees total sealing efficiency during service operations. We are showing on this page just the standard types.



	STAN	NDA	RD M	ODEL	.: TYP	ES, DII	MEN	ISIC	ONS	5, W	EIG	HT	3			
1st ISOLATE	DN FLG	IN	RATING	OUT	DRAIN	WEIGHT***	Α	В	С	D	K	Н	F	G	Е	
			150			1,6 Kg	146	147		88,9	60,3					
1/2" (DN 15) -		RF	300			1,7 Kg	4=0					15,9	1,6	35		
	4 (011 (1014 4.5)		600			1,8 Kg	153	154		95,2	66,7					
		900			0.41/-	400	404		400.0	00.5		C 4	00.0	R		
	RJ	1500			2,4 Kg	180	181		120,6	82,5	22,2	6,4	60,3	K		
			2500			3,4 Kg	192	193	40 133,3	133,3	88,9			65,1	R	
		150			2 Kg	155	156		96,4	69,8	15,9	1.6				
		RF	300			2,8 Kg	175	176		117,5	82,5	19	1,0	42,9		
	3/4" (DN 30)		600			2,6 Kg	175	176		117,5	02,5	19				
	3/4 (DN 20)		900			3,3 Kg	188	189		130,2	88,9		6,4	66.7	F	
		RJ	1500			3,3 Kg	100	109		130,2	00,9	22,2	0,4	/	r	
			2500			4 Kg	198	199	41,7	139,7	95,2			73	F	
			150			2,5 Kg	165	166	123.8	107,9	79,4	15,9	1.6		_	
		RF	300			3,1 Kg	182	183		123.8	88,9	19	1,0	50,8		
TEE BAR	1" (DN 25)		600	1/2" NPT-F	1/4" NPT-F	3,2 Kg	102	100	40	120,0	00,0					
TEE BATT		RJ	900	0	4,3 Kg	207	208	149,2	149 2	101.6		6.4	71.4			
			1500			-			- /-	25,4	0,.					
			2500			5,6 Kg	217	218	44	158,7 107,9	,			82,5	ı	
			150			3,4 Kg	185	186	1	127	98,4	15,9	1,6			
		RF	300			4,8 Kg	214	215	40	155,6	114,3	22,4	.,0	73		
	1"-1/2 (DN 40)		600			4,9 Kg				100,0	,0	, .				
	(= 1. 10)		900			6,5 Kg	237	238	41,7	177,8	123,8	28,6	6,4	92,1	F	
		RJ	1500	-					,	· ·	· ·	, i		,		
			2500	-		11,3 Kg	262	263	49,4	203,2	146	31,7	7,9	114,3	F	
			150			4,8 Kg	211	212		152,4	120,6		1,6			
		RF	300**			5,4 Kg	224	200	40	165,1	127	19		92		
2" (DN 50)	2" (DN 50)		600**							·			6,4			
	Б.	900**			11,5 Kg	275	244	48,1	215,9	165,1	25,4	7.0	123,8	F		
		RJ	KJ	1500**	-		16.0 1/ 0	205	264	<i>EE</i> 0	224.0	171 /	20.6	7,9	122.2	
			2500**			16,8 Kg	295	261	55,8	234,9	171,4	28,6		133,3	F	

^{*}In models with primary isolate O.S. & Y. dimension "A" increases by approximately 14mm

^{***}Weights are theoretical and based on AISI 316 material

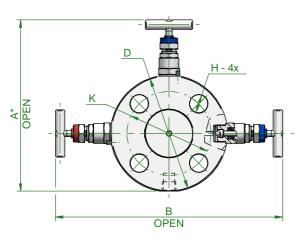


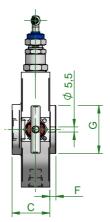
12 | M82 MODEL I.T.E. s.r.l.

^{**}In the models marked the number of holes "H" is 8x

Double Block & Bleed monoflange valve manifold with flanged inlet and threaded outlet connection. Complete with standard GRAPHOIL gland packing and self centering non rotational tip, it guarantees total sealing efficiency during service operations. We are showing on this page just the standard types.

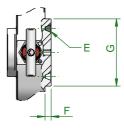
M83 MODEL







RJ VERSION



	STAN	NDA	RD M	ODEL	.: TYP	ES, DII	VIEN	NSIC	ONS	5, W	EIG	HT	5		
st ISOLATE	DN FLG	IN	RATING	OUT	DRAIN	WEIGHT***	Α	В	С	D	K	Н	F	G	Е
			150			1,7 Kg	146	205		88,9	60,3				
1/2" (DN 15) — 3/4" (DN 20) —		RF	300			1,8 Kg	450					15,9	1,6	35	
	4 (011 (17))		600			1,9 Kg	153	212		95,2	66,7			1	
	1/2" (DN 15)		900			2,5 Kg	180	238		120,6	82,5		6,4	60,3	R
	RJ	1500			2,5 Kg	180	238		120,6	82,5	22,2	6,4	60,3	K	
		2500			3,5 Kg	192	251	40	133,3	88,9			65,1	R	
		150			2 Kg	155	215	ę	96,4	69,8	15,9	1.6			
		RF	300			2,8 Kg	175	235		117,5	82,5	19	1,0	42,9	
	3/4" (DN 20)		600			2,0 119	175	200		117,5	02,5	13			
	3/4 (BIV 20)		900			3,3 Kg	188	248		130,2	88.9		6.4	66.7	F
		RJ	1500				100			· ·	,-	22,2	0,4	00,7	
			2500		NPT-F 1/4" NPT-F	4 Kg	198	258	41,7	139,7	95,2			73	ı
			150			2,5 Kg	165	225		107,9	79,4	15,9	1.6		
		RF	300			3,1 Kg	182	241	40 123,8	123.8	88,9	19	.,0	50,8	
TEE BAR	1" (DN 25)		600	1/2" NPT-F		3,2 Kg				,.					
	(=::==,	RJ RF	900			4,3 Kg	207	268		149.2	101,6		6,4	71,4	
			1500			, 0	-			·	· ·	25,4		,	
			2500			5,6 Kg	217	276	44	158,7	107,9			82,5	ı
			150			3,4 Kg	185	245		127	98,4	15,9	1,6		_
			300		4,8 Kg	214	274	40	155,6	114,3	22,4	,-	73		
	1"-1/2 (DN 40)		600			4,9 Kg				,	ŕ	,			
	, ,		900			6,5 Kg	237	297	41,7	177,8	123,8	28,6	6,4	92,1	F
		RJ	1500	-											١.
			2500	-		11,3 Kg	262	322	49,4	203,2	146	31,7	7,9	114,3	F
		RF	150	-		4,8 Kg	211	270	40	152,4	120,6	40	1,6	00	
		KF	300** 600**			5,4 Kg	224	235	40	165,1	127	19	C 4	92	
2	2" (DN 50)		900**										6,4		\vdash
	2 (51430)	DІ	1500**			11,5 Kg	275	271	48,1 215,9	215,9	165,1	25,4	7.9	123,8	ı
		RJ	2500**			16,8 Kg	295	284	55.8	234.9	171.4	28.6	7,9	133.3	-

^{*}In models with primary isolate O.S. & Y. dimension "A" increases by approximately 14mm

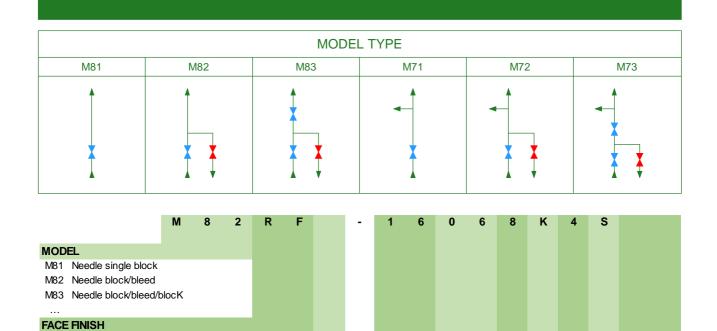
WWW.ITE-SRL.COM | 13 M83 MODEL



^{**}In the models marked the number of holes "H" is 8x

^{***}Weights are theoretical and based on AISI 316 material

MONOFLANGE (ASME SERIES) - HOW TO ORDER



RJ	Ring Joint
PRIM	ARY ISOLATE

Screw ed bonnet

RF Raised face (Smooth finish)

Y Outside Screw & Yoke bolted bonnet

DN FLANGE

8	1/2"	(DN 15)	24	1-1/	/2" (DN 40)
12	3/4"	(DN 20)	32	2"	(DN 50)

16 1" (DN 25)

CLASS

01 Ansi 150 09 Ansi 900 03 Ansi 300 15 Ansi 1500 06 Ansi 600 25 Ansi 2500

OUT

8 1/2"

12 3/4"

X Wafer style (VO same flange)

THREAD

N NPT R BSPP GAS (EN 837-1) - Gauge connection

DRAIN

4 1/4" NPT

8 1/2" NPT

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

OPTIONS

B All component 316L TI Isolate Anti-tamper

C Special testing K Padlock for all anti tamper bonnet

L Lox cleaning T Mounted plug drain TD Vent Anti-tamper TT All bonnet Anti-tamper

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

FOR API OR EN FLANGE MODEL, PLEASE CONTACT ITE SALES OFFICE



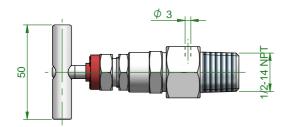
VBP / VBPT - VENT VALVE



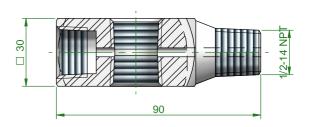


ACCESSORIES

VBV - ADJUSTABLE VENT VALVE



VBT - BAR STOCK BLEED TEE



HOW TO ORDER

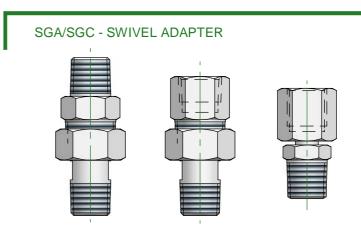
		٧	B V	-	0	6	S	T	4
MOD	EL								
VBT	Bar stock bleed TEE								
VBV	Adjustable VENT va	lve							
	Vent valve								
VBV	Vent valve								
RATI	NG								
06	Series 6.000 PSI								
10	Series 10.000 PSI								
MAT	ERIAL								
S	Aisi 316L	F	Alloy 400						
Α	A105	G	Alloy C276						
D	Duplex F51	Н	6 Mo/F44						
Ε	Superduplex F55	1	Alloy 625						
PACI	KING (VBV ONLY)								
Т	PTFE								
G	Graphoil								
CON	NECTIONS								
4	1/4"								
6	3/8"								
8	1/2"								
THRE	EAD								
/	NPT								

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

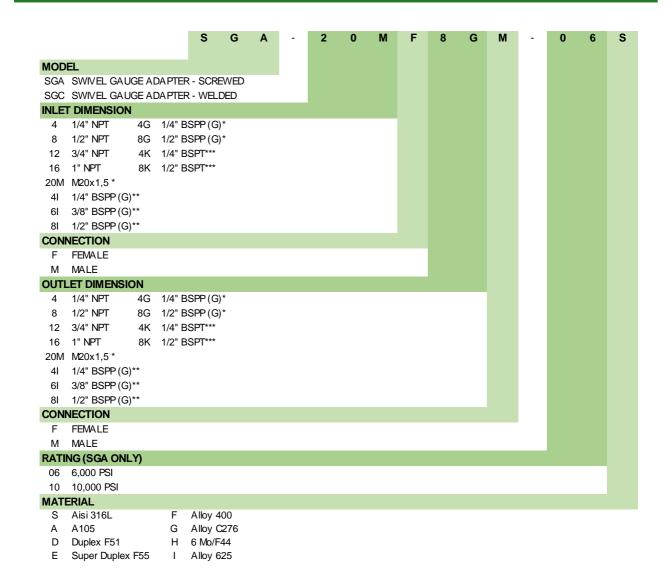
Attention - Above guideline shows all possible product configuration. Tailor-made solutions must be evaluated and approved by ITE technical dept before accepting and processing your



ACCESSORIES



HOW TO ORDER



* EN 837-1 DESIGN

** ISO 1179 DESIGN ("MA" ONLY)

*** ISO 7/1

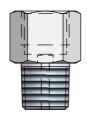
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GA - GAUGE ADAPTERS EN 837-1

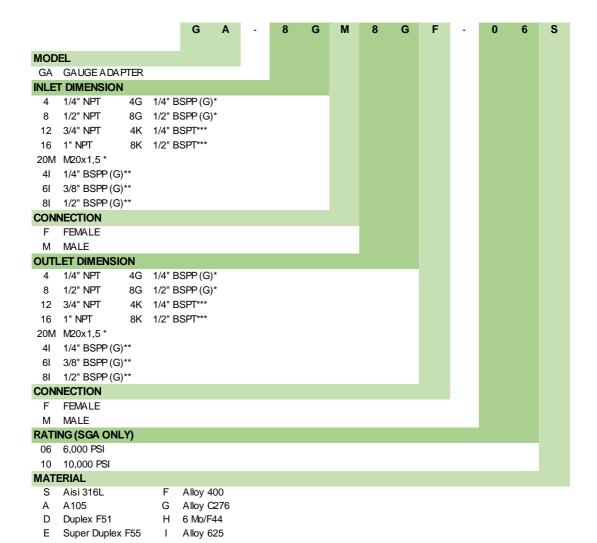






ACCESSORIES

HOW TO ORDER



* 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



ACCESSORIES



HOW TO ORDER

		8	Р	Н	-	0	6	S	
CON	NECTIONS								
2	1/8" 8	1/2"							
4	1/4" 12	3/4"							
6	3/8" 16	1"							
MOD	EL								
PH	HEX MALE PLUG								
RATI	NG								
06	Series 6.000 PSI								
10	Series 10.000 PSI								
MAT	ERIAL								
S	Aisi 316L	F	Alloy 400)					
Α	A105	G	Alloy C2	76					
D	Duplex F51	Н	6 Mo/F44	1					
Ε	Super Duplex F55	- 1	Alloy 625	5					
THRE	EAD								

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

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



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