



TECHNICAL BULLETIN

Audco Ball Valve

Full Bore Firesafe Flanged Ball Valves 519 / 529 Series



With the Series 519/529 designed to BS EN ISO 17292 / API 6D, AUDCO brings to the market a full bore valve which combines low cost of ownership and long service life with high operational safety and a range of tech sets the standards for others to follow.

What remains unchanged however is Audco's quality and service support. All of this is the result of following one simple strategy - to listen and respond to the needs of our customers.

519/529 Valve Assembly

Anti-blowout stem - Inserted from inside of valve body for greater safety

Actuator mounting - Conforms to ISO 5211 for ease of actuation

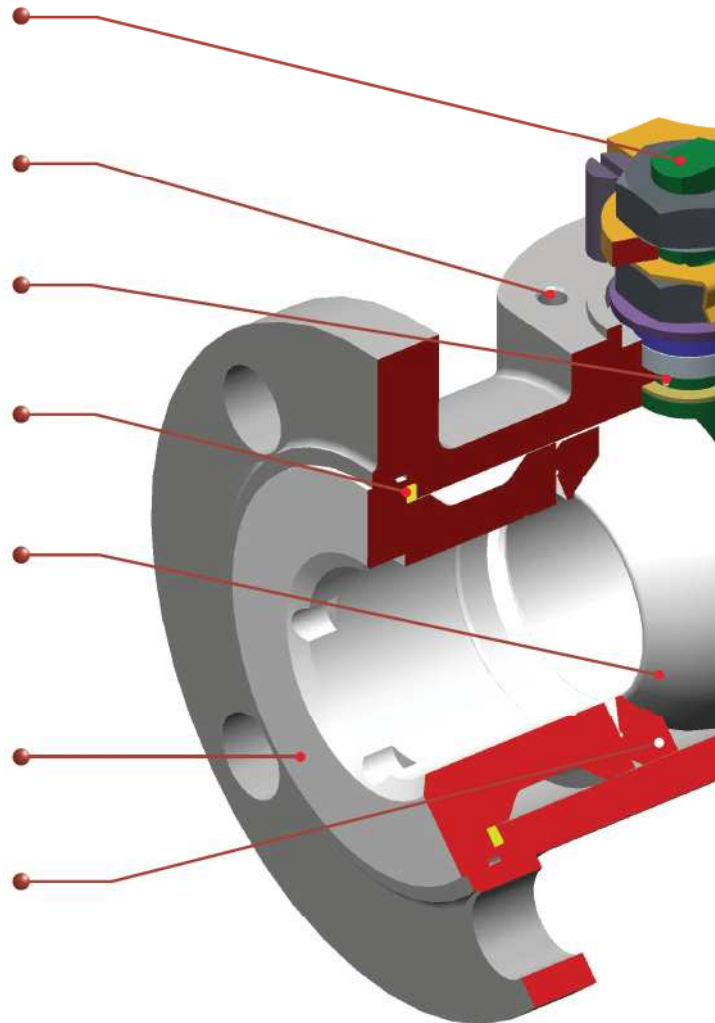
Anti-static stem - Ensures electrical continuity between ball and body

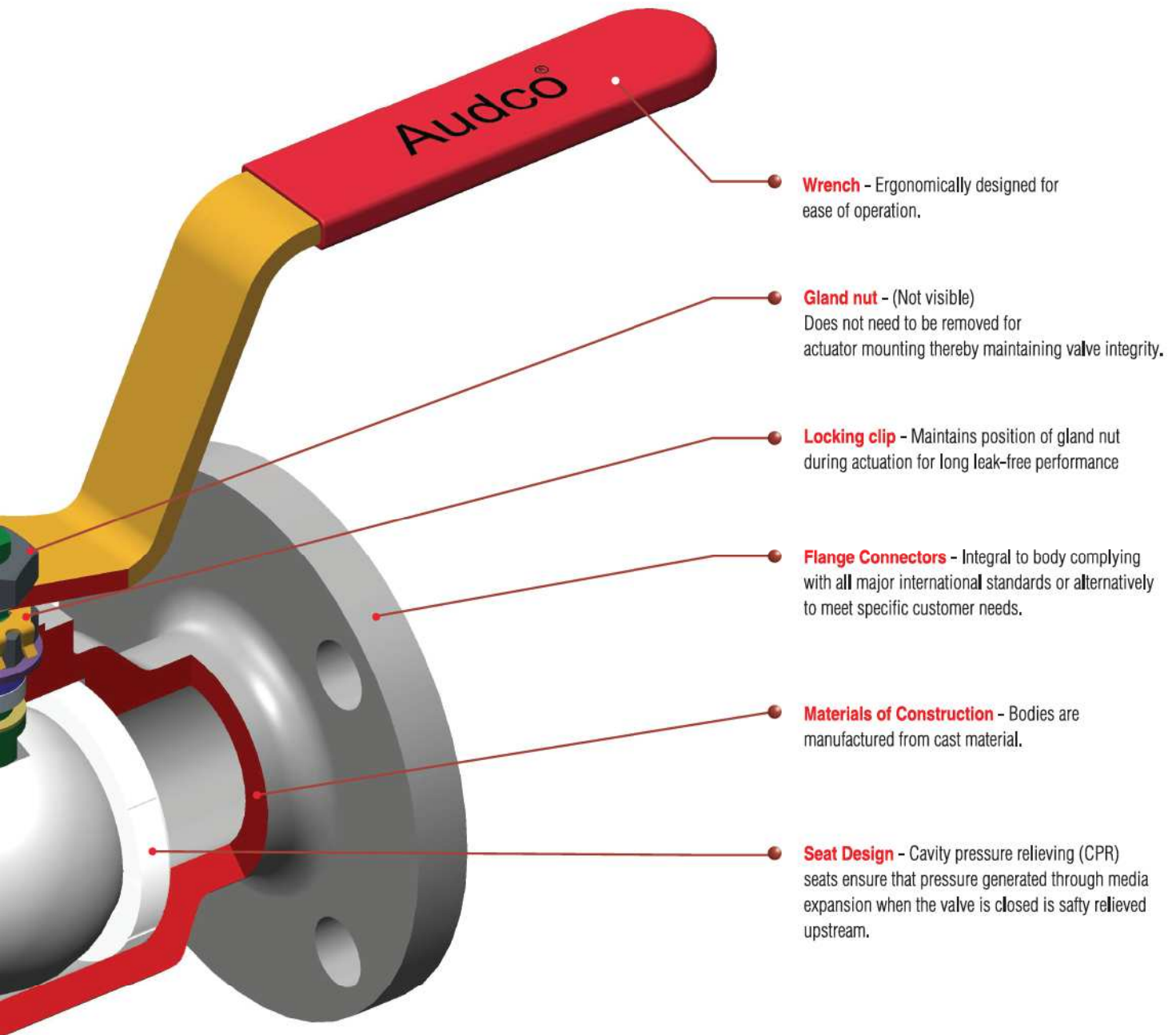
Body seals - PTFE as standard with firesafe integrity maintained with metal to metal secondary seal.

Ball - 316 stainless steel as standard with pressure equalising hole to balance cavity pressure with line pressure when valve is open. Parallel ported ball maximises flow and minimises pressure drop

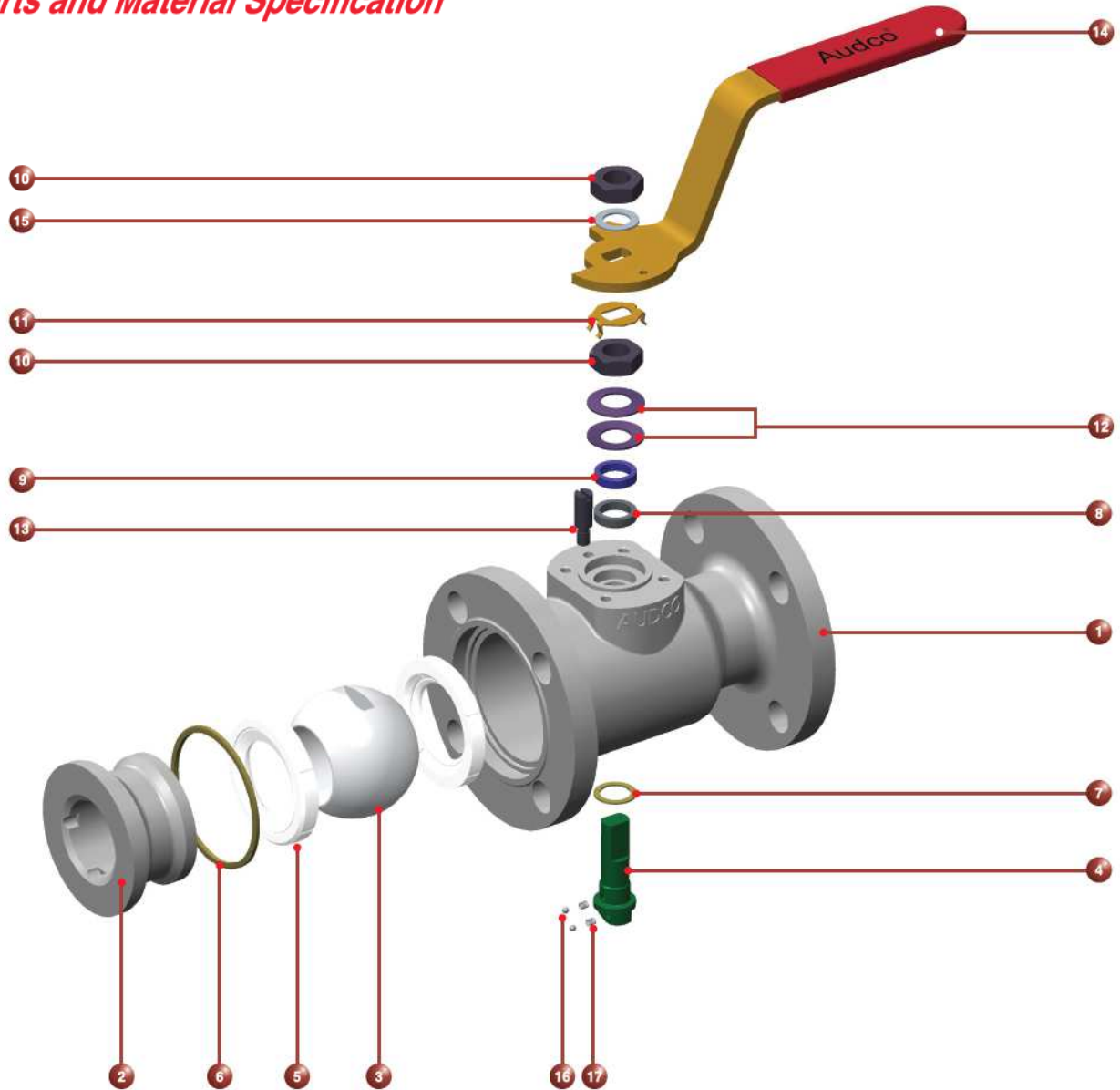
Insert - Screwed insert designed to withstand full line differential pressure.

Seats - Wide range of seat materials to suit customer applications.





Parts and Material Specification



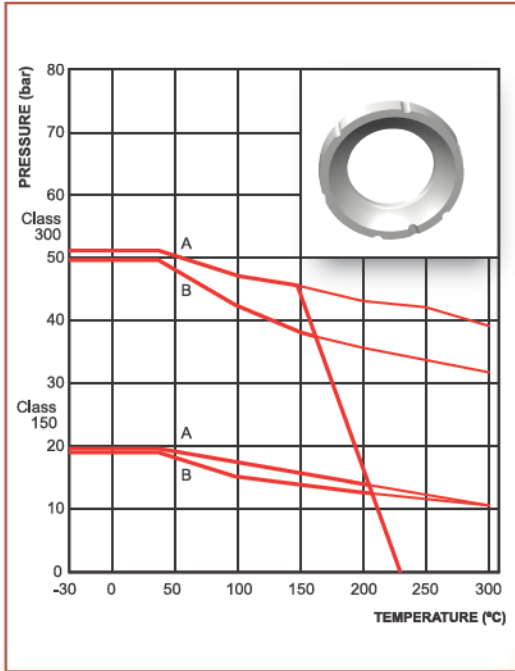
ITEM	DESCRIPTION	MATERIAL	ITEM	DESCRIPTION	MATERIAL
1	Body	Stainless Steel ASTM A351 CF8M Carbon Steel ASTM A216 WCB	10	Gland / Wrench Nut	Zinc plated Carbon Steel / Stainless Steel
2	Insert	Stainless Steel ASTM A351 CF8M Carbon Steel ASTM A216 WCB	11*	Gland Nut Locking Clip	Carbon Steel Rustproofed
3	Ball	Stainless Steel ASTM A351 CF8M/316	12*	Disc Spring	Stainless Steel
4	Stem	Stainless Steel 316	13	Stop Pin	Stainless Steel / Carbon Steel
5*	Seat Ring	PTFE Virgin, PTFE 25% glass filled, Fluorofill, PEEK, metal or other options	14	Wrench	Stainless Steel / Carbon Steel / Rustproofed
6*	Body Seal	Virgin PTFE	15	Spring Washer	Stainless Steel
7*	Stem Thrust Seal	PTFE 25% glass filled	16	Anti-static Plunger	Stainless Steel
8*	Gland Packing	Flexible Graphite	17	Anti-static Spring	Stainless Steel
9	Gland	Stainless Steel		Identification Plate	Stainless Steel

* Items marked thus denote component supplied in repair kit

Pressure/Temperature Ratings

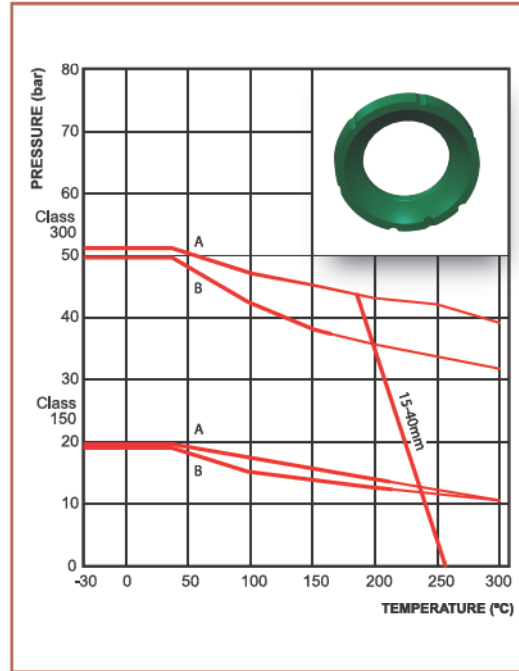
PTFE

Virgin PTFE is the most common sealing material and is suitable for almost all media as it has excellent chemical resistance.



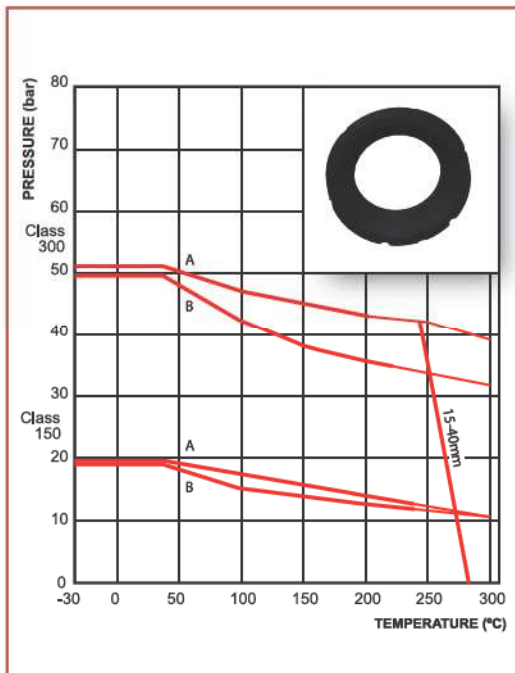
25% GLASS FILLED PTFE

Glass re-inforced PTFE material offering a greater pressure / temperature capability.



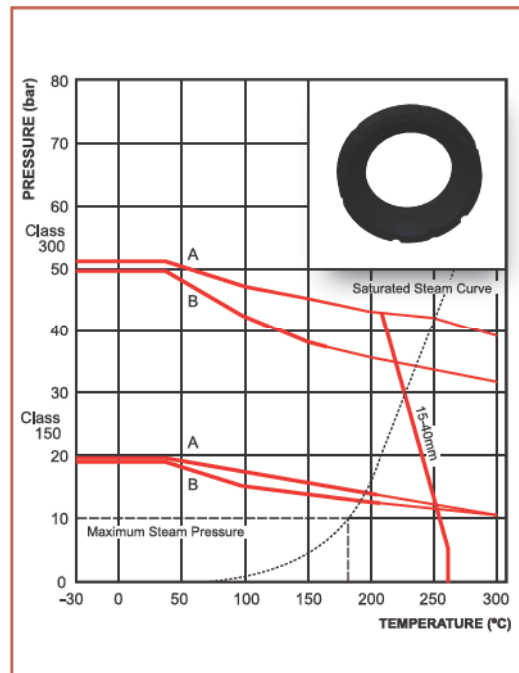
PEEK

PEEK is PolyEther Ether Ketone, a material which demonstrates outstanding pressure capabilities at elevated temperatures. PEEK has excellent chemical and abrasion resistance.



POLYFILL

Carbon, glass and graphite filled PTFE material, an excellent seat material for steam and thermal services. Due to its high cycling capabilities, it is the recommended soft seat for modulating control applications.

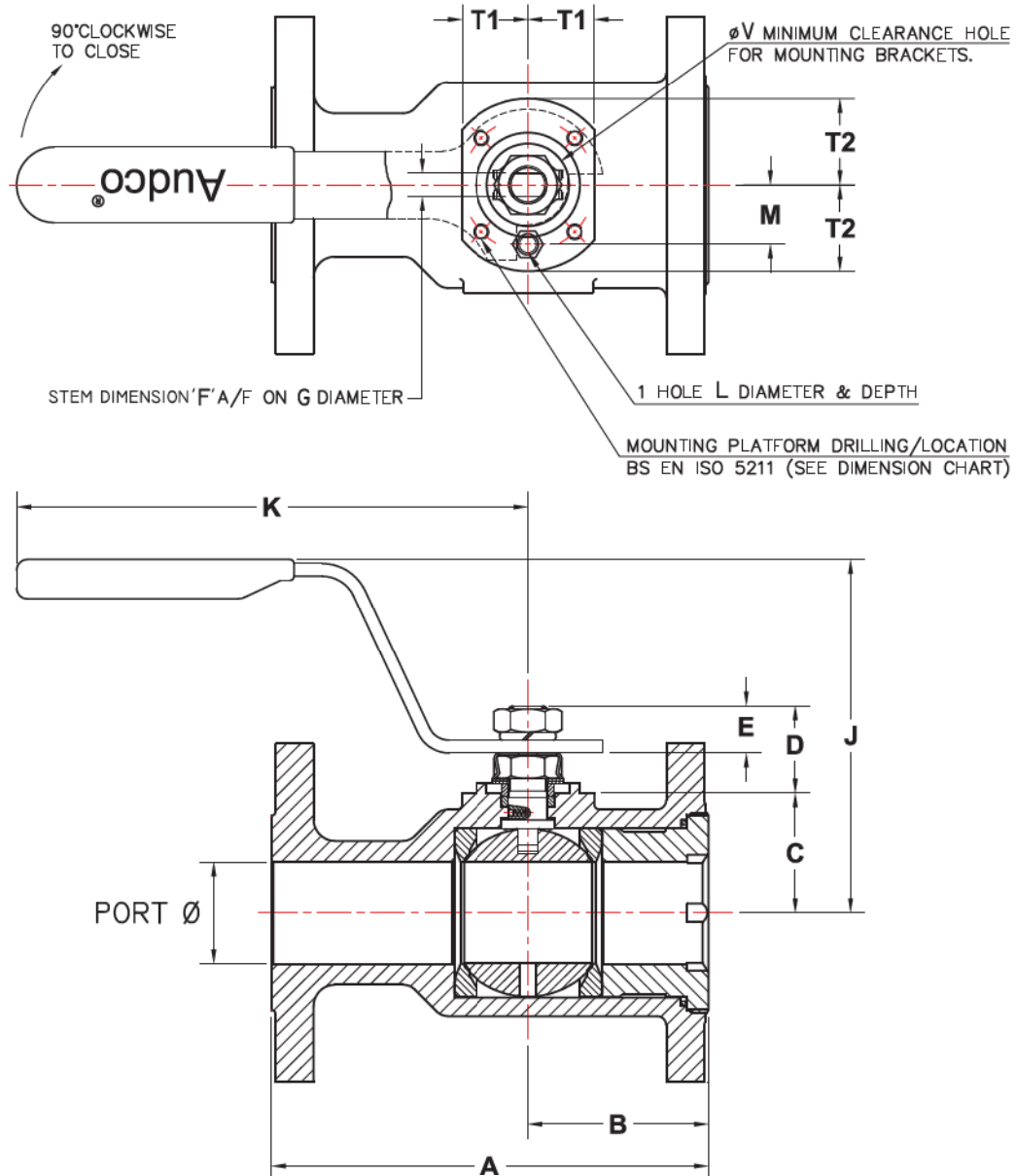


A = Carbon Steel Body Rating, B = Stainless Steel Body Rating (in accordance with ASME B 16.34)

General Assembly

519 series - Full bore class 150

529 series - Full bore class 300



Valve Dimensions (mm)

VALVE SIZE	PORT Ø MIN.	A		B	C	D	E	STEM		J	K	L THREAD & DEPTH	M	T1	T2	V	MOUNTING PLATFORM (ISO 5211)		APPROX. WEIGHT (kg)		
		519	529					F A/F	G THREAD								ISO SIZE	MOUNTING HOLES	PLATFORM RECESS	519	529
15	13.7	108.0	140.0	52.5	23.27 23.01	17.56 16.86	10.69 10.19	5.54 5.46	3/8"-24 UNF	100.3	155.0	M5 x0.8p 6.0 MIN.	15.9	19.0	23.0	19.5	F03	4 OFF M5 x0.8p x8.0 DEEP MIN ON 36.0 P.C.D.	Ø 25.15 / 25.02 x2.36 / 1.73 DEEP	1.8	2.2
20	20.0	117.0	152.0	57.0	32.34 32.08	23.76 22.92	15.19 14.69	7.54 7.47	7/16"-20 UNF	112.8	168.0	M8 x1.25p 9.7 MIN.	20.65	22.0	27.0	22.5	F04	4 OFF M5 x0.8p x8.0 DEEP MIN ON 42.0 P.C.D.	Ø 30.15 / 30.02 x4.28 / 3.50 DEEP	2.4	3.5
25	25.4	127.0	165.0	63.0	37.11 36.85	23.74 22.90	15.19 14.69	7.54 7.47	7/16"-20 UNF	117.6	168.0	M8 x1.25p 9.7 MIN.	20.65	22.0	27.0	22.5	F04	4 OFF M5 x0.8p x8.0 DEEP MIN ON 42.0 P.C.D.	Ø 30.15 / 30.02 x4.28 / 3.50 DEEP	3.2	4.6
40	38.1	165.0	190.0	68.0	48.76 48.50	29.55 28.71	18.39 17.89	8.71 8.64	9/16"-18 UNF	131.0	193.0	M8 x1.25p 9.7 MIN.	22.25	25.0	32.5	28.5	F05	4 OFF M6 x1.0p x10.0 DEEP MIN ON 50.0 P.C.D.	Ø 30.15 / 30.02 x4.03 / 3.26 DEEP	5.8	8.6

How to Order

Valve Size	Operator	Bore	Product series	Body / Insert	Ball & Stem	Seats	Body Seal	Ends
05 - DN15	L - Lever / Wrench	F - Full bore	519	4 - Carbon steel	4 - Carbon steel	T - PTFE	T - PTFE	F1 - ASME B16.5 CL.150
07 - DN20	G - Gear		529	6 - 316 S.S	6 - 316 S.S	R - RPTFE	G - Graphite	F2 - ASME B16.5 CL.300
10 - DN25	B - Bare stem for actuation					P - Polyfill		
15 - DN40	A - Actuator							

For any other additional requirement please specify.

Ordering Example:

A valve size DN25 Series 519 with Cast steel body and Insert, 316 ball and stem, PTFE seats and seals with flanged ends class 150 Lever operated. The catalogue numbering shall be “10LF-51946TT-F1”

Flow Coefficients

Valve Size		Model	Flow Coefficients	
mm	in		Cv	Kv
15	½	519/529	32	27
20	¾	519/529	54	46
25	1	519/529	94	80
40	1½	519/529	254	219

Cv – Flow in US GPM Pressure - psi
Kv – Flow in m³/hr Pressure - bar

Standards of Compliance

Valve Specification	BS EN ISO 17292, API 6D
Flanges 519	ASME B16.5 Class 150
Flanges 529	ASME B16.5 Class 300
Face to Face Lengths	ASME B16. 10
Pressure Test Specification	BS EN 12266 Part 1
Firesafe Specification	API 607
Sour Gas Applications	NACE MR0175/ISO 15156

Notes

1. When wrench not fitted, flats on stem when parallel to pipeline axis denote open position.
2. Installation, Operating and Maintenance instructions are supplied with product and also available on request.