

COMPANY PROFILE

DAFRAM S.p.A., founded in 1956, was the first company to manufacture ball valves in Italy. The experience and recognition gathered during its long activity ensures that DAFRAM is one of the most famous and competitive companies all over the world producing ball valves. DAFRAM's commercial (sales) and administrative offices are based in Milan, Viale Monte Nero n.17, CAP 20135.

The workshop, quality assurance system and laboratories, procurement and technical offices are all located in the same industrial complex in Urbisaglia (Macerata), the centre of Italy. The plant is based on an industrial estate of 25.000 m2; 10.000 m2 of which are covered surface. The workshop consists of an extremely modern workshop and testing centre with technical and engineering offices located on site. The manufacturing process is continually improved and renewed with the most advanced manufacturing technologies, such as: multi-function machining centres and innovative testing equipment for standard pressure tests and for low emission helium tests. Special testing centres are used for testing of all production and specifically for valves in high pressure and big size executions.



DAFRAM fire-The right high performa applic

DAFRAM S.p.A. is a specialised ball valves for Chemical. Power Generation, OFF with extensive experience in the



PRODUCTS AND SERVICES

The range consists exclusively of TOP QUALITY BALL VALVES for high performance and critical applications in FLOATING, TRUNNION MOUNTED and special configurations, size 1/4" to 36", 150lbs to 2500lbs, PN10 to PN400, FULL and REDUCED bore, in Carbon Steel, Stainless Steel, Nickel and exotic alloys, for the following services: Chemical, Petrochemical, Refining, Pharmaceutical, Food industry, Power and cogeneration plants, Desalting units, Pulp and Paper industry, Ship building (Chemical, LPG, LNG - DNV, ABS approved), ON-shore & OFF-shore OIL and GAS production, ON-shore OIL and GAS pipelines, OIL and GAS storage, Transportation and Gathering Systems, Gas re-injection plants, Gas treat ment plants, LPG and LNG production storage and transportation. Special products covering the entire pressure range are available for use in special services, such as: BALL VALVES with PTFE STEM PACKING for AGGRESSIVE.

- CHEMICAL SERVICE without O-RINGS in TA-LUFT and Fire Safe BS 6755 part 2 executions
- METAL SEATED ball valves for both ABRASIVE and HIGH TEMPERATURE
- CRYOGENIC ball valves with special STEM EXTENSION
- FULLY JACKETED ball valves with oversized flanges
- TOP ENTRY ball valves
- FULLY WELDED ball valves
- LOW EMISSION ball valves, TA-LUFT certified and HELIUM tested both to VACUUM and to SNIFFER methods





safe ball valves choice for nce and critical ations

manufacturer of High Performance Petrochemical, Oil & Gas, and ON-SHORE services most advanced sealing technologies







WORKSHOP

Because of continuous product development and modernisation, DAFRAM's workshop is constantly being renewed. It utilises the most advanced manufacturing technologies in valve component machining, drilling and testing.

Eleven modern, computer controlled lathes and seven machining centres ensure complete control over the entire manufacturing process.

Both vertical and horizontal testing machines, as well as two special machines which automatically detect the valves operating torques, allow DAFRAM's production to be 100% tested, controlled and certified before leaving our plant.

Standard testing for every valve is performed according to BS 6755 part 1 (floating ball valves), API 6D (TRUNNION mounted ball valves) and API 598. Other testing specifications or procedures may be followed upon customer request.

The castings used by DAFRAM are produced in sand and with a sophisticated moulding method by an innovative Italian foundry. The "Moulding System Method" used by the foundry, based on a special ceramic process (REPLICAST®,), allows DAFRAM to supply high quality cast valves with excellent surface finishing.

All most important Non Destructive Tests like X-RAYS, Ferrite Content Examination, Magnetic Particles Inspections, DPE & PMI, Corrosion Tests are available upon request.



QUALITY SYSTEM

DAFRAM Quality system is covered by the following certificates:

- ISO 9001:94 by RINA, cert. N. 4/89
- API Spec. Q1

DAFRAM design and production processes are covered by the following certificates:

- API 6D, License N. 0265
- PED 97/23/EC by Bureau Veritas, cert. N. CE-PED-H-DAF001-01-ITA
- AD-MERKBLATT W0 / TRD 100 / HP 0 by TÜV, cert. N. 112309
- TA-Luft by TÜV, cert. N. 922-960157

DAFRAM valves are pressure tested according to:

- API 6D
- API 598
- BS 6755 Part 1

and Fire Safe tested and certified according to:

- API 607 4th Edition
- BS 6755 Part 2







FLOATING BALL VALVES

ANSI EXECUTION												
TYPE	CLASS	BORE	CONSTR.									
150MC 150RC 150TC 150TM 300MC 300RC 300TM 600R	150lbs 150lbs 150lbs 150lbs 300lbs 300lbs 300lbs 600lbs	Reduced Reduced Full Reduced Reduced Full Reduced Full Reduced Full	1pc Insert Body 2pcs Split Body 2pcs Split Body 2pcs Split Body 1pc Insert body 2pcs Split Body									
900R 900T	900lbs 900lbs	Reduced Full	2pcs Split Body 2pcs Split Body									
1500R 1500T 2500R	1500lbs 1500lbs 2500lbs	Reduced Full Reduced	2pcs Split Body 2pcs Split Body 2pcs Split Body									
2500T	2500lbs	Full	2pcs Split Body									

DIN EXECUTION

TYPE	CLASS	BORE	CONSTR.
16R 16TE 16TL 16VK 16VL 40R 40ME 40TE 40TL 40VK	PN16 PN16 PN16 PN16 PN16 PN40 PN40 PN40 PN40 PN40 PN40 PN40	Reduced Full Full Full Reduced Full Full Full Full Full Full Full Ful	1pc Insert Body 2pcs Split Body 2pcs Split Body 2pcs Split Body 2pcs Split Body 1pc Insert Body 1pc Insert Body 2pcs Split Body

Other pressure classes from PN10 to PN400 available upon request

SPECIAL EXECUTION

TYPE	CLASS	BORE	CONSTR.	NOTES									
THREE WAYS													
S3VP	150lbs	Full	SPLIT BODY	120° CONN									
S3VE	PN16	Full	SPLIT BODY	120° CONN									
S3VT	300lbs	Full	SPLIT BODY	120° CONN									
S3VLP	150lbs	Full	SPLIT BODY	90° CONN.									
S3VLE	PN16	Full	SPLIT BODY	90° CONN.									
S3VLT	300lbs	Full	SPLIT BODY	90° CONN.									

WAFER TYPE - SHORT PATTERN

	••••		0	
16STA	PN16	Full	1pc Insert Body	NOT FIRE SAFE
40STA	PN40	Full	1pc Insert Body	NOT FIRE SAFE
150STA	150lbs	Full	1pc Insert Body	NOT FIRE SAFE
300STA	300lbs	Full	1pc Insert Body	NOT FIRE SAFE
16WT	PN16	Full	1pc Insert Body	FIRE SAFE
40WT	PN40	Full	1pc Insert Body	FIRE SAFE

VALVES with NIPPLED AND THREADED ENDS

DAFRAM's NIPPLED AND THREADED ENDS ball valves figures are defined by the

FIGURE	1st "field" 2nd "field" 3rd "field" 4th "field" 5th "field" 6th "field"	class bore ends optional optional	standard 800, 1500, 3000 F = Full / R = reduced BW, SW, PE, NPT, BSP, GAS 3P in case of three piece body CRYO = Cryogenic /// HT = High Temperature

i e Ball valve - cl. 800 - Full Bore - one end BW/one end NPT female = D800-F-BW/NPT (if 3 pcs body = D800-F-BW/NPT-3P)



according to BS535 (API-6D and B16.34 available upon request), and supplied complete of UNI/EN 10204 3.1B certificates showing the materials mechanical and chemical properties plus the pressure tests and any other special tests performed. Tests are carother special tests performed. Tests are car-ried out as standard to BS 6755 part 1 or ac-cording to other international rules upon specific request by the user. All valves are equipped with antistatic device, anti blow-out stem, flanged ends ANIS IB16.5 or DIN with different finish: RF, RFS, RTJ or with special fin-ish BW, PE, SW, HUB. Most of the valves are with standard ISO 5211 TOP FLANGE to ensure easy mounting of any actuation system and Fire Safe Certified executions to BS 6755 part rile sale cetilide executions to as orso spiral 2 and API 607 4th Edition are available for all valves' types; TA-LUFT low emission certifi-cates are available for most common types and executions. Special accessories may be installed on the whole range, such as: Gearboxes, Actuators, Chain Wheels, Locking Devices, Stem extensions for insulation, cryogenic and high temperature service, limit switches, pup pieces, heating jackets.

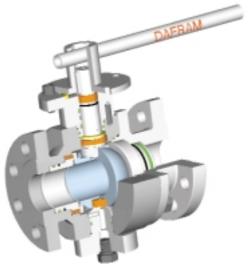
FAC	FACE TO FACE/END TO END - (mm)												ing jackets.	
INCHES	1/2"	3/4"	1"	1.1/4"	1.1/2"	2"	2.1/2"	3"	4"	5"	6"	8″	10"	12"
mm	15	20	25	32	40	50	65	80	100	125	150	200	250	300
							ANSI BAI	L VALVES						
150MC	108	117	127	140	165	178	191	203	229	254	267	292	330	356
150RC					165	178	191	203	229	254	267	292	330	610
150TC						178	191	203	229					
150TM	108	117	127	140	165	203	222	241	305	356	394	457	533	610
300MC	140	152	165		190	216	241	283	305	381	403	419	457	502
300RC	140	152.5	1/5		190	216	241	283	305	381	403	419	457	502
300TM 600R	140	152,5	165		241	<u>216</u> 292	<u>241</u> 330	<u>283</u> 356	<u>305</u> 432		403 559	502 660	568	648
600T	165	190	216		241	292	330	356	432		559	000		
900R-RF			210		305	368			102		337			
900R-RJ					305	371								
900T-RF	216	229	254	280	305	368								
900T-RJ	216	229	254	280	305	371								
1500R-RF					305	368								
1500R-RJ					305	371								
1500T-RF	216	229	254	280	305	368								
1500T-RJ 2500R-RF	216	229	254	280	305 384	371								
2500R-RJ					384	<u>451</u> 454								
2500K-K5 2500T-RF					384	451								
2500T-RJ	264	273	308		384	431								
150STA	35	39	45	50	60	72	95	116	140		210			
300STA	35	39	45	50	60	72	95	116	140		210			
			•					LVALVES						
16R	115	120	125	130	140	150	170	180	190	325	350	400	450	
16TE	115	120	125	100	140	150	170	180	190	325	350	400	450	
16TL 16VK	130 115	150 120	<u>160</u> 125	180 130	200 140	230 150	<u>290</u> 170	<u>310</u> 180	350 190	400	480	600	730	
16VL	130	150	160	180	200	230	290	310	350					
40R	115	120	125	130	140	150	170	180	190	325	350	400	450	
40ME	115	120	125	130									100	
40TE	115	120	125		140	150	170	180	190	325	350	400	450	
40TL	130	150	160	180	200	230	290	310	350	400	480	600	730	
40VK	115	120	125	130	140	150	170	180	190					
40VL	130	150	160	180	200	230	290	310	350					
16STA	35	39	45	50	60	72	95	116	140					
40STA	35	39	45	50	60	72	95	116	140		224	210		
16WT 40WT	41	42	50	52	67	80	100	125	155	200	234	310		
40001	41	42		52	0/	80	3-WAY BA	II VAIVES						
S3VP-E (*)	90	90	90	95	111	120	140	150	165	180	215	248	310	
S3VT (*)	90	100	102		125	135	170	178,5	194,5		236	315		
S3VLP-E (**)	122-100	122-100	122-100		169-155	160-160	175-175	195-195	215-215	245-245	285-285	335-335	405-405	
S3VLT (**)	122-100	132-100	132-106		180-150	180-170	220-200	230-230	265-265		315-315	405-370		
							ID THREAD	ED ENDS E	ALL VALVE	S				
D60N (***)	75	85	95	110	120	135								
D80N(***)	65	75	85	105	120	130								
GEAR oper	stor ic cuana	tod for those	diamotors											

GEAR operator is suggested for these diameters

(*) THE VALUE GIVEN IS: DISTANCE BETWEEN CENTER VALVE AND BODY CONNECTOR FLANGE

^(**) THE VALUES GIVEN ARE: DISTANCE BETWEEN ALIGNED FLANGES / ALIGNED FLANGED AXIS AND LATERAL BODY FLANGE
(***) THE FACE TO FACE OF NPT VALVES IS INDICATIVE ONLY. IN CASE OF NIPPLED ENDS THESE VALVES ARE SUPPLIED WITH NIPPLES 100mm LONG









METAL SEATED BALL VALVES for: HIGH TEMPERATURE SERVICE

The DAFRAM ball valve range (cl. 150lbs to 2500lbs / PN10 to PN400 - from 1/4" to 36") is available in METAL to METAL seated design for HIGH TEMPERATURE SERVICE up to +400°C, equipped with specially designed stem extensions in FLOATING BALL and TRUNNION MOUNTED execution. Basic standards are: API, ANSI, DIN

Depending on the service required, different surface treatments are available on ball and seat rings, such as: Tungsten Carbide Coating (WC) and Chromium Carbide Coating (CrC).

Different materials are available to suit the most common applications.

DAFRAM has conducted laboratory tests at high temperature on different prototypes.

DAFRAM laboratories are equipped to test the valves with gas at the temperature and pressure of the actual service conditions. Cycling tests as well as leakage tests to the environment or through the seats may be performed, upon request, with gas at high pressure and high temperature conditions.

METAL SEATED BALL VALVES for: ABRASIVE SERVICE

The DAFRAM ball valve range (cl. 150lbs to 2500lbs / PN10 to PN400 - from 1/4" to 36") is available in METAL to METAL seated design for ABRASIVE SERVICE in FLOATING BALL and TRUNNION MOUNTED execution.

Basic standards are: API, ANSI, DIN

Depending on service conditions required different surface treatments are available on ball and seat rings, such as: Tungsten Carbide Coating (WC) and Chromium Carbide Coating (CrC) while a special hardening process (DAFRADUR) has been specially developed for abrasive conditions.

Different materials are available to suit the most applications.

CRYOGENIC BALL VALVES

The DAFRAM ball valve range (cl. 150lbs to 2500lbs / PN10 to PN400 - from 1/4" to 36") is available in special design for CRYOGENIC use for service temperatures from -196°C up to 150°C, in FLOATING BALL and TRUNNION MOUNTED, Double Block and Bleed, with SELF RELIEVING facility for normal uses and for dangerous expanding fluids (LPG). Basic standards are: API, ANSI, DIN

Depending on the service conditions and on the lowest working temperature DAFRAM's CRYOGENIC ball valves are assembled with special stem extensions (vapour space to SHELL 77/200) and in Fire Safe design. Different materials are available to suit the most common applications, such as:

ASTM A350 gr. LF2, ASTM A352 gr. LCC, ASTM A182 gr. F316(L), ASTM A351 gr. CF8M/CF3M

Special alloys are available upon specific request.

ACTUATED BALL VALVES

The DAFRAM ball valves are supplied with standard manual operators :

Levers / Hand Wheel Worm Gear Operators

All valves are designed with standard TOP FLANGE ISO 5211 for easy mounting of any of the most advanced remote actuating systems, such as :

- ELECTRIC MOTOR OPERATORS for MOV service,
- PNEUMATIC and HYDRAULIC Actuators for regular ON-OFF service or for continuous cyclina
- PNEUMATIC and HYDRAULIC Actuators for EMERGENCY SHUT DOWN (ESD) services

Specific manuals have been developed for the sizing of any actuation systems and special equipments are used for the detection of the valves torque upon delivery.

Assembling and functional pressure tests are carried out in DAFRAM's own testing workshop with the most advanced actuation and control facilities.

Special valves for UNDERGROUND SERVICE are manufactured by DAFRAM for GAS DISTRIBUTION services.

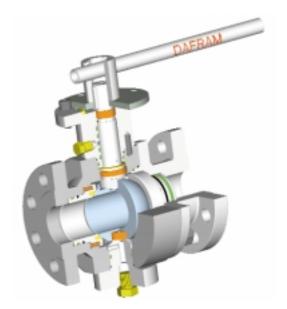
Depending on the specific case, DAFRAM's valves are designed acc. To API6D, BS5351, ASME B16.34 and UNI-CIG 9734 - D.M. 24/11/84, and

available with bolted, seal welded or fully welded bodies, Full and Reduced Bore, from 1" up to 36", body ratings 150lbs to 2500lbs / PN10 to PN400

All valves may be supplied for installation in pit or buried, Floating and Trunnion Mounted with BW ends according to ASME B16.25, anti blow out stem, antistatic device, equipped with stem extensions to the main international standards and rules. Special executions with welded on pipe nipples (pup pieces), special purging bleed connections and stem extensions of specific lengths are available upon request.

Trunnion Mounted Ball Valves are Double Block and Bleed to API-6D and with Self Relieving or Double Piston effect seats.

External surface protection for underground applications is generally given by Epoxidic Resin Coating with thickness 100µm to 1500µm. Other painting cycles may be performed upon request.



BALL VALVES for: FUGITIVE EMISSIONS

The DAFRAM ball valve range may be supplied with special stem extensions to reduce the fugitive emissions to the environment and equipped with stem leakage detection plugs.

Most of the standard valves are TA-LUFT certified while special executions may be tested and certified with Helium tests according to the following methods:

- Quantitative: VACUUM ASME V Art. 10 App. V par. 1062.2 (Hood Technique) for leakage of 1x10-6 mBar x L / sec. (this test is able to quantify the leak entity);
- Qualitative: SNIFFER METHOD ASME V Art. 10 Par. 1000 "Detector Probe Technique" - for leakage of 1 x 10-6 mBar x L / sec. (this test is able to verify if the sniffer detects a leak within its sensitivity range).
 Both tests are carried out at the DAFRAM quality laboratory by our Level 2, ASNT TC-1A: 2001 Qualified Inspectors.

TOP ENTRY BALL VALVES

Upon request DAFRAM can manufacture valves, Floating and Trunnion mounted, cl. 150lbs to 2500lbs / PN10 to PN400, Carbon Steel, Stainless Steel and Nickel alloys in TOP ENTRY design for easy maintenance on the internal components, without removing the valve from the line.



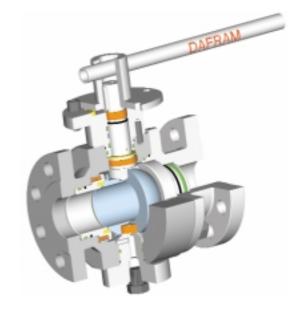
Part name	Standard Carbon Steel	Standard Low Temperature Carbon Steel	Standard Stainless Steel	Standard 22Cr Duplex and 25Cr Super Duplex Alloys	6Мо
ABBREVIATION	CS	LTCS	SS	DUP & S./DUP	SMO
BODY and CONNECTOR	ASTM A216 gr. WCB ASTM A105 - A105N	ASTM A352 gr. LCC ASTM A350 gr. LF2	ASTM A351 gr. CF8M ASTM A351 gr. CF3M ASTM A182 gr. F316 ASTM A182 gr. F316L	ASTM A890 gr. 4A ASTM A890 gr. 5A ASTM A182 gr. F51 ASTM A182 gr. F53 or F55	ASTM A351 CK3MCuN ASTM A182 gr. F44
BALL	ASIM A351 gr. CF8M / CF3M ASIM A216 gr. WCB + ENP ASIM A352 gr. LCC + ENP ASIM A182 gr. F316 / 316L ASIM A105 - A105N + ENP ASIM A350 gr. LF2 + ENP	ASTM A351 gr. CF8M / CF3M ASTM A352 gr. LCC + ENP ASTM A182 gr. F316 / 316L ASTM A350 gr. LF2 + ENP	ASTM A351 gr. CF8M / CF3M ASTM A890 gr. 5A ASTM A182 gr. F316 / 316L ASTM A182 gr. F51	ASTM A890 gr. 4A ASTM A890 gr. 5A ASTM A182 gr. F51 ASTM A182 gr. F53 or F55	ASTM A351 CK3MCuN ASTM A182 gr. F44
STEM	ASTM A182 gr. F316 / 316L ASTM A182 gr. F51 ASTM A105 - A105N + ENP ASTM A350 gr. LF2 + ENP ASTM A546 gr.630 (17-4-Ph) AISI 4140 + ENP	ASTM A182 gr. F316 / 316L ASTM A182 gr. F51 ASTM A350 gr. LF2 + ENP ASTM A546 gr.630 (17-4-Ph) AISI 4140 + ENP	ASTM A182 gr. F316 / 316L ASTM A182 gr. F51	ASTM A182 gr. F51 ASTM A182 gr. F53 or F55	ASTM A182 gr. F44
SEAT/INSERT		PTFE, PTFE+15%GF, PTFE+25%GF, PT	FE+50%SS, PTFE+20%Carbon+5%	Grafite, NYLON, PEEK, KEL-F, VITON	
SPRINGS (Trunn.)			INCONEL X-750 - INCONEL 625		
FIRE SAFE SEALS			EXPANDED GRAPHITE		
BOLTS	ASTM A193 B7/ A194-2H ASTM A193 B7M/ A194-2HM	ASTM A320 L7/ A194 Gr.7 ASTM A320 L7M/ A194 Gr.7M	ASTM A193 B8/ A194-8 ASTM A193 B8M/ A194-8M ASTM A320 L7/ A194 Gr.7 HDG	ASTM A193 B8/ A194-8 ASTM A320 L7/ A194 Gr.7 HDG	ASTM A193 B8/ A194-8 ASTM A320 L7/ A194 Gr.7 HDG

TRUNNION MOUNTED BALL VALVES

DAFRAM's TRUNNION MOUNTED ball valves figures are defined by the following table:

DAFRAINIS IRUNNION INC	DUNIED ball valves ligures at	e delined by the following	д таріе:
FIRST AREA: BORE	SECOND AREA: CLASS	THIRD AREA: ENDS TYPE	FOURTH AREA: CONSTRUCTION
F = Full bore R = Reduced bore	1 = class 150lbs 3 = class 300lbs 6 = class 600lbs 9 = class 900lbs 15 = class 1500lbs 25 = class 2500lbs 16 = PN16 40 = PN40 64 = PN64 100 = PN100 400 = PN400	J = ANSI B16.5 - RJT F = ANSI B16.5 - RF H = HUB ENDS W = BUTT WELDING	S = 2 PIECES BODY, SIDE ENTRY, UP TO 4"FB AND 6"X4" RB (*) P = 3 PIECES BODY, SIDE ENTRY, FROM 6"FB AND 8"X6" RB AND ABOVE (*) TWO PIECES CONSTRUCTION (CODE "S") IS ALSO AVAILABLE FOR BIGGER SIZES IN CAST EXECUTION.
	TRUNNION MOUNTED, Class		

i.e a Full Bore ball valve, TRUNNION MOUNTED, Class 300lbs, B16.5 300RF ends, DN600 is : F3FP In case of TOP ENTRY TRUNNION MOUNTED ball valves the name is preceded by the letter T (i.e. TF3FP) In case of FULLY WELDED TRUNNION MOUNTED ball valves the name is preceded by the letter W (i.e. WF3FP)



FACE TO FACE/END TO END - (mm)

				•	•
2 DOS	inches	2" 2"x1/2"	3" 3"x2"	4" 4"x3"	6"x4"
2 PCS	mm	DN50 FB&RB	DN80 FB&RB	DN100 FB&RB	DN150 RB
150lbs	FIGURES				
J= RJT	F1JS, R1JS	191	216	241	406
F= RF	F1FS, R1FS	178	203	229	394
W= BW	F1WS, R1WS	216	283	305	457
300lbs	FIGURES				
J= RJT	F3JS, R3JS	232	298	321	419
F= RF	F3FS, R3FS	216	283	305	403
W= BW	F3WS, R3WS	216	283	305	457
600lbs	FIGURES				
J= RJT	F6JS, R6JS	295	359	435	562
F= RF	F6FS, R6FS	292	356	432	559_
W= BW	F6WS, R6WS	292	356	432	559_
900lbs	FIGURES				
J= RJT	F9JS, R9JS	371	384	460	613
F= RF	F9FS, R9FS	368	381	457	610_
W= BW	F9WS, R9WS	368	381	457	610_
1500lbs	FIGURES				
J= RJT	F15JS, R15JS	371	473	549	711_
F= RF	F15FS, R15FS	368	470	546	705_
W= BW	<u>F15WS</u> , R15WS	368	470	546	705_
2500lbs	FIGURES				
J= RJT	F25JS, R25JS	454	584	683	927_
F= RF	F25FS, R25FS	451	578	673	914
W= BW	F25WS, R25WS	451	578	673	914

DAFRAM TRUNNION mounted ball valves are built as standard in accordance with the design requirements of API 6D and, upon request, B16.34; both in two and three piece bolted construction.

Independent floating spring loaded seat rings are always in contact with the ball to provide an effective tight seal at low differential pressures.

At higher differential pressures, the upstream seat ring becomes pressure energised against the ball to ensure the seal, whilst the downstream seat remains spring loaded. The single sealing feature, standard on DAFRAM TRUNNION mounted ball valves, is ideal for block and bleed service to API 6D.

The valve body cavity can be vented to atmosphere through a bleed valve and completely drained by removing the drain plug with the ball in closed position, even when the line is pressurised. This feature also allows easy replacement of upper stem seal and the checking of the sealing of the seats, while the valve is installed in the pipeline.

The whole range may be supplied with two basic seating design criteria:

- SELF RELIEVING SEATS (standard) providing the self relieving of the body cavity overpressure
- DOUBLE PISTON EFFECT (upon request) providing a double barrier against the fluid. In this case when the upstream seat fails, the downstream seat ensures the seat tightness (the valve body is equipped with an automatic safety valve to release the body overpressures in case of expanding fluids).

 All valves meet the antistatic requirements of BS 5351. Positive anti blow-out stem design retained by

All valves meet the antistatic requirements of BS 5351. Positive anti blow-out stem design retained by the valve body on complete product range prevents the stem removal when valve is installed. The body and top flange joints incorporate double sealing components (secondary seal is made of expanded graphite) to ensure safe body sealing even in the event of a fire. All valves are tested to resist to fire exposure, with very low losses, in compliance and certified to BS 6755 part 2 and API 607 IV Ed.

Valves size 6" and above may be equipped with seat injection fittings to perform the emergency sealing by the injection of sealer the continue of the contribution of the contributio

Valves size 6" and above may be equipped with seat injection fittings to perform the emergency sealing by the injection of sealant through an orifice and special grooves of the seat ring into the seating area. Valves up to 4" can be equipped with a body cavity port through which the sealant spreads on the ball surface and then reaches the seat area when the ball rotates to close.

In all DAFRAM TRUNNION mounted ball valves the ball turns on two dry bushes to reduce the operating torque. These bushes are maintenance free, even under the most severe service conditions.

FACE TO FACE/END TO END - (mm)

	inches	6"	8" 8"x6"	10" 10"x8"	12" 12"x10"	14" 14"x10"	16" 16"x12"	18" 18"x16"	20" 20"x16"	24" 24"x20"	26" 26"x20"	28" 28"x24"	30" 30"x24"	32" 32"x28"	34" 34"x30"	36" 36"x30"
2/3 PCS		DNIAEO														
	mm	DN150 FB	DN200 FB&RB	DN250 FB&RB	DN300 FB&RB	DN350 FB&RB	DN400 FB&RB	DN450 FB&RB	DN500 FB&RB	DN600 FB&RB	DN650 FB&RB	DN700 FB&RB	DN750 FB&RB	DN800 FB&RB	DN850 FB&RB	DN900 FB&RB
		ГБ	ΓΒάκυ	ΓΒάκυ	ΓΒάκυ	ΓΒάκυ	Γυακυ	ΓΒάκυ	Γυακυ	Γυακυ	ΓΒάκυ	Γυακυ	FDAKD	rbarb	LDWKD	rdakb
150lbs	FIGURES															
J= RJT	F1JP, R1JP	406	470	546	622	698	775	876	927	1.080						
F= RF	F1FP, R1FP	394	457	533	610	686	762	864	914	1.067	1.143	1.244	1.295	1.371	1.473	1.524
W= BW	F1WP, R1WP	457	521	559	635	762	838	914	991	1.143	1.245	1.346	1.397	1.524	1.626	1.727
300lbs	FIGURES															
J= RJT	F3JP, R3JP	419	518	584	664	778	854	930	1.010	1.165	1.270	1.372	1.422	1.553	1.654	1.756
F= RF	F3FP, R3FP	403	502	568	648	762	838	914	991	1.143	1.245	1.346	1.397	1.524	1.626	1.727
W= BW	F3WP, R3WP	457	521	559	635	762	838	914	991	1.143	1.245	1.346	1.397	1.524	1.626	1.727
600lbs	FIGURES															
J= RJT	F6JP, R6JP	562	664	791	841	892	994	1.095	1.200	1.407	1.461	1.562	1.664	1.794	1.946	2.099
F= RF	F6FP, R6FP	559	660	787	838	889	991	1.092	1.194	1.397	1.448	1.549	1.651	1.778	1.930	2.083
W= BW	F6WP, R6WP	559	660	787	838	889	991	1.092	1.194	1.397	1.448	1.549	1.651	1.778	1.930	2.083
900lbs	FIGURES															
J= RJT	F9JP, R9JP	613	740	841	968	1.038	1.140	1.232	1.334	1.568						
F= RF	F9FP, R9FP	610	737	838	965	1.029	1.130	1.219	1.321	1.549						
W= BW	F9WP, R9WP	610	737	838	965	1.029	1.130	1.219	1.321	1.549						
1500lbs	FIGURES															
J= RJT	F15JP, R15JP	711	841	1.000	1.146	1.276	1.406	1.559	1.686	1.702						
F= RF	F15FP, R15FP	705	832	991	1.130	1.257	1.384	1.537	1.664	1.698						
W= BW	F15WP, R15WP	705	832	991	1.130	1.257	1.384	1.537	1.664	1.698						
2500lbs	FIGURES															
J= RJT	F25JP, R25JP	927	1.038	1.292	1.444	1.597										
F= RF	F25FP, R25FP	914	1.022	1.270	1.422	1.575										
W= BW	F25WP, R25WP	914	1.022	1.270	1.422	1.575										





MAIN REFERENCES

UNITED KINGDOM MILDENHALL

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