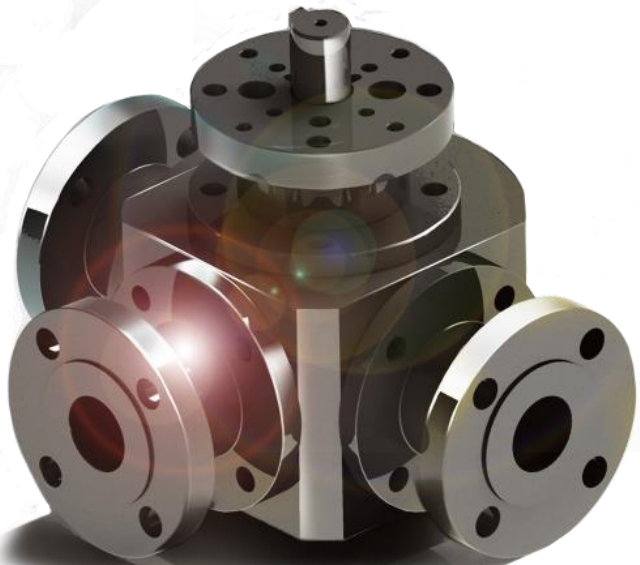


# EMMECI

## BALL VALVES



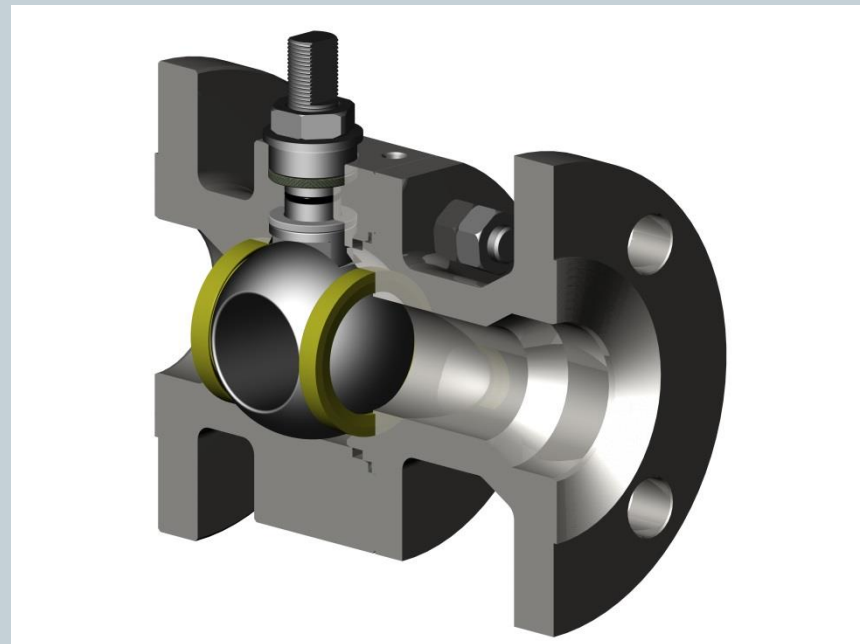
# PRODUCT BALL VALVE RANGE



- FB = Floating split body
- MB = Floating threaded body
- MK = Floating double block & bleed
- MKQ = Floating double block & bleed with Quill
- FJ = Floating with integral jacket
- SE = Trunnion side entry
- TW = Trunnion 3 way
- TB = Trunnion twin balls

# FB = Floating split body

- Two or three pieces body.
- Full and reduce bore.
- Valve according to BS 5351– ASME B16.34 - ASME VIII Div.1.
- Automatic self relieving seat design.
- Soft and metal seated version.
- Anti blow-out stem design system.
- Face to face according to ASME B16.10.
- Antistatic device according to BS 5351.
- Flanges according to ASME B16.5.
- BW ends in acc. to ASME B16.25.
- NPT ends in acc. to ASME B1.20.1.
- SW ends in acc. with ASME B16.11.
- Fire safe according to BS-6755 pt.2°/API6FA



EMMECI Valves can be furnish with manual operator : lever/hand wheel/gearbox/  
bare stem or complete with actuated operator.

# FB = Floating split body



## Elastomer seal design

PCS.	PART. NAME	MATERIAL
01	BODY	ASTM A350 LF2 CL.1
02	SEAT	PTFE
03	BALL	ASTM A479 Gr. 316+ENP
04	STEM	ASTM A479 Gr. 316
05	GLAND	ASTM A479 Gr. 316
06	FLANGE	ASTM A350 LF2 CL.1
10	LEVER	CS+ZINC PLATED
11	LOCKING DEVICE	CS+ZINC PLATED
12	LEVER STOP	CS
51	STUD	ASTM A320 L7M
52	NUT	ASTM A194 7M
53	LEVER NUT	CS
54	SCREW	CS
55	THRUST WASHER	PTFE
62	O-RING	HNBR AED
63	GASKET	GRAPHITE
65	SPRING WASHER	AISI 301
66	SPRING	AISI 301

**NOTE**

- Dimension in mm, weight in kg
- Valves according to BS 5351 - B16.34 - ASME VIII Div.1
- Flanges according to ASME B16.5
- Face to face according to API 6D - ASME B16.10
- Antistatic device according to BS. 5351
- Fire safe according to BS-6755 Pt.2\*/API6FA

ITEM:	QTY:	SIZE:	CLASS:	ENDS:	A	B	B1	C	D	Weight:
1	1	1"x3/4"	150	RF	127	19	25	84	185	4.5
2	2	2"x1-1/2"	150	RF	178	38	49	108	275	13

<b>EMMECI</b>	<b>VALNOR</b>	BALL VALVE
		SPLIT BODY FLOATING
R.N.	06.03.15	GENERAL ASSEMBLY
R.E.	06.03.15	
S.M.	06.03.15	
A3	-	

# FB = Floating split body

## Lip seal design

POS.	PART. NAME	MATERIAL	MDS	EDS
01	BODY	ASTM B381 Gr.2	T01	
02	SEAT	PTFE		NSS1
03	BALL	ASTM B381 Gr.5		
04	STEM	ASTM B381 Gr.5		
05	STEM COVER	ASTM B381 Gr.2		
06	FLANGE	ASTM B381 Gr.2		
10	LEVER	AISI 316		
11	LOCKING DEVICE	AISI 316		
12	LEVER STOP	AISI 316		
17	STEM LIP SEAL RING	ASTM B381 Gr.2		
51	STUD	ASTM A193 B7+HDG		NBO2
52	NUT	ASTM A194 2H+HDG		NBO2
53	LEVER NUT	AISI 316		
54	SCREW	AISI 316		
54.1	SCREW	ASTM A193 B7+HDG		
55	THRUST WASHER	PTFE		
56	BEARING	AISI 316+PTFE		NSM1
61	LIP SEAL	PTFE+ELGILOY		
63	GASKET	GRAPHITE		
64	GASKET SWT	AISI 316+GRAPHITE		
66	SPRING	INCONEL 625		

NOTE:

- Dimension in mm, weight in kg
- Valves according to BS 5351 - B16.34 - ASME VIII Div.1
- Flanges according to ASME B16.5
- Face to face according to API 6D - ASME B16.10
- Anti static device according to BS. 5351
- Fire safe according to BS-6755 Pt.2/API6FA
- Materials according to Norsok M650
- SPEC. BLAT10R

ITEM	QTY	SIZE	CLASS	ENDS	A	B	C	D	Weight	TOP FLANGE
1	20	1/2"	150	RF	108	13	77	185	3	F04
2	20	1"	150	RF	127	25	104	185	5	F04
3	10	1-1/2"	150	RF	165	38	124	275	12	F05
4	20	2"	150	RF	178	49	138	275	15	F05

<b>EMMECI</b>		<b>VALNOR</b>		BALL VALVE	
				SPLIT BODY - LIP SEAL	
				GENERAL ASSEMBLY	
R.N.					
R.S.		06.03.15			
S.M.		06.03.15			837.46
A3					

# FB = Floating split body

## Cryo low temp. design

POS.	PART NAME	MATERIAL
01	BODY	ASTM A479 Gr. 316
02	SEAT	PTFE
03	BALL	ASTM A479 Gr. 316 + NOTE 1
04	STEM	UNS N07718
05	GLAND	ASTM A479 Gr. 316
05.1	EXTENDED BONNET	ASTM A479 Gr. 316
06	CLOSURE	ASTM A479 Gr. 316
51	STUD	ASTM A320 B8M CL. 2
52	NUT	ASTM A194 8M
53	LEVER NUT	S.S.
54	SCREW	ASTM A320 B8M CL. 2
55	THRUST WASHER	PTFE
63	GASKET	RPTFE
64	GASKET SWG	AISI 316+GRAPHITE
65	SPRING WASHER	AISI 301
66	SPRING	AISI 301
67	STEM BEARING	AISI 316+PTFE
67.1	STEM BEARING	AISI 316+PTFE

1) BALANCE HOLE ON UPSTREAM SIDE

NOTE:

- Dimension in mm, weight in kg
- Valves according to BS 5351 - B16.34 - ASME VIII Div. 1
- Flanges according to ASME B16.5
- Face to face according to API 6D - ASME B16.10
- Antistatic device according to BS. 5351
- Fire safe according to BS-6755 Pt.2/API6FA.
- EXTENDED BONNET TO BS6384
- UNI-DIRECTIONAL VALVE

ITEM:	QTY:	SIZE:	CLASS:	ENDS:	A	B	C	Weight:	TAG N°
001	3	2"	300	RF	216	49	355	22	VB-1002
002	4	1"-1/2"	300	RF	190.5	38	355	18	VB-1002
003	2	1"	300	RF	165	25	355	6.5	VB-1002

<b>EMMECI</b>	<b>VALNOR</b>	BALL VALVE
		SPLIT BODY FLOATING CRYOGENIC
R.N.	06.03.15	GENERAL ASSEMBLY
P.S.	06.03.15	
B.M.	06.03.15	
A3		

# FB = Floating split body



## Metal seated High temp. design

POS.	PART. NAME	MATERIAL
01	BODY	ASTM A479 Gr. 316
02	SEAT	ASTM A479 Gr. 316+NOTE 1
03	BALL	ASTM A479 Gr. 316+NOTE 1
04	STEM	ASTM A479 Gr. 316
05	GLAND	AISI 316
05.1	STEM COVER	ASTM A479 Gr. 316
06	CLOSURE	ASTM A479 Gr. 316
10	LEVER	S.S.
11	LOCKING DEVICE	S.S.
12	LEVER STOP	ASTM A479 Tp316
51	STUD	ASTM A193 B8 CL.2
52	NUT	ASTM A194 Gr.8
53	LEVER NUT	C.S. +ZINC
54	SCREW	ASTM A193 B8 CL.2
55	THRUST WASHER	SS316+GRAPHITE
63	GASKET	GRAPHITE
63.1	GASKET	GRAPHITE
64	GASKET SWT	SS316+GRAPHITE
65	SPRING WASHER	AISI 301
66	SPRING	AISI 301

NOTE:  
1 - LW5 OR AMPERIT 551 COATED

NOTE:  
- Dimension in mm, weight in kg  
- Valves according to BS 5351 - B16.34 - ASME VIII Div. 1  
- Flanges according to ASME B16.5  
- Face to face according to API 6D - ASME B16.10  
- Antistatic device according to BS. 5351  
- Fire safe according to BS-6755 Pt.2/API6FA.  
- Material in acc. with Nace MR 0175

VDS : B3AJ21

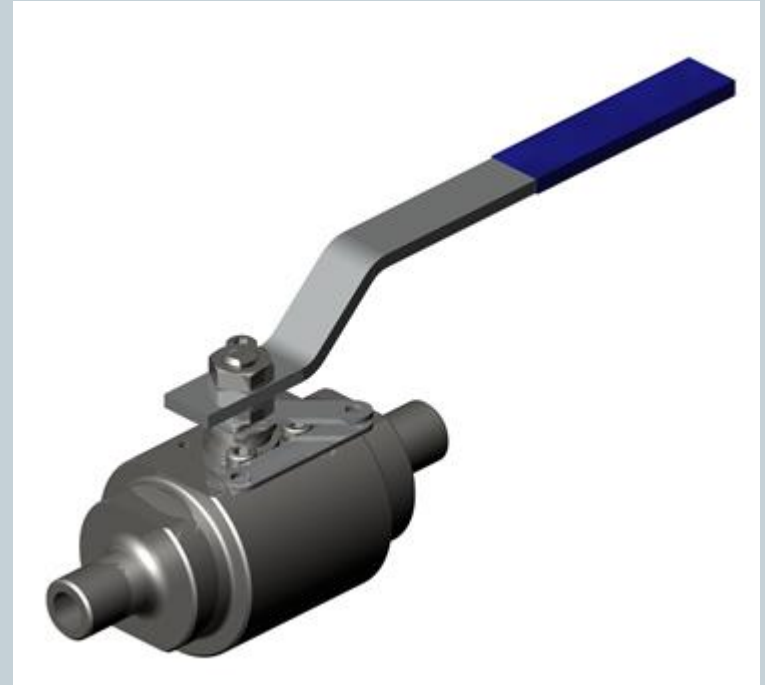
ITEM:	QTY:	SIZE:	CLASS:	ENDS:	A	B	C	D	X	Weight
1	2	3"	150	RF	203	74	250	360	100	26

<b>EMMECI</b>		<b>VALNOR</b>		BALL VALVE	
				SPLIT BODY FLOATING - HIGH TEMPERATURE	
R.N.	06 03 15	GENERAL ASSEMBLY			
R.S.	06 03 15				
E.M.	06 03 15				
A3					

# MB = Floating threaded body



- Two or three pieces body.
- Full and reduce bore.
- Valve according to BS 5351.
- Automatic self relieving seat design.
- Face to face according to manufacturer std.
- Anti blow-out stem design system.
- Antistatic device according to BS 5351.
- BW ends in acc. to ASME B16.25.
- NPT ends in acc. to ASME B1.20.1.
- SW ends in acc. with ASME B16.11.
- Fire safe according to BS-6755 pt.2°/API6FA



EMMECI Valves can be furnish with manual operator : lever/hand wheel/gearbox/  
bare stem or complete with actuated operator.



# MB = Floating threaded body

POS.	PART. NAME	MATERIAL
01	BODY	ASTM A350 LF2
02	SEAT	DEVLON
03	BALL	ASTM A479 Gr.316
04	STEM	ASTM A479 Gr.316
05	GLAND	ASTM A479 Gr.316
06	CLOSURE	ASTM A350 LF2
10	LEVER	CS+ZINC PLATED
12	LEVER STOP	CS+ZINC PLATED
53	STEM NUT	CS
55	THRUST WASHER	RPTFE
62	O-RING	VITON AEO
63	GASKET	GRAPHITE
65	SPRING WASHER	AISI 304
66	SPRING	AISI 304
69	PIN	AISI 1040

**NOTE:**

- Dimension in mm, weight in kg
- Valves according to BS 5351 - B16.34 - ASME VIII Div.1
- Ends in acc. ASME B16.11
- Face to face according to manufacturer STD
- Antistatic device according to BS. 5351
- Fire safe according to BS-6755 Pt.2/API6FA.

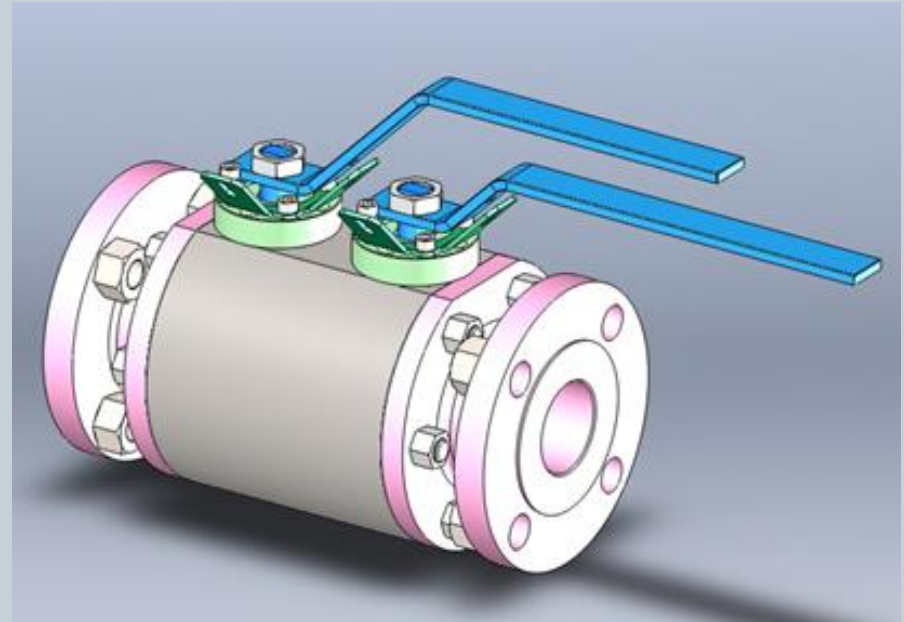
ITEM:	QTY:	SIZE:	CLASS:	ENDS:	A	B	C	D	Weight:
4	6	1/4"	3000	5W	275	10	75	145	2
5	6	1"	3000	5W	295	25	85	180	3,2

<b>EMMECI</b>	<b>VALNOR</b>	BALL VALVE THREADED BODY FLOATING
R.N.	06.03.15	GENERAL ASSEMBLY
R.E.	06.03.15	
B.M.	06.03.15	
A3	-	

# MK = Floating double block & bleed



- Full and reduce bore.
- Valve according to BS 5351– ASME B16.34 - ASME VIII Div.1.
- Automatic self relieving seat design.
- Soft and metal seated version.
- Anti blow-out stem design system.
- Face to face according to manufacturer standard or customer data sheet.
- Antistatic device according to BS. 5351.
- Flanges according to ASME B16.5.
- BW ends in acc. to ASME B16.25.
- NPT ends in acc. to ASME B1.20.1.
- SW ends in acc. with ASME B16.11.
- Fire safe according to BS-6755 pt.2°/API6FA



# MK = Floating double block & bleed

## Elastomer seal design

**NOTE:**

- Dimension in mm, weight in kg
- Valves according to B16.34 - ASME VIII Div.1
- Flanges according to ASME B16.5
- Face to face according to manufacturer STD
- Antistatic device according to BS 5351
- Fire safe according to BS-6755 Pt.2/API8FA.
- Hydro test in acc. API 598
- Corrosion allowance 3 mm
- Leakage class : Zero leakage
- Design temperature range : -29°C/+180°C
- Design pressure as per ASME B16.34
- Material certificates in acc. BS EN 10204 type 3.1

CLASS 600		CLASS 900	
HYDROSTATIC TEST CONDITIONS		HYDROSTATIC TEST CONDITIONS	
SHELL	153 bar	SHELL	230 bar
SEAT	113 bar	SEAT	169 bar
PNEUMATIC TEST CONDITIONS		PNEUMATIC TEST CONDITIONS	
SEAT	6 bar	SEAT	6 bar

ITEM.	QTY.	SIZE.	CLASS.	ENDS.	A	B	B1	C	D	WEIGHT
89	2	3/4" x 1/2"	600	RF/NPTF	214.5	13	19	112	200	17
106	2	3/4" x 1/2"	900	RF/NPTF	254.5	13	19	112	200	20

POS.	PART. NAME	MATERIAL
01	BODY	ASTM A105N
02	SEAT	DEVLON
03	BALL	ASTM A479 UNS S31803 (Duplex)
04	STEM	ASTM A479 UNS S31803 (Duplex)
05	GLAND	ASTM A479 UNS S31803 (Duplex)
06	FLANGE	ASTM A105N
10	LEVER	CS+ZINC PLATED
11	LOCKING DEVICE	CS+ZINC PLATED
12	LEVER STOP	CS+ZINC PLATED
51	STUD	ASTM A188 B7M+EZP
52	NUT	ASTM A194 2HM+EZP
53	LEVER NUT	CS+ZINC PLATED
54	SCREW	CS+ZINC PLATED
55	THRUST WASHER	RPTFE
62	O-RING	VITON AED
63	GASKET	GRAPHITE
65	SPRING WASHER	AISI 301
66	SPRING	AISI 301

EZP=ZINC NICKEL ELECTRO PLATED

19a	NEEDLE LEVER NUT	S.S.
20a	NEEDLE STEM	ASTM A479 UNS S31803+ST (Duplex)
21a	NEEDLE PACKING GLAND	AISI 316
22a	NEEDLE BODY	ASTM A105N
23a	NEEDLE BODY GASKET	GRAPHITE
24a	NEEDLE LEVER	S.S.
25a	NEEDLE CLOSURE	ASTM A105N
26a	NEEDLE STEM GASKET	GRAPHITE
27a	NEEDLE PLUG	ASTM A105N

**NEEDLE VALVE DETAIL SEZ.A-A**

**BALL VALVE DOUBLE BLOCK & BLEED FLOATING**

**GENERAL ASSEMBLY**

EMMECI VALNOR

06.03.15

89745

# MK = Floating double block & bleed



## Lip seal design

**NOTE**

- Manufacture per, available by
- Unless otherwise specified
- Material according to ASTM A 479
- Pressure tested per to ASME B 1.9.1
- Flow to spec according to manufacturer's standard
- Anti leak device according to ISO 4901
- For more information see ISO 15848-1:2002
- Item included per ISO 15848-1:2002-approved study
- EAO 00000000

ITEM	QTY	SIZE	CLASS	ENDS	A	B	C	D	X	Y	WEIGHT
1	2	1/2"	800	RTJNPT	245	13	112	20.5	100	100	12
2	2	1/2"	2500	RTJNPT	245	13	112	20.5	100	100	14

ITEM	PART. NAME	MATERIAL
01	BODY	ASTM A 479 UNS S3 18 03
02	SEAT	PEEK
03	BALL	ASTM A 479 UNS S3 18 03
04	STEM	ASTM A 479 UNS S3 18 03
05	STEM COVER	ASTM A 479 UNS S3 18 03
06	FLANGE	ASTM A 479 UNS S3 18 03
10	LEVER	AISI 3 16
11	LOCKING DEVICE	AISI 3 16
12	LEVER STOP	AISI 3 16
17	STEM LIP SEAL RING	ASTM A 479 UNS S3 18 03
21	STUD	ASTM A 193 ST 4 HOG
22	NUT	ASTM A 194 2H 4 HOG
23	LEVER NUT	AISI 3 16
24	SCREW	ASTM A 193 ST 4 HOG
24.1	SCREW	ASTM A 193 ST 4 HOG
25	THRUST WASHER	P TFE
26	BEARING	INC. 625 4P 152
27	LIP SEAL	P TFE+ALGILLOY
28	GASKET	GRA PHITE
29	GASKET SWT	INC. 625+GRAPHITE
30	SPRING	INCONEL X-750

194	NEEDLE LEVER NUT	AISI 316
204	NEEDLE STEM	ASTM A 479 UNS S31803-4T
214	NEEDLE PACKING GLAND	ASTM A 479 UNS S31803
224	NEEDLE BODY	ASTM A 479 UNS S31803
234	NEEDLE BODY GASKET	GRA PHITE
244	NEEDLE LEVER	AISI 316
254	NEEDLE O-RING	ASTM A 479 UNS S31803
264	NEEDLE STEM GASKET	GRA PHITE
274	NEEDLE PLUG	ASTM A 479 UNS S31803

**NEEDLE VALVE DETAIL  
SEC. A-A**

**EMMECI VALNOR**

BALL VALVE MODULAR  
SIDE ENTRY FLOATING  
GENERAL ASSEMBLY

# MK = Floating double block & bleed



## Metal seated High temp. design

**NOTE:**

- Dimension in mm, weight in kg
- Valves according to BS 5351 - B10.34 - ASME VIII Div.1
- Flanges according to ASME B16.5
- Face to face according to manufacturer std
- Antistatic device according to BS. 5351
- Fire safe according to BS-6755 Pt.2/API6FA.
- NPT in acc. with ASME B1.20.1

POS.	PART NAME	MATERIAL	MDS
01	BODY	ASTM A182 F316	S01
02	SEAT	ASTM A276 UNS S31600+TCC	P21
03	BALL	ASTM A276 UNS S31600+TCC	S01
04	STEM	ASTM A276 UNS S31600	S01
05	GLAND	ASTM A276 UNS S31600	S01
05.1	STEM COVER	ASTM A276 UNS S31600	S01
06	CLOSURE	ASTM A182 F316	S01
10	LEVER	AISI 316	
11	LOCKING DEVICE	AISI 316	
12	LEVER STOP	AISI 316	
51	STUD	ASTM A193 B8M CL.2	S03
52	NUT	ASTM A194 8M	
53	LEVER NUT	AISI 316	
54	SCREW	ASTM A193 B8M CL.2	S03
55	THRUST WASHER	SS316+PTFE	
63	V-PACK SEAL	RPTFE	P22
63.1	GASKET SWT	SS316+GRAPHITE	
64	GASKET SWT	SS316+GRAPHITE	
65	SPRING WASHER	AISI 316	
66	SPRING	AISI 316	
100	GASKET	SS316+GRAPHITE	
101	NEEDLE VALVE	ASTM A479 Gr. 316	
102	PLUG	ASTM A479 Gr. 316	

**METAL TO METAL SEATED**

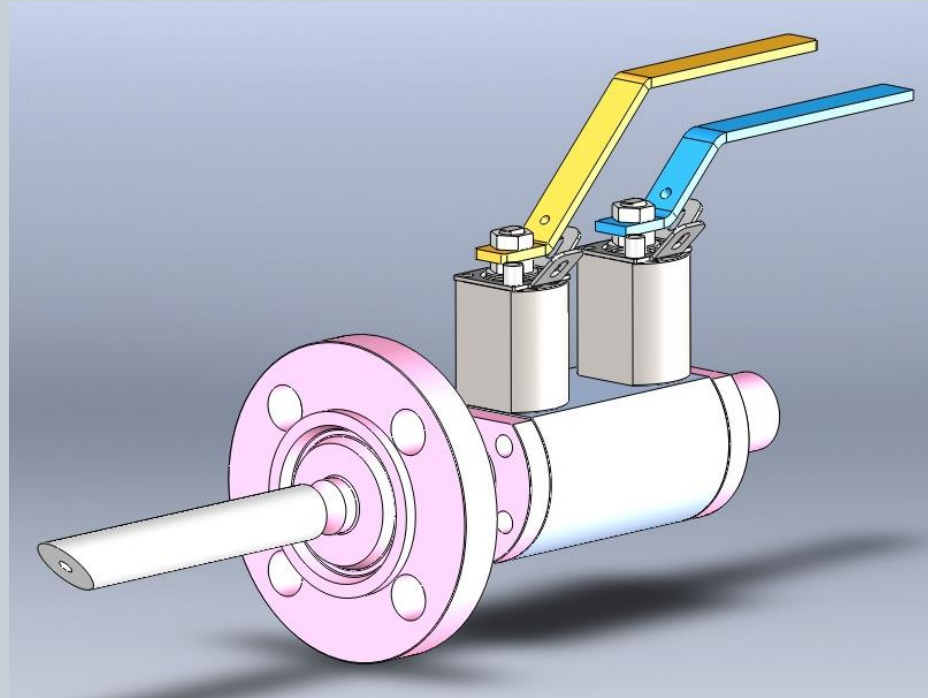
**NEEDLE VALVE DETAIL**

ITEM:	QTY:	SIZE:	CLASS:	ENDS:	A	B	C	D	Weight:	VDS N°
3	6	3/4"	1500	RTJ/NPT	289	19	184	185	24	CBFS00D

EMMECI		VALNOR		BALL VALVE	
				DOUBLE BLOCK & BLEED FLOATING HT	
				GENERAL ASSEMBLY	
				ITEM: 003716P	

## MKQ = Floating double block & bleed with Quill

- Full and reduce bore.
- Valve according to BS 5351– ASME B16.34 - ASME VIII Div.1.
- Automatic self relieving seat design.
- Soft and metal seated version.
- Anti blow-out stem design system.
- Face to face according to manufacturer standard or customer data sheet.
- Antistatic device according to BS. 5351.
- Flanges according to ASME B16.5.
- BW ends in acc. to ASME B16.25.
- NPT ends in acc. to ASME B1.20.1.
- SW ends in acc. with ASME B16.11.
- Fire safe according to BS-6755 pt.2°/API6FA
- Quill dimensions in according customer data sheet.



# MKQ = Floating double block & bleed with Quill



**NOTE:**

- Dimension in mm, weight in kg
- Valves according to BS 5351 - B 16.34 - ASME VIII Div.1
- Flanges according to ASME B16.5
- Face to face according to manufacturer std
- Antistatic device according to BS. 5351
- Fire safe according to BS-6755 Pt2/API6FA.
- NPT in acc. with ASME B120.1
- Painting acc. to system 2A, ref. C132-KA-M-SP-0003

PO#	PART NAME	MATERIAL	MD#
01	BODY	ASTM A479 UNS S31803	D47
02	SEAT	PEEK	P21
03	BALL	ASTM A479 UNS S31803	D47
04	STEM	ASTM A479 UNS S31803	D47
05	GLAND	ASTM A479 UNS S31803	D47
05.1	STEM COVER	ASTM A479 UNS S31803	D47
06	CLOSURE	ASTM A479 UNS S31803	D47
10	LEVER	AISI 316	
11	LOCKING DEVICE	AISI 316	
12	LEVER STOP	AISI 316	
51	STUD	ASTM A193 B7 + HDG	X08
52	NUT	ASTM A194 2H + HDG	X08
53	LEVER NUT	AISI 316	
54	SCREW	ASTM A193 B7 + HDG	X08
55	THRUST WASHER	INC.625+PTFE	
63	V-PACK SEAL	RPTFE	
64	GASKET SWT	INC.625+GRAPHITE	
65	SPRING WASHER	AISI 316	
66	SPRING	AISI 316	
100	GASKET	INC.625+GRAPHITE	
101	NEEDLE VALVE	ASTM A479 UNS S31803	D47
102	PLUG	ASTM A479 UNS S31803	D47

ITEM:	QTY:	SIZE:	CLASS:	ENDS:	A	B	C	D	X	Weight:
1	2	1-1/2"x1/2"	600	RTJ/NPT	289	6	144	185	250	25
2	1	1-1/2"x1/2"	600	RTJ/NPT	289	6	144	185	190	24

**EMMECI** VALNOR

RLN: 01-12-14  
 R.S: 01-12-14  
 S.M: 01-12-14  
 A3: -

**BALL VALVE**

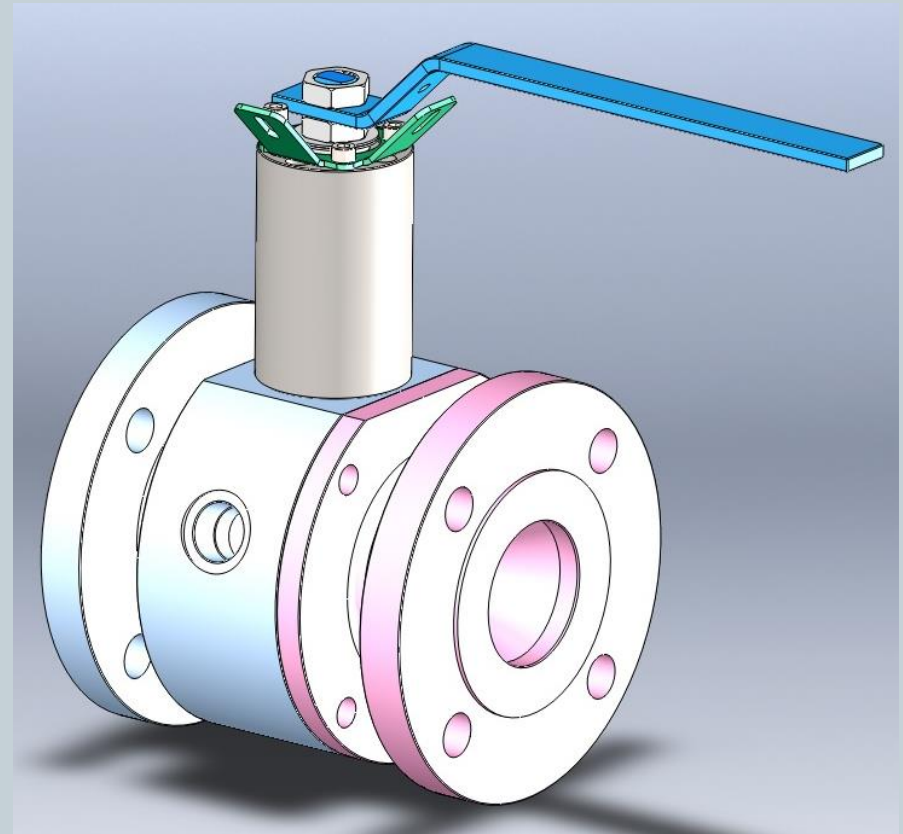
DOUBLE BLOCK & BLEED FLOATING

GENERAL ASSEMBLY

89529

# FJ = Floating with integral jacket

- Full and reduce bore.
- Valve according to BS 5351– ASME B16.34 - ASME VIII Div.1.
- Automatic self relieving seat design.
- Metal seated version or Solid graphite seat for HT temperature service.
- Anti blow-out stem design system.
- Face to face according to ASME B16.10.
- Antistatic device according to BS 5351.
- Flanges according to ASME B16.5.
- BW ends in acc. to ASME B16.25.
- NPT ends in acc. to ASME B1.20.1.
- SW ends in acc. with ASME B16.11.
- Fire safe according to BS-6755 pt.2°/API6FA
- Integral jacket on body with camera for inlet and outlet steam.





# FJ = Floating with integral jacket



## Metal seated High temp. design

POS.	PART NAME	MATERIAL
01	BODY INTEGRAL JACKET	ASTM A479 Gr.316
02	SEAT	ASTM A479 Gr.316/316L+TCC
03	BALL	ASTM A479 Gr.316/316L+TCC
04	STEM	ASTM A479 Gr.316/316L
05	GLAND	ASTM A479 Gr.316
05.1	EXTENDED BONNET	ASTM A479 Gr.316
06	CLOSURE	ASTM A479 Gr.316
10	LEVER	S.S.
11	LOCKING DEVICE	S.S.
12	LEVER STOP	ASTM A479 Tp316L
51	STUD	ASTM A193 B7
52	NUT	ASTM A194 2H
53	LEVER NUT	S.S.
54	SCREW	S.S.
55	THRUST WASHER	SS316+GRAPHITE
63	GASKET	GRAPHITE
63.1	GASKET SWG	GRAPHITE
64	GASKET SWG	SS316+GRAPHITE
64.1	JACKET INT. GASKET	GRAPHITE
64.2	JACKET EXT. GASKET	GRAPHITE
65	SPRING WASHER	AISI 301
66	SPRING	AISI 301
67	STEM BEARING	SS316+GRAPHITE
67.1	STEM BEARING	SS316+GRAPHITE
68	NIPPLE	ASTM A479 Gr.316

NOTE:

- Dimension in mm, weight in kg
- Valves according to BS 5351 - B16.34 - ASME VIII Div.1
- Flanges according to ASME B16.5
- Face to face according to API 6D - ASME B16.10
- Antistatic device according to BS. 5351
- Fire safe according to BS-6755 PL2/API6FA.

VDS : V-B3BJ28      STEAM CAVITY AREA

ITEM	QTY:	SIZE:	CLASS:	ENDS:	A	B	B1	C	D	Weight:
1	1	2"x1-1/2"	300	RF	216	38	49	210	275	24

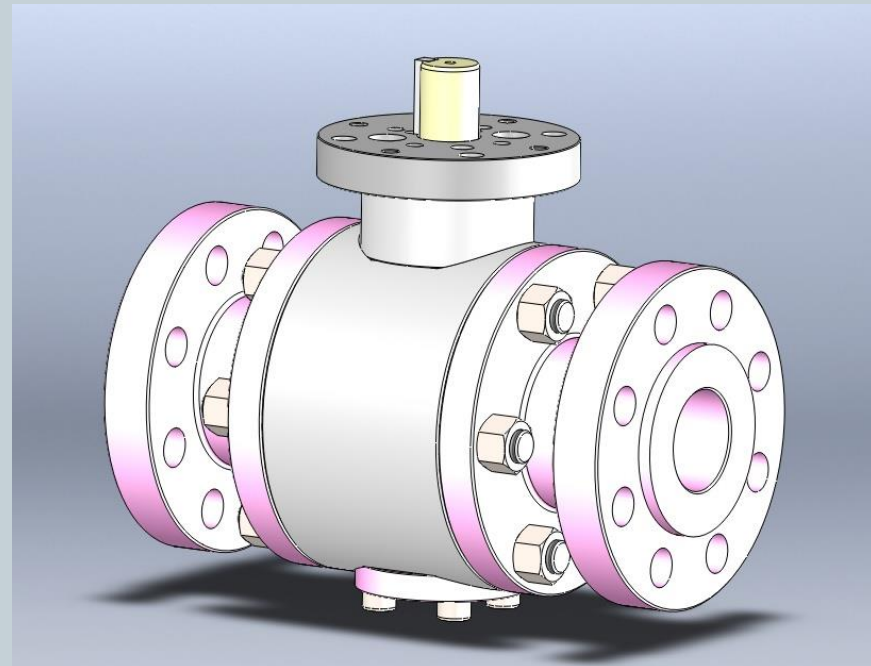
EMMECI		VALNOR		BALL VALVE	
				SPLIT BODY FLOATING INTEGRAL JACKET	
R.N.	06.03.15				GENERAL ASSEMBLY
P.S.	06.03.15				
S.M.	06.03.15				
A3	-				

# SE = Trunnion side entry



- Two or three pieces body.
- Full and reduce bore.
- Valve according to API 6D– ASME B16.34 - ASME VIII Div.1.
- Automatic self relieving seat design.
- Soft and metal seated version.
- Double piston effect (on request).
- Double block & bleed seat design.
- Soft and metal seated version.
- Anti blow-out stem design system.
- Face to face according to ASME B16.10/API 6D.
- Antistatic device according to API 6D.
- Flanges according to ASME B16.5.
- BW ends in acc. to ASME B16.25.
- SW ends in acc. with ASME B16.11.
- Fire safe according to BS-6755 pt.2°/API6FA

EMMECI Valves can be furnish with manual operator : lever/hand wheel/gearbox/  
bare stem or complete with actuated operator.



# SE = Trunnion side entry

## Elastomer seal design

Pos.	PART. NAME	MATERIAL
01	BODY	ASTM A182 F316L
02	SEAT	ASTM A182 F51+PEEK
03	BALL	ASTM A182 F51
04	STEM	ASTM A182 F51
05	STEM COVER	ASTM A182 F316L
06	FLANGE	ASTM A182 F316L
07	TRUNNION	ASTM A182 F51
09	OPERATOR FLANGE	ASTM A479 gr. 316
51	STUD	ASTM A320 L7M+HDG
52	NUT	ASTM A194 Gr. 7M (S3)+HDG
54	SCREW	ASTM A320 L7M+HDG
55	THRUST WASHER	AISI 316+PTFE
56	THRUST BEARING	AISI 316+PTFE
59	BLEEDER	AISI 316
62	O-RING	HNBR AED
63	GASKET	GRAPHITE
66	SPRING	INCONEL X-750
69	PIN	AISI 316
70	KEY	AISI 4140

NOTE:

- Dimension in mm, weight in kg
- Valve according to API 6D - B16.34 - ASME VIII Div.1
- Flanges according to ASME B16.5
- Face to face according to API 6D - ASME B16.10
- Antistatic device according to BS-EN 12266 parts 2.
- Fire safe according to BS-6755 Pt.2/API6FA

ITEM:	QTY:	SIZE:	CLASS:	ENDS:	A	B	C	D	E	F	H	Weight:	VDS
001	4	1-1/2"	2500	RTJ	422	38	110	130	50	350	300	87	BA-G02

EMMECI		VALNOR		BALL VALVE	
R.N.	08.03.15			SIDE ENTRY TRUNNION	
R.S.	08.03.15			GENERAL ASSEMBLY	
S.M.	08.03.15			09745	
A3					

# SE = Trunnion side entry

## Lip seal design

**DETAIL "B" SEAT DETAIL DPE TYPE**

**DETAIL "C" SEAT DETAIL SPE TYPE**

**ANTI BLOW-OUT**

**ANTI STATIC DEVICE**

**DETAIL "A" STEM DETAIL**

**NOTE:**

- Dimension in mm, weight in kg
- Valve according to API 6D - B16.34 - ASME VIII Div.1
- Face to face according to Manufacturer STD
- Anti static device according to BS. 6351
- Fire safe according to ISO 10497
- Material acc. to NACE MR0175/ISO 15156

POS.	PART. NAME	MATERIAL	MDS
01	BODY	ASTM A182 F51	D44
02	SEAT	ASTM A278 UNS S31803+TCC	D47
03	BALL	ASTM A278 UNS S31803+TCC	D47
04	STEM	ASTM A278 UNS S31803	D47
05	STEM COVER	ASTM A278 UNS S31803	D47
05.1	GLAND	ASTM A278 UNS S31803	D47
06	FLANGE	ASTM A182 F51	D44
07	SEAT RING	ASTM A278 UNS S31803	D47
20	STUD	ASTM A193 B7 - HDG	
22	NUT	ASTM A194 2H - HDG	
32	THRUST WASHER	INC. 625+PTFE	
34	THRUST BEARING	INC. 625+PTFE	
36	TRUNNION FLANGE	ASTM A182 F51	D44
50	OPERATOR FLANGE	UNS S31803	
54	SCREW	ASTM A193 B7 - HDG	
60	BLEEDER	UNS S31803	
63	GASKET	GRAPHITE	
64	GASKET SWT	INC. 625+GRAPHITE	
66	SPRING	INCONEL 625	
68	LIP SEAL RING	UNS S31803	
69	PIN	AISI 316	
70	KEY	AISI 316	
71	LIP SEAL	PTFE+ELGILOY	P22
72	GERABOX	CAST IRON	

ITEM:	QTY:	SIZE:	CLASS:	Techlok HUB	A	B	C	D	F	H	Weight:	VDS N°
4	2	2"	4500	2in16ST	584	38	185	231	340	700	180	BLPD00C

**EMMECI VALNOR**

BALL VALVE  
SIDE ENTRY TRUNNION  
GENERAL ASSEMBLY

ITEM: 010449

# SE = Trunnion side entry



## Cryo low temperature design

**NOTE:**

- Dimension in mm, weight in kg
- Valve according to API 6D - B10.34 - ASME VIII Div.1
- Flanges according to ASME B16.5
- Face to face according to ASME B16.10
- Antistatic device according to BS. 5351
- Fire safe according to ISO 10497
- EXTENDED BONNET TO BS6364
- BI-DIRECTIONAL VALVE

**PART. A**

**PART. B**

EXT. BONNET 250 mm MIN.

ANTISTATIC DEVICE

EMMECI VALNOR BALL VALVE SIDE ENTRY TRUNNION CRYOGENIC

POS.	PART NAME	MATERIAL
01	BODY	A479 Gr.316
02	SCAT	A479 Gr.316/PTFE
03	BALL	A479 Gr.316
04	STEM	UNS M02718
05	EXTENDED BONNET	A479 Gr.316
06	FLANGE	A479 Gr.316
07	SCAT RING	A479 Gr.316
20	STUD	A320 B8M CL2
22	NUT	A194 Gr.8M
25	SCREW	A320 B8M CL2
32	THRUST BEARING	316+PTFE
34	BEARING	316+PTFE
36	TRUNNION	A479 Gr.316
42	GLAND FLANGE	A479 Gr.316
43	DRAIN BLEDER	A479 Gr.316
71	UP-SEAL	PTFE+GLILLOY
74	GASKET S.W.T.	316+GRAPHITE
74	GASKET S.W.T.	316+GRAPHITE
75	GASKET / PACKING	GRAPHITE
78	STEM RING	316SS
82	SPRING	INCONEL X750
80	PIN	316SS
85	KCY	AISI 316
98	ANTISTATIC DEVICE	INCONEL X750

ITEM:	QTY:	SIZE(Inches)	CLASS:	ENDG:	A	B	C	D	E	Weight(Kg):	TAG N°
004	4	3	300	RF	283	74	127	380	210	67	VB-1002
005	1	3	800	RF	350	74	127	380	210	72	5P-80P

# SE = Trunnion side entry



## Metal seated High temp. design

POS.	PART NAME	MATERIAL
01	BODY	ASTM A350 LF2 CL1
02	SEAT	ASTM A479 XM-19-TCC
03	BALL	ASTM A479 XM-19-TCC
04	STEM	ASTM A479 XM-19
05	STEM COVER	ASTM A350 LF2 CL1
05.1	GLAND	ASTM A350 LF2 CL1
06	FLANGE	ASTM A350 LF2 CL1
07	TRUNNION	ASTM A479 XM-19
09	OPERATOR FLANGE	ASTM A350 LF2 CL1
18	SEAT RING	ASTM A479 XM-19
19	STUFFING PLATE	ASTM A350 LF2 CL1
51	STUD	ASTM A320 L7M
52	NUT	ASTM A194 7M
54	SCREW	ASTM A320 L7M
55	THRUST WASHER	SS316 HT
56	THRUST BEARING	SS316 HT
59	BLEEDER	ASTM A350 LF2 CL1
63	GASKET	GRAPHITE
64	GASKET SWT	AISI 316-GRAPHITE
66	SPRING	INCONEL X-750
69	PIN	AISI 420
70	KEY	AISI 316
71	GEARBOX	MANUFACTURER STD
72	STUD	ASTM A320 L7M
73	NUT	ASTM A194 7M

TCC=TUNGSTEN CARBIDE COATED 150 microns

NOTE:

- Dimension in mm, weight in kg
- Valve according to API 6D - B10.34 - ASME VIII Div.1
- Flanges according to ASME B16.5
- Face to face according to API 6D - ASME B16.10
- Antistatic device according to BS. 5351
- Fire safe according to BS-6755 Pt2/API6FA
- Material acc. to NACE MR0175/ISO 15156
- BI-DIRECTIONAL VALVE

ITEM	QTY	SIZE	CLASS	ENDS	A	B	B1	C	D	E	F	H	Weight	VDS	TAG N°	DESIGN TEMP
16.2	3	4"x3"	600	RTJ	495	74	100	130	250	42	220	400	710	VBA6530	4018WKM120K2CM	-40°C to 340°C
16.2	3	2"x1-1/2"	600	RTJ	295	38	49	92	220	26,5	170	200	48	VBA6530	4018WKM080K2CM	-40°C to 340°C

EMMECI		VALNOR		BALL VALVE	
R.N.	06.03.15	SIDE ENTRY TRUNNION METAL HT			
P.S.	06.03.15	GENERAL ASSEMBLY			
S.M.	06.03.15				
A3	-				

# SE = Trunnion side entry



Large size design (DN 6" & HIGHER)

POS.	PART NAME	MATERIAL
01	BODY	ASTM A350 LF2 CL 1
02	SEAT	ASTM A182 F51+TCC
03	BALL	ASTM A182 F51+TCC
04	STEM	ASTM A479 UNS S31803
05	STEM COVER	ASTM A350 LF2 CL 1
06	FLANGE	ASTM A350 LF2 CL 1
08	BALL SUPPORT	ASTM A350 LF2 CL 1
09	OPERATOR FLANGE	ASTM A350 LF2 CL 1
10	BUSHING RING	ASTM A479 UNS S31803
13	LIFTING LUGS	C.S.
14	VALVE SUPPORT	C.S.
51	STUD	ASTM A193 B7+HDG
52	NUT	ASTM A194 2H+HDG
54	SCREW	ASTM A193 B7+HDG
55	THRUST WASHER	C.S.+PTFE
56	BEARING	C.S.+PTFE
58	PLUG	ASTM A350 LF2 CL 1
59	BLEEDER	ASTM A350 LF2 CL 1
62	LIP-SEAL	RPTFE+ELGILOY
63	GASKET	GRAPHITE
66	SPRING	UNS N06625
69	PIN	AISI 316
70	KEY	AISI 4140
71	GEAR	CAST IRON
72	GEAR STUD	ASTM A193 B7+HDG
73	GEAR NUT	ASTM A194 2H+HDG

ITEM:	QTY:	SIZE:	CLASS:	ENDS:	A	B	C	D	E	F	H	Weight:
1	2	8"	2500	RTJ	1038	181	420	403	180	550	700	1450

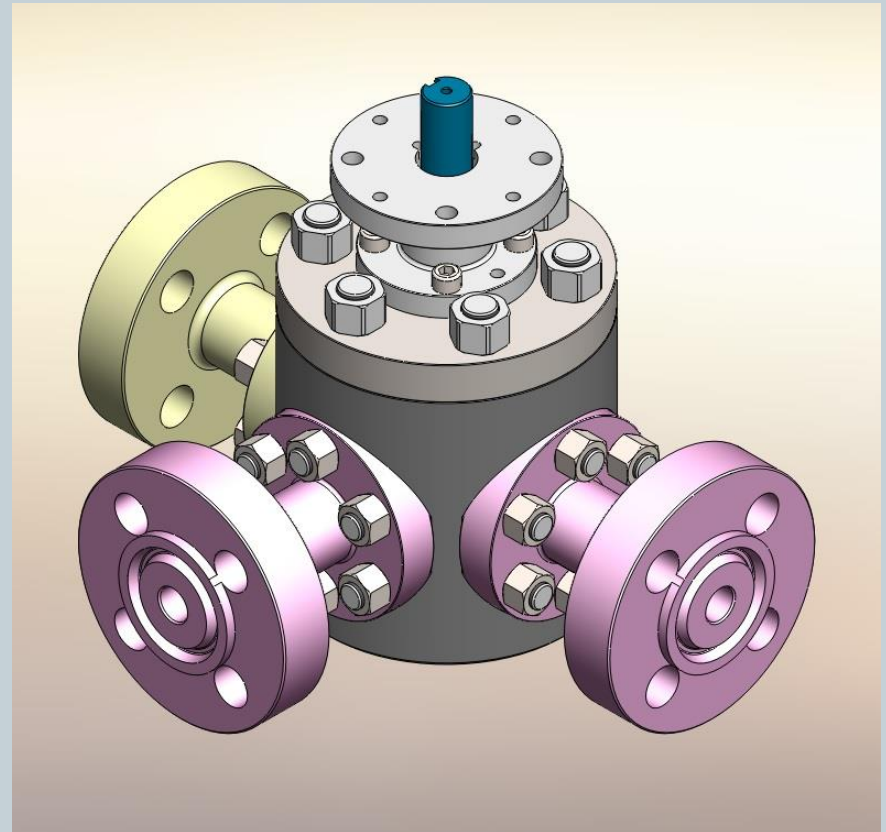
<b>EMMECI</b>	<b>VALNOR</b>	BALL VALVE TRUNNION
R.S.	24.10.14	GENERAL ASSEMBLY
R.N.	24.10.14	Order N° 89464
S.W.	24.10.14	
A.C.		

**NOTE:**  
 - Dimension in mm, weight in kg  
 - Valve according to API 6D - B16.34 - ASME VIII Div.1  
 - Flanges according to ASME B16.5  
 - Face to face according to API 6D - ASME B16.10  
 - Antistatic device according to BS. 5351  
 - Fire safe according to BS-6755 Pt.2/API6FA  
 - Material acc. to NACE MR0175/ISO 15156

# TW = Trunnion 3 way



- Full and reduce bore.
- Valve according to BS 5351– ASME B16.34 - ASME VIII Div.1.
- Automatic self relieving seat design on inlet way and double piston effect on outlet ways.
- Soft and metal seated version.
- Anti blow-out stem design system.
- Face to face according to manufacturer standard or customer data sheet.
- Antistatic device according to BS 5351.
- Flanges according to ASME B16.5.
- BW ends in acc. to ASME B16.25.
- SW ends in acc. with ASME B16.11.
- Fire safe according to BS-6755 pt.2°/API6FA



EMMECI Valves can be furnish with manual operator : lever/hand wheel/gearbox/  
bare stem or complete with actuated operator.



# TW = Trunnion 3 way



## Elastomer seal design

POS.	PART NAME	MATERIAL
01	BODY	ASTM A105N
02	SEAT	ASTM A182 F316/PEEK
03	BALL/INTEGRAL STEM	ASTM A182 FXM-19
05	BONNET	ASTM A105N (2)
06	CLOSURE	ASTM A105N (2)
20	STUD BOLT	ASTM A193 B7 (1)
22	NUT	ASTM A184 2H (1)
25	SCREW	ASTM A193 B7 (1)
32	THRUST BEARING	AISI 316/PTFE
34	BEARING	AISI 316/PTFE
41	GEAR ADAPTER	ASTM A105N
82	VENT/ DRAIN PLUG	ASTM A105N
72	O-RING	VITON GF
74	GASKET	GRAPHITE
82	SPRING	INCONEL X750
90	PIN	AISI 1040
95	KEY	AISI 1040

(1) XILAN BLU COLOR COATED  
(2) INC.825 WELD OVERLAY ON SEAL POCKET AREA

NOTE:  
- Dimension in mm, weight in kg  
- Valve according to API 6D - B16.34 - ASME VIII Div. 1  
- Flanges according to ASME B16.5  
- Face to face according to manufacturer std  
- Antistatic device according to BS. 5351  
- Fire safe according to BS-6755 Pt.2/API6FA  
- Material acc. to NACE MR0175/ISO 15156

ITEM	QTY	SIZE	CLASS	ENDS	A	B	B1	C	D	Weight
1	1	1" x 3/4"	2500	RTJ	380	21	25	81	195	30

<b>EMMECI</b>	<b>VALNOR</b>	BALL VALVE THREE WAY TRUNNION
R.N.	06.03.15	GENERAL ASSEMBLY
R.E.	06.03.15	
S.M.	06.03.15	
A.S.		

# TW = Trunnion 3 way



## Lip seal design

**POSITION 90°**  
BALL "L" TYPE

Pos.	PART. NAME	MATERIAL
01	BODY	ASTM A182 F 316
02	SEAT	ASTM A182 F 316+NOTE 1
02	INSERT	PCTFE (KEL-F)
03	BALL	ASTM A182 F 316+NOTE 1
04	STEM	ASTM A479 XM-19(NITRONIC 50)
05	STEM COVER	ASTM A182 F 316
05.1	EXTENDED BONNET	ASTM A479 Gr.316
06	FLANGE	ASTM A479 Gr.316
09	OPERATOR FLANGE	ASTM A479 Gr.316
10	LANTERN	ASTM A479 Gr.316
51	STUD	ASTM A193 B8M
52	NUT	ASTM A194 8M
54	SCREW	ASTM A193 B8M
55	THRUST WASHER	S.S.+PTFE
56	BEARING	S.S.+PTFE
58	PLUG	ASTM A479 Gr.316
59	BLEEDER	ASTM A479 Gr.316
62	LIP SEAL	PTFE+ELGILOY
63	GASKET	GRAPHITE
66	SPRING	INCONEL X-750
69	PIN	AISI 420
70	KEY	AISI 4140

1- ENP 25 MICRONS

GEARBOX MAT : SS316  
HANDWHEEL MAT - SS316  
LOCKING DEVICE SYSTEM

NOTE:  
- Dimension in mm, weight in kg  
- Valve according to API 6D - B16.34 - ASME VIII Div.1  
- Flanges according to ASME B16.5  
- Antistatic device according to BS 5351  
- Fire safe according to BS-6755 Pt.2/API6FA

ITEM:	QTY:	SIZE:	CLASS:	ENDS:	A	B	C	D	Weight:
1	1	6"	150	RF	570	150	170	635	295

EMMECI		VALNOR		BALL VALVE THREE WAY TRUNNIONBALL "L" TYPE	
PLN	06 03 15	GENERAL ASSEMBLY			
R.S.	06 03 15				
S.M.	06 03 15				
A3	-				

ALL RF FLANGES SHALL BE WITH FINISH 125 AARH

# TW = Trunnion 3 way



## Metal seated High temp. design

POS.	PART. NAME	MATERIAL
01	BODY	ASTM A105
02	SEAT	ASTM A182 FXM-19+CCC
03	BALL	ASTM A182 FXM-19+CCC
04	STEM	ASTM A182 FXM-19
05	STEM COVER	ASTM A105
05.1	BONNET	ASTM A105
05.2	GLAND	ASTM A105
06	FLANGE	ASTM A105
09	OPERATOR FLANGE	ASTM A105
18	SEAT RING	ASTM A105
19	STUFFING PLATE	ASTM A105
51	STUD	ASTM A193 B7
52	NUT	ASTM A194 2H
54	SCREW	ASTM A193 B7
55	THRUST WASHER	HT-625
56	BEARING	HT-625
58	PLUG	ASTM A105+ZINC
59	BLEEDER	ASTM A105+ZINC
63	GASKET	GRAPHITE
64	GASKET SWT	AISI 316+GRAPHITE
66	SPRING	INCONEL X-750
69	PIN	AISI 420
70	KEY	AISI 4140

**NOTE:**

- Dimension in mm, weight in kg
- Valve according to API 6D - B16.34 - ASME VIII Div.1
- Flanges according to ASME B16.5
- Anti static device according to BS. 5361
- Fire safe according to BS-6755 Pt2/API6FA

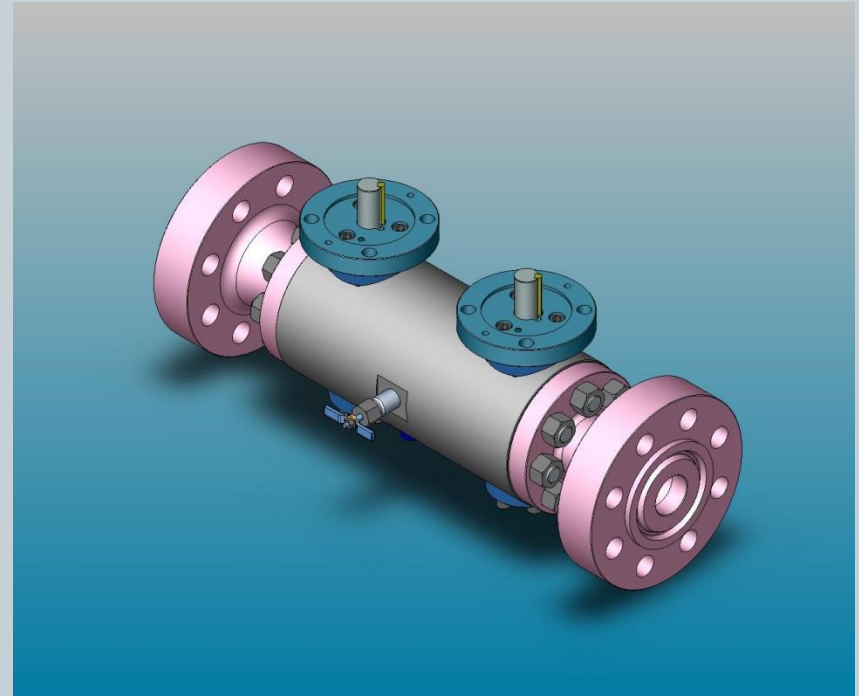
ITEM:	QTY:	SIZE:	CLASS:	ENDS:	A	B	C	D	Weight:
10	1	6"	300	RF	590	150	170	435	335
11	1	6"	300	RF	590	150	170	435	335

<b>EMMECI</b>	<b>VALNOR</b>	BALL VALVE THREE WAY
		TRUNNION METAL SEATED - HT
R.N.	06.03.15	GENERAL ASSEMBLY
R.S.	06.03.15	
B.M.	06.03.15	
A3	-	

# TB = Trunnion twin balls



- Full and reduce bore.
- Valve according to API 6D– ASME B16.34 - ASME VIII Div.1.
- Automatic self relieving seat design.
- Soft and metal seated version.
- Double piston effect (on request).
- Double block & bleed seat design.
- Soft and metal seated version.
- Anti blow-out stem design system.
- Face to face according to ASME B16.10/API 6D.
- Antistatic device according to API 6D.
- Flanges according to ASME B16.5.
- BW ends in acc. to ASME B16.25.
- SW ends in acc. with ASME B16.11.
- Fire safe according to BS-6755 pt.2°/API6FA



EMMECI Valves can be furnish with manual operator : lever/hand wheel/gearbox/  
bare stem or complete with actuated operator.

# TB = Trunnion twin balls



## Elastomer seal design

PLUG 1/4"NPT  
DOUBLE O-RING  
MATERIAL:JW EOL 985

POS.	PART NAME	MATERIAL
01	BODY	UNS S32780
02	SEAT	UNS S32780+TCC 150 Micron
03	BALL	UNS S32780+TCC 150 Micron
04	STEM	UNS S32780
05	STEM COVER	UNS S32780
06	FLANGE	UNS S32780
07	TRUNNION	UNS S32780
09	OPERATOR FLANGE	UNS S32780
10	LEVER	S.S.
11	LOCKING DEVICE	S.S.
51	STUD	A320 L7M (1)
52	NUT	ASTM A194 7M (1)
54	SCREW	A320 L7M (1)
54.1	SCREW	A4-70
55	THRUST WASHER	S.S. + PTFE
56	THRUST BEARING	S.S. + PTFE
59	BLEEDER	UNS S32780
62	O-RING	JW EOL 985
63	GASKET	GRAPHITE
66	SPRING	INCONEL X-750
69	PIN	UNS S32780
70	KEY	UNS S32780

(1) ZINC/NIKEL 10 micron

130	NEEDLE LEVER NUT	S.S.
200	NEEDLE STEM	UNS S32780 45T
210	NEEDLE PACKING GLAND	ASB1316
220	NEEDLE BODY	UNS S32780
230	NEEDLE BODY GASKET	GRAPHITE
240	NEEDLE LEVER	S.S.
250	NEEDLE CUP SURE	UNS S32780
260	NEEDLE STEM GASKET	GRAPHITE
270	NEEDLE PLUG	UNS S32780

NEEDLE VALVE DETAIL  
S.E.Z. A-A

NOTE:  
 - Dimension in mm, weight in kg  
 - Valve according to API 6D - B16.34 - ASME VIII Div.1  
 - Flanges according to ASME B16.5  
 - Face to face according to API 6D - ASME B16.10  
 - Antisiphon device according to BS 5351  
 - Fire safe according to BS-6755 Pt 2/PA16FA  
 - Material acc. to NACE MR0175/ISO 15156  
 - Test according to 12266-1 / API 6D/ API 598

METAL TO METAL  
SEATED+HARD  
TCC ON CONTACT  
SURFACE

1/2"NPT-F

BALL VALVE  
DBB TWIN BALLS TRUNNION

ITEM:	QTY:	SIZE:	CLASS:	ENDS:	A	B	B1	C	D	E	L	WEIGHT
1	4	1-1/2"	1500	RTJ	470	38	38	90	123	285	900	82

R/N	06 03 15
R/S	06 03 15
S/M	06 03 15
A3	-

# TB = Trunnion twin balls



## Lip seal design

**SEAT DETAIL**

METAL TO METAL SEATED-HARD TOC ON CONTACT SURFACE

**HUB DIMENSIONS IN ACCORDING WITH TECHLÖK M020006-rev-A (HUB Model 2 In 16 ST)**

ITEM	QTY	SIZE	CLASS	ENDS	A	B	B1	C	D	E	L	M	WEIGHT	VDS
1	6	2"x3/4"	4500	HUB/NPTF	385	19	3/4"NPT	70	95	120	250	92.1	42	CBPD00X

POB.	PART. NAME	MATERIAL
01	BODY	UNS S31803
02	SEAT	UNS S31803+TCC 150 Micron
2.1	BACK SEAT	UNS S31803
03	BALL	UNS S31803+TCC 150 Micron
04	STEM	UNS S31803
05	STEM COVER	UNS S31803
06	FLANGE	UNS S31803
07	TRUNNION	UNS S31803
09	OPERATOR FLANGE	UNS S31803
10	LEVER	AISI 316
11	LOCKING DEVICE	AISI 316
51	STUD	ASTM A193 B7 + HDG
52	NUT	ASTM A194 2H + HDG
54	SCREW	ASTM A193 B7 + HDG
54.1	SCREW	A4-70
55	THRUST WASHER	INC B25 + PTFE
56	THRUST BEARING	INC B25 + PTFE
59	BLEEDER	UNS S31803
62	LIP SEAL	PTFE+ELGILOY
63	GASKET	GRAPHITE
66	SPRING	INCONEL X-750
69	PIN	UNS S31803
70	KEY	UNS S31803
19a	NEEDLE LEVER NUT	S.S
20a	NEEDLE STEM	UNS S31803 -6ST
21a	NEEDLE PACKING GLAND	AISI 316
22a	NEEDLE BODY	UNS S31803
23a	NEEDLE BODY GASKET	GRAPHITE
24a	NEEDLE LEVER	S.S
25a	NEEDLE CLOSURE	UNS S31803
26a	NEEDLE STEM GASKET	GRAPHITE
27a	NEEDLE PLUG	UNS S31803

**NEEDLE VALVE DETAIL SEZ A-A**

1/2"NPT-F

**NOTE:**

- Dimension in mm, weight in kg
- Valve according to API 6D - B16.34 - ASME VIII Div.1
- Face to face according to MANUFACTURER STD
- Antistatic device according to BS 5351
- Fire safe according to BS-6755 Pt.2/API6FA
- Material acc to NACE MR0175/ISO 15156
- Raw material from NOBROCK II-250 approved foundry
- PAINTED to Norex 8g stem SA with topcoat colour GRAY (RAL7038)
- Female threaded end to ASME B1.20.1
- Flange acc to ASME B16.5 (one end)

**TAG N°**

13CB7105	13CB7210
13CB7110	13CB7305
13CB7205	79CB7310

**EMMECI VALNOR**

**BALL VALVE**  
DBB TRUNNION BALL VALVE

**GENERAL ASSEMBLY**

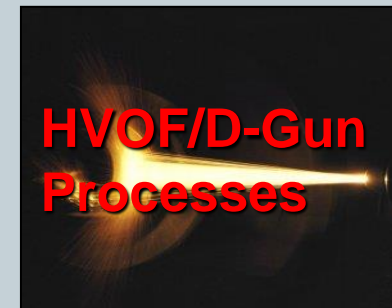
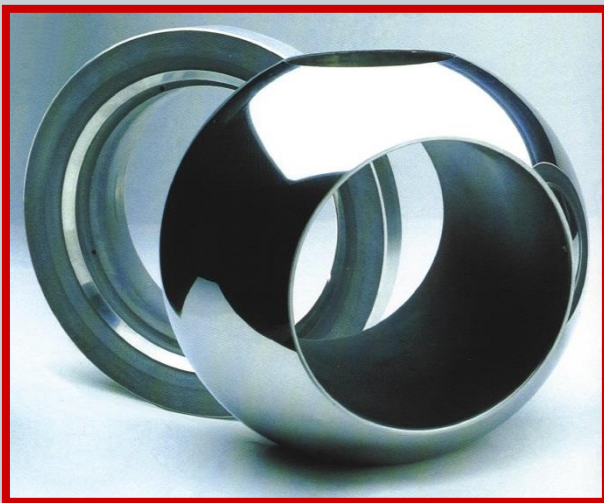
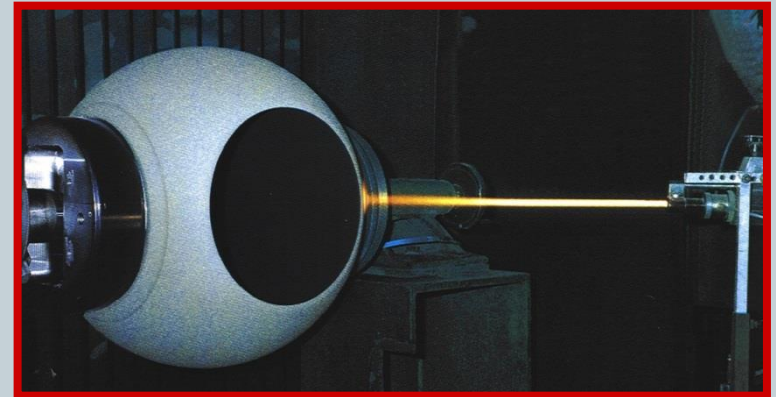
89419

# Special request coating on Ball/seat



## Applied thickness :

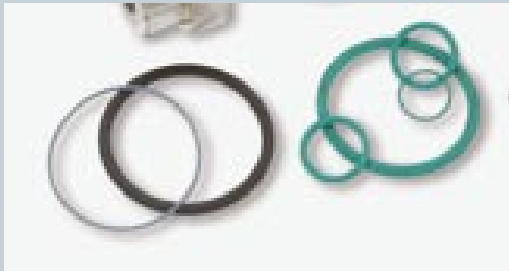
- Tungsten Carbide : 150 ÷ 400  $\mu$  mm. (wear, corrosion)
- Chromium Carbide : 150  $\mu$  mm. (wear, corrosion, temperature)



# Seals design (temp. range -29°C to 180°C)



## Primary Static & Dynamic O-Ring Seal



## Secondary gasket : Fire Safe Graphite



## Fire Safe Test Qualification

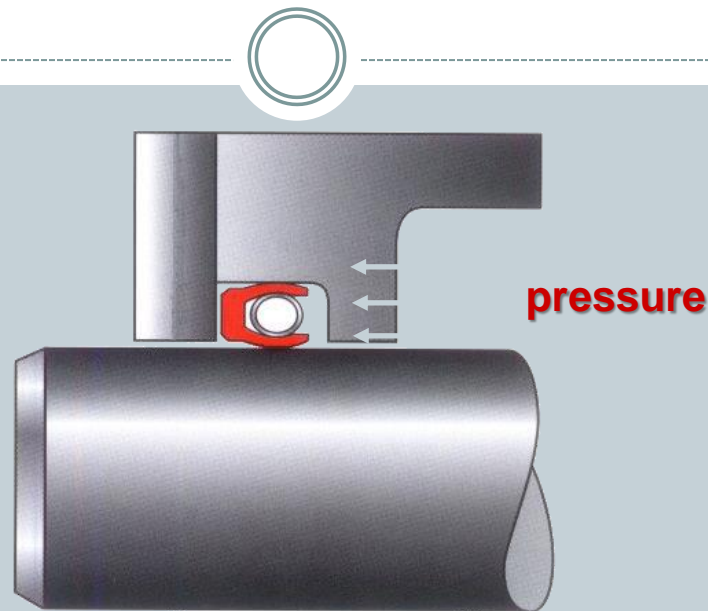
ball valves have been designed to comply with the fire safety standard of API 607 and API 6FA as well as ISO 10497. Fire safe qualification tests are witnessed by independent inspection authority and cover the whole production range.





# Seals design (temp. range -196°C to 200°C)

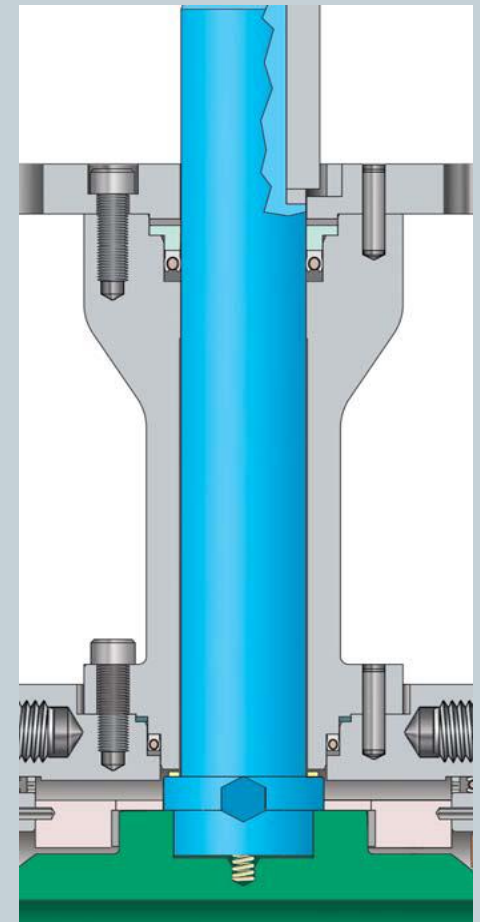
Primary Static  
& Dynamic Lip Seal  
spring energized gasket



Fire Safe Seals Graphite



Metallic materials and seals are selected to maximise valve performance at the specified temperatures. Extended bonnet is provided for the lowest temperature. Special spring energised lip seals are used to guarantee fugitive emission control even on gas service at -196°C.

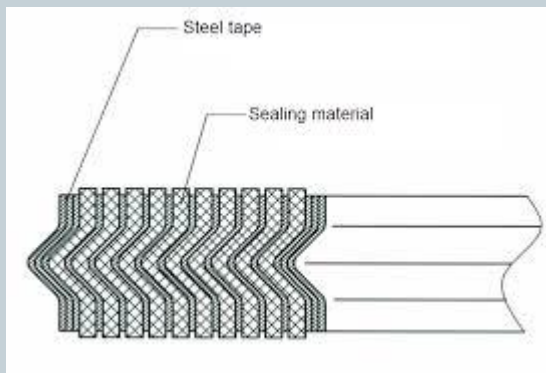


# Seals design (temp. range 220°C to 400°C)



## STATIC SEAL

### Spiral wound gasket



### Fire Safe Seals Graphite



## DYNAMIC SEAL

### Energized «V» Pack for seat and stem seal area



# Special treatment anti-corrosion (only if Request)

## *(Electroless Nickel Plated on TRIM components)*



E.N.P. is normally applied to obtain :

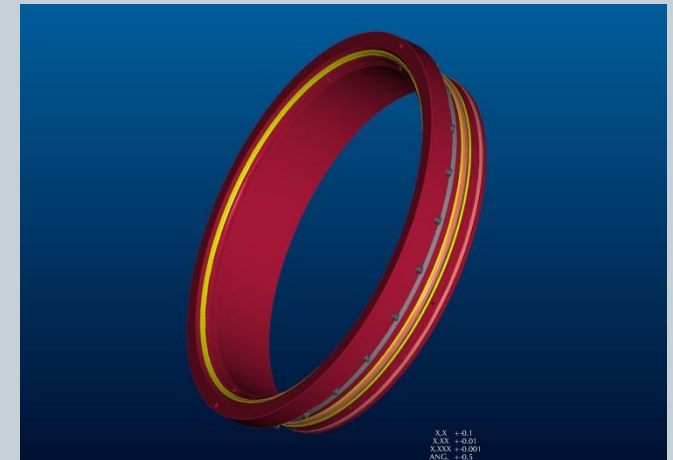
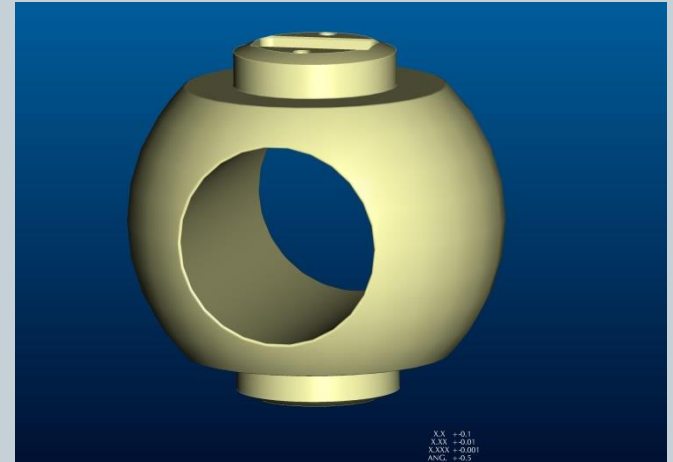
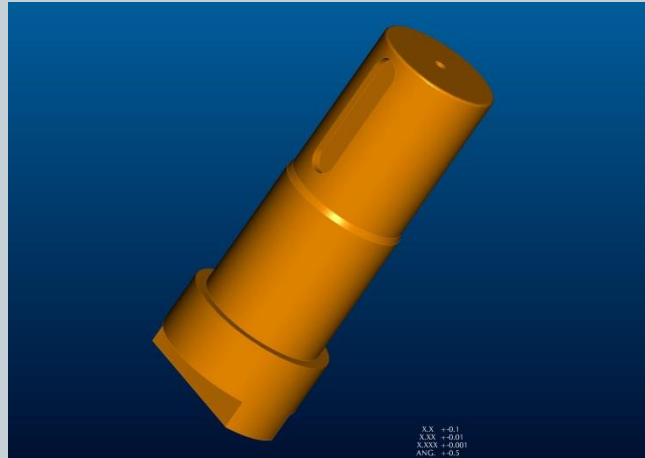
- wear resistance
- corrosion resistance
- low friction

Applied thickness :

- 0.025  $\mu$  mm.
- 0.050  $\mu$  mm.
- 0.075  $\mu$  mm.

Obtainable hardness :

- 500 HV (49 HRC) without H.T.
- 600 HV (55 HRC) with 200 °C H.T.
- 700 HV (60 HRC) with 300 °C H.T.
- 800 HV (64 HRC) with 520 °C H.T.
- 950 HV (68 HRC) with 400 °C H.T



# Special request weld overlay on seals area (only if Request)



Static seal



Dynamic seal



Cladded Ball



On request possible cladding body/closure an all wetted surfaces.

## WELD OVERLAY MATERIALS:

-316L / 304L

-Inconel 625, Incoloy 825