

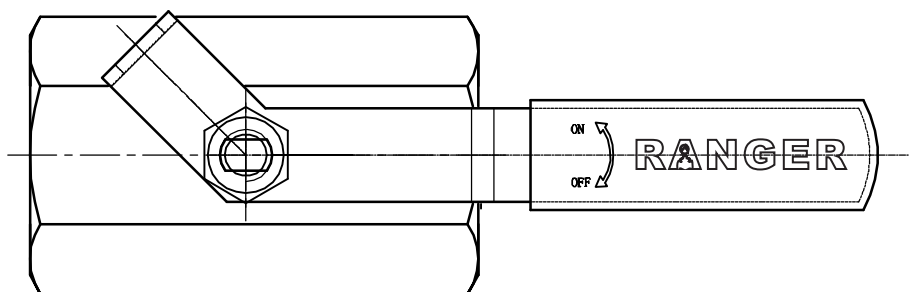
HOW TO ORDER

THREADED AND SOCKET WELD VALVE

ASME CLASS 800, 1500 & 2500#



1. MODEL	2. PORT TYPE	3. SIZE
R1 = One-piece (unibody)	F= Full Bore	02 = 1/4" (8)
R2 = Two-piece (one end entry)	R= Reduced Bore	03 = 3/8" (10)
R3 = Three-piece (both end entry)		05 = 1/2" (15)
RT = Top Entry		07 = 3/4" (20)
		10 = 1" (25)
		12 = 1-1/4" (32)
		15 = 1-1/2" (40)
		20 = 2" (50)
		25 = 2-1/2"
		30 = 3"
4. END CONNECTION	5. PRESSURE CLASS	6. BODY MATERIAL
S = FNPT	8 = 800 (2000 WOG)	A = A216 WCB
C = COMBINATION (FNPT X SOCKET WELD)	15 = 1500 (3705 PSI WOG)	B = A105N
W = SOCKET WELD	25 = 2500 (6170 PSI WOG)	C = A352 LCC
B = BUTTWELD		D = A350 LF2
		E = A351 CF8M
		F = A182 F316
		G = A182 F316L
		X = SPECIAL
7-TOP WORKS	8 - DESIGNATOR	9 - SERVICE
L = Lever	If applicable, please put a dash as the	N = NACE
O = Oval Handle	designator for a service condition identification.	F = Firesafe
E = Extended*		C = Cryogenic
*Add "E" to designate extended top works i.e. LE equals extended lever		99 = As per service requirements



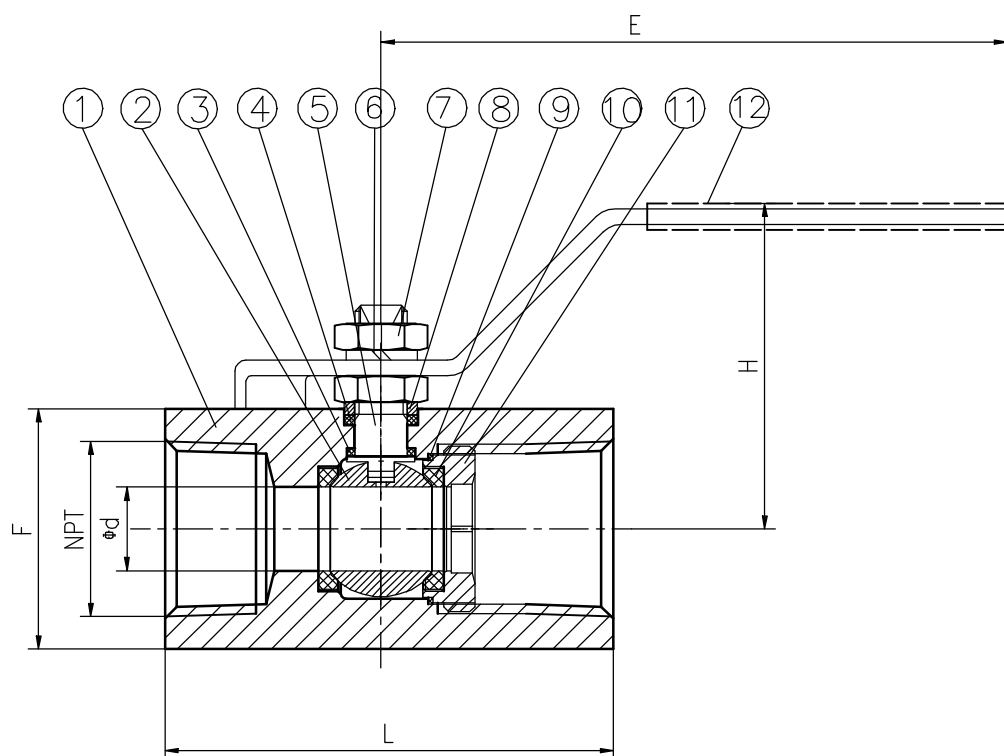
Technical Requirement:

1. Basic Design ASME B16.34
2. NPT Threads per ASME B1.20.1
3. Inspection and testing comply to API 598
4. Fire safe to API 607
5. NACE MR0175
6. CLASS 800 (2000 WOG)

DIMENSIONS

UNIT: mm

SIZE	1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
F	21	25	30	36	46	55	61	75
H	25	33	54	57	65	75	81	90
E	60	66.7	126	126	133	150	170	170
L	43.2	47.2	62.5	69.9	85.9	93.7	101.6	114.3
ød	5	7	9.2	12.5	16	20	24.5	32



No.	Part Name	Material
1	BODY	A105N
2	BALL	F316
3	THRUST WASHER	PTFE
4	PACKING	GRAPHITE
5	STEM	316 SS
6	LOCK WASHER	304 SS
7	NUT	304 SS
8	GLAND	304 SS
9	GASKET	PTFE
10	SEAT	RPTFE
11	SEAT RETAINER	A105N
12	HANDLE	201 SS
13	HANDLE SLEEVE	PVC

DRAWN	PW	DATE	2019.10.29
CHECK	CBM	DATE	2019.10.29
APPR	MPS	DATE	2019.10.29

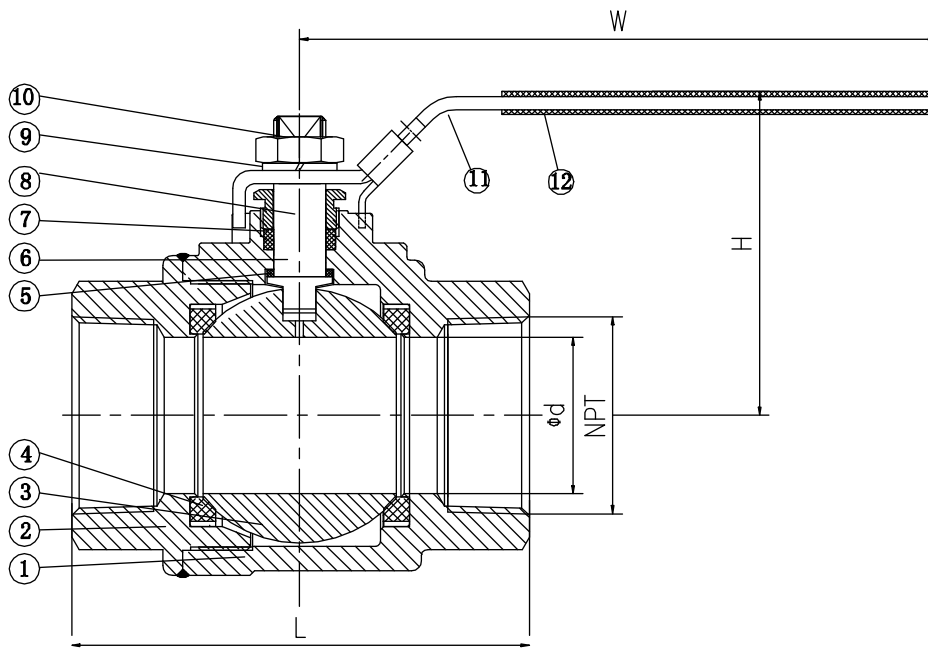
RANGER

EXAMPLE FIG. NO. R1-R10S8B-FN

**1PC RP BALL VALVE
CLASS 800**

REV

01



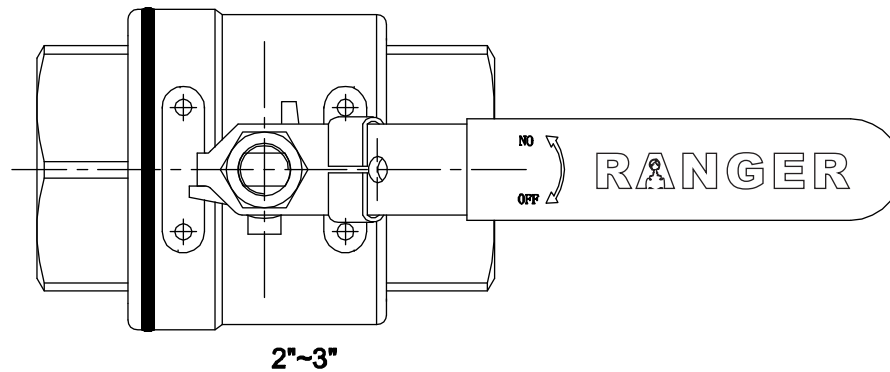
Technical Requirement:

1. Conforms to ASME B16.34
2. NPT Threads per ASME B1.20.1
3. Inspection and testing comply to API 598
4. Fire safe to API 607
5. NACE MR0175
6. CLASS 800 (2000 WOG)

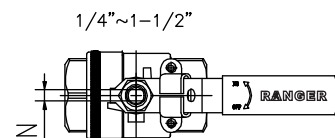
DIMENSIONS

UNIT: mm

SIZE	1/4"	3/8"	1/2"	3/4"	1"	1-1/2"	1-1/2"	2"	2-1/2"	3"
W	105	105	117	140	160	160	195	195	310	350
H	54	54	64	65	75	79	97	105	152	160
L	60	60	75	80	90	110	120	140	185	205
ød	10.8	12.5	15	20	25	32	38	48	65	76



2"~3"



1/4"~1-1/2"

No.	Part Name	Material	
1	BODY	ASTM A351-CF8M	ASTM A216-WCB
2	CAP	ASTM A351-CF8M	ASTM A216-WCB
3	BALL	ASTM A182-F316	ASTM A182-F316
4	SEAT	RPTFE	RPTFE
5	THRUST WASHER	RPTFE	RPTFE
6	PACKING	GRAPHITE	GRAPHITE
7	GLAND BUSHING	ASTM A276-304SS	ASTM A276-304SS
8	STEM	ASTM A276-316SS	ASTM A276-316SS
9	WASHER	SS	SS
10	NUT	A2-70	A2-70
11	HANDLE	SS	SS
12	SLEEVE	PVC	PVC

DRAWN	PW	DATE	2019.10.29
CHECK	CBM	DATE	2019.10.29
APPR	MPS	DATE	2019.10.29

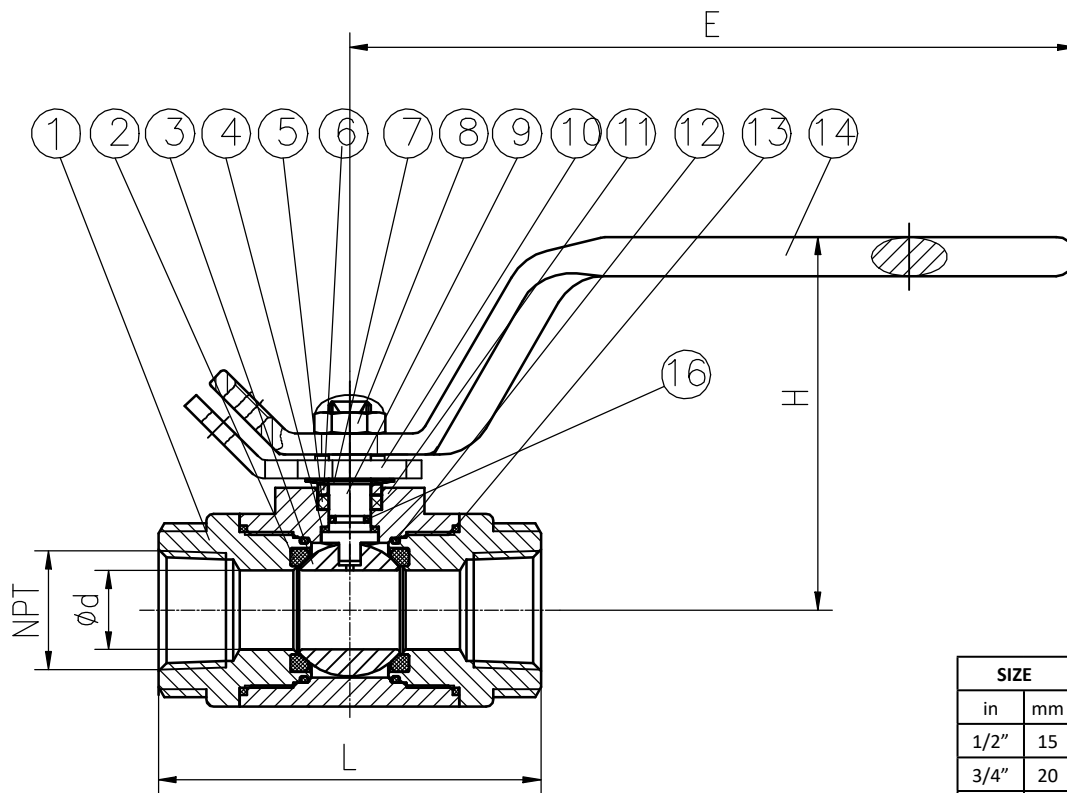
RANGER

EXAMPLE FIG. NO. R2-F10S8A-FN

**2PC FP BALL VALVE
CLASS 800**

REV

01

**Technical Requirement:**

1. Basic Design ASME B16.34
2. NPT Threads per ASME B1.20.1
3. Inspection and testing comply to API 598
4. Fire safe to API 607
5. NACE MR0175
6. CLASS 1500 (3705 PSI)

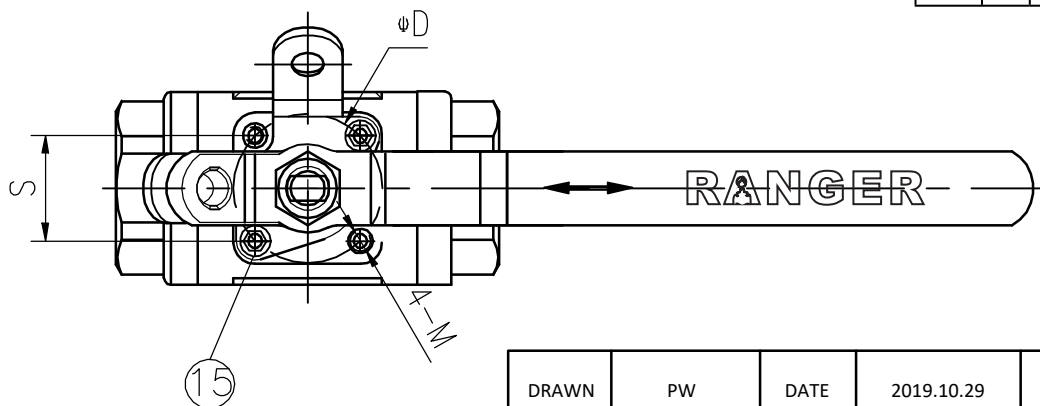
DIMENSIONS

UNIT: mm

SIZE		Ød		L (TOLERANCE)			H		E		S		M
in	mm	in	mm	in	mm	mm	in	mm	in	mm	in	mm	mm
1/2"	15	0.5	12.7	3.86	98	±1.4	3.62	92	6.49	165	1	25.4	M5
3/4"	20	0.75	19	4.25	108		3.98	101	8.07	205	1.16	29.5	M5
1"	25	0.98	25	4.25	108		4.13	105	8.07	205	1.16	29.5	M5
1-1/2"	40	1.5	38	6.26	159	±1.6	6.1	155	12.2	310	1.95	49.5	M8
2"	50	1.97	50	6.3	160		6.97	177	12.2	310	1.95	49.5	M8

SIZE		ØD	
in	mm	in	mm
1/2"	15	1.42	36
3/4"	20	1.65	42
1"	25	1.65	42
1-1/2"	40	2.76	70
2"	50	2.76	70

No.	Part Name	Material	
1	END CAP	ASTM A105N	ASTM A350 LF2
2	SEAT	PEEK	PEEK
3	BALL	ASTM A182 F136	ASTM A182 F136
4	THRUST WASHER	PEEK	PEEK
5	PACKING	GRAPHITE	GRAPHITE
6	GLAND	ASTM A276-304	ASTM A276-304
7	BELLEVILLE WASHER	ASTM A240-301	ASTM A240-301
8	STEM NUT	A2-70 (304SS)	A2-70 (304SS)
9	STEM	ASTM A276-316	ASTM A276-316
10	LOCKING FLANGE	ASTM A216-WCB	ASTM A216-WCB
11	BODY	ASTM A105N	ASTM A350-LF2
12	O-RING	VITON	VITON
13	GASKET	GRAPHITE	GRAPHITE
14	HANDLE	ASTM A216 WCB	ASTM A216 WCB
15	BOLTING	ASTM A320 L7M	ASTM A320 L7M
16	O-RING	VITON	VITON



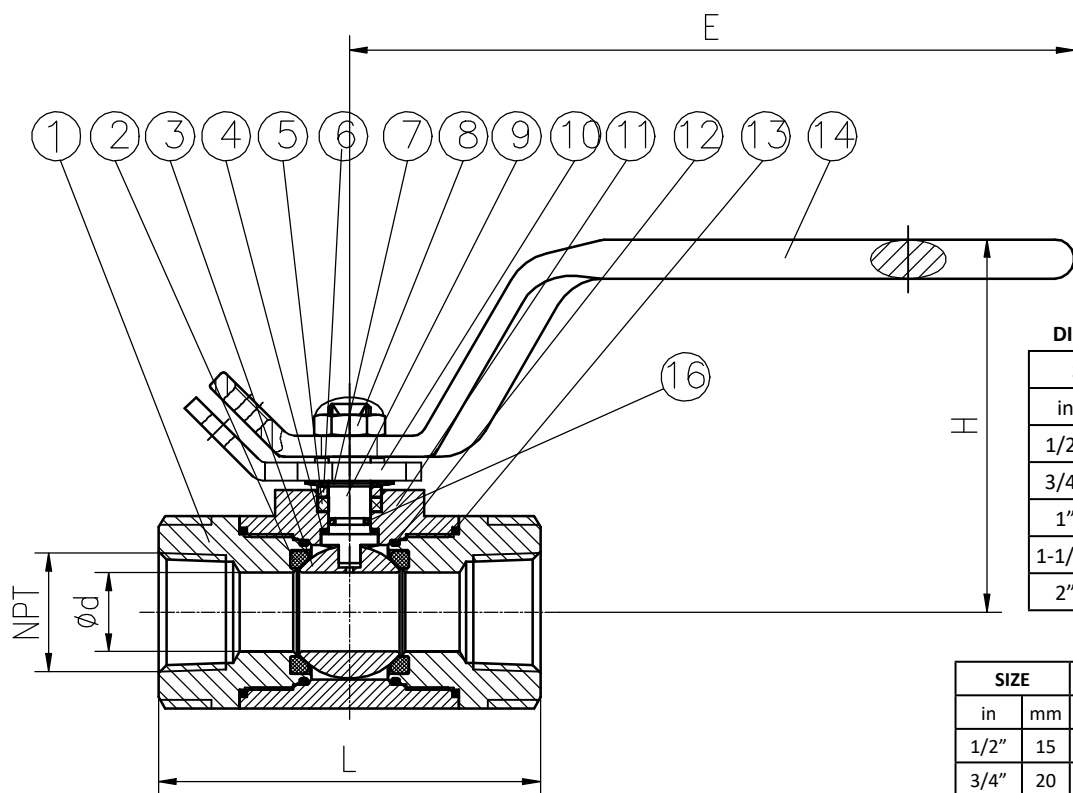
DRAWN	PW	DATE	2019.10.29
CHECK	CBM	DATE	2019.10.29
APPR	MPS	DATE	2019.10.29

EXAMPLE FIG. NO. R3-F10S15D-FN

3PC FP BALL VALVE
CLASS 1500

REV

01

**Technical Requirement:**

1. Basic Design ASME B16.34
2. NPT Threads per ASME B1.20.1
3. Inspection and testing comply to API 598
4. Fire safe to API 607
5. NACE MR0175
6. CLASS 1500 (3705 PSI)

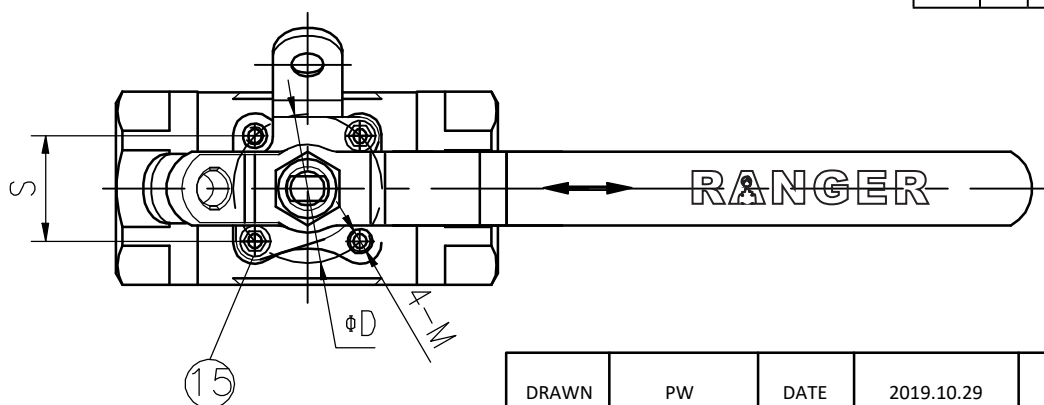
DIMENSIONS

UNIT: mm

SIZE		ød		L (TOLERANCE)			H		E		S		M
in	mm	in	mm	in	mm	mm	in	mm	in	mm	in	mm	mm
1/2"	15	0.5	12.7	3.86	98	±1.4	3.62	92	6.49	165	1	25.4	M5
3/4"	20	0.69	17.5	4.25	108		3.98	101	8.07	205	1.16	29.5	M5
1"	25	0.88	22.3	4.25	108		3.66	105	8.07	205	1.16	29.5	M5
1-1/2"	40	1.25	31.8	5.24	133	±1.6	4.96	126	10.04	255	1.39	35.3	M6
2"	50	1.5	38	6.26	159		6.1	155	12.2	310	1.95	49.5	M8

SIZE		øD	
in	mm	in	mm
1/2"	15	1.42	36
3/4"	20	1.65	42
1"	25	1.65	42
1-1/2"	40	2.76	70
2"	50	2.76	70

No.	Part Name	Material	
1	END CAP	ASTM A105N	ASTM A350 LF2
2	SEAT	PEEK	PEEK
3	BALL	ASTM A182 F136	ASTM A182 F136
4	THRUST WASHER	PEEK	PEEK
5	PACKING	GRAPHITE	GRAPHITE
6	GLAND	ASTM A276-304	ASTM A276-304
7	BELLEVEILLE WASHER	ASTM A240-301	ASTM A240-301
8	STEM NUT	A2-70 (304SS)	A2-70 (304SS)
9	STEM	ASTM A276-316	ASTM A276-316
10	LOCKING FLANGE	ASTM A216-WCB	ASTM A216-WCB
11	BODY	ASTM A105N	ASTM A350-LF2
12	O-RING	VITON	VITON
13	GASKET	GRAPHITE	GRAPHITE
14	HANDLE	ASTM A216 WCB	ASTM A216 WCB
15	BOLTING	ASTM A320 L7M	ASTM A320 L7M
16	O-RING	VITON	VITON



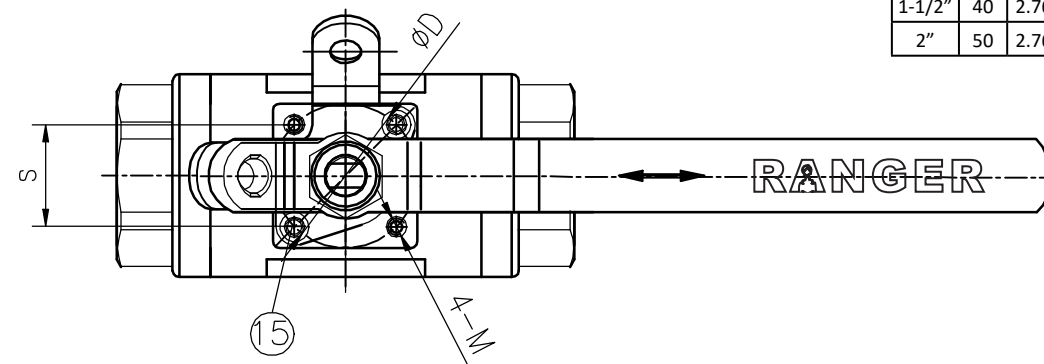
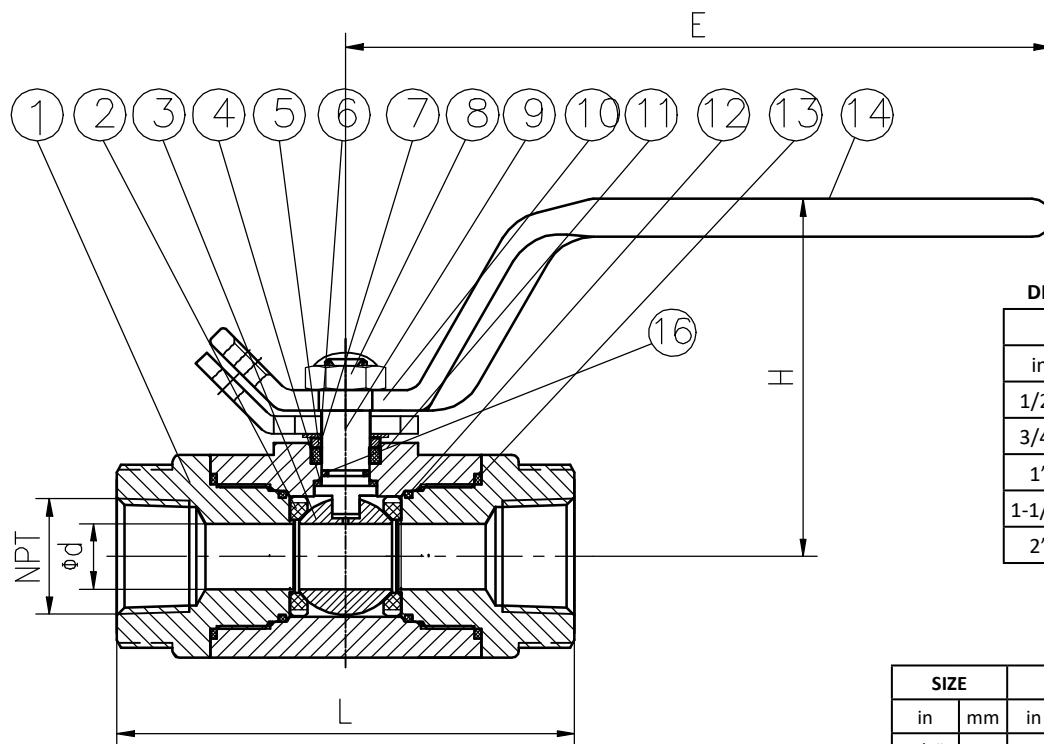
DRAWN	PW	DATE	2019.10.29
CHECK	CBM	DATE	2019.10.29
APPR	MPS	DATE	2019.10.29

EXAMPLE FIG. NO. R3-R10S15D-FN

**3PC RP BALL VALVE
CLASS 1500**

REV

01



Technical Requirement:

1. Basic Design ASME B16.34
2. NPT Threads per ASME B1.20.1
3. Inspection and testing comply to API 598
4. Fire safe to API 607
5. NACE MR0175
6. CLASS 2500 (6170 PSI)

DIMENSIONS

UNIT: mm

SIZE		ϕd		L (TOLERANCE)			H		E		S		M
in	mm	in	mm	in	mm	mm	in	mm	in	mm	in	mm	mm
1/2"	15	0.5	12.7	4.37	111	± 1.4	3.66	93	6.49	165	1	25.4	M5
3/4"	20	0.75	19	4.37	111		4.09	104	8.07	205	1.16	29.5	M5
1"	25	0.98	25	5.51	140		4.09	104	8.07	205	1.16	29.5	M5
1-1/2"	40	1.5	38	6.26	159	± 1.6	6.14	156	12.2	310	1.95	49.5	M8
2"	50	1.97	50	7.99	203		7.13	181	12.2	310	1.95	49.5	M8

SIZE		ϕD	
in	mm	in	mm
1/2"	15	1.42	36
3/4"	20	1.65	42
1"	25	1.65	42
1-1/2"	40	2.76	70
2"	50	2.76	70

No.	Part Name	Material	
1	END CAP	ASTM A105N	ASTM A350 LF2
2	SEAT	PEEK	PEEK
3	BALL	ASTM A182 F136	ASTM A182 F136
4	THRUST WASHER	PEEK	PEEK
5	PACKING	GRAPHITE	GRAPHITE
6	GLAND	ASTM A276-304	ASTM A276-304
7	BELLEVILLE WASHER	ASTM A240-301	ASTM A240-301
8	STEM NUT	A2-70 (304SS)	A2-70 (304SS)
9	STEM	ASTM A276-316	ASTM A276-316
10	LOCKING FLANGE	ASTM A216-WCB	ASTM A216-WCB
11	BODY	ASTM A105N	ASTM A350-LF2
12	O-RING	VITON	VITON
13	GASKET	GRAPHITE	GRAPHITE
14	HANDLE	ASTM A216-WCB	ASTM A216-WCB
15	BOLTING	ASTM A320-L7M	ASTM A320-L7M
16	O-RING	VITON	VITON

DRAWN	PW	DATE	2019.10.29
CHECK	CBM	DATE	2019.10.29
APPR	MPS	DATE	2019.10.29

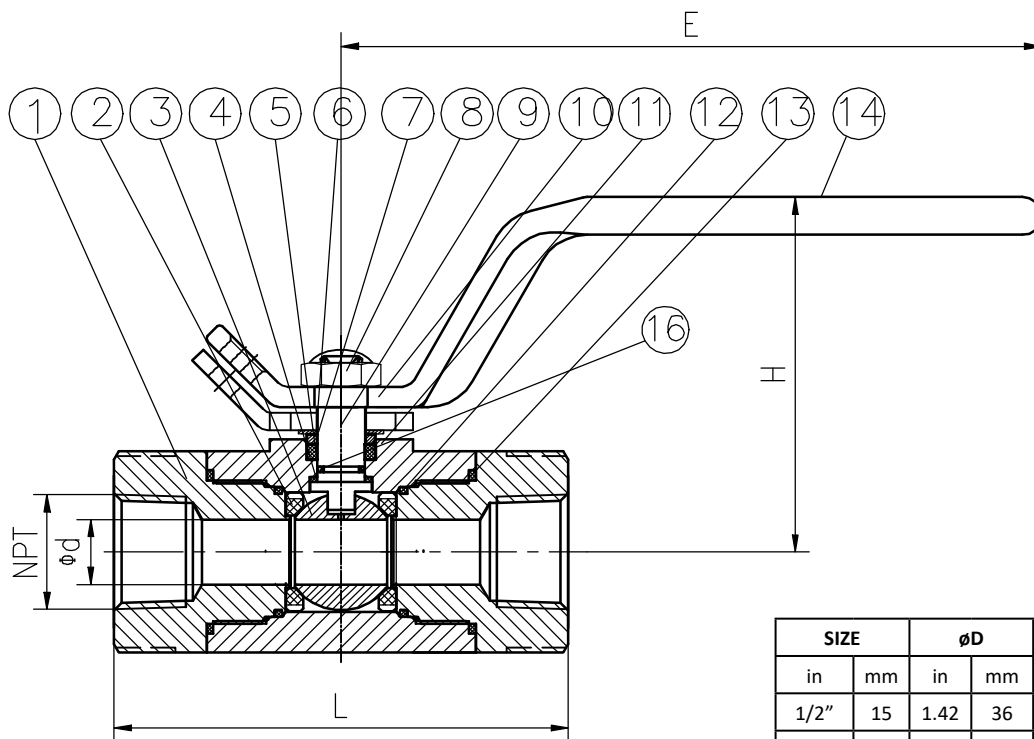
RANGER

EXAMPLE FIG. NO. R3-F10S25D-FN

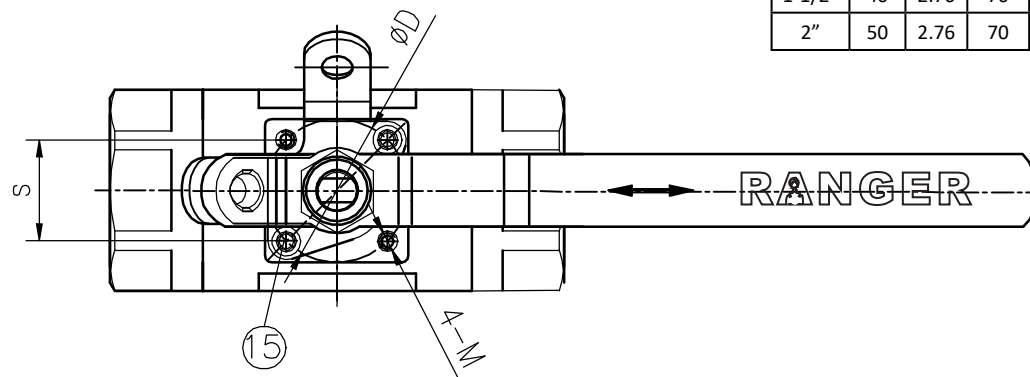
**3PC FP BALL VALVE
CLASS 2500**

REV

01



SIZE		ØD	
in	mm	in	mm
1/2"	15	1.42	36
3/4"	20	1.65	42
1"	25	1.65	42
1-1/2"	40	2.76	70
2"	50	2.76	70



Technical Requirement:

1. Basic Design ASME B16.34
2. NPT Threads per ASME B1.20.1
3. Inspection and testing comply to API 598
4. Fire safe to API 607
5. NACE MR0175
6. CLASS 2500 (6170 PSI)

DIMENSIONS

UNIT: mm

SIZE		Ød		L (TOLERANCE)			H		E		S		M
in	mm	in	mm	in	mm	mm	in	mm	in	mm	in	mm	mm
1/2"	15	0.5	12.7	4.37	111	±1.4	3.66	93	6.49	165	1	25.4	M5
3/4"	20	0.5	12.7	4.37	111		3.66	93	6.49	165	1	25.4	M5
1"	25	0.75	19	5.24	133		4.09	104	8.07	205	1.16	29.5	M5

No.	Part Name	Material	
1	END CAP	ASTM A105N	ASTM A350 LF2
2	SEAT	PEEK	PEEK
3	BALL	ASTM A182-F316	ASTM A182-F316
4	THRUST WASHER	PEEK	PEEK
5	PACKING	GRAPHITE	GRAPHITE
6	GLAND	ASTM A276-304	ASTM A276-304
7	BELLEVILLE WASHER	ASTM A240-301	ASTM A240-301
8	STEM NUT	A2-70 (304SS)	A2-70 (304SS)
9	STEM	ASTM A276-316	ASTM A276-316
10	LOCKING FLANGE	ASTM A216-WCB	ASTM A216-WCB
11	BODY	ASTM A105N	ASTM A350-LF2
12	O-RING	VITON	VITON
13	GASKET	GRAPHITE	GRAPHITE
14	HANDLE	ASTM A216-WCB	ASTM A216-WCB
15	BOLTING	ASTM A320-L7M	ASTM A320-L7M
16	O-RING	VITON	VITON

DRAWN	PW	DATE	2019.10.29
CHECK	CBM	DATE	2019.10.29
APPR	MPS	DATE	2019.10.29

RANGER

EXAMPLE FIG. NO. R3-R10S25D-FN

**3PC RP BALL VALVE
CLASS 2500**

REV

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