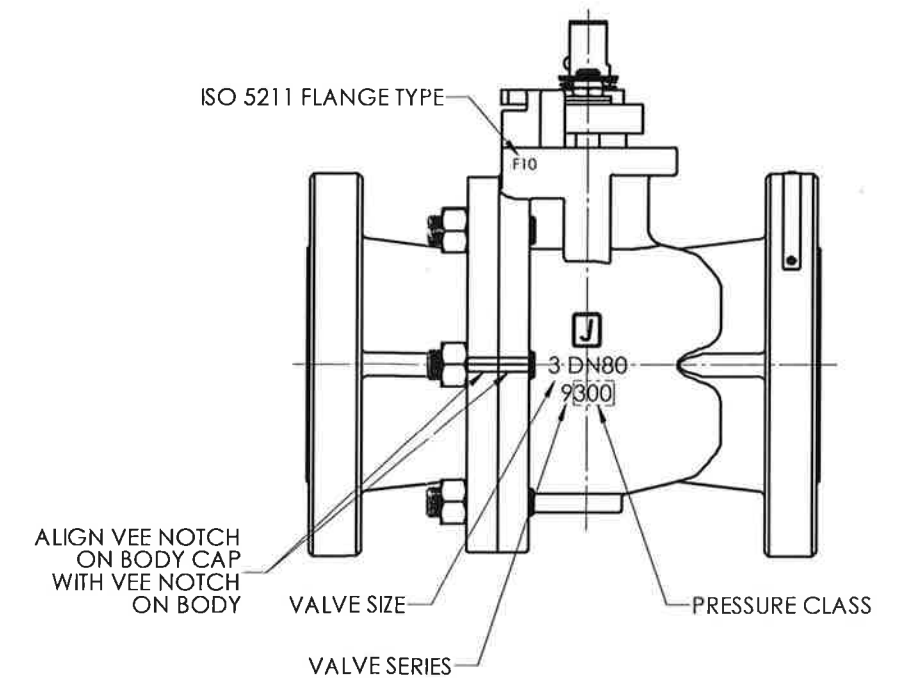
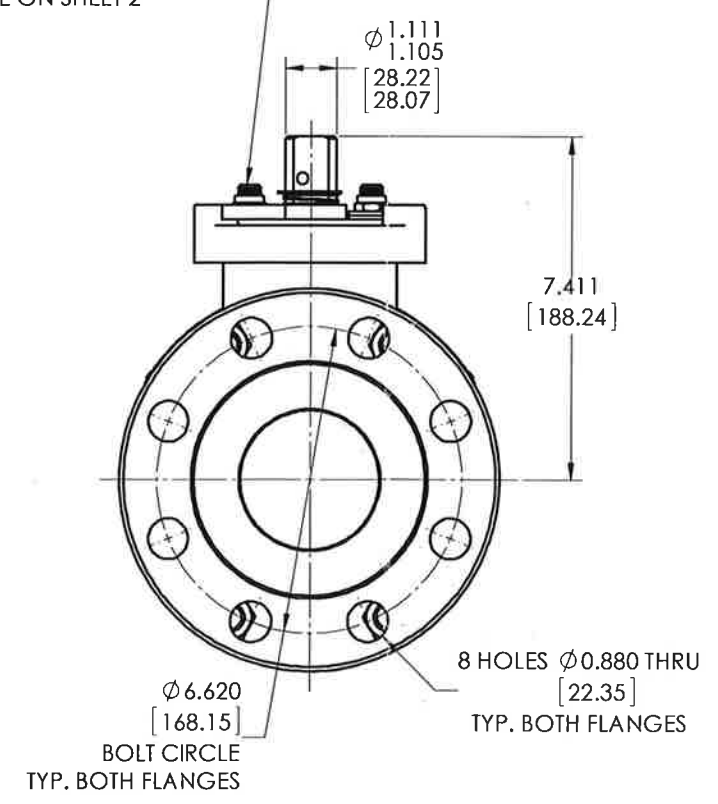
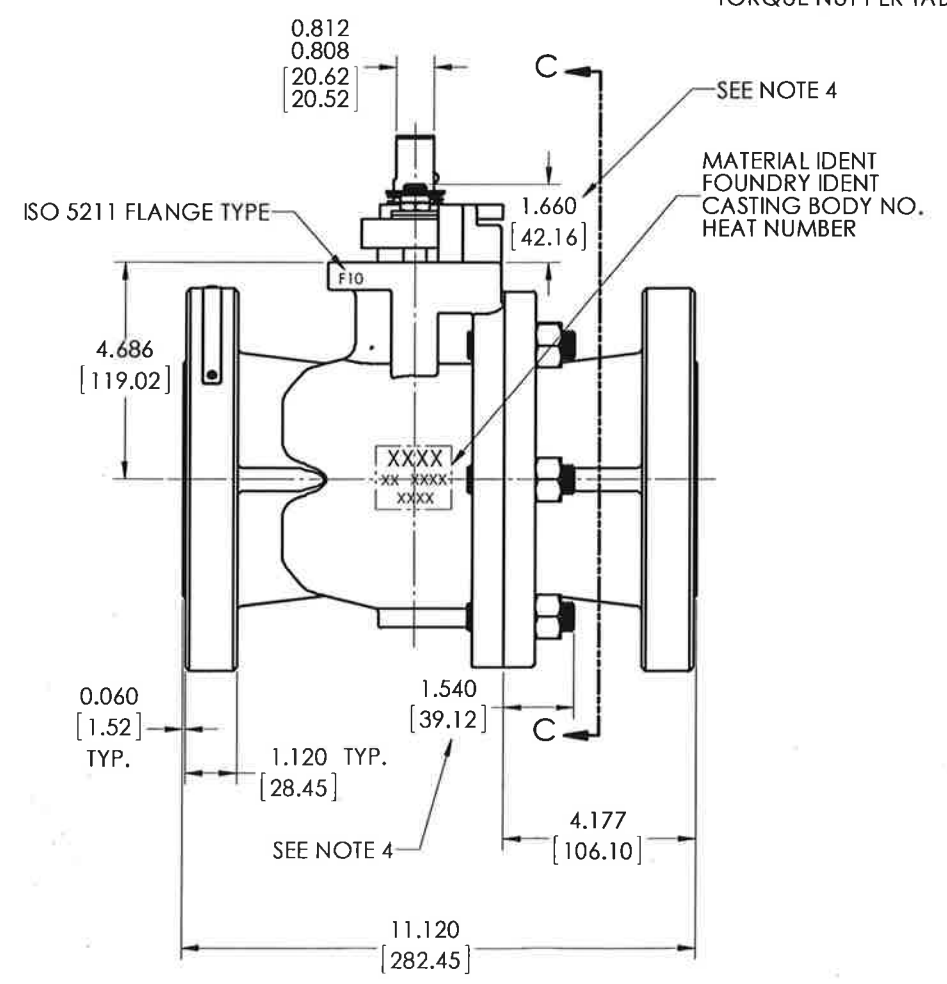


- NOTES:
1. ATTACH IDENTIFICATION TAG PER JMA-98.
 2. FOR INSTALLATION, MAINTENANCE & OPERATING INSTRUCTIONS SEE IMO-226.
 3. WHERE IDENTIFICATION APPEARS ON NUT OR STUD FACE, ASSEMBLE WITH IDENTIFICATION ALWAYS VISIBLE.
 4. STUD HEIGHT IS ONLY APPLICABLE WHEN USING CONTINUOUS THREADED STUDS. WHEN USING CONTINUOUS THREADED STUDS, USE LOCTITE #271 ON STUD THREADS INTO BODY PER JSA-34. DOUBLE ENDED STUDS **DO NOT** REQUIRE LOCTITE.
 5. DIMENSIONS IN [] ARE IN MILLIMETERS AND ARE BASED ON STANDARD DIMENSIONS SHOWN.

SEE NOTE 1

LUBRICATE STUD THREADS AND BOTTOM FACE OF NUT PER JSA-01 OR A COMPATIBLE LUBRICANT FOR THE GIVEN VALVE (SEE NOTE 3) TORQUE NUT PER TABLE ON SHEET 2

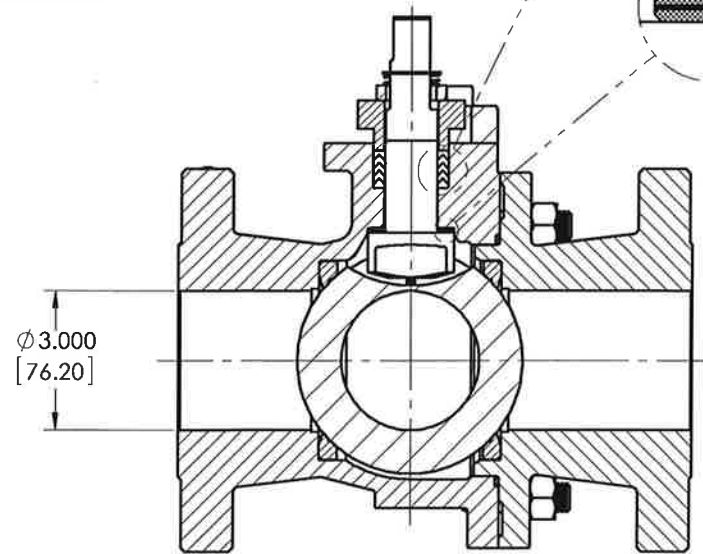
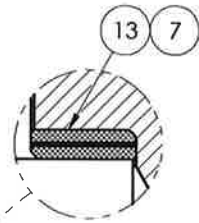
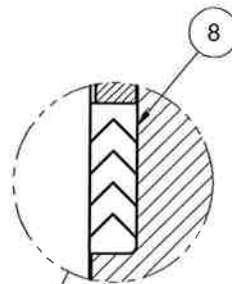
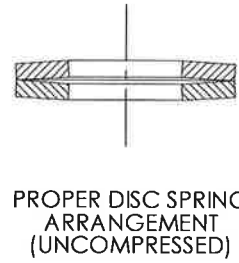
LUBRICATE STUD THREADS AND BOTTOM FACE OF NUT PER JSA-01 OR A COMPATIBLE LUBRICANT FOR THE GIVEN VALVE (SEE NOTE 3) TORQUE NUT TO 8 FT.-LBS.



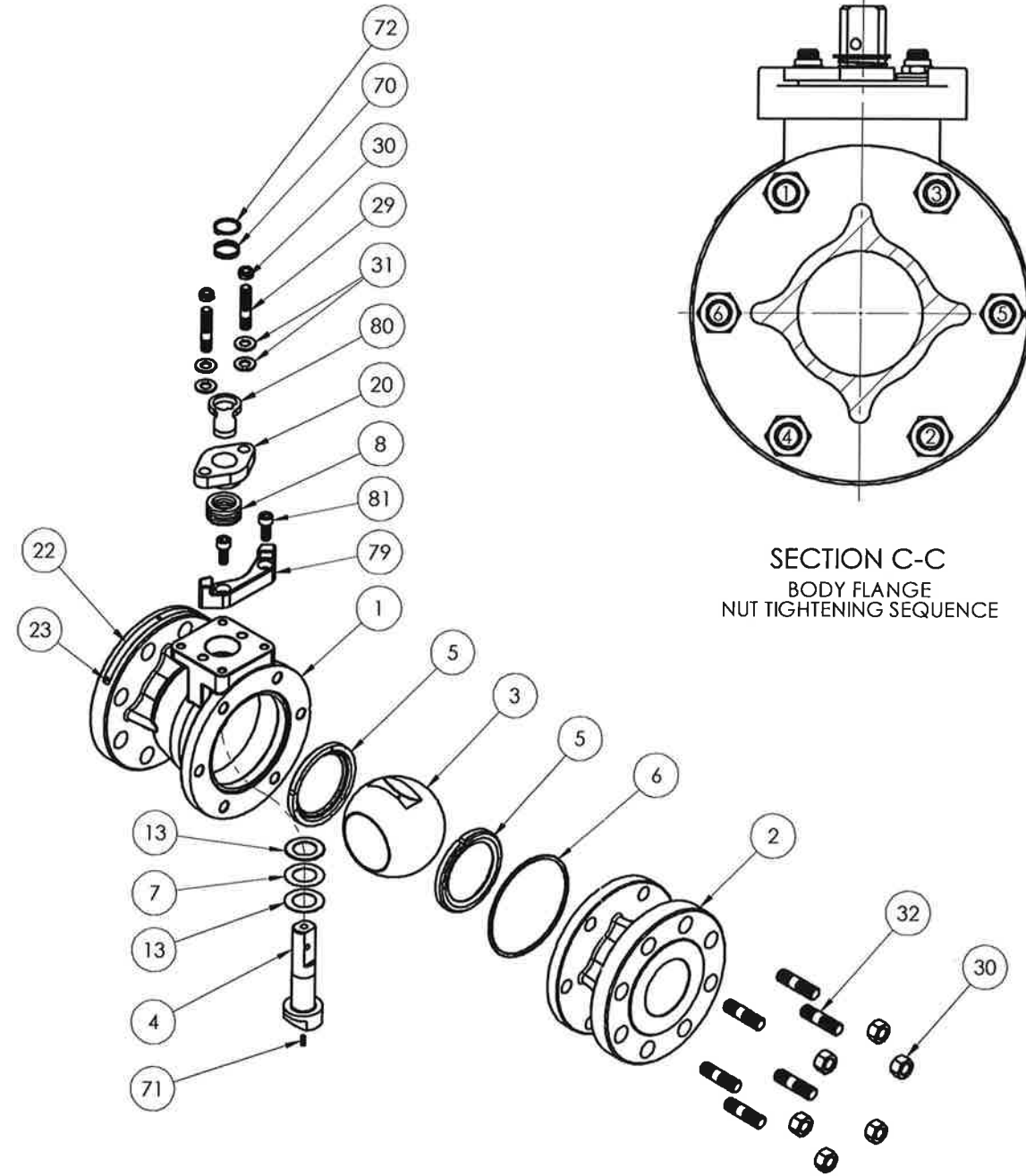
THIS DRAWING AND ALL INFORMATION CONTAINED HEREIN ARE THE PROPERTY OF METSO AND ARE NOT TO BE USED EXCEPT AS AUTHORIZED IN WRITING BY METSO	SPECIFICATIONS TO BE USED IN CONNECTION WITH THIS DRAWING	MAX. FROM PART NO.	INTERNAL	
	JSA-01 JSA-02 JSA-10 JSA-17 JSA-34 JMA-98 IMO-226	TITLE VALVE ASSEMBLY 3" SERIES 9300RR MODEL C FULL BORE ASME CLASS 300 FLANGED BALL VALVE	DRAWN PJD	DATE 6/22/15
© 2015 Metso		APPROVED KAS	DATE 7/1/15	REV 0
metso SHEFFIELD MASSACHUSETTS		SIZE D	DWG NO. 5574	SHEET 1 OF 2

ITEM NO.	DESCRIPTION	QTY.	SPARE PART
1	BODY	1	N/A
2	BODY CAP	1	N/A
3	BALL	1	B
4	STEM	1	B
5	SEAT	2	A
6	BODY SEAL	1	A
7	SECONDARY STEM SEAL	1	A
8	STEM SEAL	1	A
13	STEM BEARING	2	A
20	COMPRESSION PLATE	1	B
22	IDENTIFICATION TAG	1	N/A
23	POP RIVET	3	N/A
29	BONNET STUD	2	B
30	BONNET STUD NUT	2	B
31	DISC SPRING	4	B
32	BODY STUD	6	B
33	BODY STUD NUT	6	B
70	TOP GROUNDING SPRING	1	B
71	BOTTOM GROUNDING SPRING	1	B
72	RETAINING RING	1	B
79	TRAVEL STOP	1	B
80	INDICATOR STOP	1	B
81	SOCKET HEAD CAP SCREW	2	B

A= PART SUPPLIED IN SPARE PART SET
 B= PART MAY BE ORDERED AS REQUIRED FOR REPAIR
 N/A= NOT AVAILABLE AS A SPARE PART



SECTION A-A



BODY STUD NUT ASSEMBLY TORQUE (FT.-LBS.)

MAT'L. CODE	MAT'L. SPEC.	MAT'L. IDENT. STUD	MAT'L. IDENT. NUT	BODY STUD NUT ITEM 33
19	A-193 GR. B7M	B7M	2HM OR 2HMB	110 - 140
20	A-193 GR. B7	B7	2H OR 2HB	150 - 190
31	A-193 GR. 88	B8, B8C OR B8T	B8, B8CB OR B8TB	110 - 140
35	B-473 CARPENTER 20Cb-3	A20	A20	45 - 55
71	QQ-N-286	K	K	115 - 141

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SPECIFICATIONS TO BE USED IN CONNECTION WITH THIS DRAWING
 JSA-01.JST-02
 JSA-10.JSA-17
 JSA-34
 JMA-98
 IMO-226

MADE FROM PART NO. **INTERNAL**

TITLE: VALVE ASSEMBLY
 3" SERIES 9300RR MODEL C
 FULL BORE ASME CLASS 300
 FLANGED BALL VALVE

DRWN	DATE
PJD	6/22/15
APP'D	DATE
KAS	7/1/15

© 2015 Metso

metso
 CHREWSBURY, MASSACHUSETTS

SIZE D DWG NO. 5574 REV 0

SHEET 2 OF 2

ALL DIMENSIONS ARE ±0.06 EXCEPT AS NOTED

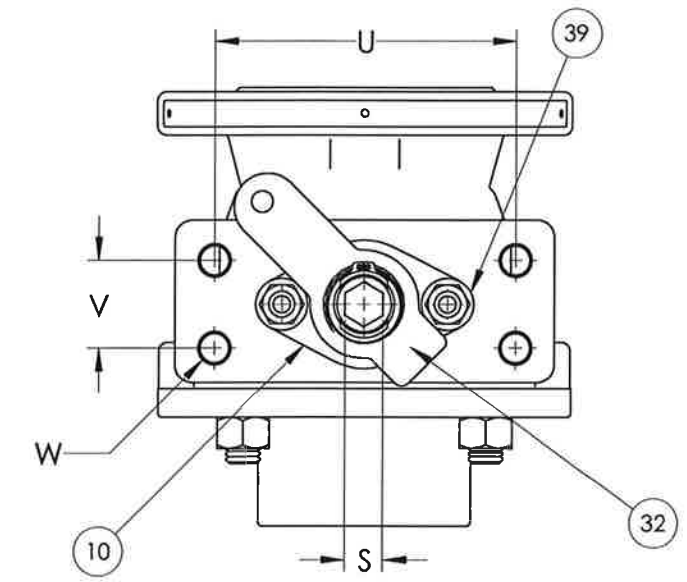
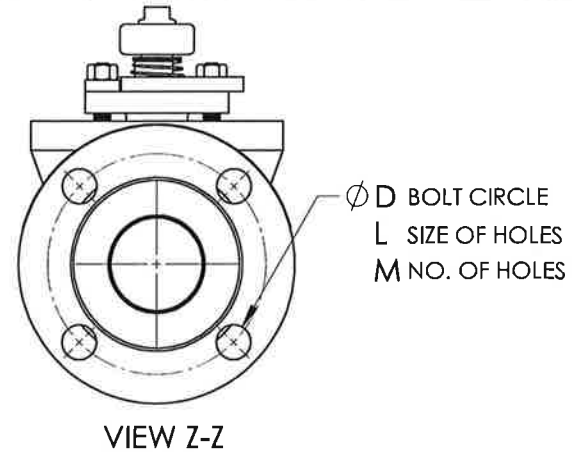
VALVE SIZE	A	B	C	D	E	G	H	J	K	L	M	P	S	T	U	V	W	X
1"	SEE SHEETS 3 AND 4																	
2"	6.29	3.19	6.00	4.75	2.00	5.05	SEE NOTE 5	5.50	3.09	0.75	4	0.24	0.69	0.62	4.33	1.26	1/2-13	2 NPT
3"	8.02	4.11	7.50	6.00	3.00	5.87	5	6.32	3.90	0.75	4	0.24	0.69	0.75	4.33	1.26	1/2-13	3 NPT

LET	ECN	REVISION	DRAWN	APPROVED	DATE
A	18356	1.4 WAS 1.2	BA	PJD	25 JUN, 02
B	40702	REDRAWN IN SOLIDWORKS. SEE ECN FOR CHANGES.	BC	KAS	1/31/12

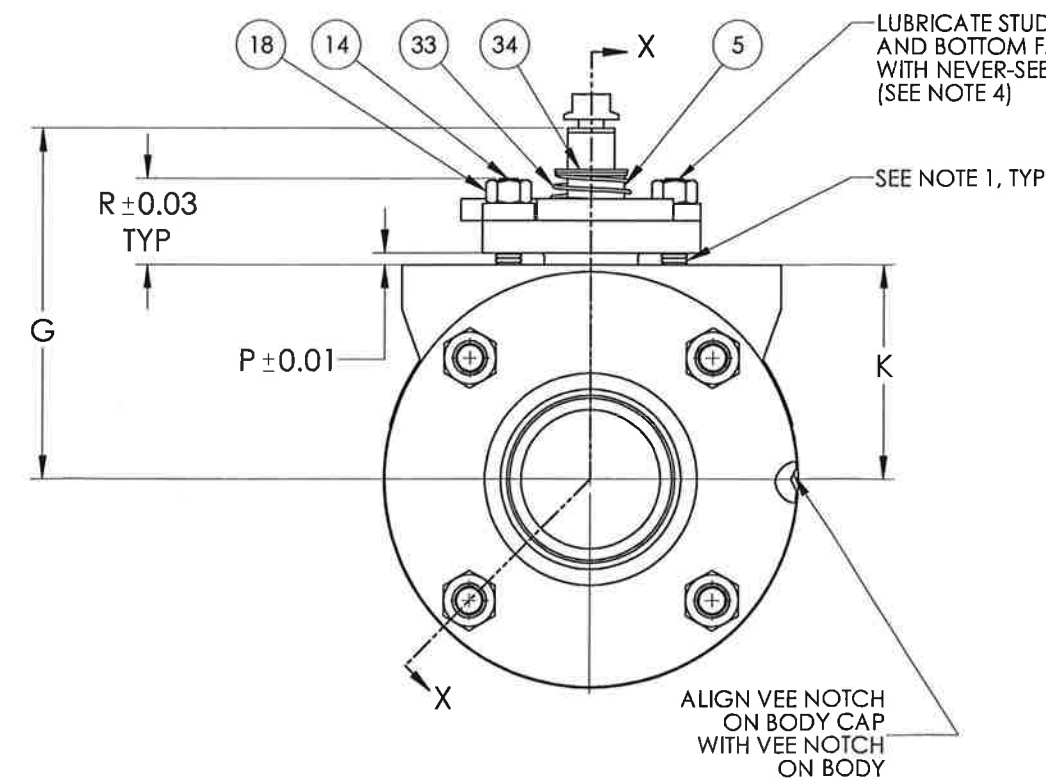
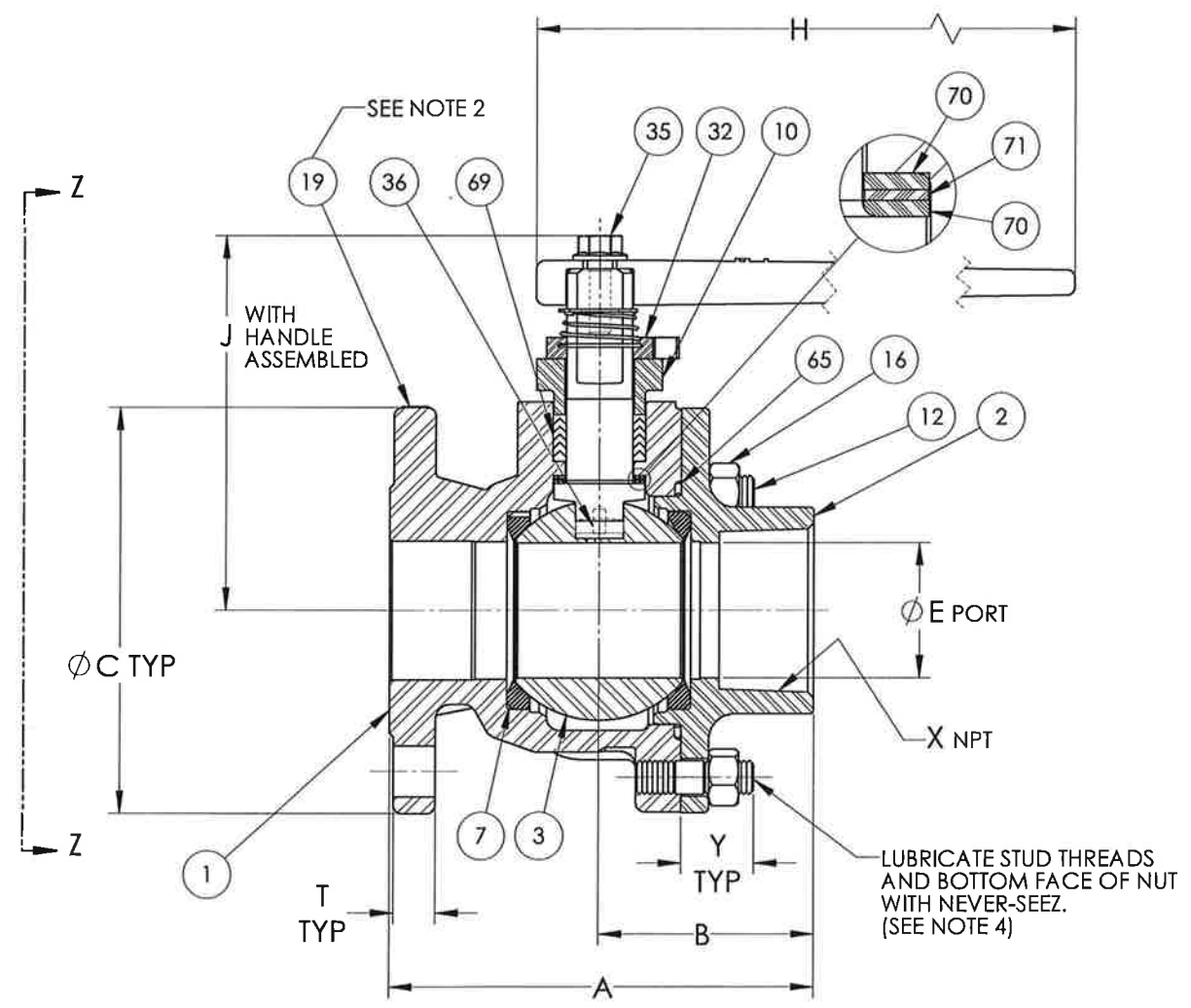
DEPTH TO SET STUDS		
VALVE SIZE	R	Y *
1"	-	-
2"	1.24	1.2
3"	1.24	1.4

*NOM. REF

BODY JOINT STUD & NUT	
VALVE SIZE	QTY
1"	-
2"	4
3"	6



- NOTES:
- USE LOCTITE #271 ON STUD THREADS PER JSA-34.
 - ATTACH IDENTIFICATION TAG PER JMA-98.
 - FOR INSTALLATION MAINTENANCE & OPERATING INSTRUCTIONS SEE IMO-R23.
 - WHERE IDENTIFICATION APPEARS ON NUTS OR STUD FACE ASSEMBLY WITH IDENTIFICATION ALWAYS VISIBLE.
 - FOR 2" AND 3" 9RFT ONLY:
6" LONG HANDLES - 012 9057 36.
9" LONG HANDLES - 012 9051 36.



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UNLESS OTHERWISE NOTED DIMENSIONING, TOLERANCING & DRAWING INTERPRETATIONS IN ACCORDANCE WITH ASME Y14.5M

ANGLES = ±5° FINISH $\sqrt{250}$

REMOVE SHARP EDGES AND CORNERS TO R = .015 RADIUS OR CHAMFER, DIMENSIONS IN INCHES

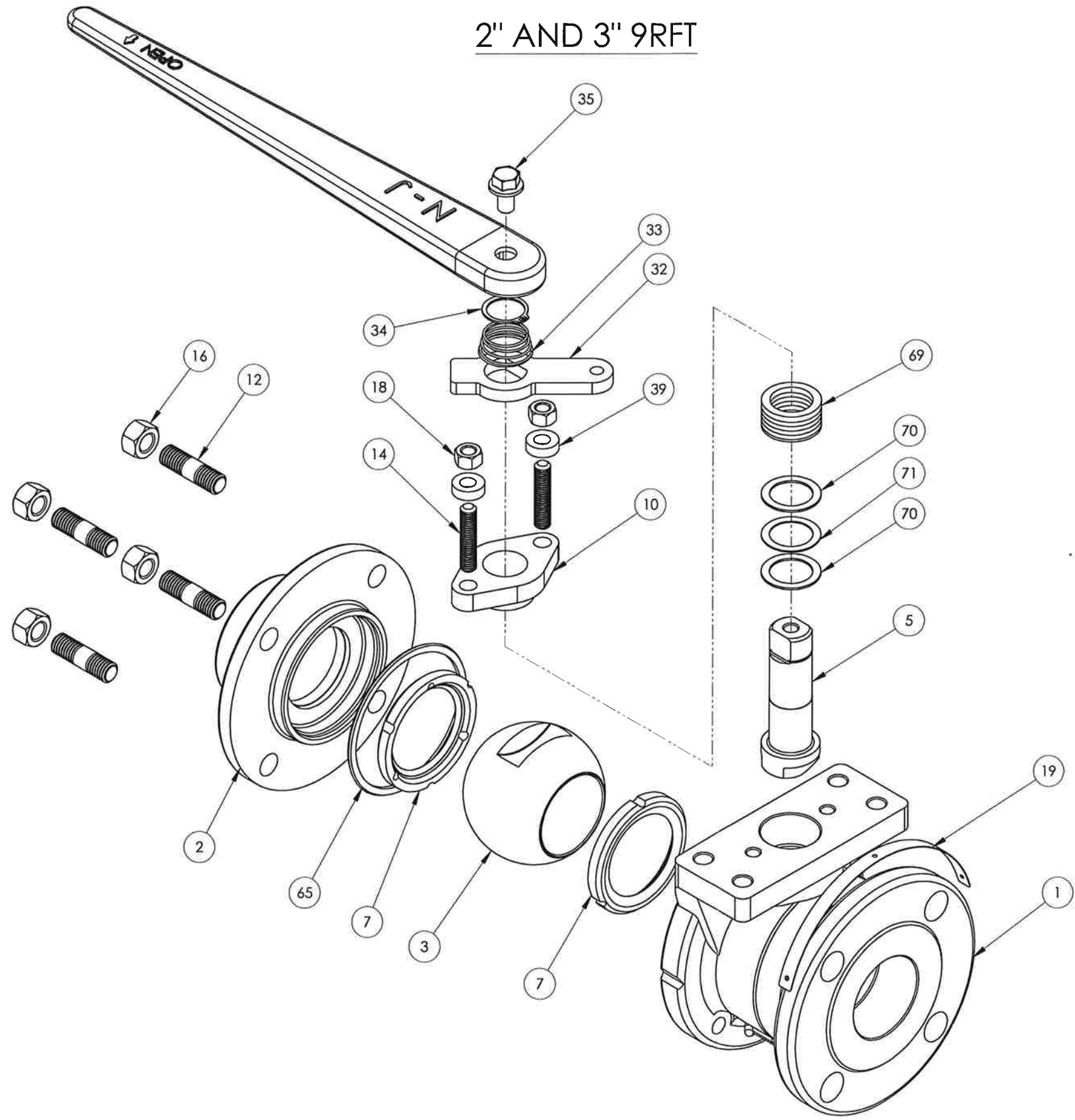
MATERIAL CODE	MATERIAL TYPE	MATERIAL SPECIFICATION	IDENT. MARK
JSA-1, JSA-10		DD NOT SCALE DRAWING	3/4
JSA-17, JSA-80			
JSA-34			
JST-02			
JMA-98			

TITLE	DRAWN	DATE
ASSEMBLY 1", 2", 3" 9RFT RAILROAD VALVE	BA	8/29/01
	PJD	8/29/01

SIZE	DWG NO.	REV
D	5428	B

METSO AUTOMATION USA, INC.
SHREWSBURY, MASSACHUSETTS

2" AND 3" 9RFT



ITEM NO.	PART NAME	QTY.
1	BODY	1
2	BODY CAP	1
3	BALL	1
5	STEM	1
7	SEAT	2
10	COMPRESSION PLATE	1
12	BODY STUD	*
14	BONNET STUD	2
16	BODY STUD NUT	*
18	BONNET STUD NUT	2
19	IDENTIFICATION TAG	1
32	INDICATOR STOP	1
33	SPRING	1
34	RETAINING RING	1
35	HANDLE SCREW	1
36	GROUNDING SPRING	1
39	STOP BUSHING	1
65	BODY GASKET	1
69	PACKING	1
70	STEM BEARING	2
71	SECONDARY STEM SEAL	1

* SEE BODY JOINT STUD AND NUT TABLE FOR QUANTITIES (SHT. 1)

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	<small>TITLE:</small> ASSEMBLY 1", 2", 3" 9RFT RAILROAD VALVE		<small>DRWN</small> BA <small>DATE</small> 8/29/01 <small>APPVD</small> PJD <small>REV</small>	
	METSO AUTOMATION USA, INC. <small>SHIREWSBURY, MASSACHUSETTS</small>		<small>SIZE</small> D <small>DWG NO.</small> 5428	<small>SHEET</small> B <small>OF</small> 4
	<small>SHEET 2 OF 4</small>			