

One, Two, and Three-Piece Carbon Steel Ball Valves Illustrated Index

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Carbon Steel Ball Valves

One-Piece Body • Reduced Port • Blowout-Proof Stem •
CS Trim • Vented Ball

2000 PSI/138 Bar Non-Shock Cold Working Pressure

CONFORMS TO MSS SP-110 • NACE MR0175 •
WW-V-35C, TYPE II, CLASS CS, STYLE 3

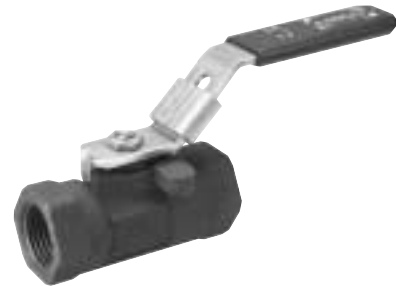
MATERIAL LIST

PART	SPECIFICATION
1. Body	Carbon Steel ASTM A 216 Grade WCB
2. Body Insert	Carbon Steel ASTM A 216 Grade WCB
3. Ball (Vented)	Stainless Steel ASTM A 276 Type 304 or ASTM A 351 Type CF8M
4. Stem	Carbon Steel ASTM A 108 Type 1018
5. Seat	Reinforced TFE
6. Thrust Washer	Reinforced TFE (Carbon 25% + Teflon 75%)
7. ¹ Stem Packing	Graphoil
8. Threaded Pack Gland	Carbon Steel ASTM A 108 Type 1045
9. Handle Nut	Carbon Steel ASTM A 283
10. ² Handle	Carbon Steel ASTM A 283

¹ 1/4"-3/4" one each, 1"-2" two each.

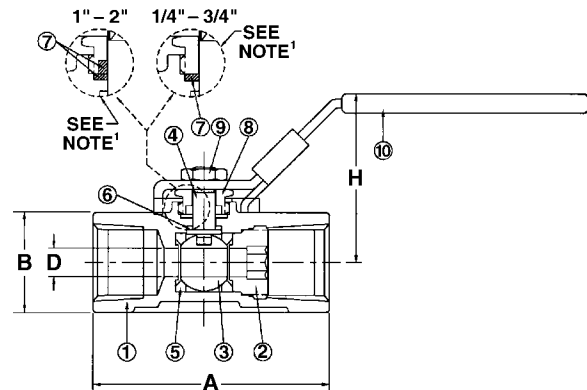
² Shown with lock handle.

NOTE: Valves are static grounded by thrust washer and packing.



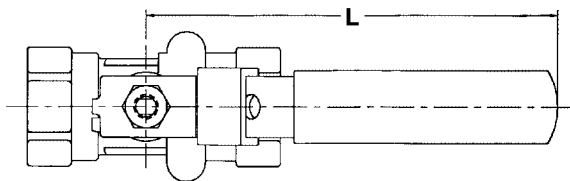
T-560-CS-R-25-LL

Threaded



T-560-CS-R-25-LL

NPT x NPT



DIMENSIONS—WEIGHTS—QUANTITIES

Size		Dimensions										T-560-CS-R-25-LL		Master	
		A		B		D		L		H					
In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.	Ctn.	Qty.
¼	8	2.28	58	1.10	28	.31	8	4.29	109	1.97	50	.20	.09	50	
⅜	10	2.28	58	1.10	28	.31	8	4.29	109	1.97	50	.31	.14	50	
½	15	2.60	66	1.10	28	.31	8	4.29	109	1.97	50	.66	.30	50	
¾	20	2.83	72	1.34	34	.47	12	4.29	109	2.20	56	.93	.42	50	
1	25	3.23	82	1.61	41	.62	16	5.75	146	2.56	65	1.59	.72	40	
1 ¼	32	3.54	90	1.97	50	.81	21	5.75	146	2.76	70	2.12	.96	20	
1 ½	40	3.86	98	2.24	57	1.00	25	7.40	188	3.29	84	3.22	1.46	20	
2	50	4.33	110	2.76	70	1.25	32	7.40	188	3.49	89	4.65	2.11	10	

♦ For detailed Operating Pressure, refer to Pressure Temperature Chart on pages 71 and 72.

Carbon Steel Ball Valves

One-Piece Body • Reduced Port • Blowout-Proof Stem •
CS Trim • Vented Ball • Fire Safe

2000 PSI/138 Bar Non-Shock Cold Working Pressure

CONFORMS TO API-607 FOURTH EDITION FIRE SAFE •
MSS SP-110 • NACE MR0175 •
WW-V-35C, TYPE II, CLASS CS, STYLE 3

MATERIAL LIST

PART	SPECIFICATION
1. Body	Carbon Steel ASTM A 216 Grade WCB
2. Body Insert	Carbon Steel ASTM A 216 Grade WCB
3. Ball (Vented)	Stainless Steel ASTM A 276 Type 304 or ASTM A 351 Type CF8M
4. Stem	Carbon Steel ASTM A 108 Type 1018
5. Seat	Reinforced TFE
6. Thrust Washer	Reinforced TFE (Carbon 25% + Teflon 75%)
7. ¹ Stem Packing	Graphoil
8. Threaded Pack Gland	Carbon Steel ASTM A 108 Type 1045
9. Handle Nut	Carbon Steel ASTM A 283
10. ² Handle	Carbon Steel ASTM A 283

¹ 1/4"-3/4" one each, 1"-2" two each.

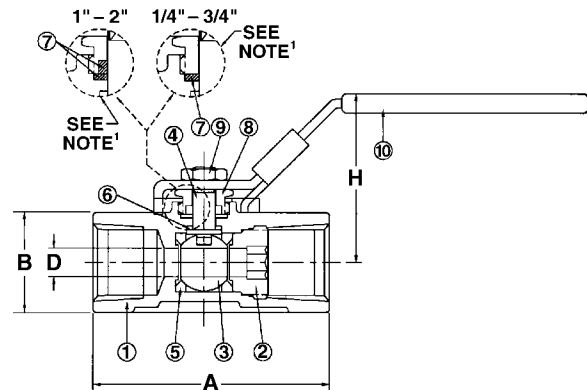
² Shown with lock handle.

NOTE: Valves are static grounded by thrust washer and packing.



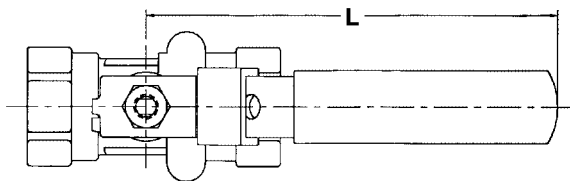
T-560-CS-R-25-FS-LL

Threaded



T-560-CS-R-25-FS-LL

NPT x NPT



DIMENSIONS—WEIGHTS—QUANTITIES

Size		Dimensions										T-560-CS-R-25-FS-LL		Master Ctn. Qty.
		A		B		D		L		H				
In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.	
¼	8	2.28	58	1.10	28	.31	8	4.29	109	1.97	50	.20	.09	50
⅜	10	2.28	58	1.10	28	.31	8	4.29	109	1.97	50	.31	.14	50
½	15	2.60	66	1.10	28	.31	8	4.29	109	1.97	50	.66	.30	50
¾	20	2.83	72	1.34	34	.47	12	4.29	109	2.20	56	.93	.42	50
1	25	3.23	82	1.61	41	.62	16	5.75	146	2.56	65	1.59	.72	40
1¼	32	3.54	90	1.97	50	.81	21	5.75	146	2.76	70	2.12	.96	20
1½	40	3.86	98	2.24	57	1.00	25	7.40	188	3.29	84	3.22	1.46	20
2	50	4.33	110	2.76	70	1.25	32	7.40	188	3.49	89	4.65	2.11	10

♦ For detailed Operating Pressure, refer to Pressure Temperature Chart on pages 71 and 72.

Carbon Steel Ball Valves

One-Piece Body • Reduced Port • Blowout-Proof Stem •
316 SS Trim • Vented Ball

2000 PSI/138 Bar Non-Shock Cold Working Pressure

CONFORMS TO MSS SP-110 • NACE MR0175 •
WW-V-35C, TYPE II, CLASS CS, STYLE 3

MATERIAL LIST

PART	SPECIFICATION
1. Body	Carbon Steel ASTM A 216 Grade WCB
2. Body Insert	Carbon Steel ASTM A 216 Grade WCB
3. Ball (Vented)	Stainless Steel ASTM A 276 Type 316 or ASTM A 351 Type CF8M
4. Stem	Stainless Steel ASTM A 276 Type 316
5. Seat	Reinforced TFE
6. Thrust Washer	Reinforced TFE (Carbon 25% + Teflon 75%)
7. ¹ Stem Packing	Graphoil
8. Threaded Pack Gland	Carbon Steel ASTM A 108 Type 1045
9. Handle Nut	Carbon Steel ASTM A 283
10. ² Handle	Carbon Steel ASTM A 283

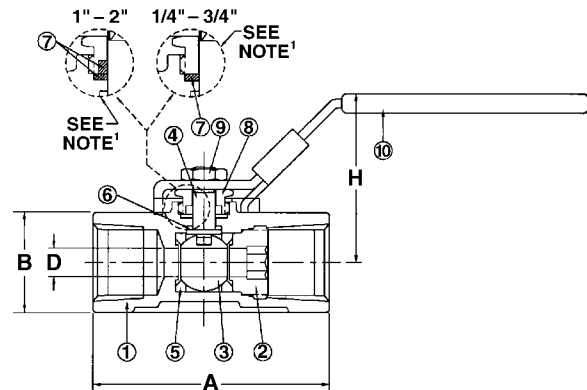
¹1/4"-3/4" one each, 1"-2" two each.

²Shown with lock handle.

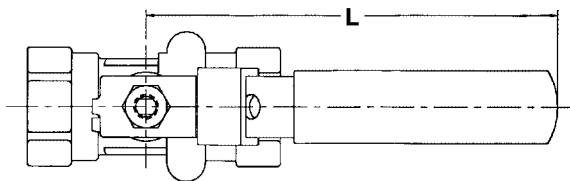
NOTE: Valves are static grounded by thrust washer and packing.



T-560-CS-R-66-LL
Threaded



T-560-CS-R-66-LL
NPT x NPT



DIMENSIONS—WEIGHTS—QUANTITIES

Size	Dimensions						T-560-CS-R-66-LL		Master Ctn. Qty.
	A	B	D	L	H		Lbs.	Kg.	
In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.				
1/4 8	2.28 58	1.10 28	.31 8	4.29 109	1.97 50		.20	.09	50
3/8 10	2.28 58	1.10 28	.31 8	4.29 109	1.97 50		.31	.14	50
1/2 15	2.60 66	1.10 28	.31 8	4.29 109	1.97 50		.66	.30	50
3/4 20	2.83 72	1.34 34	.47 12	4.29 109	2.20 56		.93	.42	50
1 25	3.23 82	1.61 41	.62 16	5.75 146	2.56 65		1.59	.72	40
1 1/4 32	3.54 90	1.97 50	.81 21	5.75 146	2.76 70		2.12	.96	20
1 1/2 40	3.86 98	2.24 57	1.00 25	7.40 188	3.29 84		3.22	1.46	20
2 50	4.33 110	2.76 70	1.25 32	7.40 188	3.49 89		4.65	2.11	10

♦ For detailed Operating Pressure, refer to Pressure Temperature Chart on pages 71 and 72.

Carbon Steel Ball Valves

One-Piece Body • Reduced Port • Blowout-Proof Stem •
316 SS Trim • Vented Ball • Fire Safe

2000 PSI/138 Bar Non-Shock Cold Working Pressure

CONFORMS TO API-607 FOURTH EDITION FIRE SAFE
MSS SP-110 • NACE MR0175 •
WW-V-35C, TYPE II, CLASS CS, STYLE 3

MATERIAL LIST

PART	SPECIFICATION
1. Body	Carbon Steel ASTM A 216 Grade WCB
2. Body Insert	Carbon Steel ASTM A 216 Grade WCB
3. Ball (Vented)	Stainless Steel ASTM A 276 Type 316 or ASTM A 351 Type CF8M
4. Stem	Stainless Steel ASTM A 276 Type 316
5. Seat	Reinforced TFE
6. Thrust Washer	Reinforced TFE (Carbon 25% + Teflon 75%)
7. ¹ Stem Packing	Graphoil
8. Threaded Pack Gland	Carbon Steel ASTM A 108 Type 1045
9. Handle Nut	Carbon Steel ASTM A 283
10. ² Handle	Carbon Steel ASTM A 283

¹ 1/4"-3/4" one each, 1"-2" two each.

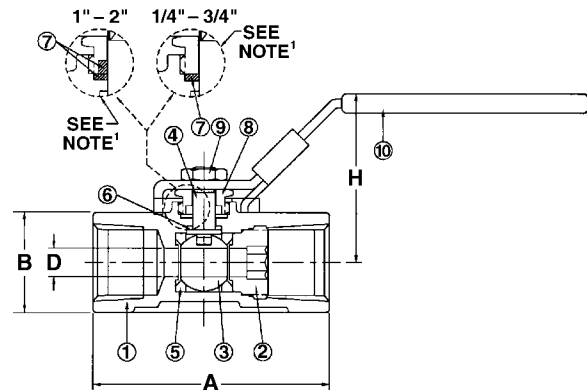
² Shown with lock handle.

NOTE: Valves are static grounded by thrust washer and packing.



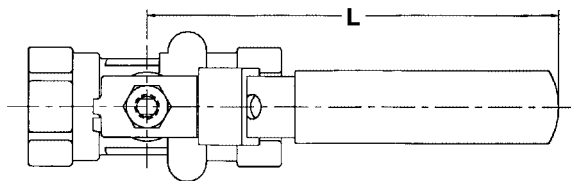
T-560-CS-R-66-FS-LL

Threaded



T-560-CS-R-66-FS-LL

NPT x NPT



DIMENSIONS—WEIGHTS—QUANTITIES

Dimensions															T-560-CS-R-66-FS-LL		Master Ctn. Qty.
Size		A		B		D		L		H							
In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.				
¼	8	2.28	58	1.10	28	.31	8	4.29	109	1.97	50	.20	.09	50			
⅜	10	2.28	58	1.10	28	.31	8	4.29	109	1.97	50	.31	.14	50			
½	15	2.60	66	1.10	28	.31	8	4.29	109	1.97	50	.66	.30	50			
¾	20	2.83	72	1.34	34	.47	12	4.29	109	2.20	56	.93	.42	50			
1	25	3.23	82	1.61	41	.62	16	5.75	146	2.56	65	1.59	.72	40			
1 ¼	32	3.54	90	1.97	50	.81	21	5.75	146	2.76	70	2.12	.96	20			
1 ½	40	3.86	98	2.24	57	1.00	25	7.40	188	3.29	84	3.22	1.46	20			
2	50	4.33	110	2.76	70	1.25	32	7.40	188	3.49	89	4.65	2.11	10			

♦ For detailed Operating Pressure, refer to Pressure Temperature Chart on pages 71 and 72.

Carbon Steel Ball Valves

One-Piece Bar Stock Body • Blowout-Proof Stem •
CS Trim • Vented Ball (2" only)

2000 PSI/138 Bar Non-Shock Cold Working Pressure (½"-1")
1500 PSI/103 Bar Non-Shock Cold Working Pressure (1¼"-2")♦

CONFORMS TO MSS SP-110 • NACE MR0175 •
WW-V-35, TYPE II, CLASS CS, STYLE 3

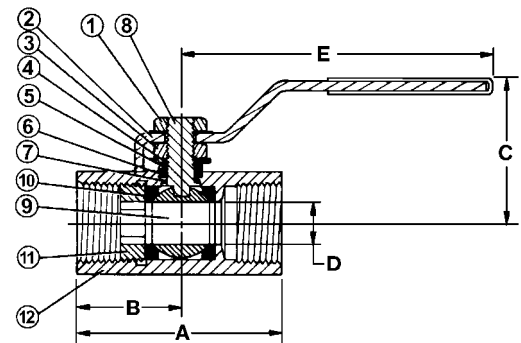
MATERIAL LIST

PART	SPECIFICATION
1. Handle Nut	Carbon Steel ASTM A 283 Zinc Plated
2. Handle	Carbon Steel ASTM A 283 Zinc Plated
3. Packing Nut	Carbon Steel ASTM A 283 Zinc Plated
4. Belleville Washer (2)	Carbon Steel Black Oxide ASTM A 686
5. Pack Gland	Stainless Steel ASTM A 240 Type 304
6. Stem Packing	Reinforced TFE
7. Thrust Washer	Reinforced TFE
8. Stem	Carbon Steel ASTM A 108 Type 1045
9. Ball	Carbon Steel ASTM 108 Type 1015/1045 Chrome Plated
10. Seat Ring (2)	Reinforced TFE
11. Body Insert	Carbon Steel ASTM A 108 Type 1018 Phosphate Coated
12. Body	Carbon Steel ASTM A 108 Type 1018 Phosphate Coated

NOTE: Valves are not available static grounded.



T-570-CS-R-25
Threaded



T-570-CS-R-25
NPT x NPT

DIMENSIONS—WEIGHTS—QUANTITIES

Dimensions																
Size		Dimensions										T-570-CS-R-25		Master		
In.	mm.	A		B		C		D		E		Lbs.	Kg.	Ctn.	Qty.	
½	15	2.19	56	1.10	28	1.63	41	.35	9	4.02	102	.50	.23	80		
¾	20	2.63	67	1.32	34	1.75	44	.47	12	4.02	102	.80	.36	80		
1	25	3.15	80	1.58	40	2.13	54	.62	16	5.71	145	1.60	.73	40		
1 ¼	32	3.62	92	1.81	46	2.31	59	.81	21	5.71	145	2.40	1.09	8		
1 ½	40	4.00	102	2.00	51	2.75	70	1.00	25	6.89	175	3.30	1.50	8		
2	50	4.50	114	2.25	57	3.00	76	1.25	32	6.89	175	5.30	2.41	8		

♦ For detailed Operating Pressure, refer to Pressure Temperature Chart on pages 71 and 72.

Carbon Steel Ball Valves

One-Piece Bar Stock Body • Blowout-Proof Stem • 316
SS Trim • Vented Ball (2" Only)

2000 PSI/138 Bar Non-Shock Cold Working Pressure (½"-1")
1500 PSI/103 Bar Non-Shock Cold Working Pressure (1¼"-2")♦

CONFORMS TO MSS SP-110 • NACE MR0175 •
 WW-V-35C, TYPE II, CLASS CS, STYLE 3

MATERIAL LIST

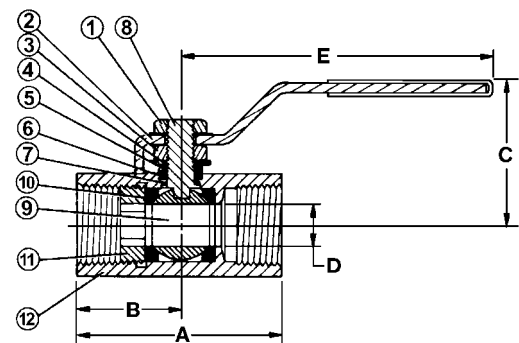
PART	SPECIFICATION
1. Handle Nut	Carbon Steel ASTM A 283 Zinc Plated
2. Handle	Carbon Steel ASTM A 283 Zinc Plated
3. Packing Nut	Carbon Steel ASTM A 283 Zinc Plated
4. Belleville Washer (2)	Carbon Steel Black Oxide ASTM A 686
5. Pack Gland	Stainless Steel ASTM A 240 Type 304
6. Stem Packing	Reinforced TFE
7. Thrust Washer	Reinforced TFE
8. Stem	Stainless Steel ASTM A 276 Type 316
9. Ball	Stainless Steel ASTM A 276 Type 316 or ASTM A 351 Type CF8M
10. Seat Ring (2)	Reinforced TFE
11. Body Insert	Carbon Steel ASTM A 108 Type 1018 Phosphate Coated
12. Body	Carbon Steel ASTM A 108 Type 1018 Phosphate Coated

NOTE: Valves are not available static grounded.



T-570-CS-R-66

Threaded
 Reinforced TFE Seats and Seals
 with SS Trim



T-570-CS-R-66
 NPT x NPT

DIMENSIONS—WEIGHTS—QUANTITIES

Dimensions - Weight - Conversion														
Size		Dimensions										T-570-CS-R-66		Master
		A		B		C		D		E				
In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.	Ctn. Qty.
½	15	2.19	56	1.10	28	1.63	41	.35	9	4.02	102	.50	.23	80
¾	20	2.63	67	1.32	34	1.75	44	.47	12	4.02	102	.80	.36	80
1	25	3.15	80	1.58	40	2.13	54	.62	16	5.71	145	1.60	.74	40
1 ¼	32	3.62	92	1.81	46	2.31	59	.81	21	5.71	145	2.40	1.09	8
1 ½	40	4.00	102	2.00	51	2.75	70	1.00	25	6.89	175	3.30	1.50	8
2	50	4.50	114	2.25	57	3.00	76	1.25	32	6.89	175	5.30	2.41	8

♦ For detailed Operating Pressure, refer to Pressure Temperature Chart on pages 71 and 72.

Carbon Steel Ball Valves

Two-Piece Body • Conventional Port • Blowout-Proof Stem •
CS Trim • Cast Mounting Pad • Vented Ball

2000 PSI/138 Bar Non-Shock Cold Working Pressure

CONFORMS TO MSS SP-110 • NACE MR0175 •
WW-V-35C, TYPE II, CLASS CS, STYLE 3

MATERIAL LIST

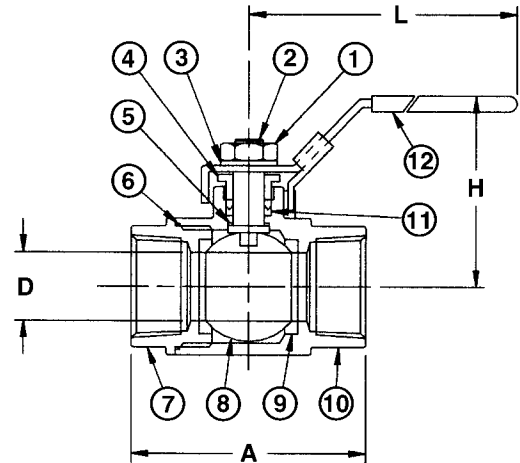
PART	SPECIFICATION
1. Handle Nut	Carbon Steel ASTM A 283
2. Stem	Carbon Steel ASTM A 108 Type 1045
3. Spring Washer	Carbon Steel
4. Threaded Pack Gland	Carbon Steel ASTM A 108 Type 1045
5. Thrust Washer	Carbon Filled PTFE
6. Gasket	PTFE
7. Body End Piece	Carbon Steel ASTM A 216 Grade WCB (Investment Cast)
8. Ball (Vented)	Stainless Steel ASTM A 276 Type 304 or ASTM A 351 Type CF8M
9. Seat (2)	Reinforced TFE
10. Body	Carbon Steel ASTM A 216 Grade WCB
11. Stem Packing (2)	Carbon Filled PTFE
12. Locking Handle	Carbon Steel ASTM A 283

NOTE: Valves are static grounded by thrust washer and packing.



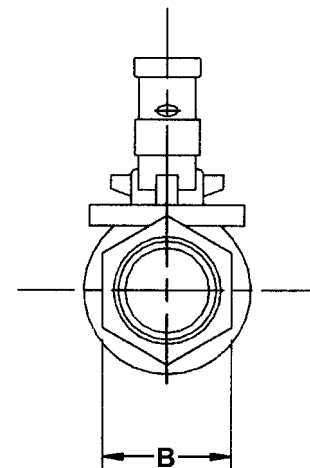
TC-580-CS-R-25-LL

Threaded



TC-580-CS-R-25-LL

NPT x NPT



DIMENSIONS—WEIGHTS—QUANTITIES

Size		Dimensions						TC-580-CS-R-25-LL		Master Ctn. Qty.
		A	B	D	H	L				
In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.	
¼	8	2.07	53	.83	21	.37	9	1.76	.45	10
⅜	10	2.07	53	.83	21	.37	9	1.76	.45	10
½	15	2.34	59	1.06	27	.50	13	1.92	.47	10
¾	20	2.80	71	1.34	34	.69	18	2.40	.61	10
1	25	3.23	82	1.61	41	.87	22	2.56	.65	10
1 ¼	32	3.57	91	1.89	48	1.00	25	2.74	.70	5
1 ½	40	4.04	103	2.26	57	1.25	32	2.98	.76	5
2	50	4.63	118	2.76	70	1.50	38	3.17	.81	5

♦ For detailed Operating Pressure, refer to Pressure Temperature Chart on pages 71 and 72.

Carbon Steel Ball Valves

Two-Piece Body • Conventional Port • Blowout-Proof Stem •
316 SS Trim • Cast Mounting Pad • Vented Ball

2000 PSI/138 Bar Non-Shock Cold Working Pressure

CONFORMS TO MSS SP-110 • NACE MR0175 •
WW-V-35C, TYPE II, CLASS CS, STYLE 3

MATERIAL LIST

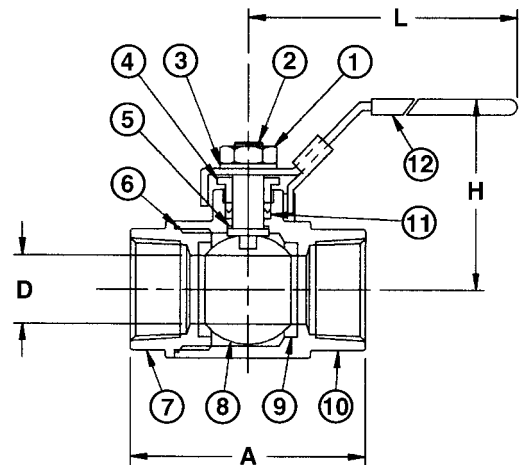
PART	SPECIFICATION
1. Handle Nut	Carbon Steel ASTM A 283
2. Stem	Stainless Steel ASTM A 276 Type 316
3. Spring Washer	Carbon Steel
4. Threaded Pack Gland	Carbon Steel ASTM A 108 Type 1045
5. Thrust Washer	Carbon Filled PTFE
6. Gasket	PTFE
7. Body End Piece	Carbon Steel ASTM A 216 Grade WCB (Investment Cast)
8. Ball (Vented)	Stainless Steel ASTM A 276 Type 316 or ASTM A 351 Type CF8M
9. Seat (2)	Reinforced TFE
10. Body	Carbon Steel ASTM A 216 Grade WCB
11. Stem Packing (2)	Carbon Filled PTFE
12. Locking Handle	Carbon Steel ASTM A 283

NOTE: Valves are static grounded by thrust washer and packing.



TC-580-CS-R-66-LL

Threaded

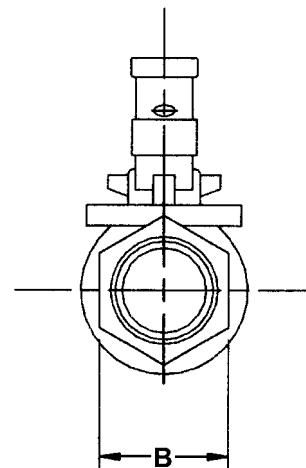


TC-580-CS-R-66-LL

NPT x NPT

DIMENSIONS—WEIGHTS—QUANTITIES

Dimensions - Typical Examples														
Size		Dimensions										TC-580-CS-R-66-LL		Master Ctn. Qty.
		A		B		D		L		H				
In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.	
¼	8	2.07	53	.90	23	.37	9	1.76	45	4.33	110	.57	.26	10
⅜	10	2.07	53	.90	23	.37	9	1.76	45	4.33	110	.53	.24	10
½	15	2.34	59	1.06	27	.50	13	1.92	49	4.33	110	.73	.33	10
¾	20	2.80	71	1.34	34	.69	18	2.40	61	5.83	148	1.41	.64	10
1	25	3.23	82	1.61	41	.87	22	2.56	65	5.83	148	1.98	.90	10
1 ¼	32	3.57	91	1.89	48	1.00	25	2.74	70	7.76	197	2.77	1.26	5
1 ½	40	4.04	103	2.26	57	1.25	32	2.98	76	7.76	197	4.00	1.82	5
2	50	4.63	118	2.76	70	1.50	38	3.17	81	7.76	197	5.70	2.59	5



♦ For detailed Operating Pressure, refer to Pressure Temperature Chart on pages 71 and 72.

Carbon Steel Ball Valves

Two-Piece Bar Stock Body • Conventional Port •
Blowout-Proof Stem • CS Trim • Vented Ball

2000 PSI/138 Bar Non-Shock Cold Working Pressure (1/4"-1")
1500 PSI/103 Bar Non Shock Cold Working Pressure (1 1/4"-2")♦

CONFORMS TO MSS SP-110 • NACE MR0175 •
WW-V-35C, TYPE II, CLASS CS, STYLE 3

MATERIAL LIST

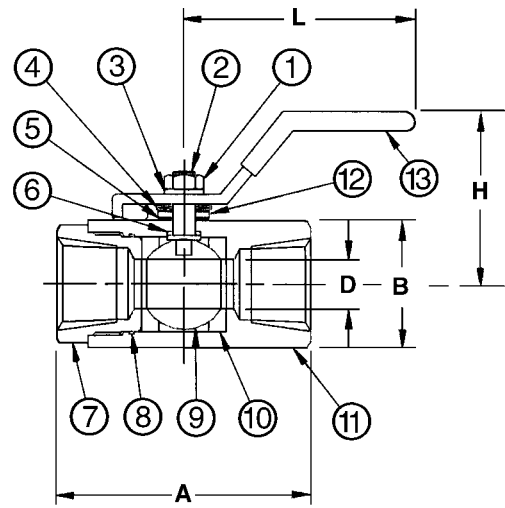
PART	SPECIFICATION
1. Handle Nut	Carbon Steel ASTM A 283
2. Stem	Carbon Steel ASTM A 108 Type 1045
3. Spring Washer	Carbon Steel
4. Belleville Washer (2)	Carbon Steel ASTM A 686
5. Stem Packing (2)	Reinforced TFE
6. Thrust Washer	Carbon Filled PTFE
7. Body End Piece	Carbon Steel ASTM A 108 Type 1018
8. Spacer Seal	PTFE
9. Ball (Vented)	Stainless Steel ASTM A 276 Type 304 or ASTM A 351 Type CF8M
10. Seat (2)	Reinforced TFE
11. Body	Carbon Steel ASTM A 108 Type 1018
12. Gland Washer	Stainless Steel ASTM A 240 Type 304
13. Handle	Carbon Steel ASTM A 283

1/4"-1" 2000 PSI CWP, 1 1/4"-2" 1500 PSI CWP.

NOTE: Valves are static grounded by thrust washer and packing.



T-580-CS-R-25
Threaded



T-580-CS-R-25
NPT x NPT

DIMENSIONS—WEIGHTS—QUANTITIES

Size		Dimensions										T-580-CS-R-25		Master Ctn. Qty.
		A		B		D		H		L				
In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.	
¼	8	2.30	58	1.02	26	.38	9	2.22	56	4.13	105	.64	.29	10
⅜	10	2.30	58	1.02	26	.38	9	2.22	56	4.13	105	.59	.27	10
½	15	2.52	64	1.26	32	.38	9	2.44	62	4.13	105	.86	.39	10
¾	20	2.95	75	1.61	41	.50	13	2.64	67	4.13	105	1.52	.69	10
1	25	3.35	85	1.97	50	.69	18	2.83	72	5.83	148	2.57	1.17	10
1 ¼	32	3.66	93	2.17	55	1.00	25	2.97	75	5.83	148	3.23	1.47	5
1 ½	40	4.11	104	2.64	67	1.25	32	3.25	83	7.17	182	5.08	2.31	5
2	50	4.61	117	3.03	77	1.50	38	3.54	90	7.28	198	7.13	3.51	5

♦ For detailed Operating Pressure, refer to Pressure Temperature Chart on pages 71 and 72.

Carbon Steel Ball Valves

Two-Piece Bar Stock Body • Conventional Port •
Blowout-Proof Stem • 316 SS Trim • Vented Ball

2000 PSI/138 Bar Non-Shock Cold Working Pressure (1/4"-1")
1500 PSI/103 Bar Non Shock Cold Working Pressure (1 1/4"-2")♦

CONFORMS TO MSS SP-110 • NACE MR0175 •
WW-V-35C, TYPE II, CLASS CS, STYLE 3

MATERIAL LIST

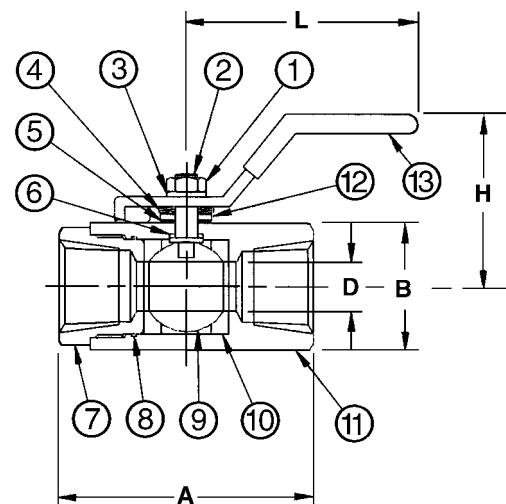
PART	SPECIFICATION
1. Handle Nut	Carbon Steel ASTM A 283
2. Stem	Stainless Steel ASTM A 276 Type 316
3. Spring Washer	Carbon Steel
4. Belleville Washer (2)	Carbon Steel ASTM A 686
5. Stem Packing (2)	Reinforced TFE
6. Thrust Washer	Carbon Filled PTFE
7. Body End Piece	Carbon Steel ASTM A 108 Type 1018
8. Spacer Seal	PTFE
9. Ball (Vented)	Stainless Steel ASTM A 276 Type 316 or ASTM A 351 Type CF8M
10. Seat (2)	Reinforced TFE
11. Body	Carbon Steel ASTM A 108 Type 1018
12. Gland Washer	Stainless Steel ASTM A 240 Type 304
13. Handle	Carbon Steel ASTM A 283

1/4"-1" 2000 PSI CWP, 1 1/4"-2" 1500 PSI CWP.

NOTE: Valves are static grounded by thrust washer and packing.



T-580-CS-R-66
Threaded



T-580-CS-R-66
NPT x NPT

DIMENSIONS—WEIGHTS—QUANTITIES

Size		Dimensions										T-580-CS-R-66		Master Ctn. Qty.
		A		B		D		H		L				
In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.	
¼	8	2.30	58	1.02	26	.38	10	2.22	56	4.13	105	.64	.29	10
⅜	10	2.30	58	1.02	26	.38	10	2.22	56	4.13	105	.59	.27	10
½	15	2.52	64	1.26	32	.38	10	2.44	62	4.13	105	.86	.39	10
¾	20	2.95	75	1.61	41	.50	13	2.64	66	4.13	105	1.52	.69	10
1	25	3.35	85	1.97	50	.69	18	2.83	72	5.83	148	2.57	1.17	10
1 ¼	32	3.66	93	2.17	55	1.00	25	2.97	75	5.83	148	3.23	1.47	5
1 ½	40	4.11	104	2.64	67	1.25	32	3.25	83	7.17	182	5.08	2.31	5
2	50	4.61	117	3.03	77	1.50	38	3.54	90	7.28	185	7.13	3.24	5

♦ For detailed Operating Pressure, refer to Pressure Temperature Chart on pages 71 and 72.

Carbon Steel Ball Valves

Three-Piece Body • Threaded, Butt or Socket Weld Ends • Blowout-Proof Stem • Conventional Port •
Enclosed Bolt Design • PTFE Seats • SS Trim • Cast ISO Mounting Pad • Vented Ball

2000 PSI/138 Bar Non-Shock Cold Working Pressure♦

CONFORMS TO API-607 FOURTH EDITION FIRE SAFE •
MSS SP-110 • MSS SP-72 (BUTT WELD) •
API 608 ANTI-STATIC FEATURE • NACE MR0175



TM-590-CS-R-66-FS-LL

Threaded
Stainless Steel Trim
ISO Mount Pad

KM-590-CS-R-66-FS-LL

Socket Weld
Stainless Steel Trim
ISO Mount Pad

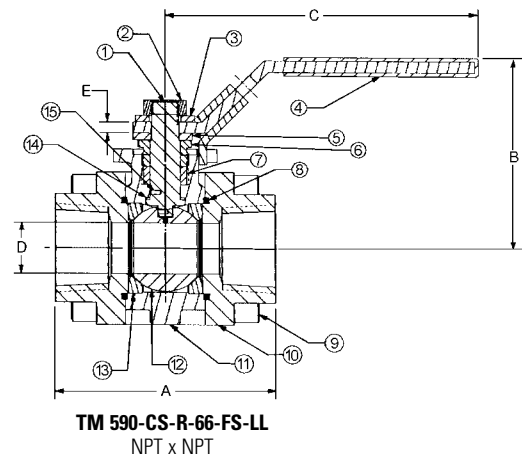
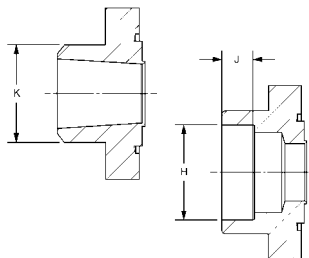
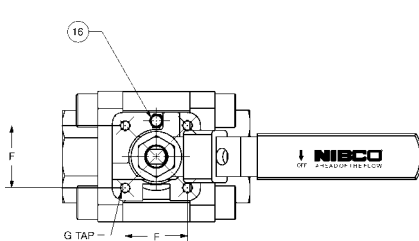
BM-590-CS-R-66-FS-LL

Butt Weld
Stainless Steel Trim
ISO Mount Pad

MATERIAL LIST

PART	SPECIFICATION
1. Stem	Stainless Steel ASTM A 276 Type 316
2. Handle Nut	Stainless Steel ASTM A 276 Type 304
3. Flat Washer	Stainless Steel ASTM A 240 Type 304
4. Locking Handle	Stainless Steel ASTM A 240 Type 304
5. Stop Plate	Stainless Steel ASTM A 240 Type 304
6. Pack Gland	Stainless Steel ASTM A 276 Type 316
7. Stem Packing	Graphite
8. Body End Seal	Graphite
9. Bolt	Carbon Steel ASTM A 193 Type B7
10. Body End	Carbon Steel ASTM A 216 Grade WCB Phosphate Coated
11. Body	Carbon Steel ASTM A 216 Grade WCB Phosphate Coated
12. Ball (Vented)	Stainless Steel ASTM A 276 Type 316 or ASTM A 351 Type CF8M
13. Seat	Reinforced TFE 15% Glass
14. Thrust Washer	Reinforced TFE 15% Glass
15. Static Grounding Devices	Stainless Steel ASTM A 276 Type 304
16. Stop Pin	Stainless Steel ASTM A 276 Type 304

Note: Valves are static grounded by two ball detents that insure electro-continuity between the stem body and ball. The valve has electro-continuity across the discharge path with a resistance of not more than 10 ohms.



DIMENSIONS—WEIGHTS—QUANTITIES

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♦ For detailed Operating Pressure, refer to Pressure Temperature Chart on pages 71 and 72.

Carbon Steel Ball Valves

Three-Piece Body • Full Port • Blowout-Proof Stem •
316 SS Trim • Vented Ball

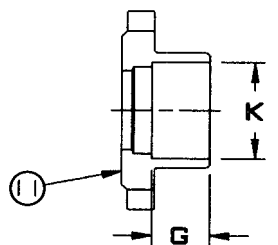
1000 PSI/69 Bar Non-Shock Cold Working Pressure♦

CONFORMS TO MSS SP-110 • NACE MR0175 •
WW-V-35C, TYPE II, CLASS CS, STYLE 1

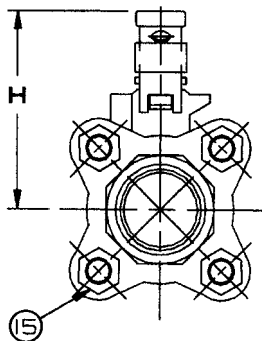
MATERIAL LIST

PART	SPECIFICATION
1. Handle Nut	Carbon Steel ASTM A 283
2. Stem	Stainless Steel ASTM A 276 Type 316
3. Spring Washer	Carbon Steel
4. Stem Packing (1 Set)	Carbon Filled PTFE
5. Thrust Washer	Carbon Filled PTFE
6. Cap Bolt (4)	Carbon Steel ASTM A 193 Grade B7
7. Union Seal (2)	Reinforced TFE
8. Ball (Vented)	Stainless Steel ASTM A 276 Type 316 or ASTM A 351 Type CF8M
9. Body	Carbon Steel ASTM A 216 Grade WCB
10. Seat (2)	Reinforced TFE
11. Body End (2)	Carbon Steel ASTM A 216 Grade WCB
12. Spring Washer (4)	Carbon Steel
13. Threaded Pack Gland	Carbon Steel ASTM A 108 Type 1045
14. Handle	Carbon Steel ASTM A 283
15. Cap Nut (4)	Carbon Steel ASTM A 283

NOTE: Valves are static grounded by thrust washer and packing.



SOCKET WELD
ENDS

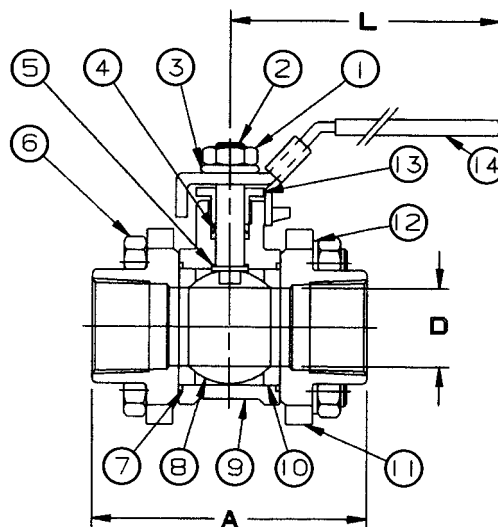


T-595-CS-R-66-LL

Threaded

K-595-CS-R-66-LL

Socket Weld



T or K 595-CS-R-66-LL
NPT x NPT or SOC x SOC

DIMENSIONS—WEIGHTS—QUANTITIES

Size		Dimensions												T or K-595-CS-R-66-LL		Master
		A		D		G		K		H		L				
In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.	
¼	8	2.36	60	.34	9	—	—	—	—	2.18	55	4.17	106	.97	.44	10
⅜	10	2.36	60	.34	9	—	—	—	—	2.18	55	4.17	106	.97	.44	10
½	15	2.76	70	.56	14	.38	10	.86	22	2.38	60	4.17	106	1.23	.56	10
¾	20	3.03	77	.81	21	.50	13	1.07	27	2.87	73	5.71	145	1.91	.87	10
1	25	3.62	92	1.00	25	.50	13	1.34	34	2.95	75	5.71	145	2.93	1.33	8
1 ¼	32	4.13	105	1.25	32	.50	13	1.69	43	3.66	93	7.36	187	4.27	1.94	5
1 ½	40	4.72	110	1.50	38	.50	13	1.93	49	3.94	100	7.36	187	6.01	2.73	5
2	50	5.43	138	1.97	50	.62	16	2.42	61	4.25	108	7.95	202	9.50	4.32	5

♦ For detailed Operating Pressure, refer to Pressure Temperature Chart on pages 71 and 72.

Carbon Steel Ball Valves

Three-Piece Body • Full Port • Cast ISO Mounting Pad •
Blowout-Proof Stem • 316 SS Trim • Vented Ball

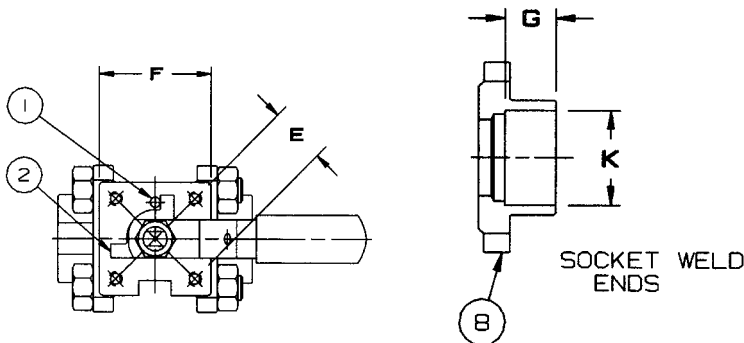
1000 PSI/69 Bar Non-Shock Cold Working Pressure

CONFORMS TO MSS SP-110 • NACE MR0175 •
WW-V-35C, TYPE II, CLASS CS, STYLE 1

MATERIAL LIST

PART	SPECIFICATION
1. Stop Pin	Stainless Steel ASTM A 276 Type 304
2. Stop Plate	Carbon Steel ASTM A 283
3. Stem	Stainless Steel ASTM A 276 Type 316
4. Handle Nut	Carbon Steel A 283
5. Stem Packing (1 Set)	Carbon Filled PTFE
6. Thrust Washer	Carbon Filled PTFE
7. Cap Bolt (4)	Carbon Steel ASTM A 193 Grade B7
8. Body Ends (2)	Carbon Steel ASTM A 216 Grade WCB
9. Seat (2)	Reinforced TFE
10. Body	Carbon Steel ASTM A 216 Grade WCB
11. Ball	Stainless Steel ASTM A 276 Type 316 or ASTM A 351 Type CF8M
12. Union Seal (2)	Reinforced TFE
13. Cap Nut (4)	Carbon Steel A 283
14. Threaded Pack Gland	Carbon Steel ASTM A 108 Type 1045
15. Handle	Carbon Steel ASTM A 283

NOTE: Valves are static grounded by thrust washer and packing.

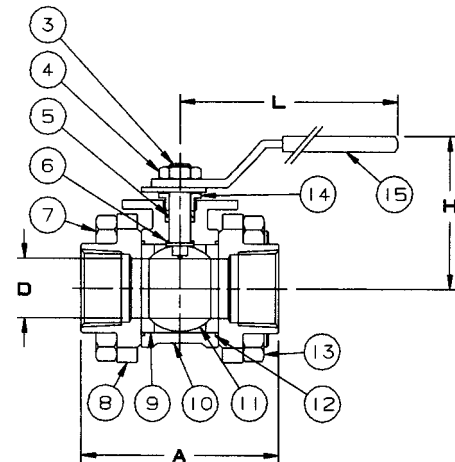


TM-595-CS-R-66

Threaded
ISO Mount Pad

KM-595-CS-R-66

Socket Weld (½"-2")
ISO Mount Pad



TM or KM-595-CS-R-66
NPT x NPT or SOC x SOC

DIMENSIONS—WEIGHTS—QUANTITIES

Size		Dimensions														ISO 5211	TM or KM-595-CS-R-66		Master Ctn. Qty.		
		A		D		E		F		G		K		H			L			Lbs.	Kg.
In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.				
¼	8	2.49	63	.34	9	.71	18	1.42	36	—	—	—	—	2.36	60	4.17	106	F03	1.00	.45	10
⅜	10	2.49	63	.34	9	.71	18	1.42	36	—	—	—	—	2.36	60	4.17	106	F03	1.00	.45	10
½	15	2.76	70	.56	14	.71	18	1.42	36	.38	10	.87	22	2.36	60	4.17	106	F03	1.20	.54	10
¾	20	3.03	77	.81	21	.83	21	1.65	42	.50	13	1.08	27	2.83	72	5.04	128	F04	1.90	.86	10
1	25	3.63	92	1.00	25	.88	22	1.65	42	.50	13	1.34	34	3.07	78	5.04	128	F04	2.90	1.31	8
1 ¼	32	4.14	105	1.25	32	.98	25	1.97	50	.50	13	1.69	43	3.35	85	7.83	199	F05	4.30	1.93	5
1 ½	40	4.73	120	1.50	38	.98	25	1.97	50	.50	13	1.93	49	3.66	93	7.83	199	F05	6.00	2.70	5
2	50	5.43	138	1.97	50	.98	25	1.97	50	.62	16	2.42	61	4.09	104	7.83	199	F05	9.50	4.28	2

♦ For detailed Operating Pressure, refer to Pressure Temperature Chart on pages 71 and 72.