NELES

Jamesbury™ Value-Line™ 1/4” – 2” (DN 8 – 50) series 33R screwed npt ball valves (AAR no. E172111)

Jamesbury™ Series 33R ball valves are perfect for applications where positive, long-lasting shutoff is required. Ideal for vent, sampling, and gauge locations, these valves provide cost-effective shutoff. Seating options permit the handling of a wide variety of fluids and vapors.

Series 33R valves are available in carbon steel with 316 stainless steel trim, or all 316 stainless steel. Seat options include PTFE (T) for services to 400°F (204°C); filled PTFE (M) for abrasive services, service to 500°F (260°C), steam to 175 psi (12 bar), or for applications with wide temperature fluctuations.

FEATURES

Tight Shutoff

- Polymer seats provide tight shut-off in either direction.
- Unique seat design incorporates a flexible lip which automatically compensates for wear and for changes in pressure and temperature.

Fire Tested

- Standard valves with PTFE and filled PTFE seats are Fire-Tite™ in accordance with API607.

Rugged Unit-Body Construction

- Single-piece body minimizes potential leak paths.

Internal Entry Stem

- Anti-blow-out design provides inherent stem retention.

SPECIFICATIONS

Valve Body Ratings

The following table shows the maximum working pressure rating of the valve body only. To determine the practical working pressure limitation of the valve, consult the seat rating chart. Working pressure rating is at -20°F to +100°F (-29°C to +38°C). Recommended test pressure is for hydrostatic test with ball half open.

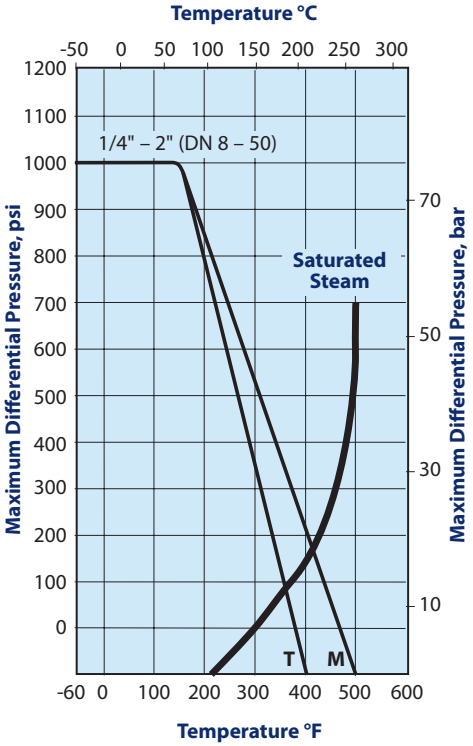
Valve Size (inches)	Body Material Carbon Steel, 316 Stainless Steel	
1/4 – 2	Working pressure	2000 psi

Valve Size (DN)	Body Material Carbon Steel, 316 Stainless Steel	
8 – 50	Working pressure	138 bar

Valve Seat Ratings

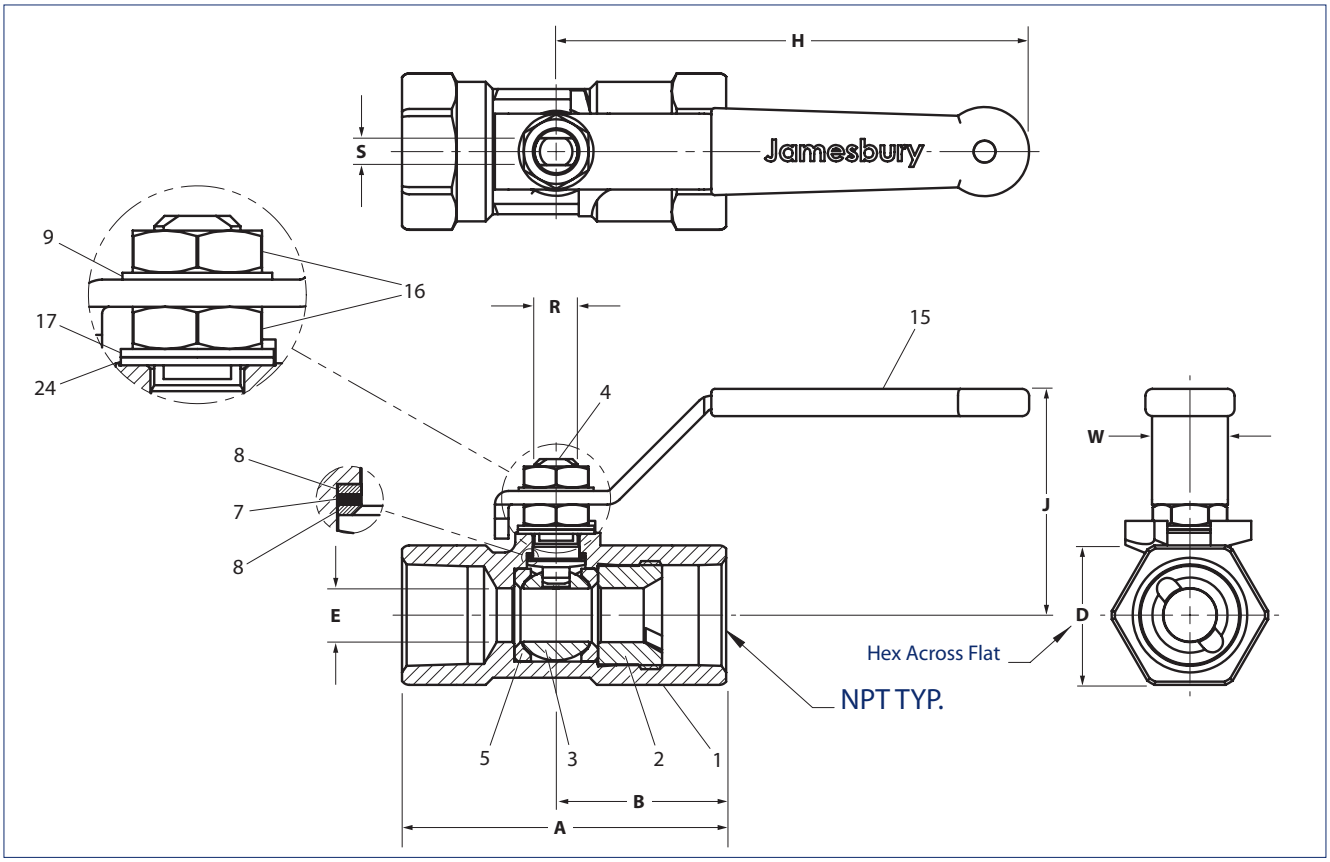
These ratings are based on differential pressure with valve ball in the fully closed position and refer to seats only. Refer to valve body ratings to be sure that all components are satisfactory.

Valves in carbon steel are suitable for service to -20°F (-29°C), valves in 316 stainless steel to -60°F (-51°C).



T = PTFE M = FILLED PTFE

DIMENSIONS



Valve Size inches	Approximate Dimensions – inches									Approx. Weight lbs
	A	B	D	E	H	J	R	S	W	
1/4	2.80	1.46	1.10	0.31	4.00	1.97	0.31	0.18	0.75	0.75
3/8	2.80	1.46	1.10	0.31	4.00	1.97	0.31	0.18	0.75	0.75
1/2	2.80	1.46	1.10	0.31	4.00	1.97	0.31	0.18	0.75	0.75
3/4	3.05	1.62	1.26	0.50	4.00	2.01	0.31	0.18	0.75	0.85
1	3.75	1.97	1.61	0.63	5.50	2.60	0.50	0.31	0.88	1.75
1-1/2	4.12	2.16	2.32	1.00	7.00	3.35	0.63	0.37	0.98	3.7
2	4.67	2.41	2.77	1.25	7.00	3.54	0.63	0.37	0.98	5.0

Valve Size DN	Approximate Dimensions – mm									Approx. Weight kg.
	A	B	D	E	H	J	R	S	W	
8	71	37	28	8	102	50	8	5	19	0.34
10	71	37	28	8	102	50	8	5	19	0.34
15	71	37	28	8	102	50	8	5	19	0.34
20	77	41	32	13	102	51	8	5	19	0.39
25	95	50	41	16	140	66	13	8	22	0.79
40	105	55	59	25	178	85	16	9	25	1.7
50	119	61	70	32	178	90	16	9	25	2.3

BILL OF MATERIALS AND PARTS LIST

Part Number	Part Name	Body Material	
		Carbon Steel Style 33R-22	316 Stainless Steel Style 33R-36
1	Body	Carbon steel type WCB	316 Stainless steel type CF8M
2	Insert	Carbon steel, coated	316 Stainless steel, coated
3	Ball	316 Stainless steel	
4	Stem	316 Stainless steel	
5	Seat	PTFE/Filled PTFE	
7	Stem Seal	Graphite	
8	Stem Bearing	Filled PTFE	
9	Lockwasher	Carbon steel, Stainless steel	
15	Handle	Carbon steel, Stainless steel	
16	Stem Nut	304 Stainless steel	
17	Upper Stem Washer (1" – 2" only)	316 Stainless steel	
24	Lower Stem Washer	316 Stainless steel	

Flow Data

The table at right provides flow coefficients for *Jamesbury* valves covered in this section. The Cv values represent the flow of water at +60°F through the valve in U.S. gallons per minute at a pressure drop of 1 psi. The metric equivalent, Kv, is the flow of water at 16°C through the valve in m3/hr at a pressure drop of 1 kg/cm2. To convert Cv to Kv, multiply by 0.8569.

Valve Size		Cv	Equiv. Length of Pipe (ft)
Inches	DN		
1/4	8	3	7.6
3/8	10	3	7.6
1/2	15	3	7.6
3/4	20	9	13.1
1	25	14	19.7
1-1/2	40	33	34.7
2	50	52	51.4

WARNING: As the use of the valve is application specific, a number of factors should be taken into account when selecting a valve for a given application. Therefore, some of the situations in which the valves are used are outside the scope of this manual If you have any questions concerning the use, application, or compatibility of the valve with the intended service, contact Neles for more information.

STANDARD MATERIAL COMBINATIONS

Series 33R valves are available in standard material combinations as shown in the following table.

Valve Type	Seat Materials	
	PTFE	Filled PTFE
Standard Carbon steel body, 316 stainless steel trim	33R-2236TL	33R-2236ML
316 stainless steel body, 316 stainless steel trim	33R-3600TL	33R-3600ML

HOW TO ORDER

Specify the valve size and standard material combination. The codes are explained in the tables and example below.

1	2		3	4		5
1/2"	33R	–	2236	TL	–	C

Example: The above example is for a 1/2" (DN 15) NPT Series 33R ball valve constructed of carbon steel body with 316 stainless steel trim, PTFE seats and graphite seals.

1	Size
inches	1/4", 3/8", 1/2", 3/4", 1", 1-1/2", 2"
DN	8, 10,15, 20, 25, 40, 50

2	Series
33R	Series 33R
DN	8, 10,15, 20, 25, 40, 50

3	Body, Ball and Stem Material
2236	Carbon steel body with 316 stainless steel ball and stem
3600	316 stainless steel body, ball and stem

4	Seat and Seal Material Options
TL	PTFE seats with graphite seal
ML	Filled PTFE seats with graphite seal

5	Model
C	Model designation.

Neles

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