

# 83B-140

carbon steel 3-piece full port class 600 NPT ball valve



## standard compliance

- valve design: ASME B16.34 class 600, NACE MR0175 (2000) & MR0103 (2012), API 608
- end connections: NPT per ASME B1.20.1

- valve marking: MSS SP-25
- production testing: ASME B16.34

## features

- 3-piece construction w/ enclosed fasteners
- two-position locking
- full port
- adjustable multi-piece PTFE "V" style packing
- stainless steel trim & hardware
- fully machined ISO 5211 mounting
- cast bosses on the center-section and end caps for bleed & drain ports
- fire safe to API 607 (requires -24 suffix)
- swing-out center section
- pressure balanced solid ball
- compression controlled spiral wound gaskets

- vacuum service to 29 in of Hg.
- anti-blowout one piece bottom entry stem
- CE marking, 1-1/4" and larger (add "-CE" suffix)
- statically grounded ball, stem, & body
- 250 psig saturated steam
- CGA 3.16-M88 (2014)

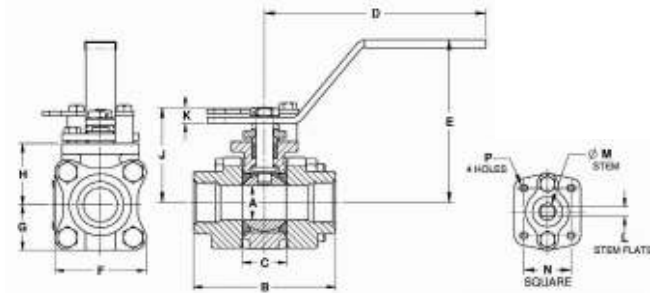
## options available

(more information in section J)

**note: all options and materials listed are not available for all valves and sizes listed. pricing may be subjected to minimum requirements and material availability.**

- minimum quantities apply
- to specify an option, replace the "01" standard suffix with the suffix of the option.
- to specify multiple options, replace the "01" suffix with the desired suffixes in the numerical order shown below. note: not all suffixes can be combined together.

(SUFFIX)	OPTION	SIZES
-01	standard configuration	All
-P-01-	BSPP (Parallel) thread connection	All
-T-01-	BSPT (Tapered) thread connection	All
-04-	2-1/4" stem extension (carbon steel, zinc plated)	All
-14-	vented ball	All
-15-	stainless steel locking round handle	All
-21-	UHMWPE seats w/ graphite seals	All
-24-	graphite packing, spiral wound graphite body seal, PTFE/PEEK bearing (fire safe API 607, 5 <sup>th</sup> edition, ISO 10497-5:2004)	All
-26-	chlorine service. vented. special cleaning. assembled dry. (for CS, HC, & Monel only)	All
-38-	peek seats, graphite stem packing & gaskets	All
-49-	no lubrication. assembled dry	All
-62-	center section only	All
-63-	NPT x socketweld	All
-67-	cleaned for industrial gases	All
-69-	drilled & tapped purge & drains	All
-70-	4" extended bonnet	All
-76-	live loaded (lever operated)	All
-77-	live loaded (actuated)	All
-90-	double packed 4" extended bonnet	All
-9P-	double packed 4" extended bonnet w/ monitoring port	All
-CE-	CE marking	1-1/4" to 2"
-EF-	graphite packing (API 641 compliant)	3/4" to 2"
-EP-	garlock EVSP stem packing w/ spiral wound graphite gasket (fire safe by design)	All
-KF-	PCTFE stem bearing	All
-SR-	spring return handle	1/4" to 1"
-UA-	AIS (american iron & steel) compliant	All
-UL-	UL listed	All
-ZP1-	fugitive emissions packing (Viton)	All
-ZP2-	fugitive emissions packing (Buna-N)	All



## standard material list

PART	MATERIAL
1 body	ASTM A216-WCB
2 end caps	ASTM A216-WCB
3 ball	ASTM A276-316SS
4 stem	ASTM A276-316SS ASTM A564 17-4PH (2" with -38 suffix)
5 seat	multi-seal
6 packing	PTFE
7 stem bearing	PEEK/PTFE
8 body gasket	PTFE spiral wound
9 body bolts	ASTM A193-Gr.B8M3
10 body nuts	ASTM A194-Gr.8
11 stop bolts	18-8 stainless steel
12 gland bolts	ASTM A193-Gr.B8
13 handle nut/screw	300 series stainless steel
14 packing gland	ASTM A276-316SS
15 gland plate	300 series stainless steel
16 lever handle	300 series stainless steel
17 lock plate	300 series stainless steel
18 stops	300 series stainless steel
19 internal grounding spring	300 series stainless steel
20 external grounding spring	300 series stainless steel

pressure/temperature ratings - page M-20, graph no. 25

## dimensions

PART NO.	SIZE	A	B	C	D	E	F	G	H	J	K	L	M	N	P	WT.
83B-141-01	1/4"	0.37	2.80	0.89	5.12	3.02	2.02	1.01	1.39	1.97	0.23	0.245	0.375	1.00	10-24	2.3
83B-142-01	3/8"	0.50	2.80	0.89	5.12	3.02	2.02	1.01	1.39	1.97	0.23	0.245	0.375	1.00	10-24	2.3
83B-143-01	1/2"	0.50	2.80	0.89	5.12	3.02	2.02	1.01	1.39	1.97	0.23	0.245	0.375	1.00	10-24	2.3
83B-144-01	3/4"	0.75	3.68	1.10	5.53	3.40	2.40	1.20	1.65	2.35	0.24	0.312	0.500	1.392	1/4-20	4.0
83B-145-01	1"	1.00	4.19	1.31	6.53	4.80	2.67	1.34	1.80	2.80	0.48	0.287	0.500	1.392	1/4-20	5.7
83B-146-01	1-1/4"	1.50	4.50	1.97	6.65	4.70	3.84	1.92	2.49	3.89	0.72	0.412	0.625	1.949	5/16-18	14.2
83B-147-01	1-1/2"	1.50	4.98	1.97	6.65	4.70	3.84	1.92	2.49	3.89	0.72	0.412	0.625	1.949	5/16-18	14.4
83B-148-01	2"	2.00	5.86	2.56	8.40	5.47	4.56	2.46	3.17	4.74	0.80	0.477	0.750	1.949	5/16-18	24.4

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