midwest control
an intech industries company

1101 Brown St.
Wauconda IL 60084
847-487-5599
847-487-0909
www.midwest-control.com

ST12/25/33 ASME Soft Seat Safety Valve

- Ideal for Small Air Compressors and Other Related Applications that Require a Compact Safety Valve
- Pressure Range: 25 to 350 psi
- Set Pressure Tolerances: ± 3% of Set Pressure
- Maximum Temperature: 250 F
- Construction: All Brass With Zinc Plated Music Wire Spring
- Resilient Silicone Rubber Pad Ensures Valve is Bubble Tight to Within 10% of Set Pressure
- Stamped with the UV and NB Symbols
- Sealant is Standard

Part No.	NPT	Height	Hex	Wt.
ST12	1/8"	1.99"	11/16"	2.0 oz.
ST25	1/4"	1.99"	11/16"	2.0 oz.
ST33	3/8"	2"	11/16"	2.0 oz.

SP25 ASME Soft Seat Safety Valve

- Ideal for Applications Which Require a Compact Safety Valve with High Flow Capacity
- Pressure Range: 75 to 250 psi
- Set Pressure Tolerances: ± 3% of Set Pressure
- Maximum Temperature: 250 F
- Construction: All Brass With Stainless Steel Spring
- Resilient Fluorocarbon Rubber Pad Ensures Valve is Bubble Tight to Within 10% of Set Pressure
- Stamped With the UV and NB Symbols
- Sealant Standard

Part No.	NPT	Height	Hex	Wt.
SP25	1/4"	1.60"	9/16"	1.0 oz.

SF50 ASME Soft Seat Safety Valve

- Ideal for High Flow Applications
- Pressure Range: 50 to 250 psi
- Set Pressure Tolerances: ± 3% of Set Pressure
- Maximum Temperature: 250 F
- Construction: All Brass with Zinc Plated Music Wire Spring
- Resilient Silicone Rubber Pad Ensures Valve is Bubble Tight to Within 10% of Set Pressure
- Stamped With the UV and NB Symbols
- Sealant Standard

Part No.	NPT	Height	Hex	Wt.
SF50	1/2"	3.36"	7/8"	6.0 oz.

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SB50/75 ASME Soft Seat Safety Valve

- Ideal for High Flow Applications
- Pressure Range: 25 to 300 psi
- Set Pressure Tolerances: ± 3% of Set Pressure
- Maximum Temperature: 250 F
- Construction: All Brass With Stainless Steel Springs
- Unique Silicon O-Ring Seal Ensures Valve is Bubble Tight to Within 10% of Set Pressure
- Stamped With the UV and NB Symbols

Part No.	NPT	Height	Hex	Wt.
SB50	1/2"	3.59"	1-1/16'	8 oz.
SB75	3/4"	3.59"	1-1/16"	9.6 oz.

SW10/12 ASME Soft Seat Safety Valve

- Ideal for Applications Which Require a High Flow Safety Valve
- Pressure Range: 25 to 300 psi
- Set Pressure Tolerances: ± 3% of Set Pressure
- Maximum Temperature: 250 F
- Construction: All Brass With Stainless Steel Springs
- Unique Silicone O-Ring Seal Ensures Valve is Bubble Tight to Within 10% of Set Pressure
- Stamped With the UV and NB Symbols

Part No.	NPT	Height	Hex	Wt. (lbs.)
SW10	1"	4.39"	1-5/8"	1.7
SW12	1-1/4"	4.39"	1-5/8"	1.9

SCB5075/7510 ASME Soft Seat Safety Valve

- Designed for Applications Were a Piped or Directed Discharge is Required
- Pressure Range: 50 to 300 psi
- Set Pressure Tolerances: ± 3 % of Set Pressure
- Maximum Temperature: 300 F
- Construction: All Brass With Stainless Steel Springs
- Unique Silicone O-Ring Seal Ensures Valve is Bubble Tight to Within 10% of Set Pressure
- Stamped With the UV and NB Symbols

Part No.	NPT	Height	Hex	Wt. (lbs.)
SCB5075	1/2" Inlet x 3/4" Outlet	4.53"	1-7/16"	1.3
SCB7510	3/4" Inlet x 1" Outlet	4.53"	1-7/16"	1.3

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Control Devices Soft Seat Safety Valve Capacity Chart

PSIG	ST12/25/38	SP25	SF50	SB50	SW10/12	SCB5075/7510
25	32	—	—	140	292	138
30	36	—	—	158	330	156
35	40	—	—	176	368	173
40	45	—	—	194	406	191
45	49	—	—	213	444	209
50	53	—	106	231	482	227
55	57	—	115	249	520	245
60	61	—	123	267	558	263
65	65	—	132	285	597	281
70	70	—	140	304	635	299
75	74	27	148	322	673	317
80	78	28	157	340	711	335
85	82	30	165	358	749	353
90	86	31	174	376	787	371
95	90	33	182	395	825	389
100	95	34	190	413	863	407
105	99	36	199	431	901	424
110	103	37	207	449	939	442
115	107	39	215	467	977	460
120	111	40	224	486	1015	478
125	116	42	232	504	1053	496
130	120	44	241	522	1091	514
135	124	45	249	540	1129	532
140	128	47	257	558	1167	550
145	132	48	266	577	1205	568
150	136	50	274	595	1244	586
155	141	51	283	613	1282	586
160	145	53	291	631	1320	622
165	149	54	299	649	1358	640
170	153	56	308	668	1396	658
175	157	57	316	686	1434	675
180	161	59	325	704	1472	693
185	166	60	333	722	1510	711
190	170	62	341	740	1548	729
195	174	63	350	759	1586	747
200	178	65	358	777	1624	765

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Control Devices Soft Seat Safety Valve Capacity Chart

PSIG	ST12/25/38	SP25	SF50	SB50	SW10/12	SCB5075/7510
205	182	66	367	795	1662	783
210	186	68	375	813	1700	801
215	191	69	383	831	1738	819
220	195	71	392	850	1776	837
225	199	72	400	868	1814	855
230	203	74	409	886	1852	873
235	207	75	417	904	1891	891
240	212	77	425	922	1929	909
245	216	78	434	941	1967	926
250	220	80	442	959	2005	944
255	224	—		977	2043	962
260	228	—	—	995	2081	980
265	232	—	—	1014	2119	998
270	237	—	—	1032	2157	1016
275	241	—	—	1050	2195	1034
280	245	—	—	1068	2233	1052
285	249	—	—	1086	2271	1070
290	253	—	—	1105	2309	1088
295	257	—	—	1123	2347	1106
300	262	—	—	1141	2385	1124
305	266	—	—	—	—	—
310	270	—	—	—	—	—
315	274	—	—	—	—	—
320	278	—	—	—	—	—
325	282	—	—	—	—	—
330	287	—	—	—	—	—
335	291	—	—	—	—	—
340	295	—	—	—	—	—
345	299	—	—	—	—	—
350	303	—	—	—	—	—

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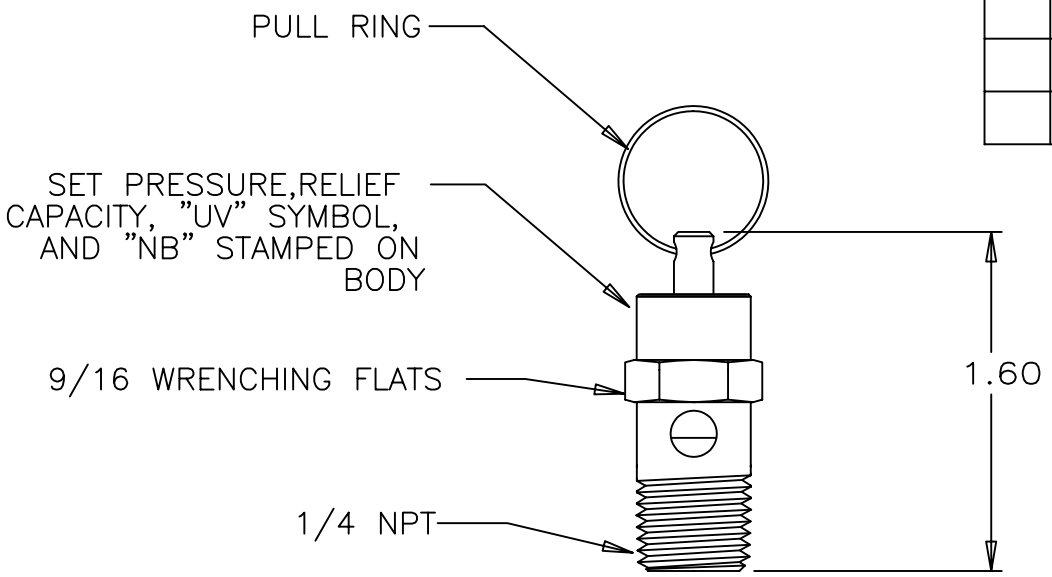
DATE	SYM	REVISION RECORD	ECN NO.	CK.
3/94	D	REDRAWN ON CAD		



NOTES

1. SET PRESSURE RANGE IS 75 PSI TO 250 PSI.
2. RELIEF CAPACITY IS GIVEN BY THE EQUATION
   Q = 0.276(1.1P + 14.7), WHERE
   Q = RELIEF CAPACITY IN SCFM, AND
   P = SET PRESSURE IN PSI
3. MATERIALS OF CONSTRUCTION
   BODY, ROD, SCREW--BRASS
   SPRING--STAINLESS STEEL
   PAD--FLUOROCARBON
   PULL RING--STAINLESS STEEL
4. MAX TEMPERATURE 250° F

ALL DIMENSIONS ARE IN INCHES.

TOLERANCES (EXCEPT AS NOTED)	control devices inc. 711 HANLEY INDUSTRIAL COURT ST. LOUIS, MISSOURI 63144		
DECIMAL ±	MATERIAL	SCALE FULL	SIZE A
FRACTIONAL ±			DRAWN BY RMH
ANGULAR ±			APPROVED BY
DATE 1/15/91	TITLE VALVE, ASME SAFETY, 1/4 NPT		
	CAD FILE C:\ACADWIN\PARTDWGS\SP25.DWG	DRAWING NUMBER SP25	REV D

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Operation Guidelines for Safety Valves

Safety Relief Valve Pointers

- ASME Codes require that valves for air, steam and water service over 140°F (60°C) have test levers or pull rings.
- The safety valve is designed to protect equipment from overpressure. The valve should be handled with care, not subjected to heavy shock loads and protected from contamination. It should be installed as instructed below and correctly as to ASME Boiler and Pressure Code requirements. FAILURE TO THIS CAN RESULT IN DAMAGE TO PROPERTY OR SERIOUS BODILY INJURY
- Safety relief valves should be installed vertically with the drain holes open. Horizontal mounting could affect the alignment of the moving parts and hinder the operation of the valve. The valve should be installed in a location that will not direct the discharge air at nearby personnel. Mount the valve in a location that will subject it to the least amount of vibration. Vibration can cause the valve disc or piston to move against the seat which could possibly damage the valve and cause it to leak.
- When installing the valve care should be taken not to damage or distort the valve. Use only the wrench flats closest to the bottom of the valve during installation and use the proper size wrench to avoid damage to the surface of the valve and to prevent distortion which can interfere with the valve operation or may change the set pressure. Do not over tighten.
- ASME certified valves are factory sealed and are required to be used with ASME certified pressure vessels or systems. ASME certified valves can also be used in non certified or non-code systems.

Maintenance

- Develop a regular program of visual inspection, looking for clogged drains and discharge, dirt build-up in and around the valve seat and broken or missing parts or seals.
- Test the valve every six to twelve months (depending on the plant's age and condition) by operating the pull ring.
- Do not paint, oil or otherwise cover any exterior, interior or working parts of any safety valve. They do not require any lubrication or protective coating to work properly.
- When safety/relief valves require repair, service adjustments, or set pressure changes, work must be accomplished by the manufacturer or holders of "UV" Stamp.

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