Taylor Valve Technology, Inc

INSTALLATION, OPERATION & MAINTENANCE INSTRUCTIONS FOR SAFETY RELIEF VALVES

EM-22 rev A

INSTALLATION

The safety relief valve should always be installed on a tank or piping run in a vertical position with the outlet pointing in a horizontal direction. When screwing the valve into the inlet piping, always use a wrench on the inlet connection hex; never use a wrench on the relief valve body.

One of the most common causes of early failure in relief valves is dirt trapped on the valve seat. Welding slag and/or Teflon tape are among the more common items that cause difficulty. It is recommended that all piping and tank systems be cleaned prior to installation of the relief valve.

A relief valve mounted on a tank should be connected with the minimum amount of piping between the tank and the valve. Further, all piping used must be equal or larger than the inlet pipe size of the relief valve, never smaller. Any restriction of the inlet to a relief valve may cause unusual valve chatter or relief capacities below the design ratings of the valve, which could result in serious catastrophic damage. Outlet piping from the relief valve should be less than four (4) feet in length and never of a pipe size smaller than the outlet pipe size of the relief valve. Long runs of small diameter pipe on the outlet side of a relief valve will create a serious hazard to life and property.

Extreme caution is required in the outlet piping if installed outdoors where the liquids, if present, could form an ice block in the piping of the relief valve body in below freezing weather. Discharge lines must be weather capped and drained to prevent any liquid collection in the relief valve body or outlet piping. If these precautions are not taken, serious damage and injury will result.

Additional, important installation factors are contained in the following excerpt from para. UG-135 Section VIII of the ASME Boiler Code:

UG-135 INSTALLATION

(a) Safety, safety relief and pilot operated pressure relief valves, and nonreclosing pressure relief devices shall be connected to the vessel in the vapor space above any contained liquid or to piping connected to the vapor space in the vessel which is to be protected.

(b) The opening through all pipe and fittings between a pressure vessel and its pressure-relieving device shall have at least the area of the pressure-relieving device inlet, and the flow characteristics of this upstream system shall be such that the pressure drop will not reduce the relieving capacity below that required or adversely affect the proper operation of the pressure-relieving device. The opening in the vessel wall shall be designed to provide direct and unobstructed flow between the vessel and its pressure-relieving device.

(c) When two or more required pressure-relieving devices are placed on one connection, the inlet internal cross-sectional area of this connection shall be at least equal to the combined inlet areas of the safety devices connected to it, and the flow characteristics of the upstream system shall satisfy the requirements of (b).

(d) Liquid relief valves shall be connected below the normal liquid level.

(e) There shall be no intervening stop valves between the vessel and its protective device or devices and the point of discharge, except:

(1) When these stop valves are so constructed or positively controlled that the closing of the maximum number of block valves possible at one time will not reduce the pressure relieving capacity provided by the unaffected relieving devices below the required relieving capacity; or
(2) Under conditions set forth in Appendix M.

(f) The safety devices on all vessels shall be so installed that their proper functioning will not be hindered by the nature of the vessel's contents.

(g) Discharge lines from pressure relieving safety devices shall be designed to facilitate drainage or shall be fitted with drains to prevent liquid from lodging in the discharge side of the safety device, and such lines shall lead to a safe place of discharge. The size of the discharge lines shall be such that any pressure that may exist or develop will not reduce the relieving capacity of the relieving devices below that required to properly protect the vessel. [See UG-136 (a) (8) and Appendix M.]

OPERATION

Best performance in process work is usually obtained by setting the safety relief valve to open at least 10% above the operating pressure where possible. A greater margin of 20%-30% is desirable. However, this setting must not exceed the maximum working pressure of the vessel. All Taylor Valve Technology safety relief valves are checked for bubble-tight seat closures at 90% of set pressure.

In addition to checking the set pressure versus the maximum allowable working pressure of the vessel, also check to insure that back pressure and temperature limitations of the process are consistent with valve ratings. Service conditions outside of a nominal range may require special materials. Also carefully check the process fluid input capacities to insure that the relief valve capacity is greater than the process capacities.

DO NOT BREAK THE LEAD SEAL WIRE! Breaking this wire invalidates the manufacturer's warranty to repair or replace the valve. If resetting is required in a field emergency situation it should be performed by qualified personnel with calibrated instrumentation. Note that the ASME Section VIII Code prohibits resetting a relief valve to more than ±10% of the original setting for set pressures of 15 to 250 psig and ±5% for set pressures greater than 250 psig. Consult the factory for additional resetting information.

DISSASSEMBLY

The following general procedure is recommended in disassembly inspection and cleaning of the relief valves.

1. Examine the relief valve and note any damage that may be visible. Also note whether the lead seal wire is still intact or has been broken.

2. Cut the lead seal wire and remove the cap.

3. Loosen the jam nut and back the adjustment screw out until all spring tension has been removed. *Caution: If the spring tension is not removed prior to disassembly of the valve, the seating components and seat frame threads will likely be damaged*.

4. Place the valve in a vice or holding fixture with the seat frame facing up and unscrew the seat frame from the body.

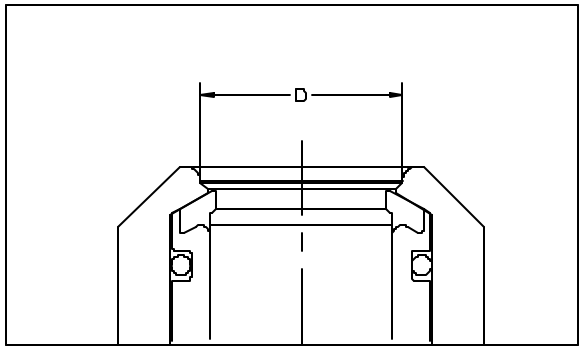
5. Place the seat frame in a vice and unscrew the seat from the seat frame. Once the seat is free pull the seat insert and seat seal from the seat body.

6. Remove the valve body from the vice and turn it upright to remove the disc or ball and ball guide, spring, and spring keeper.

7. The valve is now disassembled and ready for repair.

8. Inspect the seat seal for ruptures or scratches. If it is damaged, replace it. Do not attempt to use the damaged seat seal again.

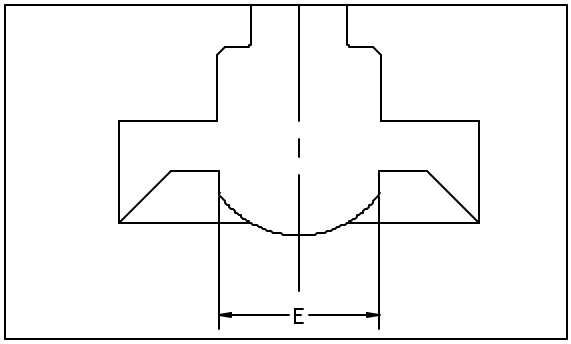
Orifice Size	Minimum D	Maximum D
D	.494	.498
E	.618	.620
F	.766	.768
G	.912	.915
H	1.212	1.214
J	1.598	1.602
K	1.898	1.900



9. Refer to the chart and illustration above and measure the diameter shown on the seat body with a precision caliper. This dimension must be within the range shown. If it is not, replace the seat body. *(Note: The picture shown is for 8200 and 8300 series valves, other seat assemblies may differ.)*

10. Inspect the disc for cuts and abrasions. If there is damage to the spherical sealing surface, replace the disc. If the stem of the disc is not smooth, replace the disc.

Orifice Size	Minimum E	Maximum E
D	.490	.492
E	.613	.615
F	.760	.762
G	.905	.907
H	1.200	1.202
J	1.590	1.592
K	1.890	1.892



11. Refer to the chart and illustration above and measure the diameter shown on the disc with a precision caliper. This dimension must be within the range shown. If it is not, replace the disc. *(Note: The picture shown is for 8200 and 8300 series valves, other discs may differ.)*

12. Inspect the spring for wear or damage. Clean and replace the spring if necessary. Squareness of the spring is important for proper operation.

13. Inspect the adjustment screw to insure that all threads are intact. If there are small imperfections on the threads they can be dealt with using a die or a thread file. If threads are missing or damaged beyond repair, replace the adjustment screw.

REASSEMBLY

The following general procedure is recommended in assembly of inspected relief valves.

1. Make sure all parts are clean.

2. Lubricate all "o" rings with light oil before assembling.

3. Thread the lock nut on the adjustment screw and place the washer and thread seal on the other end in that order. Lubricate the adjustment screw with Aqua-Lube grease and thread into body roughly nine turns.

4. Replace "o" rings on seat frame and check to see that they are securely seated in the grooves.

5. Assemble disc, spring, and spring keeper for 8200 and 8300 series. Assemble ball guide, spring, spring keeper for 7800 and 7900 series.

6. Assemble seat seal, "o" ring and seat insert into seat body. *(Note: In older model valves, this may be a one-piece assembly. 7800 series is a hard seat valve and will consist of a single piece seat.)*

7. Thread seat assembly into seat frame. Using a seat wrench, tighten seat moderately. DO NOT OVER TIGHTEN, seal failure will occur. *(Note: Keep ball and seat together, they are lapped as a matched set.)*

8. Hold the body in one hand, with the adjustment screw pointing up, and insert the spring assembly up into the valve body. Verify that the spring keeper has slipped onto the adjustment screw.

9. Place body into a holding fixture or in a vice, with the adjustment screw down. For 7800 and 7900 series valves, place the ball onto the ball guide. Thread the seat frame into the body assembly until it is hand tight.

10. Tighten the seat frame into the body using a 13" hex wrench, until the seat is FIRMLY seated. *(Note: Watch to make sure the body "o" ring is not damaged in the process.)*

11. Remove valve from vice, with the valve still upside down. Tighten adjustment screw into the body until you engage the spring.

12. Visually inspect the assembly. Make sure that the:

    A. Disc and seat or ball and seat appear to be in the sealing position.

    B. Spring assembly appears to be in alignment.

TESTING

The following general procedure is highly recommended in testing of fully assembled safety relief valves. *(Note: Test system must be in accordance with the latest edition of ASME PTC-25.)*

WARNING! HIGH PRESSURE AIR IS VERY DANGEROUS, EXERCISE EXTREME CAUTION WHEN SETTING RELIEF VALVES!

1. Close all supply valves and open all vent valves to ensure that the pressure on the test system is at zero.

2. Select a pressure gauge per the chart below and install on the test stand (all pressures are in psig):

Set Pressure	Range of Gauge
15-40	0-60
40-75	0-100
75-175	0-200
175-450	0-600
450-750	0-1000
750-1600	0-2000
1600-2500	0-3000

3. Thread the valve firmly into the test stand fixture with the outlet pointed into the exhaust manifold and attach the discharge pipe to the outlet of the valve.

4. Set the adjustment screw to the approximate position of the set point by turning the adjustment screw clockwise. Close all vent valves. Open the pressure supply valve slowly and bring the relief valve to the point where the valve "pops."

If the valve requires adjustment to achieve the set pressure, do so within 10% of the set pressure to eliminate any potential damage to the sealing components. Continue adjustment until the valve falls within the listed tolerances:

Set Pressure	Relief Tolerance
70 and Below	±2.0 psig
Above 70	±3.0% of set point

Tighten the jam nut while holding the adjustment screw in place. Pop the valve again to check that the set point was maintained. Make adjustment if necessary and repeat.

5. Check for seat leakage by reducing the pressure to 10% below the set pressure immediately after popping. Attach the flow meter to the outlet and measure leakage. Acceptable leakage is as follows:

Seat Type	Acceptable Leakage
Hard Seat	0.2 scfh
Soft Seat	Zero Leakage

6. After setting is complete, close the supply pressure valves and open the vent valves to bring the system pressure to zero. Remove the valve from the stand.

7. Visually inspect the assembly making sure that:

A. The ball and seat or disc and seat appear to be in the correct position.

B. The spring appears to have adequate room to lift when relieving.

BACK PRESSURE TESTING

The purpose of back pressure testing safety relief valves is to check for leaks in the secondary pressure zone (the outlet side of the relief valve).

The back pressure test is performed after the valve has been assembled and set to the correct set pressure. The test is performed by attaching a pressure source to the outlet of the valve and submerging the valve in a solution of water treated with rust inhibitor. The pressure in the secondary pressure zone is then brought to 30 psig. This is the pressure required by the ASME Boiler and Pressure Vessel Code, Section VIII, Para. UG-136 (d) "Production Testing by Manufacturers and Assemblers." The valve is then visually inspected for any leaks by checking for bubbles coming from any part of the valve. If any part of the valve is producing bubbles, the valve is disassembled, repaired, reassembled, and retested. If no leaks are detected, the valve is sent for painting, sealing and shipping.

INSTALLING THE LEAD SEAL WIRE

Refer to attachment for referenced photos. The ends of the lead seal wire will be referred to as A and B with the wire end being A and the lead seal end being B.

1. Insert end A of the lead seal wire through the hole located in the member of the body that is just above the outlet of the valve body. Refer to step 1.

2. Insert end A through the bottom of the lead seal and pull end A through the top until end B is against the support member of the body. Refer to step 2.

3. Loop end A of the wire under the middle section of the wire creating a loop that can be placed over the cap. Refer to step 3.

4. Place the loop over the cap into the groove. Pull end A until the wire is tight.

Pull end A over the top of the wire and wrap it around the groove in the opposite direction one turn. Refer to step 4.

5. Insert end A up through the small loop created in step u when end A was pulled over the top of the middle section of the wire. Refer to step 5.

6. Pull end A upwards until tight and then down towards end B. Refer to step 6.

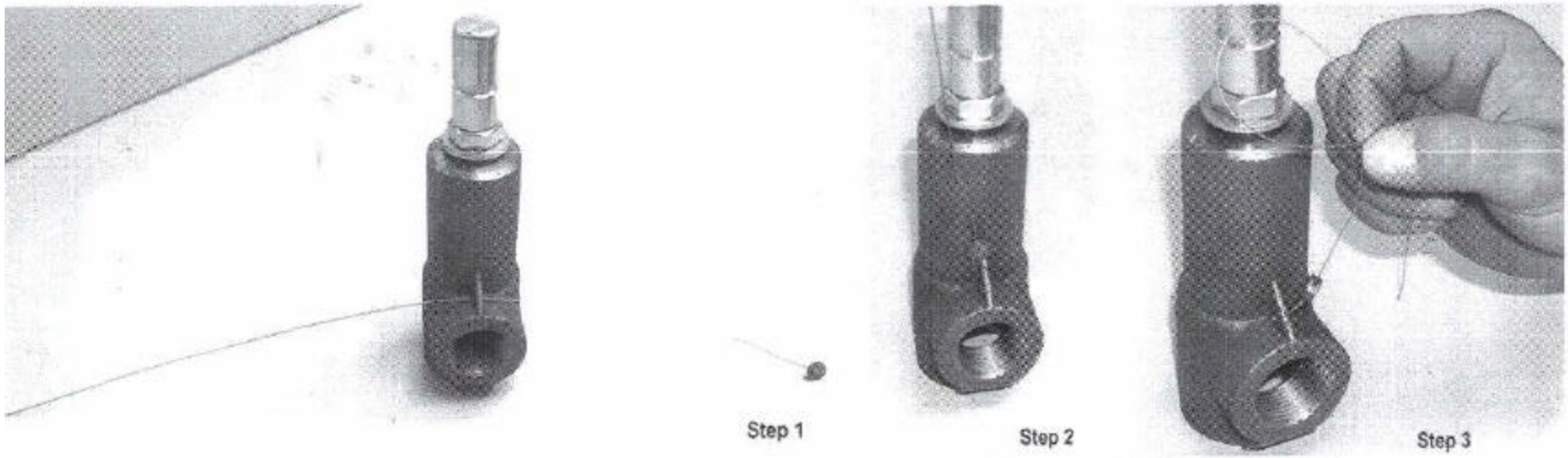
7. Insert end A through the top of the lead seal and pull tight. Crimp the lead seal to hold the wire in place.

Snip end A at the bottom of the lead seal. Check to see if the wire is tight and that the cap cannot be removed.

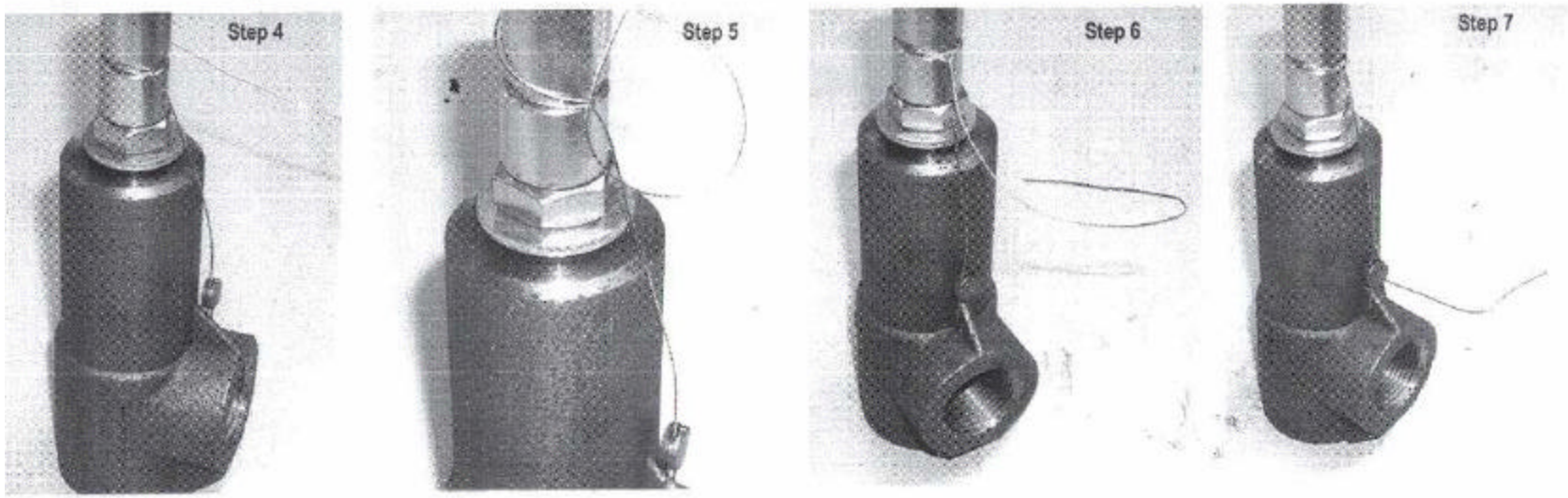
If you have any questions concerning any of the topics mentioned here, or any problems or questions that arise, please feel free to:

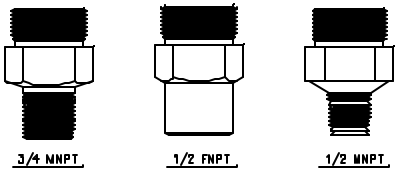
1. Contact our website at http://www.taylorvalve.com
2. Call us at (405) 787.0145, or toll-free at (800) 654.4196
3. Or stop by our home office located at 8300 SW 8th St; Oklahoma City, OK 73128

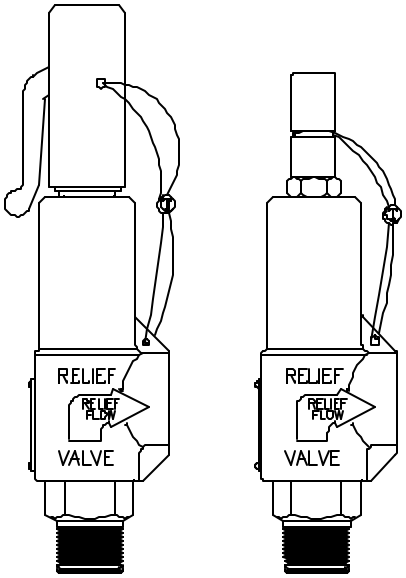
Thank you for purchasing a Taylor Valve Technology safety relief valve. We appreciate your business and look forward to providing you with the best in quality and customer service.

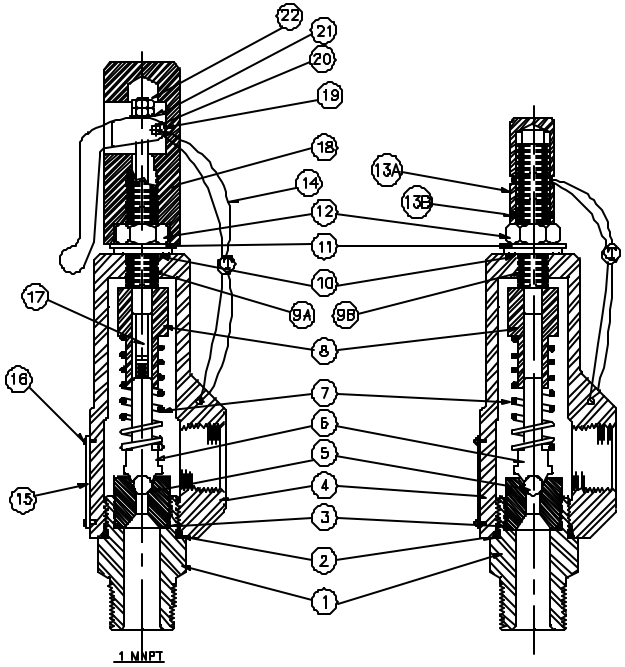


Taylor Valve Technology - Seal Wire Tie









1 MNPT

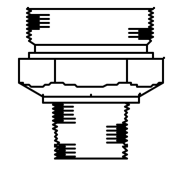
ITEM	DESCRIPTION	MATERIAL			
		CS STD	CS NACE	SS STD	SS NACE
1	SEAT FRAME				
	1/2" FNPT	A105	A105	A479	A479
	1/2" MNPT	A105	A105	A479	A479
	3/4" MNPT	A105	A105	A479	A479
	1" MNPT	A105	A105	A479	A479
2	BODY O-RING	VITON	PC BUNA	VITON	PC BUNA
3	SEAT O-RING	VITON	PC BUNA	VITON	PC BUNA
4	BODY	A216	A216	A351	A351
5	BALL & SEAT				
	HARD SEAT	H900	H1150	H900	H1150
	BALL	440C	WC	440C	WC
6	BALL GUIDE	A479	A479	A479	A479
7	SPRING	A313	INCONEL	A313	INCONEL
8	KEEPER	A479	A479	A479	A479
9A	ADJUST SCREW	A108	A108	A564	A564
9B	ADJUST SCREW	A108	A108	A564	A564
10	THREAD SEAL	VITON	VITON	VITON	VITON
11	JAM NUT	CS ANSI STD.	CS ANSI STD.	CS ANSI STD.	CS ANSI STD.
12	FLAT WASHER	CS ANSI STD.	CS ANSI STD.	CS ANSI STD.	CS ANSI STD.
13A	THREAD PROT.	A108	A108	A108	A108
13B	O-RING	BUNA	BUNA	BUNA	BUNA
14	WIRE SEAL	SS	SS	SS	SS
15	NAME PLATE	ALUM.	SS	ALUM.	SS
16	DRIVE SCREWS	A580	A580	A580	A580
17	STEM	A479	A479	A479	A479
18	LIFT LEVER CAP	A108	A108	A108	A108
19	LIFT LEVER	B148	B148	B148	B148
20	CLEVIS PIN	CS ANSI STD.	CS ANSI STD.	CS ANSI STD.	CS ANSI STD.
21	FLAT WASHER	CS ANSI STD.	CS ANSI STD.	CS ANSI STD.	CS ANSI STD.
22	JAM NUTS	CS ANSI STD.	CS ANSI STD.	CS ANSI STD.	CS ANSI STD.

*** VARIES DUE TO APPLICATION – 7800 SERIES USES METALLIC INSERT'S ONLY

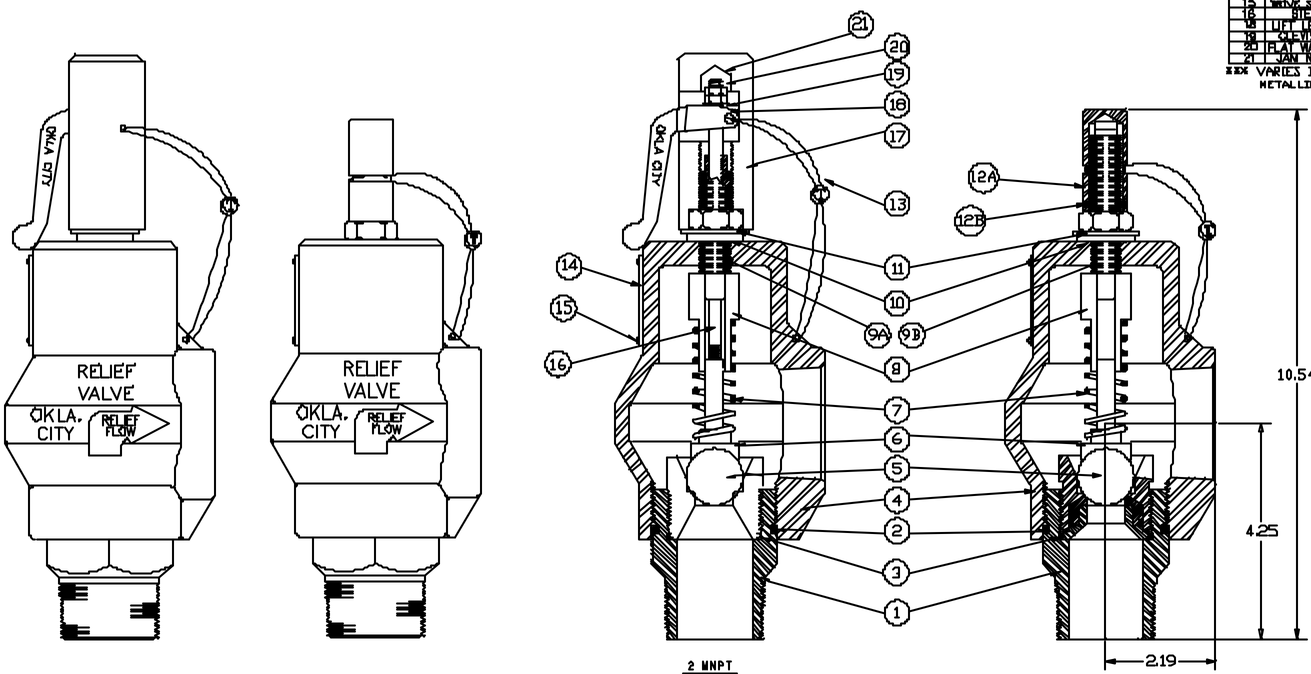
ORIFICE SIZES: 1/4, 1/2

TAYLOR VALVE TECHNOLOGY

7800 1" SRV HARD SEAT



1-1/2 MNPT



2 MNPT

ORIFICE SIZE: 3/4

ITEM	DESCRIPTION	MATERIAL CS STD	CA NACE	SS STD.	SS NACE
1	SEAT FRAME				
	1-1/2" MNPT	A108	A108	A479	A479
	2" MNPT	A108	A108	A479	A479
2	BODY O-RING	VITON	PC BUNA	VITON	PC BUNA
3	SEAT O-RING	VITON	PC BUNA	VITON	PC BUNA
4	BODY	A216	A216	A351	A351
5	BALL & SEAT				
	HC ASSY				
	SEAT HOLDER	A479	A479	A479	A479
	SEAT INSERT	***	***	***	***
	SEAT INSERT HOLDER	A479	A479	A479	A479
	O-RING	VITON	PC BUNA	VITON	PC BUNA
	BALL	440C	WC	440C	WC
6	BALL GUIDE	A479	A479	A479	A479
7	SPRING	A313	INCONEL	A313	INCONEL
8	KEEPER	A479	A479	A479	A479
	HIGH RANGE KEEPER	A479	A479	A479	A479
9A	ADJUST SCREW	A108	A108	A564	A564
9B	ADJUST SCREW	A108	A108	A564	A564
10	THREAD SEAL	VITON	VITON	VITON	VITON
11	JAM NUT	CS ANSI STD.	CS ANSI STD.	CS ANSI STD.	CS ANSI STD.
12A	THREAD PROT.	A108	A108	A108	A108
12B	O-RING	BUNA	BUNA	BUNA	BUNA
13	WIRE SEAL	CS	CS	CS	CS
14	NAME PLATE	ALUM	ALUM	ALUM	ALUM.
15	DRIVE SCREWS	A580	A580	A580	A580
16	STEM	A479	A479	A479	A479
18	LIFT LEVER	B148	B148	B148	B148
19	CLEVIS PIN	CS ANSI STD	CS ANSI STD	CS ANSI STD	CS ANSI STD.
20	FLAT WASHER	CS ANSI STD.	CS ANSI STD.	CS ANSI STD	CS ANSI STD.
21	JAM NUTS	CS ANSI STD.	CS ANSI STD.	CS ANSI STD	CS ANSI STD

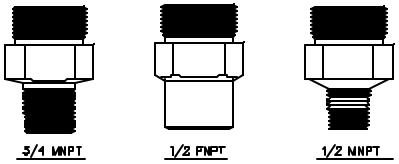
*** VARIES DUE TO APPLICATION - 7801 SERIES USES METALLIC INSERT'S ONLY

taylor valve technology Oklahoma City, Oklahoma

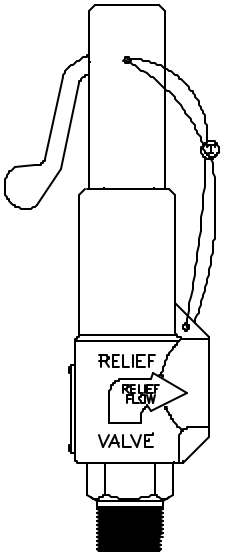
7800 SRV2 HARD SEAT

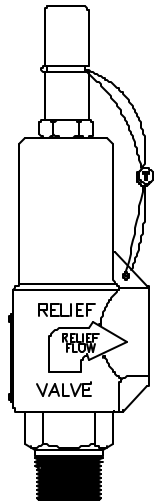
DATE	ECN NO.	APPR	REV
4-9-98			
06/06/94	RELEASED	JDT	A

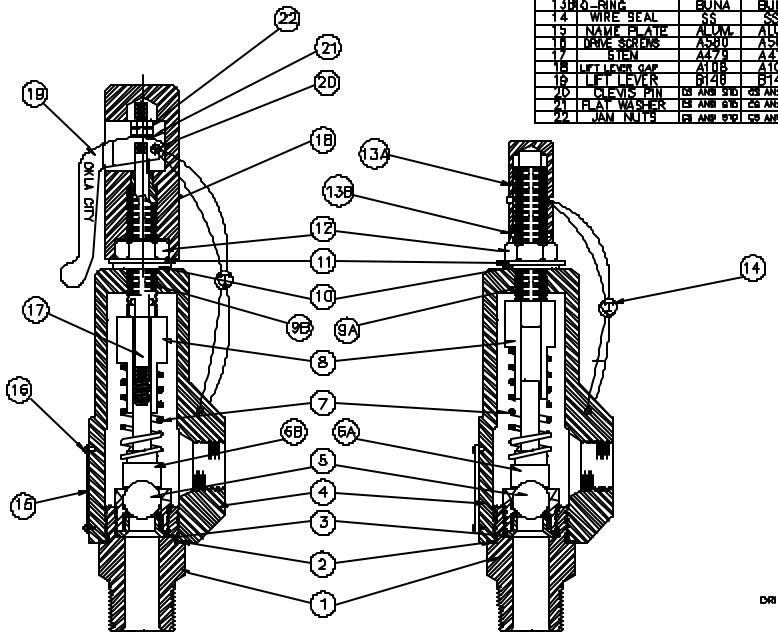
DRAWN	AK	06/06/94
CHECKED	MJ	06/06/94
APPROVED	JDT	06/06/94
DRAWING NUMBER	78-ASSEMBLY	REV NO. A



ITEM	DESCRIPTION	MATERIAL			
		CS STD.	CA NACE	SS STD.	SS NACE
1	SEAT FRAME				
	1/2" FNPT	A108	A108	A479	A479
	1/2" MNPT	A108	A108	A479	A479
	3/4" MNPT	A108	A108	A479	A479
	1" MNPT	A108	A108	A479	A479
2	BODY SEAL	VITON	VITON	VITON	VITON
3	SEAT O-RING	VITON	VITON	VITON	VITON
4	BODY	A216	A216	A351	A351
5	BALL & SEAT				
	INSERT HOLDER	A479	A479	A479	A479
	SEAT HOLDER	A479	A479	A479	A479
	O-RING	VITON	VITON	VITON	VITON
	SEAT INSERT	VITON	VITON	VITON	VITON
	BALL	440C	WC	440C	WC
6A	BALL GUIDE	A479	A479	A479	A479
6B	BALL GUIDE				
7	SPRING	A313	INCONEL	A313	INCONEL
8	KEEPER	A479	A479	A479	A479
9A	ADJUST SCREW	A108	A108	A564	A564
9B	ADJUST SCREW	A108	A108	A564	A564
10	THREAD SEAL	DS ANSI STD	DS ANSI STD	DS ANSI STD	DS ANSI STD
11	FLAT WASHER	DS ANSI STD	DS ANSI STD	DS ANSI STD	DS ANSI STD
12	JAM NUT	DS ANSI STD	DS ANSI STD	DS ANSI STD	DS ANSI STD
13	THREAD PROT. ASSY				
13A	THREAD PROT	A108	A108	A108	A108
13B	O-RING	BUNA	BUNA	BUNA	BUNA
14	WIRE SEAL	SS	SS	SS	SS
15	NAME PLATE	ALUM.	ALUM.	ALUM.	ALUM.
16	DRIVE SCREWS	A380	A380	A380	A380
17	STEM	A479	A479	A479	A479
18	LIFT LEVER GAP	A108	A108	A108	A108
19	LIFT LEVER	B148	B148	B148	B148
20	CLEVIS PIN	DS ANSI STD	CS ANSI STD	DS ANSI STD	DS ANSI STD
21	FLAT WASHER	DS ANSI STD	CS ANSI STD	DS ANSI STD	DS ANSI STD
22	JAM NUTS	DS ANSI STD	CS ANSI STD	DS ANSI STD	DS ANSI STD





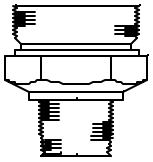


1 MNPT

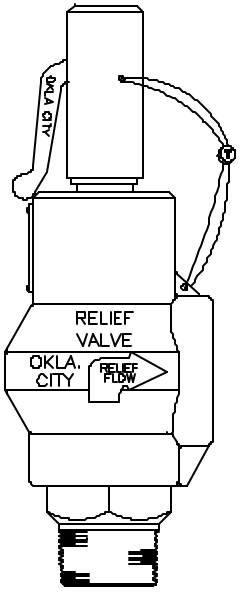
DRIFICE SIZE 1/2

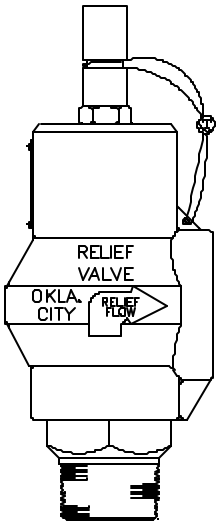
taylor valve technology

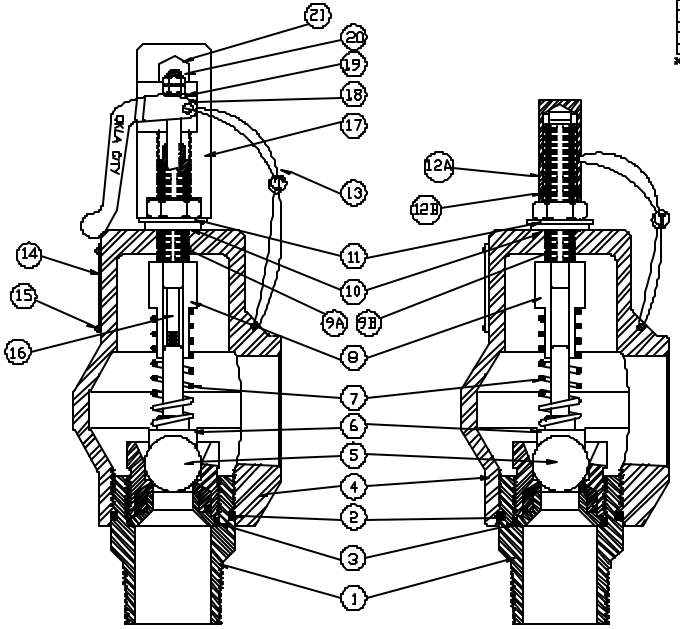
7B00 SRV1 SOFT SEAT



1-1/2 MNPT







2 MNPT

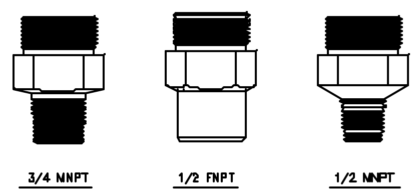
ITEM	DESCRIPTION	MATERIAL			
		CS STD.	CA NACE	SS STD.	SS NACE
1	SEAT FRAME				
	1-1/2" MNPT	A108	A108	A479	A479
	2" MNPT	A108	A108	A479	A479
2	BODY O-RING	VITON	PC BUNA	VITON	PC BUNA
3	SEAT O-RING	VITON	PC BUNA	VITON	PC BUNA
4	BODY	A216	A216	A351	A351
5	BALL & SEAT				
	INC ASSY				
	SEAT HOLDER	A479	A479	A479	A479
	SEAT INSERT	***	***	***	***
	SEAT INSERT HOLDER	A479	A479	A479	A479
	O-RING	VITON	PC BUNA	VITON	PC BUNA
	BALL	440C	NC	440C	NC
6	BALL GUIDE	A479	A479	A479	A479
7	SPRING	A313	INCONEL	A313	INCONEL
8	RETAINER	A479	A479	A479	A479
	SEAL INSERT HOLDER	A479	A479	A479	A479
8A	ADJUST SCREW	A108	A108	A564	A564
8B	ADJUST SCREW	A108	A108	A564	A564
10	THREAD SEAL	VITON	VITON	VITON	VITON
11	JAM NUT	CR AND STR	CR AND STR	CR AND STR	CR AND STR
12A	THREAD PROT	A108	A108	A108	A108
12B	O-RING	BUNA	BUNA	BUNA	BUNA
13	WIRE SEAL	CR	CR	CR	CR
14	NAME PLATE	AL6M	AL6M	AL6M	AL6M
15	DRIVE SCREWS	A380	A380	A380	A380
16	PIN	A479	A479	A479	A479
18	LIFT LEVER	B148	B148	B148	B148
19	CLEVIS PIN	CR AND STR	CR AND STR	CR AND STR	CR AND STR
20	FLAT WASHER	CR AND STR	CR AND STR	CR AND STR	CR AND STR
21	JAM NUT	CR AND STR	CR AND STR	CR AND STR	CR AND STR

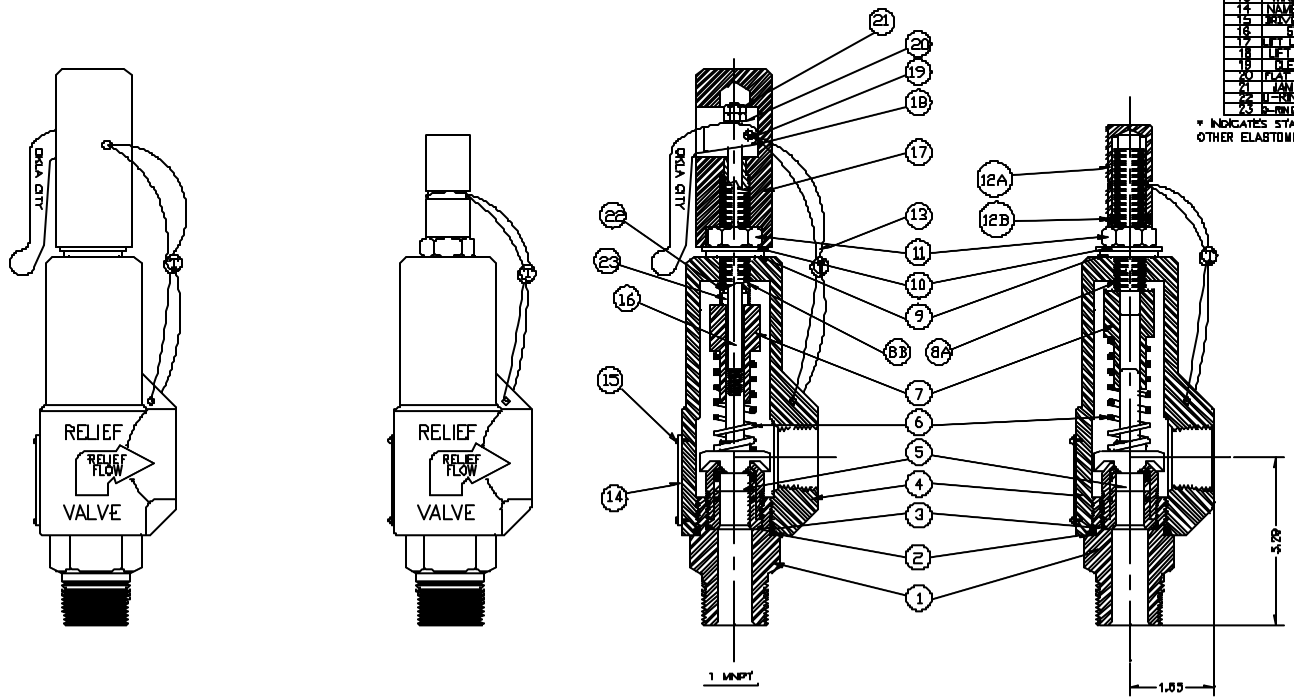
*** VARIES DUE TO APPLICATION - 7900 SERIES USES METALLIC INSERTS ONLY

ORIFICE SIZE: 3/4

taylor valve technology

7900 SRV2 SOFT SEAT





ITEM	DESCRIPTION	MATERIAL			
		CS STD.	CA NACE	SS STD.	SS NACE
1	SEAT FRAME				
	1/2" FNPT	A108	A108	A479	A479
	1/2" MNPT	A108	A108	A479	A479
	3/4" MNPT	A108	A108	A479	A479
	1" MNPT	A108	A108	A479	A479
2	O-RING	VITON	PC BUNA	VITON	PC BUNA
3	O-RING	VITON	PC BUNA	VITON	PC BUNA
4	BODY	A216	A216	A351	A351
5*	DISC & SEAT ASSY				
	HL ASSY	A479	A479	A479	A479
	SEAT HOLDER	A479	A479	A479	A479
	SEAT INSERT	VITON/304	VITON/304	VITON/304	VITON/304
	SEAT INSERT HOLDER	A479	A479	A479	A479
	O-RING	VITON	PC BUNA	VITON	PC BUNA
	DISC	A564	A564	A564	A564
6	SPRING	A313	INCONEL	A313	INCONEL
7	KEEPER	A479	A479	A479	A479
8A	ADJUST SCREW	A108	A108	A564	A564
8B	ADJUST SCREW	A564	A564	A564	A564
9	THREAD SEAL	VITON	VITON	VITON	VITON
10	FLAT WASHER	B18.22.1	B18.22.1	B18.22.1	B18.22.1
11	JAM NUT	B18.2.2	B18.2.2	B18.2.2	B18.2.2
12A	THREAD PROT	A108	A108	A108	A108
12B	O-RING	BUNA	BUNA	BUNA	BUNA
13	WIRE SEAL	CS	CS	CS	CS
14	NAME PLATE	ALUM.	ALUM.	ALUM.	ALUM.
15	DRIVE SCREWS	A580	A580	A580	A580
16	STEM	A479	A479	A479	A479
17	LIFT LEVER CAP	SS	SS	SS	SS
18	LIFT LEVER	B148	B148	B148	B148
19	CLEVIS PIN	18-8SS	18-8SS	18-8SS	18-8SS
20	FLAT WASHER	B18.22.1	B18.22.1	B18.22.1	B18.22.1
21	JAM NUTS	B18.2.2	B18.2.2	B18.2.2	B18.2.2
22	U-RING	NBR 70	NBR 70	NBR 70	NBR 70
23	O-RING RETAINER	A479	A479	A479	A479

* INDICATES STANDARD ELASTOMER CONFIGURATION
OTHER ELASTOMERS AVAILABLE BASED ON SERVICE CONDITIONS

ORIFICE SIZE: D, E, F

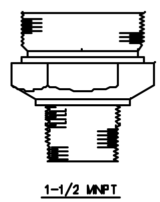
Taylor Valve Technology Oklahoma City Oklahoma

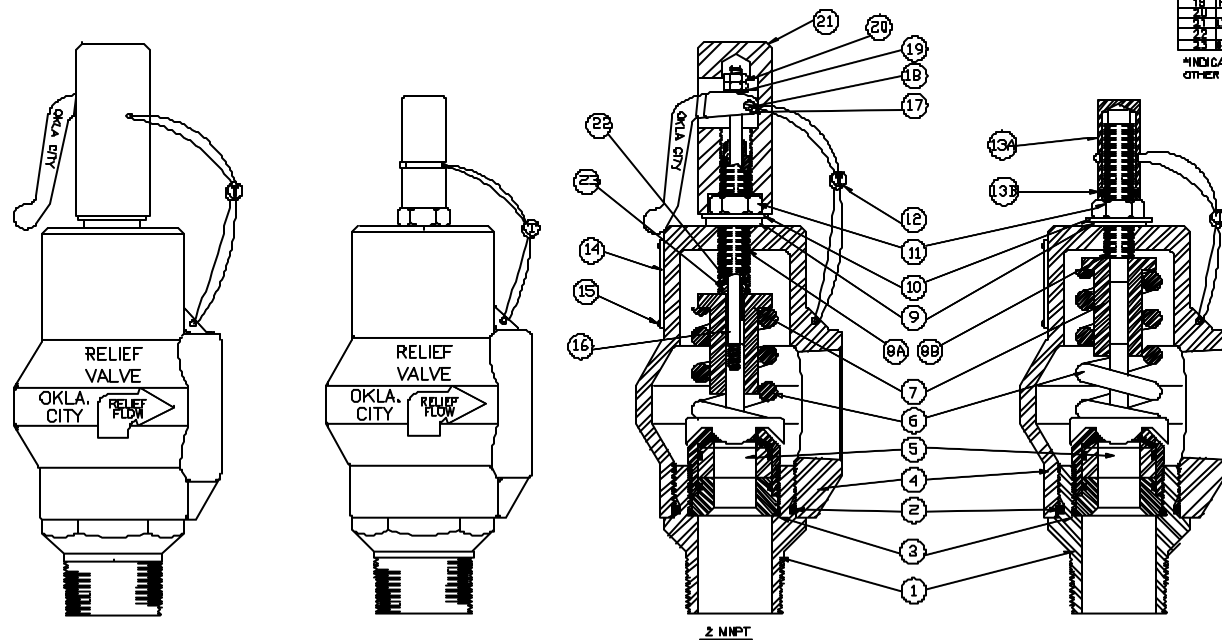
8200 SRVL SOFT SEAT

DATE	ECN NO	APPR	REV.
11-4-99	2087	SCS	E
4-8-98	[illegible]	[illegible]	D
5-6-97	[illegible]	[illegible]	C
4-8-97	[illegible]	JGT	B
06/03/94	RELEASED	TVD	A

UNLESS SPECIFIED OTHERWISE — TOLERANCES NOT SPECIFIED — DRAWN A.K. 06/03/94 — CHECKED 06/03/94 — APPROVED TVD 06/03/94

DRAWING NUMBER: 8E-ASSEMBLY — REV NO: A





ITEM	DESCRIPTION	MATERIAL			
		CS STD	CA NACE	SS STD	SS NACE
1	SEAT FRAME				
	1-1/2" MNPT	A108	A108	A479	A479
	2" MNPT	A108	A108	A479	A479
2	O-RING	VITON	PCBUNA	VITON	PCBUNA
3	O-RING	VITON	PCBUNA	VITON	PCBUNA
4	BODY	A216	A216	A351	A351
5*	DISC & SEAT				
	"G" HL ASSY				
	SEAT HOLDER	A479	A479	A479	A479
	SEAT INSERT	VITON/304	VITON/304	VITON/304	VITON/304
	SEAT INSERT HOLDER	A479	A479	A479	A479
	O-RING	VITON	PCBUNA	VITON	PCBUNA
	"G" DISC	174 H900	316SS	174 H900	316SS
6	SPRING	A313	INCONEL	A313	INCONEL
7	KEEPER	A479	A479	A479	A479
	HIGH RANGE KEEPER	A479	A479	A479	A479
8A	ADJUST SCREW	A108	A108	A564	A564
8B	ADJUST SCREW	A108	A108	A564	A564
9	THREAD SEAL	VITON	VITON	VITON	VITON
10	FLAT WASHER	B18.22.2	B18.22.2	B18.22.2	B18.22.2
11	JAM NUT	B18.22.1	B18.22.1	B18.22.1	B18.22.1
12	WIRE SEAL	3 PLY SS	3 PLY SS	3 PLY SS	3 PLY SS
13A	THREAD PROT	A108	A108	A108	A108
13B	O-RING	BUNA	BUNA	BUNA	BUNA
14	NAME PLATE	ALUM.	ALUM.	SS	SS
15	DRIVE SCREWS	A580	A580	A580	A580
16	STEM	A479	A479	A479	A479
17	LIFT LEVER	B148	B148	B148	B148
18	CLEVIS PIN	18-8SS	18-8SS	18-8SS	18-8SS
19	FLAT WASHER	B18.22.1	B18.22.1	B18.22.1	B18.22.1
20	JAM NUTS	B18.2.2	B18.2.2	B18.2.2	B18.2.2
21	LIFT LEVER CAP	A108	A108	A108	A108
22	O-RING	NBR 70	NBR 70	NBR 70	NBR 70
23	O-RING RETAINER	A479	A479	A479	A479

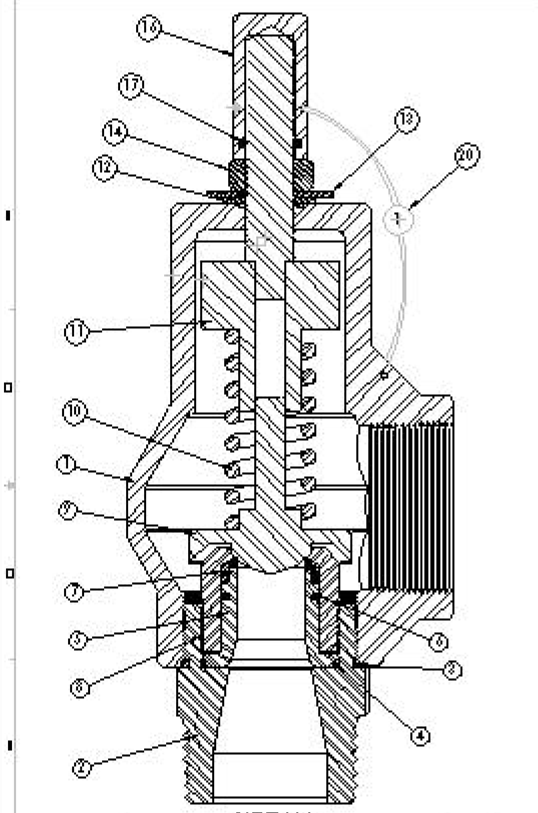
*INDICATES STANDARD ELASTOMER CONFIGURATION
OTHER ELASTOMERS AVAILABLE BASED ON SERVICE CONDITIONS

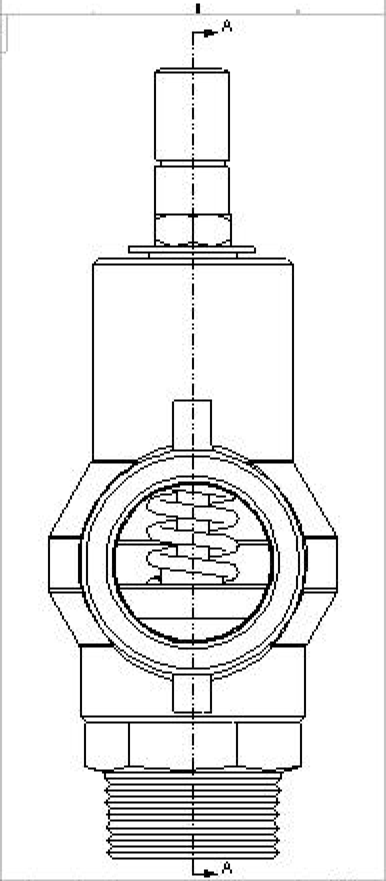
DATE	ECN NO.	APPR.	REV
11-4-99	2087	GS	D
4-8-98	2708	GPR	C
4-1-97	[illegible]	JCF	B
06/13/94	RELEASED	TVB	A

taylor valve technology oklahoma city, oklahoma

8200 SRV2 SOFT SEAT

DRAWN A.K. 06/13/94
CHECKED MB 06/13/94
APPROVED TVB 06/13/94
DRAWING NUMBER 02-8C500
REV. NO. 3





ITEM NO.	QTY	DESCRIPTION
1	1	BODY MACHINED SRV3 WCB TO A216
2	1	SEAT FRAME 3" NPT 1018/1020 CS A108
3	1	O-RING VITON 90 DURO
4	1	O-RING VITON 90 DURO
5	1	SEAT INSERT HOLDER 316 SS A479
6	1	O-RING VITON 90 DURO
7	1	SEAT INSERT ORIFICE VITON 90 DURO
8	1	SEAT BODY ORIFICE 316 SS A479
9	1	DISC SRV3 ORIFICE 17-4 H900 A574
10	1	SPRING
11	1	SPRING KEEPER SRV3 304 SS A479
12	1	THREAD SEAL STEEL/BUNA
13	1	1" FLAT WASHER
14	1	1" JAM NUT
15	1	ADJUSTMENT SCREW SRV3 12L14 CS A108
16	1	THREAD PROTECTOR 1018/1020 CS A108
17	1	O-RING BUNA 90 DURO
18*	1	LABEL SRV ALUM. #3
19*	2	DRIVE SCREW 0 X 1/8 18-8SS
20	1	LEAD SEAL 7/16" WIRE TIE 18" 3 PLY SS

* - ITEMS NOT SHOWN
** - CONSULT TAYLOR VALVE TECHNOLOGY FOR SPRING RANGE

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PART NUMBER	MATERIAL DESCRIPTION

DATE	ECN NO.	APPR	REV
1-13-97	RELEASED	CRE	A

MARKINGS

1. HEAT NUMBER
2. FLANGE MARKING
3. INLET
4. FLOW ARROW, MAY BE MILLED W/ CENTER DRILL

Taylor Valve Technology INC.

8300 SW 8th Street
Oklahoma City, Oklahoma 73128
(405) 787-0145 Fax (405) 787-2178

SRV3 8300 SERIES

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES AND TOLERANCES ARE:

DECIMALS	X	XX	XXX
TOLERANCE	±1	±.02	±.005
SURFACE FINISH	500	250	125
ANGULAR	±1/2°		

DO NOT SCALE DRAWING
CAD GENERATED DRAWING DO NOT MANUALLY UPDATE

APPROVALS		DATE
DRAWN	JDT	1-13-97
CHECKED	ME	1-13-97
APPROVED	CRE	1-13-97
CAD NO.	83-A331MRY	REV.
DWG. NO.	83-A331MRY	A