

Fig. 4000 Series Lever Operated

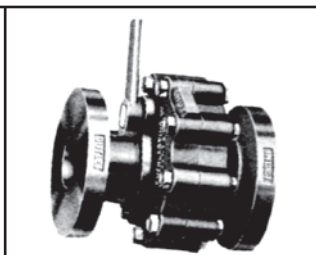


Fig. 4001 Series Lever Operated

How figure 4000 Series operates. Line pressure and heavy spring hold disc firmly against the body seat, sealing off the flow. When operated, the disc slides across the body seat pushing harmful boiler scale away, and wiping clean the precision lapped surfaces. Hand adjustment of the post packing is eliminated. Post packing is self-adjusted by a spring and line pressure. This prevents destructive erosion and leakage of stuffing box.

### Material

Figure No.	Body	Post	Disc	Lever Arm	Post Packing	Springs	Body Gasket	Operating Wrench
4000-A	Cast iron	Forged Bronze	cast iron	Ductile iron	V-Ring Packing	17-7PH	Corrugated Stainless Steel	Forged Steel

### Dimensional

Rating	Figure No.	Dimension Letter	Size	1"	1 1/4"	1 1/2"	2"	2 1/2"
250	4000-A 4001-A	F		3.5/8	3.5/8	4.1/2	4.5/8	5.1/4
		B		7.1/2	7.1/2	8.3/8	9	10.3/8
		J		4	4.3/4	5.1/4	5.1/4	6.1/4
		L		9	9	12.1/2	18	23
		O		55°	55°	55°	60°	60°
		S		1.5/8	1.3/4	2.1/8	2.3/16	2.3/4

### Pressure Rating PSIG

Primary Service Rating	Max. Blow-Off Service†	Max. Steam Service*	Suitable for Use with Index Letter	Figure No.	End Type	Body Matl.
250	200	250	B, E, F	4000-A 4001-A	SCR FLG	iron iron

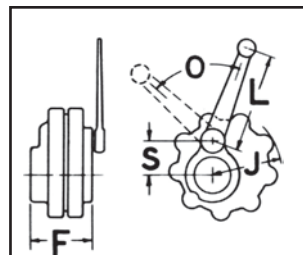


Fig. 4000 Series

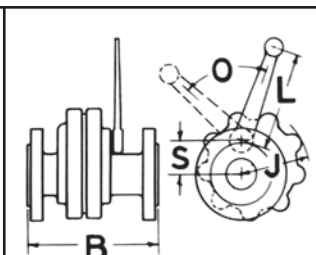


Fig. 4001 Series

### Features:

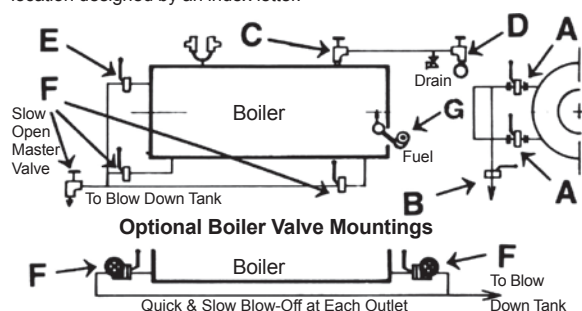
- Straight-through flow
- Leak proof seal disc has self lapping action, actually improves with use
- Self wiping action of disc-cannot hang-up on boiler scale

**Available Sizes** - Chart shows Suggested Operating Pressure limits for easy operation with standard lever and geared lever. Longer levers are available for higher pressure upon request.

3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"
250	250	250	200	200	100
-	250	250	200	200	100

### Boiler Valve Mountings

Refer to the following table for proper valve to use at each location designed by an index letter.



### ASME/ANSI Requirements ASME Boiler & Pressure Vessel Code

Section 1 - Power Boiler (1990 Addenda) and ANSI B31.1 - Power Piping Code (1990 Addenda) (See Note 1)

Index and Service	Reference	Comments
A: Water Column Shut-Off Valves	BPV-1, PG 60.2.2 BPV-1, PG 60.2.5	Piping between water column and boiler to be 1 in. minimum size Shut-off valves must be through-flow type. Must indicate whether the valve is open or closed. Must be locked or sealed open.
B: Water Column Drain	BPV-1 PG 60.2.3	Minimum pipe size 3/4 in. Rising bends or pockets must have a separate drain.
C: Stop Valves	ANSI B31.1 PARA. 122.1.7	Each boiler discharge outlet (except safety valve or reheater connections), must be fitted with a stop valve. Valves over 2 in. to be OS & Y rising stem type.
D: Stop Valves at Common Header	ANSI B31.1 PARA. 122.1.7	When boilers are connected to a common header, the connection from each boiler having a manhole opening shall be fitted with two stop valves consisting preferably of one automatic non-return valve (set next to the boiler) and a second valve of the OS & Y type, or two valves of the OS & Y type shall be used. A free-blow visible drain shall be fitted between the two stop valves.
E: Surface Blow-Off	BPV-1 PG 59.3.2	Surface blow-off shall not exceed 2 1/2 in. pipe size.
F: Blow-Off Valve	ANSI B31.1 PARA. 122.1.7 ANSI B31.1 PARA. 122.1.7	The minimum size of blow-off pipe and fittings shall be 1 in. The maximum size shall be 2 1/2 in. (See code for exceptions on miniature boilers and electric boilers) On boilers with 100 square feet or less of heating surface, 3/4 in. pipe and fittings may be used. Ordinary straight-run globe valves, and other valves with dams or pockets where sediment can collect, shall not be used on blow-off connections. Except for high temperature water, traction or portable boilers, pressures over 100 PSIG require two slow opening valves or one slow opening valve and a quick opening valve. For maximum working pressures up to 200 PSIG, Class 250 iron valves may be used for blow-off service. (See maximum working pressure table for steel valve rating). Boilers with multiple blow off pipes may have single master valve on common header with single blow off valve on each individual pipe. Either master or individual blow-off valves shall be slow opening. Two independent slow opening valves, or a slow opening and a quick opening valve, may be combined in one body provided it is the equivalent of two separate valves and that the failure of one cannot affect the other.
G: Fuel Shut-Off	ANSI B31.1 PARA. 122.8.1	Cast ductile iron valves may be used for fuel gas service.

**Note 1:** These guide line are based on ASME and ANSI codes at time of printing and are intended to assist you in valve selection. However, they are subject to changes in the codes as they may occur. The actual codes should always be consulted for full details and requirements

\*last updated 03/16

