



## Fig. 15 B

# Sampling Valve

## *Installation, Operation and Maintenance Instructions*

### INTRODUCTION

This instruction manual includes installation, operation, maintenance, and engineering information for the Trans-Valve Figure 15 B resilient seated plunger style sampling valve.

### STORAGE

The valves are shipped in the closed position with plastic protective webbing around the valve threads to prevent thread damage. **Note:** Valves should be stored in a clean dry area away from heat extremes and corrosive materials. The resilient seat (Buna-N) should be protected from sunlight and incidental damage. Buna-N should not be stored near ozone generating electric motors, welding equipment or in UV light. The normal shelf life for Buna-N is 15 years when properly stored. The plunger rod has a Viton seal which has an unlimited shelf life when properly stored.

### PRE-INSTALLATION

*The following should be read and understood prior to the installation of the valve.*

Before any attempt to operate, maintain, troubleshoot, or repair the Fig. 15 B plunger style sampling valve, all applicable precautions shall be thoroughly reviewed and understood.

It is the responsibility of the end user to ensure the valve materials, including soft goods, are compatible with the media being sampled.

Before installing the valve, inspect the valve for any damage that may have occurred and for any foreign matter that may have collected in shipping or storage. Make certain the body interior is clean and that the plunger, seat facing and connection threads are undamaged.

### INSTALLATION

**WARNING:** *Personal injury or property damage may result if the valve is installed where service conditions could exceed the valve rating of 150 PSI.*

To avoid personal injury to yourself, fellow workers, or damage to property from accidental release of process media, the following steps should always be taken:

- A. Shut off all operating lines to the valve installation location.
- B. Isolate the valve completely from the process.
- C. Release the process pressure.
- D. Drain the process fluid or media from the valve location.

## INSTALLATION (continued)

The valve must be installed in a vertical position with the outlet port facing down.

PTFE thread tape or equivalent suitable sealant should be applied to the valve inlet port threads.

Never use the handle to apply torque to the body of the valve during installation.

If there is not an existing 1-1/2" FNPT connection in the tank, vessel or pipe to install the valve, a 3,000 lb. half coupling of the correct size and threads may be welded in place and used. Be sure to check for any alignment problems or thread damage caused by the welding procedure and correct, if necessary.

The inlet connection of the 15 B sampling valve should be flush with the contour of the coupling or pipe.

Carefully cycle the valve from full open to full close to ensure there is no binding, rubbing or resistance. If binding, rubbing or resistance occurs, cause should be investigated and corrections made. Proper valve operation should be smooth and even.

## OPERATION

The Fig. 15 B plunger style sampling valve incorporates a spring assisted handle that ensures the plunger remains seated when not in use. Lifting the handle compresses the spring and extends the plunger off the seat allowing the media to enter the valve and be collected from the outlet port. When the sample has been collected, releasing the handle allows the guide rod spring to return the plunger to the closed position. ***Do not use cheater bars or lever extenders as damage can occur to internal components.***

## KEY VALVE DESIGN FEATURES

1 1/2" MNPT Inlet X 1 1/2" Outlet

All stainless steel construction, wetted parts are 316 stainless steel (CF8M).

Buna-N seat has low compression set resistance which allows longer sealing life, high tensile strength and high abrasion resistance.

The valve is rated to 150 PSI. The maximum operating temperature of the valve is limited by the sealing materials. Suitable for stock, slurries and other media sampling.

Manual spring assisted lever handle ensures quick closure, positive shutoff and added operational safety (this dead man failsafe feature is standard on all Fig. 15 B sampling valves).

Integral pail hook allows both hands free to operate the valve.

Self-draining design reduces cross-contamination of batch samples.

The basic design and close quarter connection to the tank, vessel or pipe eliminates potential dead space. No media trapping pockets exist inside the valve.

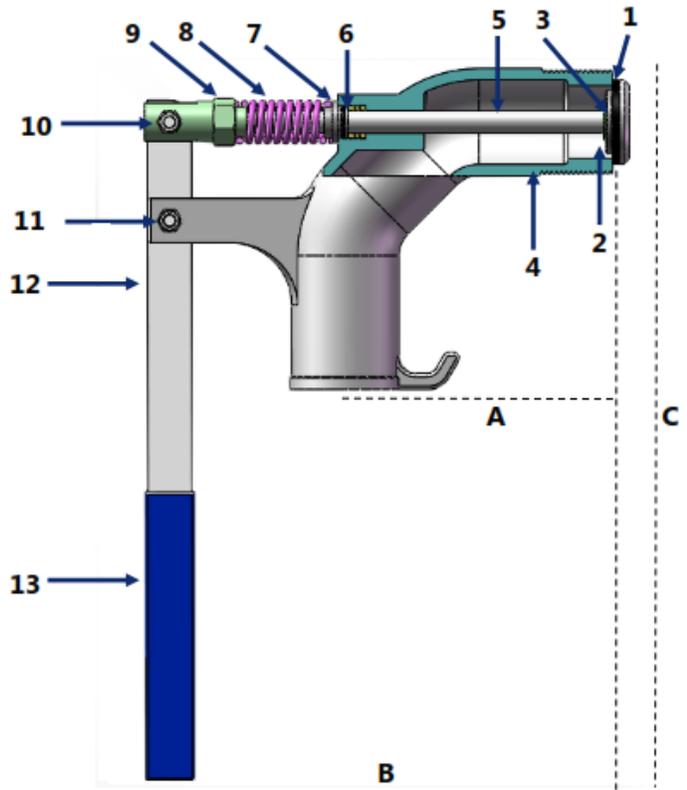
## ASSEMBLY VIEW

<u>Number</u>	<u>Part</u>	<u>Material</u>	<u>Quantity</u>
1	Seat	Buna-N	1
2	Disc	316 SS	1
3	Retaining Ring	304 SS	1
4	Body	CF8M	1
5	Rod	316 SS	1
6	O-Ring Seal	Viton	1
7	Gland	304 SS	1
8	Spring	304 SS	1
9	Gland Nut	304 SS	1
10	Handle Nut	304 SS	2
11	Handle Bolt	304 SS	2
12	Lever	304 SS	1
13	Handle Grip	Vinyl	1

### Physical Data

**A = 4.75" B = 8.30" C = 11.25"**

**Weight = 5 lbs.**



## RECOMMENDED MAINTENANCE

Under normal operating conditions, these valves do not require periodic maintenance or lubrication. However, valve parts are subject to normal wear and must be periodically inspected and replaced as necessary. Inspection and maintenance frequency depends on the severity of the service conditions. This section includes assembly and disassembly instructions.

**Only TRANS-VALVE parts should be used to repair TRANS-VALVE products. General maintenance consists of replacing the seat, packing and O-ring. Contact your distributor to obtain a soft goods repair kit.**

## INSTALLING REPLACEMENT PARTS

- 1.** Depressurize the piping and drain any process fluid from the valve.
- 2.** Remove the valve from the installation location.
- 3.** Disconnect the lever from the rod by removing the bolts and handle nuts.
- 4.** Unscrew the gland nut and remove the spring.
- 5.** Remove the two packing glands and O-ring. Replace the O-ring (see Photo 1).
- 6.** Pry out the packing (see Photo 2) with a flat head screwdriver and replace them.
- 7.** Extract the rod from the valve body.
- 8.** Use caution while removing the retaining ring (see Photo 3) with a flat head screwdriver.
- 9.** Remove the disc from the rod and replace the seat (see Photo 4).
- 10.** Reassemble and reinstall the valve.

(Photo 1)



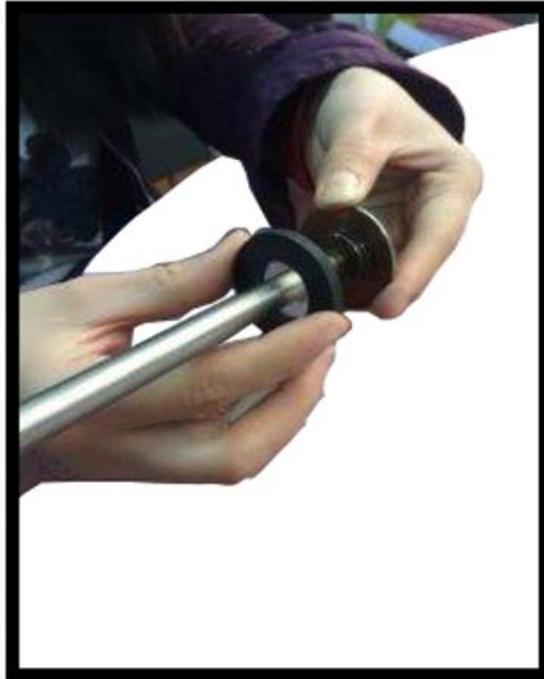
(Photo 2)



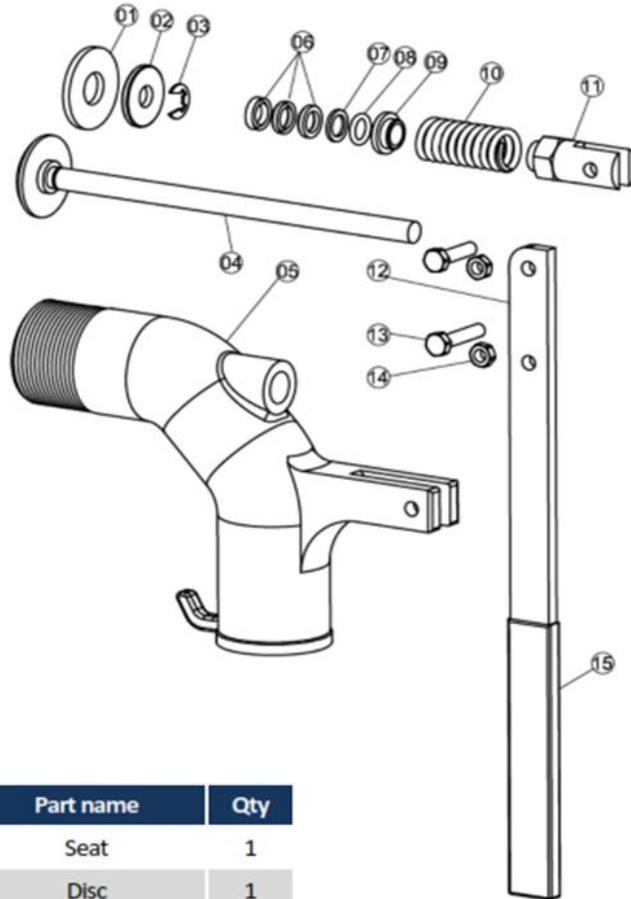
(Photo 3)



(Photo 4)



**EXPLODED PARTS LIST VIEW**



Item	Part name	Qty
1	Seat	1
2	Disc	1
3	Retaining ring	1
4	Rod	1
5	Body	1
6	Packing	3
7	Gland 1	1
8	O-ring	1
9	Gland 2	1
10	Spring	1
11	Gland nut	1
12	Lever	1
13	Handle nut	2
14	Bolt	2
15	Handle grip	1