

SV Series

The Originator of Piston-Type

**SAMPLING VALVES**



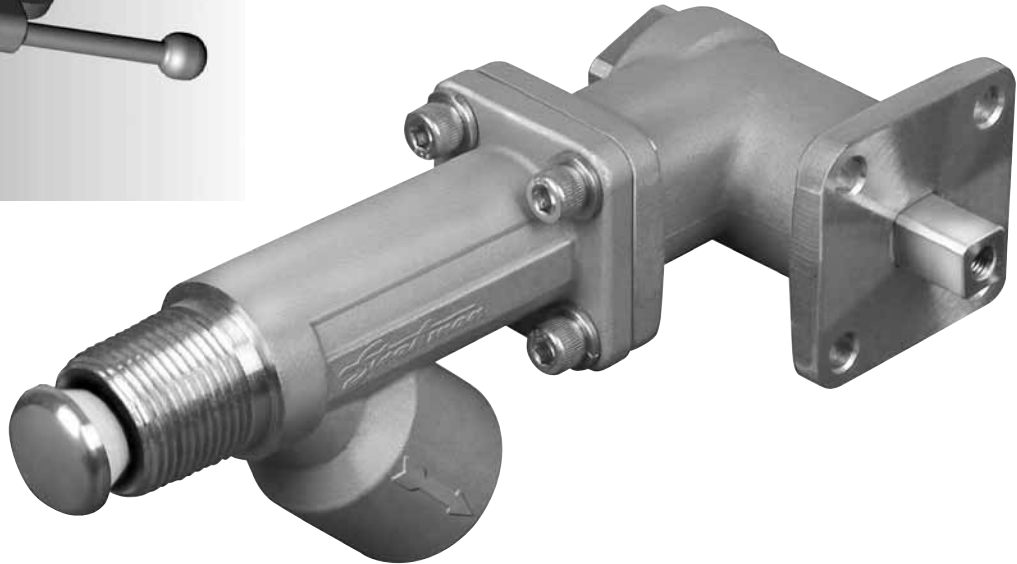
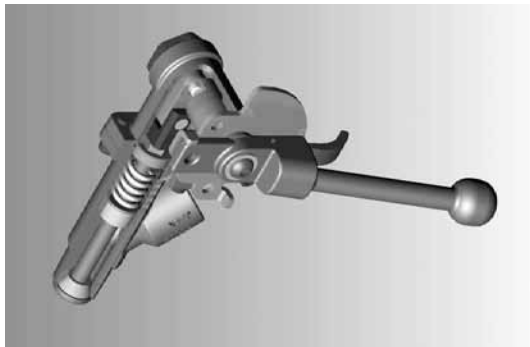
 **Strahman**<sup>®</sup>



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**Strahman Piston-Type Sampling Valves comply with the Pressure Equipment Directive (PED) No. 97/23/EC under SEP. Strahman Drain Valves 3" NB through 12" NB ANSI classes 150, 300, and 600 and 2" NB ANSI classes 300 and 600 comply under Category II liquid service.**

# Quik™ Sampling Valve



The innovative Quik Sampling Valve (QSV-700) was designed specifically for industrial applications that require precise sampling control and operator safety. The QSV-700 combines a Linear Rising Valve Stem with quarter-turn actuation. The QSV-700 has an ANSI Class 600 Body Rating.

The unique QSV-700 soft-seat design and the bubble tight shut-off with live loaded packing is rated to ANSI Seat Leakage Class VI to assure leak-free service. The valve features a spring-loaded and fail-close safety design. The self-contained manual hand actuator with an ergonomic handle features multiple positions for control.

- 45 degree outlet for larger flow capacity
- Piston stem end breaks through any crust or scale that forms
- 316 Stainless steel body is standard – available in the following materials:
  - ◆ Alloy 20
  - ◆ Hastelloy B or C
  - ◆ Titanium
  - ◆ Nickel
  - ◆ Monel
  - ◆ Inconel
- Other stainless steels and materials available on request
- Body extensions can be customized for special applications and installations up to 6"
- Couplings, tees, and adapters allow a wide variety of installation possibilities
- Standard and custom body extensions are available to unclog almost any depth of piping dead space

- Strahman offers a wide range of product options that provide great flexibility of choice to the user. These options are:
  - ◆ Inlet and outlet connections can be threaded, flanged, or socket welded
  - ◆ Connections can be US Standard, DIN, BSP, JIS or other
  - ◆ Actuation can be hand, electric actuator or pneumatic (Standard ISO 150 5211 F5 mounting)
  - ◆ Local and remote position indication available
  - ◆ Positioners available
  - ◆ Sampling bottles, flushing connection and other accessories are available upon request

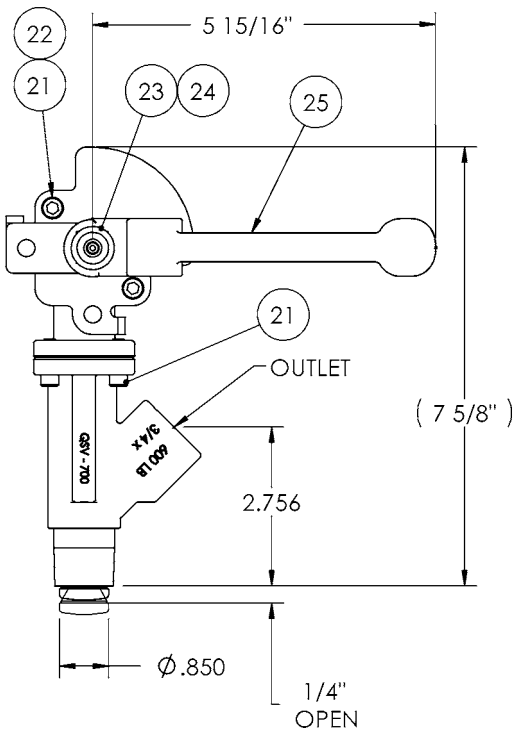
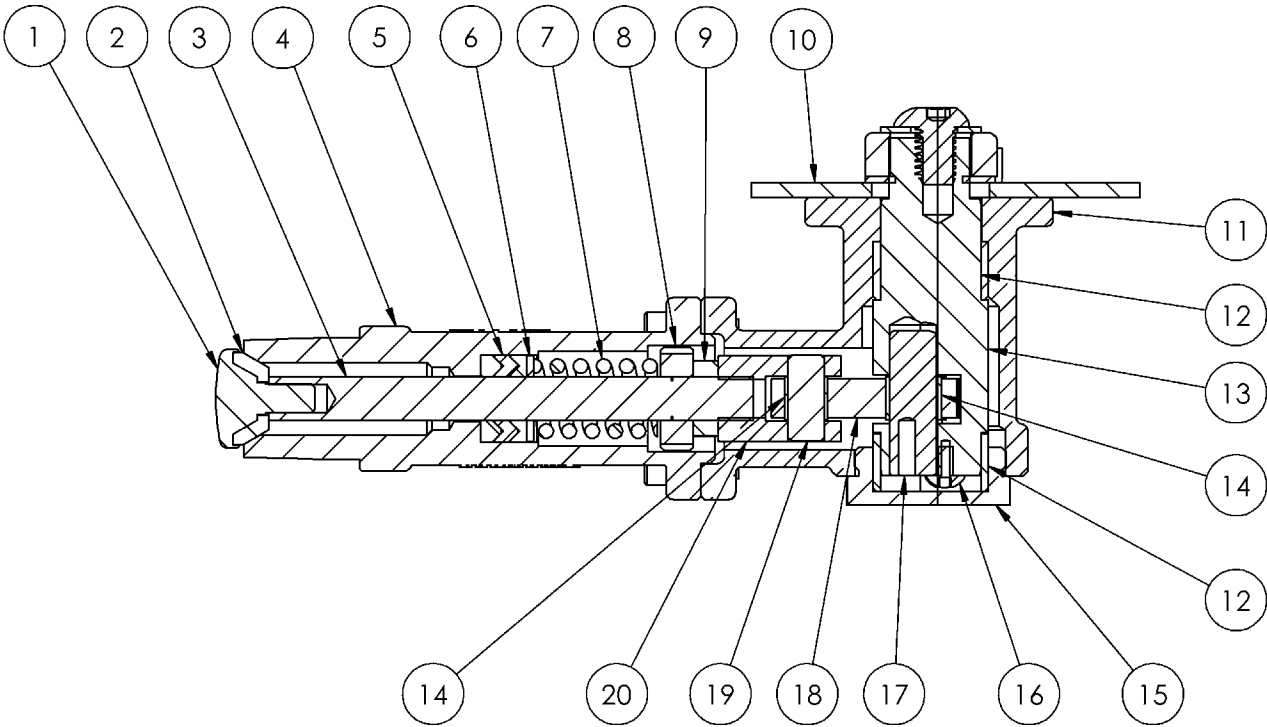
Please refer to page 4 for pressure and maximum temperature ratings for 316 stainless steel. Pressure and temperature ratings are in accordance with ASME B 16.34 pressure class 600. For pressure/temperature ratings in other materials consult Strahman Valves.

NOTE: Minimum temperature -328°F (-200°C)  
Maximum temperature 450°F (232°C)

This U.S. made valve has a wide range of industrial applications for a variety of sampling needs. It can be used for injection service (reverse flow) of process chemicals, cleaning agents and other applications. It is best suited for handling fluids that do not have suspended solids that can be lodged under the seat.

NOTE: When installing a Quik Sampling Valve, use only a Strahman half coupling; use of any other coupling may affect performance.

# Quik™ Sampling Valve



Key	Description	Material
1*	STEM END	316 SST
2*	MAIN SEAL	TFM
3*	STEM	316 SST
4	BODY	316 SST
5*	PACKING	TFM
6*	PACKING FOLLOWER	303 SST
7	SPRING	303 SST
8*	STEM GUIDE BUSHING	PEEK
9	JAM NUT	303 SST
10	DETENT PLATE	304 SST
11	ACTUATOR HOUSING	316 SST
12*	SHAFT BEARINGS (2)	PEEK
13	ACTUATOR SHAFT	303 SST
14*	LINK BEARING (2)	PEEK
15	HOUSING COVER	303 SST
16	BUTTON HEAD SCREW	SST
17	LINK SHAFT PIN	SST
18	LINK	303 SST
19	CLEVIS PIN	303 SST
20	CLEVIS	303 SST
21	SHCS	SST
22	NUT	SST
23	HANDLE SCREW	SST
24	HANDLE WASHER	SST
25	HANDLE	304 SST

\* DENOTES RECOMMENDED SPARE PARTS

# The Original Piston-Type Sampling Valves

## Cannot Clog – Does Not Leak

Since 1921, Strahman Valves Inc. has been a Pioneer and Leader in the Sampling Valve Industry by first developing the Piston-Type Sampling Valve series. The unique design of dual sealing rings at the time was truly innovative and set Strahman apart from other valve companies. The quality and integrity of manufacturing excellence has provided Strahman customers with a long lasting, reliable product that work for years with trouble free performance.

Visit our website at [www.strahmanvalves.com](http://www.strahmanvalves.com) and learn more about the Strahman product line that differentiates us from other manufacturers of Sampling Valves.

- Piston moves through the valve clearing out any material that may harden
- Piston extension breaks through any crust or scale that forms
- Dual sealing ring arrangement keeps the valve from leaking to the atmosphere
- No dead spot – piston completely fills the valve interior
- Always gives a live sample – new product is introduced into the sampling area when the piston retracts
- Opening indicator provides operators clear and simple indication of the valve position
- 316 stainless steel body is standard – available in the following materials:
  - ◆ Alloy 20
  - ◆ Hastelloy B or C
  - ◆ Titanium
  - ◆ Nickel
  - ◆ Monel
  - ◆ Inconel
  - ◆ Other stainless steels and materials available on request
- Body extensions can be customized for special applications and installations
- Couplings, tees, adapters and inserts allow a wide variety of installation possibilities
- Standard and custom piston extensions are available to unclog almost any depth of piping dead space
- Strahman offers a wide range of product options that provide great flexibility of choice to the user. These options are:
  - ◆ Inlet and outlet connections can be threaded, flanged, or socket welded
  - ◆ Connections can be US Standard, DIN, BSP, JIS or other
  - ◆ Actuation can be hand crank, handwheel, gear operator, electric actuator or cylinder actuator (air or hydraulic)
  - ◆ Local and remote position indication available
  - ◆ Positioners available
  - ◆ Sampling bottles, flushing connection and other accessories are available upon request

**Pressure and temperature ratings are in accordance with ASME B16.34 pressure class 600. See below for 316 & 316L stainless steel material. For Pressure/Temperature ratings in other materials consult Strahman Valves.**

**NOTE: Maximum temperature allowable for 316L**

**Pressure/Temperature Ratings Table**

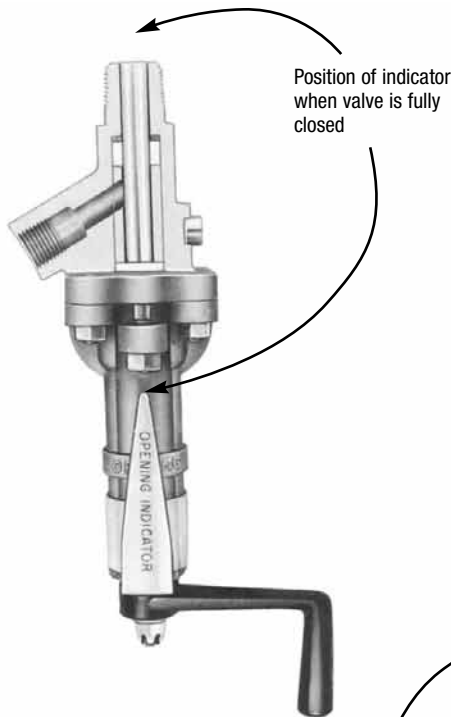
		275	235	215	195	170	140	110	80	50	35	316L MAX
<b>316 CL 150</b>	Pressure (psig)	(19.0)	(16.2)	(14.8)	(13.4)	(11.7)	(9.7)	(7.6)	(5.5)	(3.4)	(2.4)	65
	Temperature (Deg. F)	100	200	300	400	500	600	700	800	900	950	<b>850</b>
<b>&amp; 316L</b>	Temperature (Deg. C)	(37.8)	(93.3)	(148.9)	(204.4)	(260.0)	(315.6)	(371.1)	(426.7)	(482.2)	(510.0)	(454.4)
<b>316 CL 300</b>	Pressure (psig)	(49.7)	(42.8)	(38.6)	(35.5)	(33.1)	(31.0)	(29.7)	(29.0)	(27.6)	(26.6)	420
	Temperature (Deg. F)	100	200	300	400	500	600	700	800	900	950	<b>850</b>
<b>&amp; 316L</b>	Temperature (Deg. C)	(37.8)	(93.3)	(148.9)	(204.4)	(260.0)	(315.6)	(371.1)	(426.7)	(482.2)	(510.0)	(454.4)
<b>316 CL 600</b>	Pressure (psig)	(99.3)	(85.5)	(77.2)	(70.7)	(65.9)	(62.1)	(60.0)	(58.3)	(57.2)	(53.4)	835
	Temperature (Deg. F)	100	200	300	400	500	600	700	800	900	950	<b>850</b>
<b>&amp; 316L</b>	Temperature (Deg. C)	(37.8)	(93.3)	(148.9)	(204.4)	(260.0)	(315.6)	(371.1)	(426.7)	(482.2)	(510.0)	(454.4)

**MAX. TEMP**

LAM/TFE, TFM	450°
MR (medium range) rings	650°
Graphite rings	1000°

**PED Compliant**

# Sampling Valve with Opening Indicator

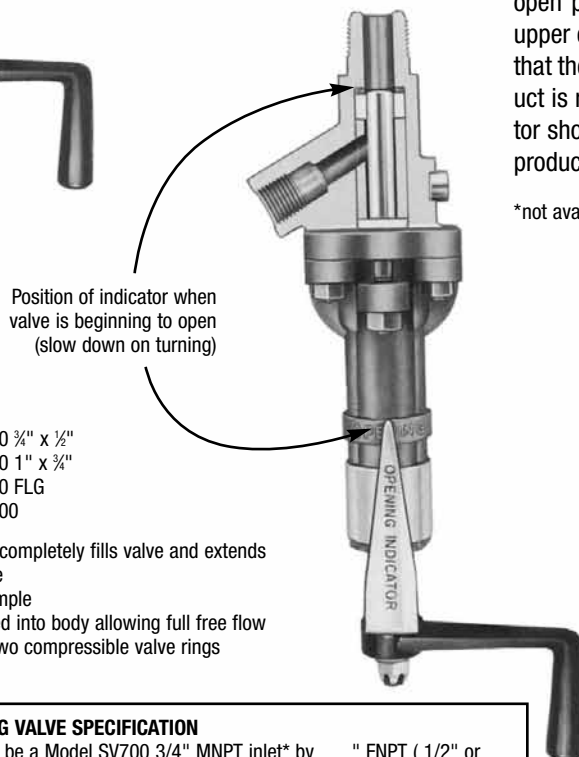


To keep abreast of our customers' requirements, Strahman Valves, Inc. includes an OPENING INDICATOR on its line of hand operated Piston-Type Sampling Valves (on all models up to 6" piston extensions\*). The indicator shows the operator of the valve that the product, which is normally under pressure, is in position to start flowing through the valve and tells him to be cautious and open the valve slowly so there will not be a sudden surge of product.

The INDICATOR is attached to the valve directly under the valve handle and extends up the side of the bonnet. When the valve is in the fully closed (extended) position the indicator extends beyond the upper edge of a raised ring on the bonnet, which is marked "OPENING."

As the operator turns the valve handle counter-clockwise, the indicator lowers as the piston is being retracted to the fully open position. When the tip of the indicator is flush with the upper edge of the "OPENING" ring on the bonnet it is indicating that the piston is moving through the sealing ring and the product is ready to flow through the valve. At this point, the operator should turn the handle slowly to avoid any sudden burst of product which would be under pressure.

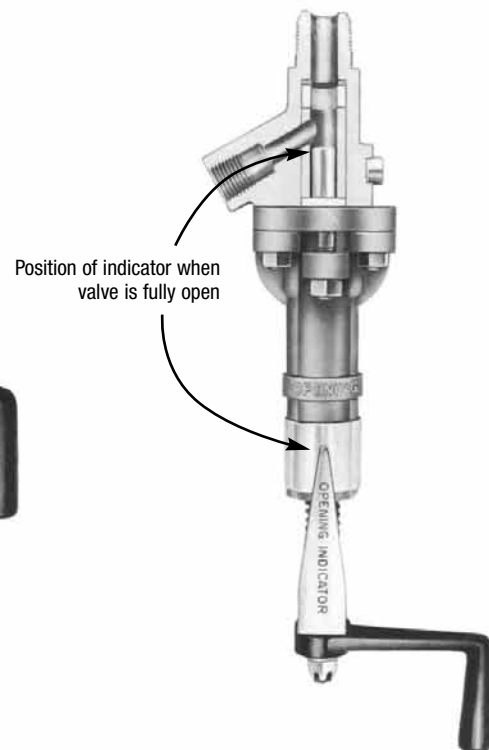
\*not available on valves above 6" piston extensions.



## AVAILABLE ON MODELS

SV-500 3/4" x 1/2"	SV-700 3/4" x 1/2"
SV-600 1/2" x 3/8"	SV-800 1" x 3/4"
SV-700 FLG	SV-800 FLG
SV-900	SV-1000

- 1 No dead spot – piston completely fills valve and extends to inner surface of pipe
- 2 Always gives a live sample
- 3 Open-piston is retracted into body allowing full free flow
- 4 Valve is kept tight by two compressible valve rings



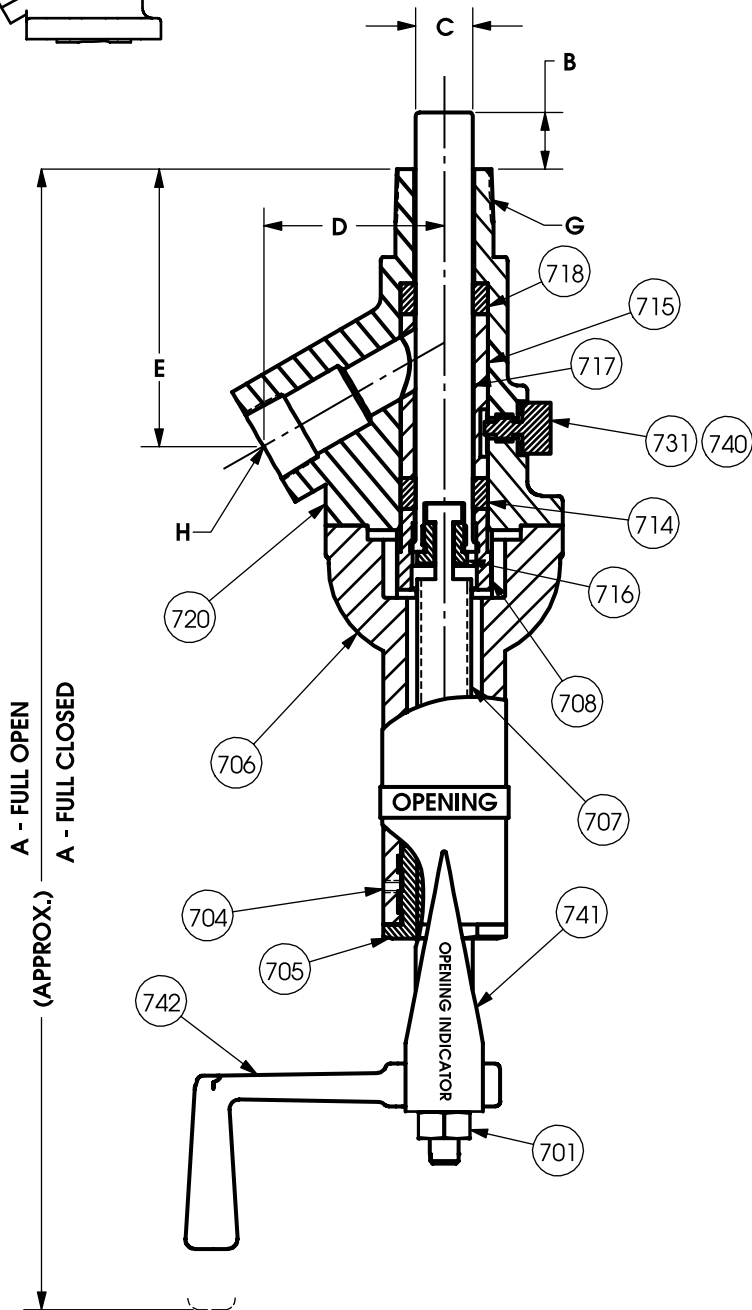
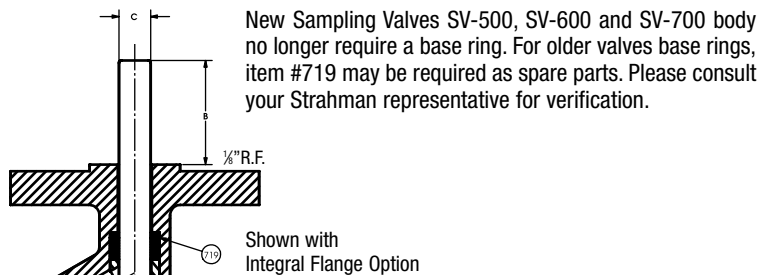
## PISTON-TYPE SAMPLING VALVE SPECIFICATION

The Sampling Valve shall be a Model SV700 3/4" MNPT inlet\* by \_\_\_" FNPT ( 1/2" or 3/4") outlet\*. The body shall be investment cast 316 stainless steel and internals of 316 SS fabricated wetted parts. The valve shall be a soft seat design of Teflon that shall meet ANSI Class VI, bubble tight shut off. The piston shall have linear travel with a rising stem with multi-turn handle for manual operation, or a pneumatic or hydraulic cylinder for automatic operation. The piston shall completely fill the valve interior allowing for no cavities (dead space), the valve will be self-pigging and will not clog. The Sampling Valve will insure new product samples are always taken with no prior sample material remaining. The piston shall have a \_\_\_" extension that shall extend beyond the threaded inlet to break through any product crust insuring proper sample flow.

\*Also available with Flanged, or SW inlet and outlet connection. For other Sampling Valve Models refer to the size tables.

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# Hand Operated Sampling Valves SV-500, SV-600, SV-700 and SV-800



Item	Name	Standard Material
701	Lock Nut	Stainless Steel Type 304
704	Bushing Lock Screw	Stainless Steel Type 304
*705	Bushing	Bronze
706	Bonnet	Stainless Steel Type 304
*707	Stem	Stainless Steel Type 416
708	Gland	Stainless Steel Type 304
712	Bonnet Nuts	Stainless Steel Type 303
713	Bonnet Studs	Stainless Steel Type 304
*714	Gland Ring	TFE
715	Cage	Stainless Steel Type 316
*716	Split Nut	Stainless Steel Type 316
*717	Piston	Stainless Steel Type 316
*718	Inlet Ring	TFE
719	Base Ring	
720	Body	Stainless Steel Type 316
724	Gland Nuts	Stainless Steel Type 303
725	Gland Studs	Stainless Steel Type 304
731	Cage Lock	Stainless Steel Type 316
*740	Cage Lock Gasket	RTFE
741	Opening Indicator	Stainless Steel Type 304
742	Crank Handle	Malleable Iron

\*Denotes recommended spare parts  
Wetted parts underlined

SV-500 3/4" x 1/4" ANSI 600							
A Closed	A Open	B	C	D	E	G NPT	H NPT
11 3/8"	13 3/4"	0"	.243"	1 7/8"	3 1/2"	3/8"	1/4"
13 3/8"	17 3/4"	2"	.243"	1 7/8"	3 1/2"	3/8"	1/4"
15 3/8"	21 3/4"	4"	.243"	1 7/8"	3 1/2"	3/8"	1/4"
17 3/8"	25 3/4"	6"	.243"	1 7/8"	3 1/2"	3/8"	1/4"

SV-600 1/2" x 3/8" ANSI 600							
A Closed	A Open	B	C	D	E	G NPT	H NPT
11 3/8"	13 3/4"	0"	.368"	1 7/8"	3 1/2"	1/2"	3/8"
13 3/8"	17 3/4"	2"	.368"	1 7/8"	3 1/2"	1/2"	3/8"
15 3/8"	21 3/4"	4"	.368"	1 7/8"	3 1/2"	1/2"	3/8"
17 3/8"	25 3/4"	6"	.368"	1 7/8"	3 1/2"	1/2"	3/8"

SV-700 3/4" x 1/2" & 3/4" x 3/4" ANSI 600							
A Closed	A Open	B	C	D	E	G NPT	H NPT
11 3/8"	13 7/8"	0"	.590"	1 7/8"	3 1/2"	3/4"	1/2", 3/4"
13 3/8"	17 7/8"	2"	.590"	1 7/8"	3 1/2"	3/4"	1/2", 3/4"
15 3/8"	21 7/8"	4"	.590"	1 7/8"	3 1/2"	3/4"	1/2", 3/4"
17 3/8"	25 7/8"	6"	.590"	1 7/8"	3 1/2"	3/4"	1/2", 3/4"

SV-800 1" x 3/4" & 1" x 1" ANSI 600							
A Closed	A Open	B	C	D	E	G NPT	H NPT
12 3/8"	15 1/2"	0"	.787"	2 3/8"	3 5/8"	1"	3/4", 1"
14 3/8"	19 1/2"	2"	.787"	2 3/8"	3 5/8"	1"	3/4", 1"
16 3/8"	23 1/2"	4"	.787"	2 3/8"	3 5/8"	1"	3/4", 1"
18 3/8"	27 1/2"	6"	.787"	2 3/8"	3 5/8"	1"	3/4", 1"

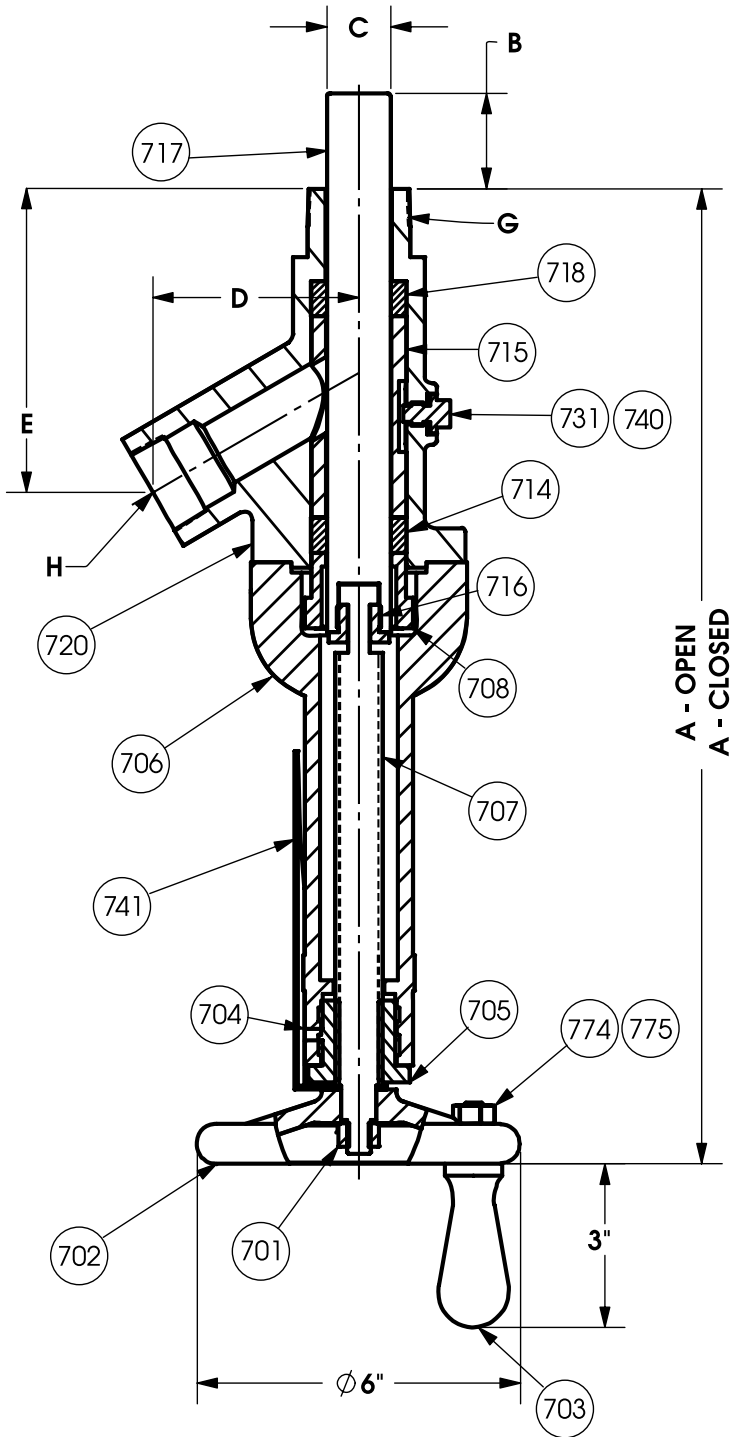
"B" DIM ± 1/16"  
"C" DIM ± .002"

Forward Deck details see page 7, Item #712, #713, #724, #725

PED Compliant



# Hand Operated Sampling Valves SV-900 and SV-1000



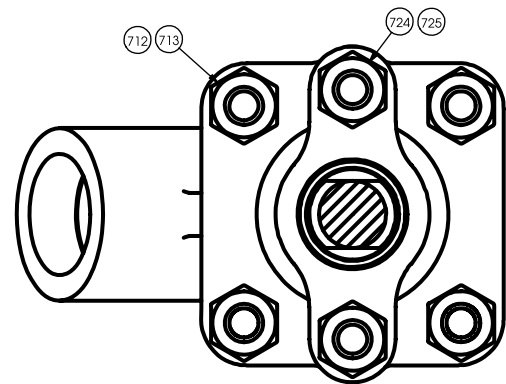
Item	Name	Standard Material
701	Wheel Nut	Carbon Steel
702	Handwheel	Cast Iron
703	Turn Knob	Stainless Steel Type 416
704	Bushing Lock Screw	Stainless Steel Type 304
*705	Bushing	Bronze
706	Bonnet	Stainless Steel Type 304
*707	Stem	Stainless Steel Type 416
708	Gland	Stainless Steel Type 304
712	Bonnet Nuts	Stainless Steel Type 303
713	Bonnet Studs	Stainless Steel Type 304
*714	Gland Ring	TFE
715	Cage	Stainless Steel Type 316
*716	Split Nut	Stainless Steel Type 316
*717	Piston	Stainless Steel Type 316
*718	Inlet Ring	TFE
720	Body	Stainless Steel Type 316
724	Gland Nuts	Stainless Steel Type 303
725	Gland Studs	Stainless Steel Type 304
731	Cage Lock	Stainless Steel Type 316
*740	Cage Lock Gasket	RTFE
774	Turn Knob Nut	Stainless Steel Type 303
775	Turn Knob Washer	

\*Denotes recommended spare parts  
Wetted parts underlined

SV-900 1 1/2" x 1" ANSI 600							
A Closed	A Open	B	C	D	E	G NPT	H NPT
14 3/8"	18 1/8"	0"	.984"	3 1/4"	4 7/8"	1 1/4"	1"
16 3/8"	22 1/8"	2"	.984"	3 3/4"	4 7/8"	1 1/4"	1"
18 3/8"	26 1/8"	4"	.984"	3 3/4"	4 7/8"	1 1/4"	1"
20 3/8"	30 1/8"	6"	.984"	3 3/4"	4 7/8"	1 1/4"	1"

SV-1000 1 1/2" x 1 1/4" ANSI 600							
A Closed	A Open	B	C	D	E	G NPT	H NPT
15 3/8"	20 1/8"	0"	1.181"	3 1/8"	5 3/8"	1 1/2"	1 1/4"
17 3/8"	24 1/8"	2"	1.181"	3 1/8"	5 3/8"	1 1/2"	1 1/4"
19 3/8"	28 1/8"	4"	1.181"	3 1/8"	5 3/8"	1 1/2"	1 1/4"
21 3/8"	32 1/8"	6"	1.181"	3 1/8"	5 3/8"	1 1/2"	1 1/4"

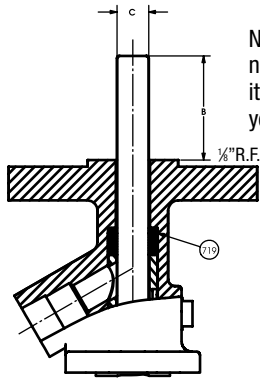
"B" DIM ± 1/16"  
"C" DIM ± .002"



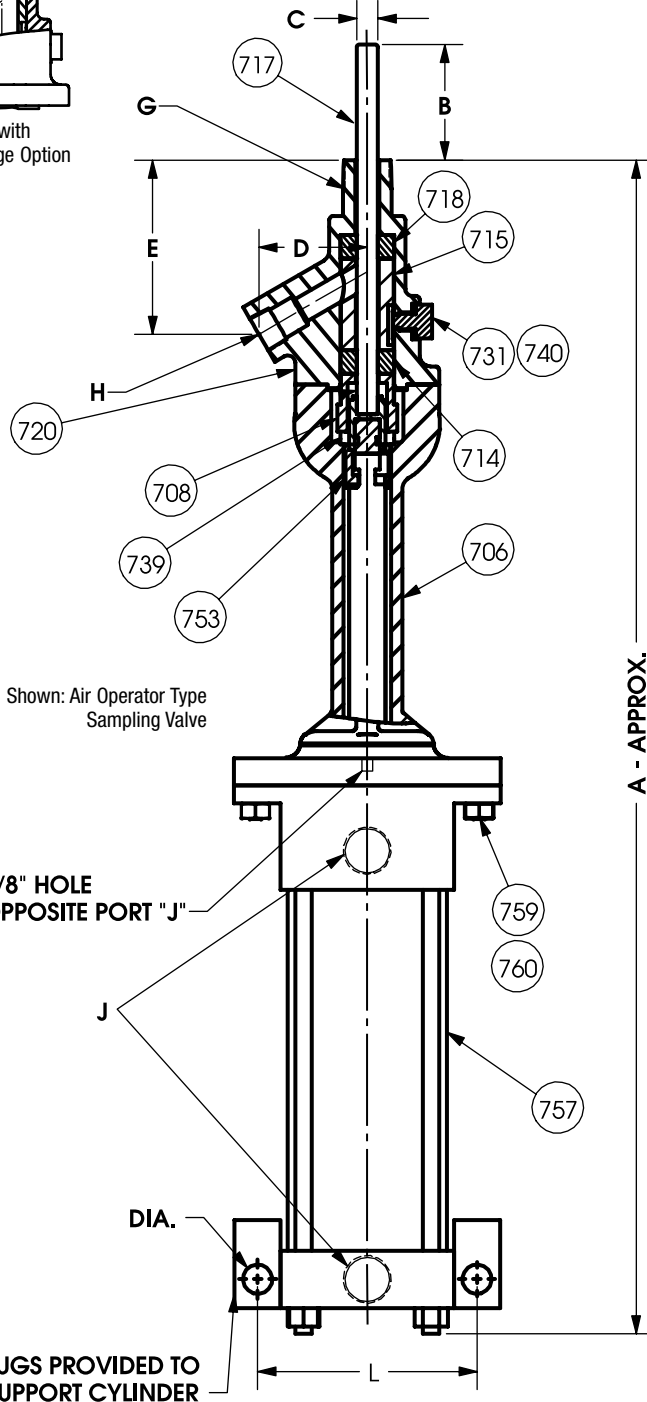
VALVE DECK DETAIL

PED Compliant

# Air Operated Sampling Valves



New Sampling Valves SV-500, SV-600 and SV-700 body no longer require a base ring. For older valves base rings, item #719 may be required as spare parts. Please consult your Strahman representative for verification.



SV-500 3/8" x 1/4" ANSI 600									
A	As	B	C	D	E	G NPT	H NPT	J NPT	AIR CYL. BORE
15 7/16"	21 5/16"	0"	.243"	1 7/8"	3 1/2"	3/8"	1/4"	3/8"	2 1/2"
19 7/16"	23 5/8"	2"	.243"	1 7/8"	3 1/2"	3/8"	1/4"	3/8"	2 1/2"
23 7/16"	25 5/8"	4"	.243"	1 7/8"	3 1/2"	3/8"	1/4"	3/8"	2 1/2"

SV-600 1/2" x 3/8" ANSI 600									
A	As	B	C	D	E	G NPT	H NPT	J NPT	AIR CYL. BORE
15 7/16"	21 5/16"	0"	.368"	1 7/8"	3 1/2"	1/2"	3/8"	3/8"	2 1/2"
19 7/16"	23 5/8"	2"	.368"	1 7/8"	3 1/2"	1/2"	3/8"	3/8"	2 1/2"
23 7/16"	25 5/8"	4"	.368"	1 7/8"	3 1/2"	1/2"	3/8"	3/8"	2 1/2"

SV-700 3/4" x 1/2" & 3/4" x 3/4" ANSI 600									
A	As	B	C	D	E	G NPT	H NPT	J NPT	AIR CYL. BORE
15 5/8"	21 3/4"	0"	.590"	1 7/8"	3 1/2"	3/4"	1/2", 3/4"	3/8"	2 1/2"
19 5/8"	23 3/4"	2"	.590"	1 7/8"	3 1/2"	3/4"	1/2", 3/4"	3/8"	2 1/2"
23 5/8"	25 3/4"	4"	.590"	1 7/8"	3 1/2"	3/4"	1/2", 3/4"	3/8"	2 1/2"

SV-800 1" x 3/4" & 1" x 1" ANSI 600									
A	As	B	C	D	E	G NPT	H NPT	J NPT	AIR CYL. BORE
19 1/16"	25 1/16"	0"	.787"	2 3/8"	3 5/8"	1"	3/4", 1"	1/2"	3 1/4"
23 1/16"	27 1/16"	2"	.787"	2 3/8"	3 5/8"	1"	3/4", 1"	1/2"	3 1/4"
27 1/16"	29 1/16"	4"	.787"	2 3/8"	3 5/8"	1"	3/4", 1"	1/2"	3 1/4"

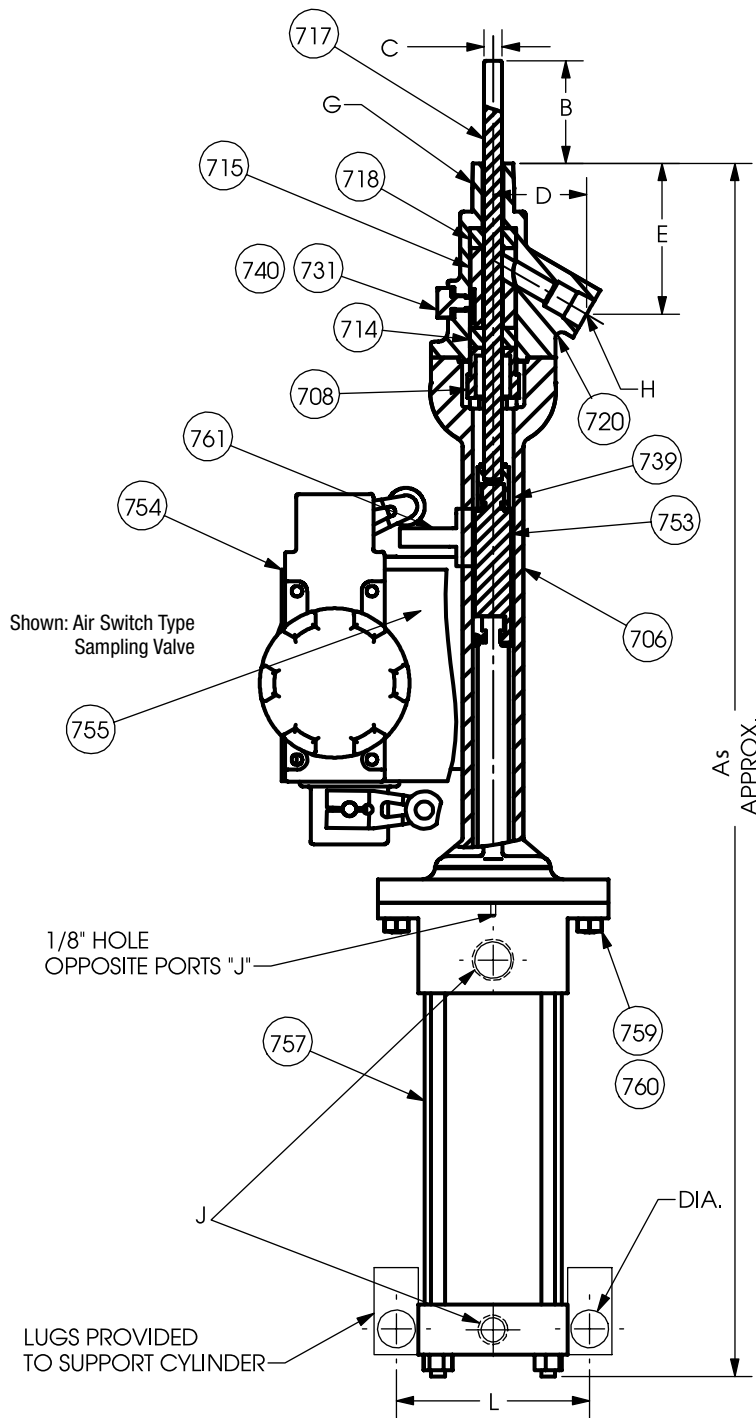
SV-900 1 1/4" x 1" ANSI 600									
A	As	B	C	D	E	G NPT	H NPT	J NPT	AIR CYL. BORE
23 5/8"	31 1/8"	0"	.984"	3 1/4"	4 7/8"	1 1/4"	1"	1/2"	4"
25 5/8"	33 1/8"	2"	.984"	3 1/4"	4 7/8"	1 1/4"	1"	1/2"	4"
27 5/8"	35 1/8"	4"	.984"	3 1/4"	4 7/8"	1 1/4"	1"	1/2"	4"

SV-1000 1 1/2" x 1" ANSI 600									
A	As	B	C	D	E	G NPT	H NPT	J NPT	AIR CYL. BORE
29 7/8"	33 15/16"	0"	1.181"	3 13/16"	5 9/16"	1 1/2"	1 1/4"	1/2"	5"
31 7/8"	35 15/16"	2"	1.181"	3 13/16"	5 9/16"	1 1/2"	1 1/4"	1/2"	5"
33 7/8"	37 15/16"	4"	1.181"	3 13/16"	5 9/16"	1 1/2"	1 1/4"	1/2"	5"

A = Air Operated                      "B" DIM ± 1/16"  
 As = Air Switch Type                "C" DIM ± .002"  
 For Air Cylinder support information see page 9  
 Forward Deck details see page 7, Item #712, #713, #724, #725

PED Compliant

# Air Operated Switch Type Sampling Valves



Item	Name	Standard Material
706	Bonnet	Stainless Steel Type 304
708	Gland	Stainless Steel Type 304
712	Bonnet Nuts	Stainless Steel Type 303
713	Bonnet Studs	Stainless Steel Type 304
*714	Gland Ring	TFE
715	Cage	Stainless Steel Type 316
*717	Piston	Stainless Steel Type 316
*718	Inlet Ring	TFE
720	Body	Stainless Steel Type 316
724	Gland Nuts	Stainless Steel Type 303
725	Gland Studs	Stainless Steel Type 304
731	Cage Lock	Stainless Steel Type 316
739	Piston Set Screw	Stainless Steel Type 304
*740	Cage Lock Gasket	RTFE
*753	Piston Connector	Bronze
**754	Switches	
**755	Switch Bracket	Stainless Steel Type 304
757	Cylinder	
759	Cylinder Stud	Stainless Steel Type 304
760	Cylinder Nuts	Stainless Steel Type 303
*761	Switch Trip	Stainless Steel Type 304

\*Denotes recommended spare parts

Wetted parts underlined

\*\*Denotes as air operated switch type parts only

Forward deck details see page 7, Item #712, #713, #724, #725

## AIR CYLINDER SUPPORT

Valve	Cyl Bore	L	DIA
SV-500			
SV-600	2 1/2	3 3/4	7/16
SV-700			
SV-800	3 1/4	4 3/4	9/16
SV-900	4	5 1/2	9/16
SV-1000	5	6 1/8	1 1/16

### Air Supply Requirements for the SV-500 & SV-600

Minimum air to operate against atmospheric pressure – 50 PSI

Minimum air to operate against maximum pressure

Temperature rating per ANSI B16.34 – 80 PSI

### Air Supply Requirements for the SV-700 & SV-800

Minimum air to operate against atmospheric pressure – 70 PSI

Minimum air to operate against maximum pressure

Temperature rating per ANSI B16.34 – 150 PSI

### Air Supply Requirements for the SV-900 & SV-1000

Minimum air to operate against atmospheric pressure – 50 PSI

Minimum air to operate against maximum pressure

Temperature rating per ANSI B16.34 – 135 PSI

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# Sampling Valves SV-700 & SV-800 FLG with Integral Inlet Flange

## Integral Flange Sampling Valves



Strahman Valves can supply flanged connections on any sampling valves. For applications where welded flanges are prohibited, Strahman offers investment cast valves that features an integral flanged inlet and female threaded outlet. This option is available on a limited range of valve models.

Integral Flanged Valves are available in the following sizes and ANSI Flange Ratings:

- ¾ SV-700 Class 150#, 300# and 600#
- 1" SV-700 and SV-800 150# only

All other sizes and flange ratings are available in 316L Stainless Steel body with a flange fitted and backwelded to the inlet. The flange rating can not exceed the ANSI 600# rating of the body.

The Valve Raised Face is ⅛" standard and ⅙" available upon request. The Adapter is recessed to facilitate the piloting of the valve, as shown in the diagram on page 11. Strahman can provide a mating flange nozzle, or an adapter that has a female recess to match the male raised face of the Strahman Valve. This insures that the valve and flange are concentric and that no scoring of the piston occurs on the inside of the nozzle that may cause the valve to leak.

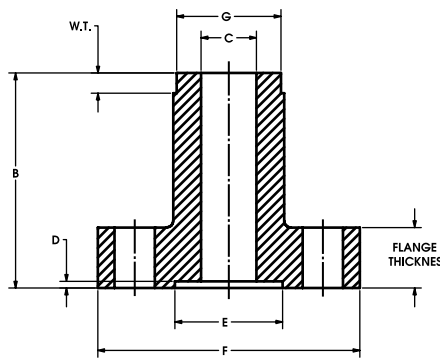
**CAUTION:** If there is no proper recess in the mating flange as supplied by the customer, or no Strahman Nozzle or Adapter is supplied there must be a required ¼" clearance between the outside diameter of the piston and the inside diameter of the nozzle. The following chart is a guide of proper measurements to prevent scoring of the piston. Strahman Adapters are shown on page 11.

Valve Type	Piloting Diameter 150#, 300# & 600# – see E	Piston Diameter	Nozzle Bore with Piloting – see C	Nozzle Bore without Piloting – see C	Piloting Depth 150/300#* – see D	Flange Thickness 150#*	Flange Thickness 300/600#*
SV-500 (½")	1.379"	.243	.293	.493	⅛"	1"	1"
SV-600 (½")	1.379"	.368	.418	.618	⅛"	1"	1"
SV-700 (¾")	1.692"	.590	.640	.840	⅛"	1"	1⅛"
SV-700 (1")	2.004"	.590	.640	.840	⅛"	1"	1⅛"
SV-800 (1")	2.004"	.787	.837	1.037	⅛"	1"	1⅛"
SV-900 (1¼")	2.504"	.984	1.034	1.234	1⅙"	1"	1⅛"
SV-1000 (1½")	2.879"	1.181	1.233	1.431	1⅙"	1"	1⅛"

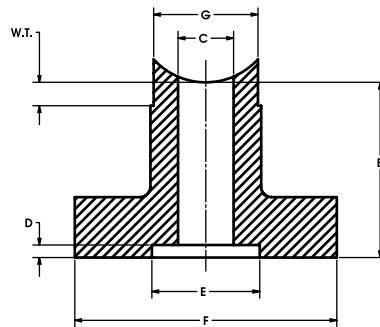
\*600 lbs. = ¼" all sizes

### SPECIAL NOTE – ALL NOZZLES

Where required, give pipe size and schedule or tank wall thickness and radius.



NON-CONTOURED NOZZLE



CONTOURED NOZZLE

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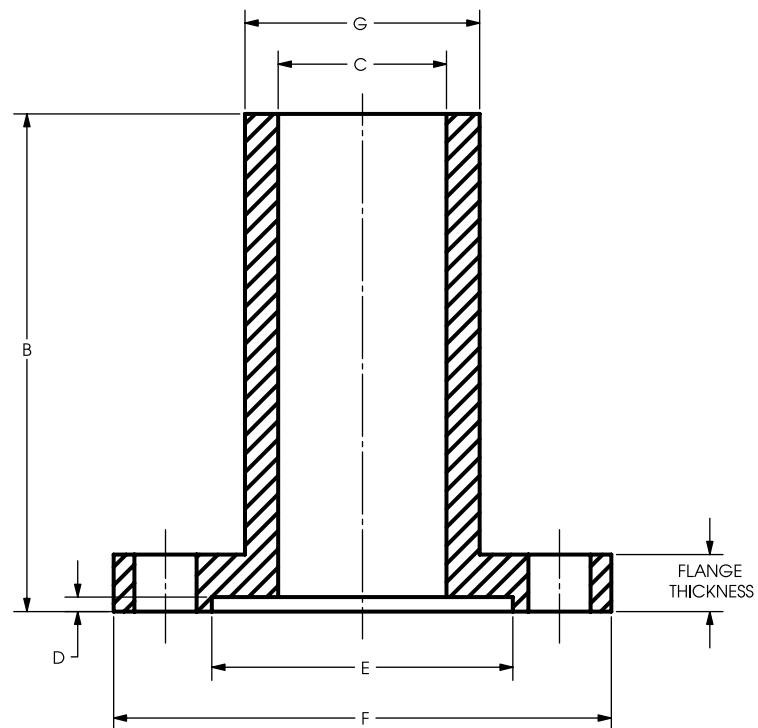
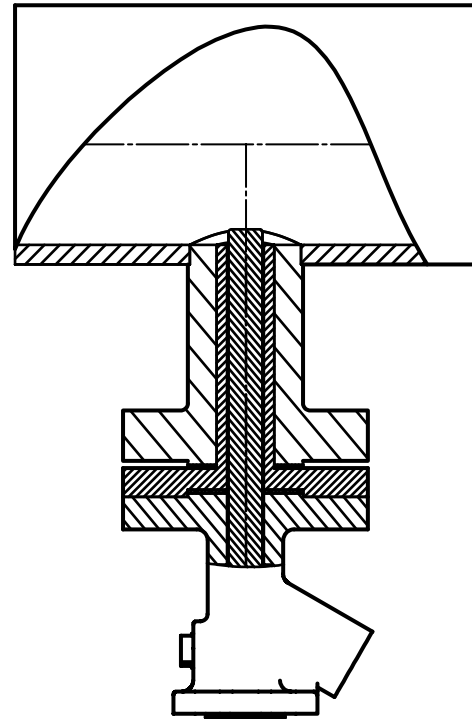
# Sampling Valve Adapter

The standard adapter for sampling valves is constructed of 316 stainless steel, but available in other custom alloys. The adapter is positioned between the existing nozzle and the piston of the valve. The OD (outside diameter) of the adapter conforms with the ID (inside diameter) of the nozzle and ID of the adapter conforms with the OD (outside diameter) of the piston. The adapter fills the space between the nozzle and piston for a snug fit, this accommodates an accurate alignment and reduces gouging of the piston.

The sampling adapter prevents the possibility of process fluid from collecting around the piston and hardening, causing binding and making operating the valve difficult. In addition, no particles can lodge in the space between the nozzle and the piston that could damage the piston.

Misalignment of the valve during installation can cause scoring damage to the piston. Misalignment can come from the clearance holes of raised face flanges which can cause the sampling valves to be as much as 1/4" out of alignment. If the nozzle diameter is not large enough, the piston can rub against the nozzle causing the nozzle to scratch and damage the valve piston. The adapter provides piloting that aligns the nozzle and the piston as shown on page 10.

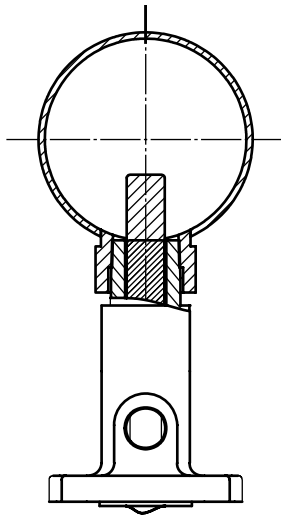
**Special option:** For special applications the nozzle or adapter can be supplied with a Teflon liner for a tight fit.



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# Half Couplings and Special Tees

## Half Couplings



### Contoured and Non-Contoured Couplings

Strahman Couplings slide into a hole drilled in a pipeline and a socket weld type weld is used to attach it to the pipe. Contoured couplings (shown below) are normally used for smaller pipe sizes up to 6". Contouring of the coupling allows it to match the inside of the pipe and not obstruct flow. The contour should be installed in line with the pipe. Non-contoured couplings can be supplied for pipe sizes 8" and above, but normally the non-contoured couplings (shown below) are used because there is little obstruction of flow.

### HALF COUPLING INSTALLATION INSTRUCTIONS

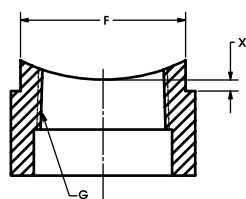
The Sampling Valve inlet connection should be flush with the contour of the half coupling, AFTER WELDING INTO PIPE OR VESSEL, to assure proper satisfactory operation of Sampling Valve. To ensure proper installation and sealing of threaded connection, retapping of the half coupling may be necessary to correct distortion caused by welding.

### SPECIAL NOTE – ALL HALF COUPLINGS

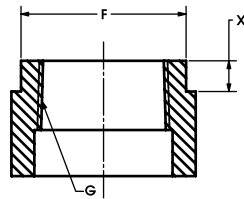
Dimension X – Pipe size and schedule number or tank wall thickness. Please specify when ordering. Couplings for wall thickness greater than those shown above available and priced on request.

Model	F	G NPT	Maximum Wall Thickness
SV-500	1 1/2"	3/8"	1/2" Cont. 1/16" Non-Cont.
SV-600	1 1/2"	1/2"	1/2" Cont. 1/16" Non-Cont.
SV-700	1 1/2"	3/4"	1/2" Cont. 1/16" Non-Cont.
SV-800	1 3/4"	1"	1/16"
SV-900	2 3/2"	1 1/4"	13/16"
SV-1000	2 5/16"	1 1/2"	7/8"

Socket Weld and BSP Threaded half couplings are also available.



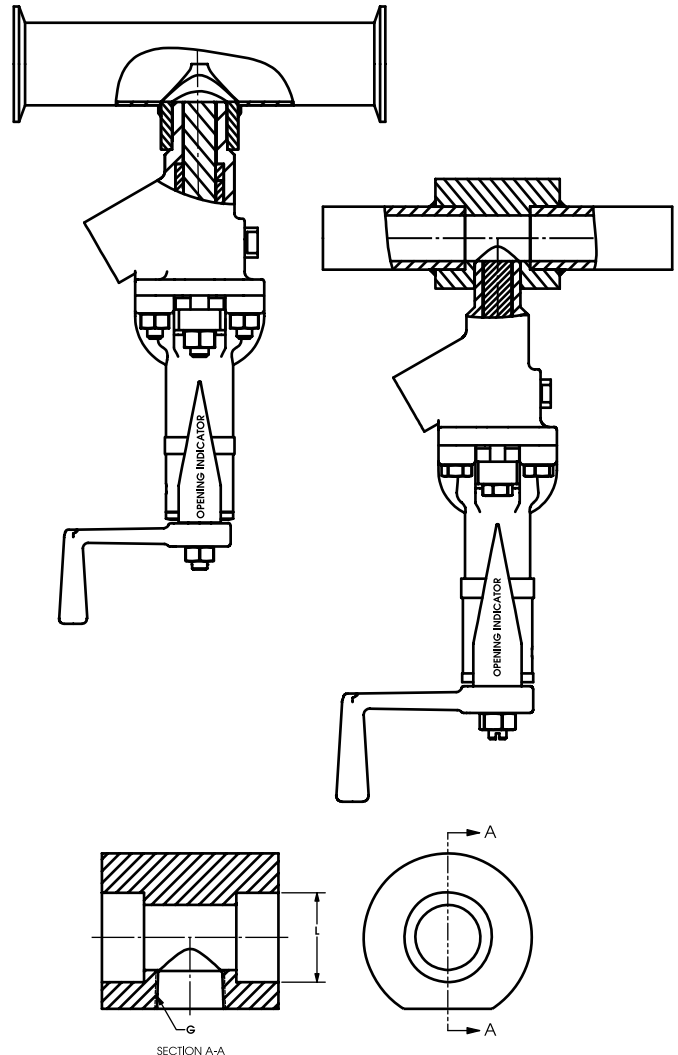
CONTOURED  
THRU 6" PIPE



NON-CONTOURED  
ABOVE 6" PIPE

## Special Tees

### Quick Disconnect Tee with Sampling Valve

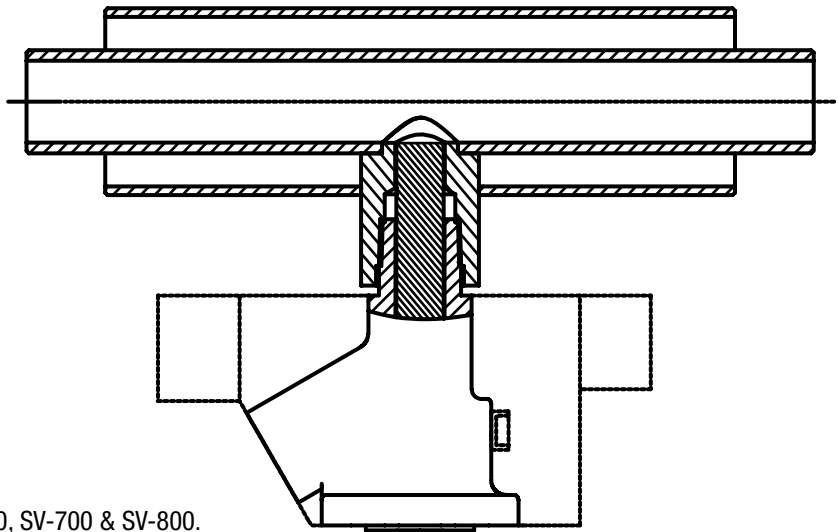


Special Tee for pipe or tubing below L DIM where required, give actual pipe size and schedule.

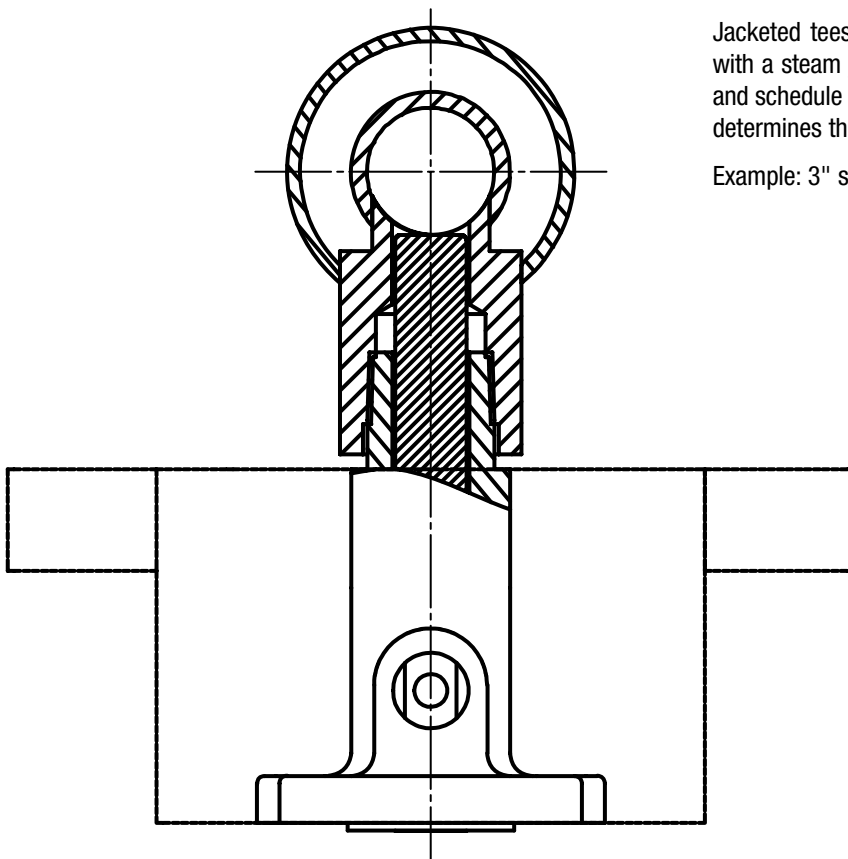
SV-500, SV-600 & SV-700 special tee required for pipe size under 2".

SV-800, SV-900 & SV-1000 special tee required for pipe size under 3".

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Available with SV-500, SV-600, SV-700 & SV-800.  
Also available with air cylinder.



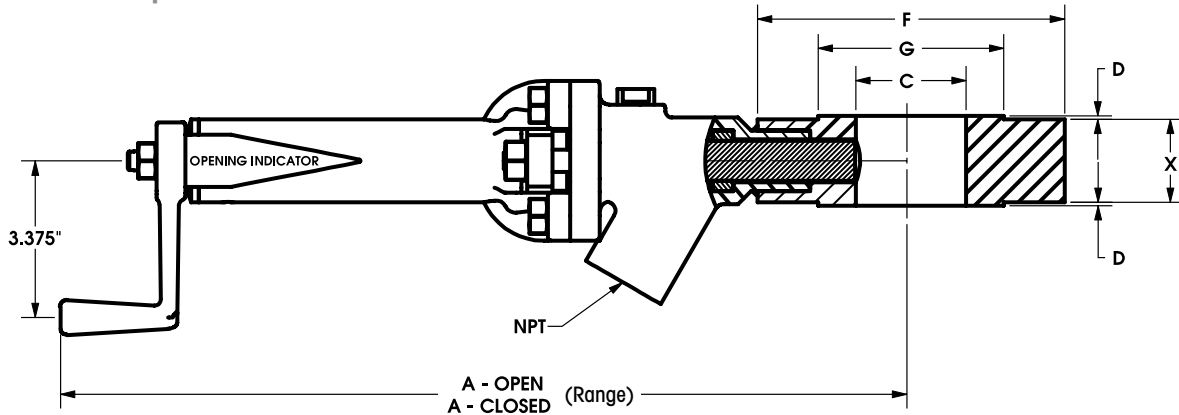
Jacketed tees are supplied for installation into a process line with a steam jacket. Customer must specify the core pipe size and schedule along with the jacket pipe size and schedule. This determines the size and length of the extended coupling.

Example: 3" sch. 40 core with 4" sch. 10 jacket.

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# Insert with Sampling Valve Models SV-500, SV-600, SV-700, SV-800, SV-900, SV-1000

For use in Pipeline Installations



For use with Ram-Type Drain Valves a recess is required. Use piloting dimensions as discussed on page 10.

FLANGE SIZE	A OPEN	A CLOSED	D	F	G
1"	19 3/8"	14 5/8"	1/8"	4 1/4"	2.000" 1.995"
1 1/2"	23 3/8"	15"	1/8"	5"	2.875" 2.870"
2"	23 1/2"	15 1/2"	1/8"	6"	3.625" 3.620"
2 1/2"	24 5/8"	15 15/16"	1/8"	7"	4.125" 4.120"
3"	24 5/8"	16 3/8"	1/8"	7 1/2"	5.000" 4.995"
4"	25 5/8"	16 15/16"	1/8"	9"	6.187" 6.182"
6"	26 13/16"	19 15/16"	1/8"	11"	8.500" 8.495"
8"	30 13/16"	21 3/16"	1/8"	13 1/2"	10.625" 10.620"

Drilling: 150 PSI – ANSI Standard  
Bolt Holes Straddle  $\varnothing$ 's.

FLANGE SIZE	A OPEN	A CLOSED	D	F	G
1"	22 11/16"	14 15/16"	1/8"	4 7/8"	2.000" 1.995"
1 1/2"	23 13/16"	15 1/2"	1/8"	6 1/8"	2.875" 2.870"
2"	20 1/2"	15 3/4"	1/8"	6 1/2"	3.625" 3.620"
2 1/2"	23 13/16"	16 3/8"	1/8"	7 1/2"	4.125" 4.120"
3"	25 7/16"	16 9/16"	1/8"	8 1/4"	5.000" 4.995"
4"	28 3/8"	19 7/16"	1/8"	10"	6.187" 6.182"
6"	30 1/4"	20 3/4"	1/8"	12 1/2"	8.500" 8.495"
8"	32 3/8"	21 15/16"	1/8"	15"	10.625" 10.620"

Drilling: 300 PSI – ANSI Standard  
Bolt Holes Straddle  $\varnothing$ 's.

Note: Customer must specify pipe ID.

Note: Insert can be furnished with NPT female tapping for all size sampling valves.

Note: Insert also available for use with Strahman Drain Valves.

#### Flange Thickness (Dimension X)

SV-500/600/700	SV-800	SV-900	SV-1000
1 3/8"	2"	2 3/8"	2 3/4"

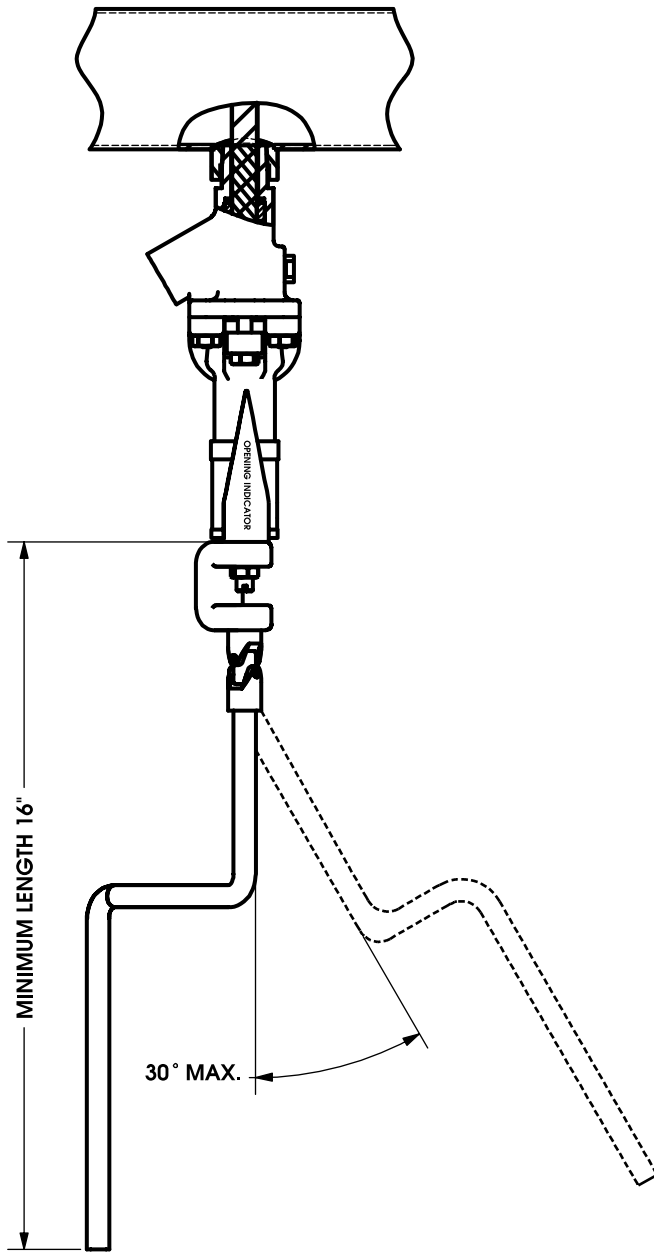
FLANGE SIZE	A OPEN	A CLOSED	D	F	G
1"	21 1/16"	14 15/16"	1/4"	4 7/8"	2.000" 1.995"
1 1/2"	23 13/16"	15 1/2"	1/4"	6 1/8"	2.875" 2.870"
2"	20 1/16"	15 3/4"	1/4"	6 1/2"	3.625" 3.620"
2 1/2"	N/A	N/A	N/A	N/A	N/A
3"	25 7/16"	16 9/16"	1/4"	8 1/4"	5.000" 4.995"
4"	29 3/8"	19 7/8"	1/4"	10 3/4"	6.187" 6.182"
6"	29 3/4"	21 1/2"	1/4"	14"	8.500" 8.495"
8"	37 1/8"	24 3/4"	1/4"	16 1/2"	10.625" 10.620"

Drilling: 600 PSI – ANSI Standard  
Bolt Holes Straddle  $\varnothing$ 's.

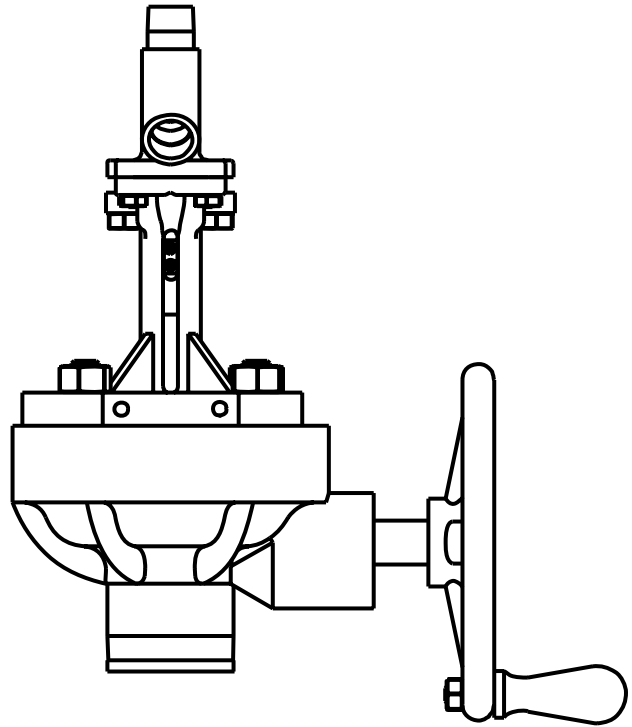
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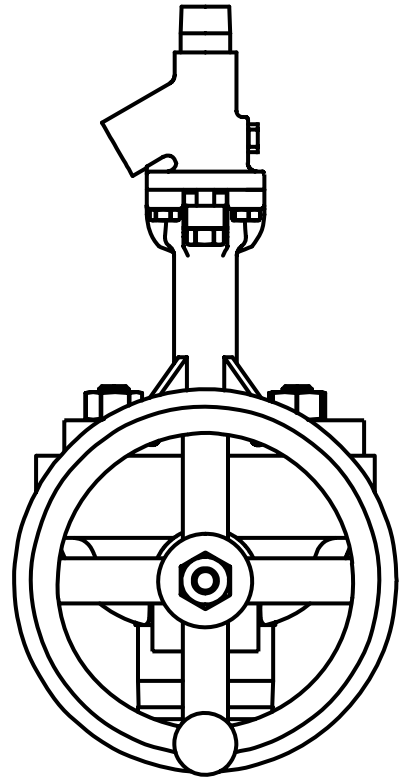
# Special Extended Crank Handle and Gear Operator Options



Special Strahman Extended Sampling Valve Crank Handle can be furnished in lengths from 16 in. to 10 ft. The Extended Crank Handle can be furnished for use on any sampling valve now in service, by removing the original crank handle and replacing it with an extended crank handle in the length required.



Front and Side View Shown:  
Gear Box with easy turn hand wheel



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# Heat Jackets for Sampling Valves

## 1 Piece Jacket Available for SV-500, SV-600, SV-700 & SV-800

<b>Pressure</b>	300 PSI
<b>Temperature</b>	600°F

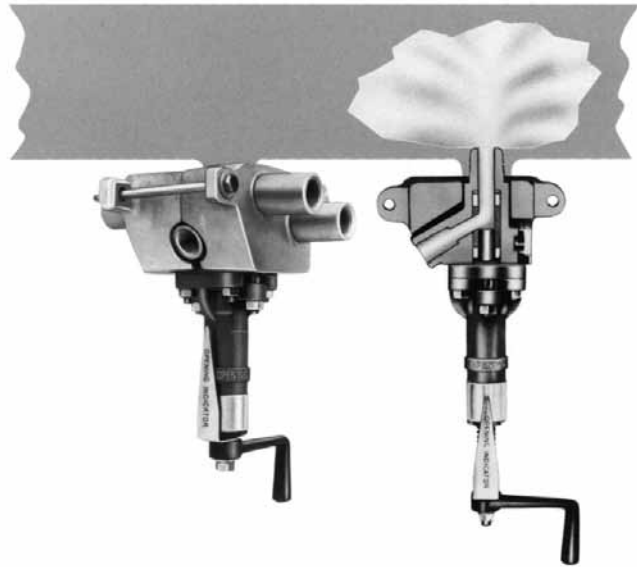
(1/2" FNPT connections standard)

Bolt On Heat Jackets offer superior performance and reliability for a cost competitive price. CSI Heat Jackets are cast to conform precisely to the Strahman sampling valve body so that there are almost no air gaps. The special aluminum based alloy acts as an efficient heat transfer agent to evenly distribute heat throughout the valve body ensuring no cool spots. A carbon steel ASME coded pressure vessel chamber contains either steam, or heat transfer fluid.

Standard Design is a two-piece bolt on jacket; single piece designs are available for certain sizes and configurations. For flanged valves, the casting is shaped to envelope the flange, so that there is absolutely no exposed surface area where cooling may occur. Compared to a fabricated jacket that is welded to a valve, the bolt on jacket is much more compact and efficient.

### **BENEFITS OF THE BOLT ON JACKET VERSUS THE WELDED TYPE ARE:**

- No dissimilar metals welded together (carbon steel jacket on stainless steel valve body).
- No distortion of the valve body due to welding (heat) that can affect the piston travel.
- No heat affected zone that can cause inter-granular corrosion by changing grain structure of the body material.
- No post weld heat treatment that can cause distortion in the valve body leading to piston misalignment.



- The jacket does not need to be removed to service the valve.
- If the valve needs to be replaced, the jacket can be reused offering substantial savings.
- Standard Strahman Valves are purchased, not custom fabrications.
- Quick deliveries with many standard jackets in stock.

An option for the CSI Heat Jacket is the use of electrical energy as a heating medium instead of Steam or Heat Transfer Fluids. At lower temperatures, the electrical CSI Heat Jacket maintains a constant temperature, more accurately, than steam or transfer fluids.

### **Accessories for the Heat Jackets are:**

1. Custom formed Insulation Blankets conserve energy and also prevent personnel hazards from direct contact with a high temperature surface. Sold separately.
2. Special jumpers connect the two halves of the heat jacket easily and conveniently. Sold separately.
3. Heat Transfer Cement to fill in any voids between the jacket and the valve body. For most applications less than one quart is required. Sold separately.

For details on these custom accessories contact your Strahman Distributor to find out the extraordinary performance and value.

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## The Strahman Family of Products Also Includes:

### WASH DOWNEQUIPMENT

Strahman has a full line of mixing unit-hose stations, transfer hoses, nozzles and accessories. Request our Washdown Equipment catalog.

### PROCESS VALVES

Strahman has the capability of manufacturing custom process valves for all industries, particularly the polymer industry, including diverter valves, in-line valves, drain valves and stop valves, all designed to meet the particular (or customer) requirements for high pressure and temperature systems.

### SAMPLING VALVES

Strahman has a full line of sampling valves that produce live samples without exception. Our sampling valves are designed to prevent failure caused by sediment or clogging.

### DRAIN VALVES

Strahman Drain Valves are designed so that they cannot clog. They are ideal for use in liquid and gas service or with slurries and high viscosity fluids which may solidify at room temperature.

### LINE BLIND VALVES

Strahman Line Blind Valves provide zero leakage and total isolation on process pipelines, vessels and maritime applications. No pipeline movement is required when blind position is changed. Contact your Strahman representative for complete details.



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