Strahman®

Since 1921

The Originator of Piston-Type Sampling Valves

ISO 9001:2000
Management System Registered

PED Compliant

Setting the Standard for Reliability

TRADITION • INNOVATION • COOPERATION

Quality at Every Turn™

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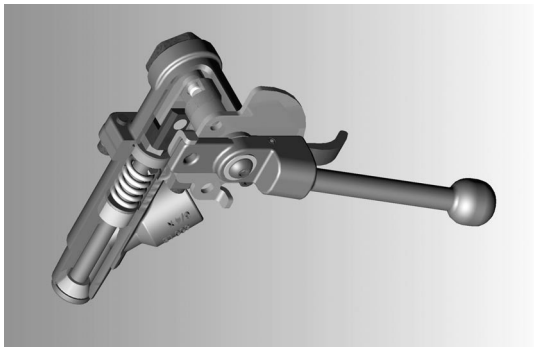
Strahman Piston-Type Sampling Valves comply with the Pressure Equipment Directive (PED) No. 97/23/EC under SEP. Strahman Drain Valves 3" NB through 12" NB ANSI classes 150, 300, and 600 and 2" NB ANSI classes 300 and 600 comply under Category II liquid service.

Strahman Valves, Inc.
3 Vreeland Rd. Florham Park, NJ 07932 USA
Tel 973-377-4900 **Toll Free 877-STRAHMAN**
Fax 973-377-8288 **www.strahmanvalves.com**

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.

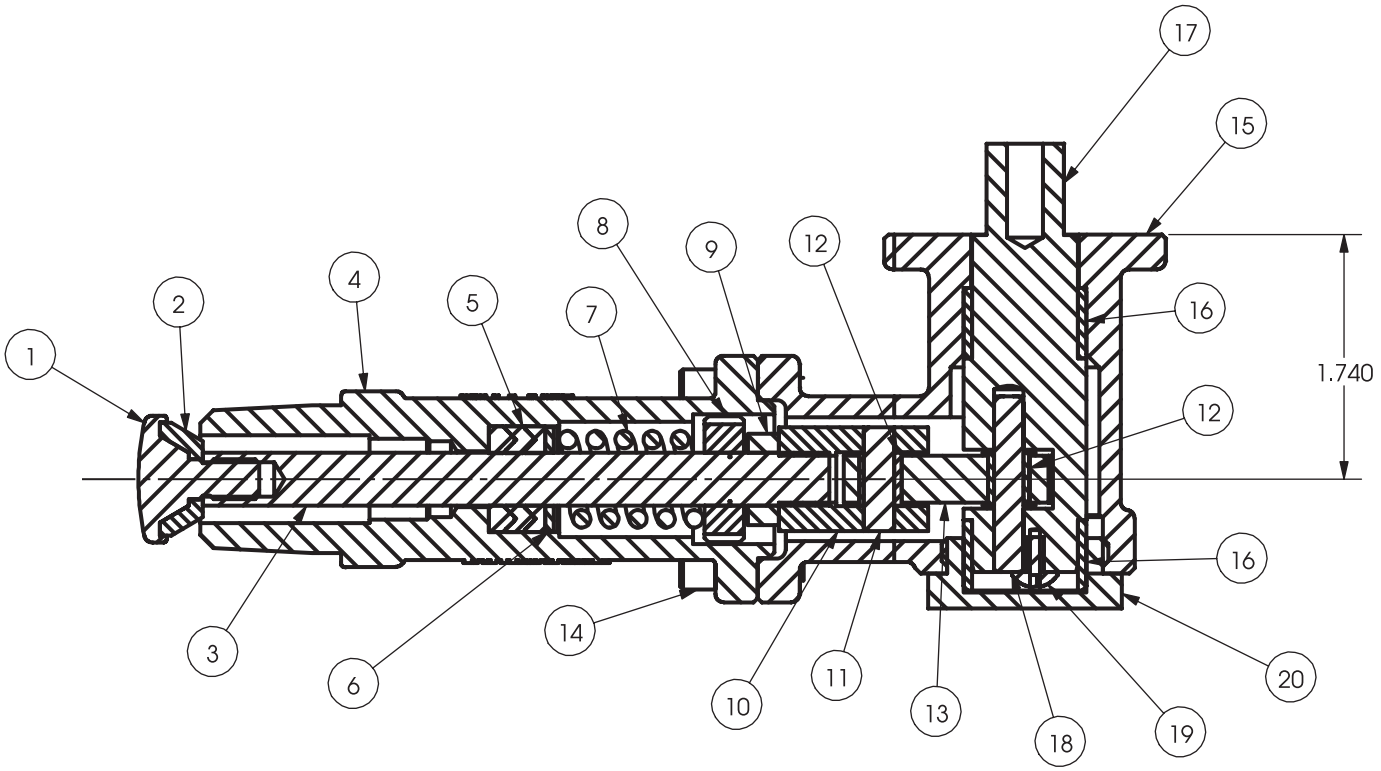
The unique QSV-700 soft-seat design and the bubble tight shut-off with live loaded packing is rated to ANSI Seat Leakage Class VI to assure leak-free service. The valve features a spring-loaded and fail-close safety design. The self-contained manual hand actuator with an ergonomic handle features multiple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

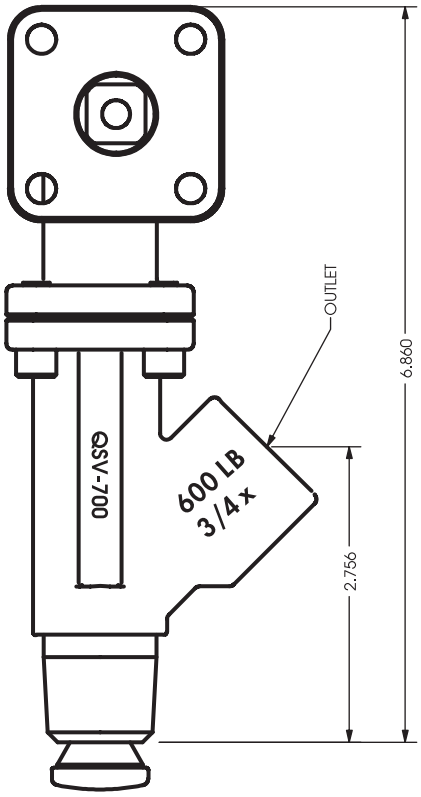
- 45 degree outlet for larger flow capacity
- Piston stem end breaks through any crust or scale that forms
- 316 Stainless steel body is standard – available in the following materials:
  - Alloy 20
  - Hastelloy B or C
  - Titanium
  - Nickel
  - Monel
  - Inconel
- Other stainless steels and materials available on request
- Body extensions can be customized for special applications and installations up to 6"
- Couplings, tees, adapters and inserts 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)

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.





Key	Description	Material
1*	STEM END	316 SS
2*	MAIN SEAL	TFM
3*	STEM	316 SS
4	BODY	CF8M
5*	PACKING	TFM
6	PACKING FOLLOWER	303 SS
7	SPRING	303 SS
8	STEM GUIDE BUSHING	PEEK
9	JAM NUT	303 SS
10	CLEVIS	303 SS
11	CLEVIS PIN	303 SS
12	LINK BEARING	PEEK
13	LINK	303 SS
14	SOCKET HEAD CAP SCREW	303 SS
15	ACTUATOR HOUSING	CF8M
16	ACTUATOR SHAFT BEARING	PEEK
17	ACTUATOR SHAFT	303 SS
18	LINK SHAFT PIN	SS
19	BUTTON HEAD SOCKET CAP SCREW	
20	ACTUATOR HOUSING COVER	303 SS

*Denotes recommended spare parts

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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 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

												316L MAX
	Pressure	psig	275	235	215	195	170	140	110	80	50	35	65
316	**CL 150**	(barg)	(19.0)	(16.2)	(14.8)	(13.4)	(11.7)	(9.7)	(7.6)	(5.5)	(3.4)	(2.4)	(4.5)
& 316L	**Temperature**	Deg. F	100	200	300	400	500	600	700	800	900	950	**850**
		(Deg. C)	(37.8)	(93.3)	(148.9)	(204.4)	(260.0)	(315.6)	(371.1)	(426.7)	(482.2)	(510.0)	(454.4)

												316L MAX
	Pressure	psig	720	620	560	515	480	450	430	420	400	385	420
316	**CL 300**	(barg)	(49.7)	(42.8)	(38.6)	(35.5)	(33.1)	(31.0)	(29.7)	(29.0)	(27.6)	(26.6)	(29.0)
& 316L	**Temperature**	Deg. F	100	200	300	400	500	600	700	800	900	950	**850**
		(Deg. C)	(37.8)	(93.3)	(148.9)	(204.4)	(260.0)	(315.6)	(371.1)	(426.7)	(482.2)	(510.0)	(454.4)

												316L MAX
	Pressure	psig	1440	1240	1120	1025	955	900	870	845	830	775	835
316	**CL 600**	(barg)	(99.3)	(85.5)	(77.2)	(70.7)	(65.9)	(62.1)	(60.0)	(58.3)	(57.2)	(53.4)	(57.6)
& 316L	**Temperature**	Deg. F	100	200	300	400	500	600	700	800	900	950	**850**
		(Deg. C)	(37.8)	(93.3)	(148.9)	(204.4)	(260.0)	(315.6)	(371.1)	(426.7)	(482.2)	(510.0)	(454.4)

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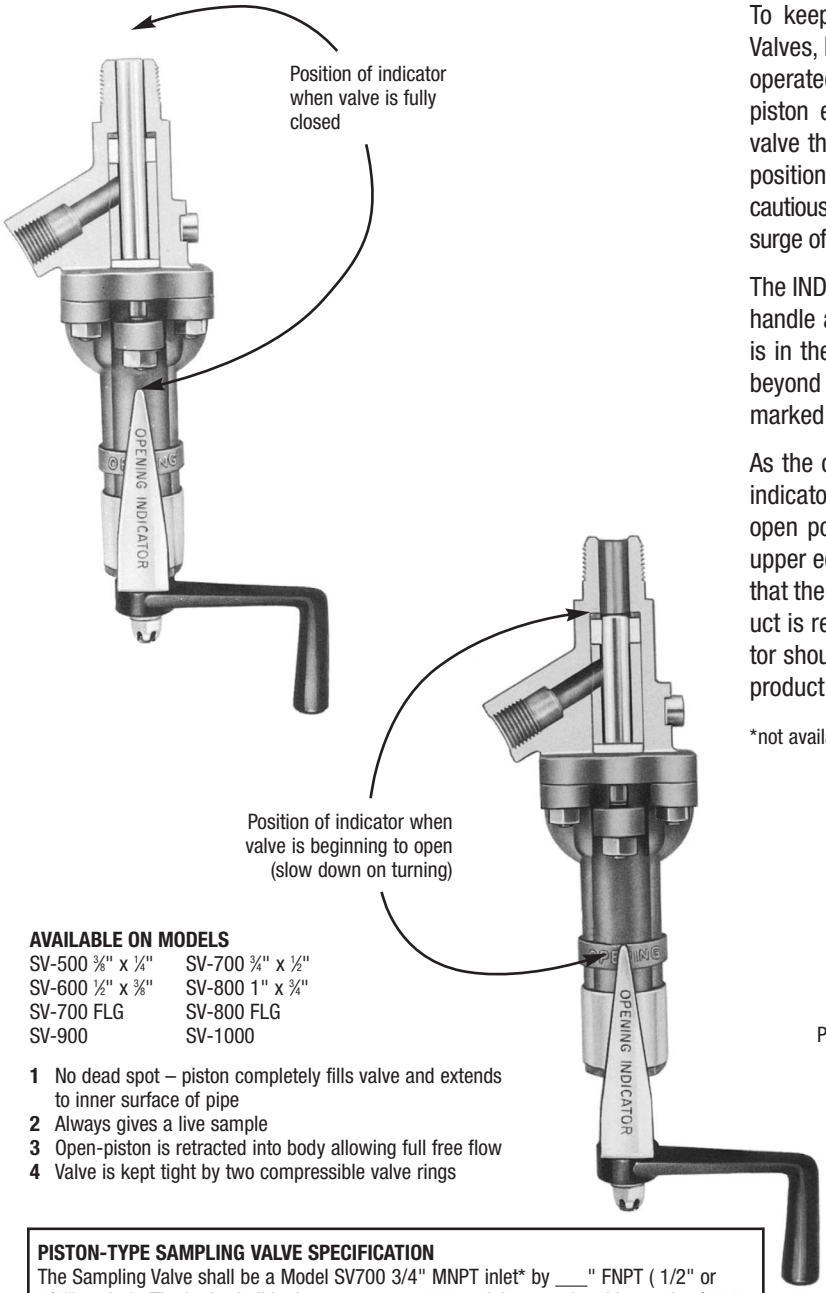
Sampling Valve with Opening Indicator



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 ⅜" x ¼"	SV-700 ¾" x ½"
SV-600 ½" x ⅜"	SV-800 1" x ¾"
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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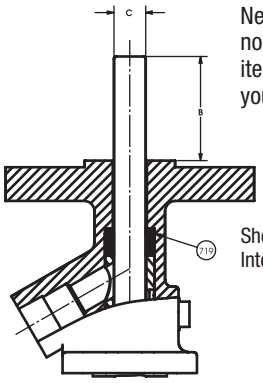
Hand Operated Sampling Valves SV-500, SV-600, SV-700 and SV-800

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.



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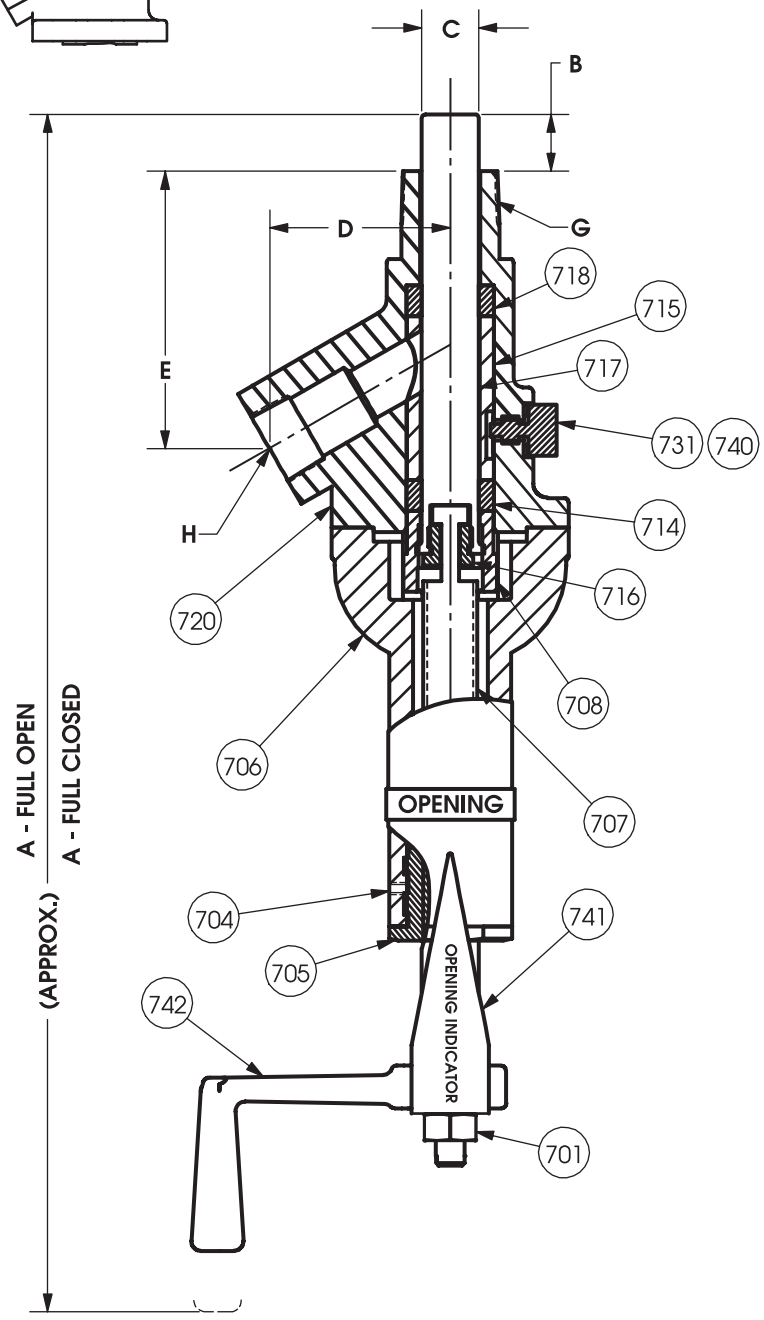
Integral Flange Option



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 ⅜" x ¼" ANSI 600

A Closed	A Open	B	C	D	E	G NPT	H NPT
11 ⅜"	13 ⅞"	0"	.243"	1 ⅞"	3 ½₃₂"	⅜"	¼"
13 ⅜"	17 ⅞"	2"	.243"	1 ⅞"	3 ½₃₂"	⅜"	¼"
15 ⅜"	21 ⅞"	4"	.243"	1 ⅞"	3 ½₃₂"	⅜"	¼"
17 ⅜"	25 ⅞"	6"	.243"	1 ⅞"	3 ½₃₂"	⅜"	¼"

SV-600 ½" x ⅜" ANSI 600

A Closed	A Open	B	C	D	E	G NPT	H NPT
11 ⅜"	13 ⅞"	0"	.368"	1 ⅞"	3 ½₃₂"	½"	⅜"
13 ⅜"	17 ⅞"	2"	.368"	1 ⅞"	3 ½₃₂"	½"	⅜"
15 ⅜"	21 ⅞"	4"	.368"	1 ⅞"	3 ½₃₂"	½"	⅜"
17 ⅜"	25 ⅞"	6"	.368"	1 ⅞"	3 ½₃₂"	½"	⅜"

SV-700 ¾" x ½" & ¾" x ¾" ANSI 600

A Closed	A Open	B	C	D	E	G NPT	H NPT
11 ⅜"	13 ⅞"	0"	.590"	1 ⅞"	3 ½₃₂"	¾"	½", ¾"
13 ⅜"	17 ⅞"	2"	.590"	1 ⅞"	3 ½₃₂"	¾"	½", ¾"
15 ⅜"	21 ⅞"	4"	.590"	1 ⅞"	3 ½₃₂"	¾"	½", ¾"
17 ⅜"	25 ⅞"	6"	.590"	1 ⅞"	3 ½₃₂"	¾"	½", ¾"

SV-800 1" x ¾" & 1"x 1" ANSI 600

A Closed	A Open	B	C	D	E	G NPT	H NPT
12 ⅝"	15 ⁷⁄₁₆"	0"	.787"	2 ⅜"	3 ⅝"	1"	¾", 1"
14 ⅝"	19 ⁷⁄₁₆"	2"	.787"	2 ⅜"	3 ⅝"	1"	¾", 1"
16 ⅝"	23 ⁷⁄₁₆"	4"	.787"	2 ⅜"	3 ⅝"	1"	¾", 1"
18 ⅝"	27 ⁷⁄₁₆"	6"	.787"	2 ⅜"	3 ⅝"	1"	¾", 1"

"B" DIM ± ⁱ⁄₁₆"
"C" DIM ± .002"

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

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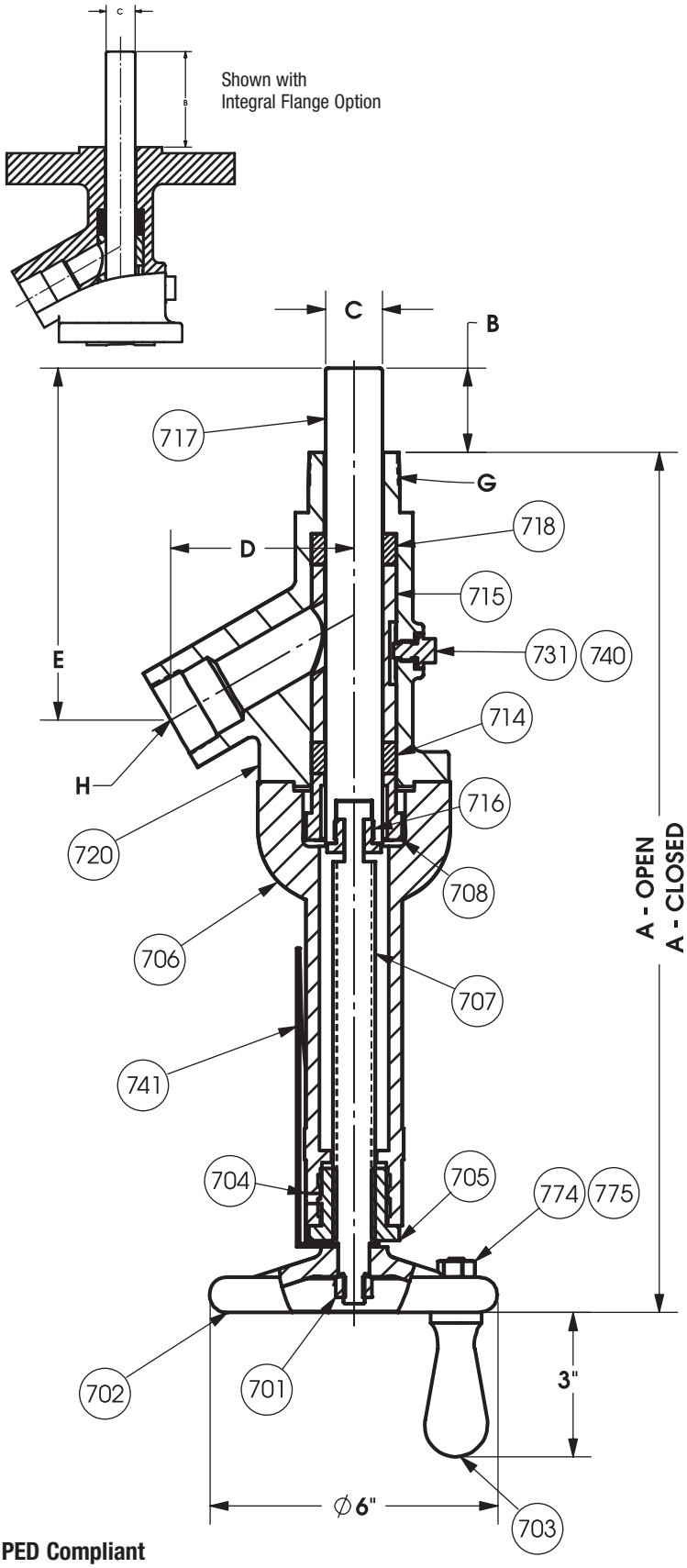


Item	Name	Standard Material
701	Wheel Nut	Carbon Steel
702	Handwheel	Cast Iron
703	Turn Knob	Stainless Steel Type 416
704	Bushing Lock Screw	Stainless Steel Type 304
*705	Bushing	Bronze
706	Bonnet	Stainless Steel Type 304
*707	Stem	Stainless Steel Type 416
708	Gland	Stainless Steel Type 304
712	Bonnet 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

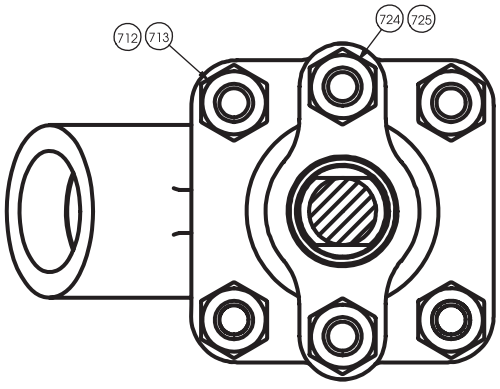
SV-900 1 ¼" x 1" ANSI 600

A Closed	A Open	B	C	D	E	G NPT	H NPT
14 ⅜"	18 ¼"	0"	.984"	3 ¼"	4 ⅞"	1 ¼"	1"
16 ⅜"	22 ¼"	2"	.984"	3 ¼"	4 ⅞"	1 ¼"	1"
18 ⅜"	26 ¼"	4"	.984"	3 ¼"	4 ⅞"	1 ¼"	1"
20 ⅜"	30 ¼"	6"	.984"	3 ¼"	4 ⅞"	1 ¼"	1"

SV-1000 1 ½" x 1 ¼" ANSI 600

A Closed	A Open	B	C	D	E	G NPT	H NPT
15 ¾"	20 ¼"	0"	1.181 "	3 13/16"	5 9/16"	1 ½"	1 ¼"
17 ¾"	24 ¼"	2"	1.181 "	3 13/16"	5 9/16"	1 ½"	1 ¼"
19 ¾"	28 ¼"	4"	1.181 "	3 13/16"	5 9/16"	1 ½"	1 ¼"
21 ¾"	32 ¼"	6"	1.181 "	3 13/16"	5 9/16"	1 ½"	1 ¼"

"B" DIM ± 1/16"
"C" DIM ± .002"



VALVE DECK DETAIL

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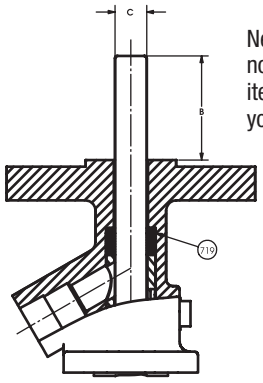
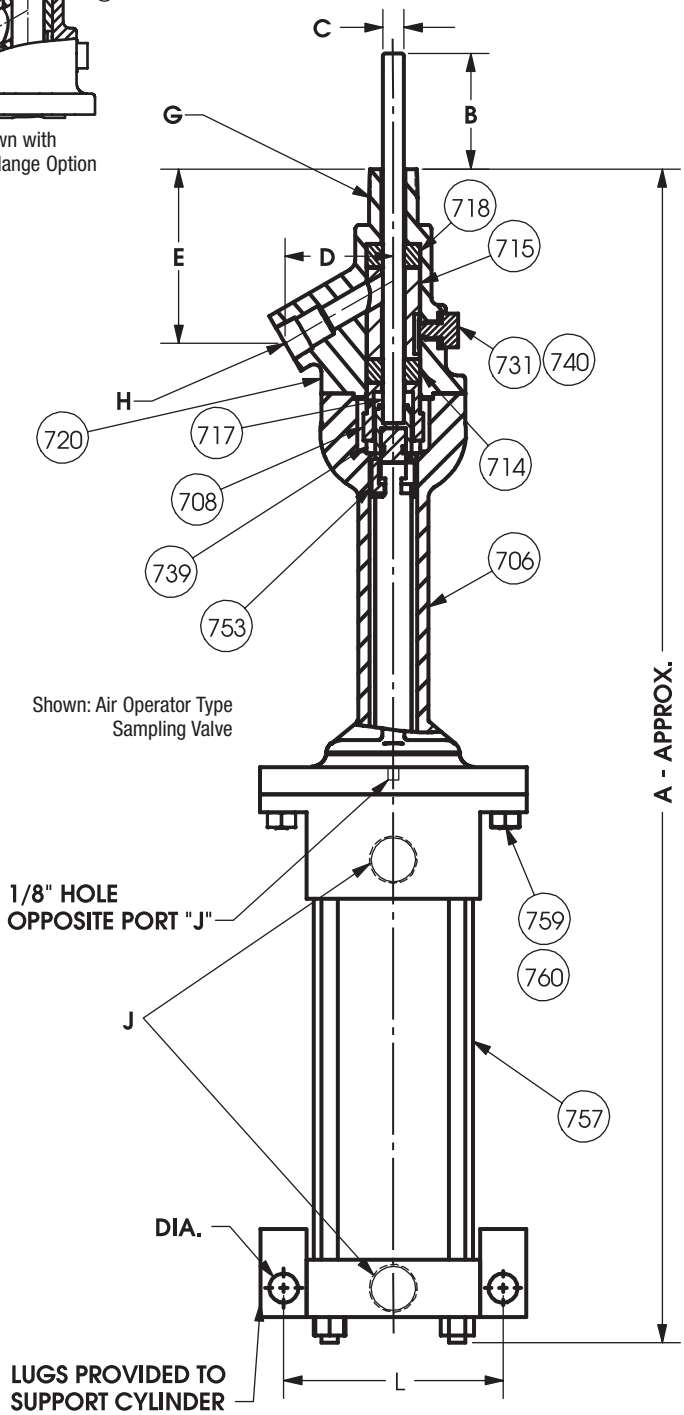
Air Operated Sampling Valves SV-500, SV-600, SV-700 and SV-800



Shown with
Integral Flange Option

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.



Shown: Air Operator Type
Sampling Valve

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
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
739	Piston Set Screw	Stainless Steel Type 304
*740	Cage Lock Gasket	RTFE
*753	Piston Connector	Bronze
754	Switches	
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

SV-500 ⅜" x ¼" ANSI 600

A	As	B	C	D	E	G NPT	H NPT	J NPT	AIR CYL. BORE
15 7/16"	21 5/8"	0"	.243"	1 7/8"	3 1/32"	⅜"	¼"	⅜"	2 ½"
19 7/16"	23 5/8"	2"	.243"	1 7/8"	3 1/32"	⅜"	¼"	⅜"	2 ½"
23 7/16"	25 5/8"	4"	.243"	1 7/8"	3 1/32"	⅜"	¼"	⅜"	2 ½"

SV-600 ½" x ⅜" ANSI 600

A	As	B	C	D	E	G NPT	H NPT	J NPT	AIR CYL. BORE
15 7/16"	21 5/8"	0"	.368"	1 7/8"	3 1/32"	½"	⅜"	⅜"	2 ½"
19 7/16"	23 5/8"	2"	.368"	1 7/8"	3 1/32"	½"	⅜"	⅜"	2 ½"
23 7/16"	25 5/8"	4"	.368"	1 7/8"	3 1/32"	½"	⅜"	⅜"	2 ½"

SV-700 ¾" x ½" & ¾"x ¾" 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 1/32"	¾"	½", ¾"	⅜"	2 ½"
19 5/8"	23 3/4"	2"	.590"	1 7/8"	3 1/32"	¾"	½", ¾"	⅜"	2 ½"
13 5/8"	25 3/4"	4"	.590"	1 7/8"	3 1/32"	¾"	½", ¾"	⅜"	2 ½"

SV-800 1" x ¾" & 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"	¾", 1"	½"	3 ¼"
23 1/16"	27 1/16"	2"	.787"	2 3/8"	3 5/8"	1"	¾", 1"	½"	3 ¼"
27 1/16"	29 1/16"	4"	.787"	2 3/8"	3 5/8"	1"	¾", 1"	½"	3 ¼"

A = Air Operated
As = Air Switch Type
"B" DIM ± 1/16"
"C" DIM ± .002"

For Air Cylinder support information see page 9
Forward Deck details see page 7, Item #712, #713, #724, #725

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

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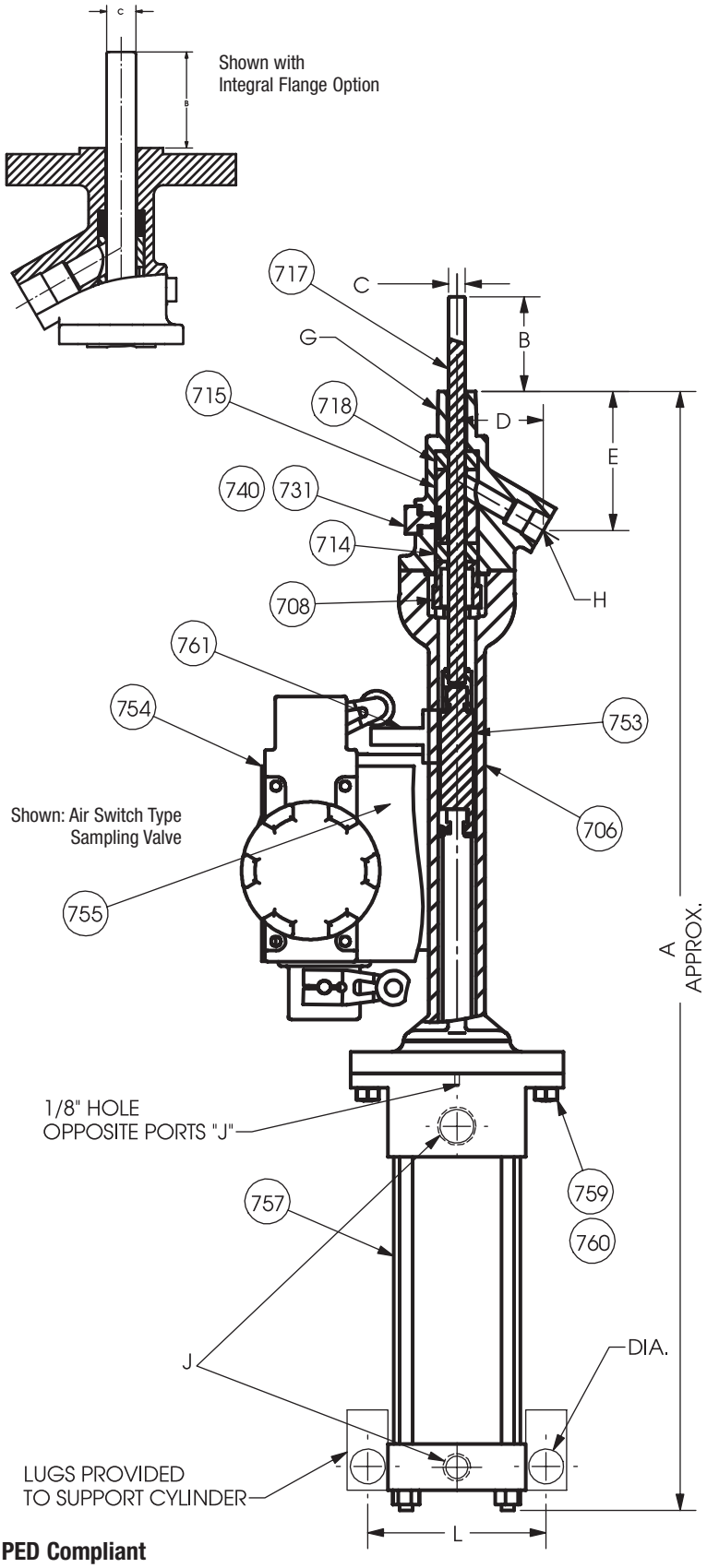


PED Compliant

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

SV-900 1 ¼" 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 ½" x 1 ¼" 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
As = Air Switch Type
"B" DIM ± 1/16"
"C" DIM ± .002"

AIR CYLINDER SUPPORT

Valve	Cyl Bore	L	DIA
SV-500 SV-600 SV-700	2 1/2	3 3/4	7/16
SV-800	3 1/4	4 3/4	9/16
SV-900	4	5 1/2	9/16
SV-1000	5	6 7/8	13/16

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

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

Strahman Valves, Inc.
3 Vreeland Rd. Florham Park, NJ 07932 USA
Tel 973-377-4900 **Toll Free 877-STRAHMAN**
Fax 973-377-8288 **www.strahmanvalves.com**

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.

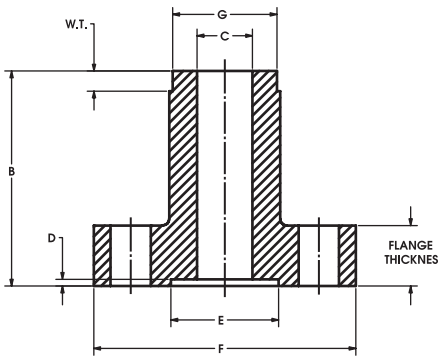
The Valve Raised Face is ⅛" standard and 1/16" available upon request. The Adapter is recessed to facilitate the piloting of the valve, as shown in the diagram on page 11. Strahman can provide a mating flange nozzle, or an adapter that has a female recess to match the male raised face of the Strahman 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.

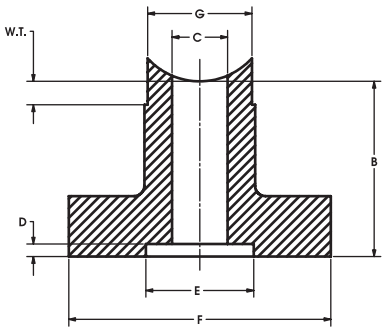
Valve Type	Piloting Diameter 150#, 300# & 600# – see E	Piston Diameter	Nozzle Bore with Piloting – see C	Nozzle Bore without Piloting – see C	Piloting Depth 150/300#* – see D	Flange Thickness 150#*	Flange Thickness 300/600#*
SV-500 (½")	1.379"	.243	.293	.493	⅛"	1"	1"
SV-600 (½")	1.379"	.368	.418	.618	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	11/64"	1"	1⅛"
SV-1000 (1½")	2.879"	1.181	1.233	1.431	11/64"	1"	1⅛"

*600 lbs. = ¼" all sizes

SPECIAL NOTE – ALL NOZZLES
Dimension X – Pipe size and schedule number. Please specify when ordering. Where required, give pipe size and schedule or tank wall thickness and radius. Nozzles for wall thickness greater than those shown above available and priced on request.



NON-CONTOURED NOZZLE



CONTOURED NOZZLE

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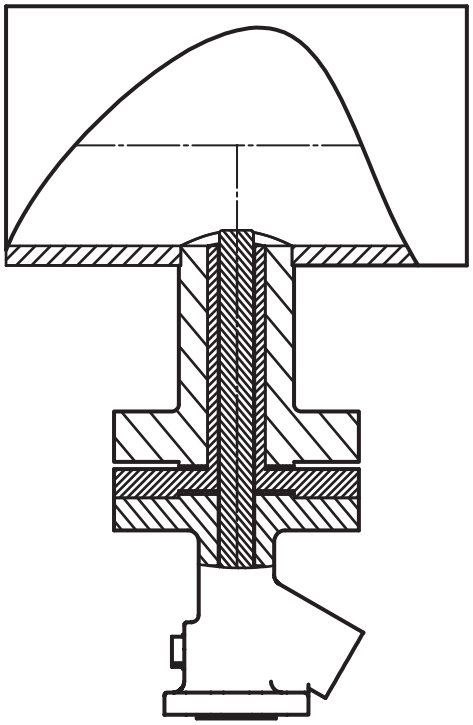
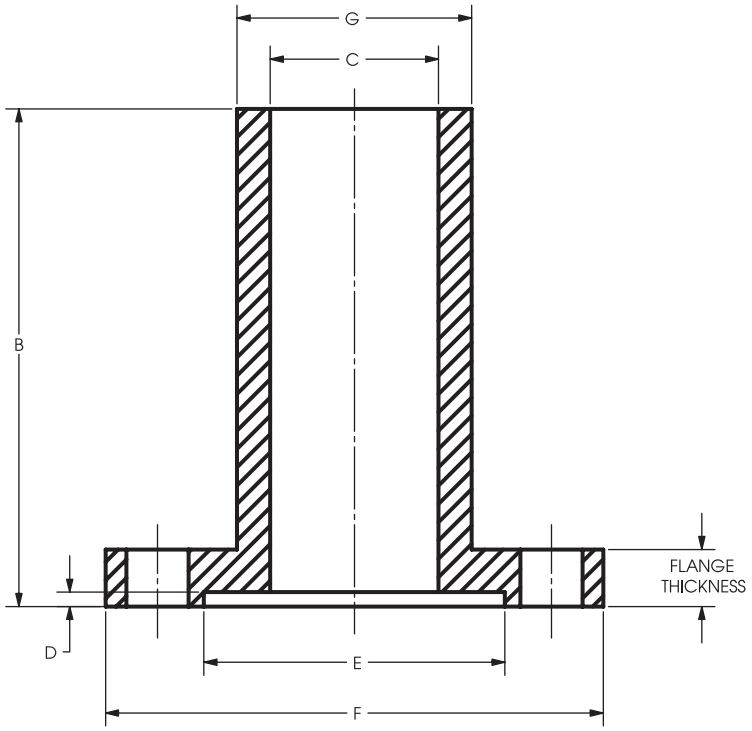
The standard adapter for sampling valves is constructed of 316 stainless steel, but available in other custom alloys. The adapter is positioned between the existing nozzle and the piston of the valve. The OD (outside diameter) of the adapter conforms with the ID (inside diameter) of the nozzle and ID 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 ¼" 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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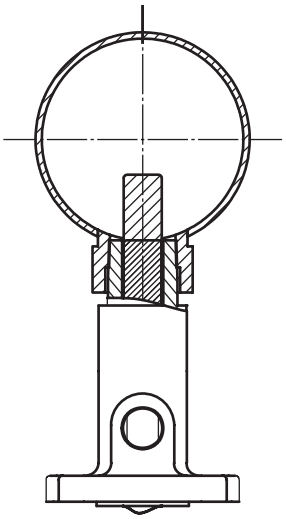
Half Couplings



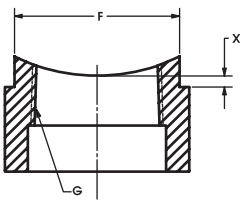
Contoured and Non-Contoured Couplings
Strahman Couplings slide into a hole drilled in a pipeline and a socket weld type weld is used to attach it to the pipe. Contoured couplings (shown below) are normally used for smaller pipe sizes up to 6". Contouring of the coupling allows it to match the inside 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.

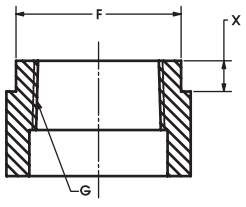
SPECIAL NOTE – ALL HALF COUPLINGS
Dimension X – Pipe size and schedule number. Please specify when ordering. Where required, give pipe size and schedule or tank wall thickness and radius. Couplings for wall thickness greater than those shown above available and priced on request.

Model	F	G NPT	L Pipe Size	Minimum Wall Thickness
SV-500	1 11/32"	3/8"	2"	1/2" Cont. 11/16" Non-Cont.
SV-600	1 11/32"	1/2"	2"	1/2" Cont. 11/16" Non-Cont.
SV-700	1 11/32"	3/4"	2"	1/2" Cont. 11/16" Non-Cont.
SV-800	1 3/4"	1"	3"	11/16"
SV-900	2 3/32"	1 1/4"	3"	13/16"
SV-1000	2 5/16"	1 1/2"	3"	7/8"

Socket Weld and BSP Threaded half couplings are also available.



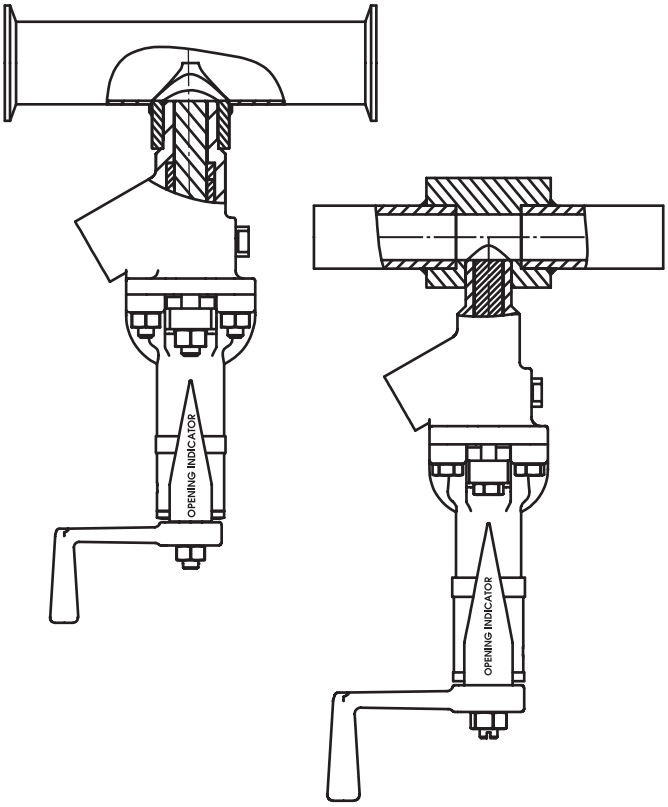
CONTOURED
THRU 6" PIPE

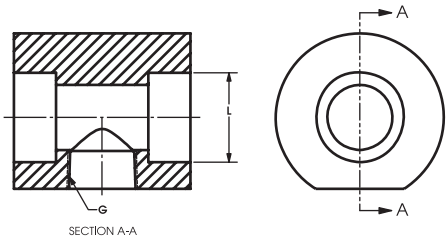


NON-CONTOURED
ABOVE 6" PIPE

Special Tees

Quick Disconnect Tee with Sampling Valve





SECTION A-A

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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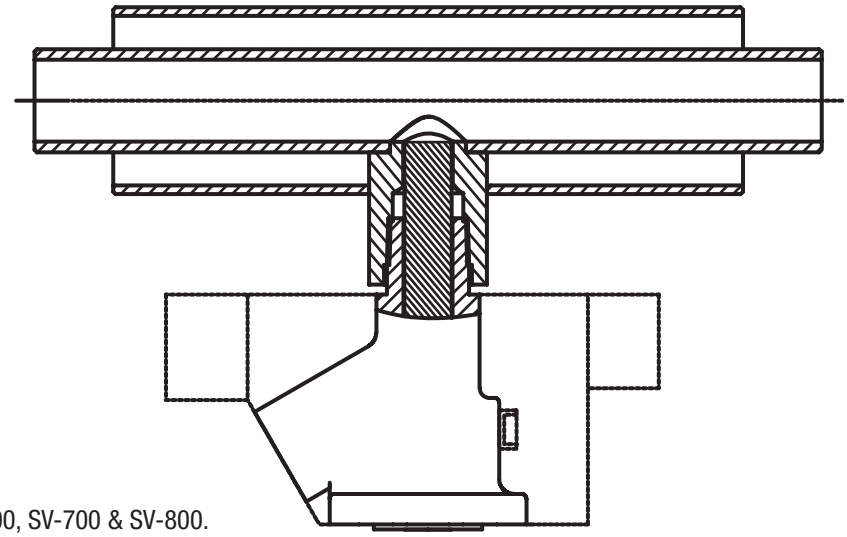
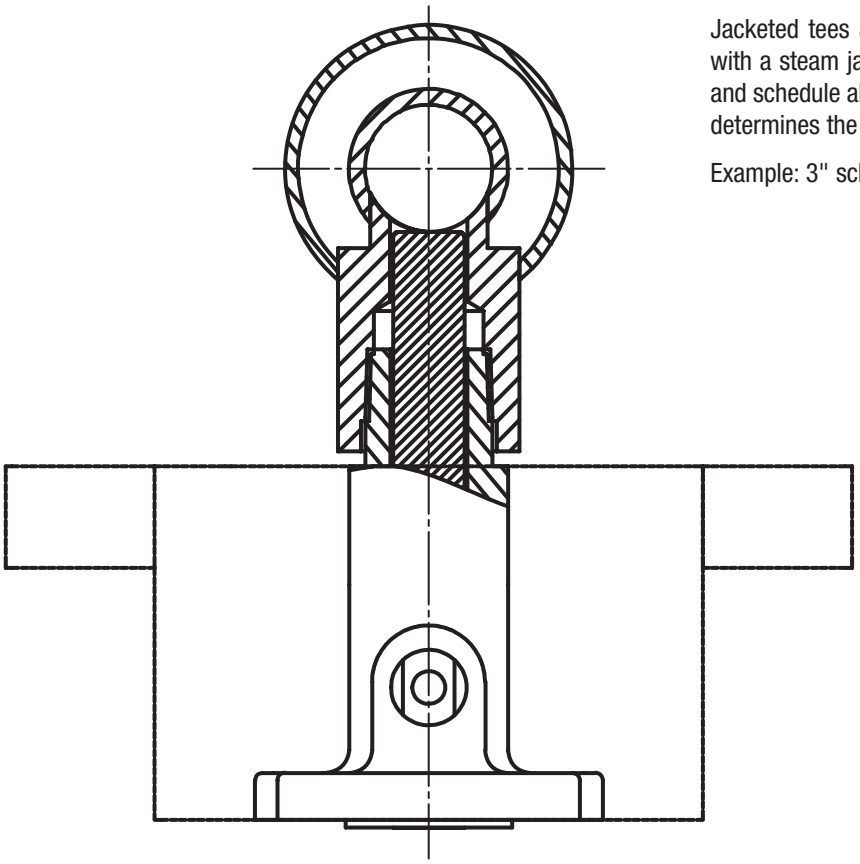


Available with SV-500, SV-600, SV-700 & SV-800.
Also available with air cylinder.



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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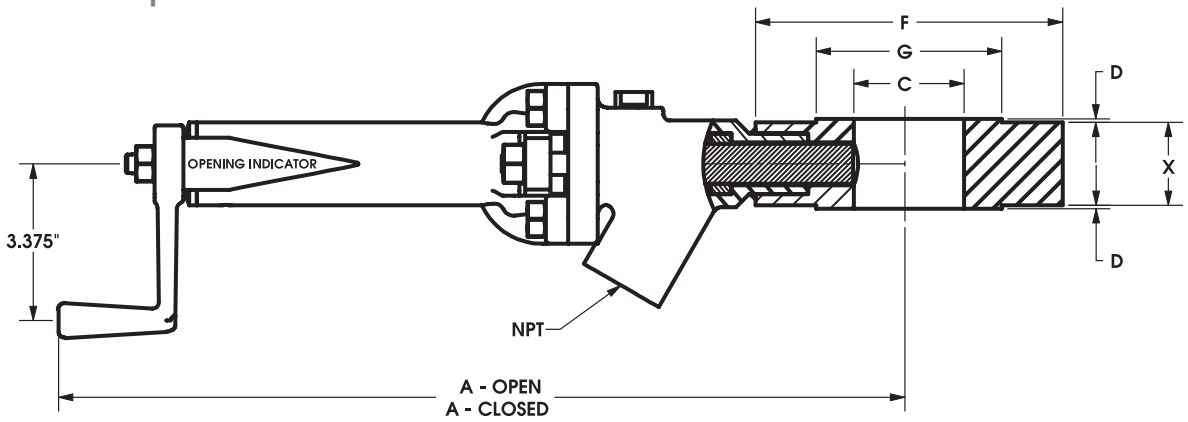
For use in Pipeline Installations



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	C	D	F	G
1"	18 3/8"	15"	1.031" 1.034"	1/16"	4 1/4"	2.000" 1.995"
1 1/2"	19 1/16"	15 3/8"	1.230" 1.233"	1/16"	5"	2.875" 2.870"
2"	19 7/8"	15 7/8"	1.630" 1.633"	1/16"	6"	3.625" 3.620"
2 1/2"	20 3/4"	16 7/8"	2.031" 2.034"	1/16"	7"	4.125" 4.120"
3"	20 15/16"	16 5/8"	2.420" 2.423"	1/16"	7 1/2"	5.000" 4.995"
4"	24 1/16"	19 3/8"	3.211" 3.214"	1/16"	9"	6.187" 6.182"
6"	25 3/16"	20 3/8"	4.983" 4.986"	1/16"	11"	8.500" 8.495"
8"	27 1/4"	21 5/8"	5.967" 5.970"	1/16"	13 1/2"	10.625" 10.620"

Drilling: 150 PSI – ANSI Standard
Bolt Holes Straddle ℄'s.

SPECIAL NOTE

When insert is used in conjunction with a drain valve and no drop in is provided in customer's mating nozzle flange, the nozzle I.D. must be "C" dimension plus 3/16" to avoid scoring of the drain valve piston.

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 5/8"	2"	2 3/8"	2 3/4"

FLANGE SIZE	A OPEN	A CLOSED	C	D	F	G
1"	19 1/8"	15 3/8"	1.031" 1.034"	1/16"	4 7/8"	2.000" 1.995"
1 1/2"	20 5/16"	16"	1.230" 1.233"	1/16"	6 1/8"	2.875" 2.870"
2"	20 1/2"	16 1/4"	1.630" 1.633"	1/16"	6 1/2"	3.625" 3.620"
2 1/2"	23 1/4"	18 11/16"	2.031" 2.034"	1/16"	7 1/2"	4.125" 4.120"
3"	23 13/16"	19 1/16"	2.420" 2.423"	1/16"	8 1/4"	5.000" 4.995"
4"	25 1/16"	19 7/8"	3.211" 3.214"	1/16"	10"	6.187" 6.182"
6"	26 7/8"	21 1/4"	4.983" 4.986"	1/16"	12 1/2"	8.500" 8.495"
8"	28 3/4"	22 3/8"	5.967" 5.970"	1/16"	15"	10.625" 10.620"

Drilling: 300 PSI – ANSI Standard
Bolt Holes Straddle ℄'s.

FLANGE SIZE	A OPEN	A CLOSED	C	D	F	G
1"	19 1/8"	15 3/8"	1.031" 1.034"	1/4"	4 7/8"	2.000" 1.995"
1 1/2"	20 3/8"	16"	1.230" 1.233"	1/4"	6 1/8"	2.875" 2.870"
2"	20 7/16"	16 3/16"	1.630" 1.633"	1/4"	6 1/2"	3.625" 3.620"
2 1/2"	N/A	N/A	N/A	N/A	N/A	N/A
3"	23 11/16"	19"	2.420" 2.423"	1/4"	8 1/4"	5.000" 4.995"
4"	25 13/16"	20 1/4"	3.211" 3.214"	1/4"	10 3/4"	6.187" 6.182"
6"	28 1/4"	21 7/8"	4.983" 4.986"	1/4"	14"	8.500" 8.495"
8"	32 1/4"	25 1/8"	5.967" 5.970"	1/4"	16 1/2"	10.625" 10.620"

Drilling: 600 PSI – ANSI Standard
Bolt Holes Straddle ℄'s.

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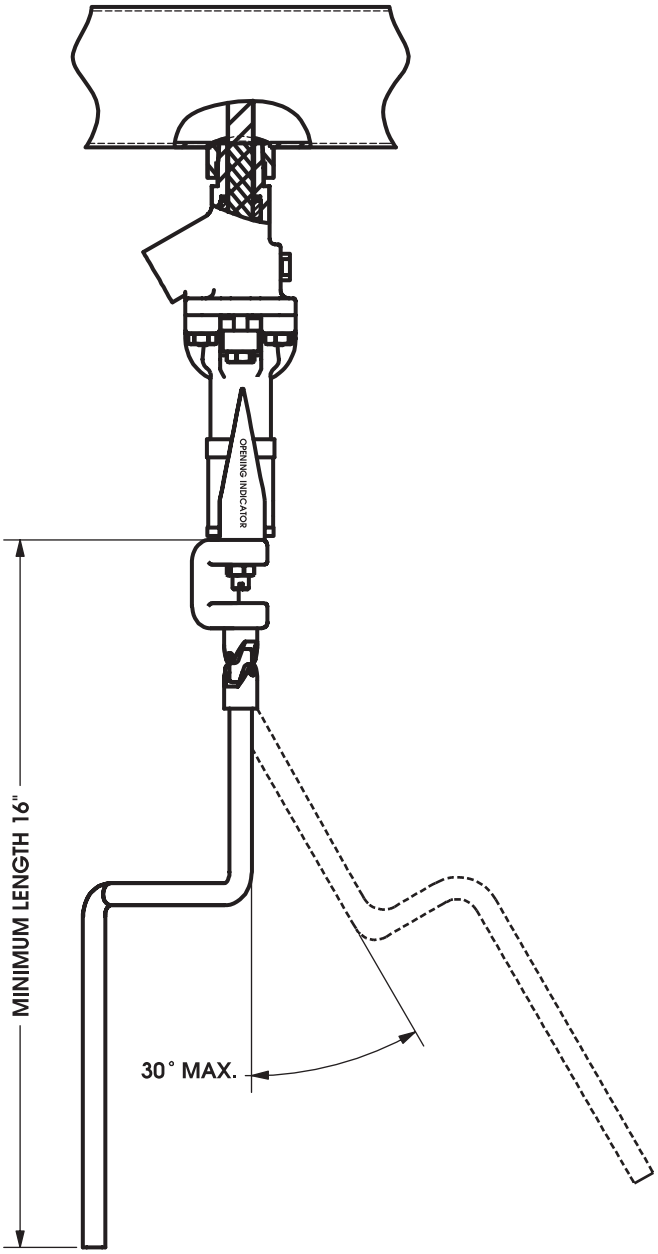
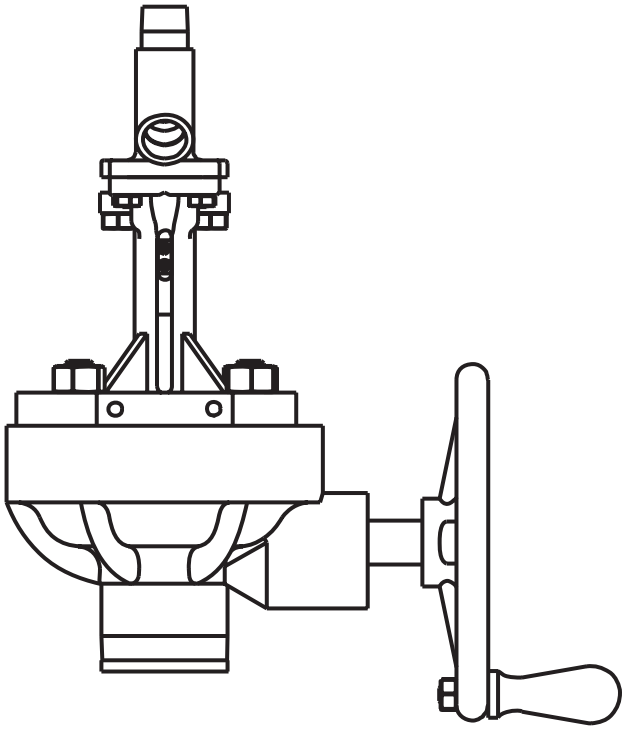
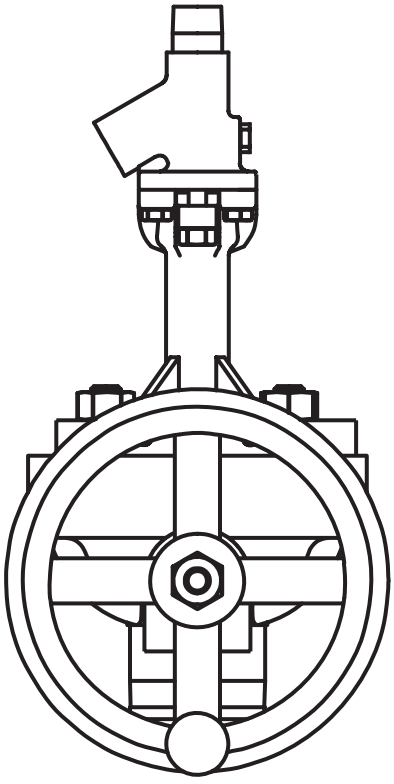
Special Extended Crank Handle and Gear Operator Options



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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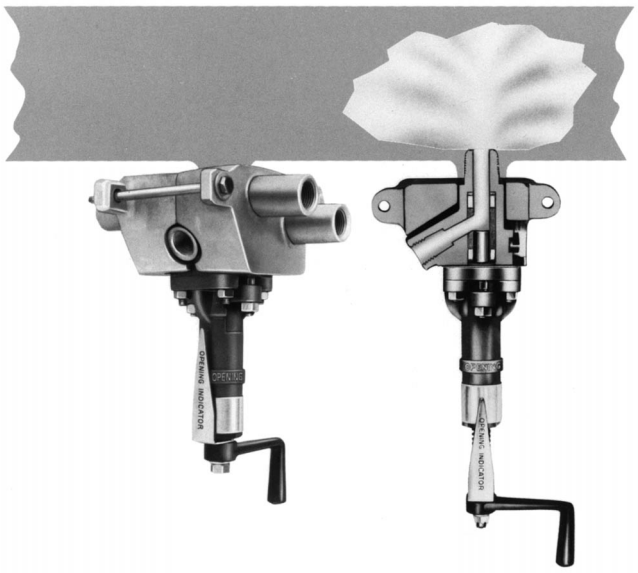
Heat Jackets for Sampling Valves

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

Pressure	300 PSI
Temperature	600°F



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.

PED Compliant

The Strahman family of products also includes:

Drain Valves
Also known as tank bottom valves, RAM valves or piston valves, our drain valves are used to empty vessels or to take process samples. There's no clogging, no leaking and no misalignment.

Wash Down Equipment
Strahman has a full line of mixing unit-hose stations, hoses, nozzles and accessories. Request our washdown equipment catalog.

Contact your Strahman representative for complete details.

Visit us on the Web at:
www.strahmanvalves.com

Strahman®

Strahman Valves, Inc. has been dedicated to excellence since 1921 – both in the reliability of our products and the responsiveness of our customer service. The key to our success has been merging established standards with innovative new solutions. At Strahman, exceeding customers' expectations is a tradition.

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Tel 973-377-4900 Fax 973-822-1819 **Toll Free 877-STRAHMAN**

SV/04/4000/Star