The S & US Series Sewage Air Valves

Helps Prevent System Shutdown • Standard and High Capacity Series Available • Series Includes Air & Vacuum and Pressure Combination Units

Crispin

Since 1905

Pressure Sewer Valve

Valve Functio

- Exhausts air and gas accumulation to promote system performance and efficiency
- Helps prevent system shut downs

Features

- Standard, high capacity, and short body series available
- Optional Backflush attachment
- Available in sizes 2" thru 4"

All CRISPIN Air and Vacuum Valves have standard Buna-N seating material with a Shore durometer of 70-80. This standard seat allows drip tight closure beyond 4-5 PSIG. Occasionally, a gravity system operates at pressures less than 10 PSIG. These applications require a soft seating material which will prevent leakage down to 2 PSIG. This soft seating material should not be applied to systems with operating pressures greater than 50 PSIG, or high pressure leaks may occur around the seat.

Stainless Steel Trim Standard

Air can accumulate in a sewage collection system that is under pressure from a number of sources. The nature of sewage is such that gas can also be generated and accumulate at the high points in the system. The gas and air accumulation need to be exhausted to promote system performance and efficiency, and help prevent system shut downs.

The CRISPIN Pressure Sewer Air Release Valves provide a range of air release orifices through 1/2" in diameter. Correct valve sizing can be determined by referring to the sizing section of the CRISPIN Catalog.

The CRISPIN "standard capacity" Pressure Sewer Valve weighs only 49 lbs., as compared to the 93 lbs.weight of our standard high capacity series. The light body is designed for a maximum of 300 PSIG. cold water working pressure. The "standard capacity" Pressure Sewer Air Release Valves are available with two orifice sizes, as indicated below. Our "high capacity" Sewer Air Release Valves are supplied with standard stainless steel trim. The "high capacity" pressure sewer air release valves are available with the orifice sizes indicated on page 11 of this section, and are selected according to the operating pressure of the system. If the system dictates specific air release requirements, then the sewer valve should be sized and selected accordingly.

Standard Capacity Series

Model	Inlet NPT	Orifice	Height	Height w/Back Flush*	Width	Width w/Back Flush*	Wt.	Wt. w/Back Flush*
SL20*	2"	1/4" @ 150 psi	21 1/2"	25 1/4"	9 11/16"	11 1/4"	49	60
SL30*	3"		21 1/2"	27 1/4"	9 11/16"	11 1/4"	49	66
SL40*	4"	1/8" @ 300 psi	21 1/2"	27 5/8"	9 11/16"	11 1/4"	49	78

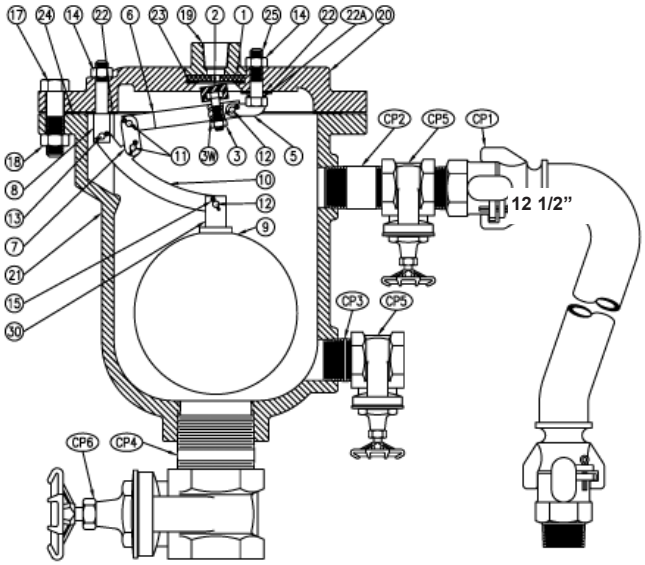
** Add a "B" to the end of model number if a backflush attachment is required.*

**Other Working Pressures May Be Obtained By Re-sizing Orifice Diameter.*

Working Pressure

ORIFICE DIAMETER	MAX. WORKING PRESSURE
1/2"	150 lbs.
7/16"	200 lbs.
3/8"	250 lbs.
1/4"	300 lbs.

Pressure Sewer Valve



Short Pressure Sewer Series

MODEL	INLET	OUTLET	HEIGHT
S20S	2" screwed	1/2" screwed	12 1/2"
S20SB	2" screwed	1/2" screwed	16 1/2"

The CRISPIN Short Sewer Air Release Valve offers the same function as both the Standard Air and Vacuum and Pressure Air Release Sewer Valves. The shorter height allows the valve to be used where height restrictions are a problem.

**All Crispin valves are hydrostatically tested at 150% of their maximum working pressure. For ease of maintenance, some of the parts are provided as kits or assemblies.*

Backflush is optional at customer's request.
Flush plugs are used when a backflush is not requested.

Parts List

PART #	ITEM	MATERIAL
1	Seat	PVC
2	Valve Plunger	Buna-N-Rubber
3	Nut	Stainless Steel
5	Valve Fulcrum	Stainless Steel
6	Valve Lever	Stainless Steel
7	Link	Stainless Steel
8	Ball Fulcrum	Stainless Steel
9	Ball Float	Stainless Steel
10	Ball Lever	Stainless Steel
11	Bearing Pin	Stainless Steel
12	Bearing Pin	Stainless Steel
13	Bearing Pin	Stainless Steel
14	Nut	Steel
15	Cotter Pin	Stainless Steel
17	Bolt	Steel
18	Nut	Steel
19	Top	Cast Iron
20	Flange	Cast Iron
21	Body-Screw Inlet	Cast Iron
22	Fulcrum Washer	Fibre
22A	Fulcrum Washer	Fibre
23	Seat Gasket	Buna-N-Rubber
24	Flange Gasket	Armstrong
25	Bolt	Stainless Steel
30	Float Rod	Stainless Steel
40	Flush Plug (not shown)	Stainless Steel
3W	Lockwasher	Stainless Steel
2B	Nipple	Steel
3B	Nipple	Steel
4B	Nipple	Steel
6B	1" Gate Valve	Brass
7B	2" Gate Valve	Brass
1B	Hose Assembly	S/S, CAD. PLT. Rubber

High Capacity Series

Model	Inlet NPT	Orifice	Height	Width	Height w/Back Flush	Width w/Back Flush	Wt.	Wt. w/Back Flush
S20	2" NPT	1/2"	25 1/2"	10 1/16"	29 1/4"	13 3/4"	93	105
S21	2" 125# Flg.	1/2"	26 7/16"	10 1/16"	34 1/4"	13 3/4"	106	136
S30	3" NPT	1/2"	25 1/2"	10 1/16"	31 1/4"	13 3/4"	95	117
S31	3" 125# Flg.	1/2"	27 3/16"	10 1/16"	35 3/16"	13 3/4"	110	163
S40	4"NPT	1/2"	25 1/2"	10 1/16"	31 1/2"	13 3/4"	95	126
S41	4" 125# Flg.	1/2"	27 3/8"	10 1/16"	36 3/8"	13 3/4"	116	193
S61	6" 125# Flg.	1/2"	27 7/16"	10 1/16"	37 15/16"	13 3/4"	125	258

SUBMITTAL SHEET FOR SL SERIES

Submittal Sheet for Crispin SL Series

2”–4” Pressure Sewer Valve (stan.) (1

Manufactured in compliance with ANSI/AWWA C512 Date: October, 2001

Specifications

The Pressure Sewer Air Release Valve(s) shall be installed at high points in the line, or at points selected by the engineer, to vent the accumulation of air and other gases with the line under pressure.

The valve(s) shall be of the long body design and shall have a_____” orifice with an adjustable Buna-N rubber valve and a sealing face of PVC. The valve(s) shall operate at_____PSIG, and be capable of passing_____SCFM of air.

They shall also be_____” NPT screwed or ANSI Class (125, 250) flanged connection. They shall have a cast iron body, top and flange, where required, and a stainless steel trim.

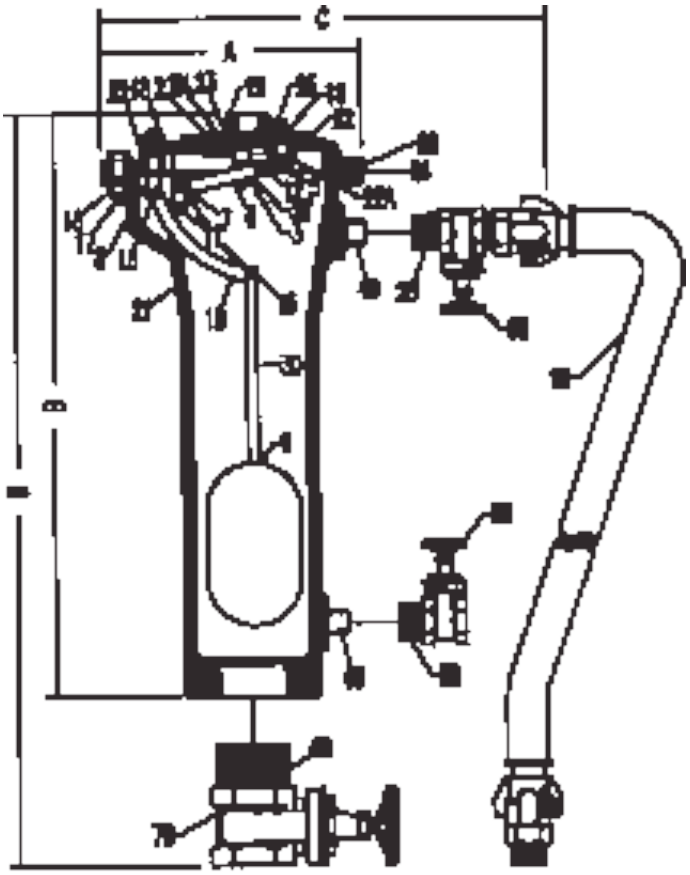
The valve(s) shall be Crispin Model _____ Pressure Sewer Valve(s) as manufactured by Crispin-Multiplex Manufacturing Co., Berwick, PA.

Option: The valve(s) shall be supplied with back flushing attachments so that the interior body can be flushed periodically for proper operation.

Option: Where pressures are greater than 300 PSIG, the valve(s) shall be ANSI Class _____ flanged inlet connection, and shall have a (steel, stainless steel, or ductile iron) body, top and inlet flange.

Standard operating pressure for Crispin Air Valves is 20 to 150 PSIG. Please check one of the following if your operating needs differ:

____2 to 40 PSIG
____151 to 300 PSIG



Orifice Options

DIAMETER	MAX. PRESSURE	DISCHARGE RATE
1/4	150 PSIG	105 SCFM
1/8	300 PSIG	50.26 SCFM

All Crispin valves are hydrostatically tested at 150% of their maximum working pressure

Submittal Sheet for Crispin SL

2”–4” Pressure Sewer Valve (stan.) (2

Manufactured in compliance with ANSI/AWWA C512 Date: October, 2001

SUBMITTAL SHEET FOR SL SERIES

Parts List

ITEM	DESCRIPTION	MATERIAL	ASTM
*1N	SEAT	PVC	1784
*1P	SEAT	STAINLESS STEEL	A582
2	VALVE PLUNGER	BUNA-N & STAINLESS STEEL	D2000/A193
3	NUT	STAINLESS STEEL	A194
3W	LOCK WASHER	STAINLESS STEEL	A240
5	VALVE FULCRUM	STAINLESS STEEL	A240
6	VALVE LEVER	STAINLESS STEEL	A582
7	LINK	STAINLESS STEEL	A240
8	BALL FULCRUM	STAINLESS STEEL	A582
9	BALL FLOAT	STAINLESS STEEL	A240
10	BALL LEVER	STAINLESS STEEL	A240
11	BEARING PIN	STAINLESS STEEL	A582
12	BEARING PIN	STAINLESS STEEL	A582
13	BEARING PIN	STAINLESS STEEL	A582
15	COTTER PIN	STAINLESS STEEL	A240
17	BOLT	STEEL	A307
18	NUT	STEEL	A563
19	TOP	CAST IRON	A126 CL.B
20	FLANGE	CAST IRON	A126 CL.B
21	BODY	CAST IRON	A126 CL.B
22	FULCRUM WASHER	FIBER	D710
22A	FULCRUM WASHER	FIBER	D710
23	SEAT GASKET	BUNA-N RUBBER	D2000
24	FLANGE GASKET	ARMSTRONG N-8092	N/A
25	BOLT	STAINLESS STEEL	A193
30	FLOAT ROD	STAINLESS STEEL	A582
*40	PLUG	CAST IRON	A126 CL.B

Optional Back Flush Components

*1B	HOSE ASSEMBLY	CAD. PLT. STEEL & RUBBER	N/A
*2B	1” X CL. NIPPLE	STEEL	A312
*4B	3” X CL. NIPPLE	STEEL	A312
*6B	1” GATE VALVE	BRASS	N/A
*7B	3” GATE VALVE	BRASS	N/A

Size Specifications

MODEL	INLET SIZE	OUTLET SIZE	A	B	C	D	WHT.
SL20	2” NPT	1/2” NPT	9.69	21.50			49
SL20B	2” NPT	1/2” NPT			11.25	25.25	60
SL30	3” NPT	1/2” NPT	9.69	21.50			49
SL30B	3” NPT	1/2” NPT			11.25	27.25	66
SL40	4” NPT	1/2” NPT	9.69	21.50			49
SL40B	4” NPT	1/2” NPT			11.25	27.63	78

(*) Parts are interchangable and optional at customer’s request.

SUBMITTAL SHEET FOR S SERIES

Submittal Sheet for Crispin S

2”–6” Pressure Sewer Valve (high)

Manufactured in compliance with ANSI/AWWA C512 Date: October, 2001

Specifications

The Pressure Sewer Air Release Valve(s) shall be installed at high points in the line, or at points selected by the engineer, to vent the accumulation of air and other gases with the line under pressure.

The valve(s) shall be of the long body design and shall have a_____” orifice with an adjustable Buna-N rubber valve and a sealing face of PVC. The valve(s) shall operate at_____PSIG, and be capable of passing_____SCFM of air.

They shall also be_____” NPT screwed or ANSI Class (125, 250) flanged connection. They shall have a cast iron body, top and flange, where required, and a stainless steel trim.

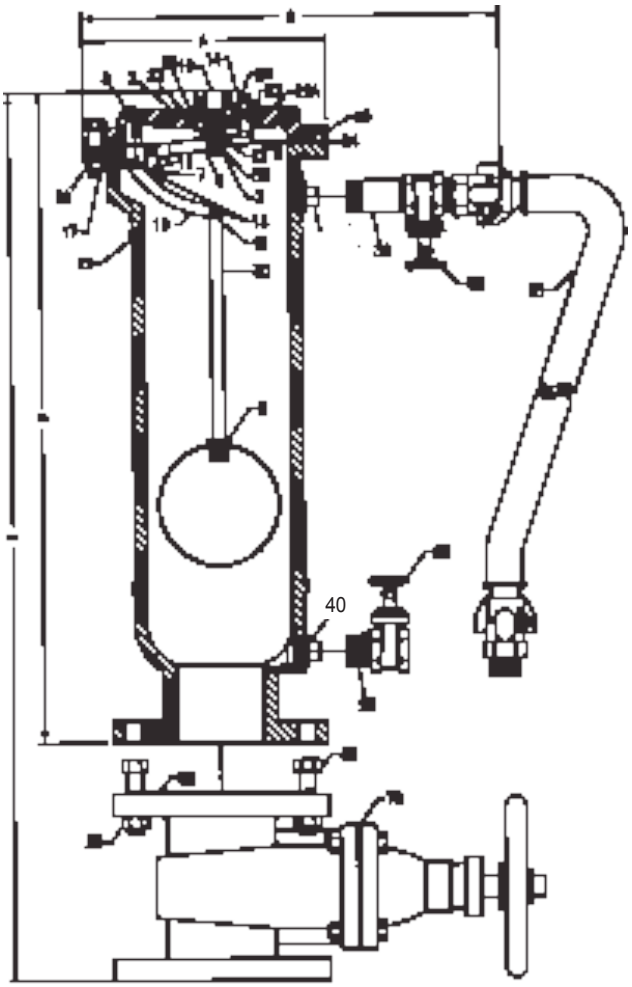
The valve(s) shall be Crispin Model _____Pressure Sewer Valve(s) as manufactured by Multiplex Manufacturing Co., Berwick, PA.

Option: The valve(s) shall be supplied with back flushing attachments so that the interior body can be flushed periodically for proper operation.

Option: Where pressures are greater than 300 PSIG, the valve(s) shall be ANSI Class _____flanged inlet connection, and shall have a (steel, stainless steel, or ductile iron) body, top and inlet flange.

Standard operating pressure for Crispin Air Valves is 20 to 150 PSIG. Please check one of the following if your operating needs differ:
____ 2 to 40 PSIG 151 to 300 PSIG

All Crispin valves are hydrostatically tested at 150% of their maximum working pressure.



Orifice Options

DIAMETER	MAX. PRESSURE	DISCHARGE RATE
1/2	150 PSIG	420 SCFM
7/16	200 PSIG	420 SCFM
3/8	250 PSIG	379.4 SCFM
1/4	300 PSIG	200.9 SCFM

(*) Parts are interchangable and optional at customer’s request

(**) Includes ANSI CL. 125 companion Flange and Nipple

S61 is only available with a Flanged Inlet.

Submittal Sheet for Crispin S

2”–6” Pressure Sewer Valve (high)

Manufactured in compliance with ANSI/AWWA C512 Date: October, 2001

SUBMITTAL SHEET FOR S SERIES

Parts List

ITEM	DESCRIPTION	MATERIAL	ASTM
*1N	SEAT	PVC	1784
*1P	SEAT	STAINLESS STEEL	A582
2	VALVE PLUNGER	BUNA-N & STAINLESS STEEL	D2000/A193
3	NUT	STAINLESS STEEL	A194
3W	LOCK WASHER	STAINLESS STEEL	A240
5	VALVE FULCRUM	STAINLESS STEEL	A240
6	VALVE LEVER	STAINLESS STEEL	A582
7	LINK	STAINLESS STEEL	A240
8	BALL FULCRUM	STAINLESS STEEL	A582
9	FLOAT	STAINLESS STEEL	A240
10	BALL LEVER	STAINLESS STEEL	A240
11	BEARING PIN	STAINLESS STEEL	A582
12	BEARING PIN	STAINLESS STEEL	A582
13	BEARING PIN	STAINLESS STEEL	A582
14	NUT	STEEL	A563
15	COTTER PIN	STAINLESS STEEL	A240
17	BOLT	STEEL	A307
18	NUT	STEEL	A563
19	TOP	CAST IRON	A126 CL.B
20	FLANGE	CAST IRON	A126 CL.B
21	BODY	CAST IRON	A126 CL.B
22	FULCRUM WASHER	FIBER	D710
22A	FULCRUM WASHER	FIBER	D710
23	SEAT GASKET	BUNA-N RUBBER	D2000
24	FLANGE GASKET	ARMSTRONG N-8092	N/A
25	BOLT	STAINLESS STEEL	A193
30	FLOAT ROD	STAINLESS STEEL	A582
*40	PLUG	CAST IRON	A126 CL.B

Optional Back Flush Components

*1B	HOSE ASSEMBLY	CAD. PLT. STEEL & RUBBER	N/A
*2B	1” X CL. NIPPLE	STEEL	A312
*3B	1” X 3” NIPPLE	STEEL	A312
4B	BOLT	STEEL	A307
5B	NUT	STEEL	A563
6B	1” GATE VALVE	BRASS	N/A
7B	3” GATE VALVE	CAST IRON	N/A
8B	GASKET	ARMSTRONG N-8092	N/A

Size Specifications

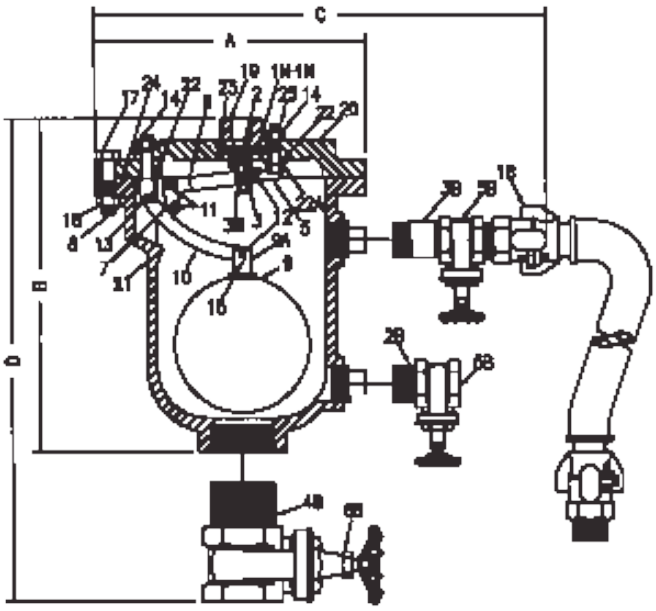
MODEL	INLET SIZE	OUTLET SIZE	A	B	C	D	WHT.
S20	2” NPT	1/2” NPT	10 1/16	25 1/2			93
S20B	2” NPT	1/2” NPT			13 3/4	29 1/4	105
**S21	2” 125# FLG	1/2” NPT	10 1/16	26 7/16			99
**S21B	2” 125# FLG	1/2” NPT			13 3/4	34 1/4	136
S30	3” NPT	1/2” NPT	10 1/16	25 1/2			95
S30B	3” NPT	1/2” NPT			13 3/4	31 1/4	117
S31	3” 125# FLG	1/2” NPT	10 1/16	27 3/16			110
S31B	3” 125# FLG	1/2” NPT			13 3/4	35 3/16	163
S40	4” NPT	1/2” NPT	10 1/16	25 1/2			95
S40B	4” NPT	1/2” NPT			13 3/4	31 1/2	126
S41	4” 125# FLG	1/2” NPT	10 1/16	27 3/8			116
S41B	4” 125# FLG	1/2” NPT			13 3/4	36 3/8	193
S61	6” 125# FLG	1/2” NPT	10 1/16	27 7/16			125
S61B	6” 125# FLG	1/2” NPT			13 3/4	37 15/16	258

SUBMITTAL SHEET FOR S SERIES

Submittal Sheet for Crispin S

2” Pressure Sewer Valve (short

Manufactured in compliance with ANSI/AWWA C512 Date: October, 2001



Parts List

ITEM	DESCRIPTION	MATERIAL	ASTM
*1P	SEAT	STAINLESS STEEL	A582
2	VALVE PLUNGER	BUNA-N& STAINLESS STEEL	D2000/A193
3	PLUNGER NUT	STAINLESS STEEL	A194
3W	LOCK WASHER	STAINLESS STEEL	A240
5	VALVE FULCRUM	STAINLESS STEEL	A582
6	VALVE LEVER	STAINLESS STEEL	A582
7	LINK	STAINLESS STEEL	A240
8	BALL FULCRUM	STAINLESS STEEL	A582
9	BALL FLOAT	STAINLESS STEEL	A240
9A	FLOAT ROD	STAINLESS STEEL	A582
10	BALL LEVER	STAINLESS STEEL	A240
11	BEARING PIN	STAINLESS STEEL	A582
12	BEARING PIN	STAINLESS STEEL	A582
13	BEARING PIN	STAINLESS STEEL	A582
14	NUT	STEEL	A563
15	COTTER PIN	STAINLESS STEEL	A493
17	BOLT	STEEL	A307
18	NUT	STEEL	A563
19	TOP	CAST IRON	A126 CL.B
20	FLANGE	CAST IRON	A126 CL.B
21	BODY	CAST IRON	A126 CL.B
22	FULCRUM WASHER	FIBER	D710
22A	FULCRUM WASHER	FIBER	D710
23	SEAT GASKET	BUNA-N RUBBER	D2000
24	FLANGE GASKET	ARMSTRONG N-8092	N/A
25	BOLT	STAINLESS STEEL	A193
*40	FLUSH PLUG	CAST IRON	A126 CL.B
	OPTIONAL BACK FLUSH COMPONENTS		
*1B	HOSE ASSEMBLY	CAD. PLT. STEEL& RUBBER	N/A
*2B	NIPPLE	STEEL	A53
*3B	NIPPLE	STEEL	A53
*4B	NIPPLE	STEEL	A53
*5B	GATE VALVE	BRASS	N/A
*6B	GATE VALVE	BRASS	N/A

Specifications

The Pressure Sewer Air Release Valve(s) shall be installed at high points in the line, or at points selected by the engineer, to vent the accumulation of air and other gases with the line under pressure.

The valve(s) shall be of the long body design and shall have a_____” orifice with an adjustable Buna-N rubber valve and a sealing face of PVC. The valve(s) shall operate at_____PSIG, and be capable of passing_____SCFM of air.

They shall also be_____” NPT screwed or ANSI Class (125, 250) flanged connection. They shall have a cast iron body, top and flange, where required, and a stainless steel trim.

The valve(s) shall be Crispin Model _____ Pressure Sewer Valve(s) as manufactured by Crispin-Multiplex Manufacturing Co., Berwick, PA.

Option: The valve(s) shall be supplied with back flushing attachments so that the interior body can be flushed periodically for proper operation.

Option: The valve(s) shall be a Short Body Pressure Sewer Valve with an overall height not to exceed 12 1/4”.

Option: Where pressures are greater than 300 PSIG, the valve(s) shall be ANSI Class ____ flanged inlet connection, and shall have a (steel, stainless steel, or ductile iron) body, top and inlet flange.

Standard operating pressure for Crispin Air Valves is 20 to 150 PSIG. Please check one of the following if your operating needs differ:

____ 2 to 40 PSIG 151 to 300 PSIG

** Parts are interchangeable and optional at customer’s request*

Size Specifications

MODEL	INLET SIZE	OUTLET SIZE	A	B	C	D	WHT.
S20S	2” NPT	1/2” NPT	10.25	12.25			54
S20SB	2” NPT	1/2” NPT			13.75	16.25	66

Orifice Options

DIAMETER	MAX. PRES.	DISCHARGE RATE
1/4	150 PSIG	97.5 SCFM
1/8	300 PSIG	46.7 SCFM