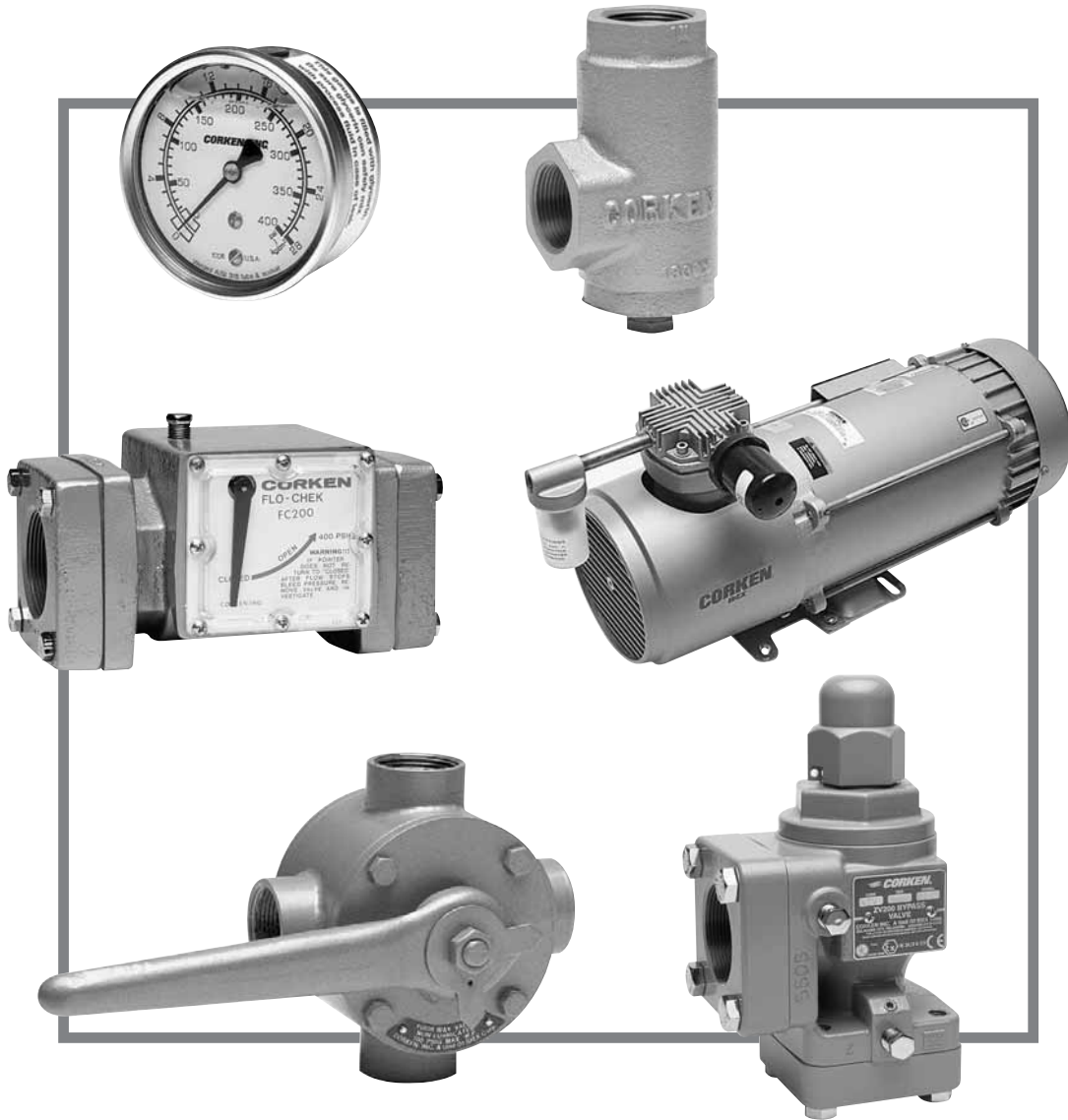


# LPG Accessories

## Sales Catalog



*Solutions beyond products...*



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## B166, T166 and B177 Bypass Valves

### B166 (3/4", 1") Automatic Dual-Purpose, Bypass Valve

Typical Application: Cylinder filling pumps as well as aerosol propellant feed pumps.

A combination bypass and priming valve specifically designed for small cylinder-filling-type pumps, especially of the regenerative turbine type, such as the Corken Coro-Flo® pump series with flows up to 40 gpm (9.1 m<sup>3</sup>/hr). The patented vapor elimination system keeps liquefied gas pumps primed to increase system reliability and decrease pump and seal wear. The B166 is a smooth operating bypass with moderate pressure buildup.



### T166 (1-1/4", 1-1/2") Pump Flow Control Valve

Typical Application: Large-capacity pumps filling variable size tanks and bottles such as those used with delivery trucks or multiple cylinder filling plants.

A high-pressure build-up valve for smooth acting flow control. Specifically designed for bypass protection for pumps in the 30 to 100 gpm (6.8 to 22.7 m<sup>3</sup>/hr) range, such as those used on delivery trucks. In contrast to the B177, the T166 valve opens gradually as pressure builds up to modulate the flow, bypassing the excess capacity smoothly and silently back to the supply tank. A continuous internal bleed in this valve assists in eliminating vapors.



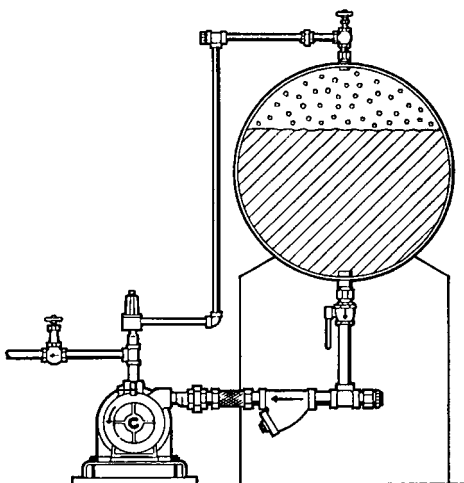
### B177 (1-1/4", 1-1/2", 2", 2-1/2") Differential Bypass Valve

Typical Application: In liquefied-gas bulk-plant installations for loading and unloading pumps.

A low-pressure build-up bypass valve specifically designed for applications requiring protection for positive displacement pumps in the 40 to 350 gpm (9.1 to 79.5 m<sup>3</sup>/hr) range. It can also be used as a differential back-pressure valve to assure adequate pressure on meters, etc. To function properly, this valve requires a pressure sensing line from the storage tank.

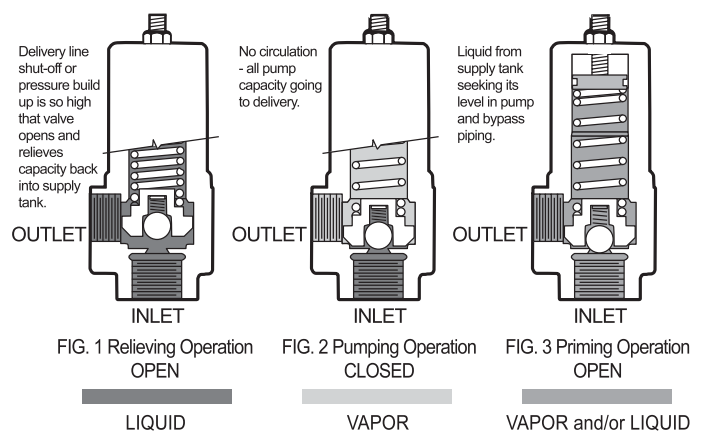


### Typical Installation



### Bypass Valve Operation

#### B166 with Priming Function

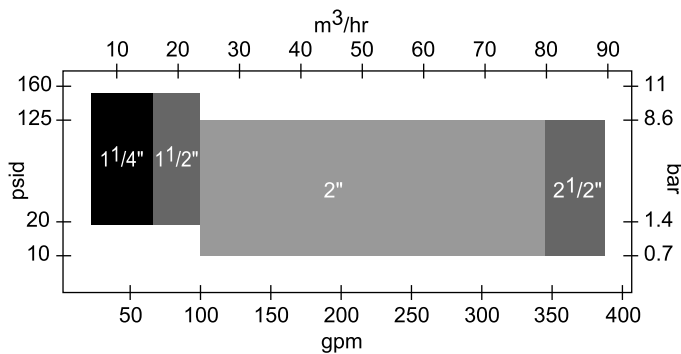


**Operating Specifications**

Specification	B166	T166	B177
Inlet	3/4", 1"	1-1/4", 1-1/2"	1-1/4", 1-1/2", 2", 2-1/2"
Outlet	3/4", 1"	1-1/4", 1-1/2"	1-1/4", 1-1/2", 2", 2-1/2"
Slip-on weld flange	No	No	2", 2-1/2"
Diff. pressure range psi (bar)	25–225 (1.7–15.5)	25–225 (1.7–15.5)	20–160 (0.7–11)
O-ring material options	Buna-N (standard), Neoprene®, PTFE, Viton®, ethylene-propylene <sup>1</sup>		

<sup>1</sup> Neoprene® and Viton® are registered trademarks of the DuPont company. Ethylene-propylene not available for B177.

**B177 Performance Curve**

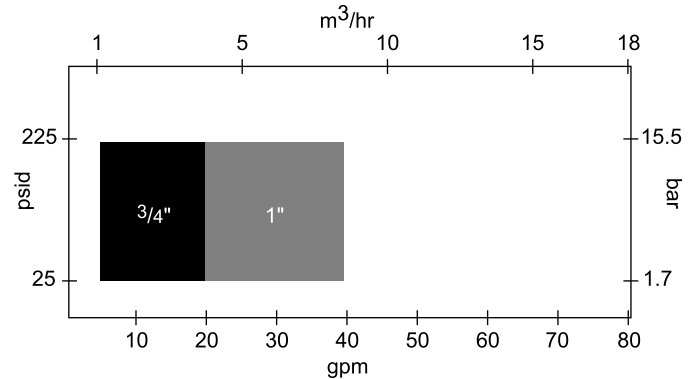


**Material Specifications**

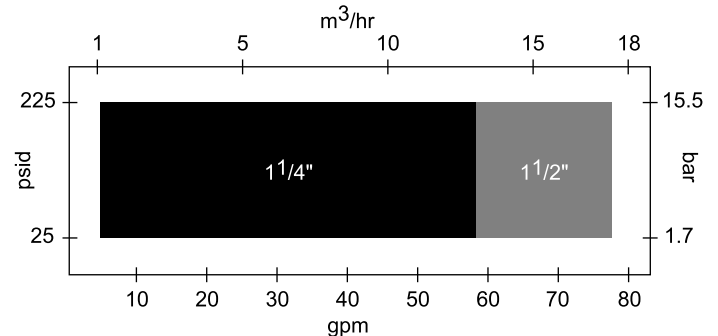
Part	Model	Material
Adjusting screw	B166, T166, B177	2911
Valve body	B166, T166, B177	Ductile iron: ASTM 536, 60-40-18
Valve bonnet	B166, T166, B177	Ductile iron: ASTM 536, 60-40-18
O-rings	B166, T166, B177	Viton® <sup>2</sup> (standard) Buna-N, Neoprene®, EPDM, PTFE, Kalrez® (optional) <sup>2</sup>
Spring	B166, T166, B177	Music wire/chrome silicon
Adjusting screw gasket	B166, T166	1010 hot rolled steel
Spring guide	B166, T166	8620 A322 ASTM steel
Relief Valve	B166, T166	17-4 PH stainless steel
Flanges	B177	Ductile iron: ASTM 536, 65-45-12 Plate steel: ASTM A516
Plunger	B177	ASTM A48 gray iron class 20
Plunger seat	B177	PTFE
Plunger bolt	B177	3/8" – 16 x 3/4" button head capscrew with hexagon socket—steel
Plunger nut	B177	Steel
Spring seat	B177	ASTM A48 gray iron class 30
Spring platform	B177	ASTM A108 GR 1200 steel
Stem seal	B177	Buna-N / PTFE
Stem seal washer	B177	Steel
Retainer ring	B177	Steel
Seat retainer plate	B177	Steel

<sup>2</sup> Neoprene®, Viton®, and Kalrez® are registered trademarks of the DuPont company.

**B166, T166 and B177 Bypass Valves**  
**B166 Performance Curve**



**T166 Performance Curve**



**B166, T166 and B177 Bypass Valves**

**Model Number Identification**

**B166B<sup>2</sup>** ..... Dual purpose automatic priming and differential bypass valve.

**T166<sup>2</sup>** ..... Special modulation flo-control valve.

Base Model Number	B166B-.75	B166B-1	T166-1.25	T166-1.5
Inlet	3/4" NPT	1" NPT	1-1/4" NPT	1-1/2" NPT
Outlet	3/4" NPT	1" NPT	1-1/4" NPT	1-1/2" NPT
Maximum flow rate (gpm)	30	40	80	100
Ship weight (lb)	9	9	9	9

Model Number  
Base X X X

**Specification Fields**

Springs	25–60 psig differential range	No charge option	A
	50–150 psig differential range	No charge option	B
	100–225 psig differential range	No charge option	C
O-ring material	Buna-N	Standard	A
	Neoprene <sup>®1</sup>	No charge option	B
Flanges	Threaded body, no flanges	Standard	U

**B177<sup>2</sup>** ..... Full opening high capacity bypass valve for full pump capacity.

Base Model Number	B177-1.25	B177-1.5	B177-2	B177-2.5
Inlet	1-1/4" NPT	1-1/2" NPT	2" NPT	2-1/2" NPT
Outlet	1-1/4" NPT	1-1/2" NPT	2" NPT	2-1/2" NPT
Maximum flow rate (gpm)	125	150	300	350
Ship weight (lb)	13	13	45	45

Model Number  
Base X X X

**Specification Fields**

Springs	20–70 psig differential range	No charge option	N/A	A
	10–40 psig differential range	N/A	No charge option	A
	60–100 psig differential range	No charge option	N/A	B
	30–80 psig differential range	N/A	No charge option	B
	80–160 psig differential range	No charge option	N/A	C
	80–110 psig differential range	N/A	No charge option	C
	100–125 psig differential range	N/A	No charge option	D
O-ring material	Buna-N	Standard		A
	Neoprene <sup>®1</sup>	No charge option		B
Flanges	2" NPT flanges	Standard	N/A	E
	2" Slip-on weld flanges	Extra chg	N/A	F
	2.5" NPT flanges	N/A	Standard	J
	2.5" Slip-on weld flanges	N/A	Extra chg	K
	Threaded body–no flanges	Standard	N/A	U

**Accessory-Options**

Description	Part Number
Optional hydrostatic relief valve, 450 psig	2141-450
Hydrostatic test	3000-X5

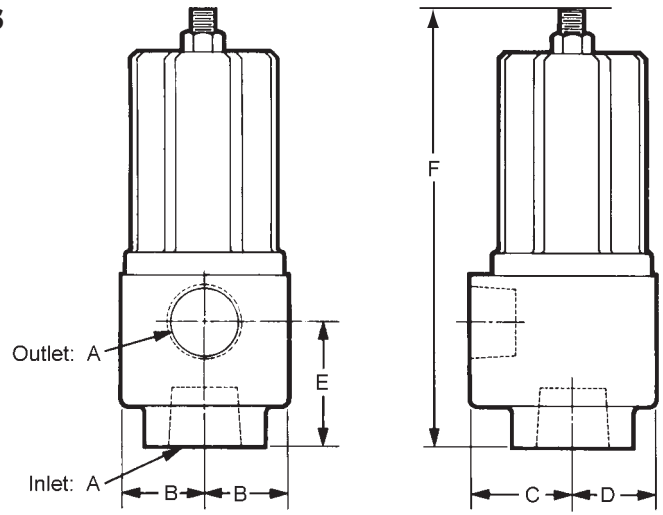
<sup>1</sup>Neoprene<sup>®</sup> is a registered trademark of the DuPont company.

<sup>2</sup>UL listed for LPG and NH<sub>3</sub>, 400 psig rating, ductile iron.

**B166, T166 and B177 Bypass Valves**

**B166 and T166 Bypass Valve Outline Dimensions**

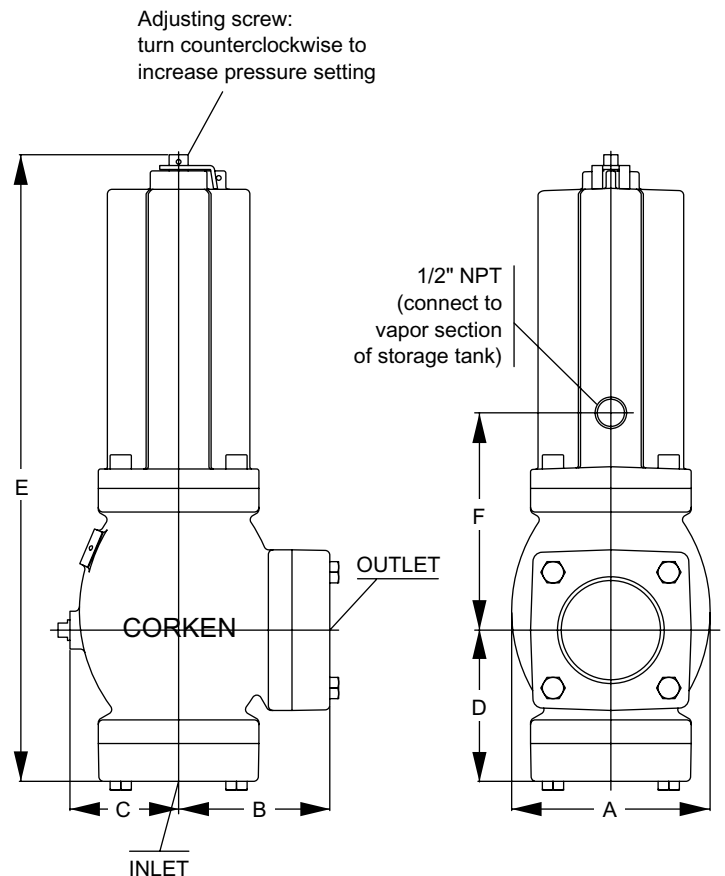
Inches (cm)						
Valve	A	B	C	D	E	F
B166	3/4 or 1	1-3/8 (3.49)	1-11/16 (4.29)	1-3/8 (3.49)	2-3/32 (5.32)	8-1/8 (20.6)
T166	1-1/4 or 1-1/2	1-5/16 (3.33)	2-7/16 (6.19)	1-5/16 (3.33)	1-5/16 (3.33)	8-3/16 (20.8)



(B166 shown)

**B177 Bypass Valve Outline Dimensions**

Inches (cm)						
Valve	A	B	C	D	E	F
B177 1-1/4, 1-1/2	3-3/4 (9.53)	2-39/64 (6.63)	2-1/8 (5.40)	2-11/16 (6.83)	11-25/32 (29.94)	3-3/4 (9.52)
B177 2, 2-1/2	5-1/4 (13.34)	4 (10.16)	2-7/8 (7.30)	4 (10.16)	16-37/64 (42.11)	5-3/4 (14.61)



(B177-2 / B177-2.5 shown)

**ZV200 Bypass Valve**

**ZV200 Bypass Valve**

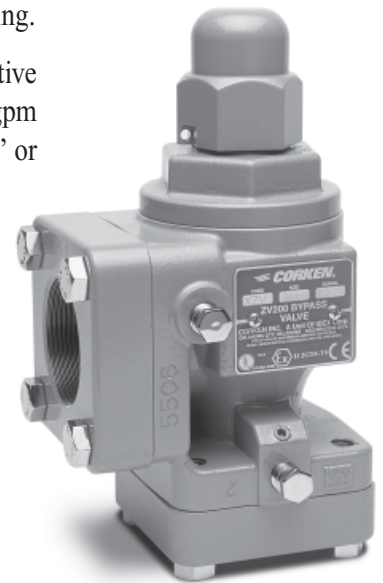
Typical Applications: Used for both truck and stationary applications for loading and unloading.

A low-pressure build-up bypass valve designed for applications requiring protection for positive displacement pumps. Specifically designed for protecting pumps with capacities up to 250 gpm (56.8 m<sup>3</sup>/hr). The continuous internal bleed will assist in the operation of systems with “air” or “electric” operated internal valves.

**Operating Specifications**

Maximum differential pressure:	150 psid (10.34 bar)
Operating temperature range:	Up to 225°F (107°C) <sup>1</sup>
Maximum working pressure:	400 psi (27.6 bar)
Spring ranges:	91–125 psi (6.3–8.6 bar) standard 41–70 psi (2.8–4.8 bar) optional 71–90 psi (4.9–6.2 bar) optional 126–150 psi (9.0–10.3 bar) optional

<sup>1</sup>Fitted with Buna-N O-rings.



**Material Specifications**

Part	Material
Adjusting cap	ASTM A536 65-45-12
Adjusting screw	Steel
Bypass valve body	Ductile iron: ASTM 536, 60-40-18
Bypass valve cap	Ductile iron: ASTM 536, 60-40-18
Gasket	1010 hot rolled steel
Flanges	Ductile iron: ASTM 536, 65-45-12 (standard)
	Plate steel: ASTM A516 (optional weld)
O-rings	Viton® (standard) <sup>2</sup>
	Buna-N, Neoprene®, EPDM, PTFE, Kalrez® (optional) <sup>2</sup>
Spring	Music wire/chrome silicon
Spring guide	8620 A322 ASTM steel
Relief valve	17-4 PH stainless steel

<sup>2</sup>Viton®, Neoprene®, and Kalrez® are registered trademarks of the Dupont Company.

**Performance**

Differential Pressure psi (bar)	Maximum Rated Flow for Propane gpm (L/min)
70 (4.82)	180 (681)
120 (8.27)	250 (946)

**ZV200 Bypass Valve**

**Model Number Identification**

ZV200 ..... Full opening high capacity bypass valve for full pump capacity.

Base Model Number	ZV200
Inlet	2" NPT
Outlet	2" NPT
Maximum flow rate (gpm)	250
Ship weight (lb)	23

Model Number

Base X X X X

**Specification Fields**

Springs	41–70 psig differential range	No charge option	A
	71–90 psig differential range	No charge option	C
	91–125 psig differential range	Standard	B
	126–150 psig differential range	No charge option	D

O-ring material	Buna-N	Standard	A
	Neoprene <sup>®1</sup>	No charge option	B
	Viton <sup>®1</sup>	Charge option	D
	PTFE	Charge option	E
	EPDM	Charge option	G
	Kalrez <sup>®1</sup>	Charge option	K

Inlet Flanges	1.25" NPT	No charge option	A
	1.50" NPT	No charge option	C
	2.0" NPT	Standard	E
	2.5" NPT	No charge option	J
	1.25" Slip-on weld	Charge option	B
	1.50" Slip-on weld	Charge option	D
	2.0" Slip-on weld	Charge option	F
	2.5" Slip-on weld	Charge option	K

Outlet Flanges	1.25" NPT	No charge option	A
	1.50" NPT	No charge option	C
	2.0" NPT	Standard	E
	2.5" NPT	No charge option	J
	1.25" Slip-on weld	Charge option	B
	1.50" Slip-on weld	Charge option	D
	2.0" Slip-on weld	Charge option	F
	2.5" Slip-on weld	Charge option	K

<sup>1</sup>Neoprene, Viton, and Kalrez are registered trademark of the Dupont Company

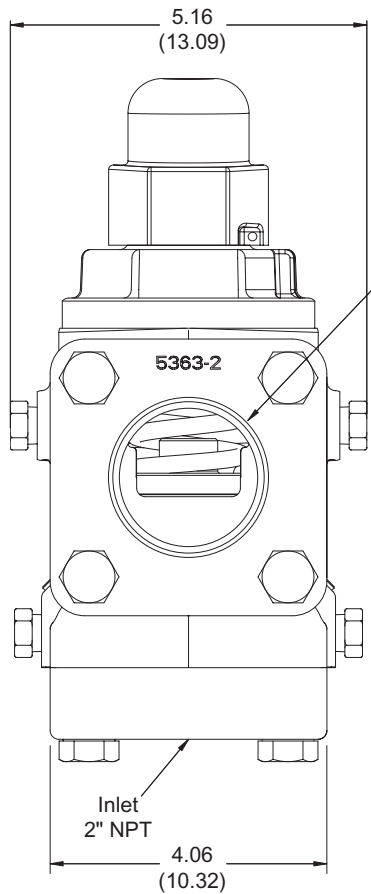
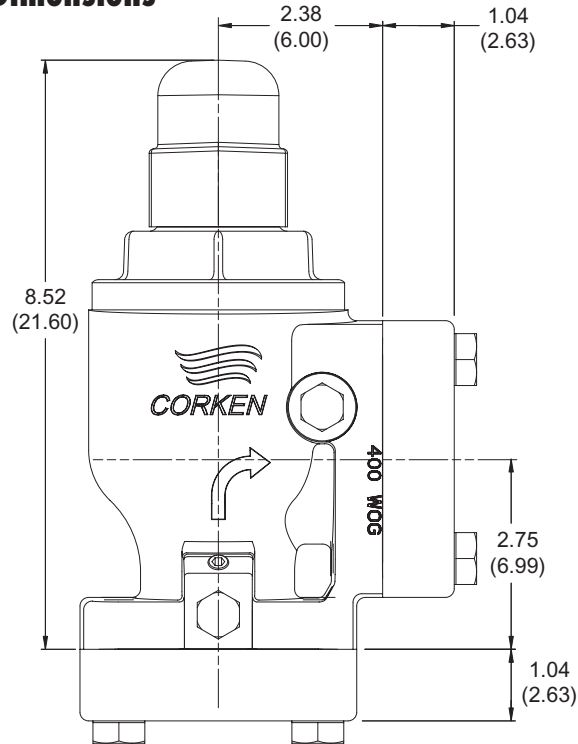
**Accessory-Options**

Description	Part Number
Optional hydrostatic relief valve, 450 psig	2141-450
Hydrostatic test	3000-X5



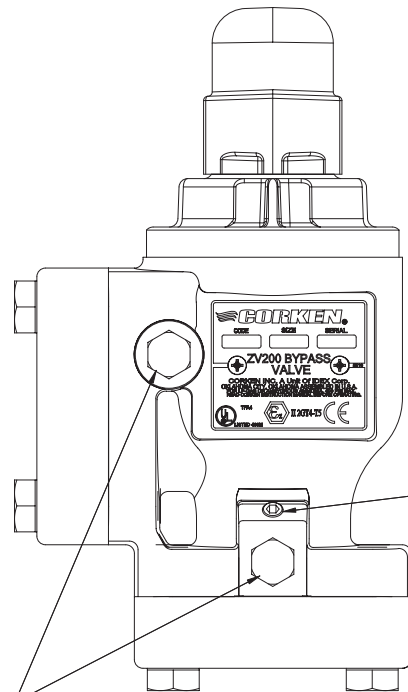
**ZV200 Bypass Valve**

**ZV200 Bypass Valve Outline Dimensions**



Discharge  
2" NPT

Inlet  
2" NPT



Flush plug  
1/16" x 27 NPT

1/4" pipe plug

All dimensions are in inches (centimeters).

**Flo-Chek® Valves**

The Corken Flo-Chek® valve enables you to detect flow in the gas or liquid lines and it prevents release of product from the storage tank in the event of a hose failure. Flow-indicating and back-check valves feature all ductile iron construction and are

available in 1-1/4" through 4" NPT or with welded flanges, which are rated to 400 psig (27.6 bar). Standard O-rings are Buna-N. Teflon®, Viton®, and Neoprene® are optional.<sup>1</sup>

<sup>1</sup>Teflon®, Viton®, and Neoprene® are registered trademarks of the DuPont company.

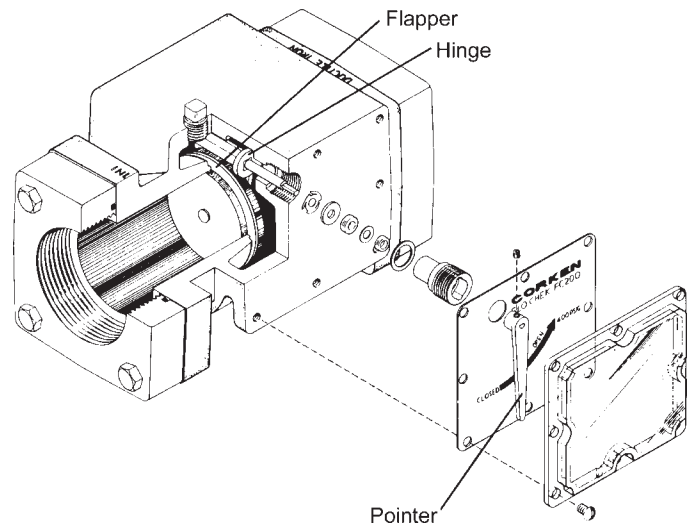
**Specifications and Construction**

Body	ASTM A536 ductile iron
Flapper	Carbon steel
Seat	Buna-N or Teflon® <sup>1,3</sup>
O-rings	Buna-N or Neoprene® <sup>1</sup>
Flanges <sup>2</sup>	ASTM A536 ductile iron
Maximum working pressure	400 psi (28 bar)
Maximum working temperature	400°F (204°C)

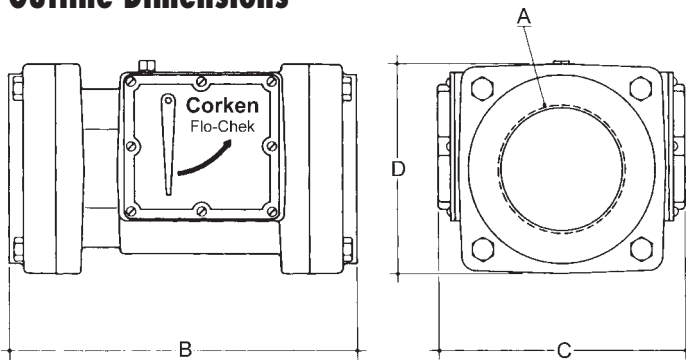
<sup>1</sup>Registered trademarks of the the DuPont company.

<sup>2</sup>Steel slip-on weld flanges are available at extra cost, 2" to 4" sizes only.

<sup>3</sup>Teflon® available at extra cost.



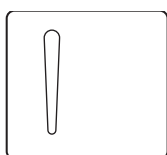
**Outline Dimensions**



Model	A (NPT)	B	C	D
FC125	1-1/4	5-1/16 (12.9)	4-3/4 (12.1)	3-13/32 (8.7)
FC150	1-1/2	5-1/16 (12.9)	4-3/4 (12.1)	3-13/32 (8.7)
FC200	2	8-1/2 (21.6)	5-1/4 (14.0)	4-23/32 (12.0)
FC250	2-1/2	8-1/2 (21.6)	5-1/4 (14.0)	4-23/32 (12.0)
FC300	3	9-1/4 (23.5)	6-1/2 (16.5)	5-9/16 (14.1)
FC400	4	9-1/4 (23.5)	6-1/2 (16.5)	5-9/16 (14.1)

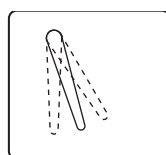
Dimensions in inches (cm)

**How To Read The Flo-Chek® Valve**



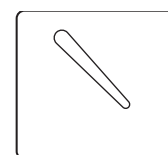
**No Flow**

When pointer is down, there is no flow in system



**Erratic Flow**

Unstable position indicates vapor or cavitation



**Full Flow**

When pointer is as shown, there is flow in the system

**Model Number Identification**

Base Model Number	FC125	FC150	FC200	FC250	FC300	FC400
Inlet	1-1/4" NPT	1-1/2" NPT	2" NPT	2-1/2" NPT	3" NPT	4" NPT
Outlet	1-1/4" NPT	1-1/2" NPT	2" NPT	2-1/2" NPT	3" NPT	4" NPT
Maximum flow rate (gpm)	100	150	300	300	400	500
Ship weight (lb)	8	8	30	30	40	40

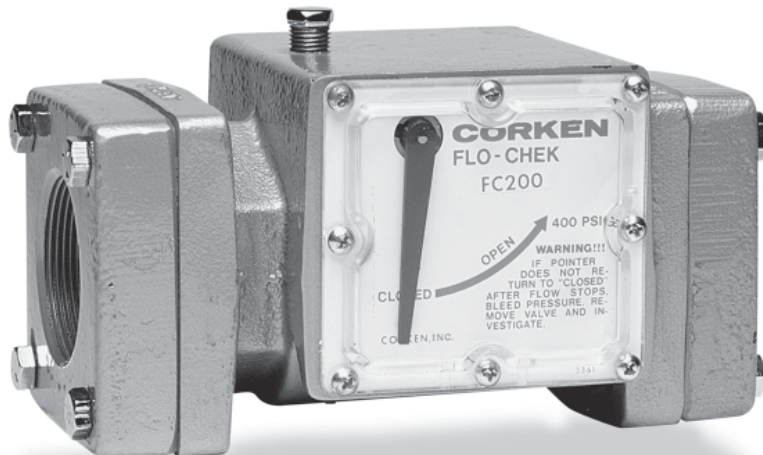
Model Number

Base X X

**Specification Fields**

O-rings	Buna-N	Standard	A
---------	--------	----------	---

Flanges	1-1/4" NPT	Standard						A
	1-1/2" NPT		Standard					C
	2" NPT			Standard				E
	2" slip-on weld flange			Extra chg				F
	2-1/2" NPT				Standard			J
	2-1/2" slip-on weld flange				Extra chg			K
	3" NPT					Standard		M
	3" slip-on weld flange					Extra chg		N
	4" NPT						Standard	Q
4" slip-on weld flange						Extra chg	R	

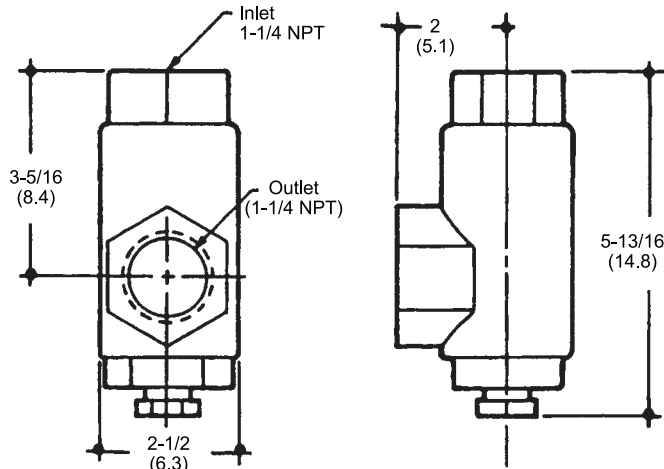


**Pump Strainer and 4-Way Valves**

**Pump Strainer**

A strainer on the suction side of a pump can prevent considerable damage from weld slag and debris. Strainers are most important upon starting up a new system. Be sure to check and clean the strainer periodically as a clogged strainer is a common source of suction problems. The right-angle design can mini-

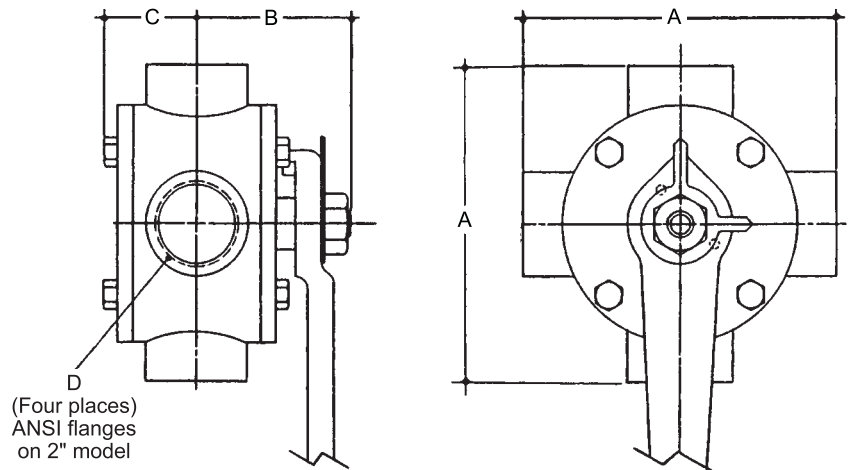
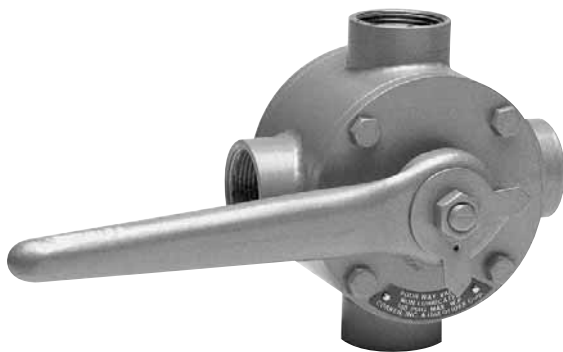
mize pressure drop and comes complete with ductile iron body with Monel screen and steel plug. Available for liquid (1836-X1, 14 mesh) or vapor (1836-X, 40 mesh) service (1-1/4" NPT 400 psig [27.6 bar] rating).



Dimensions in inches (cm)



**4-Way Valves**



**Product Features**

- Non-lubricated
- Full port design
- Carbon steel construction
- Reinforced Teflon<sup>®1</sup> seals and seats
- Flow direction indicator
- 500 psig (34.5 bar) working pressure

**Outline Dimensions**

Valve	Inches (cm)				Repair Kit
	A	B	C	D	
3989-X	4 (10.1)	2-1/4 (5.71)	1 (2.54)	1 (NPT)	3122-X
3990-X	6 (15.2)	2-15/16 (7.46)	1-7/8 (4.76)	1-1/4 (NPT)	3123-X
4059-X	8-3/4 (22.2)	6-17/32 (16.6)	3-1/4 (8.23)	2 (300 lb ANSI)	3130-X

<sup>1</sup>Registered trademark of the DuPont company.

**60 Hertz Three Phase 230/460 Volts Normal Starting Torque<sup>1</sup>**

Hp	Sync RPM	Explosion Proof <sup>4</sup>		TEFC		Severe Duty TEFC <sup>3</sup>		Open Drip Proof	
		Part Number	Wt (lb)	Part Number	Wt (lb)	Part Number	Wt (lb)	Part Number	Wt (lb)
1/2	3,600	6002-2C2B1	35	6002-2B2B1	26	6002-2D2B1	26	6002-2A2B1	23
1/2	1,800	6002-1C2B1	31	6002-1B2B1	27	6002-1D2B1	27	6002-1A2B1	20
3/4	3,600	6003-2C2B1	30	6003-2B2B1	26	6003-2D2B1	26	6003-2A2B1	26
3/4	1,800	6003-1C2B1	30	6003-1B2B1	28	6003-1D2B1	28	6003-1A2B1	27
1	3,600	6004-2C2B1	33	6004-2B2B1	28	6004-2D2B1	28	6004-2A2B1	26
1	1,800	6004-1C2B1	60	6004-1B2B1	45	6004-1D2B1	45	6004-1A2B1	40
1-1/2	3,600	6005-2C2B1	60	6005-2B2B1	45	6005-2D2B1	45	6005-2A2B1	40
1-1/2	1,800	6005-1C2B1	60	6005-1B2B1	55	6005-1D2B1	55	6005-1A2B1	50
2	3,600	6006-2C2B1	70	6006-2B2B1	55	6006-2D2B1	55	6006-2A2B1	50
2	1,800	6006-1C2B1	70	6006-1B2B1	55	6006-1D2B1	55	6006-1A2B1	50
3	3,600	6007-2C2B1	100	6007-2B2B1	85	6007-2D2B1	85	6007-2A2B1	50
3	1,800	6007-1C2B1	100	6007-1B2B1	85	6007-1D2B1	85	6007-1A2B1	80
5	3,600	6008-2C2B1	120	6008-2B2B1	100	6008-2D2B1	100	6008-2A2B1	80
5	1,800	6008-1C2B1	120	6008-1B2B1	100	6008-1D2B1	100	6008-1A2B1	95
7-1/2	3,600	6009-2C2B1	160	6009-2B2B1	130	6009-2D2B1	130	6009-2A2B1	95
7-1/2	1,800	6009-1C2B1	160	6009-1B2B1	130	6009-1D2B1	130	6009-1A2B1	120
10	1,800	6010-1C2B1	175	6010-1B2B1	160	6010-1D2B1	160	6010-1A2B1	135
15	1,800	6011-1C2B1	251	6011-1B2B1	241	6011-1D2B1	241	6011-1A2B1	210
20	1,800	6012-1C2B1	316	6012-1B2B1	276	6012-1D2B1	276	6012-1A2B1	240
25	1,800	6013-1C2B1	398	6013-1B2B1	358	6013-1D2B1	358	6013-1A2B1	290
30	1,800	6014-1C2B1	531	6014-1B2B1	451	6014-1D2B1	451	6014-1A2B1	330
40	1,800	6015-1C2B1	720	6015-1B2B1	610	6015-1D2B1	610	6015-1A2B1	450
50	1,800	6016-1C2B1	825	6016-1B2B1	715	6016-1D2B1	715	6016-1A2B1	580
60	1,800	6017-1C2B1	945	6017-1B2B1	835	6017-1D2B1	835	6017-1A2B1	700

**60 Hertz Single Phase 115/230 Volts Normal Starting Torque, Capacitor Start<sup>1</sup>**

1/2	3,600	6002-2C1A1	46	6002-2B1A1	26	6002-2D1A1	26	6002-2A1A1	23
1/2	1,800	6002-1C1A1	38	6002-1B1A1	33	6002-1D1A1	33	6002-1A1A1	27
3/4	3,600	6003-2C1A1	44	6003-2B1A1	26	6003-2D1A1	26	6003-2A1A1	26
3/4	1,800	6003-1C1A1	44	6003-1B1A1	33	6003-1D1A1	33	6003-1A1A1	31
1	3,600	6004-2C1A1	44	6004-2B1A1	33	6004-2D1A1	33	6004-2A1A1	40
1	1,800	6004-1C1A1	53	6004-1B1A1	42	6004-1D1A1	42	6004-1A1A1	37
1-1/2	3,600	6005-2C1A1	53	6005-2B1A1	43	6005-2D1A1	43	6005-2A1A1	37
1-1/2	1,800	6005-1C1A1	100	6005-1B1A1	53	6005-1D1A1	53	6005-1A1A1	51
2	3,600	6006-2C1A1	100	6006-2B1A1	56	6006-2D1A1	56	6006-2A1A1	50
2	1,800	6006-1C1A1	100	6006-1B1A1	85	6006-1D1A1	85	6006-1A1A1	64
3	3,600	6007-2C1A1	120	6007-2B1A1	85	6007-2D1A1	85	6007-2A1A1	59
3	1,800	6007-1C1A1	120	6007-1B1A1	100	6007-1D1A1	100	6007-1A1A1	95
5 <sup>2</sup>	3,600	6008-2C7A1	160	6008-2B7A1	100	6008-2D7A1	100	6008-2A7A1	95
5 <sup>2</sup>	1,800	6008-1C7A1	175	6008-1B7A1	10	6008-1D7A1	100	6008-1A7A1	120

<sup>1</sup> All motors are from manufacturers of our selection.  
<sup>2</sup> 230 Volt only

<sup>3</sup> 1.15 Service factor, class F insulation, corrosion resistant.  
<sup>4</sup> Class I, group D

**Motors**

**50 Hertz Three Phase 190/380 Volts Normal Starting Torque<sup>1</sup>**

Hp	Sync RPM	Explosion Proof <sup>3</sup>		TEFC		Severe Duty TEFC <sup>2</sup>		Open Drip Proof	
		Part Number	Wt (lb)	Part Number	Wt (lb)	Part Number	Wt (lb)	Part Number	Wt (lb)
1	1,500	6004-3C3B2	60	6004-3B3B2	45	6004-3D3B2	45	6004-3A3B2	40
1-1/2	3,000	6005-4C3B2	70	6005-4B3B2	55	6005-4D3B2	55	6005-3A3B2	50
2	3,000	6006-4C3B2	100	6006-4B3B2	85	6006-4D3B2	85	6006-4A3B2	50
2	1,500	6006-3C3B2	100	6006-3B3B2	85	6006-3D3B2	85	6006-3A3B2	80
3	3,000	6007-4C3B2	120	6007-4B3B2	100	6007-4D3B2	100	6007-4A3B2	80
3	1,500	6007-3C3B2	120	6007-3B3B2	100	6007-3D3B2	100	6007-3A3B2	95
5	3,000	6008-4C3B2	160	6008-4B3B2	130	6008-4D3B2	130	6008-4A3B2	95
5	1,500	6008-3C3B2	160	6008-3B3B2	130	6008-3D3B2	130	6008-3A3B2	120
7-1/2	3,000	6009-4C3B2	175	6009-4B3B2	160	6009-4D3B2	160	6009-4A3B2	120
7-1/2	1,500	6009-3C3B2	175	6009-3B3B2	160	6009-3D3B2	160	6009-3A3B2	135
10	1,500	6010-3C3B2	251	6010-3B3B2	241	6010-3D3B2	241	6010-3A3B2	210
15	1,500	6011-3C3B2	316	6011-3B3B2	276	6011-3D3B2	276	6011-3A3B2	240
20	1,500	6012-3C3B2	398	6012-3B3B2	358	6012-3D3B2	358	6012-3A3B2	290
25	1,500	6013-3C3B2	531	6013-3B3B2	451	6013-3D3B2	451	6013-3A3B2	330
30	1,500	6014-3C3B2	720	6014-3B3B2	610	6014-3D3B2	610	6014-3A3B2	450
40	1,500	6015-3C3B2	825	6015-3B3B2	715	6015-3D3B2	715	6015-3A3B2	580
50	1,500	6016-3C3B2	945	6016-3B3B2	835	6016-3D3B2	835	6016-3A3B2	700
60	1,500	6017-3C3B2	1095	6017-3B3B2	985	6017-3D3B2	985	6017-3A3B2	850

**Standard C-Face Motors**

**60 Hz 3-Phase 230/460 V Normal Starting Torque<sup>1</sup>**

Hp	Sync RPM	Explosion Proof <sup>3</sup>		TEFC	
		Part Number	Wt (lb)	Part Number	Wt (lb)
3/4	3,600	6033-2C2B1	44	6033-2B2B1	22
1	3,600	6034-2C2B1	49	6034-2B2B1	24
1-1/2	3,600	6035-2C2B1	71	6035-2B2B1	27
2	3,600	6036-2C2B1	76	6036-2B2B1	30
3	3,600	6037-2C2B1	119	6037-2B2B1	44
5	3,600	6038-2C2B1	135	6038-2B2B1	91
7-1/2	3,600	6039-2C2B1	175	6039-2B2B1	109

**60 Hz 1-Phase 115/230 V Normal Starting Torque, Capacitor Start<sup>1</sup>**

Hp	Sync RPM	Explosion Proof <sup>3</sup>		TEFC	
		Part Number	Wt (lb)	Part Number	Wt (lb)
3/4	3,600	6033-2C1A1	48	6033-2B1A1	25
1	3,600	6034-2C1A1	57	6034-2B1A1	30
1-1/2	3,600	6035-2C1A1	75	6035-2B1A1	35
2	3,600	6036-2C1A1	80	6036-2B1A1	36
3	3,600	6037-2C1A1	123	6037-2B1A1	50
5	3,600	6038-2C1A1	140	6038-2B1A1	87

<sup>1</sup> All motors are from manufacturers of our selection.

<sup>2</sup> 1.15 Service factor, class F insulation, corrosion resistant.

**C-Model Pump Motors, Starters & Heaters**

Part Number	Motors and Starters
2555	3/4 hp, 60 Hz
2556	1 hp, 60 Hz
4261	2 hp, 50/60 Hz
2557	3 hp, 50/60 Hz <sup>5</sup>
SM-10	Motor mounted starter for 3/4 hp motor <sup>4</sup>
S-10	Remote wall mounted starter for 3/4 hp motor <sup>4</sup>
SM-20	Motor mounted starter for 1 hp motor <sup>4</sup>
S-20	Remote wall mounted starter for 1 hp motor <sup>4</sup>
SM-30	Motor mounted starter for 2 hp motor <sup>4</sup>
S-30	Remote wall mounted starter for 2 hp motor <sup>4</sup>
2574	Heater element—3/4 hp
2610	Heater element—1 hp
4250	Heater element—2 hp

<sup>3</sup> Class I, group D

<sup>4</sup> Starters provide thermal overload protection, manual reset and heater.

<sup>5</sup> Starter and heater elements are not available for the 3 hp motor.

**Electric Motor Controls and Magnetic Starter Accessories**

The following information is required when purchasing Motor Controls:

- 1. Type: Manual or Magnetic
- 2. Motor Horsepower
- 3. Operating Line Voltage
- 4. Phase: Single or Three
- 5. Frequency (Hertz) for Magnetic Starters
- 6. Environment

Type of starter <sup>A</sup>	NEMA Size	Maximum HP Rating			Starter Description	NEMA Type 7 Explosion Proof	NEMA Type 4 Water Proof	NEMA Type 1 Open Drip Proof
		120V	240V	480V 600V		Part Number	Part Number	Part Number
Manual starters single phase	0	1	1	—	Toggle	2277-X2 <sup>d</sup>	6050-1A4	6050-1A1
	—	2	—	—	Toggle	2277-X4 <sup>f</sup>	6050-1B4	6050-1B1
	0	1	2	—	Push button	6050-1B7	6050-1C4	6050-1C1
	1	2	3	—	Push button	6050-1C7	6050-1D4	6050-1D1
	1P	3	5	—	Push button	6050-1D7	N/A	N/A
Manual starters three phase	0	2	3	5	Push button	6050-3B7	6050-3B4	6050-3B1
	1	3	7-1/2	10	Push button	6050-3C7	6050-3C4	6050-3C1
Magnetic starters single phase	0	1	2	—	See below <sup>b,c</sup>	6051-1B7 <sup>e</sup>	6051-1B4 <sup>e</sup>	6051-1B1 <sup>e</sup>
	1	2	3	—	See below <sup>b,c</sup>	6051-1C7 <sup>e</sup>	6051-1C4 <sup>e</sup>	6051-1C1 <sup>e</sup>
	1P	3	5	—	See below <sup>b,c</sup>	6051-1D7 <sup>e</sup>	6051-1D4 <sup>e</sup>	6051-1D1 <sup>e</sup>
Magnetic starters three phase	0	—	3	5	See below <sup>b,c</sup>	6051-3B7 <sup>e</sup>	6051-3B4 <sup>e</sup>	6051-3B1 <sup>e</sup>
	1	—	7-1/2	10	See below <sup>b,c</sup>	6051-3C7 <sup>e</sup>	6051-3C4 <sup>e</sup>	6051-3C1 <sup>e</sup>
	2	—	15	25	See below <sup>b,c</sup>	6051-3E7 <sup>e</sup>	6051-3E4 <sup>e</sup>	6051-3E1 <sup>e</sup>
	3	—	30	50	See below <sup>b,c</sup>	6051-3F7 <sup>e</sup>	6051-3F4 <sup>e</sup>	6051-3F1 <sup>e</sup>

**Special Accessories For Use With Magnetic Starters**

Description			NEMA Type 7 Explosion Proof	NEMA Type 4 Water Proof	NEMA Type 1 Open Drip Proof
			Part Number	Part Number	Part Number
Separate push button station			6056-7	6056-4	6056-1
Pressure switch	30 in Hg Vac. to 100 psi	Copper	6055-1B7	6055-1B4	6055-1B1
		Stainless steel	6055-2B7	6055-2B4	6055-2B1
	6 – 250 psi	Copper	6055-1E7	6055-1E4	6055-1E1
		Stainless steel	6055-2E7	6055-2E4	6055-2E1
	35 – 375 psi	Copper	6055-1F7	6055-1F4	6055-1F1
		Stainless steel	6055-2F7	6055-2F4	6055-2F1
	50 – 500 psi	Copper	6055-1G7	6055-1G4	6055-1G1
	50 – 650 psi	Copper	6055-1H7	6055-1H4	6055-1H1

<sup>a</sup> All information is for standard controls from manufacturers of our selection. Heaters are included.

<sup>b</sup> Available with or without START-STOP push button.

<sup>c</sup> Available with HOA which indicates HAND-OFF AUTOMATIC selector switch.

<sup>d</sup> Wall mounted starter. Motor mounted starter 2277-X1 available at same price.

<sup>e</sup> Two suffix letters need to be added to the part number on all magnetic starters to indicate:

Voltage, separate control	120	208	240	380	480	600	Operator	None	P-B(B)	HOA(C)
1st Suffix letter	D	H	A	N	B	C	2nd Suffix letter	0	I	3

<sup>f</sup> Wall mounted starter. Motor mounted starter 2277-X3 available at same price.



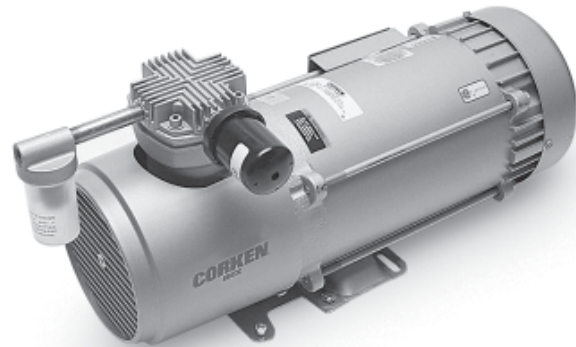
**Coro-Vac® Cylinder Purging System**

**Applications**

Cylinder and tank air purging prior to LP gas filling is a time consuming, inefficient operation. Even with the newer O.P.D. valves, the Coro-Vac® is just as fast, and in most cases, faster than labor-intensive, multiple gas purging. The Corken Coro-Vac® system eliminates multiple gas purging. There is no vented gas, therefore no waste and no exposure to employees or the environment. Available in portable and explosion proof models, the Coro-Vac® is your purging solution.

**Product Features**

- Oil-less construction for clean, efficient operation
- Motor mounted for compact—lightweight design
- Available with open drip proof or explosion proof motors
- Muffler and inlet filter are standard
- Rugged construction for low maintenance

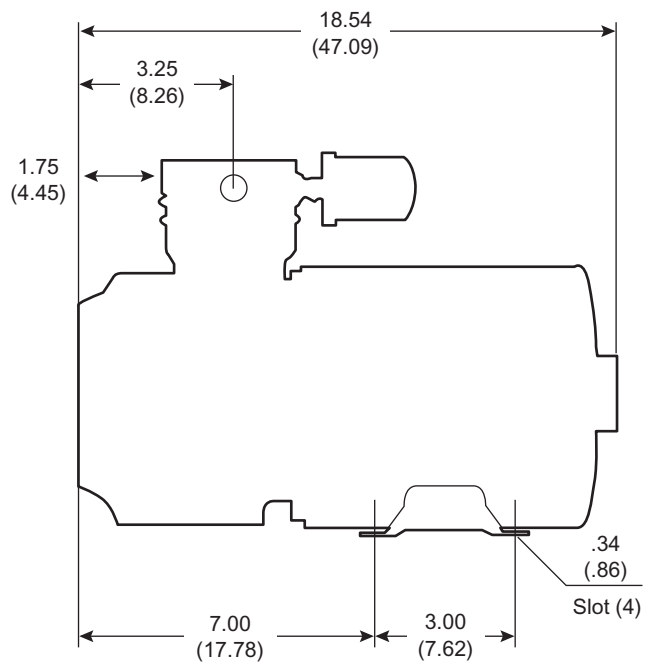
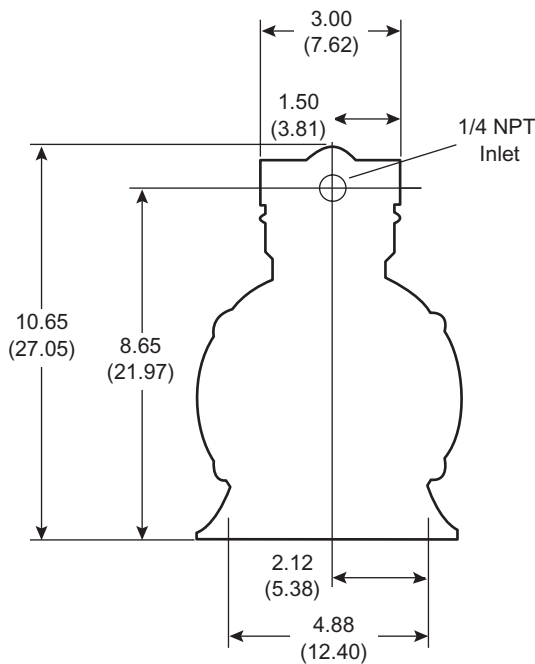


*CPS1X Single Cylinder (explosion proof model)*

**Purge Time Estimates**

# of Cylinders	Coro-Vac® Model	Est. Purge Time
1–3 (20 lb)	CPS1X	2–6 minutes

**Outline Dimensions and Specifications**



*Dimensions are in inches (cm)*

**CPS1X**

- Used on 1–3 cylinder applications
- Vacuum to 27.5 in/Hg maximum
- 115/230V, 60 Hz, single phase explosion proof motor



**Compressor Liquid Traps**

**Mechanical and Automatic Traps**

Corken liquid traps are recommended in all liquefied gas transfer applications or where climate or process conditions cause condensation of gasses in the suction pipeline. A gas compressor cannot tolerate even a few drops of liquid. Liquid slugging causes severe damage to the compressor and in some cases can destroy it completely. A variety of liquid traps are available depending upon your particular application. Corken's mechanical trap is useful when liquid is only present at start up. If the conditions are such that liquid will form in the suction line during operation, or the compressor is unattended, an automatic trap is recommended. Applications with large flow volume or where an operator is present can utilize our larger automatic trap with two liquid level switches that can be set up as an alarm and a shut down.

**Mechanical Liquid Trap**

Stops liquid from entering the compressor with a ball float actuated shut-off valve for positive closure. Equipped with a drain valve and a vent valve to break any vacuum formed between the compressor and trap.

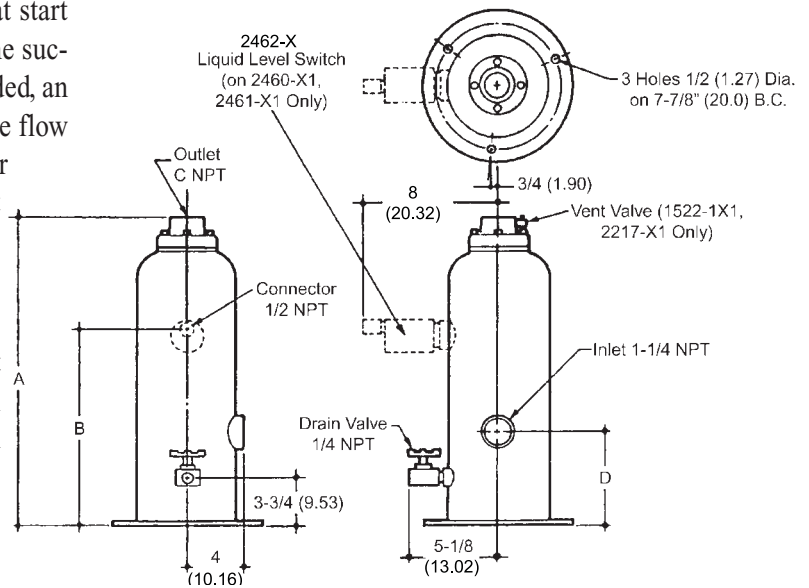
**Automatic Trap**

Stainless steel liquid level switch will completely shut down the compressor. Equipped with a drain valve.

**General**

Working pressure—335 psig (23.1 bar)

Each tank hydrostatic tested to 500 psig (34.5 bar)

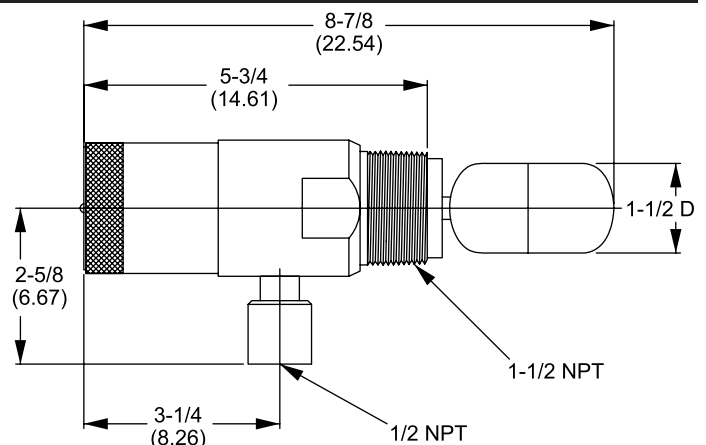


**Outline Dimensions**

Inches (cm)						
	Trap Part Number	Normal Compressor Type	A	B	C	D
Mechanical trap ball float actuated	1522-1X1	91, 291 491	22-3/4 (57.8)	14-1/8 (35.8)	1-1/4	6-1/2 (16.5)
	2217-X1	691	32-5/16 (82.1)	25 (63.5)	1-1/2	17-7/16 (44.3)
Automatic trap with liquid level switch	2460-X1	91, 291 391, 491	22-3/4 (57.8)	14-1/8 (35.8)	1-1/4	6-1/2 (16.5)
	2461-1X1	691	32-5/16 (82.1)	25 (63.5)	1-1/2	17-7/16 (44.3)

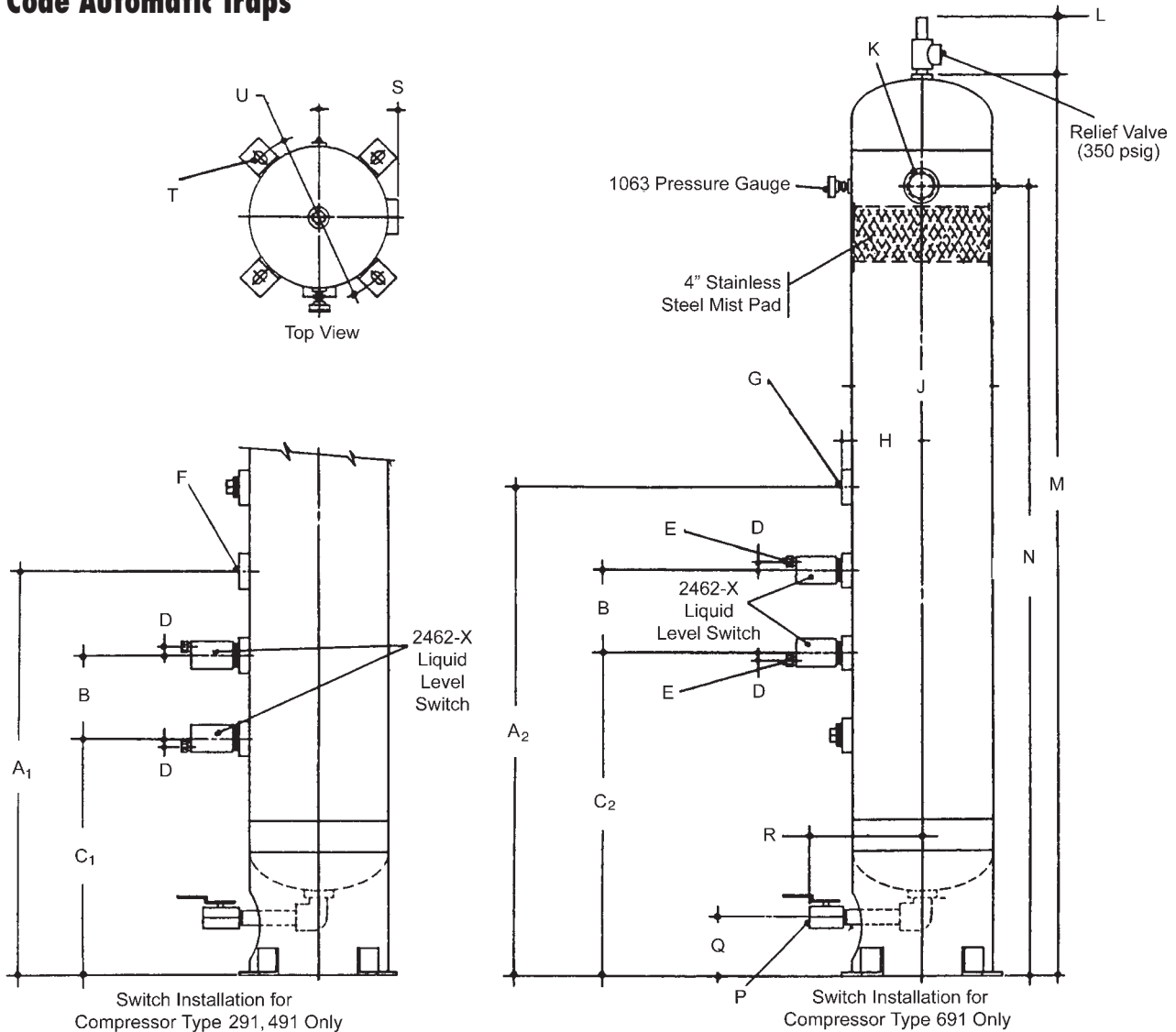
**Liquid Level Switch (2462-X) Specifications**

FM approved and CSA listed. Explosion proof indoor/outdoor. C1.I, Group A,B,C,D; C1.II, Group E,F,G; C1.III. 110V up to NEMA 2 starter, 240V up to NEMA 3 starter. Minimum specific gravity of liquid – 0.4. All stainless steel wetted parts. Normally open/closed operation by inverting the switch. The float is rated for 1,500 psi (103 bar). Temperature range: -40°F to 200°F (-40°C to 93°C). Switch rating: SPDT, 100 V.A. AC, 3 amp inrush, 250V max.



**Compressor Liquid Traps**

**ASME Code Automatic Traps**



**Outline Dimensions in Inches (cm)**

A1	A2	B	C1	C2	D	E	F	G	H	J
29	35	6	17	23	9/16	1/2 (NPT)	1-1/2 (NPT)	1-1/2 (NPT)	5-3/4	10 (O.D.)
(73.6)	(88.9)	(15.2)	(43.1)	(58.4)	(1.4)	—	—	—	(14.6)	(25.4)

K	L	M	N	P	Q	R	S	T	U
1-1/2 (NPT)	7-11/16	64-3/4	56-1/2	1 (NPT)	4-3/4	11-3/16	5-3/4	4-5/8 x 1	12-1/4
—	(19.5)	(164.4)	(143.5)	—	(12.0)	(28.4)	(14.6)	—	(31.1)

**Specifications**

1. ASME code tank—365 psig working pressure at 650°F
2. Two liquid level switches with three mounting positions. These switches allow for two different level-controlled functions such as an alarm circuit and a shut-down circuit.

## Low Oil Pressure Switch and Crankcase Oil Heater

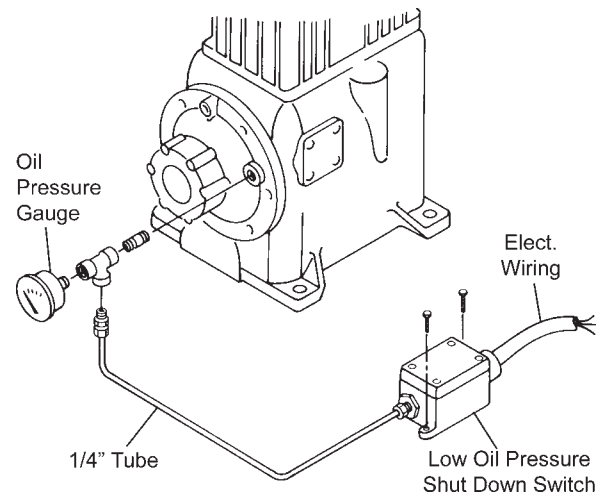
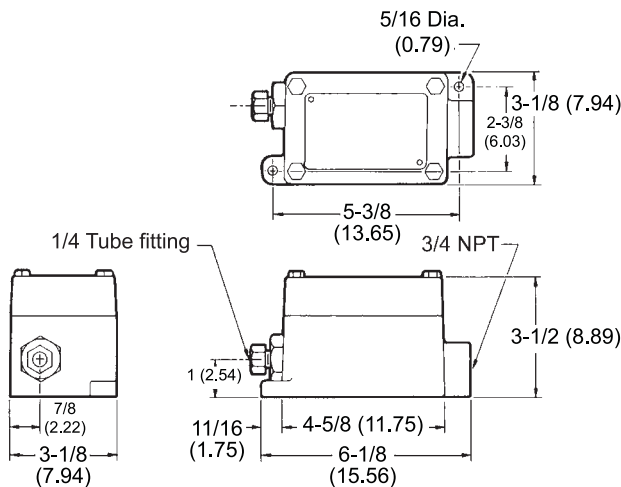
### Specifications

The Corken low oil pressure shutdown switch is designed to protect the compressor from bearing and rod damage, seizing, etc., due to insufficient crankcase oil pressure. When the oil pressure drops to below 10 psi the switch shuts down the motor. Also included in the assembly is an approximately 30 second timer that will delay reaction from the switch, allowing the compressor to build oil pressure during start-up. This switch when combined with a control panel can also be used for loadless start, where the compressor runs with no load during start up to allow the motor to get out of windings before it must meet the load of the compressor.

### Product Features

- UL Listed
- Single pole, double throw
- 1 amp at a rated voltage
- 10 amp inrush design
- Explosion proof
- Automatic operation
- Built in timer delay
- 120V or 230V models
- Compact size

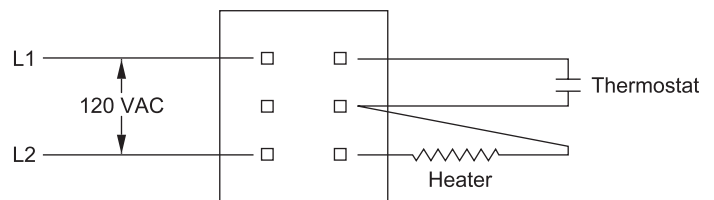
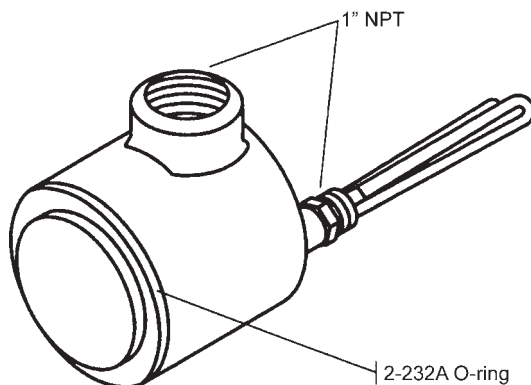
### Outline Dimensions in inches (cm) and Installation



### Crankcase Oil Heater

Designed for cold climates, this compact oil heater can keep crankcase oil at the proper viscosity for optimum oil pump performance. The heater is explosion proof and watertight.

Ratings are; Class 1, Group C & D, Class 2, Group E, F, G, 120 VAC, 250 Watts, 20 Watts/square inch.



Keep oil at proper level to prevent possible damage from overheating.  
**Caution:** To prevent electrical shock or ignition of hazardous atmospheres, disconnect the device from the supply circuit before opening. Keep assembly tightly closed when in operation.

**Other Accessories**

**Pressure Gauges**

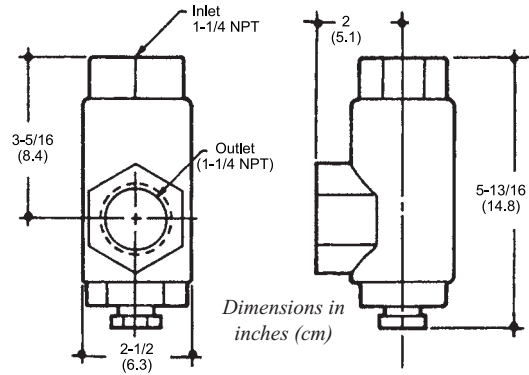
316 Stainless steel glycerine filled pressure gauges will mount on the compressor head or in the piping system and come with the following features:

- Dual scale: psi and kg/cm<sup>2</sup>
- 0 to 400 psi (0 to 28 kg/cm<sup>2</sup>) range, 5 psi (1 kg/cm<sup>2</sup>) increment
- 2-1/2", 270° dial with 1/4" NPT center back connection



**Strainers**

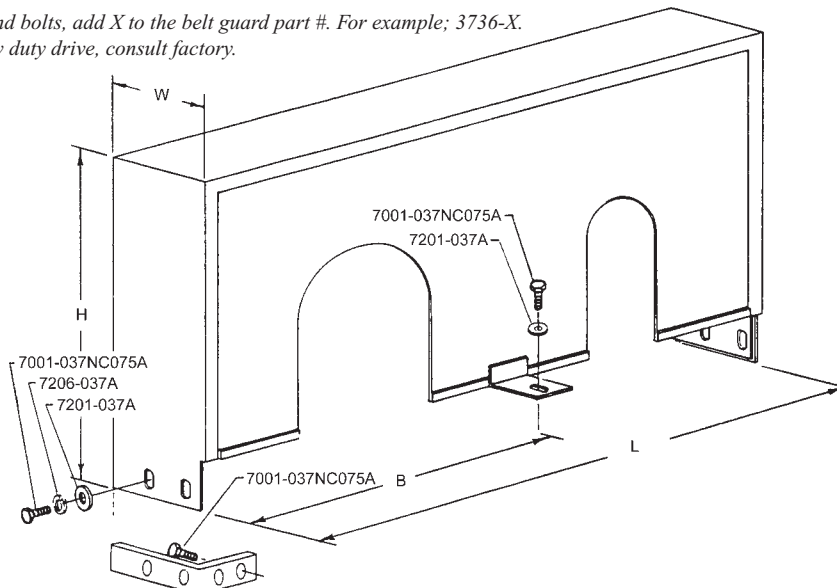
The right-angle design will minimize pressure drop and comes complete with ductile iron body with Monel screen and steel plug. Available for liquid (1836-X1, 14 mesh) or vapor (1836-X, 40 mesh) service (1-1/4" NPT 400 psig [27.6 bar] rating).



**Belt Guard Assemblies & Outline Dimensions in Inches (cm)**

Compressor Size	Belt Guard Part #		L	W	H	B	Bracket Number	Maximum Motor Frame Size
	Steel	Aluminum						
91	3736	3736-1	30-1/8 (76.5)	5 (12.7)	17-1/4 (43.8)	15-11/16 (39.8)	1212	—
291	3737	3737-1	31-1/8 (79.1)	5 (12.7)	19-1/4 (48.9)	16-3/16 (41.1)	1212	215T
491	3739	3739-1	35-1/8 (89.2)	5 (12.7)	18-1/2 (47.0)	17-9/16 (44.6)	1212	254T
691	3741	3741-1	38-1/8 (96.8)	5-1/5 (14.0)	21 (53.3)	23-1/8 (58.7)	1212	286T
891	3261	3261-1	44 (111.8)	7 (17.8)	22-3/4 (57.8)	22 (55.9)	1212-1	326T
Pumps	3736	3736-1	30-1/8 (76.5)	5 (12.7)	17-1/4 (43.8)	15-11/16 (39.8)	1212	—

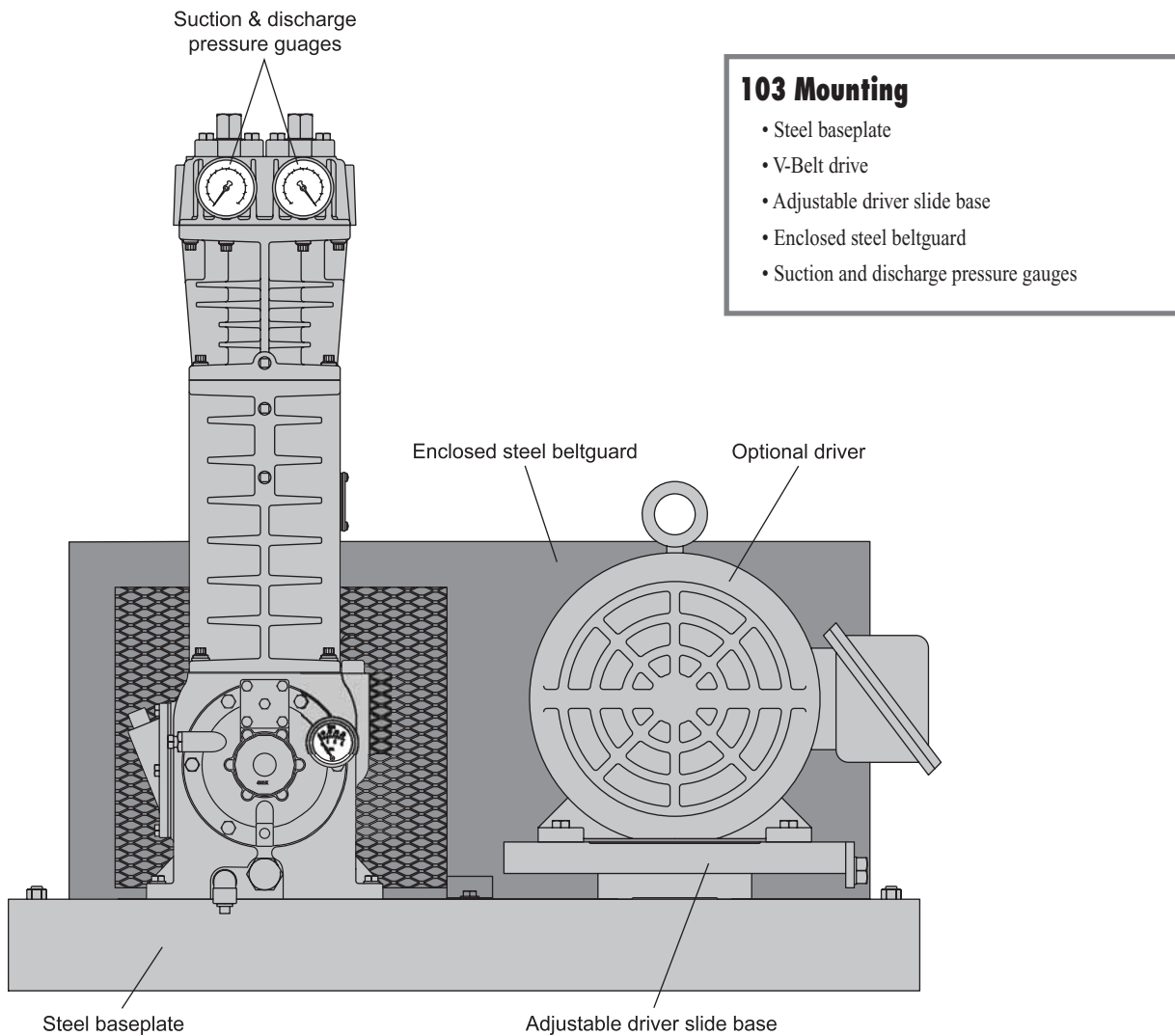
For belt guard with brackets and bolts, add X to the belt guard part #. For example; 3736-X.  
For larger frame sizes or heavy duty drive, consult factory.



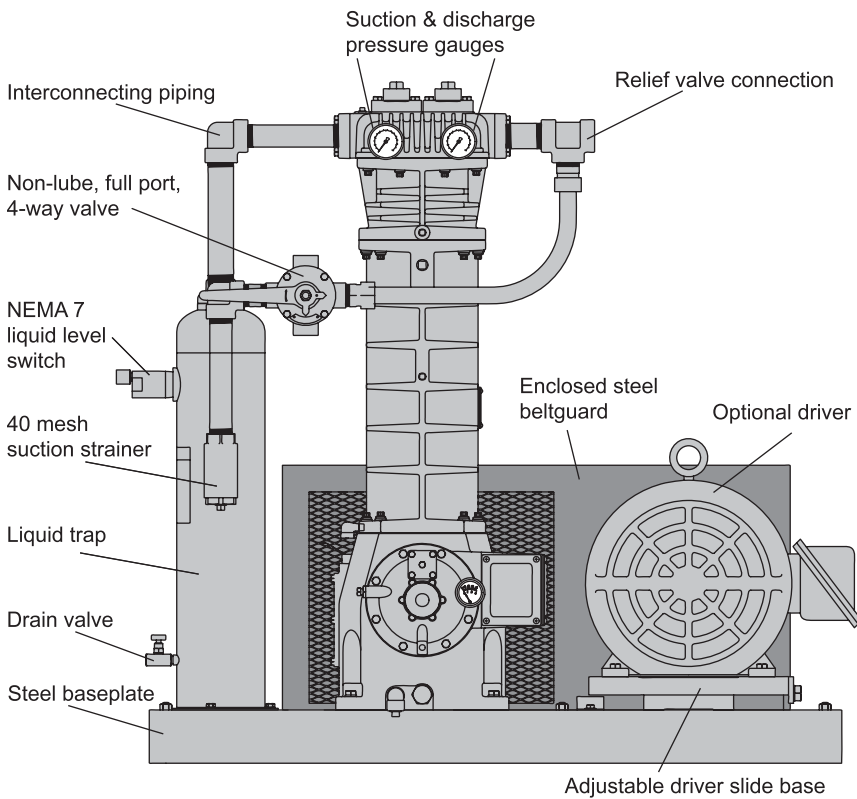
**Compressor Mountings**

Three standard mountings are offered for our LPG gas compressors. The 103 mounting is a basic baseplate and V-belt drive assembly. The 107 is designed to be a drop in package for liquid transfer and vapor recovery applications. This set up comes in multiple configurations to accommodate the different liquid trap options. All 107 mountings contain our strainer and 4-way valve either of which can also be purchased separately. In addition to

these, we have the 109 mounting, which is like a 103 with a liquid trap added. This package is best when liquid transfer is needed but vapor recovery is not required, such as in a process plant. Custom packages are also available by contacting our Applications Engineers for a quotation. See the LPG Compressor Sales Catalog for outline dimensions of these mountings with the various sizes of compressor.



**Compressor Mountings**



-107A Mounting shown

**Standard 107 Items**

- All 103 items plus
- 40 mesh strainer
- Non-lube 4-way valve
- Interconnecting piping
- Liquid trap as specified below

**107 Mounting**

- Mechanical liquid trap with ball float

**107A Mounting**

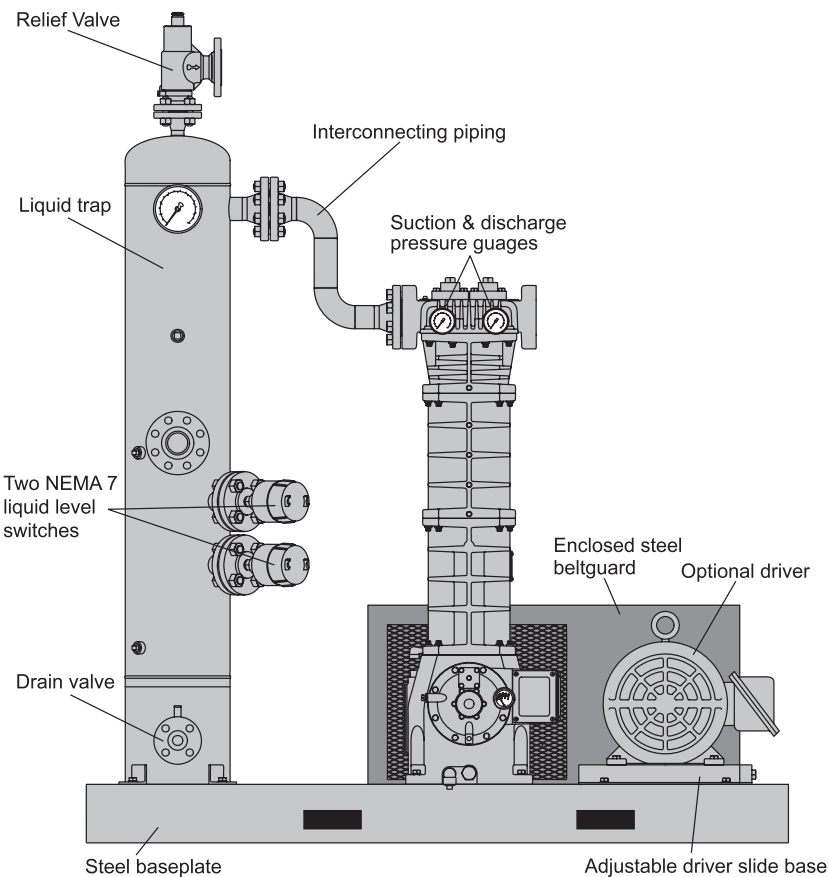
- Automatic liquid trap with one NEMA 7 liquid level switch

**107B Mounting**

- Automatic liquid trap with two NEMA 7 liquid level switches

**107F Mounting**

- 107A or 107B with 300# ANSI flanged components and connections



-109B Mounting shown

**Standard 109 Items**

- All 103 items plus
- Interconnecting piping
- Liquid trap as specified below

**109 Mounting**

- Mechanical liquid trap with ball float

**109A Mounting**

- Automatic liquid trap with one NEMA 7 liquid level switch

**109B Mounting**

- Automatic liquid trap with two NEMA 7 liquid level switches

**109F Mounting**

- 109A or 109B with 300# ANSI flanged components and connections





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