TALCO FIRE SYSTEMS
RESIDENTIAL & COMMERCIAL FIRE PUMP SPECIALISTS
6040 NE 112TH AVE. PORTLAND, OREGON 97220
PHONE: 800-878-8055 WWW.TALCOFIRE.COM

ULV-250

250 GPM @ 40 PSI

10HP, 230V, 1PH

LIMITED SERVICE CONTROLLER

Project:

Contractor:

Submittal Packet

TALCO FIRE SYSTEMS

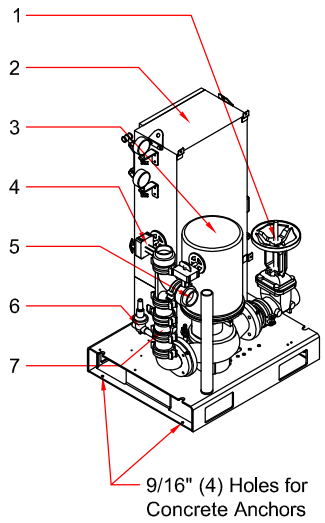
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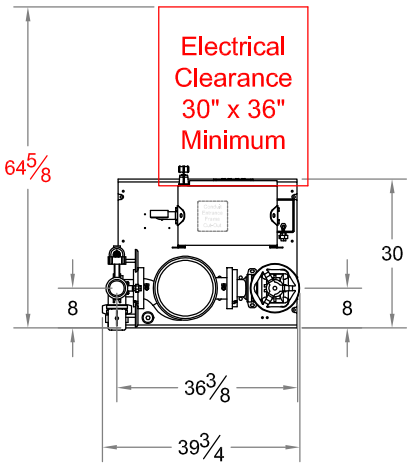
NFPA-20 Fire Pump

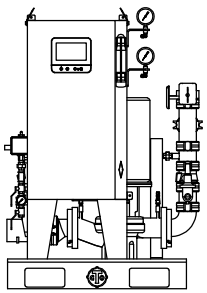
3-383-7B

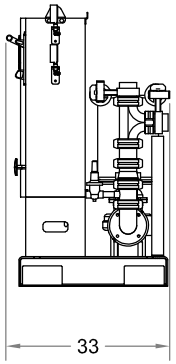
ULV-250

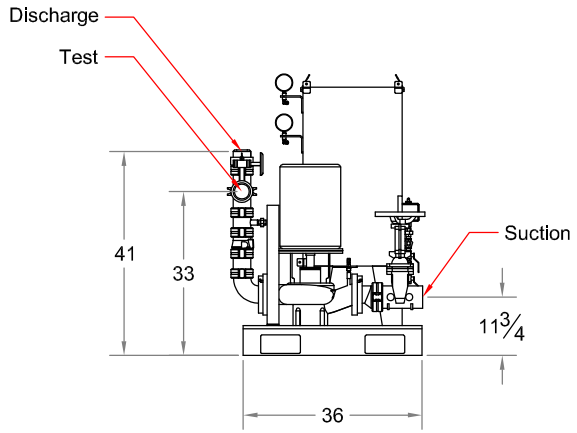
Compact Residential Package
Design Condition: 250GPM @ 40PSI

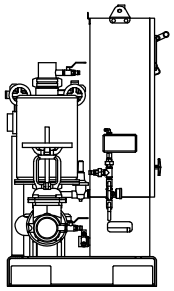












System Components per NFPA-20

System Specifications:

Motor
-10 Horsepower Electric
-230 Volt, 46 Amp
-Single Phase
-3450 RPM

Pump
-UL Vertical Inline Fire Pump
-4" Suction (Grooved)
-3" Discharge (Grooved)
-3" Test Connection (Grooved)
-175 PSI max working pressure

System Components (UL Listed by Manufacturer)
-1- Limited Service Fire Pump Controller
-2- Discharge Butterfly Valve (Monitored)
-3- Test Connection Butterfly Valve (Monitored)
-4- Check Valve
-5- Vertical Inline Fire Pump & Motor
-6- Suction OS&Y (Monitored)

Dimensions
-33" Depth
-57" Height
-40" Width

*All dimensions are approximate and subject to change without notice.

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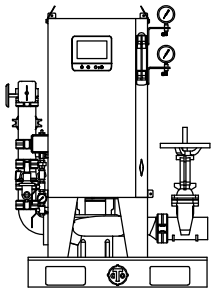
NFPA-20 Fire Pump

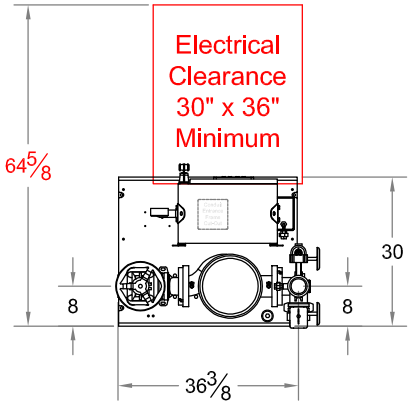
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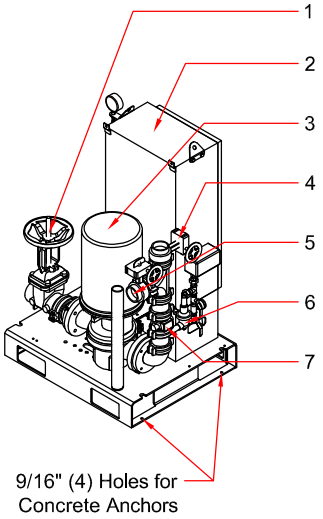
RIGHT HAND SUCTION

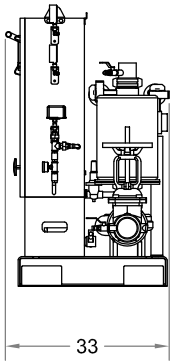
ULV-250

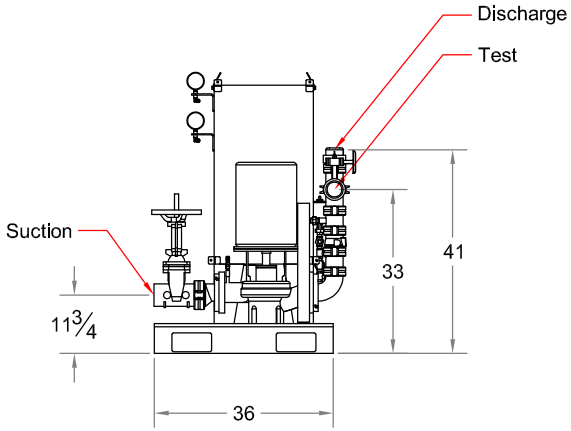
Compact Residential Package
Design Condition: 250GPM @ 40PSI

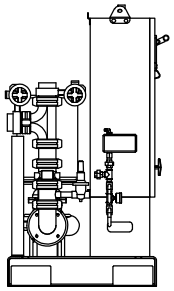












System Components per NFPA-20

System Specifications:

Motor
-10 Horsepower Electric
-230 Volt, 46 Amp
-Single Phase
-3450 RPM

Pump
-UL Vertical Inline Fire Pump
-4" Suction (Grooved)
-3" Discharge (Grooved)
-3" Test Connection (Grooved)
-175 PSI max working pressure

System Components (UL Listed by Manufacturer)
-1- Limited Service Fire Pump Controller
-2- Discharge Butterfly Valve (Monitored)
-3- Test Connection Butterfly Valve (Monitored)
-4- Check Valve
-5- Vertical Inline Fire Pump & Motor
-6- Suction OS&Y (Monitored)

Dimensions
-33" Depth
-57" Height
-40" Width

*All dimensions are approximate and subject to change without notice.

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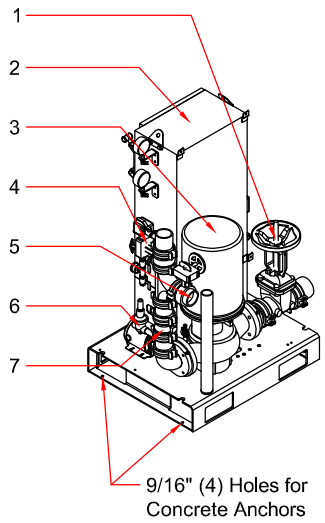
NFPA-20 Fire Pump

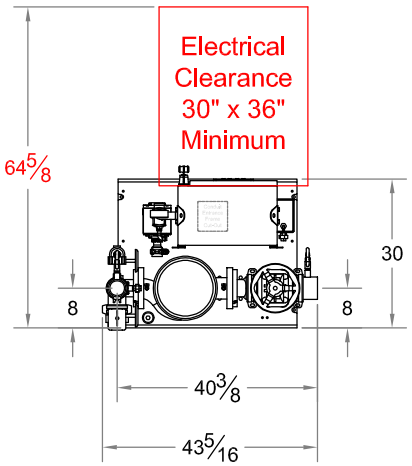
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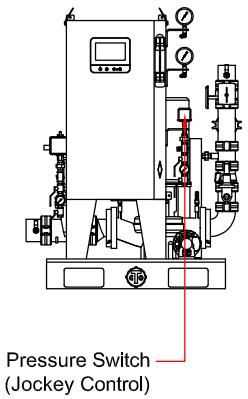
with Jockey Pump

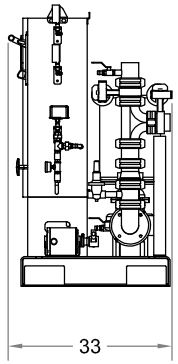
ULV-250

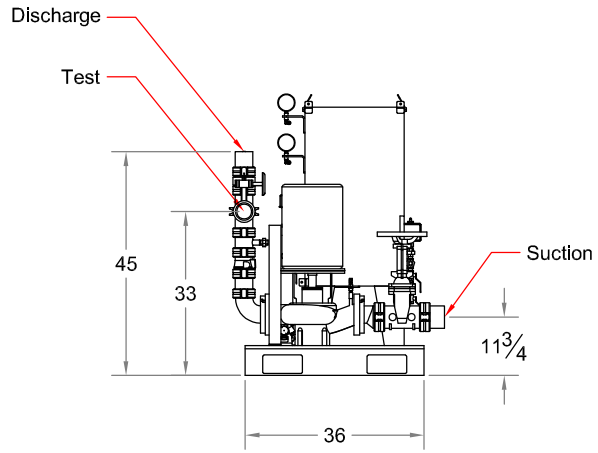
Compact Residential Package
Design Condition: 250GPM @ 40PSI

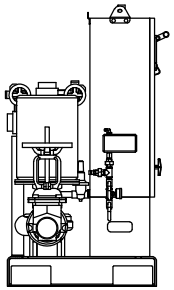












System Components per NFPA-20

System Specifications:

Motor
-10 Horsepower Electric
-230 Volt, 46 Amp
-Single Phase
-3450 RPM

Pump
-UL Vertical Inline Fire Pump
-4" Suction (Grooved)
-3" Discharge (Grooved)
-3" Test Connection (Grooved)
-175 PSI max working pressure

System Components (UL Listed by Manufacturer)
-1- Limited Service Fire Pump Controller
-2- Discharge Butterfly Valve (Monitored)
-3- Test Connection Butterfly Valve (Monitored)
-4- Check Valve
-5- Vertical Inline Fire Pump & Motor
-6- Suction OS&Y (Monitored)

Dimensions
-33" Depth
-57" Height
-44" Width

*All dimensions are approximate and subject to change without notice.

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NFPA-20 Fire Pump

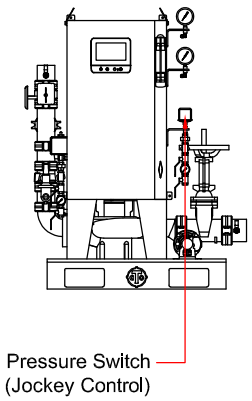
3-383-7B

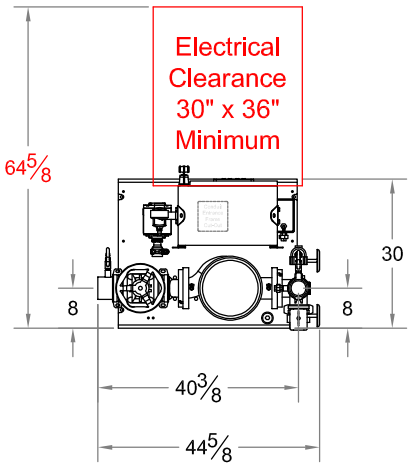
with Jockey Pump

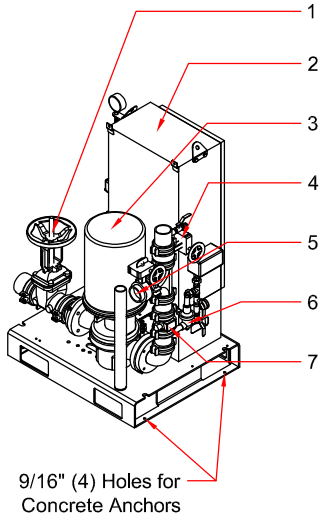
RIGHT HAND SUCTION

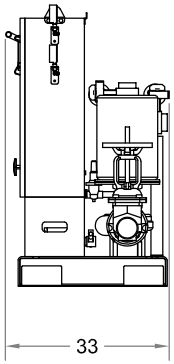
ULV-250

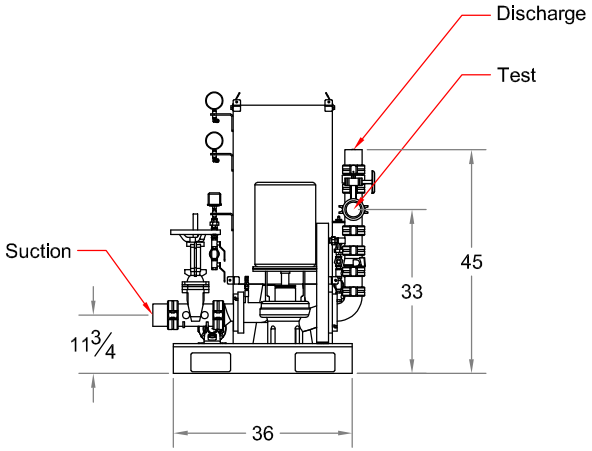
Compact Residential Package
Design Condition: 250GPM @ 40PSI

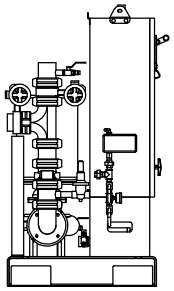












System Components per NFPA-20

System Specifications:

Motor

-10 Horsepower Electric
-230 Volt, 46 Amp
-Single Phase
-3450 RPM

Pump

-UL Vertical Inline Fire Pump
-4" Suction (Grooved)
-3" Discharge (Grooved)
-3" Test Connection (Grooved)
-175 PSI max working pressure

System Components (UL Listed by Manufacturer)

-1- Suction OS&Y (Monitored)
-2- Limited Service Fire Pump Controller with Transfer Switch
-3- Vertical Inline Fire Pump & Motor
-4- Discharge Butterfly Valve (Monitored)
-5- Test Connection Butterfly Valve (Monitored)
-6- Case Relief Valve
-7- Check Valve

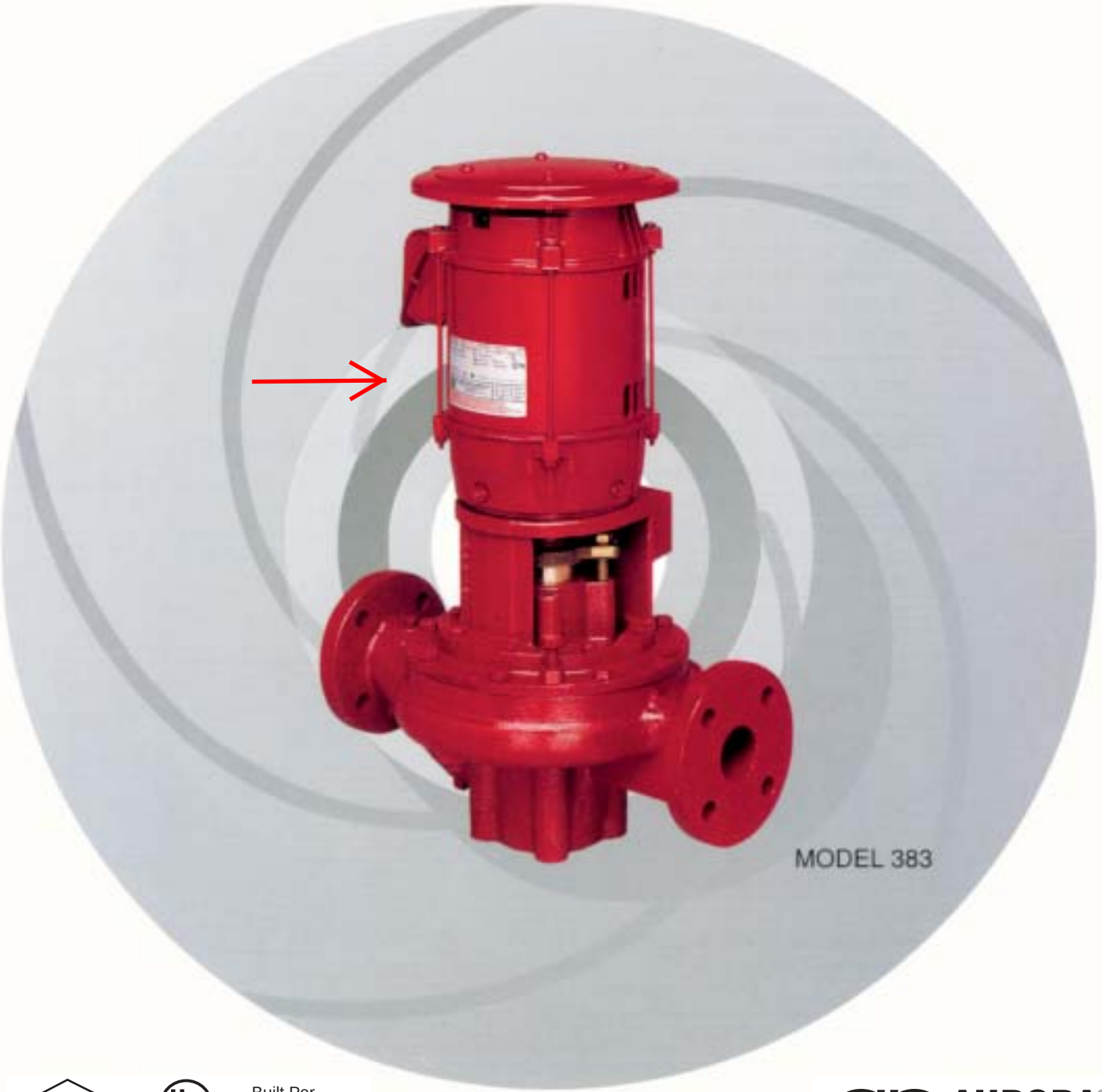
Dimensions

-33" Depth
-57" Height
-45" Width

*All dimensions are approximate and subject to change without notice.

Fire Pump Data:

900 Series
Single Stage Inline Fire Pumps



FM Approved

UL Listed

Built Per N.F.P.A. 20

AURORA®
PENTAIR PUMP GROUP

Aurora 383 Series Pumps

VERTICAL Inline Close Coupled Fire Pumps are specifically designed for vertical mounting. The suction and discharge nozzles are located on the same centerline 180° apart. Vertical pumps significantly reduce required mounting space. They are easy to maintain. Simply remove eight capscrews and the motor and bracket assembly is easily removed fiom the casing without disturbing the piping. The impeller is direct coupled to the motor shaft for easy maintenance, to minimize impeller run out and to reduce noise.

The inline casing is heavily ribbed to resist pipe strain and is provided with a support to simplify mounting to a base or foundation. Packing is provided when suction pressure is greater than 30 PSIG; packing with lantern ring and flush line is furnished for suction pressures of 30 PSIG or less. Look through this bulletin for additional details & specifications.

Back pull-out inline case design simplifies disassembly. The suction and discharge piping or alignment is not disturbed as the casing remains in the pipeline. Simply remove the motor and bracket assembly for service or inspection.

Computer machined major components with 360° registered fits assure parts concentricity.

Note: Front case wearing rings are standard on all size pumps. Rear case rings are standard on all sizes except the 2x2x9C. The 2x2x9C does not require a wear ring.

STANDARD

Bronze fitted pump construction
Bronze shaft sleeve
Split bronze packing gland
Carbon steel shaft
125# ANSI flange drilling
Dynamically balanced vacuum cast impeller
Stainless Steel impeller screw & washer
Bronze case wearing ring(s)
Graphite impregnated acrylic packing
Motor:
NEMA-HI JP
Factory performance tested in accordance with NFPA-20

ACCESSORIES

Suction and discharge pressure gauges
Air release valve
Circulation relief valve
Hose valve header
Hose valves
Flow meter
Jockey pump
Optional flange drillings
125 lb suction - 250 lb discharge
250 lb suction and discharge

1 BACK PULL-OUT CASING with inline suction and discharge.

2 CASE WEARING RING prevents wear on casing and is easily and inexpensively replaced.

3 SUPPORT simplifies mounting. The pump can be fastened to the floor, a base or foundation.

4 DYNAMICALLY BALANCED IMPELLER is keyed to the shaft and secured by a capscrew and washer. Vacuum casting and quality controlled manufacturing process assures consistent high performance. Enclosed design provides high efficiency and low wear for long service life.

5 CARBON STEEL SHAFT is designed for minimum deflection at maximum load.

6 TWO PIECE BRONZE PACKING GLAND provides easy packing maintenance.

7 FACTORY PERFORMANCE TEST guarantees performance at specified pump operating conditions.

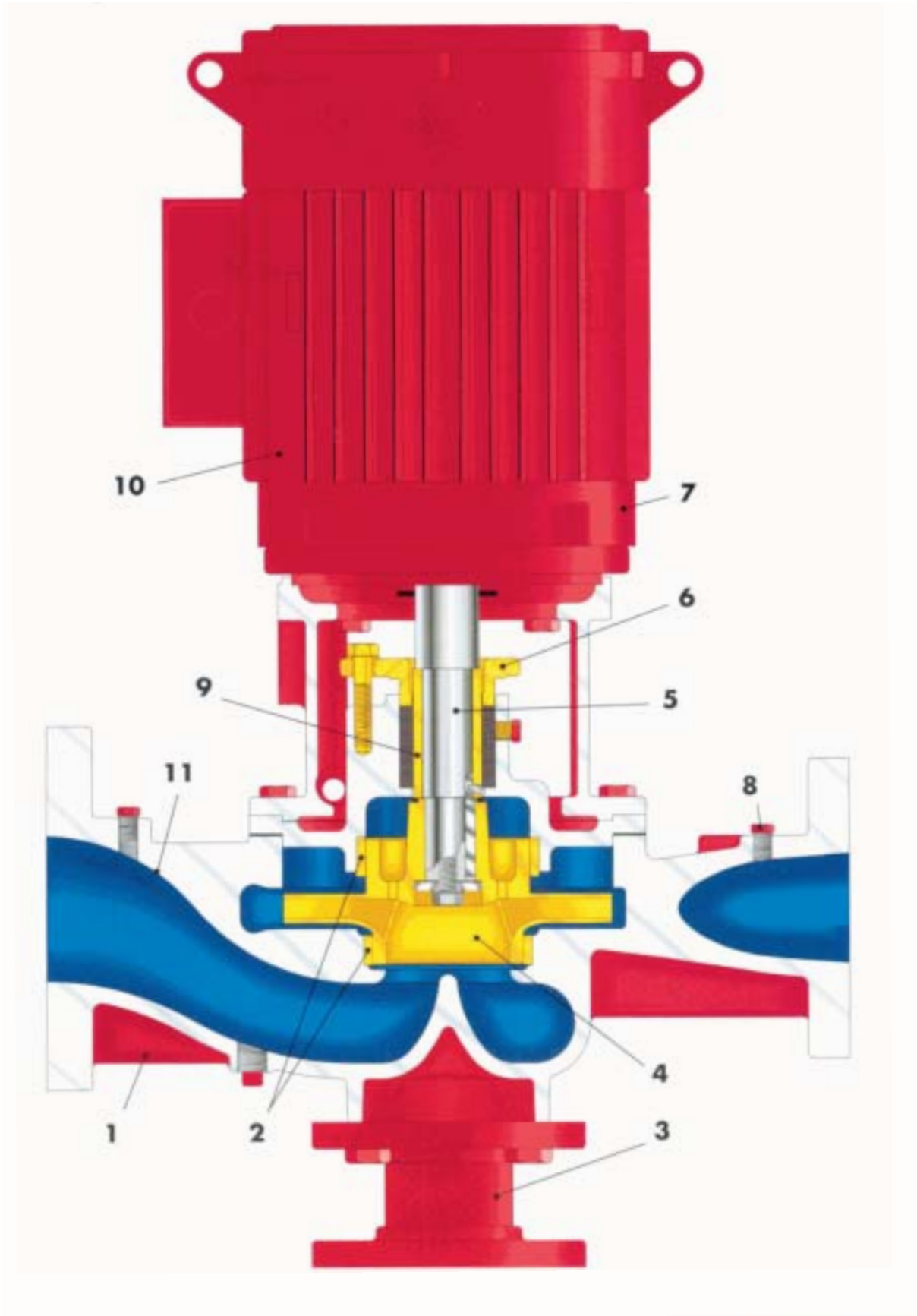
8 FLUSH LINE with valve (when used) from discharge provides easy water seal adjustment to lantern ring.

9 BRONZE SHAFT SLEEVE extends full length of stuffing box to protect motor shaft. The shaft sleeve is slip fit over the shaft and then is keylocked. Shaft sleeve and impeller screw are sealed by “O”-ring gaskets to eliminate corrosion of the shaft by the pumped liquid.

10 STANDARD MOTOR approved for 383 Series pump service by NEMA and the HYDRAULIC INSTITUTE provides low noise level pump operation.

11 VOLUTE TYPE SUCTION inlet pre-rotates suction liquid.

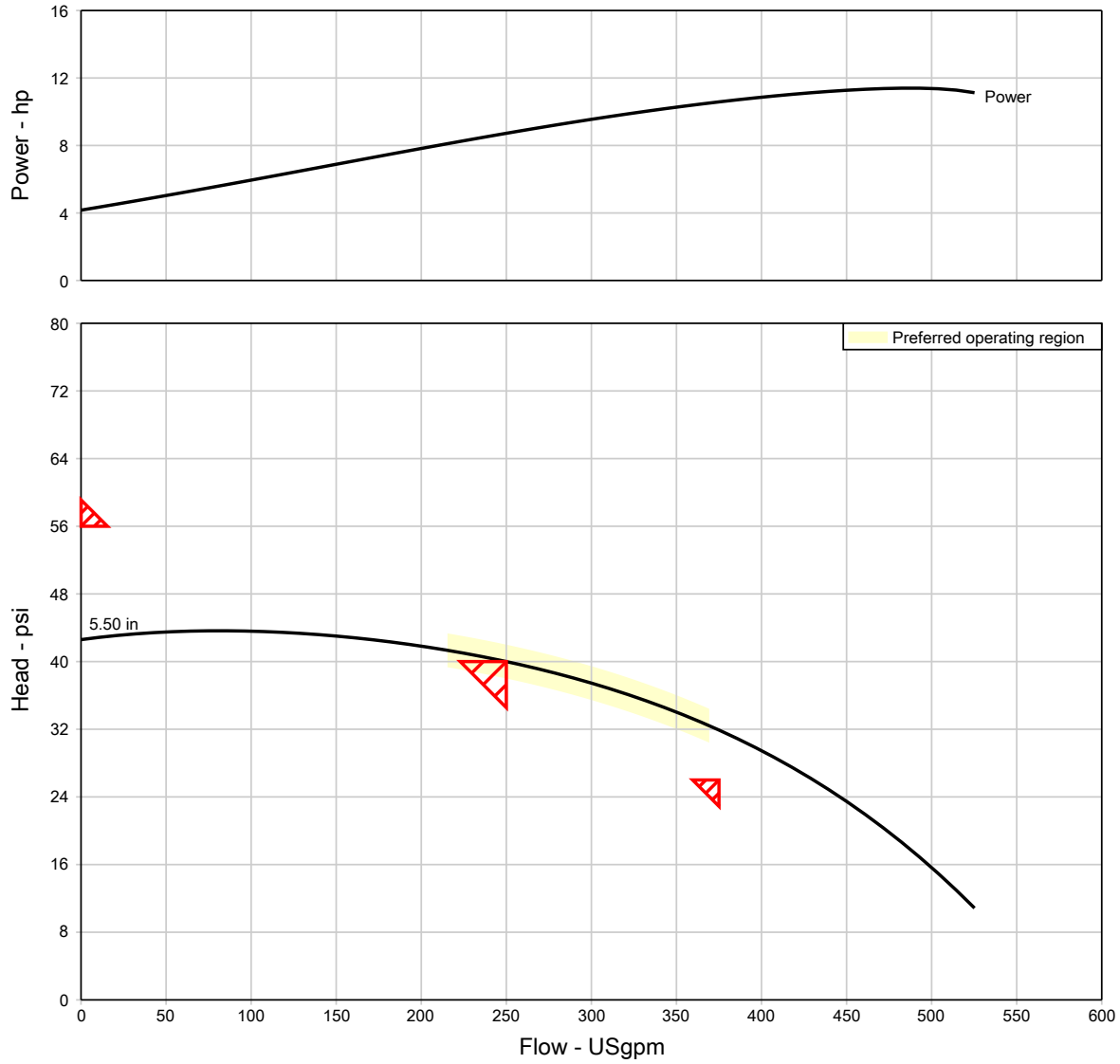
Vertical Fire Pump Features



Customer : TALCO INDUSTRIES, INC.
Project name : Default

Pump Performance Curve

Encompass 3.0 - 26.8.2



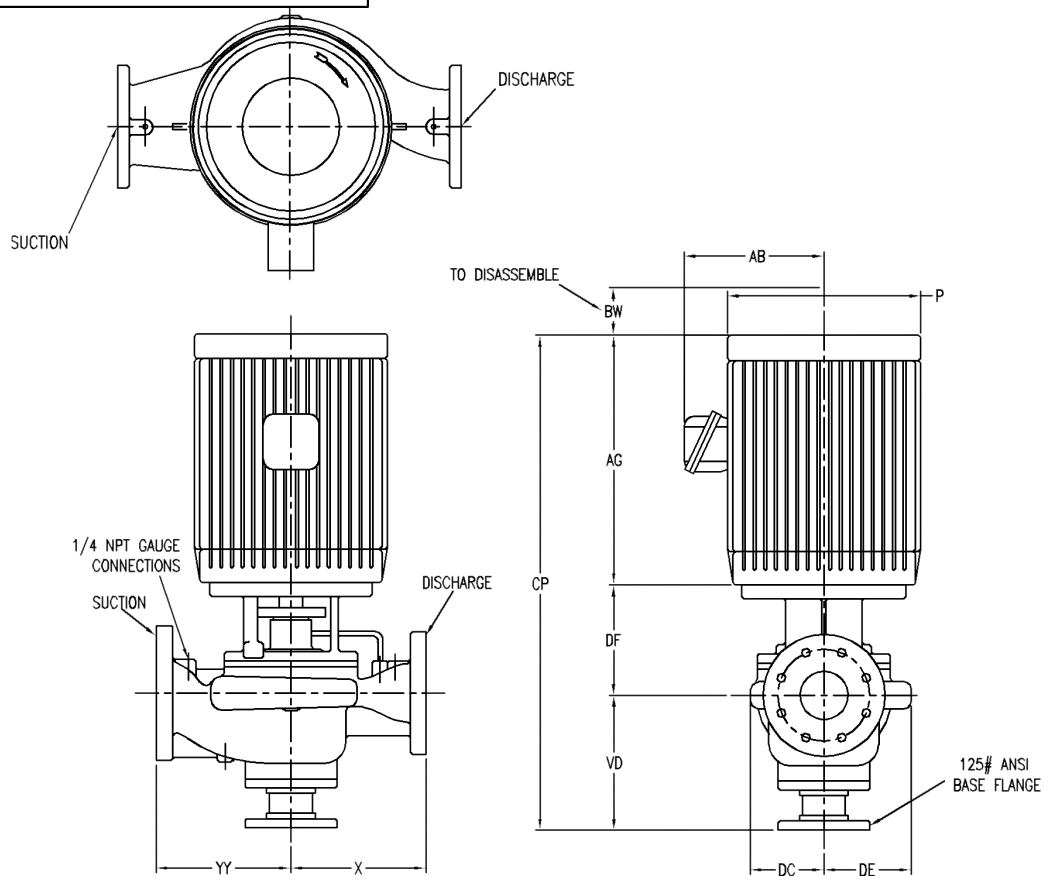
Item Number / Tags	: 001
Service	:
Quantity	: 1
Quote number	: 243627
Date last saved	: 01 Oct 2026 5:19 PM
Flow, rated	: 250.0 USgpm
Differential head / pressure, rated	: 40.00 psi
Flange rating (suction / discharge)	: 125/125
Secondary Point (150% of rated flow)	: 375.0 USgpm
Secondary Point (65% of rated head)	: 26.00 psi
Max Shutoff per NFPA	: 56.00 psi

Size	: 3-383-7B
Stages	: 1
Driver type	: Motor
Frequency	: 60 Hz
Speed, rated	: 3500 rpm
Based on curve number	: 383-3x3x7B-3500-new Rev 20250709
Efficiency	: 66.88 %
Max working pressure, allowable	: 175.0 psi.g
Max Shutoff Head (Calculated)	: 41.74 psi
Max suction pressure, allowable	: 133.3 psi.g
Suction pressure, max (user specified)	: 10.00 psi.g
Pump shutoff w/ suction pressure	: 51.74 psi.g
Power driver, minimum	: 10.00 hp

General Arrangement

WARNING

DO NOT OPERATE THIS MACHINE WITHOUT PROTECTIVE GUARD IN PLACE. ANY OPERATION OF THIS MACHINE WITHOUT PROTECTIVE GUARD CAN RESULT IN SEVERE BODILY INJURY.



X	YY	BW	VD	DF	DC
9.50	9.50	4.50	10.25	8.81	5.19

DE	AG	P	AB	CP	Base Flange Size
6.13	17.00	12.25	7.63	36.00	3.00

NOTES:

Not for construction, installation, or application purposes unless certified.

All dimensions are in inches

Dimensions may vary ± .38" (10mm) due to normal manufacturing tolerances.

See configuration for estimated total weight.

Pump Data	
Series	Inline
Model	3-383-7B
Size	3x3x7B
Flow	250.0 USgpm
Rated Pressure	40.00 psi.g
RPM	3500 rpm
Rotation	Right handed
Liquid Type	Water
Discharge Size	3.00 in
Suction Size	3.00 in
Impeller Diameter	5.41 in
Connection Type	125/125
Base Type	Pipe flange support
-	-
Pump Materials of Construction	
Pump	Bronze fitted with Cast Iron casing
Shaft	Carbon Steel
Motor Data	
Power	10.00 hp
Phase	1
Frequency	60 Hz
Volts	230 V
RPM	3600
Frame	215JP
Service Factor	1.15
Enclosure	ODP
Manufacturer	Weg
Site Information	
Elevation	300.0 ft
Temperature	77.00 deg F
Estimated Weights	
Pump	153.0 lb
Driver	0.00 lb

Quote Information			
Customer	TALCO INDUSTRIES, INC.		
Customer Quote	0		
Job Name	Default		
Market	-		
PENTAIR		Quote Item	001
		Quote Date	25 Sep 2026

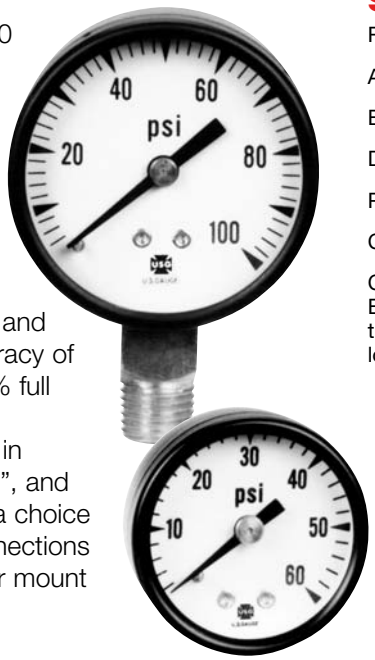
General Purpose Gauges
Series P-500

DESCRIPTION

U.S. Gauge Series P-500 utility gauges provide economical, reliable service in a wide variety of applications including pumps, compressors, and other equipment.

Series P-500 utility gauges come in English and metric ranges with accuracy of either ±3-2-3% or ±1.6% full scale.

Gauges are available in 1-1/2", 2", 2-1/2", 3-1/2", and 4-1/2" steel cases with a choice of English or metric connections in center-back and lower mount configurations.



SPECIFICATIONS

RANGES: 30" Hg VAC through 0-5000 psi

ACCURACY: ±3-2-3% (Grade B) or ±1.6% of span

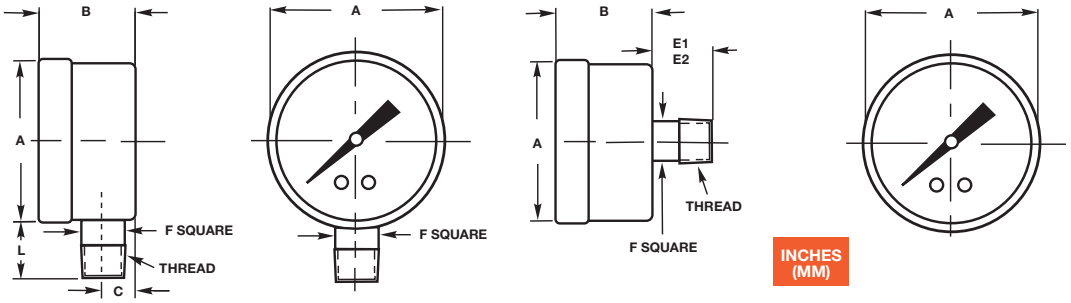
BOURDON TUBE: Phosphor bronze

DIAL: ABS (aluminum optional)

POINTER: Aluminum

CASE: Painted steel

CONNECTION:
Brass, 1/8-27 NPT for 1-1/2" and 2"; 1/4-18 NPT for 2" through 4-1/2"; G1/8B, G1/4B, R1/8, R1/4, center-back or lower mount



MODEL NUMBER	DIAL SIZE	UNIT	A	B	C	E1	E2	F	L
P-500	1-1/2"	inches	1.64	.92	.34	.62	–	.44	.55
		mm	41.66	23.37	8.66	15.75	–	11.18	13.97
P-500	2"	inches	2.16	1.15	.40	.84	.90	.55	.87
		mm	54.86	29.21	10.16	21.34	22.86	13.97	22.10
P-505	2-1/2" LM	inches	2.73	1.15	.39	.48	.25	.82	–
		mm	69.34	29.21	9.91	12.19	6.35	20.83	–
P-505	2-1/2" CBM	inches	2.49	1.21	1.22	–	.28	.84	–
		mm	63.25	30.73	30.99	–	7.11	21.34	–
P-505	3-1/2" LM	inches	3.53	1.17	.40	–	.24	.83	–
		mm	89.66	29.72	10.16	–	6.10	21.08	–
P-505	4-1/2" LM	inches	4.80	1.12	.38	–	.45	1.10	–
		mm	121.92	28.45	9.65	–	11.43	27.94	–

* Length E1 refers to 1/8 NPT connections; E2 refers to 1/4 NPT connections
** The E dimension is the minimum length of the wrench square from the case bottom

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Fax: (215) 354-1802
www.ametekusg.com
Customer Service Tel: (863) 534-1504
Customer Service Fax: (863) 533-7465

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General Purpose Gauges
Series P-500

SPEC NUMBER SELECTION GUIDE

Series P-500

Connection	Range*	1-1/2" Spec No.	2" Spec No.	2-1/2" Spec No.	3-1/2" Spec No.	4-1/2" Spec No.
1/8-27 LM	15 psi	146000A	052420A	–	–	–
	30 psi	166327	163931	059306A	–	–
	60 psi	146002A	164005	058129A	–	–
	100 psi	166318	163271	049660A	–	–
	160 psi	146004A	048302A	048536A	–	–
	200 psi	166777	046645A	050852A	–	–
	300 psi	146006A	048363A	046647A	–	–
	600 psi	146007A	–	–	–	–
	1000 psi	146008A	–	–	–	–
	2000 psi	146009A	–	–	–	–
1/8-27 CBM	15 psi	146010A	–	–	–	–
	30 psi	166320	163930	–	–	–
	60 psi	166321	055155A	–	–	–
	100 psi	166322	046776A	–	–	–
	160 psi	166323	070791A	–	–	–
	200 psi	146015A	102673A	–	–	–
	300 psi	146016A	051805A	–	–	–
	600 psi	146017A	–	–	–	–
	1000 psi	146018A	–	–	–	–
	2000 psi	146019A	–	–	–	–
1/4-18 LM	15 psi	–	047615A	047102A	5502A	5546A
	30 psi	–	163149	163278	168536	5804A
	60 psi	–	163269	163279	168537	5551A
	100 psi	–	162988	163280	168538	5554A
	160 psi	–	163270	163281	168539	5559A
	200 psi	–	163147	163282	168540	5561A
DISCHARGE →	300 psi	–			168541	
	400 psi	–	047492A	049611A	5515A	12265A
	600 psi	–	047493A	046648A	5516A	5337A
	1000 psi	–	047494A	047496A	5519A	12266A
	2000 psi*	–	–	171398A	–	–
	3000 psi*	–	–	171400A	–	–
	5000 psi*	–	–	143072A	–	–
1/4-18 CBM	15 psi	–	046987A	052827A	–	–
	30 psi	–	163949	165213	–	–
	60 psi	–	163272	165214	–	–
	100 psi	–	163273	163284	–	–
	160 psi	–	163274	163285	–	–
	200 psi	–	163275	163286	–	–
	300 psi	–	163276	163287	–	–
	600 psi	–	046991A	050851A	–	–
	1000 psi	–	–	050870A	–	–
	2000 psi*	–	–	171399A	–	–
	3000 psi*	–	–	171401A	–	–
1/8-27 LM	30" - 15 psi	–	66662A	–	–	–
	30" - 60 psi	–	47925A	–	–	–
	30" - 150 psi	–	49609A	–	–	–
1/4-18 LM	30" - 15 psi	–	47000A	47001A	5493A	63754A
	30" - 30 psi	–	167218	47105A	5495A	5549A
SUCTION →	30" - 60 psi	–	57548A	46646A	5496A	12290A
	30" - 150 psi	–			5499A	12292A
	30" - 300 psi	–	–	58156A	15936A	–
1/8-27 LM	30"	146020A	47225A	–	–	–
1/8-27 CBM	30"	146021A	–	–	–	–
1/4-18 LM	30"	–	163712	171222A	171223A	5333A

* Dual scale dials are available, please contact Customer Service at (863) 534-1504
U-clamp kit for 1-1/2" P-500, Spec #166732

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Controller Data:

TORNATECH

Project: _____

Customer: _____

Engineer: _____

Pump Manufacturer: _____

Technical Data
Submittal Document

Model GPL

Limited Service Full Voltage
Across the Line Start
Electric Fire Pump Controller

Contents:

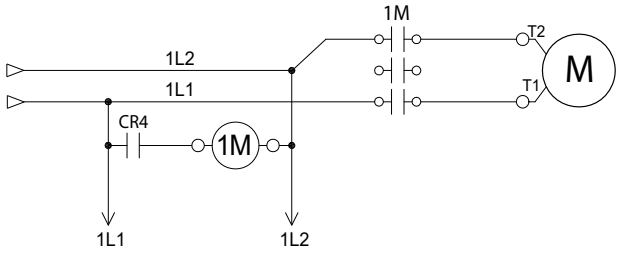
Data Sheets
Dimensional Data
Wiring Schematics
Field Connections

Note: The drawings included in this package are for controllers covered under our standard offering. Actual AS BUILT drawings may differ from what is shown in this package.

c UL us N.Y.C. APPROVED CE

November 2025

From normal incoming power through Disconnecting Means (IS/CB)*



Select voltage and power rating

Voltage	Select Voltage	HP	Select HP
120V/1ph/60Hz	☐	3	☐
200V/1ph/60Hz	☐	5	☐
208V/1ph/60Hz	☐	7.5	☐
220V/1ph/60Hz	☐	10	☑
230V/1ph/60Hz	☑	15	☐
240V/1ph/60Hz	☐		

Standard, Listings, Approvals and Certifications	Built to NFPA 20	
	Underwriters Laboratory (UL)	UL218 - Fire Pump Controllers
	New York City	Accepted for use in the City of New York by the Department of Buildings
	Optional	
	☐ CE Mark	Various EN, IEC & CEE directives and standards

Enclosure	**Protection Rating** ☑ Standard: NEMA 2 **Optional** ☐ NEMA 12 ☐ NEMA 3 ☐ NEMA 3R ☐ NEMA 4 ☐ NEMA 4X-304 sst painted ☐ NEMA 4X-304 sst brushed finish ☐ NEMA 4X-316 sst painted ☐ NEMA 4X-316 sst brushed finish	
	Accessories • Bottom entry gland plate • Lifting Lugs • Keylock handle	**Paint Specifications** • Red RAL3002 • Powder coating • Glossy textured finish

Shortcircuit Withstand Rating	120V to 240V - 1ph/2ph - 60Hz
Standard	100,000A

Limitations	• Across the line starting only • Horsepower rating of maximum 30hp • Can only be installed where acceptable by the authority having jurisdiction • Not accepted in FM insured property
Ambient Temperature Rating	**Standard**: 4°C to 40°C / 39°F to 104°F
Surge Suppression	Surge arrestor rated to suppress surges above line voltage
Disconnecting Means	• Door interlocked in the ON position • Circuit breaker continuous rating not less than 115% of motor full load current • Overcurrent sensing non-thermal type, magnetic only • Instantaneous trip setting of not more than 20 times the motor full load current • Common flange mounted operating handle
Service Entrance Rating	Suitable as service entrance equipment (not applicable for installations in Canada).
Emergency Start Handle	• Flange mounted • Pull and latch activation • Integrated limit switch • Across the line start (direct on line)
Locked Rotor Protector	• Operate shunt trip to open circuit breaker • Factory set at 600% of motor full load current • Trip between 8 and 20 seconds

Electrical Readings	• Voltage phase to phase (normal power) • Amperage of each phase when motor is running
Pressure Readings	• Continuous system pressure display • Cut-in and Cut-out pressure settings
Pressure and Event recorder	• Pressure readings with date stamp • Event recording with date stamp • Under regular maintained operation, events are stored in memory for the life of the controller. • Data viewable on operator interface display screen • Downloadable by USB port to external memory device or wireless connection to manufacturers App (mobile device).
Pressure Sensing	• Pressure transducer and run test solenoid valve assembly for fresh water application • Pressure sensing line connection 1/2” Female NPT • Drain connection 3/8” • Rated for 0-500PSI working pressure (standard display at 0-300PSI) • Externally mounted with protective cover
Audible Alarm	Alarm buzzer - 85dB at 3 meters
Visual Indications	• Power available • Motor run • Periodic test • Manual start • Deluge valve start • Remote automatic start • Remote manual start • Emergency start • Pump on demand/Automatic start • Pump room temperature (ºF or ºC) • Lockout
Visual & Audible Alarms	Visual • Control voltage not healthy • Invalid cut-in • Lock rotor current • Loss of power • Low ambient temperature • Low water level • Motor trouble • Phase reversal (normal power) • Overcurrent • Overvoltage • Phase loss L1 • Phase loss L2 • Phase loss L3 • Phase unbalanced • Pressure transducer fault detected • Pump on demand • Pump room alarm • Service required • Undercurrent • Undervoltage • Check weekly test solenoid • Weekly test cut-in reached Visual and audible • Fail to start

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<table>
<tr><td>Remote Alarm Contacts</td><td colspan="3">DPDT-8A-250V.AC
• Power available
• Phase reversal
• Motor run
• Common pump room alarm (field re-assignable)**
• Overvoltage
• Undervoltage
• Phase unbalance
• Low pump room temperature
• High Pump room temperature
• Common motor trouble (field re-assignable)**
• Overcurrent
• Fail to start
• Undercurrent
• Ground fault
• Free (field programmable)**</td></tr>
<tr><td>ViZiTouch V2.1 Operator Interface</td><td colspan="3">• Embedded microcomputer with software PLC logic
• 7.0” color touch screen (HMI technology)
• Upgradable software
• Multi-language</td></tr>
<tr><td>Communication Protocol Capability</td><td colspan="3">• Protocol: Modbus
• Connection type: Shielded female connector RJ45
• Frame Format: TCP/IP
• Addresses: See bulletin MOD-GPx</td></tr>
<tr><td rowspan="6">Operation</td><td>Automatic Start</td><td colspan="2">• Start on pressure drop
• Remote start signal from automatic device
• Deluge valve start</td></tr>
<tr><td>Manual Start</td><td colspan="2">• Start pushbutton
• Run test pushbutton
• Remote start from manual device</td></tr>
<tr><td>Stopping</td><td colspan="2">• Manual with Stop pushbutton
• Automatic after expiration of minimum run timer ***</td></tr>
<tr><td>Timers</td><td>Field Adjustable & Visual Countdown</td><td>• Minimum run timer ***(off delay)
• Sequential start timer (on delay)
• Periodic test timer</td></tr>
<tr><td>Actuation</td><td rowspan="2">Visual Indication</td><td>• Pressure
• Non-pressure</td></tr>
<tr><td>Mode</td><td>• Automatic
• Non-automatic</td></tr>
</table>

**Tornatech reserves the right to use any of these three alarm points for special specific application requirements.
***Can only be used if approved by the AHJ

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☐ A4	Flow switch provision
☐ A8	Foam pump application w/o pressure transducer and run test solenoid valve.
☐ A9	Low zone pump control function
☐ A10	Middle zone pump control function
☐ A11	High zone pump control function
☐ A13	Non-pressure actuated controller w/o pressure transducer and run test solenoid valve
☐ A16	Lockout/interlock circuit from equipment installed inside the pump room
☐ B11	Built in alarm panel (120V.AC supervisory power) providing indication for: • Audible alarm & silence pushbutton for motor run, phase reversal, loss of phase. • Pilot lights for loss of phase & supervisory power available
☐ B11B	Built in alarm panel same as B11 but 220-240VAC supervisory power
☐ B19A	High motor temperature c/w thermoster relay and alarm contacts (DPDT)
☐ B19B	High motor temperature c/w PT100 relay and alarm contacts (DPDT)
☐ B21	Ground fault alarm detection c/w visual indication and alarm contact (DPDT)
☐ C1	Extra motor run alarm contact (DPDT)
☐ C4	Periodic test alarm contact (DPDT)
☐ C6	Low discharge pressure alarm contact (DPDT)
☐ C7	Low pump room temperature alarm contact (DPDT)
☐ C10	Low water reservoir level alarm contact (DPDT)
☐ C11	High electric motor temperature alarm contact (DPDT)
☐ C12	High electric motor vibration c/w visual indication and alarm contact (DPDT)
☐ C14	Pump on demand / automatic start alarm contact (DPDT)
☐ C15	Pump fail to start alarm contact (DPDT)
☐ C16	Control voltage healthy alarm contact (DPDT)
☐ C17	Flow meter valve loop open c/w visual indication and alarm contact (DPDT)
☐ C18	High water reservoir level c/w visual indication and alarm contact (DPDT)

☐ C19	Emergency start alarm contact (DPDT)
☐ C20	Manual start alarm contact (DPDT)
☐ C21	Deluge valve start alarm contact (DPDT)
☐ C22	Remote automatic start alarm contact (DPDT)
☐ C23	Remote manual start alarm contact (DPDT)
☐ C24	High pump room temperature alarm contact (DPDT)
☐ C25	Second set of standard alarm contacts (DPDT) (Typical for city of Los Angeles and Denver)
☐ Cx	Additional visual and alarm contact (Specify function) (DPDT)
☐ D1	Low suction pressure transducer for fresh water rated at 0-500PSI with visual indication and alarm contact
☐ D1A	Low suction pressure transducer for sea water rated at 0-500PSI with visual indication and alarm contact
☐ D14	Anti-condensation heater & thermostat
☐ D14A	Anti-condensation heater & humidistat
☐ D14B	Anti-condensation heater & thermostat & humidistat
☐ D15	Tropicalization
☐ D18	CE Mark with factory certificate
☐ D27	Motor heater connection (external single phase power source and heater on/off contact)
☐ D27A	Motor heater connection (internal single phase power source and heater on/off contact)
☐ D28	Customized drawing set
☐ D34A	Field programmable I/O board - 5 Input / 5 output
☐ D36	Redundant pressure transducer for fresh water rated for 0-500PSI
☐ D36A	Redundant pressure transducer for sea water rated for 0-500PSI

Note: Options chosen from this page are not electrically represented on the wiring schematics in this submittal package.

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☐ L01	Other language and English (bilingual)
☐ L02	French
☐ L03	Spanish
☐ L04	German
☐ L05	Italian
☐ L06	Polish
☐ L07	Romanian
☐ L08	Hungarian
☐ L09	Slovakian
☐ L10	Croatian
☐ L11	Czech
☐ L12	Portuguese
☐ L13	Dutch
☐ L15	Turkish
☐ L16	Swedish
☐ L21	Danish
☐ L25	Chinese
☐ L28	Finnish
☐ L29	Norwegian

Additional Options:

☐ _____

☐ _____

☐ _____

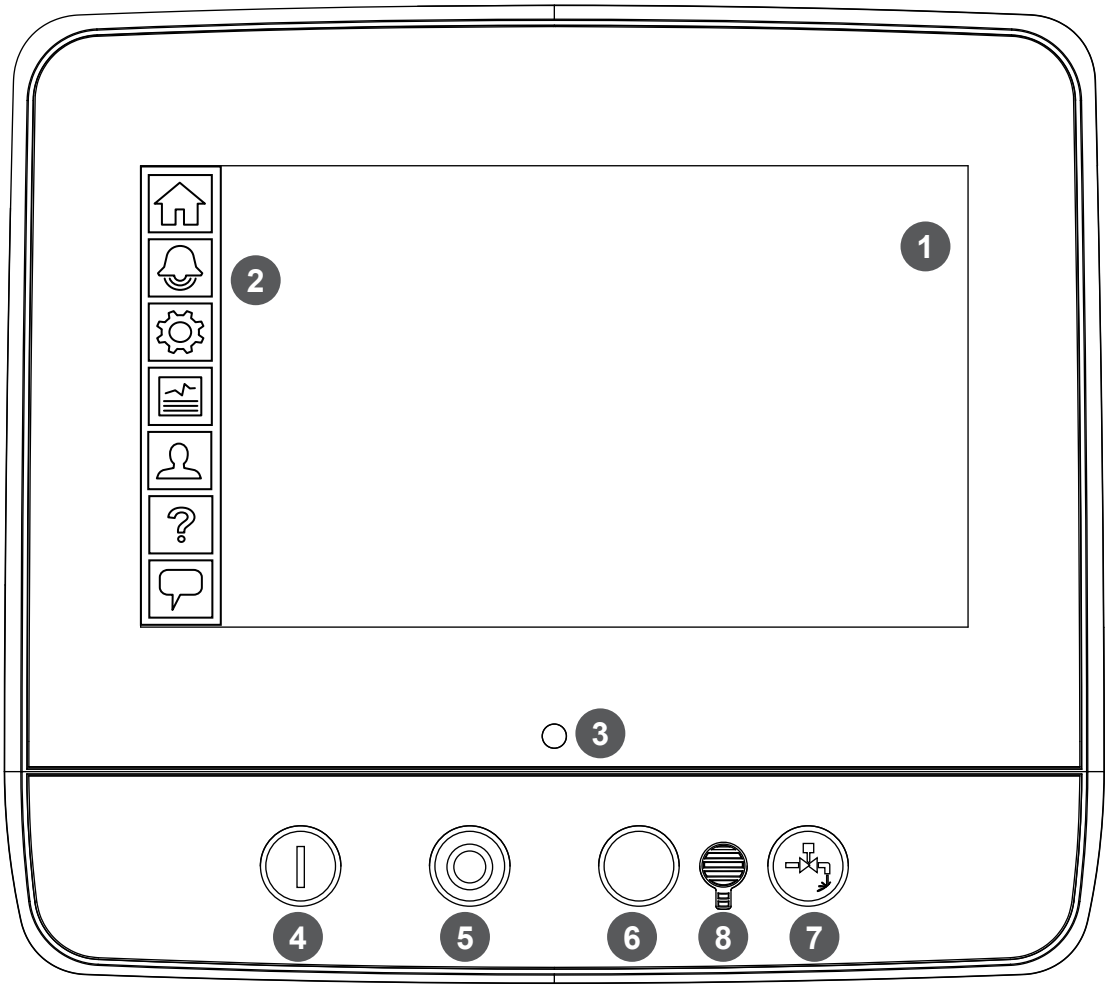
☐ _____

☐ _____

Note: Options chosen from this page are not electrically represented on the wiring schematics in this submittal package.

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ViZiTouch V2.1 Operator Interface



1 - Color touch screen
2 - Onscreen menu
- HOME page
- ALARM page
- CONFIGURATION page
- HISTORY page
- SERVICE page
- MANUAL page
- LANGUAGES page

3 - Power LED (3 colors)
4 - START button
5 - STOP button
6 - Not Used
7 - RUN TEST button
8 - Alarm buzzer

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LIMITED SERVICE PUMP CONTROLLER

MODEL: GPL

BUILT TO THE LATEST EDITION OF THE NFPA20 & NFPA70

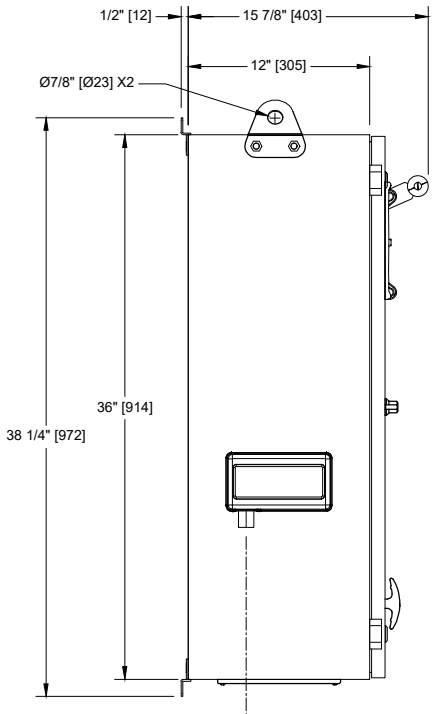
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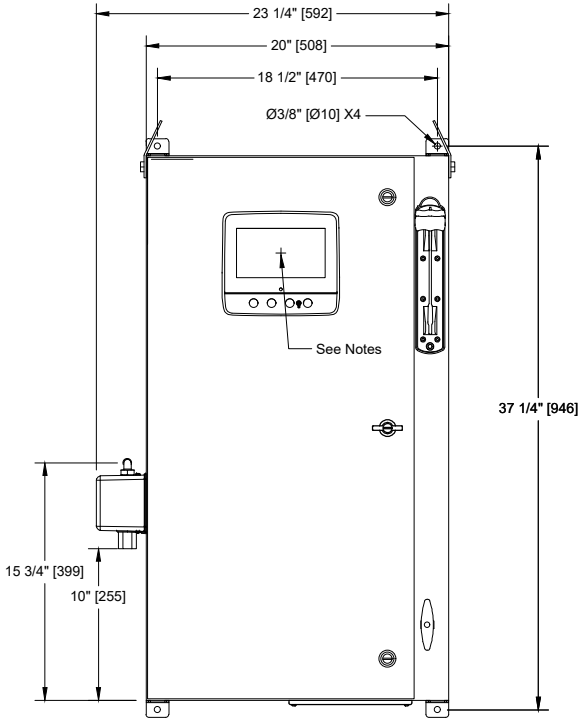
THIRD ANGLE PROJECTION

DRAWING NUMBER GPL-DI800/E

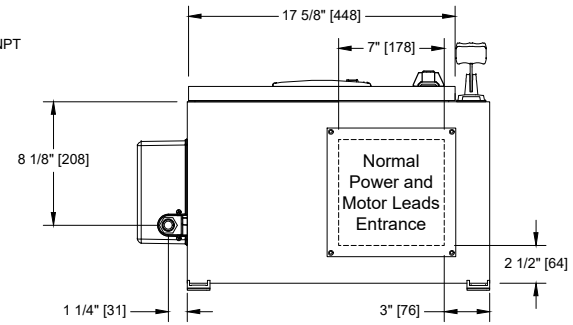
DWG REV. 0

SHEET 1 OF 1





Voltage / Power Table		
Voltage	Min HP	Max HP
1 Phase		
110 - 120	1	7.5
208	3	15
220 - 240	3	15
3 Phases		
208	3	30
220 - 240	3	30
380 - 400 - 415	3	30
440 - 480	3	30
600	3	30



Notes:

- Standard NEMA: NEMA 2
- Standard paint : textured red RAL 3002.
- All dimensions are in inches [millimeters].
- Center of screen: 29-5/8" [751] from bottom (no feet).
- Bottom conduit entrance through removable gland plate recommended.
- Use watertight conduit and connector only.
- Protect equipment against drilling chips.
- Door swing equal to door width.

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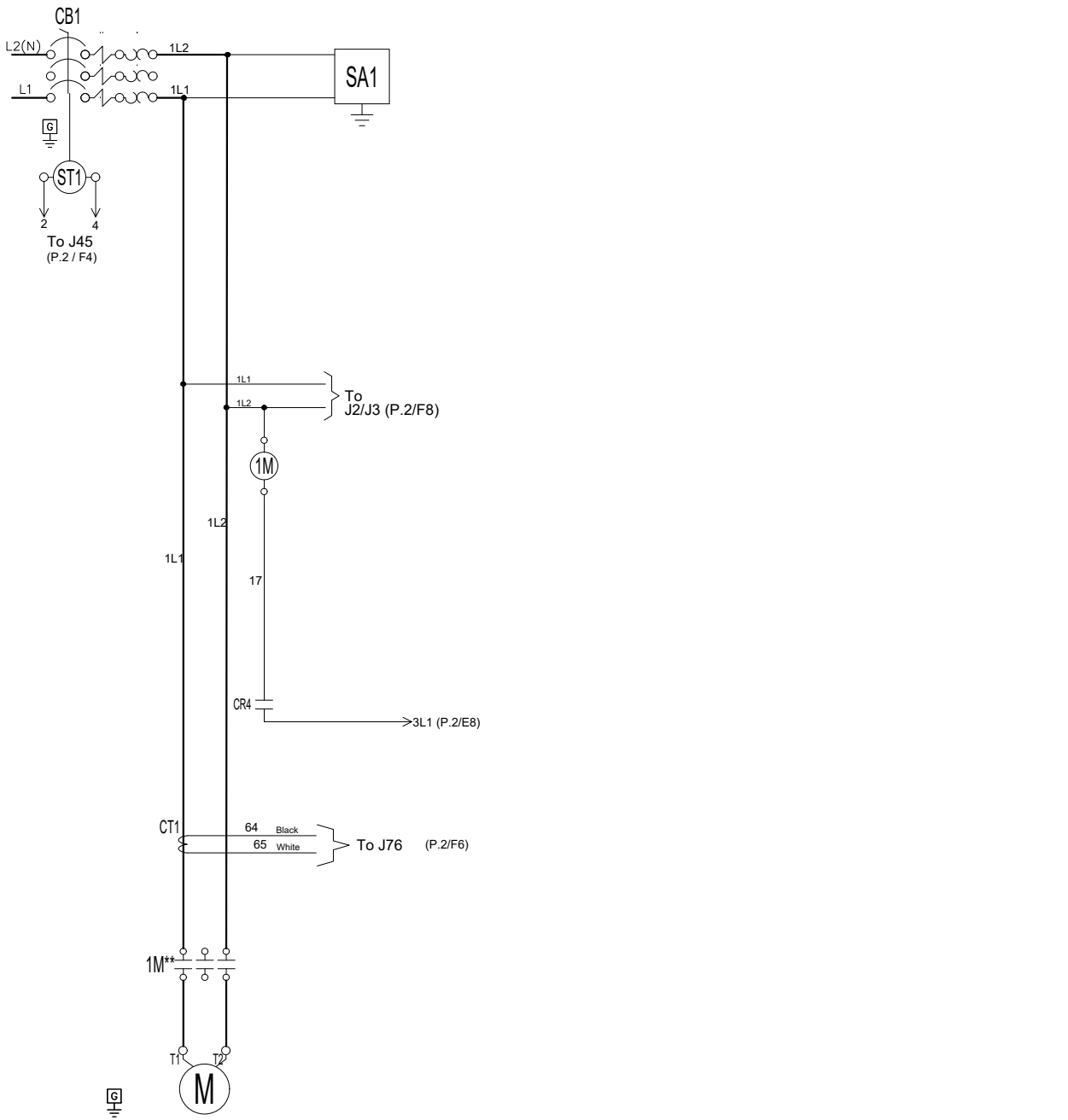
LIMITED SERVICE PUMP CONTROLLER ACROSS THE LINE / 1 PHASE

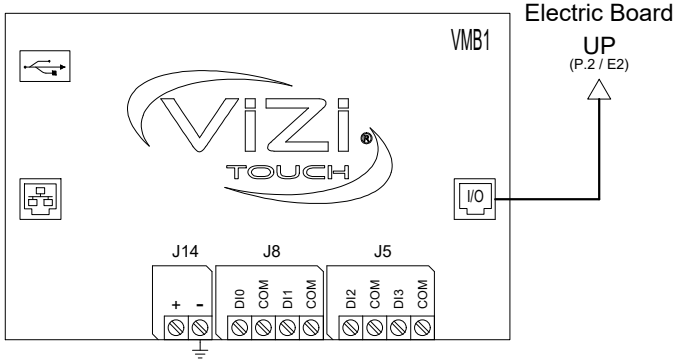
MODEL: GPL

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DRAWING NUMBER GPL-WS800/E
DWG REV. 1
SHEET 1 OF 2





To I/O Electric Board UP
(P.2 / E2)

Legend	
1M	Contactor
AB	Alarm Bell
CB	Circuit Breaker
CR	Control Relay
CT	Current Transformer
EB	Electric I/O Board
J	Jumper
LS	Limit Switch
PT	Pressure Transducer
SA	Surge Arrester
ST	Shunt Trip
SV	Solenoid Valve
VMB	Main Board
XTR	Transformer

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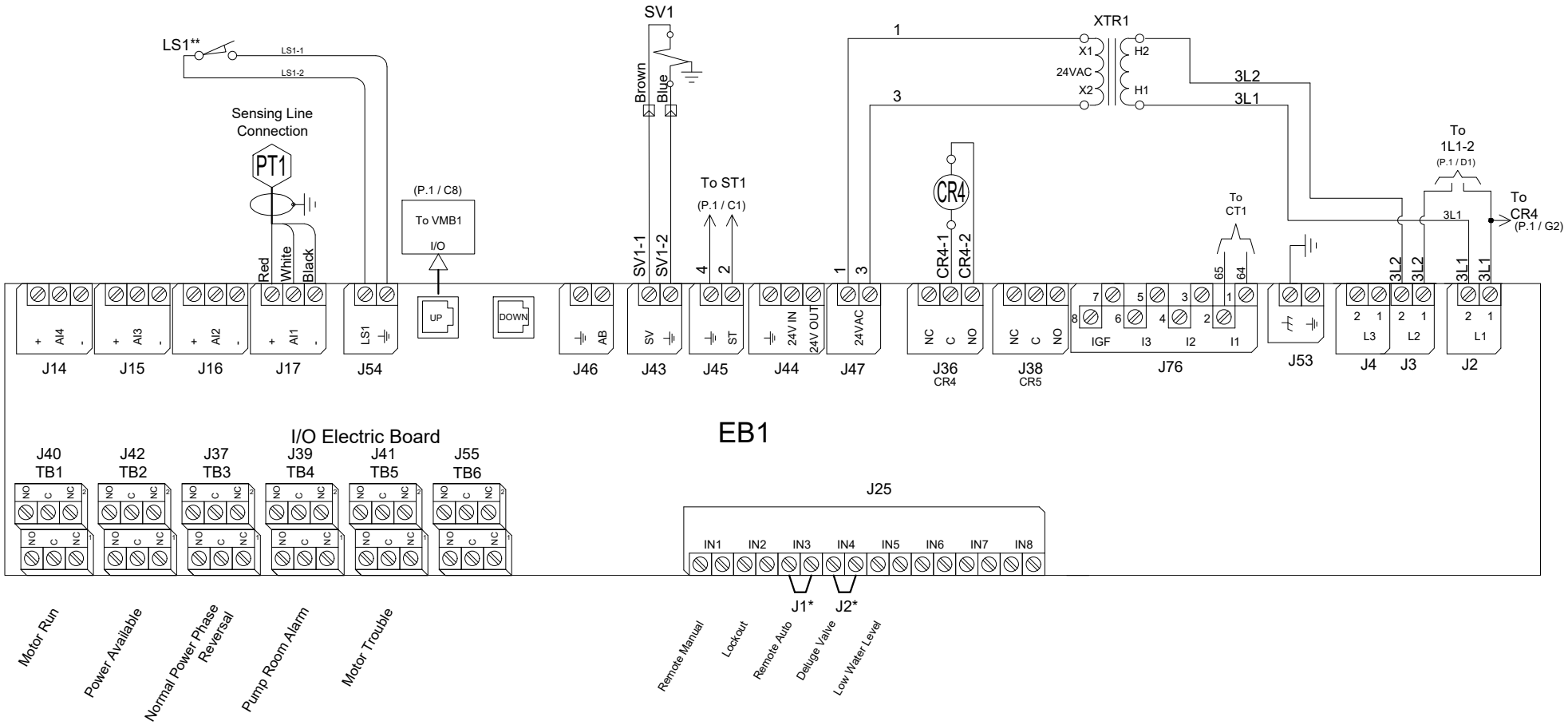
LIMITED SERVICE PUMP CONTROLLER ACROSS THE LINE / 1 PHASE

MODEL: GPL

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DRAWING NUMBER GPL-WS800/E
DWG REV. 1
SHEET 2 OF 2



* Remove jumper to use this feature
** Contact closes when emergency start is in "ON" position

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LIMITED SERVICE PUMP CONTROLLER

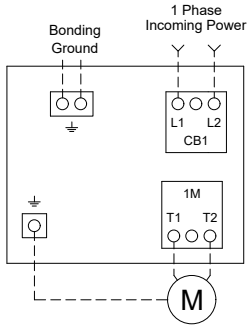
MODEL: GPL

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DRAWING NUMBER GPL-TD800/E
DWG REV. 0
SHEET 1 OF 1

Power Terminals
Model : GPL 1 Phase



Notes:
1 - For proper wire sizing, refer to NFPA70 and NEC (USA) or CEC (Canada) or local code.
2 - Controller suitable for service entrance in USA.
3 - For more accurate motor connections refer to motor manufacturer or motor nameplate.
4 - Controller is phase sensitive. Incoming lines must be connected in ABC sequence.
5 - Field wiring and lug sizes are based on copper conductors only. Do not use aluminum conductors.

Circuit breaker (CB) Field Wiring according to Bending Space (AWG or MCM). TERMINALS L1 - L2

Bending Space	3 " (76 mm)					
HP / Voltage	1	3	5	7.5	10	15
120	1x (10 to 1)	1x (8 to 1)	1x (6 to 1)	1x (4 to 1)	N/A	N/A
208	N/A	1x (10 to 1)	1x (8 to 1)	1x (6 to 1)	1x (4 to 1)	1x (3 to 1)
220 to 240	N/A	1x (10 to 1)	1x (8 to 1)	1x (8 to 1)	1x (6 to 1)	1x (3 to 1)

(Use Copper Conductors Only)

Wiring Size for motor connection for Model GPL (AWG or MCM). TERMINALS T1 - T2

HP / Voltage	1	3	5	7.5	10	15
120	1x (10 to 1)	1x (8 to 1)	1x (6 to 1)	1x (4 to 1)	N/A	N/A
208	N/A	1x (10 to 1)	1x (8 to 1)	1x (6 to 1)	1x (4 to 1)	1x (3 to 1)
220 to 240	N/A	1x (10 to 1)	1x (8 to 1)	1x (8 to 1)	1x (6 to 1)	1x (3 to 1)

(Use Copper Conductors Only)

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LIMITED SERVICE PUMP CONTROLLER

MODEL: GPL

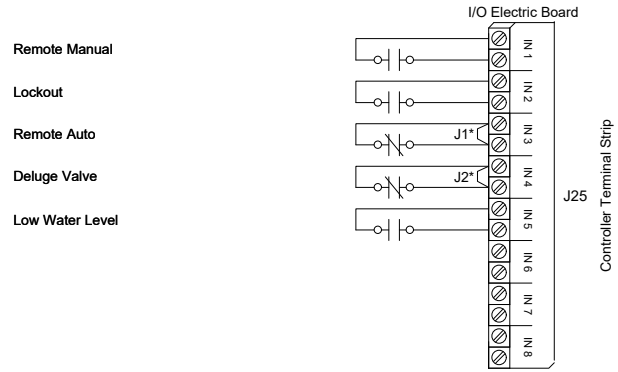
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DRAWING NUMBER GPX-TD802/E
DWG REV. 0
SHEET 1 OF 1

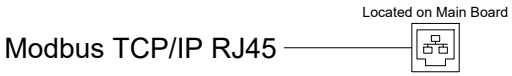
Field Connections

Terminals Wire Size:
24 - 12 AWG
0.5 Nm



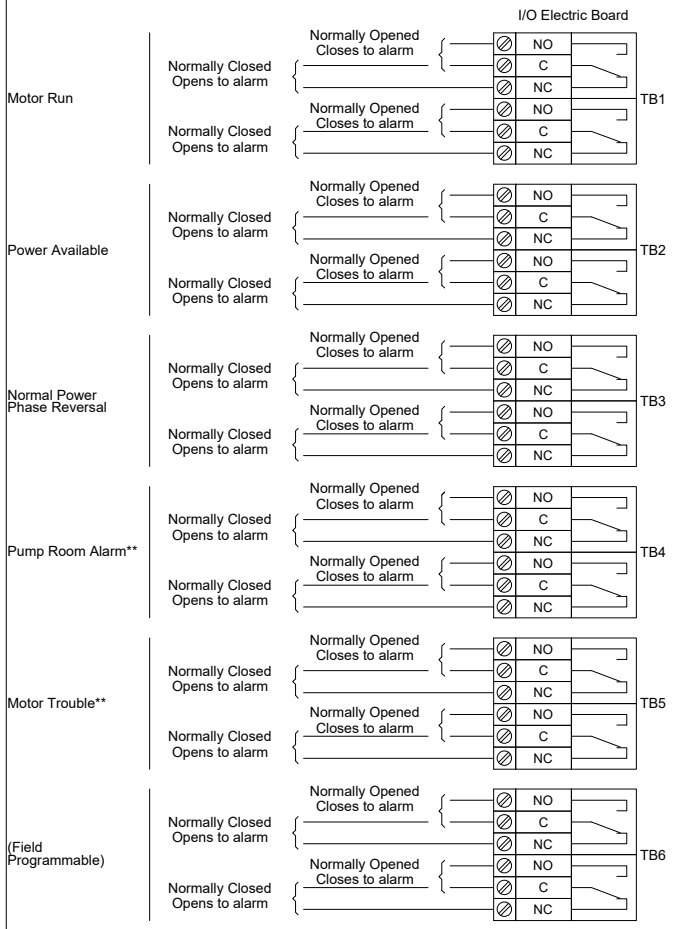
Network Connections

Terminals Wire Size:
Shielded Female Connector RJ45



Alarm Contacts

Terminals Wire Size:
24 - 12 AWG
0.5 Nm



* Remove jumper to use this feature
** Re-assignable

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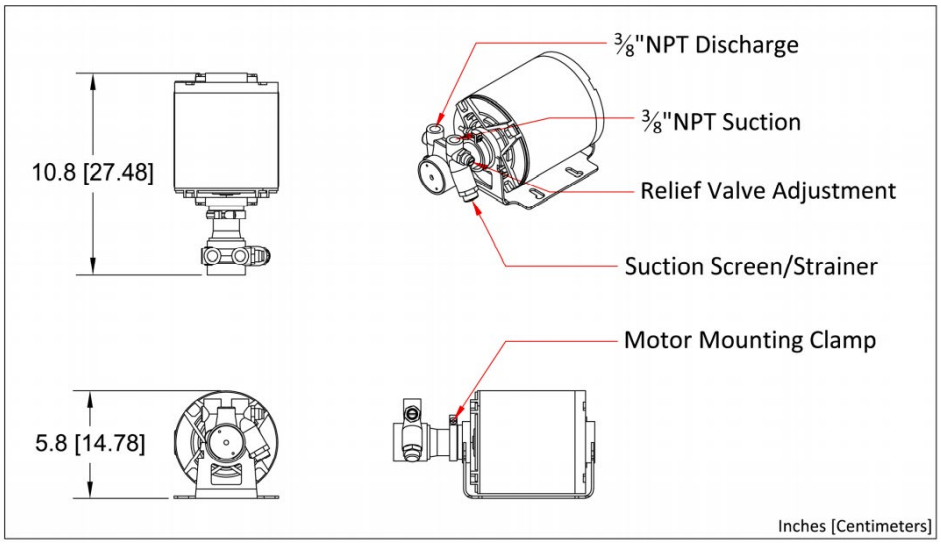
Jockey Pump Data:

INNOVATIVE PUMP SOLUTIONS

Talco ULV Jockey Pump

- High Quality Rotary Vane Pump
  - 1.8GPM @ 240PSI
- 1/3HP* 200V-240V Electric Motor
  - Resilient Mounted
  - Permanently Lubricated
- Integrated Recirculation Relief Valve
  - Factory Set to 170PSI
  - No External Discharge
- Removable Mesh Suction Strainer
  - Cleanable & Reusable





Dimensions are approximate.
*Motor HP subject to change without notice based on availability.

503-688-1231 www.talcofire.com 6040 NE 112th Ave, Portland OR

TALCO FIRE SYSTEMS

VIRTUAL JOCKEY PUMP™

TALCO FIRE SYSTEMS

U.S. PATENT #10143871

RESIDENTIAL AND COMMERCIAL FIRE PUMP SPECIALISTS

Intelligent Pressure Maintenance Without a Physical Jockey Pump

VIRTUAL JOCKEY PUMP™

TALCO FIRE SYSTEMS EXCLUSIVE

The Virtual Jockey Pump™ eliminates the system jockey pump and makes non-maintained fire pump systems more reliable.

1. The Virtual Jockey Pump™ monitors the rate of pressure drop in the fire sprinkler system.

2. The Virtual Jockey Pump™ observes a quick pressure drop indicating the sprinkler system has activated:

   The fire pump starts, the Pump Run alarm contacts activate and notify the monitoring station that the fire pump is running, and the pump must be manually stopped in most installations.

3. The Virtual Jockey Pump™ observes slow pressure drop indicating that the sprinkler system has not activated, and simply needs to be recharged:

   The Fire Pump starts, runs for 1 minute recharging the system pressure, and stops. The Pump Run Alarm is not activated.

   The old water sitting in the pump casing is discharged through the casing relief valve and replaced with new water.

Increases System Reliability And Eliminates Jockey Pump Problems

TALCO FIRE SYSTEMS EST. 1988

Commercial Pressure Switches

Electromechanical Square D Brand 9013
For power circuits, FRG, FHG, and G

Environmental characteristics

Pressure switch type		FRG	FHG	G
Conformity to standards		UL 508, NEC Article 430-84, ANSI /NSF Standard 61, FDA 21CFR.2600		
Product Certifications		UL File E12158 CCN NKPZ , CSA File LR 25490 Class 321106		
Protective treatment		N/A		
Ambient air temperature	°C	For operation, 0 °C (32 °F) min to 125 °C (257 °F) max For storage, -30 °C (-22 °F) min to 70 °C (158 °F) max		
Fluids controlled		Fresh water, or sea water (with Form Q)		
Materials		Cover: polypropylene, Noryl® thermoplastic resin or equivalent for Type 3R, Component material in contact with fluid: flange, zinc plated or equivalent (fluid entry), nitrile or equivalent rubber (diaphragm)		
Operating position		NEMA Type 1, and Type IP20 in any position, NEMA Type 3R in the vertical position only		
Vibration resistance		—		
Shock resistance		—		
Electric shock protection		—		
Degree of protection		NEMA Type 1, IP20 and NEMA Type 3R (some references) must be mounted in vertical position to maintain enclosure rating		
Operating rate	cycles/m	10		
Repeat accuracy		+/- 3 % of the range		
Fluid connection		1/8" NPSF internal, 1/4" NPSF internal, 1/2"NPT External, 1/4" Bayonet (barbed), 90 deg. Elbow 1/4" Bayonet, Four Way Flange, 3/8" NPSF (Internal), 1/4" Flare, other specials		
Electrical connection		2 open side entries, 3/4" diameter, with two flats		3 Conduit 1/2" Knockouts

Contact block characteristics

Type of contacts		One 2 pole, 2 N/C (4 terminal) contacts, snap action
Resistance across terminals	m Ω	< 25
Terminal referencing		N/A
Short-circuit protection	A	5,000
Connection		Screw clamp terminals. Clamping capacity up to #10 AWG (5.261 mm^2)
Electrical durability	cycles	100,000
Mechanical durability	cycles	300,000

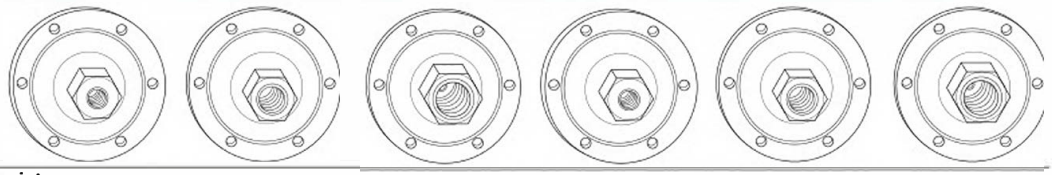
Electrical Ratings

1 Pole			FRG			FHG ▲ ■			G		
Power ratings of controlled motors	Voltage		~ 1-phase	~ 3-phase	⎓	~ 1-phase	~ 3-phase	⎓	~ 1-phase	~ 3-phase	⎓
	32 V		—	—	—	—	—	—	—	—	—
Note: Type FRG and G are all Form H	115 V		0.75 kW (1 HP)	—	0.18 kW (.25 HP)	1.1 kW (1.5 HP)	1.5 kW (2 HP)	0.18 kW (.25 HP)	0.75 kW (1 HP)	—	0.37 kW (.50 HP)
▲ Includes FHG 2, 3, 4, 9, 12, 13, 14, 19, 42, 44, 49	230 V		0.75 kW (1 HP)	—	0.18 kW (.25 HP)	1.5 kW (2 HP)	2.2 kW (3 HP)	0.18 kW (.25 HP)	1.5 kW (2 HP)	—	0.37 kW (.50 HP)
	460 / 575 V		—	—	—	—	0.75 kW (1 HP)	—	1.5 kW (2 HP)	—	—
2 Pole	Voltage		~ 1-phase	~ 3-phase	⎓	~ 1-phase	~ 3-phase	⎓	~ 1-phase	~ 3-phase	⎓
Power ratings of controlled motors	32 V		—	—	0.18 kW (.25 HP)	—	—	—	—	—	—
■ Includes FHG 22, 24, 29, 32, 33, 34, 39, 52, 54, 59	115 V		0.75 kW (1 HP)	0.75 kW (1 HP)	0.18 kW (.25 HP)	1.5 kW (2 HP)	2.2 kW (3 HP)	0.37 kW (.50 HP)	1.5 kW (2 HP)	2.2 kW (3 HP)	0.75 kW (1 HP)
	230 V		0.75 kW (1 HP)	0.75 kW (1 HP)	0.18 kW (.25 HP)	2.2 kW (3 HP)	3.7 kW 5 HP)	0.37 kW (.50 HP)	2.2 kW (3 HP)	3.7 kW 5 HP)	0.75 kW (1 HP)
	460 / 575 V		—	—	—	—	0.75 kW (1 HP)	—	3.7 kW (5 HP)	3.7 kW (5 HP)	—

Commercial Pressure Switches

Electromechanical Square D Brand 9013
For power circuits G
2-pole 2 N/C contacts
Degree of protection IP20, NEMA Type 1, 7 & 9

Flange Style



Adjustable range of switching point
Contacts open on rising pressure
2 Pole

Fluid connections	1/8" NPSF internal	1/4" NPSF internal	3/8" NPSF internal	1/8" NPSF internal	1/4" NPSF internal	3/8" NPSF internal
References						
NEMA Type 1, IP20	9013GHG1	9013GHG2	9013GHG3			
NEMA Type 7, NEMA Type 9				9013GHR1	9013GHR2	9013GHR3
Fluids / Pressure controlled	Water or Air	Water or Air	Water or Air	Water or Air	Water or Air	Water or Air
Pressure range						
Cut-Out PSIG (bar)	60-200	60-200	60-200	65-200	65-200	65-200
Cut-In PSIG (bar)	40-170	40-170	40-170	35-150	35-150	35-150
Weight lbs (kg)	2 lbs (0.91)	2 lbs (0.91)	2 lbs (0.91)	8 lbs (3.62)	8 lbs (3.62)	8 lbs (3.62)
Complementary characteristics not shown under general characteristics						
Differential PSIG (bar)	20-40 (1.4-2.8)	20-40 (1.4-2.8)	20-40 (1.4-2.8)	30-50 (2.1-3.5)	30-50 (2.1-3.5)	30-50 (2.1-3.5)
Maximum permissible pressure PSIG (bar)	80 (5.5)	80 (5.5)	80 (5.5)	80 (5.5)	80 (5.5)	200 (13.8)
Mechanical life	300, 000 operating cycles					
Cable entry	3 Conduit 1/2" Knockouts	3 Conduit 1/2" Knockouts	3 Conduit 1/2" Knockouts	2 3/4" 14 NPT	2 3/4" 14 NPT	2 3/4" 14 NPT
Pressure switch type	Diaphragm					

Ordering Information

1 *Specify Class 9013 Type G.*
2 *Select pressure code and add code designation to end of type number. Be sure that pressure code falls within the limits of the device as shown in the device listings.*
3 *If special features are desired, add the appropriate Form letter to the Class and Type. Arrange Form letters in alphabetical sequence when ordering more than one special feature.*
4 *Place packaging code at end of sequence with other forms when ordering.* If no packaging code is indicated, devices will be shipped individually packaged.
For standard pack of 10 devices per box C10
Available on GHB, GHG, GSB, and GSG

See page 25 for Form C10.

Pressure Codes

Below is the pressure code table.
Existence of a code does not imply that the code is available for any or all devices.

Settings	Code
20-40 PSI	J20
30-50 PSI	J21
40-20 PSI	J23
40-60 PSI	J24
60-80 PSI	J25
70-90 PSI	J26
70-100 PSI	J28
75-100 PSI	J29
80-100 PSI	J30
90-120 PSI	J31
100-80 PSI	J51
100-125 PSI	J53
110-125 PSI	J54
110 150 PSI	J56
120-150 PSI	J57
125-150 PSI	J58
125 175 PSI	J60
130-175 PSI	J61
140-170 PSI	J66
140 175 PSI	J62
145-175 PSI	J63
150-120 PSI	J64
150-175 PSI	J67
215-250 PSI	J65
Specify pressure settings	J99

Valves:

Gate Valves

SERIES 771H OS&Y GROOVE x GROOVE
SERIES 772H NRS GROOVE x GROOVE
SERIES 771F OS&Y GROOVE x FLANGE
SERIES 772F NRS GROOVE x FLANGE
SERIES 773 WALL POST INDICATOR
SERIES 774 UPRIGHT POST INDICATOR

The Series 771H OS&Y and Series 771F OS&Y gate valves are used when positive shut off is required and a quick visual indicator of open/closed position is required. The Series 772H NRS and Series 772F NRS gate valves are typically used for shut-off service where the valve is operated remotely, such as when the valve is behind a wall or buried. Series 772H NRS and Series 772F NRS gate valves are offered with optional wall (Series 773) or upright (Series 774) post indicators.

FM cULus LISTED



SERIES 771H | SERIES 772H | SERIES 774 | SERIES 771F | SERIES 772F | SERIES 773

MATERIAL SPECIFICATIONS

Series 771 OS & Y and 772 NRS Gate Valves

Body: Ductile iron conforming to ASTM A-536 grade 65-45-12

Body Gasket: EPDM

Body Bolts: Plated Steel w/ Plastic Covers

Handwheel:

OS & Y Yoke (Series 771 only): Ductile iron conforming to ASTM A-536 grade 65-45-12

Bonnet: Ductile iron conforming to ASTM A536 grade 65-45-12

Bonnet/Body Coating: Fusion bonded Epoxy coating

Gate: Cast iron, EPDM coated

Gate Nut: Bronze, conforming to ASTM B62

Stem: Brass, ASTM B16

Continued on page 2.

JOB/OWNER
System No. _____
Location _____

CONTRACTOR
Submitted By _____
Date _____

ENGINEER
Spec Sect _____ Para _____
Approved _____
Date _____

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Gate Valves

SERIES 771H OS&Y GROOVE x GROOVE
SERIES 772H NRS GROOVE x GROOVE
SERIES 771F OS&Y GROOVE x FLANGE
SERIES 772F NRS GROOVE x FLANGE
SERIES 773 WALL POST INDICATOR
SERIES 774 UPRIGHT POST INDICATOR

MATERIAL SPECIFICATIONS

Continued from page 1

O-Ring Seals: EPDM

Optional:

- **Indicator Post Flange:** Ductile iron conforming to ASTM A-536 grade 65-45-12 available for NRS valves only

Series 773 & 774 Indicators

Target Frame: Bronze conforming to ASTM B62

Window: Polycarbonate

Series 773 Wall Post Indicator:

Body: Cast iron conforming to ASTM A-126-B

Operating Stem: Bronze conforming to ASTM B62

Operating Rod: Carbon steel

Series 774 Upright Indicators:

Body: Cast iron conforming to ASTM A-126-B

Extension Sleeve: Cast iron conforming to ASTM A-126-B

CERTIFICATIONS/LISTINGS

Inches DN	Series 771H		Series 772H		Series 771F		Series 772F	
	cULus	FM	cULus	FM	cULus	FM	cULus	FM
2½ DN65	250 psi 1725 kPa	250 psi/1725 kPa	250 psi/1725 kPa	250 psi/1725 kPa	250 psi/1725 kPa	250 psi/1725 kPa	250 psi/1725 kPa	250 psi/1725 kPa
76.1 mm	250 psi/1725 kPa	250 psi/1725 kPa	250 psi/1725 kPa	250 psi/1725 kPa	250 psi/1725 kPa	250 psi/1725 kPa	250 psi/1725 kPa	250 psi/1725 kPa
3 DN80	250 psi/1725 kPa	250 psi/1725 kPa	250 psi/1725 kPa	250 psi/1725 kPa	250 psi/1725 kPa	250 psi/1725 kPa	250 psi/1725 kPa	250 psi/1725 kPa
4 DN100	250 psi/1725 kPa	250 psi/1725 kPa	250 psi/1725 kPa	250 psi/1725 kPa	250 psi/1725 kPa	250 psi/1725 kPa	250 psi/1725 kPa	250 psi/1725 kPa
165.1 mm	250 psi/1725 kPa	250 psi/1725 kPa	250 psi/1725 kPa	250 psi/1725 kPa	250 psi/1725 kPa	250 psi/1725 kPa	250 psi/1725 kPa	250 psi/1725 kPa
6 DN150	250 psi/1725 kPa	250 psi/1725 kPa	250 psi/1725 kPa	250 psi/1725 kPa	250 psi/1725 kPa	250 psi/1725 kPa	250 psi/1725 kPa	250 psi/1725 kPa
8 DN200	250 psi/1725 kPa	250 psi/1725 kPa	250 psi/1725 kPa	250 psi/1725 kPa	250 psi/1725 kPa	250 psi/1725 kPa	250 psi/1725 kPa	250 psi/1725 kPa
10 DN250	250 psi/1725 kPa	250 psi/1725 kPa	250 psi/1725 kPa	250 psi/1725 kPa	250 psi/1725 kPa	250 psi/1725 kPa	250 psi/1725 kPa	250 psi/1725 kPa
12 DN300	250 psi/1725 kPa	250 psi/1725 kPa	250 psi/1725 kPa	–	250 psi/1725 kPa	–	250 psi/1725 kPa	–
14 DN350	250 psi/1725 kPa	–	250 psi/1725 kPa	–	250 psi/1725 kPa	–	250 psi/1725 kPa	–
16 DN400	250 psi/1725 kPa	–	250 psi/1725 kPa	–	250 psi/1725 kPa	–	250 psi/1725 kPa	–

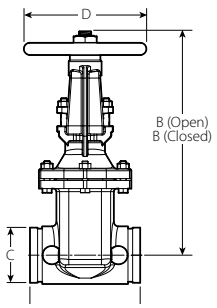
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Gate Valves

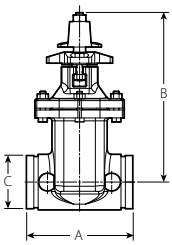
SERIES 771H OS&Y GROOVE x GROOVE
SERIES 772H NRS GROOVE x GROOVE
SERIES 771F OS&Y GROOVE x FLANGE
SERIES 772F NRS GROOVE x FLANGE
SERIES 773 WALL POST INDICATOR
SERIES 774 UPRIGHT POST INDICATOR

DIMENSIONS

Series 771H OS&Y and Series 772H
Grooved x Grooved

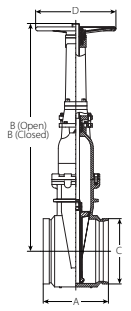


SERIES 771H

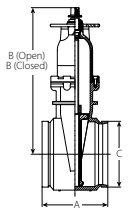


SERIES 772H

Size		Dimensions – Inches/mm						Approx. Weight Each Lbs./kg	
Nomial Size Inches DN	Actual Outside Dia. Inches mm	A	Series 771H Height B Closed	Series 771H Height B Open	Series 772H Height B	C	D	Series 771H	Series 772H
2½ DN65	2.88 73.0	7.500 190.5	16.18 411	18.74 476	11.02 280	2.88 73	7.87 200	31.5 14.3	22.05 10
76.1 mm	3.00 76.1	7.500 190.5	16.18 411	19.18 487.1	11.02 280	3.00 76.1	7.87 200	31.5 14.3	22.05 10
3 DN80	3.50 88.9	7.992 203	17.09 434	20.34 514	12.21 310	3.50 88.9	7.87 200	39.3 17.8	29.77 13.5
4 DN100	4.50 114.3	9.016 229	18.11 460	22.05 560	13.58 345	4.50 114.3	10.24 260	55.4 25.1	39.69 18
165.1 mm	6.50 165.1	10.512 267	23.90 607	30.40 772.1	17.13 435	6.50 165.1	12.40 315	104.8 47.5	81.13 36.8
6 DN150	6.63 168.3	10.512 267	23.90 607	29.80 757	17.13 435	6.63 168.3	12.40 250	104.8 47.5	81.13 36.8
8 DN200	8.63 219.1	11.496 292	28.59 726	36.46 926	20.12 511	8.63 219.1	14.76 375	174.0 78.9	134.49 61
10 DN250	10.75 273	12.992 330	35.04 890	44.88 1140	24.02 610	10.75 273	16.38 416	262.4 119	194.00 88
12 DN300	12.75 323.9	14.016 356	40.12 1019	51.93 1319	27.68 703	12.75 323.9	17.52 445	392.9 178.2	310.41 140.8



SERIES 771H



SERIES 772H

Size		Dimensions – Inches/mm						Approx. Weight Each Lbs./kg	
Nomial Size Inches DN	Actual Outside Dia. Inches mm	A	Series 771H Height B Closed	Series 771H Height B Open	Series 772H Height B	C	D	Series 771H	Series 772H
14 DN350	14.000 355.6	15.00 381	53.00 1346	66.75 1695	32.50 826	14.00 356	19.63 498	586.0 266	492.0 223
16 DN400	16.000 406.4	16.00 406	55.88 1419	71.63 1819	36.00 914	16.00 406	19.63 498	776.0 352	667.0 307

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Gate Valves

SERIES 771H OS&Y GROOVE x GROOVE
SERIES 772H NRS GROOVE x GROOVE
SERIES 771F OS&Y GROOVE x FLANGE
SERIES 772F NRS GROOVE x FLANGE
SERIES 773 WALL POST INDICATOR
SERIES 774 UPRIGHT POST INDICATOR

WARRANTY

Refer to the Warranty section of the current Price List or contact Victaulic for details.

NOTE

This product shall be manufactured by Victaulic or to Victaulic specifications. All products to be installed in accordance with current Victaulic installation/assembly instructions. Victaulic reserves the right to change product specifications, designs and standard equipment without notice and without incurring obligations.

⚠ WARNING



- **Read and understand all instructions before attempting to install any Victaulic products.**
- **Always verify that the piping system has been completely depressurized and drained immediately prior to installation, removal, adjustment, or maintenance of any Victaulic products.**
- **Wear safety glasses, hardhat, and foot protection.**

Failure to follow these instructions could result in death or serious personal injury and property damage.

- **These products shall be used only in fire protection systems that are designed and installed in accordance with current, applicable National Fire Protection Association (NFPA 13, 13D, 13R, etc.) standards, or equivalent standards, and in accordance with applicable building and fire codes. These standards and codes contain important information regarding protection of systems from freezing temperatures, corrosion, mechanical damage, etc.**
- **The installer shall understand the use of this product and why it was specified for the particular application.**
- **The installer shall understand common industry safety standards and potential consequences of improper product installation.**
- **It is the system designer's responsibility to verify suitability of materials for use with the intended fluid media within the piping system and external environment.**
- **The material specifier shall evaluate the effect of chemical composition, pH level, operating temperature, chloride level, oxygen level, and flow rate on materials to confirm system life will be acceptable for the intended service.**

Failure to follow installation requirements and local and national codes and standards could compromise system integrity or cause system failure, resulting in death or serious personal injury and property damage.

10.92 3003 REV G UPDATED 04/2021

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PTS-C
PLUG TYPE SUPERVISORY SWITCH



Stock No. 1010201

UL and cUL Listed, FM Approved, CSFM Listed, NYMEA Accepted

Dimensions: 7" L x 3.75 W x 3" D (including bracket)
(17,7 cm x 9,5 cm x 7,6 cm)

Weight: 13.6 oz. (385,5 g.)

Enclosure: Non-Corrosive Composite Material

Environmental Limitations:
- NEMA 4 and NEMA 6P rated enclosure when proper electrical fittings are used. (IP67)
- Temperature range: -40° F to 140° F (-40° C to 60° C)

Housing Cover Tamper: Activated by housing cover removal.

Contact Ratings: SPDT Plug Contacts: 100 mA at 28 VDC/AC
250 mA at 12 VDC/AC
SPDT Cover Tamper: 250 mA at 28 VDC/AC

Cable: 2-wire, 18 Ga. Waterproof - Approx. 8' (2,43m) long

General
The Model PTS-C is designed to supervise sprinkler system control valves and may also be used to secure gates and other applications. This unit is particularly useful for unusual conditions, such as non-rising stem valves.

Nema 6P enclosure allows the device to be mounted outdoors, even in areas subject to flooding such as pits and wells. Sealed reed switch operation virtually eliminates contact corrosion.

Turning the valve wheel will pull the plug out of the receptacle. The plug cannot be reinserted after operation until the plug receptacle cover is removed with the special hex key provided. This key should be left with the building owner or responsible party. Replacement or additional cover tamper screws and hex keys are available. For cover tamper screws, order stock no. 5490344. For hex key, order stock no. 5250062.

Installation
Insert plug into housing, take the loose end of the cable and loop it through the valve handle and into the housing. Adjust the length of cable so the plug must be pulled from the housing when the valve is closed. Cut off excess cable and terminate on the plug terminals of the PC board. Do not leave more than 2" (50mm) of excess wiring in the housing. Dress wires to outside edge of housing so as not to interfere with cover tamper.

Wire Checkout
With the plug wired to the two P terminals and the plug inserted fully into the receptacle, place an ohmmeter across the C and N.O. terminals. The meter will show Open. Unplug the plug from the receptacle. The meter will show continuity.

Note: The two P terminals will always show continuity when the plug is connected regardless of whether the plug is inserted or not.

The cover tamper switch can be wired into the plug circuit or wired as a separate circuit. (See wiring diagrams.)

Testing
The PTS-C and its associated protective monitoring system should be tested in accordance with applicable NFPA codes and standards and/or the authority having jurisdiction (manufacturer recommends quarterly or more frequently).

⚠ CAUTION

Be sure valve is fully open before restoring PTS-C.

WARNING

As Stipulated By Factory Mutual And Underwriters Laboratories

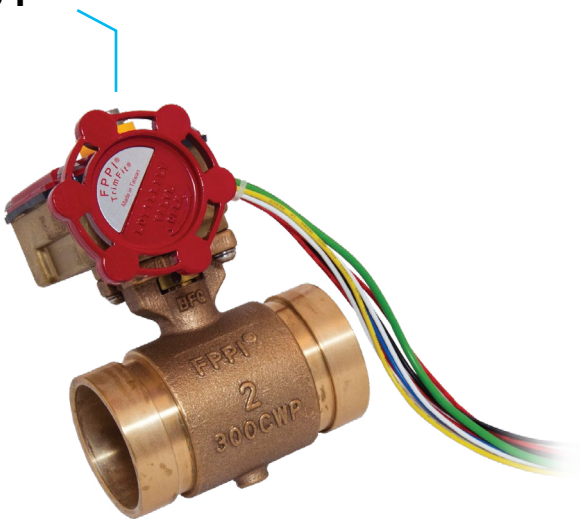
This unit is not intended or designed for ordinary use. It is a special application device to be used for unusual conditions such as non-rising stem gate valves where no other approved or listed method of protection is available or practical. As this unit does not meet NFPA codes and standards, requiring restoration signal when the valve is positioned to normal, special attention should be given by the responsible parties to assure that the proper operation of this device is maintained. This device should only be restored to normal when the valve is in the normal condition.

Potter Electric Signal Company, LLC • 2081 Craig Road, St. Louis, MO, 63146-4161 • Phone: 800-325-3936/Canada 888-882-1833 • www.pottersignal.com

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MFG #5401078 - REV J
5/08

TrimFit® Bronze Butterfly Valves – FNPT
Fig. 06-504



Description

FPPI TrimFit Model BFT (Threaded Butterfly Valve) closes slowly to prevent water hammer. These butterfly valves are designed to be installed in any orientation and monitored to signal if the valve is opened or closed. They are both UL Listed and FM Approved for use in a fire sprinkler system.

- Superior corrosion resistance from bronze valve body and forged brass actuator body
- Smooth action in a very compact package prevents water hammer
- UL/ULc Listed and FM Approved for use in indoor and outdoor applications
- Available threaded and grooved – grooved butterfly valves now also available in 1 1/4" and 1 1/2" sizes
- Suitable for installation in any orientation
- 1" size is UL listed, FM approved

Specifications

Rated to 300 PSI

Switch rating:
10.1Amps125/250VAC-60Hz

Actual switch application rating:
10 Amps/115 VAC-60Hz
0.5 Amps/28 VDC
Indoor/Outdoor Use

Materials:
Body: Bronze ASTM 584
C83600
Disc: SS304
Handwheel: ASTM A216 WCB
Seat: ASTM D2000 Viton
Indicator: Powder Metal
Housing/Cover: Forged Brass
JIS C3771 (Ref. ASTM C37700)

Available Sizes:

TrimFit® Model BFT (Threaded)

06-500-00	1"	UL/FM
06-502-00	1¼"	UL/ULc/FM
06-504-00	1½"	UL/ULc/FM
06-506-00	2"	UL/ULc/FM
06-508-00	2½"	UL/ULc/FM

TrimFit® Model BFG (Grooved)

06-522-00	1¼"	UL/ULc/FM
06-524-00	1½"	UL/ULc/FM
06-526-00	2"	UL/ULc/FM
06-528-00	2½"	UL/ULc/FM

CA Bldg. Materials Listing #
7770-2164-0100

c UL us LISTED

FM APPROVED

FPPI
An ASC Engineered Solution

PROJECT INFORMATION	APPROVAL STAMP
Project:	☐ Approved
Address:	☐ Approved as noted
Contractor:	☐ Not approved
Engineer:	Remarks:
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Notes 1:	
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Installation Instructions

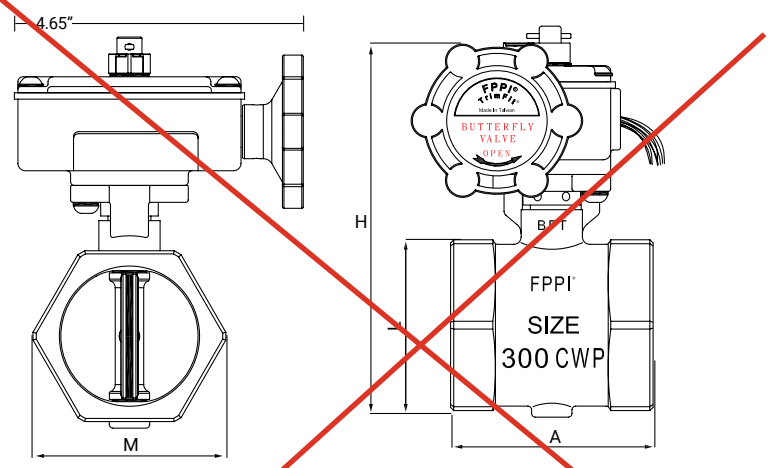
1. The valve can be installed in any orientation in a piping system with standard ASME B1.20.1 NPT or standard roll or cut grooved pipe.
2. When threading to pipe, apply PipeFit® or equivalent thread sealant or tape.
3. Use a wrench to cramp on the hexagon end of the valve.
4. The tamper switch features two switches: Switch–1 has dual leads on the terminals. This switch is used for connection of the supervisory circuit of a listed fire alarm control panel. Switch–2 has a single lead. This switch is used for connection of auxiliary equipment.
5. All the unused wires need to be capped with lead nuts and tucked into a junction box.
6. All connections need to be reviewed and approved by the appropriate jurisdictional authorities.
7. A No. 14 green wire is fixed inside the switch housing. It is provided as a ground for the housing.
8. The valves are intended for use with ANSI B36.10 Schedule 40 and/or Schedule 80 pipes, sizes 1", 1–1/4", 1–1/2", 2" and 2–1/2".

NOTE: ALL REPLACEMENT PARTS MUST BE OBTAINED FROM THE MANUFACTURER TO ASSURE PROPER OPERATION OF THE VALVE, AND TO MAINTAIN APPROVAL OF THE DEVICE.

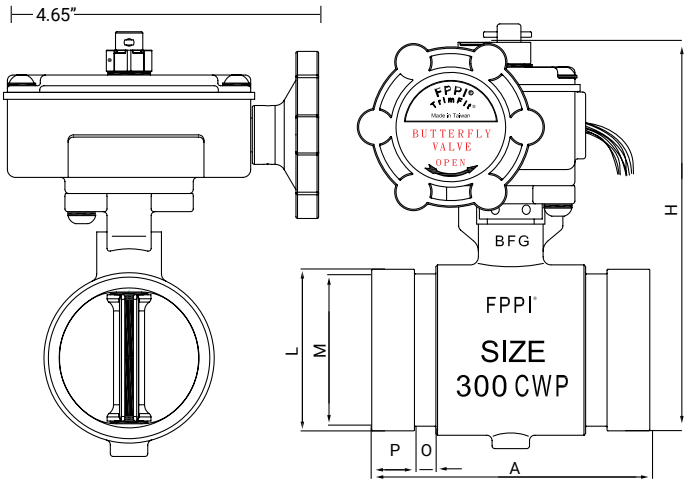
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TrimFit® Bronze Butterfly Valves – FNPT
Fig. 06-504

Dimensions



BFT Size	1"	1¼"	1½"	2"	2½"
A	2.13"	2.63"	2.87"	3.25"	4.49"
H	4.94"	5.13"	5.59"	6.13"	6.58"
L	1.56"	1.94"	2.19"	2.76"	3.41"
M	1.75"	2.17"	2.37"	3.11"	3.78"



BFG Size	1¼"	1½"	2"	2½"
A	3.86"	4.02"	4.09"	4.49"
H	5.20"	5.47"	6.07"	6.58"
P	0.63"	0.63"	0.63"	0.63"
O	0.31"	0.31"	0.31"	0.31"
M	1.54"	1.78"	2.25"	2.72"
L	1.67"	1.90"	2.37"	2.87"

Model BFT
Packing Gland with Adjustable Glands shall be accessible for tightening stem seals without the disassembly of the valve or operator.

Model BFG
Grooved ends to AWWA C606 for steel pipe.

Packing Gland with Adjustable Glands shall be accessible for tightening stem seals without the disassembly of the valve or operator.

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TrimFit® Check Valves
Fig. 09-572



Specifications

Material:
Cast Brass* (C38000)

Sizes:
1 1/2" IPS**
2" IPS
2 1/2" IPS
3" IPS
4" IPS

Configurations:
MNPT x GRV
MNPT x FNPT
GRV x GRV
FNPT x FNPT 1 ½" only

*Contains lead. Not for use in water systems intended for human consumption.
**1 ½" size is UL/ULc listed only.

Description

Check valves feature cast brass* bodies with a spring loaded clapper assembly making this valve suitable for vertical or horizontal installations. Features metal faced clapper with O-ring seat. Rated to 300 psi. Valve bodies are tapped and plugged 1/2" IPS for additional equipment such as a ball drip valve when used in conjunction with a Fire Department Connection or a pressure gauge when used in a supply line.

Installation

Install in accordance with approved installation practices. Use an approved thread sealant such as PipeFit Thread Sealing Paste with PTFE on all threaded connections. Make sure that proper lubrication has been applied to groove coupling gaskets for groove end valves.

DO NOT OVER TIGHTEN THREADED CONNECTIONS. OVERTIGHTENING MAY CAUSE DISTORTION OF THE BODY AND THREADS OF THE VALVE LEADING TO IMPROPER PERFORMANCE AND PRODUCT FAILURE.

c UL us LISTED

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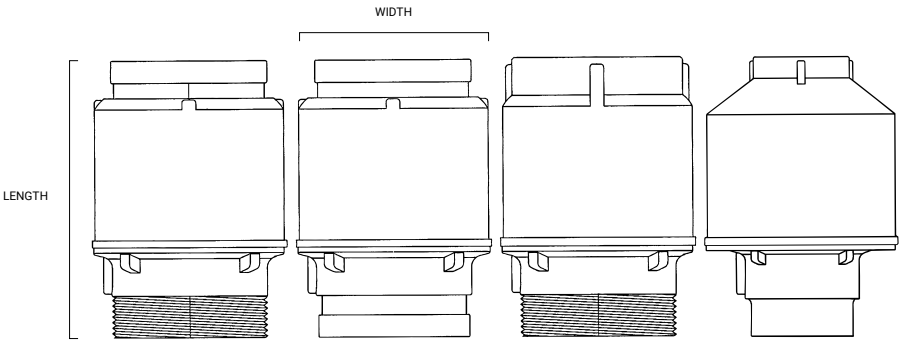
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TrimFit® Check Valves
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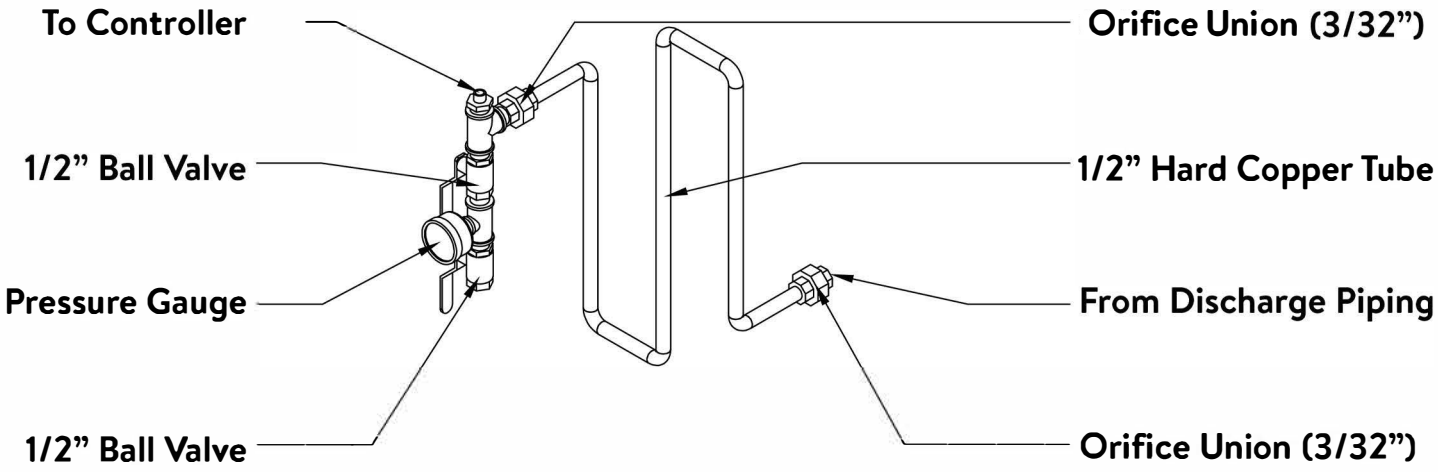


Size	Item Number	Configuration	Length (IN)	Width (IN)	Length (MM)	Width (MM)
1 1/2"*	09-574-00	MNPT X GRV	6 15/16"	4 1/8"	176	105
1 1/2"*	09-575-00	MNPT X FNPT	6 1/16"	4 1/8"	154	105
1 1/2"*	09-576-00	GRV X GRV	6 15/16"	4 1/8"	176	105
1 1/2"*	09-577-00	FNPT X FNPT	5 9/16"	4 1/8"	150	105
2"	09-568-00	MNPT X GRV	6 1/4"	4 1/8"	157	105
2"	09-570-00	MNPT X FNPT	5 3/4"	4 1/8"	146	105
2"	09-572-00	GRV X GRV	6 1/4"	4 1/8"	157	105
2 1/2"	09-562-00	MNPT X GRV	6 15/16"	4 1/8"	176	105
2 1/2"	09-564-00	MNPT X FNPT	6 1/4"	4 1/8"	159	105
2 1/2"	09-566-00	GRV X GRV	6 15/16"	4 1/8"	176	105
3"	09-556-00	MNPT X GRV	6 13/16"	5 1/8"	173	128
3"	09-558-00	MNPT X FNPT	6 5/8"	5 1/8"	167	128
3"	09-560-00	GRV X GRV	6 13/16"	5 1/8"	173	128
4"	09-550-00	MNPT X GRV	8 1/8"	5 5/8"	206	142
4"	09-552-00	MNPT X FNPT	8"	5 5/8"	202	142
4"	09-554-00	GRV X GRV	8"	5 5/8"	202	142

TALCO FIRE SYSTEMS

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PHONE: 503-688-1231 WWW.TALCOFIRE.COM

NFPA20 Sensing Line Detail



Pressure Sensing Lines constructed in accordance with NFPA 20: All brass or copper components, orifice unions at connections to both discharge piping & controller valve assembly, minimum 60" hard copper tubing between unions.