

**CITY OF SACRAMENTO**

**1231 I Street, Sacramento, CA 95814**

**Permit No: 0400134**

**Insp Area: 1**

**Thos Bros: 297 G3**

**Site Address: 205 27TH ST SAC**

**Parcel No: 003-0101-001**

**Sub-Type: COM**

**Housing (Y/N): N**

CONTRACTOR  
RICK'S PLUMBING  
744 PORTUGAL WAY  
SACRAMENTO CA 95831

OWNER  
CITY OF SACRAMENTO  
915 I ST  
SACRAMENTO CA 95814

ARCHITECT

**Nature of Work: INSTALL 1 - 1" RP DEVICE & REROUTE SERVICE, 1 - 2" RP DEVICE & REROUTE SERVICE.**

**CONSTRUCTION LENDING AGENCY :** I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ. C).

Lender's Name \_\_\_\_\_ Lender's Address \_\_\_\_\_

**LICENSED CONTRACTORS DECLARATION:** I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with section 7000) of Division 3 of the Business and Professions Code and my license is in full force and effect.

License Class C-36 License Number 408703 Date 1-5-04 Contractor Signature Richard Jensen

**OWNER-BUILDER DECLARATION:** I hereby affirm under penalty of perjury that I am exempt from the contractor's License Law for the following reason (Sec. 7031.5, Business and Professions Code; any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Section 7000) of Division 8 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars (\$500.00);

**PAID  
CITY OF SACRAMENTO  
NEIGHBORHOOD PLANNING  
AND DEVELOPMENT SERVICES**

\_\_\_\_\_, I, as a owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business and Professional Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or herself or through his/her own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder shall be deemed to be providing that he/she did not build or improve for the purpose of sale.)

\_\_\_\_\_, I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, Business and Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant to the Contractors License Law).

\_\_\_\_\_, I am exempt under Sec. \_\_\_\_\_ B & PC for this reason: \_\_\_\_\_

Date \_\_\_\_\_ Owner Signature \_\_\_\_\_

**IN ISSUING THIS BUILDING PERMIT,** the applicant represents, and the city relies on the representation of the applicant, that the applicant verified all measurements and locations shown on the application or accompanying drawings and that the improvement to be constructed does not violate any law or private agreement relating to permissible or prohibited locations for such improvements. This building permit does not authorize any illegal location of any improvement or the violation of any private agreement relating to location of improvements.

I certify that I have read this application and state that all information is correct. I agree to comply with all city and county ordinances and state laws relating to building construction and hereby authorize representative(s) of this city to enter upon the abovementioned property for inspection purposes.

Date 1-5-04 Applicant/Agent Signature Richard Jensen

**WORKER'S COMPENSATION DECLARATION:** I hereby affirm under penalty of perjury one of the following declarations:

\_\_\_\_\_, I have and will maintain a certificate of consent to self-insure for workers' compensation as provided for by Section 3700 of the Labor Code, for the performance of work for which the permit is issued.

I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are:

Carrier STATE FUND Policy Number 692-5363 Exp Date 10/01/2004

\_\_\_\_\_, (This section need not be completed if the permit is for \$100 or less) I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California and agree that if I should become subject to the workers' compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with those provisions.

Date 1-5-04 Applicant Signature Richard Jensen

**WARNING: FAILURE TO SECURE WORKER'S COMPENSATION COVERAGE IS UNLAWFUL AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS (\$100,000) IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST AND ATTORNEY'S FEE.**

**THIS PERMIT SHALL EXPIRE BY LIMITATION IF WORK IS NOT COMMENCED WITHIN 180 DAYS.**

## GENERAL WATER NOTES

1. THE CONTRACTOR SHALL PAY ALL FEES FOR TAPS, TIE-IN CONNECTIONS, AND METERS. FEES FOR TAPS, TIE-IN CONNECTIONS, AND METERS SHALL BE PAID IN ADVANCE AT THE DEPARTMENT OF UTILITIES CUSTOMER SERVICE OFFICE AT 1395 35<sup>TH</sup> AVENUE. DEPARTMENT OF UTILITIES FIELD PERSONNEL SHALL NOT INSTALL TAPS UNTIL ALL FEES HAVE BEEN PAID AND SITE PIPING HAS SUCCESSFULLY PASSED PLUMBING INSPECTION.
2. ALL FEES ARE SUBJECT TO INCREASES FROM TIME TO TIME. FOR CURRENT FEE INFORMATION, CALL (916) 264-5371.
3. THE CONTRACTOR SHALL SCHEDULE ALL WATER TAPS, METER INSTALLATIONS, TIE-IN CONNECTIONS, AND WATER MAIN SHUTDOWNS WITH THE DEPARTMENT OF PUBLIC WORKS, TECHNICAL SERVICES AT 264-8300. TO SCHEDULE AND COORDINATE SUCH WORK, THE CONTRACTOR SHALL CONTACT THE DEPARTMENT OF PUBLIC WORKS, TECHNICAL SERVICES AT LEAST 14 DAYS IN ADVANCE.
4. WITHOUT EXCEPTION, ALL OPENING AND CLOSING OF VALVES ON EXISTING CITY WATER MAINS SHALL BE PERFORMED BY DEPARTMENT OF UTILITIES FIELD PERSONNEL.
5. APPROVED BACKFLOW ASSEMBLIES SHALL BE FURNISHED, INSTALLED AND TESTED BY THE CUSTOMER IN ACCORDANCE WITH THE CURRENT CITY BACKFLOW PREVENTION POLICY.
6. REQUESTS FOR PUBLIC FIRE HYDRANT USE PERMITS FOR CONSTRUCTION PURPOSES SHALL BE APPLIED FOR AT THE DEPARTMENT OF UTILITIES, CUSTOMER SERVICE SECTION, 1395 35<sup>TH</sup> AVE. FOR PERMIT INFORMATION, CALL (916)264-5371.
7. THE CONTRACTOR SHALL PROVIDE ALL EXCAVATIONS FOR TAPS, TIE-IN CONNECTIONS, AND METER INSTALLATIONS. THE EXCAVATIONS SHALL BE MADE TO AT LEAST DIMENSIONS INDICATED ON DRAWING SD-3 INCLUDED IN THE DEPARTMENT OF UTILITIES REVISIONS TO THE STANDARD SPECIFICATIONS.
8. UPON COMPLETION OF THE TAPS, TIE-IN CONNECTIONS, OR METER INSTALLATIONS BY DEPARTMENT OF UTILITIES FIELD PERSONNEL, THE CONTRACTOR SHALL FURNISH AND INSTALL ALL REQUIRED WATER PIPE (4 INCH DIAMETER OR LARGER), FITTINGS, AND VALVE BOXES.
9. TRENCH BACKFILL AND SURFACE RESTORATION, INCLUDING PAVEMENT REPLACEMENT, SHALL BE PERFORMED BY THE CONTRACTOR IN ACCORDANCE WITH THE CITY STANDARD SPECIFICATIONS.
10. METERS TWO INCHES (2") AND SMALLER SHALL BE INSTALLED AS INDICATED IN TDW -31A.
11. CITY WILL INSTALL 1-1" SERVICE CONNECTION AND METER (FEE \$1170) AND 1-2" SERVICE CONNECTION AND METER (FEE \$1605). CONTRACTOR SHALL PROVIDE ALL EXCAVATION, BACK FILL AND SERVICE RESTORATION.

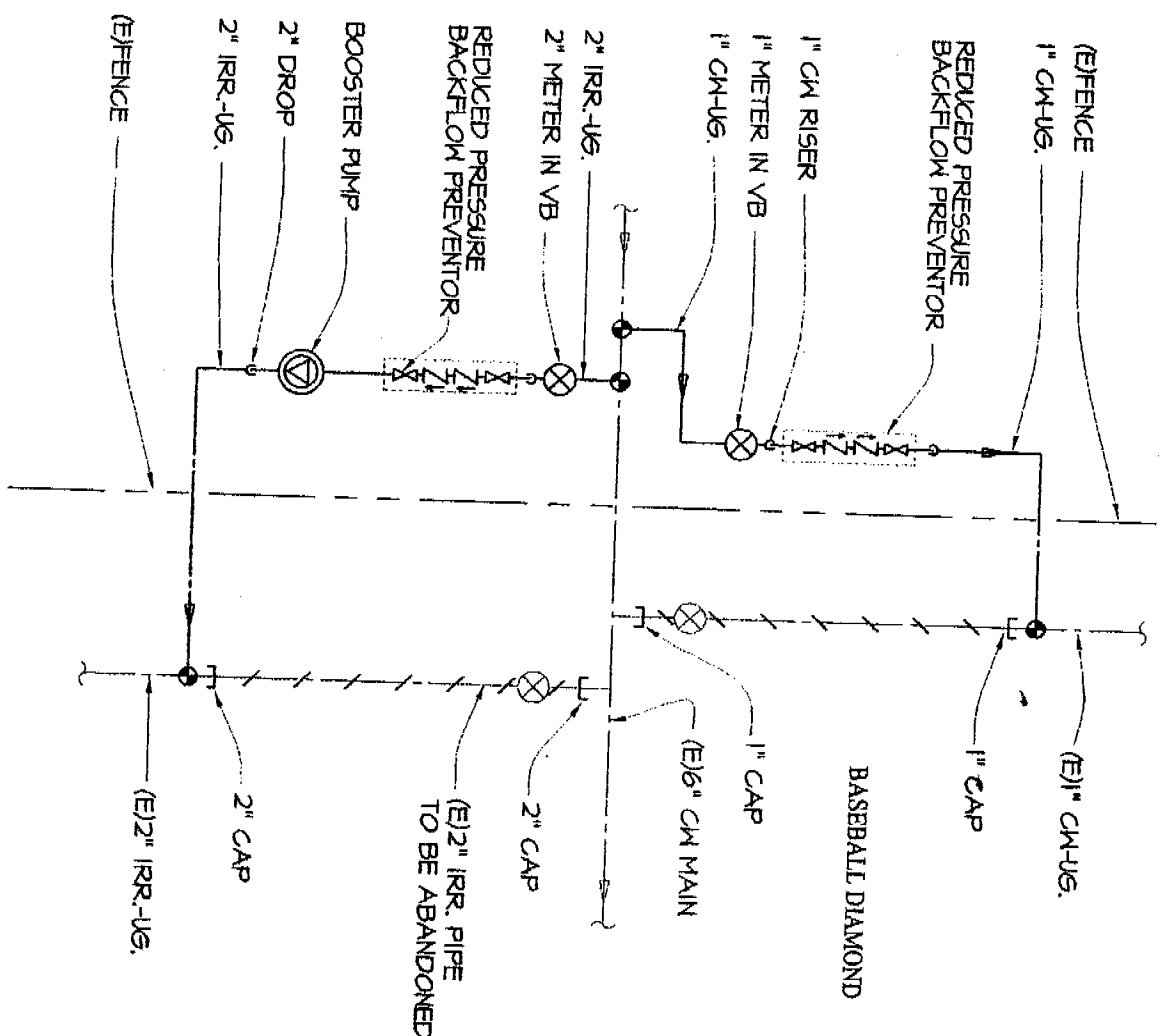
## NOTICE:

The Contractor/Permit Applicant shall provide the Department of Utilities, Customer Service Section with two copies of all plan sheets showing approved water main installations and water service connections and three copies of all plan sheets showing approved drainage and sanitary sewer main installations and service connections. The copies of the approved plan sheets shall be delivered to Customer Service at 1395 35th Avenue at the time payment for water and sanitary sewer services is made.

27th Street

B Street

C Street



**NOTICE:**

The Contractor/Permit Applicant shall provide the Department of Utilities, Customer Service Section with two copies of all plan sheets showing approved water main installations and water service connections and three copies of all plan sheets showing approved drainage and sanitary sewer installations and service connections. The copies of the approved plan sheets shall be submitted to the Department of Utilities at 1595 35th Avenue at the time payment for water and sanitary sewer services is made.

- NOTES:
- NEW PIPES SHOWN DARK
  - IRR IRRIGATION WATER
  - US UNDER GROUND
  - VB VALVE BOX
  - ☉ POINT OF CONNECTION
  - DIRECTION OF FLOW

**APPROVED**  
 City of Sacramento Plan Review  
**UTILITIES**

Signature: *Rob [unclear]*  
 Date: *1/5/04*

DRAWN BY:	CJ
CHK. BY:	PD
SCALE:	NONE
DATE:	12-30-03
DWG. NO.:	.....
CA LICENSE #	798492

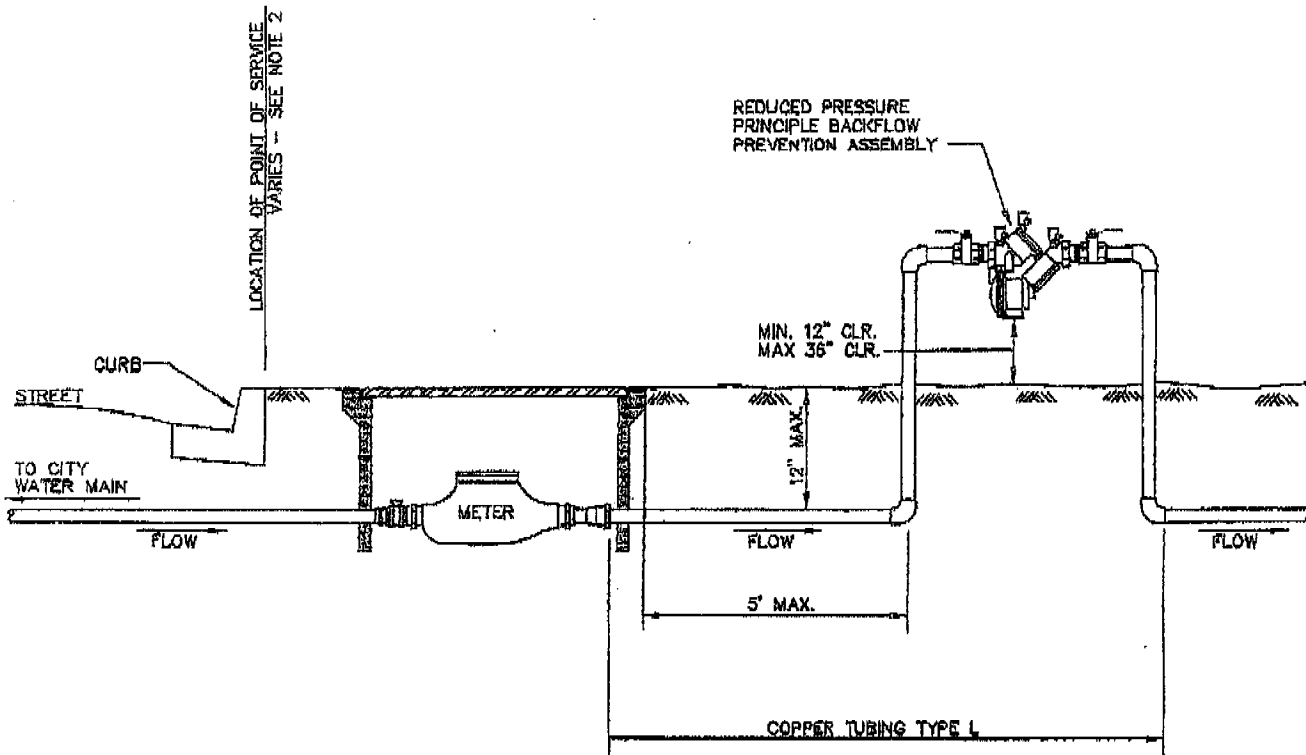
**STANFORD PARK**  
 SACRAMENTO, CA



28th Street  
**CITY COPY**

205 27th St

0400134



## INSTALLATION OF 2-INCH AND SMALLER REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY W/WATER METER

NO SCALE

### NOTES:

1. REDUCED PRESSURE BACKFLOW PREVENTION ASSEMBLIES MUST BE CONNECTED TO CITY WATER AND TESTED PRIOR TO BEING PLACED INTO SERVICE.
2. POINT OF SERVICE:
  - A. POINT OF SERVICE IS THE BACK OF CURB FOR ALL CITY STREETS WITH PLANTER STRIPS.
  - B. POINT OF SERVICE IS THE BACK OF SIDEWALK FOR STREETS WITH SIDEWALK CONTIGUOUS WITH CURB AND GUTTER.
  - C. POINT OF SERVICE IS THE RIGHT-OF-WAY LINE ON ALL ALLEYS AND UNIMPROVED STREETS.
  - D. WHERE THE POINT OF SERVICE IS UNCLEAR THE LOCATION SHALL BE DETERMINED BY THE CROSS CONNECTION CONTROL SPECIALIST OR HIS DESIGNEE.
3. LISTS OF APPROVED BACKFLOW PREVENTION ASSEMBLIES AND CERTIFIED BACKFLOW PREVENTION ASSEMBLY TESTORS ARE AVAILABLE AT THE DEPARTMENT OF UTILITIES CUSTOMER SERVICE COUNTER.
4. THE BACKFLOW PREVENTION ASSEMBLIES SHALL BE INSTALLED ABOVE GROUND, IN A HORIZONTAL AND LEVEL POSITION. THE ASSEMBLY SHALL BE LOCATED ON THE CUSTOMER'S SIDE AND NO FURTHER THAN FIVE (5) FEET FROM THE POINT OF SERVICE OR THE METER.
5. NO OUTLET, TAP, TEE, OR CONNECTION BETWEEN THE WATER MAIN AND BACKFLOW PREVENTER IS ALLOWED UNLESS APPROVED BY THE DEPARTMENT OF UTILITIES.
6. CONCRETE PAD IS RECOMMENDED IF ASSEMBLY IS PLACED WITHIN A PROTECTIVE ENCLOSURE.
7. FREEZE BAGS ARE RECOMMENDED FOR FREEZE PROTECTION.



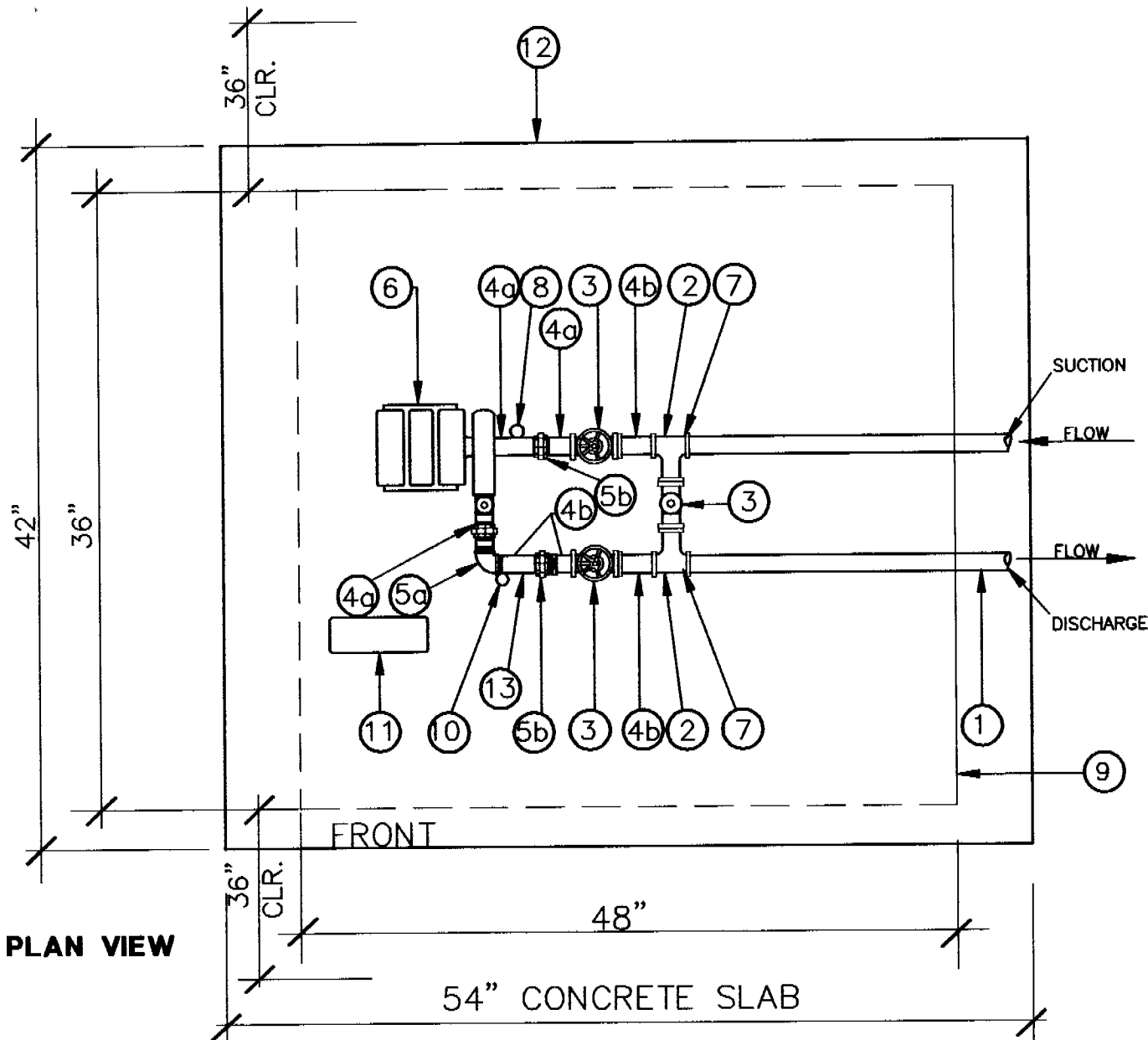
**DEPARTMENT OF UTILITIES**  
CITY OF SACRAMENTO

INSTALLATION OF 2-INCH AND SMALLER REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY W/WATER MTR

APPROVED BY: \_\_\_\_\_  
DATE: JANUARY 1997

SCALE: NONE

DWG. NO. TDW-31A



**CUSTOMFLOW REFERENCE: 100\*115-5\*1\*230V/ 10 VFD**

- |   |   |
|---|---|
| <p>1 2" COMPANION FLANGE</p> <p>2 2" GALVANIZED TEE (GROOVED)</p> <p>3 2" NIBCO GD4765-3 BUTTERFLY VALVE-GROOVED</p> <p>4a 2" GALVANIZED SCHEDULE 40 GROOVED (LENGTH AS REQUIRED)</p> <p>4b 2" GALVANIZED SCHEDULE 40 GROOVED (LENGTH AS REQUIRED)</p> <p>5a 1-1/2" GROOVED 90</p> <p>5b 2" GROOVED COUPLING</p> <p>6 GOULDS PUMP: MODEL 3656, ID NO. 3BF1J2A0, BRONZE IMPELLER, SIZE 5-15/16", RATED FOR 100 GPM AT 50 PSI INCREASE, WITH 5 HP, 3450 RPM, 3-PHASE 230/460 ODP MOTOR.</p> <p>7 PRESSURE GAUGE- LIQUID FILLED (1) 100 PSI.</p> <p>8 BARKSDALE TEMP SWITCH ML IH203</p> | <p>9 STEEL ENCLOSURE- TWO PIECE STEEL SIZE 48"x 36"x 42"x40", HINGED TOP AND FRONT WITH CONTROL PANEL ACCESS, SLANTED ROOF, POWDER COATED GREEN COLOR. ALL STEEL BRACKETS AND HARDWARE.</p> <p>10 EFFECTOR TRANSDUCER PA 3224 0-145 PSI.</p> <p>11 SAFTRONICS RAPIDPAK, DG SERIES, 29 AMP. VFD, FOR SINGLE-PHASE INPUT, THREE-PHASE OUTPUT, CONTROLS WITH RELAY-RESET FOR TEMPERATURE SWITCH.</p> <p>12 LEVEL CONCRETE PAD SIZE 42"x 54", 4" THICK, AND 1" ABOVE SURROUNDING GRADE. TOOL EDGES 1/2". NOTE: THE INLET/OUTLET ARE LOCATED ON THE RIGHT SIDE FACING THE FRONT. ALLOW 36" CLEARANCE IN FRONT AND REAR FOR SERVICE ACCESS.</p> <p>13 EFFECTOR FLOW SWITCH - MODEL NO. SI 1006.</p> |
|---|---|

NOTE: \* SINGLE-PHASE ELECTRICAL SERVICE WITH 60-AMP BREAKER WITH GROUND. THE CONDUIT AND WIRES ARE CONNECTED TO THE PANEL TERMINALS INSIDE THE ENCLOSURE. CUSTOM PUMP & POWER INC. TO PROVIDE SHOP ASSEMBLY, INSTALLATION, STARTUP, TRAINING AND OWNER'S MANUAL. PHONE: (916) 429-9729. 4 WATER REEF COURT, SACRAMENTO, CA., 95831

PUMP DIAGRAM - SUBMITTAL  
**CUSTOM PUMP & POWER INC.**

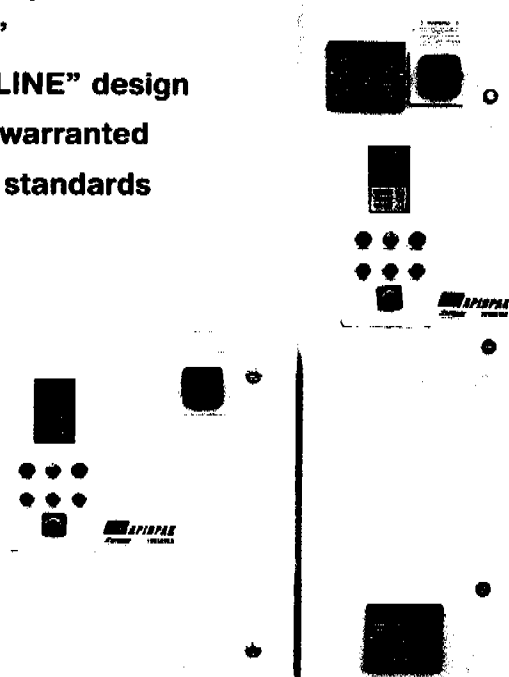
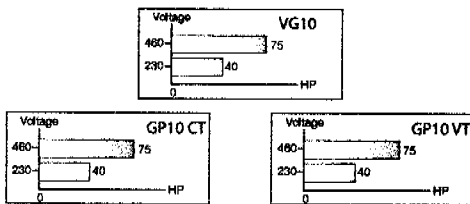
04/28/03  
**STANFORD PARK**

# RAPIDPAK®

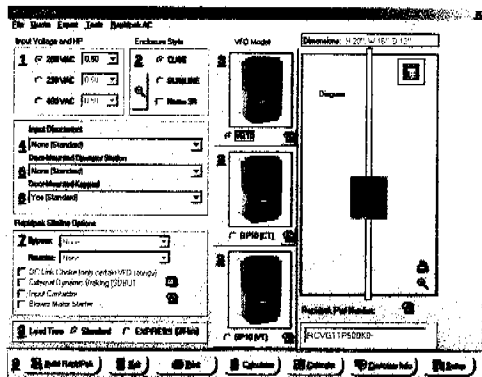
**SAFTRONICS**  
www.saftronics.com

'RAPID' for fast processing - 'PAK' for packaged drives

- Ultra-compact industrial packaging for AC Drives
- Rapid turn-around of built-to-order configurations for GP10 and VG10 inverters
- Nema type 12 enclosures (PPBF)
- Pre-engineered using stock components
- Available in traditional "CUBE" enclosure or innovative "SLIMLINE" design
- Package is factory tested and warranted
- Designed and built to UL508C standards
- Unit is pre-programmed for "Plug-N-Play" installation



Rapidpak Inverters in Cube and Slimline Style



Our online Rapidpak Builder lets you configure and price a Rapidpak Panel for both AC (VG10, GP10CT, GP10VT) and DC drives with options of your choice.

DC Rapidpak® also available

Rapidpak® is our response to the trend of mass customization. By employing volume production technology and detailed pre-engineering, we are able to squeeze lead-times out of panel assembly. Standard lead-time is only 1 week for standard configurations. If you require unique options, our application engineers are available for personalized assistance.



April 2, 2003

Custom Pump and Power

Dear Mike:

Re: Variable Frequency Drives with single phase power supplies

It has become a common practice to use Variable Frequency Drives to control three phase AC induction motors from a single phase power supplies. The application is straight forward. Single phase alternating (AC) voltage is supplied to the Variable Frequency Drive where it is converted from alternating voltage to direct voltage (DC). This DC voltage is then inverted to become variable frequency, variable three phase AC voltage which is supplied to a three phase AC induction motor. Typically the Variable Frequency Drive needs to be de-rated for use with a single phase AC power supply. This de-rate is determined by taking the motors full load ampere rating and dividing by a 0.6, the result of that calculation is the minimum current rating of the Variable Frequency Drive. Generally the result is one size larger Variable Frequency Drive.

Why use Variable Frequency Drives with Pumps? By using a Variable Frequency Drive in a pumping application the flow can be precisely controlled to provide optimized use of the pump and also conservation of electrical power. Due to the affinity laws, which apply to pumping applications. The brake horsepower of the motor changes by the cube of the speed change.

$$\frac{bhp_1}{bhp_2} = \frac{S_1}{S_2}$$

Where a 10HP motor turning at 1750 RPM is drawing 10HP load from the motor. By reducing the motor speed by 10% reduces the motor HP to 7.29, a 10% reduction in speed is equal to a 6Hz drop in motor speed. Taking the same 10HP motor and reducing the motor speed 20% reduces the motor HP to 5.1, a 20% reduction in speed is equal to a 12 Hz drop in speed. As you can see small changes in speed result in large changes in required horsepower consumption from the power source.

If you should have any further questions regarding the use of Variable Frequency Drives with a single phase AC power supply, do not hesitate to contact me at 1-800-533-0031 ext. 218.

Sincerely,

Kurt Vega  
HVAC Engineering Manager

CUSTOM PUMP & POWER

PUMP DATA SHEET

04/28/03

GOULDS

Selection list: (untitled).ufs

Catalog: G&L-60 VERS 2

Search Criteria:

Flow: --- US gpm  
Head: --- ft  
Tolerance: --- % of head

Pump: 3BF1

Type: CC\_ENDSUCTION\_C  
Synch speed: 3600 rpm  
Speed: 3500 rpm  
Dia: 5.9375 in  
Curve no.: GP 3656/3756

Fluid: Water

Temperature: 60 °F  
SG: 1  
Viscosity: 1.105 cP  
Vapor pressure: 0.2563 psi a  
Atm pressure: 14.7 psi a

Specific Speeds

Ns: --- Nss: ---

Dimensions:

Suction: 2 in Discharge: 1.5 in

NPSHa: --- ft

Pump Limits:

Temperature: 212 °F  
Pressure: 175 psi g  
Sphere size: 0.3125 in  
Power: 5 bhp

Advanced Criteria:

Preferred Operating Area: ---  
Secondary Operating Point: ---  
Max temperature: --- °F  
Max suction pressure: --- psi g  
Max sphere size: --- in  
Max power: --- bhp  
Max suction specific speed: --- (Nss)  
Min trim: --- % of max diameter  
Min head rise: --- % to shutoff

Motor: Consult vendor

Warnings: See the second page for a description of the warnings associated with this pump.

Curve Corrections: none

---- Data Point ----

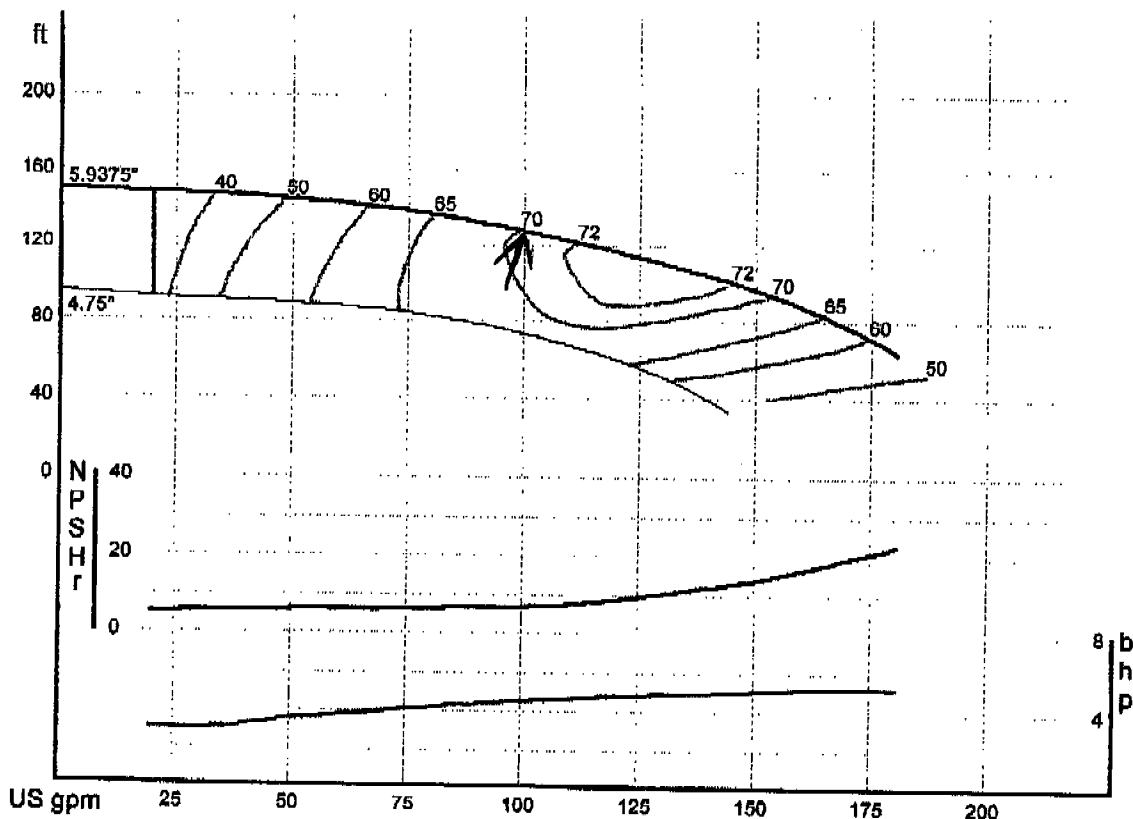
Flow: 124 US gpm  
Head: 114 ft  
Eff: 73%  
Power: 4.87 bhp  
NPSHr: 9.65 ft

-- Design Curve --

Shutoff Head: 150 ft  
Shutoff dP: 64.8 psi  
Min Flow: 20 US gpm  
BEP: 73% eff  
@ 124 US gpm  
NOL Pwr: 5.27 bhp  
@ 163 US gpm

-- Max Curve --

Max Pwr: 5.27 bhp  
@ 163 US gpm



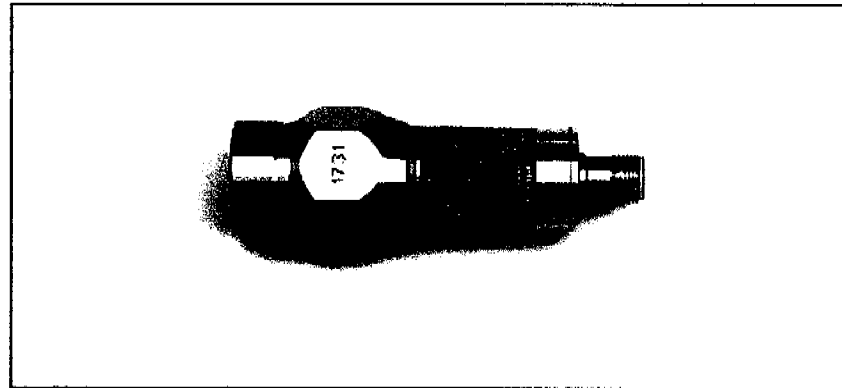


**efector500**

Pressure sensors

**PA3224**Electronic pressure sensor PA32  
1/4" NPT

Analog output

Measuring range  
0...10 bar

Application	liquids and gases
Electrical design	DC
Output	4...20 mA analog
Operating voltage [V]	10,8...30 DC
Reverse polarity protection / overload protection	.
Analog output	4...20 mA
Load for analog output [ohms]	max. (UB - 10,8) x 50; 660 at UB = 24V
Permissible overl. pressure [bar]	50
Bursting pressure [bar]	150
<b>Setting range</b>	
<b>Deviations (% of value of measuring range)</b>	
Characteristics deviation	< ± 1,0 *
Repeatability	< 0,1
Temperature drift ( / 10 K) in the temperature range	< ± 0,3 -25...+80
Response time analog output [ms]	3
Operating temperature [°C]	-25...+80
Medium temperature [°C]	-25...+80
Storage temperature [°C]	-40...+100
Protection	IP 65, III
Insulation resistance [MΩ]	> 100 (500 V DC)
Shock resistance [g]	50 (DIN / IEC 68-2-27, 11ms)
Vibration resistance [g]	20 (DIN / IEC 68-2-6, 10 - 2000 Hz)
Min. pressure cycles	100 million
EMC	IEC 1000/4/2 ESD: 4 / 8 KV IEC 1000/4/3 HF radiated: 10 V/m IEC 1000/4/4 Burst: 2 KV IEC 1000/4/6 HF conducted: 10 V
Housing material	FPM (Viton); PA; Pocan; stainless steel (304S15)

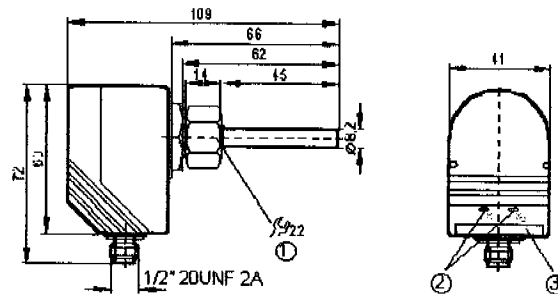
# efector 300



## SI1006

SID10ADBFKOW/LS  
Compact type for adapter  
Quick disconnect

1 relay output



1: internal thread M18x1.5, 2: setting push buttons, 3: LED display

Application	liquids and gases
Electrical design	AC / relay
Output	normally open / closed programmable
Setting range [cm/s]	3...300
Nominal voltage [V]	90...240 AC (45...65 Hz)
Operating voltage [V]	85...265 AC
Voltage tolerance [%]	-5 / +10
Contact rating	3A (250V AC / 30V DC) *
Power consumption [VA]	< 3.5
Max. temperature gradient of medium [K/min]	300
Pressure rating [bar]	300
<b>Liquids</b>	
Medium temperature [°C]	-25...+80
Setting range [cm/s]	3...300
Greatest sensitivity [cm/s]	3...60
<b>Gases</b>	
Medium temperature [°C]	-25...+80
Setting range [cm/s]	200...3000
Greatest sensitivity [cm/s]	200...800
Adjustment of the switch point	push buttons
Power-on delay time [s]	15 **)
Response time [s]	1...10
Function display	
Function LED	10 LEDs, three-colour
Operating temperature [°C]	-25...+80
Protection	IP 67 ☑
Housing material	PBT-GF 20
Material sensor surface	stainless steel (316S12); O-ring: FPM 8x1.5 gr 80° Shore A
Connection	1/2" UNF-Connector



# 300 psi grooved end butterfly valves

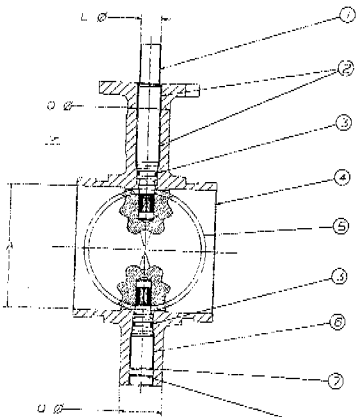
Polymid Coated Ductile Iron Body • Extended Neck • Geometric Drive  
Elastomer Encapsulated Disc • Grooved Mechanical Type

Sizes 2" through 12"

Conforms to MSS-SP-67

## MATERIAL LIST

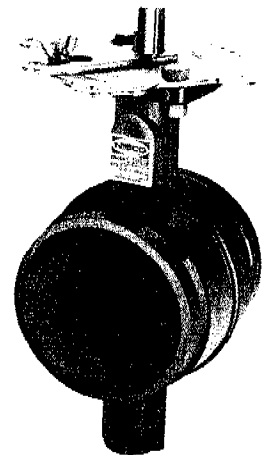
PART	SPECIFICATION
1. Upper Stem	Stainless Steel ASTM A-582 Type 416
2. Upper Bearing	Split Metal
3. O-Ring	EPDM or Buna-N
4. Body	Ductile Iron ASTM A-395 with Polymid Coating
5. Disc	Ductile Iron ASTM A-395 with EPDM or Buna-N Encapsulation
6. Lower Bearing	Split Metal
7. Lower Stem	Stainless Steel ASTM A-582 Type 416
8. Dust Plug	PVC
9. Name Plate	Aluminum



## DIMENSIONS — SPECIFICATIONS

Size	A	B	C	D	E	F	G	H	I
2"	1.95	2.38	2.23	0.33	0.62	3.33	—	4.00	3.14
2.5"	2.45	2.88	2.70	0.33	0.62	3.85	—	4.18	3.26
3"	3.03	3.51	3.32	0.31	0.62	3.85	—	4.43	3.55
4"	3.96	4.51	4.31	0.40	0.62	4.38	—	5.33	4.36
5"	5.00	5.57	5.38	0.40	0.62	5.86	—	5.82	4.85
6"	6.03	6.63	6.44	0.42	0.62	5.86	—	7.01	5.94
8"	8.00	8.63	8.42	0.44	0.74	5.26	—	8.04	6.88
10"	9.97	10.76	10.54	0.52	0.74	6.29	—	9.85	9.18
12"	11.93	12.76	12.51	0.52	0.74	6.52	—	10.84	10.17

Size	J	K	L Dia.	M Flat	N	O Bolt Circle Dia.	P	Q	R
2"	1.31	3.28	0.50	0.37	2.89	3.25	0.41	1.21	0.46
2.5"	1.22	3.28	0.50	0.37	3.43	3.25	0.41	1.21	0.46
3"	1.18	3.28	0.50	0.37	3.94	3.25	0.41	1.21	0.46
4"	1.24	3.28	0.66	0.50	5.03	3.25	0.41	1.41	0.46
5"	1.24	3.28	0.66	0.50	6.26	3.25	0.41	1.41	0.46
6"	1.29	3.28	0.78	0.56	7.25	3.25	0.41	1.76	0.46
8"	1.32	3.28	0.78	0.56	9.25	3.25	0.41	1.76	0.46
10"	1.38	4.76	1.06	0.75	11.15	5.00	0.60	2.31	0.70
12"	1.38	4.76	1.06	0.75	13.14	5.00	0.60	2.31	0.70

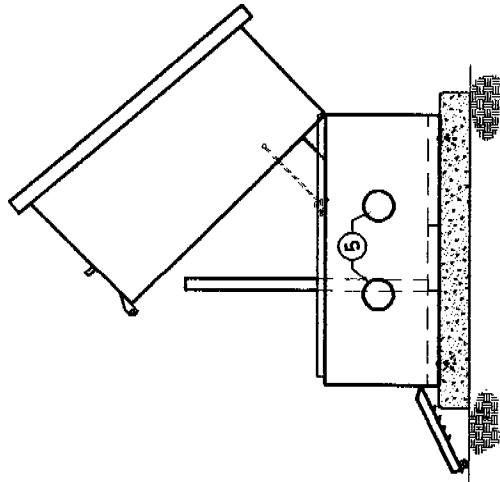
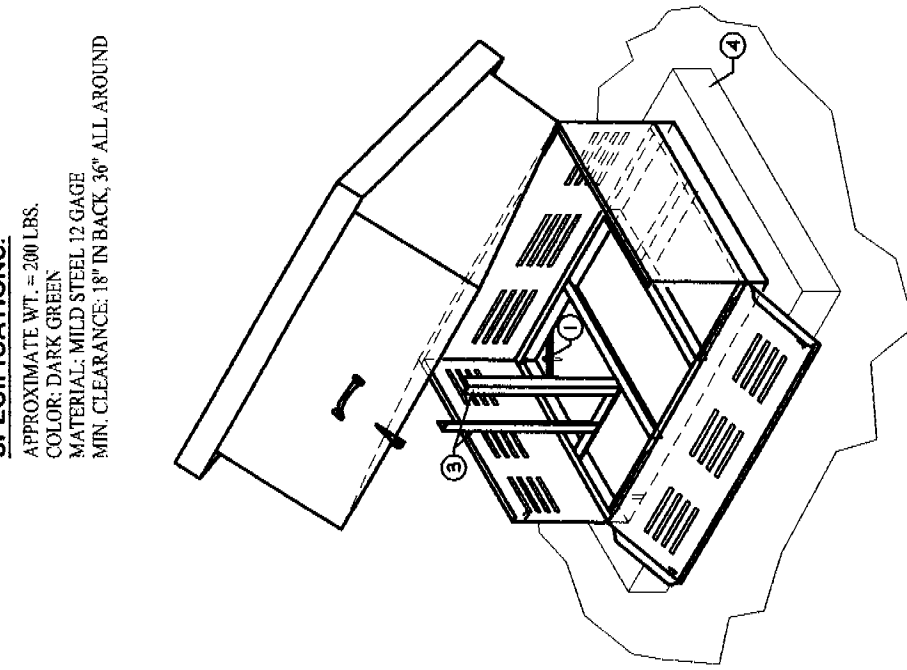


**GD 4765**  
With EPDM Liner

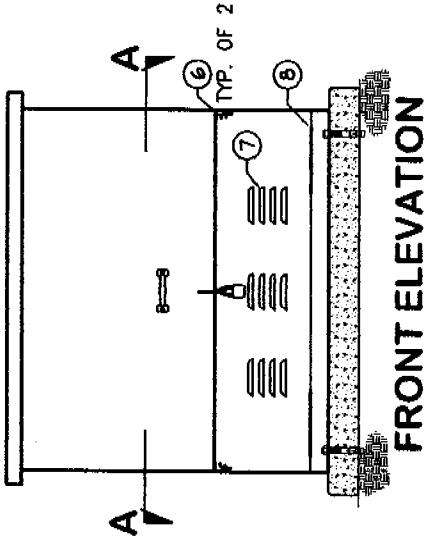
**GD 4775**  
With BUNA-N Liner

**SPECIFICATIONS:**

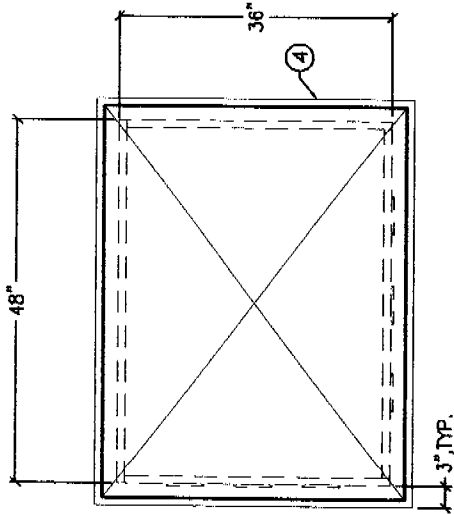
APPROXIMATE WT. = 200 LBS.  
 COLOR: DARK GREEN  
 MATERIAL: MILD STEEL 12 GAGE  
 MIN. CLEARANCE: 18" IN BACK, 36" ALL AROUND



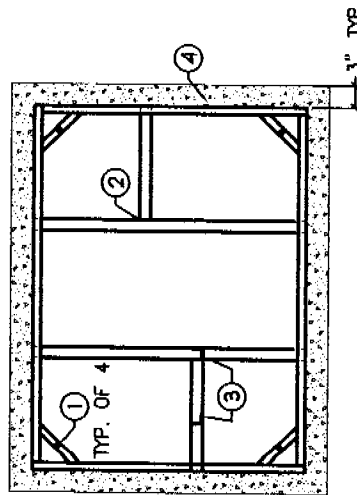
**RIGHT ELEVATION (OPEN)**



**FRONT ELEVATION**



**TOP VIEW**



**SECTION A-A**

**NUMBERED NOTES:**

- ① 1/2"Ø x 3" ANCHOR BOLT
- ② WELDED
- ③ 1 1/2" x 1 1/2" ANGLE
- ④ 42"x54"x4" THICK CONCRETE PAD
- ⑤ INLET & OUTLET OPENINGS
- ⑥ LATCH
- ⑦ AIR VENT
- ⑧ RINGES

DRAWN BY:	CJ
CHK. BY:	PD
SCALE:	NONE
DATE:	7-9-02
DWG. NO.:	.....
CA LICENSE #	798492

**STANDARD 36"x48"  
ENCLOSURE**

C:\Jobs\Custom Pump 2002\CPPI Logo.jpg

Bid# S1104020

ES-009

**For Health Hazard Applications**

Job Name STANFORD PARK

Job Location \_\_\_\_\_

Engineer \_\_\_\_\_

Approval \_\_\_\_\_

Contractor CUSTOM PUMP & POWER

Approval \_\_\_\_\_

Contractor's P.O. No. \_\_\_\_\_

Representative \_\_\_\_\_

**Series 009**  
**Reduced Pressure Zone Assemblies**

Sizes: 1/4" - 3" (8 - 80mm)

Series 009 Reduced Pressure Zone Assemblies are designed to protect potable water supplies in accordance with national plumbing codes and water authority requirements. This series can be used in a variety of installations, including the prevention of health hazard cross connections in piping systems or for containment at the service line entrance.

This series features two in-line, independent check valves, captured springs and replaceable check seats with an intermediate relief valve. Its compact modular design facilitates easy maintenance and assembly access. Sizes 1/4" - 1" (8-25mm) shutoffs have tee handles.

**Features**

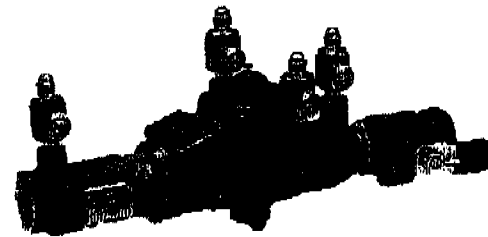
- Single access cover and modular check construction for ease of maintenance
- Top entry - all internals immediately accessible
- Captured springs for safe maintenance
- Internal relief valve for reduced installation clearances
- Replaceable seats for economical repair
- Bronze body construction for durability 1/4" - 2" (8 - 50mm)
- Fused epoxy coated cast iron body 2 1/2" and 3" (65 - 80mm)
- Ball valve test cocks — screwdriver slotted 1/4" - 2" (8 - 50mm)
- Large body passages provides low pressure drop
- Compact, space saving design
- No special tools required for servicing

**Specifications**

A Reduced Pressure Zone Assembly shall be installed at each potential health hazard location to prevent backflow due to backsiphonage and/or backpressure. The assembly shall consist of an internal pressure differential relief valve located in a zone between two positive seating check modules with captured springs and silicone seat discs. Seats and seat discs shall be replaceable in both check modules and the relief valve. There shall be no threads or screws in the waterway exposed to line fluids. Service of all internal components shall be through a single access cover secured with stainless steel bolts. The assembly shall also include two resilient seated isolation valves, four resilient seated test cocks and an air gap drain fitting. The assembly shall meet the requirements of: USC Manual 8th Edition; ASSE Std. 1013; AWWA Std. C511; CSA B64.4. Shall be a Watts Regulator Co. Series 009.

†Does not indicate approval status. Refer to Page 2 for approved sizes & models.

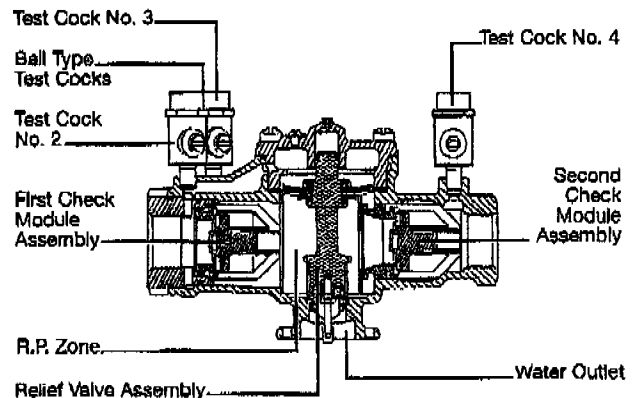
Watts product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Watts Technical Service. Watts reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Watts products previously or subsequently sold.



1/2" 009QT



2" 009M2QTHC



Now Available

WattsBox Insulated Enclosures

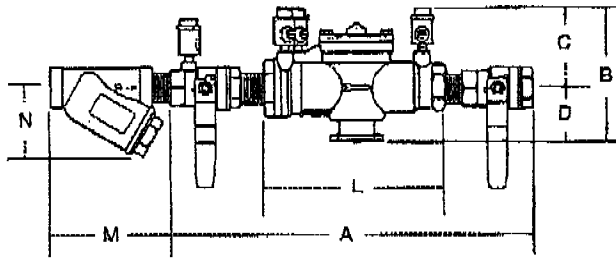
For more information, send for ES-WB.



USA: 815 Chestnut St., No. Andover, MA 01845-6098; www.wattsreg.com  
 Canada: 5435 North Service Rd., Burlington, ONT L7L 5H7; www.wattscca.com

USE  
 →  
 APPROVED

**Dimensions and Weight: 1/4" - 2" 009**

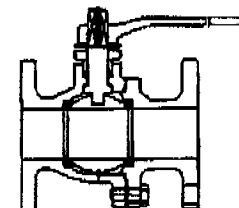
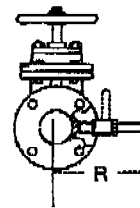
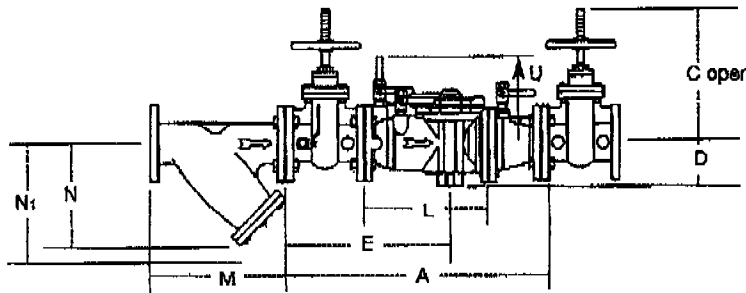


Suffix HC - Fire Hydrant Fittings dimension 'A' = 25 1/16 (637mm)

MODEL	SIZE (DN)		DIMENSIONS (approx.)												WEIGHT			
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kgs.
009QT**	1/4	8	10	250	4 3/4	117	3 3/4	86	1 1/4	32	5 1/2	-	-	-	-	-	4.50	2.0
009QT**	3/8	10	10	250	4 3/4	117	3 3/4	86	1 1/4	32	5 1/2	140	-	-	-	-	4.50	2.0
009QT**	1/2	15	10	250	4 3/4	117	3 3/4	86	1 1/4	32	5 1/2	140	-	-	-	-	4.50	2.0
009M3QT**	3/4	20	10 3/4	273	5	127	3 1/2	89	1 1/2	38	6 3/4	171	-	-	-	-	5.75	2.6
009M2QT**	1	25	16 3/4	425	5 1/2	140	3	76	2 1/2	64	9 1/2	241	-	-	-	-	12.25	5.6
009M2QT**	1 1/4	32	17 3/4	441	6	150	3 1/2	89	2 1/2	64	11 3/4	289	-	-	-	-	14.62	6.6
009M2QT**	1 1/2	40	17 3/4	454	6	150	3 1/2	89	2 1/2	64	11 3/4	283	-	-	-	-	16.32	7.4
009M2QT**	2	50	21 3/4	543	7 3/4	197	4 1/2	114	3 3/4	83	13 1/2	343	-	-	-	-	30.00	13.6
009QT-S	1/4	8	10	250	6	150	3 3/4	86	1 1/4	32	5 1/2	140	2 3/4	60	2 1/2	64	5.50	2.5
009QT-S	3/8	10	10	250	6	150	3 3/4	86	1 1/4	32	5 1/2	140	2 3/4	60	2 1/2	64	5.50	2.5
009QT-S	1/2	15	10	250	6	150	3 3/4	86	1 1/4	32	5 1/2	140	2 3/4	70	2 1/2	57	5.50	2.5
009M3QT-S	3/4	20	10 3/4	273	6 1/4	159	3 1/2	89	1 1/2	38	6 3/4	171	3 3/4	81	2 3/4	70	7.75	3.5
009M2QT-S	1	25	16 3/4	425	7 3/4	197	3	76	2 1/2	64	9 1/2	241	3 3/4	95	3	76	15.25	6.9
009M2QT-S	1 1/4	32	17 3/4	441	7 3/4	197	3 1/2	89	2 1/2	64	11 3/4	289	4 7/8	113	3 1/2	89	20.19	9.2
009M2QT-S	1 1/2	40	17 3/4	454	7 3/4	197	3 1/2	89	2 1/2	64	11 3/4	283	4 7/8	124	4	102	20.32	9.3
009M2QT-S	2	50	21 3/4	543	8 1/4	210	4 1/2	114	3 3/4	83	13 1/2	343	5 1/8	151	5	127	36.87	16.7

\*\* Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California.

**Dimensions and Weight: 2 1/2" and 3" 009**



**Watts G-4000 Series QT - Ball Valves**

STRAINER SIZE	DIMENSIONS (approx.)						WEIGHT			
	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kgs.
2 1/2	65	10	254	6 1/4	165	9 3/4	248	28	12.7	
3	80	10 3/4	257	7	178	10	254	34	15.4	

† Clearance for servicing

MODEL	SIZE (DN)		DIMENSIONS (approx.)										WEIGHT					
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kgs.		
009LF	2 1/2	65	-	-	-	-	4 1/2	114	-	-	18 3/4	480	-	-	10 3/4	270	76	34.5
009OSY	2 1/2	65	33 3/4	845	15 3/4	403	4 1/2	114	16 3/4	416	18 1/4	460	7 3/4	197	10 3/4	270	166	75.9
009NRS	2 1/2	65	33 3/4	845	11 3/4	289	4 1/2	114	16 3/4	416	18 3/4	460	7 3/4	197	10 3/4	270	161	73.0
009QT	2 1/2	65	33 3/4	845	6	152	4 1/2	114	16 3/4	416	18 3/4	460	7 3/4	197	10 3/4	270	160	68.0
009LF	3	80	-	-	-	-	4 1/2	114	-	-	18 3/4	460	-	-	10 3/4	270	76	34.5
009OSY	3	80	34 3/4	870	18 3/4	470	4 1/2	114	16 3/4	422	18 3/4	460	8 3/4	222	10 3/4	270	198	89.8
009NRS	3	80	34 3/4	870	12 3/4	324	4 1/2	114	16 3/4	422	18 3/4	460	8 3/4	222	10 3/4	270	191	86.6
009QT	3	80	34 3/4	870	7	178	4 1/2	114	16 3/4	422	18 3/4	460	8 3/4	222	10 3/4	270	158	71.7

### Capacity

Performance as established by an independent testing laboratory.

\*Typical maximum system flow rate (7.5 feet/sec., 2.3 meters/sec.)

