



FILED

SEP 27 2006

By The  
Office of The City Clerk

DEPARTMENT OF FINANCE  
PROCUREMENT SERVICES DIVISION

CITY OF SACRAMENTO  
CALIFORNIA

915 I STREET  
2nd FLOOR  
SACRAMENTO, CA 95814

PHONE: 916-808-6240  
FAX: 916-808-5747

CENTRAL SERVICES  
CONTRACT SERVICES  
OFFICE OF SMALL BUSINESS DEVELOPMENT  
PURCHASING

September 19, 2006

**ADDENDUM NO. 1 TO BID NO. B071181008**  
**FOR VERTICAL TURBINE PUMPS AND ACCESSORIES**

1. The Bid due date of September 20, 2006, has been changed to September 27, 2006.
2. Pg. 39, Section 2.2 Pump Requirements, Item "B" Motors, should read, "Pumps shall be suitable for 4160 volt, 3 phase, 60 Hz ac power supply in accordance with Section 16460 - Electric Motors." The bid originally stated 480 volt in error.
3. The attached Drawings were omitted from the bid document in error.
4. If a bid package is not being submitted, it is not necessary to return this addendum or acknowledge receipt of such.
5. Vendors submitting a bid package must acknowledge receipt of this addendum prior to the hour and date specified in the bid request by one of the following methods:
  - (a) By signing and returning one (1) copy of this addendum with the bid package if not previously submitted; or
  - (b) If the bid package has been previously submitted, the addendum may be submitted by separate letter, which must include on the outside of the mailing envelope the bid and addendum number and the bid due date. This information must be clearly marked in CAPITAL LETTERS on the outside of the envelope. Failure of your acknowledgment to be received at the City Clerk's Office, Historic Building, 915 I Street, First Floor, Sacramento, CA 95814 prior to the hour and date specified, may result in rejection of your bid.

Simonds Machinery Co.

(c) If, by virtue of this addendum you decide to change a bid already submitted, such change may be made by letter, as specified in (b) above.



Marc Robles  
Program Analyst

Vendor's Name: SIMONDS MACHINERY COMPANY

Signature: Rob Waldron

Typed or Printed Name & Title: ROB WALDRON REGIONAL BUSINESS MGR.

Date: SEPT. 26, 2006

# SULZER

Sulzer Pumps (US) Inc  
Water Resources Group  
3010 Saturn St. Suite 202  
Brea, CA 92821  
Phone 714-494-7650,  
Fax 714-494-7649  
[www.ernesto.ortiz@sulzer.com](mailto:www.ernesto.ortiz@sulzer.com)

September 26, 2006

**To:** City of Sacramento, CA  
**Project:** City of Sacramento Bid Number B071181008, Addendum #1  
E.A. Fairbairn Water Treatment Plant Low-Lift Pump Project  
**Quote No.** C09060072, Revised

We are pleased to confirm the following Sulzer Pump proposal for the above referenced project per Specification Section 11103 & 16460.

**Quantity 2 - Sulzer Pump Company Model JM Vertical Mixed Flow Pumps**

<b>DESIGN CONDITIONS:</b>					
<b>CAPACITY:</b>	14,600 GPM	<b>HEAD:</b>	48 FT.	<b>EFFICIENCY:</b>	82.2%
<b>HORSEPOWER:</b>	219.2 BHP	<b>SPEED:</b>	880 RPM	<b>PUMP LENGTH:</b>	46' - 0"

**Description:**  
**Motor:** 300 HP vertical hollow-shaft motor, 880 RPM, 3 phase, 60 hertz, 4160 volt, WP-1 enclosure, premium efficiency, thermostats, non reverse ratchet and 1.15 service factor. The motors will be suitable for inverter duty and are manufactured by US Electric Motors.

**Discharge Head:** JTM 24½" X 30" fabricated steel discharge elbow, product lubricated with 2-3/16" packing box assembly, and 2 piece head shaft. The discharge head will be supplied with a 48" square fabricated steel sole plate. The inside of the discharge head will be coated with fusion bonded epoxy coating. Vertical distance from the bottom of the pump foundation plate (i.e. floor level data plane) to the centerline of the 30" horizontal pump discharge pipe is 3'-6" per addendum drawings recently received.

**Column Assembly:** 45 feet of 30" X 2-3/16" product lubricated column assembly, fabricated steel flanged column pipe, bronze bearing retainers with rubber bearings and 416 stainless steel line shafts and couplings. The inside and outside of the column assembly will be coated with fusion bonded epoxy coating.

**Bowl Assembly:** 1-stage 24LS product lubricated bowl assembly, with cast iron bowls, bronze impeller, aluminum bronze bowl liner, bronze bowl bearings, 416 stainless steel bowl shaft and coupling. The outside of the bowl assembly will be coated with fusion bonded epoxy coating.

**Total Net Price for Two Pumps (FOB Brookshire, TX) . . . . . \$278,945.00**

**Comments and Exceptions:**

- Please note the pumps we are quoting are Johnston Pumps, now called Sulzer Pumps.
- Included in our pricing is the required witness performance testing with the lab motor, required spare parts, pump start up, training and freight to the job site.
- Please note the anchor bolts are not in our scope of supply and are to be provided by the installing contractor.
- Specification Section 01110, 1.1 A-1 & 2; Please note we are only quoting the pumps and motors, not the 30" X 42" reducer spools and the 30" butterfly valve with actuator for the constant speed pump.
- Specification Section 01110, 2.1 A, Since we did not receive pages 10 through 38 of the City of Sacramento Standard Specifications, we are taking exception to this section.
- Specification Section 11103, 1.1 A, Special Tools; No special tools are required and none will be provided. Also, the grease guns with grease are to be supplied by others.
- Specification Section 11103, 1.3 B, The pumps will be given a witness performance test with our lab motor. The cost of travel and living expenses to witness the test are to be paid by the City of Sacramento or by others.
- Specification Section 11103, 1.3 C-5, We will only supply the factory technician to assist with the field performance test; all other expenses and personnel to be supplied by Simonds Machinery or the City of Sacramento.
- Specification Section 11103, 2.2 A-3, Wear Rings, since mixed flow pumps are specified, we are only quoting aluminum bronze bowl liners with the bowls and not bowl impeller wear rings.
- Specification Section 11103, 2.2 A-6, A-7 & A-9, The pump columns are specified as 10 foot sections and the shafting lengths and bearing spacing is specified in 5 foot sections. The industry standard is 10 foot sections, therefore we are quoting the column sections, shafting and bearing space (for product lube) in 10 foot sections.
- Specification Section 11103, 2.2 B, Motors; The lock bar for the motor is not supplied by the motor manufacturer and is to be supplied by others.
- Specification Section 11103, 2.2 B, Motors; The thrust bearing will be oil lubricated and guide bearing will be grease lubricated.
- Specification Section 16460, 2.4, Motor Thermal Protection, The motor we are quoting will be with standard thermostats, not RTD's.

THE ITEMS THAT ARE SOLD AND SHIPPED TO YOU PURSUANT TO THIS ORDER/INVOICE ARE SUBJECT TO THE EXPORT LAWS OF THE UNITED STATES AND PERHAPS OTHER COUNTRIES AS WELL. SULZER PUMPS IS COMMITED TO COMPLIANCE WITH ALL RELEVANT EXPORT CONTROL LAWS. IF YOU ARE NOT THE END-USER OF THE ITEMS BEING SOLD TO YOU, YOU AGREE TO NOTIFY SULZER PUMPS IMMEDIATELY AS TO THE END-USER, LOCATION OF THE END USER, AND THE END USE OF THE PRODUCT(S). YOU ALSO AGREE TO COOPERATE WITH ANY U.S. AND FOREIGN REGULATORY REQUIREMENT OR ANY GOVERNMENT INQUIRY, AUDIT, INVESTIGATION OR OTHER INQUIRY, UPON NOTICE TO YOU BY SULZER PUMPS OR ANY RELEVANT GOVERNMENT. IF YOU INTEND TO RESELL OR RE-EXPORT THESE PRODUCTS TO ANOTHER COUNTRY(IES), PLEASE BE AWARE THAT THESE PRODUCTS ARE SOLD AND/OR EXPORTED BY SULZER PUMPS IN ACCORDANCE WITH U.S.EXPORT CONTROL LAWS.COMPLIANCE WITH THESE LAWS IS MANDATORY ON ALL PARTIES ANYWHERE IN THE WORLD UNDER U.S.LAW AND DIVERSION OF PRODUCTS OR ACTS CONTRARY TO U.S. AND RELEVANT FOREIGN EXPORT LAWS IS PROHIBITED AND MAY SUBJECT YOU TO SIGNIFICANT PENALTIES AND OTHER SANCTIONS.

**Freight** – Freight allowed to destination, but not unloaded, FOB factory and does not include sales tax. Shipment will be made by common carrier of our choice. Any special shipping requirements made by the purchaser are subject to increased freight charges.

**Submittals and Shipment** – Drawing submittals are normally submitted four weeks after receipt of an approved order and must be review & returned in 4 weeks. If submittals are not returned in 4 weeks our pricing is subject to adjustment. Shipment of equipment is 25 to 27 weeks after receipt of approved drawings and release to manufacturing.

**Terms** – Any subsequent order is subject to acceptance by the Sulzer Pumps, and is subject to Sulzer Pump's Standard Terms and Conditions of Sale and Terms of Payment (Attached). This quotation is based upon F.O.B. Factory, Full Freight Allowed and, unless otherwise indicated above, NO sales tax, freight or start-up costs are included. Quotation includes equipment outlined above only. This quotation is valid for 30 days from date issued. Due to current unstable metal commodity prices our price is subject to material surcharge prevalent at time of Order Release to Manufacture. Invoicing will be done by Sulzer Pump.

Please direct questions or inquiries to the office noted below. Simonds Machinery Company is the authorized distributor/representative for Johnston/Sulzer Pumps in northern California and is submitting this bid on behalf of Johnston/Sulzer Pumps. Any purchase order resulting from this bid will be made out to Johnston/Sulzer Pumps c/o Simonds Machinery Company.

**Qty 1:** 30" Pratt Flanged 150B AWWA Butterfly Valve; Complete with Limitorque® MX-10-DDC/PTA65/3.1 Electric Motor Operator

Power Required: 3/60/480VAC  
Open/Close Service

**Includes:**

- MX Accutronic Controls w/ 32-character LCD display
- Limit and Torque protection
- De-clutchable Manual Hand-wheel
- Local Switch Station: Open/Stop/Close, Local/Off/Remote (Standard)
- NEMA 4, 4X Enclosure (Tnemec® 69 epoxy coated)
- Valve coating: 16mil dry film thickness epoxy lined & coated
- Fully assembled and calibrated

**Unit Price:** \$28,490.00 each  
**Delivery:** 10-12 weeks ARO  
**FOB:** jobsite, full freight allowed

**Notes:**

1. Actuator installation and start-up is not included.
2. If necessary, Field Service Rate is \$105.00 per hour

**Qty 2:** 30" x 42" concentric cone reducers based on Addendum #1 drawings recently received. Please refer to the attached sketch for details on this item. Since it is unknown at this time the exact flange rating of the installed 42" header connection, we must qualify our quotation accordingly. Please consider this a "budgetary" estimate subject to a final field review to be certain all dimensions, flange patterns, material specifications, coatings/finishes and other details are correct. A final and firm price will be provided at that time.

**Includes:**

- .250" material wall thickness for cone
- Material is carbon steel; welds by ASME-certified welder
- 30" and 42" flange connections are those shown on the attached data sheet (Class 125 welding neck, ASTM A181, 125# rating, forged and rolled steel)

- Finish: to be determined (no finish as quoted)
- Flange face-to-face dimension of cone reducer is approximately 50" which allows 12" for the butterfly valve to be installed in-line. Net overall length will be 96" (8') from the centerline of the pump shaft to the face of the 42" header connection as shown on the sketch. All dimensions subject to final field review.
- PRICING IS ESTIMATED AND SUBJECT TO FINAL QUOTE

Unit Price: \$8,950.00 net each  
 Delivery: 4-6 weeks ARO  
 FOB: jobsite, full freight allowed

Sincerely,

*Rob Waldron*

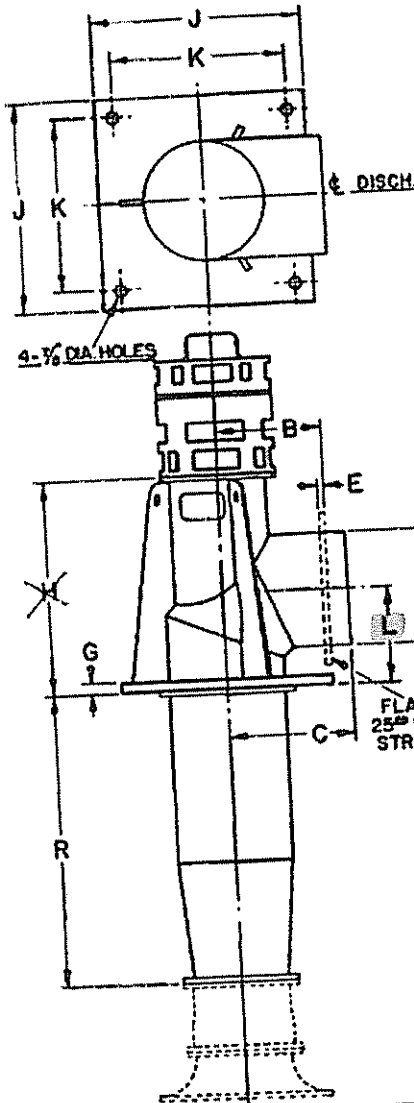
Rob Waldron  
 Regional Business Manager  
 Simonds Machinery Company  
 4225 Solano Avenue, #519  
 Napa, CA 94558  
 Tel: (707) 255-8205  
 Fax: (707) 255-1082  
 E-mail: [rob@simondsmachinery.com](mailto:rob@simondsmachinery.com)

DATE BID OPENED	9-27-06
EMPLOYEE INITIALS	V.M.
MARK ONE BOX FOR EACH ITEM ONLY	
<b>BID SECURITY</b>	
<input checked="" type="checkbox"/>	NONE REQUIRED
<input type="checkbox"/>	PROPERLY SIGNED
<b>BID DEPOSIT TYPE</b>	
<input type="checkbox"/>	BID BOND
<input type="checkbox"/>	CALIF. BANK CASHIER'S CHECK
<input type="checkbox"/>	CERTIFIED CHECK
<input type="checkbox"/>	CASH
<input type="checkbox"/>	CALIF. BANK MONEY ORDER
<b>AFTER AWARD OF BID</b>	
<input type="checkbox"/>	SECURITY RETURNED
<input type="checkbox"/>	SECURITY ACCEPTED
EMPLOYEE INITIALS	_____
DATE	_____





MIXED FLOW SURFACE DISCHARGE ELBOW  
DIMENSIONS AND WEIGHTS



ELBOW SIZE (A)	B	C	E	G	H	J(1)	K	L	WEIGHTS FIRST FOOT	ADD'L FOOT
8-5/8	10	12	3/4	1	30	18	15	8	520	27
10-3/4	10	14	3/4	1	33	18	15	10	700	32
12-3/4	12	16	3/4	1	36	24	21	12	875	36
14	14	18	3/4	1	39	24	21	14	1020	42
16	16	22	3/4	1	42	30	27	16	1200	63
18	16	24	3/4	1	45	30	27	18	1450	70
20	18	26	3/4	1-1/4	51	32	29	18	1700	75
24	22	28	3/4	1-1/4	57	36	33	22	2250	90
30	26	34	3/4	1-1/4	64	42	39	26	3000	115
36	30	38	1	1-1/4	73	48	45	32	4100	140
42	36	46	1	1-1/4	80	54	51	36	5550	170
48	40	52	1	1-1/4	89	66	63	42	6600	270
54	46	58	1	1-1/4	98	72	69	46	7800	310

(1) The Standard Base Plate is not necessarily large enough to cover a dia. hole suitable to pull the pump. Check the customer's foundation for any oversize base plate requirements.

• TYPICAL PUMP CONFIGURATION  
• DO NOT USE FOR CONSTRUCTION

MIXED FLOW BOWL SIZE  
MINIMUM "R" DIMENSIONS

COLUMN SIZE	WALL THICKNESS
8-5/8	.277
10-3/4	.279
12-3/4	.330
14-30	.250
36-54	.375

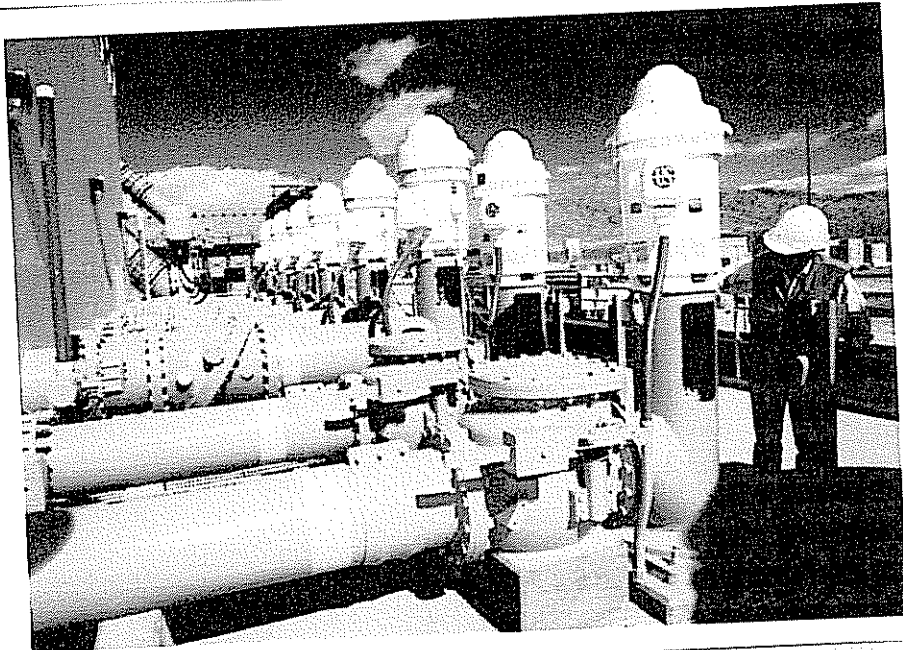
8", 10" and 12" column and elbow assemblies will be fabricated using pipe with outside diameters of 8-5/8", 10-3/4" and 12-3/4".

ELBOW SIZE	BOWL SIZE											
	8	10	12	14	16	18	20	24	30	36	42	48
8	0											
10	12	0										
12	24	12	0									
14		24	12	0								
16		36	24	12	0							
18			36	24	12	0						
20				36	24	12	0					
24				60	48	36	24	0				
30						72	60	36	0			
36							96	72	36	0		
42									72	36	0	
48										72	36	0
54											72	36

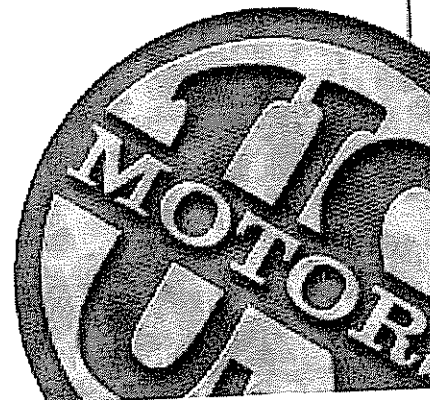
NOTE: All dimensions are in inches. All weights are in pounds and approximate. In the interest of product improvement, all dimensions are subject to change without notice.

# Product Data Sheet

**Vertical A.C. Motors**  
*Weather Protected Type I*  
*Holloshaft® High Thrust*



- For use on turbine, mix flow and propeller pumps
- 3 - 4000 Horsepower
- 3600 through 514 rpm
- Low and medium voltage through 6900 volts
- Three phase, 60 and 50 hertz
- Three efficiency levels - standard efficient, energy efficient and premium efficient



## Product Overview

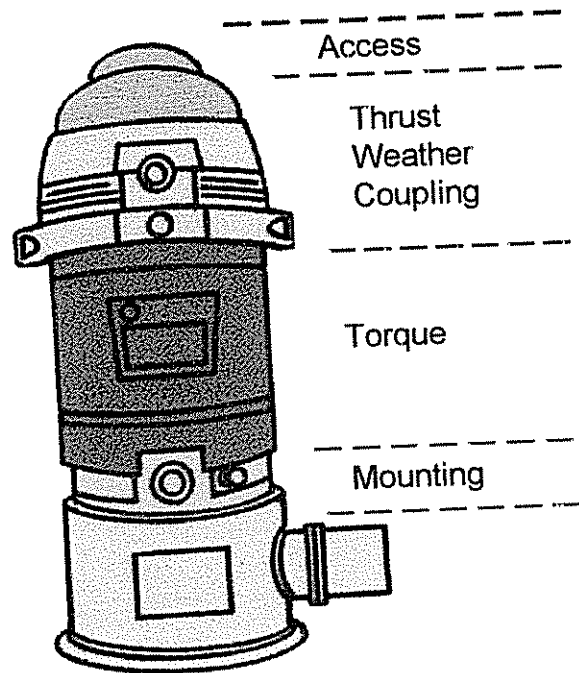
Our Weather Protected Type I (WPI) Holloshaft® motors are constructed to minimize the entrance of rain, snow and airborne particles. Our enclosures exceed NEMA requirements because U.S. Motors has built in the extra protection needed for rugged outdoor applications. The ventilation system is designed to provide optimum cooling to the thrust bearing and electrical components and is available in all motor sizes.

These motors allow for easy pump impeller adjustment and maintain alignment of pump base to motor drive clutches. Steady bushings are available to give the mechanical characteristics of a solid shaft motor.

In our design concept, the high thrust vertical motor is arranged into four functional zones - the top zone is small and light to assure simplified access to the coupling area and inspection of the thrust bearing. Below this is the coupling area and the essential elements of thrust bearings with a large weather protected air intake to cool the motor and thrust bearing.

Next, the center, or winding section, develops the driving torque and includes the latest Insulife insulation systems. And below, the mounting base is compact and designed for momentary upthrust of the pump.

The benefit of the four zone design is a motor which is more easily installed and serviced and which allow operator protection and convenience.



All open type vertical motors offered by U.S. Motors features a NEMA WPI enclosure as standard. It is designed to minimize the entrance of contaminants and airborne debris while protecting the internal components. Also, it is designed to prevent a 3/4 inch diameter rod from passing into the motor.

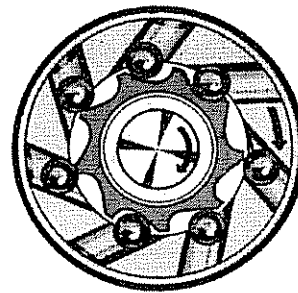
A unique feature of U.S. Motors' WPI design is the motor's air flow pattern. Cooling air is drawn in through the motor and exhausted in such a way to avoid drawing any pumped fluids into the motor should the pump's packing seal or mechanical seal fail. Furthermore, corrosion resistant screens and grills cover all openings preventing snakes, rodents, etc., from entering the motor. This is our standard product for outdoor service.

## Construction Features

Vertical motors with bearing configurations tailored to your specific needs is a hallmark of our product offering. U.S. Motors engineers can select from ball, angular contact, spherical roller and plate type bearing options to provide maximum bearing life regardless of the thrust conditions. U.S. Motors thrust bearing capacities are among the highest in the industry.

Our non-reverse ratchet, The Ball-O-Matic®, is without question the finest

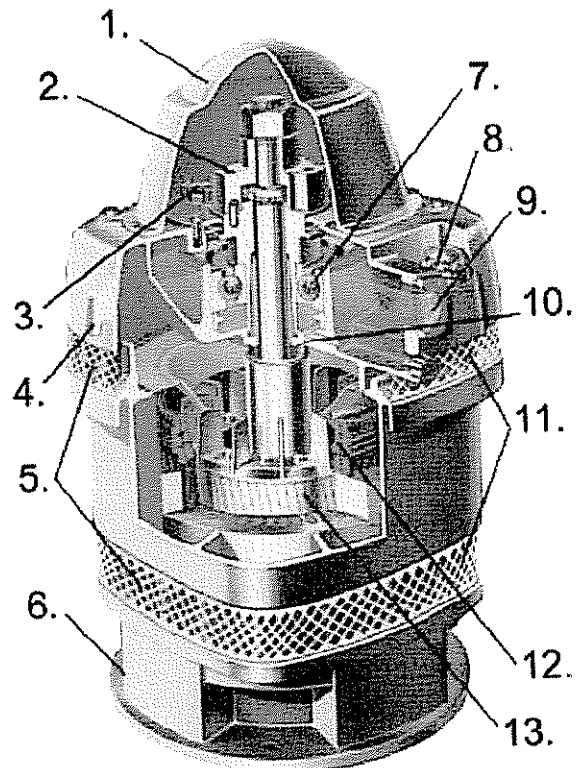
ratchet available. The Ball-O-Matic prevents reverse rotation within 4.5 degrees of rotation, has unlimited depth setting and can be used in explosionproof applications.



The Ball-O-Matic

The following diagram shows the typical Holloshaft® construction features:

1. **Lightweight Top Cover**
2. **Coupling** readily accessible
3. **Lockbar** holds shaft during adjustments
4. **Lifting Lugs** positioned for stability
5. **Protected Air Openings** exceed NEMA WPI requirements
6. **Precision Machined Mounting Base**, ample clearance for mounting bolt installation
7. **Rugged Bearing** withstands heavy load thrusts
8. **Large Plug** simplifies oil fills
9. **Sight Gauge Window** for quick oil level reading
10. **Metered Oil Flow** minimizes churning
11. **Dual Air Flow** system for uniform cooling of motor top and bottom
12. **Windings Protected** by new, synthetic materials
13. **Solid Die Cast Rotor** with integral fan blades



## Vertical Hollowshaft WPI

All vertical products are supplied with the Insulife® winding system. For low voltage NEMA frame products, the copper wound stator core is insulated with non-hydroscopic Class F or H rated materials, and is then treated with polyester varnish for extra moisture protection. Vacuum pressure impregnation (VPI) is an available option on frames 320 and larger.

Medium voltage form wound motors are wound with Class F or Class H materials and are treated with two complete cycles of 100% solid epoxy VPI. This produces a minimum of 6 mils insulation build. U.S. Motors does not manufacture random wound medium voltage motors for quality reasons. Our Everseal® sealed winding system is an available option for form wound machines.

Another option available on our Vertical Motors is Inverter Grade® Insulation System. U.S. Motors was the first motor company to recognize that the pulse width modulation (PWM) adjustable frequency technology offered substantial payoff in better equipment control and increased energy savings, but it also created new challenges for existing motor insulation systems.

Our Inverter Duty product offers an Inverter Grade® insulation system with superior pulse endurance to withstand the waveform stresses produced by the PWM drives. In addition to the pulse resistant magnet wire, our protection system includes additional lacing on end turns, phase paper and additional dips and bakes. This system meets the stringent requirements outlined in NEMA MG-1, Part 31.

Many extra features, accessories and manufacturing steps have been incorporated into our vertical motor designs to improve the overall performance and greatly extend motor life. Available modifications include special altitude, special ambient temperatures, special balance and copper bar rotors. Available accessories include current transformers, space heaters, lightning arrestors and protective devices for bearings, windings and vibration.

Contact your U.S. Motors representative to learn more about our full compliment of accessories and modifications on our vertical motors to provide you with the exact product for your application.

**Stock, conversion or built-to-order, U.S. Motors has your vertical motor solution.**



Emerson Motors

8100 West Florissant Avenue, St. Louis, MO 63136

WWW Home Page: <http://www.usmotors.com>



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DOMESTIC U.S. SALES  
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TORONTO, ONTARIO/CANADA

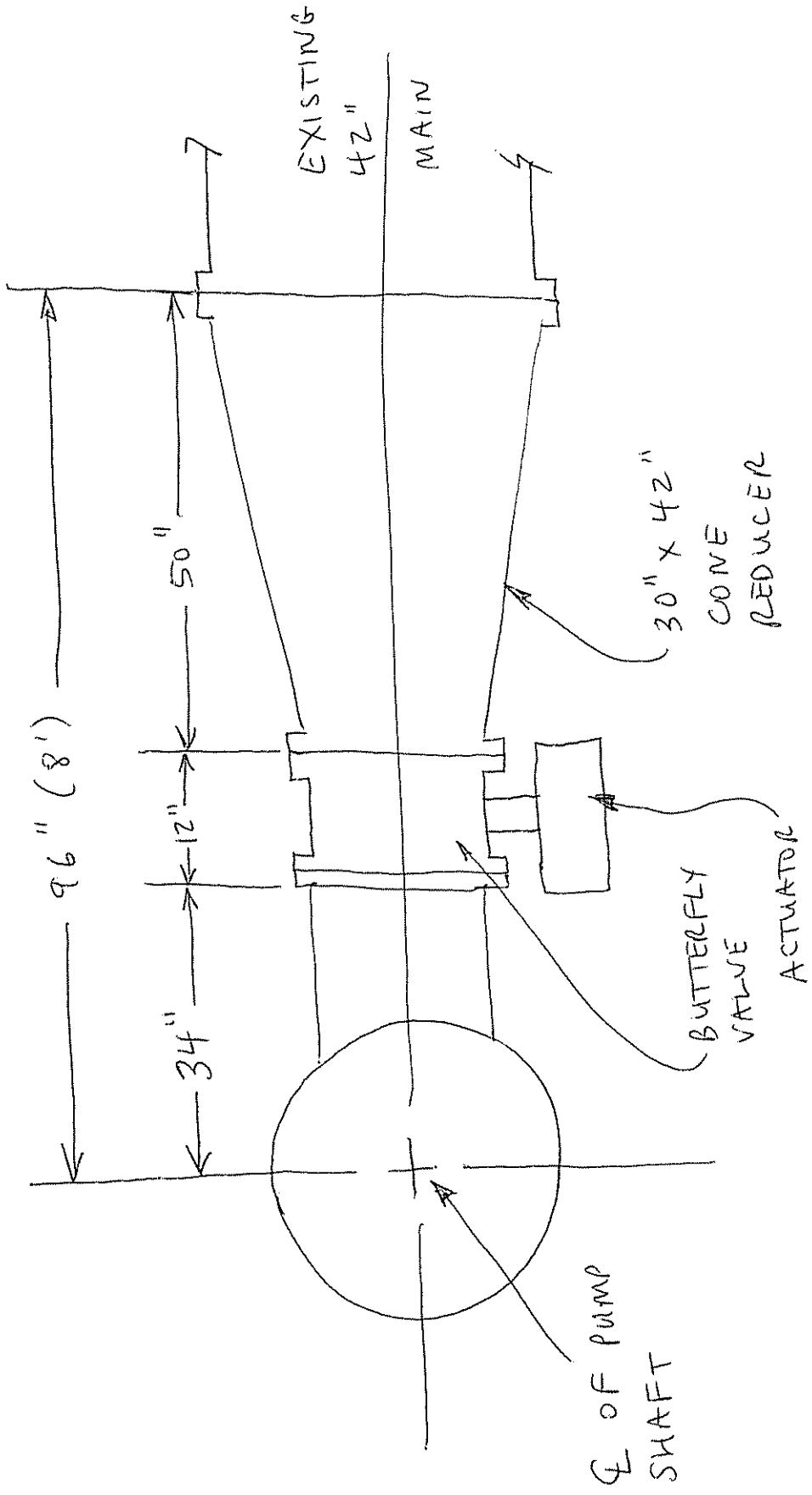
PHONE  
(888) 637-7333  
(314) 553-3185  
(800) 361-5509  
(905) 475-4670

FAX  
(314) 553-1101  
(314) 553-2135  
(514) 332-5912  
(905) 475-4672

REGIONAL OFFICES  
MONTERREY, MEXICO  
CARACAS, VENEZUELA  
BOGOTA, COLOMBIA

PHONE  
(52) 8-389-1312  
(58) 02-2377522  
(57)1-439-5420

FAX  
(52) 8-389-1310  
(58) 02-2329727  
(57)1-439-5417



# Babcock & Wilcox

## Forged and Rolled Steel Flanges

### Large Diameter

#### CLASS 125 WELDING NECK FLANGES

ASTM A181, GRADE I#  
 ALTERNATE DESIGNATION:  
 125 LB. AMERICAN STANDARD

All dimensions are in inches.

# Can also be furnished in A181, Grade II and A105, Grades I and II.

▲ When ordering specify thickness and O.D. of pipe or vessel to which flange is to be welded.

⊠ All sizes are regularly furnished with flat face. A 1/16" raised face can be furnished upon request.

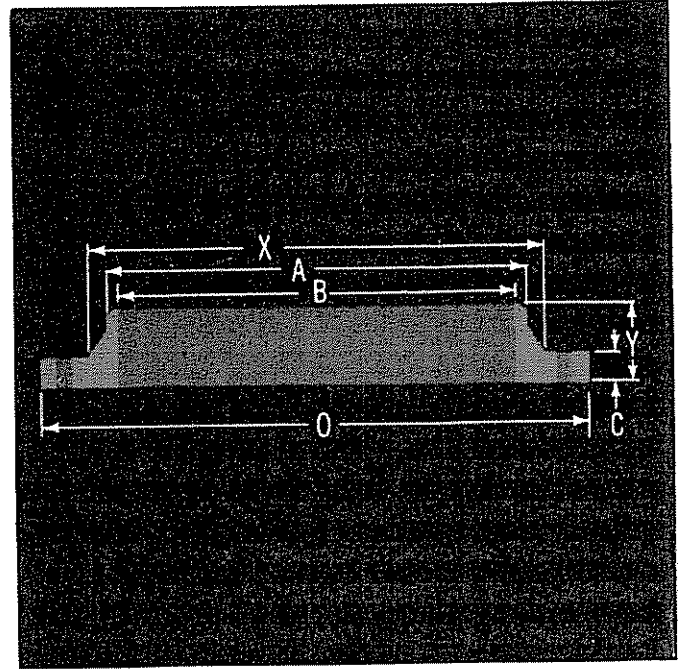
These flanges are designed for use with full face gaskets, but ring gaskets extending to the inside edge of the bolt holes may also be used.

These flanges have same pressure ratings, dimensions and drillings as 125 lb. Cast Iron Flanges (USAS B16.1).

Bolts should be of carbon steel.

These flanges carry a water service rating at atmospheric temperature of 275 psi.

All dimensions can be varied to customer requirements.



Nominal Pipe Size	O Outside Diam. of Flange	C Thick. of Flange	B Δ Diam. of Bore	Y Length Thru Hub	X Diam. of Hub at Base	A Diam. of Hub at Point of Welding	R** Diam. of Raised Face	Drilling Template				Approx. Weight in Pounds
								No. of Holes	Diam. of Holes	Diam. of Bolts	Diam. of Bolt Circle	
26	34 1/4	2		5	28 1/2	26	29 1/4	24	1 3/8	1 1/4	31 1/4	262.
28	36 1/2	2 1/16		5 1/16	30 3/4	28	31 1/4	28	1 3/8	1 1/4	34	291.
30	38 3/4	2 1/8		5 1/8	32 3/4	30	33 3/4	28	1 3/8	1 1/4	36	341.
32	41 3/4	2 1/4		5 1/4	35	32	35 3/4	28	1 5/8	1 1/2	38 1/2	412.
34	43 3/4	2 5/16		5 5/16	37	34	37 3/4	32	1 5/8	1 1/2	40 1/2	439.
36	46	2 3/8		5 3/8	39 1/4	36	40 3/4	32	1 5/8	1 1/2	42 1/2	495.
38	48 3/4	2 3/8		5 3/8	41 3/4	38	42 1/4	32	1 5/8	1 1/2	45 1/4	573.
40	50 3/4	2 1/2		5 1/2	43 3/4	40	44 1/4	36	1 5/8	1 1/2	47 1/4	619.
42	53	2 5/8	As	5 5/8	46	42	47	36	1 5/8	1 1/2	49 1/2	715.
44	55 1/4	2 5/8	Specified	5 5/8	48	44	49	40	1 5/8	1 1/2	51 3/4	755.
46	57 1/4	2 1/16	by	5 1/16	50	46	51	40	1 5/8	1 1/2	53 3/4	805.
48	59 1/2	2 3/4	Purchaser	5 3/4	52 1/4	48	53 1/2	44	1 5/8	1 1/2	56	880.
50	61 3/4	2 3/4		5 3/4	54 1/4	50	55 1/2	44	1 5/8	1 3/4	58 3/4	915.
52	64	2 7/8		5 7/8	56 1/2	52	57 1/2	44	1 5/8	1 3/4	60 1/2	1020.
54	66 1/4	3		6	58 3/4	54	59 3/4	44	1 5/8	1 3/4	62 3/4	1110.
60	73	3 1/2		6 1/8	65 1/4	60	66	52	1 5/8	1 3/4	69 1/4	1360.
66	80	3 3/8		6 3/8	71 1/2	66	73	52	1 5/8	1 3/4	76	1770.
72	86 1/2	3 1/2		6 1/2	78 1/2	72	79 1/2	60	1 5/8	1 3/4	82 1/2	2125.
84	99 3/4	3 1/2		6 3/4	90 1/4	84	92 1/4	64	2 1/8	2	95 1/2	2825.