

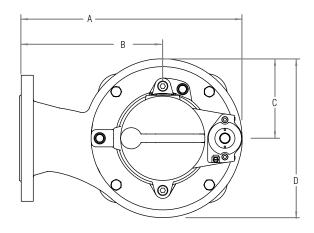
The curve reflects maximum performance characteristics without exceeding full load (Nameplate) horsepower. Operation is recommended near the Best Efficiency Point. Operating at the outer limits of the curve is not recommended. Performance curves are based on actual tests with clear water at 70° F. and 1280 feet site elevation.

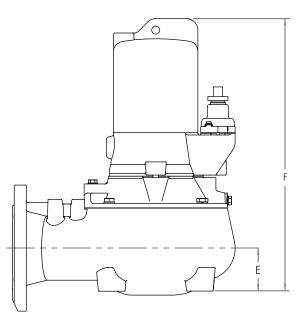
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Section: Performance Data

Condition	s of Service:
GPM·	TDH∙







	A		В		С		D		E		F		Weight		
Model	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	kg	lbs	
V2D-01		385.5 15.18 247 9.72										475.5	10.72		
V2D-21			247	9.72	138.5	5.45	277	10.91	75	2.95	475.5	18.72	49	108	
V2D-03	385.5														
V2D-23								440.5	17.34						
V2D-43															

Component dimensions may vary  $\pm$  1/8 inch. Dimensional data not for construction purpose unless certified. Dimensions and weights are approximate. We reserve the right to make revisions to our product (s) and the product (s) specifications without notice.

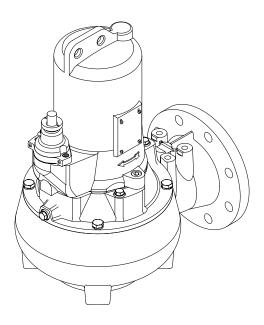
Discharge: 4" Solids: 4" Wholesale Products Page: JP10081SSD-2

Section: **Dimensional Data** Dated: January, 2011



# **MODEL: V2D Series Solids Handling Pumps**

	Units	V2D-01	V2D-03	V2D-21	V2D-23	V2D-43			
Motor type		E 90-4/110 A	D 90-4/75 DM	E 90-4/110 A	D 90-4/75 DO	D 90-4/75 DN			
Frequency	Hz		60						
Voltage / tolerance	V	1ø ~200V ± 10%	3ø ~200V ± 10%	1ø ~230V ± 10%	3ø ~230V ± 10%	3ø ~460V ± 10%			
F.L.A.	А	17.2	10.7	15.5	8.7	4.6			
R.P.M.	1/min	1650	1620	1675	16	520			
cos phi		0.98	0.78	0.97	0.81	0.75			
cos phi-start		0.85	0.72	0.8	0.72				
Maximum ON/OFF cycles per hour	1/h	60	120	20 60 120					
Start Amp. (at H=3 ft and rated voltage)		37	33	50	25	17			
ISO-class			,	F	,	,			
Enclosure		IP 68							
Winding protection / control unit required		150° C Therm. / Yes							
Ext. motor protection required		Yes							
Winding resistance	Ohm	3.8 2.8 3.8 4.7							
Service Factor		1.03 1.01 1.03 1.01							
Standard Cable		25 ft SOOW 12/6 AWG 12							



**V2D Series Electrical Data**Discharge: **4"** Solids: **4"** 

Wholesale Products Page: **JP10081SSD-3**Section: **Electrical Data** 



# **MODEL: V2D Series Solids Handling Pumps**

	Units	V2D-01	V2D-03	V2D-21	V2D-23	V2D-43				
Max. head	ft			31		-				
Max. flow rate	GPM		396							
Torque LRT/FLT/POT	lb/ft	5.2 / 11.1 / 13.3	17 / 10.9 / 19.5	5.9 / 12.5 / 15.5	14.8 / 9.4 / 17	17 / 10.9 / 19.5				
Bearing n.d.e.			6204 double shielded ball							
Bearing d.e.			3203 d	ouble row angular cont	tact ball					
O-rings			NBR 70 DIN 3771							
Shaft seal motor side	mm		2 - 25 x 38 x 7 lip seal							
Shaft seal medium side	mm		25 x 24 SiC mech. seal							
Volute type / material			Ring CW / GG-25 cast iron							
Discharge connection		DIN 100 (4") ANSI #150								
Inlet diameter	in		Ø 3.94							
Impeller type / material			vortex / GGG-60 cast iron							
Impeller diameter	in		Ø 7.047							
Vane qty / height	in		6 / 0.984							
Free passage	in	3.937								
Total inertia	lb ft²	0.641								
Weight with standard cable	lbs	108								
Oil chamber qty / oil grade	in <sup>3</sup>	61 / SAE 5W-15W (ISO 22-44) Mineral oil								
Materials of Construction										
Coating		2K Epoxy, 80 μm, black								
Motor casing		GG-20 cast iron								
Bearing chamber		GG-25 cast iron								
Pump shaft		C 45 K covered								

Wholesale Products Page: **JP10081SSD-4**Section: **Technical Data** 



## **MODEL: V2D Series Solids Handling Pumps**

#### 1.01 General

1.01	General
centrif V2D S	actor shall furnish all labor, materials, equipment and incidentals required to provide (Qty.) submersible fugal solids handling sewage pump(s) as specified herein. The pump models covered in this specification are the series. The pump furnished for this application shall be MODEL as manufactured by Jung Pumpen of an, Wisconsin (800-642-5930).
2.01	Design Conditions
shall c	bump shall be rated H.P., volts, phase, hertz and operate at RPM. The pump leliver U.S. GPM/LPS at feet/meters TDH., and handle a inch solid. The reserve service shall be a minimum of The specification submitted for approval shall state, in addition to flow and head ity performance, solid handling capability, amp rating, and design impeller diameter.
3.0 I	Construction
Each p	pump shall be of the sealed submersible type, incorporating features normally found in pumps furnished for the
heavy	duty industrial or municipal markets.
These	features include:
3.02	The castings shall be constructed of epoxy coated cast iron.
3.03	The seal housing is cast iron.
3.04	The pump inlet shall be open and clear, without screening to provide access for sewage and solids.
3.05	All external mating parts shall be machined and Buna N, O-Ring sealed.
3.06	All fasteners exposed to the pumped liquid shall be 300 series stainless steel.

#### 4.01 Electrical Power Cord

All power cords shall be SO-type water resistant UL or CSA approved, with double insulation, and sized as a function of Full Amp. draw.

As an optional feature include \_\_\_\_ seal leak probes in the seal chamber.

#### 5.01 Motor

The stator, rotor and bearings shall be mounted in a sealed submersible type housing. Single phase motors shall be split phase or capacitor start with centrifugal switch. Three phase motors shall be Polyphase. Full Load and Locked Rotor Amps. as well as Start and Run winding resistance shall be tabulated for each pump.

#### 6.01 Bearings, Shaft And Mechanical Seal

An upper radial ball bearing and a lower double row angular contact ball bearing shall be required. The motor shaft shall be stainless steel and sealed from the pumped liquid with a silicone carbide mechanical seal and two lip seals.

## 7.01 Impeller

The impeller shall be a high capacity, six vane, non clog design with pump out vanes on the back side. These vanes wash out grit and stringy material that will damage the shaft and mechanical seal.



#### 8.01 Painting

All cast iron parts shall be painted before assembly with a black high solids epoxy mastic and applied in one coat with a minimum thickness of 8 mils.

### 9.01 Serviceability

Components required for the repair of the pump shall be readily available within 24 hours. Components such as mechanical seals and bearings shall not be of a proprietary design and be available from local industrial supply houses. Special tools shall not be required to service the pump. A network of service stations shall be available nationwide in those cases where service requirements are beyond the scope of in-house service mechanics.

## 10.01 Support

Optional support legs are available, enabling pump to be a freestanding unit. The legs will be high enough to allow passage of solid matter below the housing.

### 11.01 Testing

All pumps shall be individually tested to include the following:

- 11.02 The pump and power cord shall be visually inspected for imperfections, cuts or nicks.
- 11.03 The pump shall have a ground continuity check and the motor chamber shall be Hi-potted to test for moisture content and/or insulation defects.
- 11.04 The motor and volute housing shall be pressurized and a 10 second air leak decay test run.
- 11.05 Oil is added by the tester and the pump is run. Voltage and current are monitored visually and electronically while the tester listens for any noise or malfunction.

## 12.01 Warranty

Standard warranty shall be 12 months from date of installation or 18 months from date of manufacture. Warranty repairs shall be provided by an authorized service station.

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Section: Specification Data