

# **BASP**

**SLURRY PUMPS**



## **Vertical Cantilevered**

## **Severe Duty Slurry Pumps Series: "DV"**

## **Common Applications**

- **Continuous or "Snore" Operation**
- **Abrasive, High Density, and Large Particle Slurries**
- **Sump Drainage**
- **Washdown**
- **Floor Drainage**
- **Mixing / Agitation**

# “DV” Vertical Cantilever Series

“DV” pumps are a vertical cantilevered slurry pump design that features hard alloy wear parts and/or complete elastomeric protection on all submerged parts.

This pump does not have any bearings or seals exposed to the pumpage. This cantilevered design virtually eliminates the primary failure mode of all slurry pumps (water in the bearings).

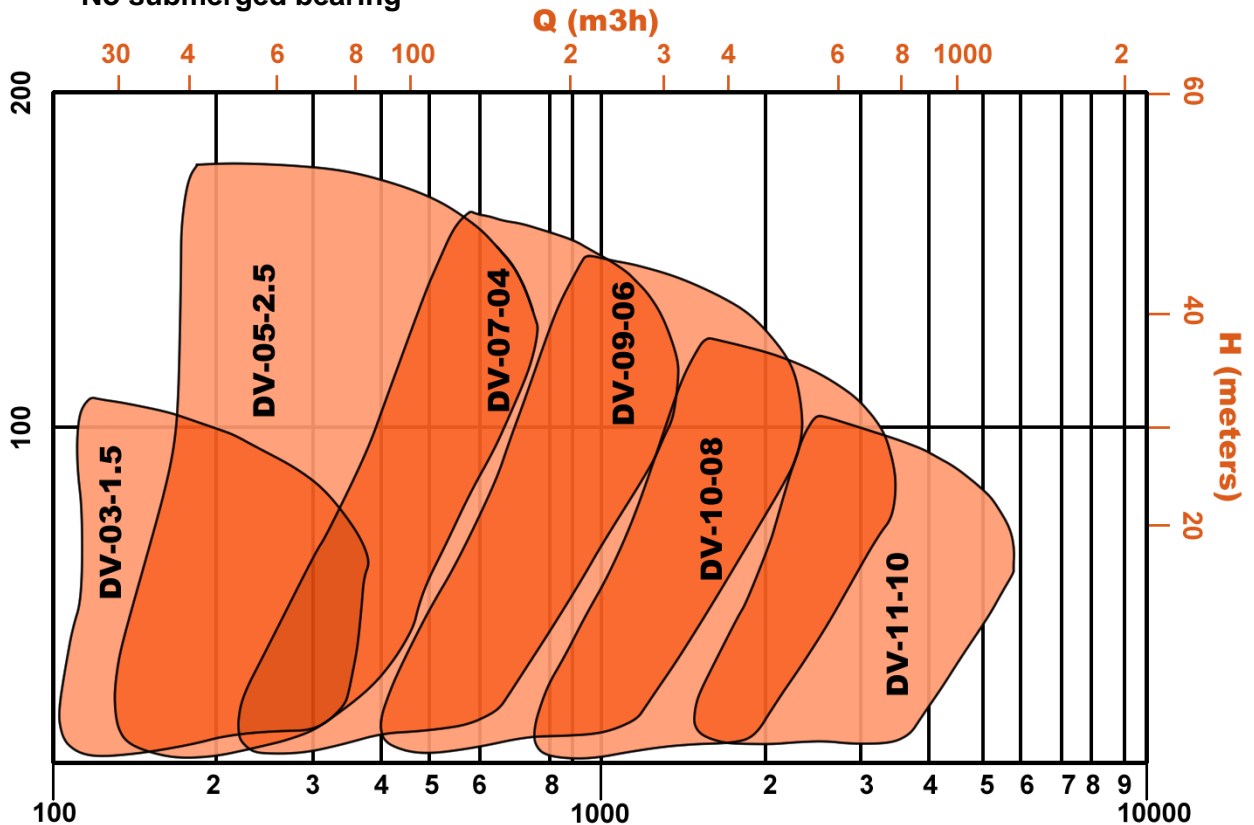
## Series “DV” Attributes

*Vertical, cantilever shaft, centrifugal, single stage, component case, double suction impeller*  
*Constantly rising curve promotes stable parallel operation*

- **Discharge Diameters** 1.5" to 10" (40mm to 250mm)
- **Heads through** 160ft (50m)
- **Flow Rates through** 6,000 USGPM (1,350m3h)
- **Casing Pressure MWP Metal Lined** 150psi (10.3 bar)
- **Casing Pressure MWP Elastomer Coated** 100psi (6.9 bar)
- **Temperature Limitation Metal Lined** 250° F (120° C)
- **Temperature Limitation Rubber Coated** 150° F (65° C)
- **Temperature Limitation Hypalon or Butyl Coated** 220° F (104° C)
- **Standard Hardness Metal Lined** 600-650BHN (59.8 Rc)
- **pH range from** 1-14

### Sealing Options:

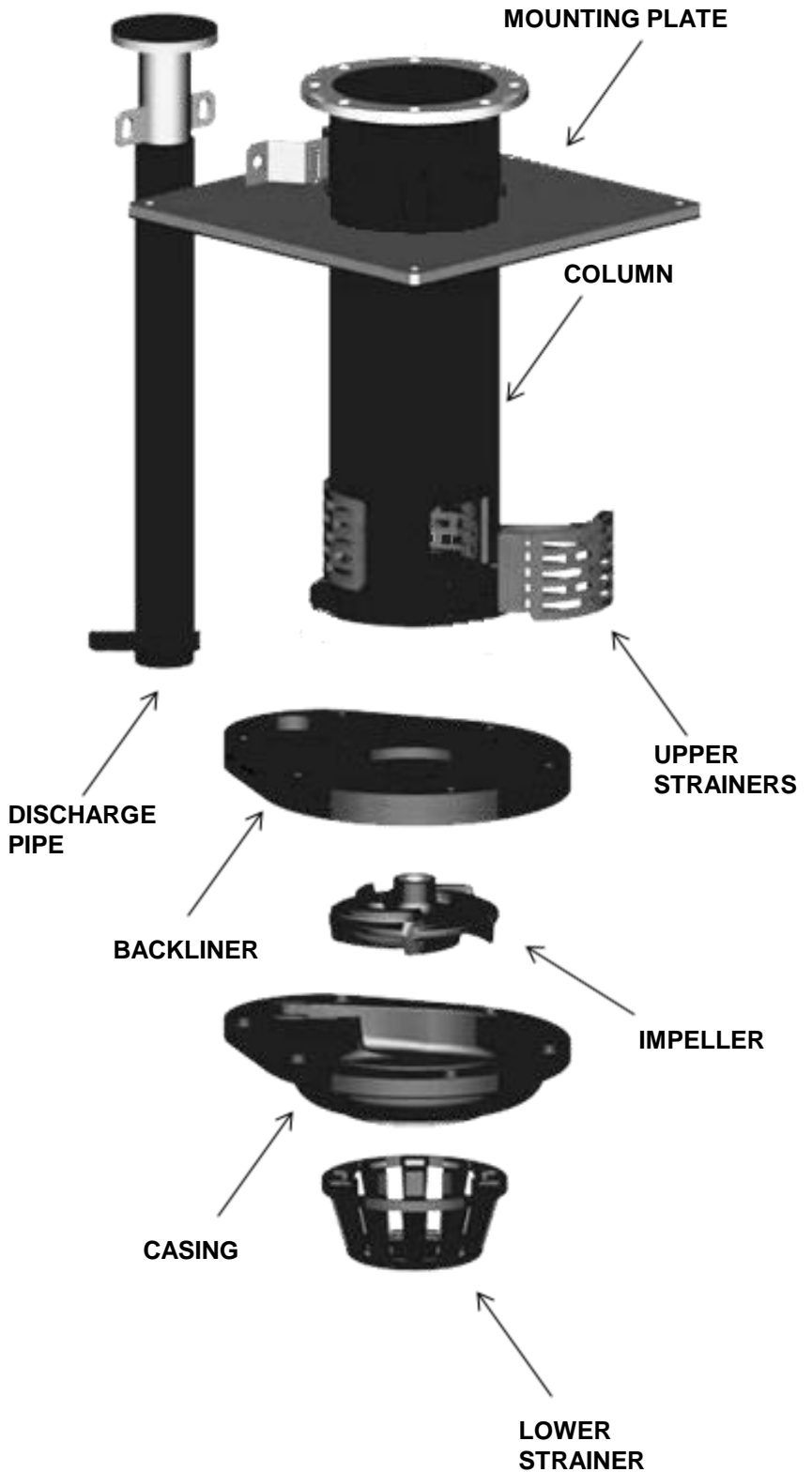
- No sealing required
- No stuffing box
- No flushing water
- No packing
- No submerged seals
- No submerged bearing



**Model "DV"**  
**Material Option**  
**Rubber Coated**



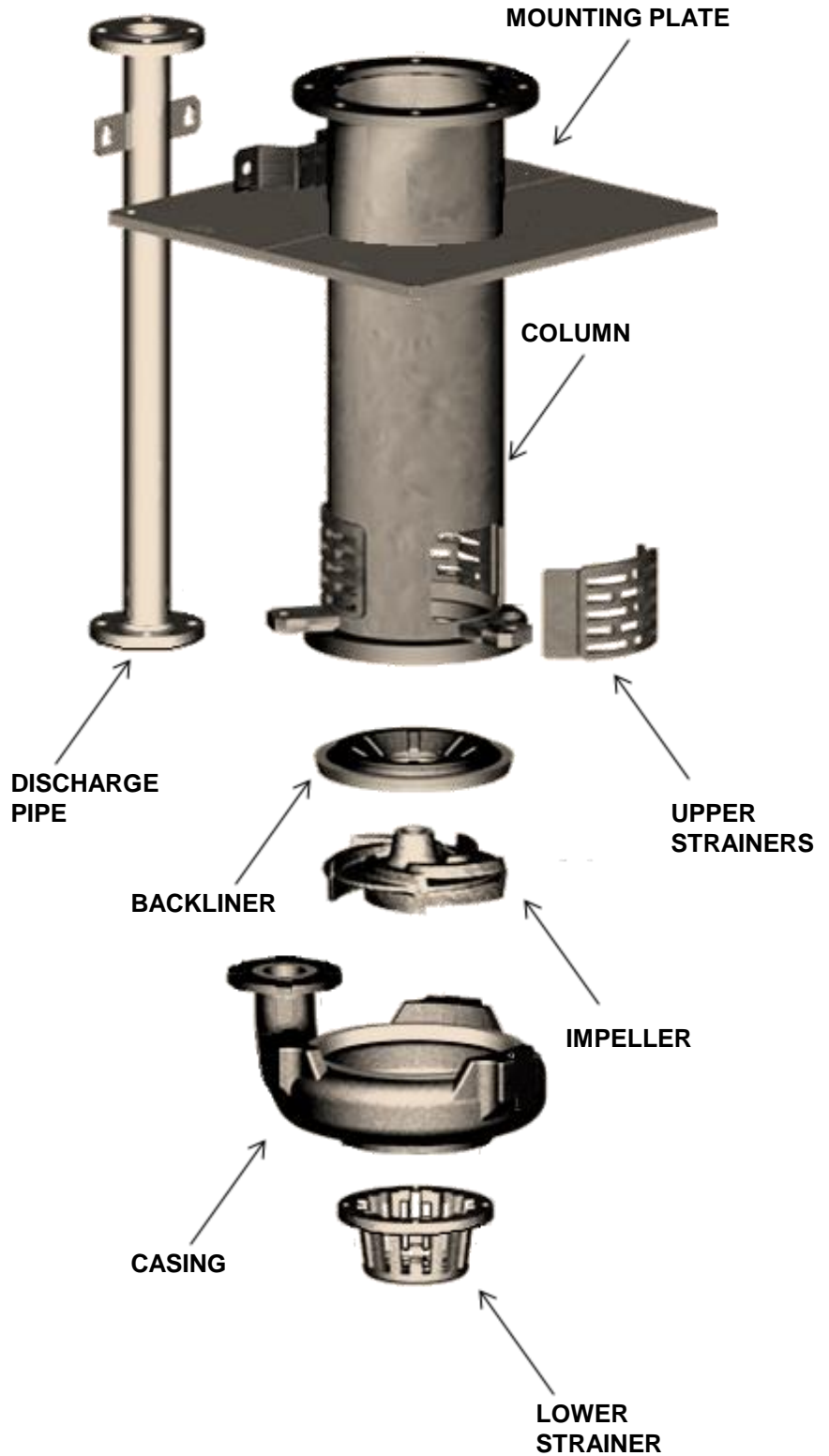
**BEARING ASSEMBLY**



**Model "DV"**  
**Material Option**  
**Hard Chrome Alloy**

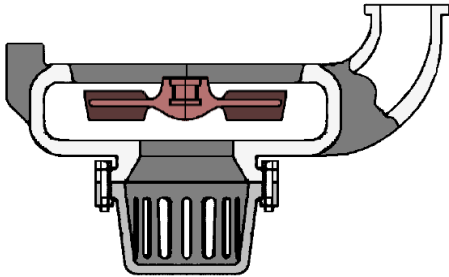


**BEARING ASSEMBLY**

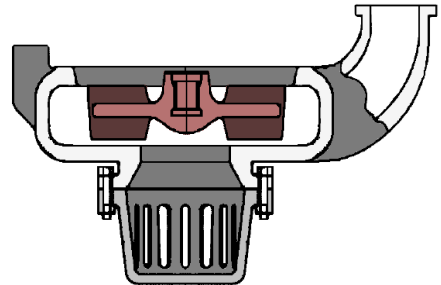


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SLURRY PUMPS

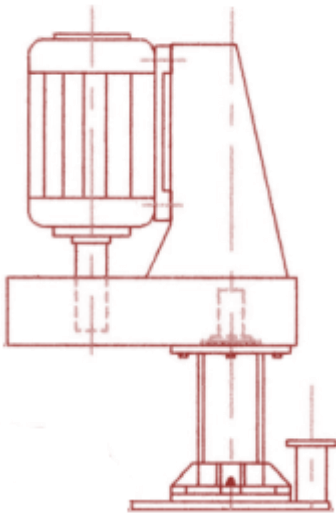


Large Particle Impeller

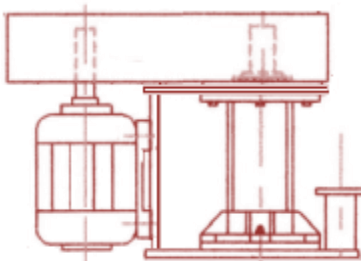


Standard Impeller

## Model "DV" Build Options



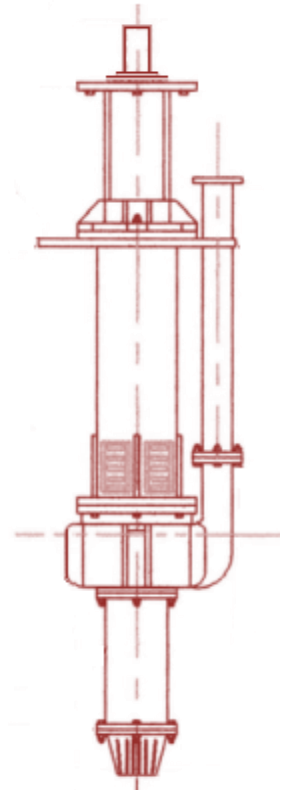
Motor Shaft Down



Motor Shaft Up



Standard Set



Extended Set  
with Tailpipe



## Critical Speed Chart

Operation at or near the critical speed must be avoided or destructive levels of vibration may occur!!!

All pumps have a critical speed or natural frequency of vibration. The critical speed is dependent on shaft stiffness and overhanging mass.

Vertical cantilever pumps have relatively long shafts which can result in critical speeds within the normal pump operating range.

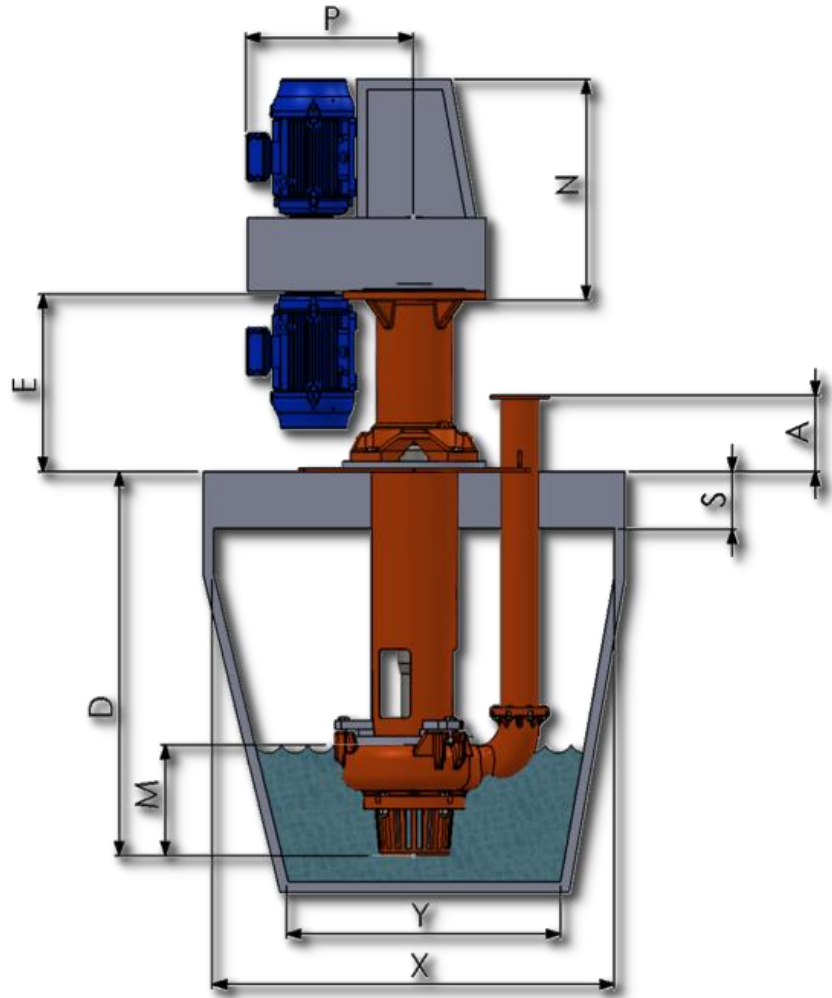
This chart shows the maximum speed for selecting a suitable pump based on Set Dimension and Type of Impeller, this RPM does not exceed 80% threshold of the first critical speed.

"D" SET DIMENSION				MAX PUMP RPM @ 20% BELOW FIRST CRITICAL		
				IMPELLER SPECIFICATION		
MODEL	D inch	D mm	Code	STANDARD METAL	STANDARD ELASTOMER	LARGE PARTICLE METAL
DV-03-1.5	35.43	900	E	1615	1817	1743
	47.24	1200	G	997	1099	1062
DV-05 -2.5	35.43	900	E	1782	2130	1974
	47.24	1200	G	1160	1313	1230
	59.06	1500	J	782	894	845
DV-07-04	47.24	1200	G	1446	1840	1651
	59.06	1500	J	998	1238	1123
	70.87	1800	L	735	893	820
DV-09-06	59.06	1500	J	1230	1400	1400
	70.87	1800	L	909	1174	1110
	82.68	2100	N	702	889	846
DV-10-08	59.06	1500	J	1125		
	70.87	1800	L	839		
	82.68	2100	N	654		
DV-11-10	70.87	1800	L	1000		
	82.68	2100	N	867		
	94.49	2400	Q	698		

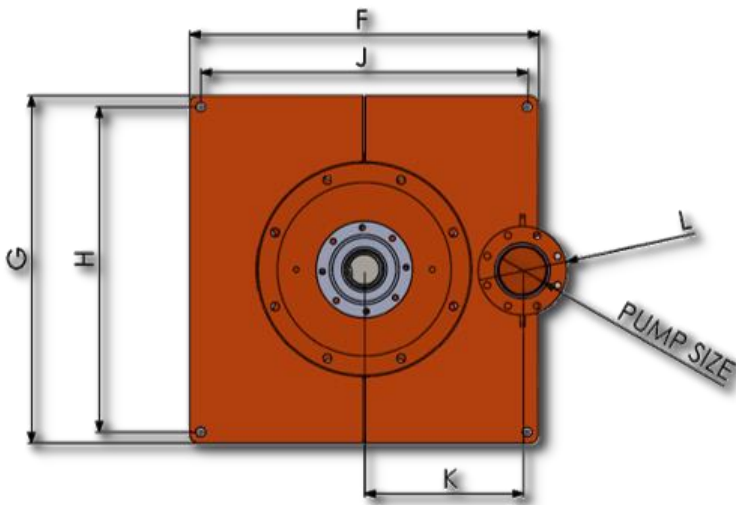
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## SLURRY PUMPS

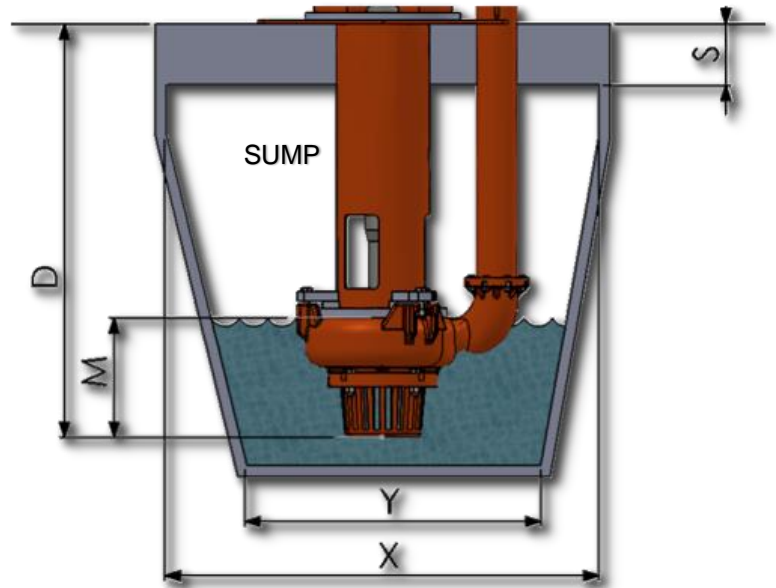
TABLE "D" DIMENSION		
Model	D	Code
DV-03-1.5	35.43	E
	47.24	G
DV-05-2.5	35.43	E
	47.24	G
	59.06	J
DV-07-04	47.24	G
	59.06	J
	70.87	L
DV-09-06	59.06	J
	70.87	L
	82.68	N
DV-10-08	59.06	J
	70.87	L
	82.68	N
DV-11-10	70.87	L
	82.68	N
	94.49	Q



Model	PUMP					WT	PRIME	MOTOR	
	Disc.	A	B	C	E	lbs	M	N	P
DV-03-1.5-M	1.5	5.39	11.22	6.02	14.96	629	6.85	28.85	26.57
DV-03-1.5-R	1.5	5.51	10.43	6.89	14.96	550	6.85	28.85	26.57
DV-05-2.5-M	2.5	8.93	15.70	9.09	19.37	953	10.43	35.35	31.25
DV-05-2.5-R	2.5	9.05	14.96	10.23	19.60	850	10.43	35.35	31.25
DV-07-04-M	4	10.23	21.18	12.48	26.06	1911	15.47	44.92	40.15
DV-07-04-R	4	10.47	21.06	13.07	26.29	1700	15.47	44.92	40.15
DV-09-06-M	6	15.35	26.37	14.37	34.44	3830	18.70	51.61	47.24
DV-09-06-R	6	15.55	26.37	15.74	34.76	3350	18.70	51.61	47.24
DV-10-08-M	8	17.71	31.69	17.32	34.56	6800	21.65	51.69	51.18
DV-11-10-M	10	19.68	36.61	18.50	39.37	9000	26.96	61.88	68.89



MOUNTING PLATE  
PLAN VIEW



Model	MOUNTING PLATE						SUMP				
	F	G	H	J	K	L	S	T	V	X	Cu. Ft.
<b>DV-03-1.5-M</b>	19.68	19.68	17.71	17.71	8.07	5.00	11.02	27.36	21.65	39.37	12
<b>DV-03-1.5-R</b>	19.68	19.68	17.71	17.71	8.07	5.00	11.02	27.36	21.65	39.37	12
<b>DV-05-2.5-M</b>	26.77	26.77	24.41	24.41	11.22	7.00	13.77	36.41	31.49	55.11	32
<b>DV-05-2.5-R</b>	26.77	26.77	24.41	24.41	11.22	7.00	13.77	36.41	31.49	55.11	32
<b>DV-07-04-M</b>	39.37	34.25	31.49	36.61	15.74	9.01	13.77	48.22	39.37	68.89	66
<b>DV-07-04-R</b>	39.37	34.25	31.49	36.61	15.74	9.01	13.77	48.22	39.37	68.89	66
<b>DV-09-06-M</b>	43.30	43.30	40.55	40.55	19.68	11.02	13.77	60.03	49.21	84.64	125
<b>DV-09-06-R</b>	43.30	43.30	40.55	40.55	19.68	11.02	13.77	60.03	49.21	84.64	125
<b>DV-10-08-M</b>	51.18	47.24	43.30	47.24	23.62	13.50	13.77	60.03	59.05	94.48	168
<b>DV-11-10-M</b>	68.89	57.08	53.14	64.96	27.55	15.98	15.74	69.88	66.92	106.3	242