

Series 2V and 5V - Self-Priming

CONSTRUCTION MATERIALS

	STANDARD	TYPE A	TYPE B	TYPE C	TYPE D	TYPE E	TYPE F	TYPE G
CASING	A 48CL30					CD4 MCU	SS 316	ADI
IMPELLER	A 60-40-18	A 216	CD4 MCU	SS 316	ADI	CD4 MCU	SS 316	ADI
WEAR PLATE	SAE 1020	A 216	CD4 MCU	SS 316	ADI	CD4 MCU	SS 316	ADI
COVER PLATE	A 48CL30	A 216	CD4 MCU	SS 316	ADI	CD4 MCU	SS 316	ADI
BEARING HOUSING	A 48CL30					CD4 MCU	SS 316	ADI
SEAL PLATE	A 48CL30	A 216	CD4 MCU	SS 316	ADI	CD4 MCU	SS 316	ADI
FLAP VALVE	Neoprene					Viton		
SLEEVE SHAFT	ANSI 4140HT	ANSI 17-4						
FLANGE	A 48CL30				ADI	SS 316	SS 316	ADI
O'RINGS	Buna		Viton					
IMPELLER SHAFT	ANSI 4140HT	ANSI 17-4						
MECHANICAL SEAL	Casing in SS 316, O'rings in Buna & Viton, faces in titanium and tungsten carbide							

THE MECHANICAL SEAL FOR ALL MODELS HAS A 316SS BODY, VITON O'RINGS AND TUNGSTEN CARBIDE FACES. OTHER SEALS AVAILABLE UPON REQUEST.

ALL CAST IRON PARTS ARE ASTM 48, CLASS 30.

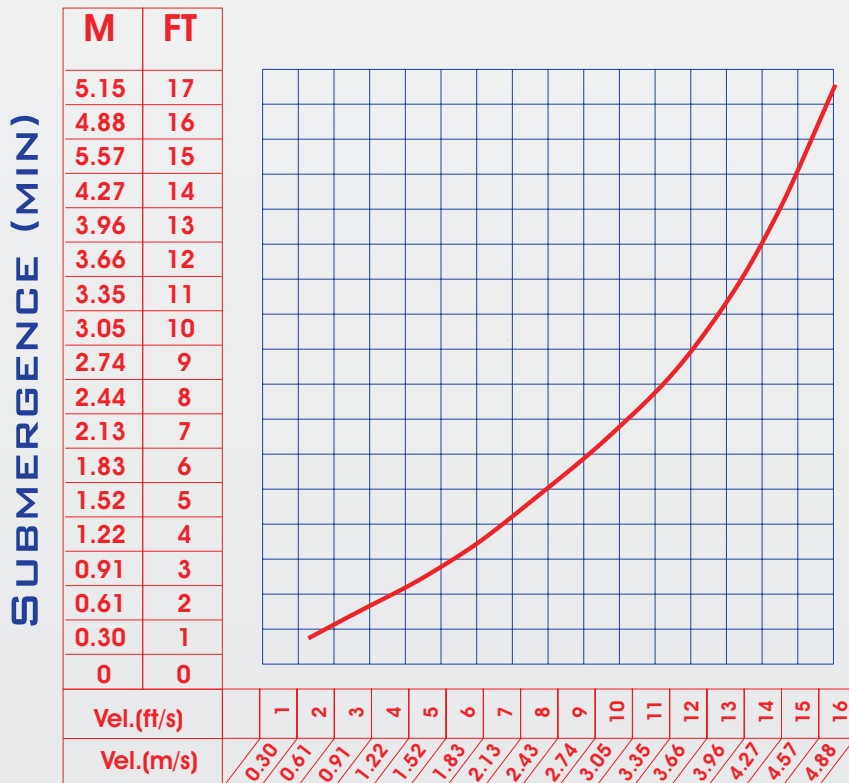
ALL CARBON STEEL SHAFTS ARE SAE 4140 HT

ALL PARTS LABELED CD4 ARE HARDENED 18-8 STAINLESS STEEL, CD4, DIN 1-4463

ALL PARTS LABELED 316SS ARE CF8M

EPOXY AND CERAMIC INTERNAL COATINGS ARE AVAILABLE. PLEASE CALL FOR QUOTE.

SUCTION SPEED FLOW CURVE



NOTE 1: THE SUGGESTED SUCTION SHOULD HAVE THE SAME NOMINAL DIAMETER AS THE PUMP, SO THAT THE SOLIDS WILL BE TOTALLY SWEEP UP.

2: IF THE SPEED IS HIGHER THAN 3.5 M/S AND IF THERE IS A NEED FOR HIGHER "NPSH", PLEASE CONTACT THE FACTORY.



Series 2V

Model 2V2



DATA SHEET

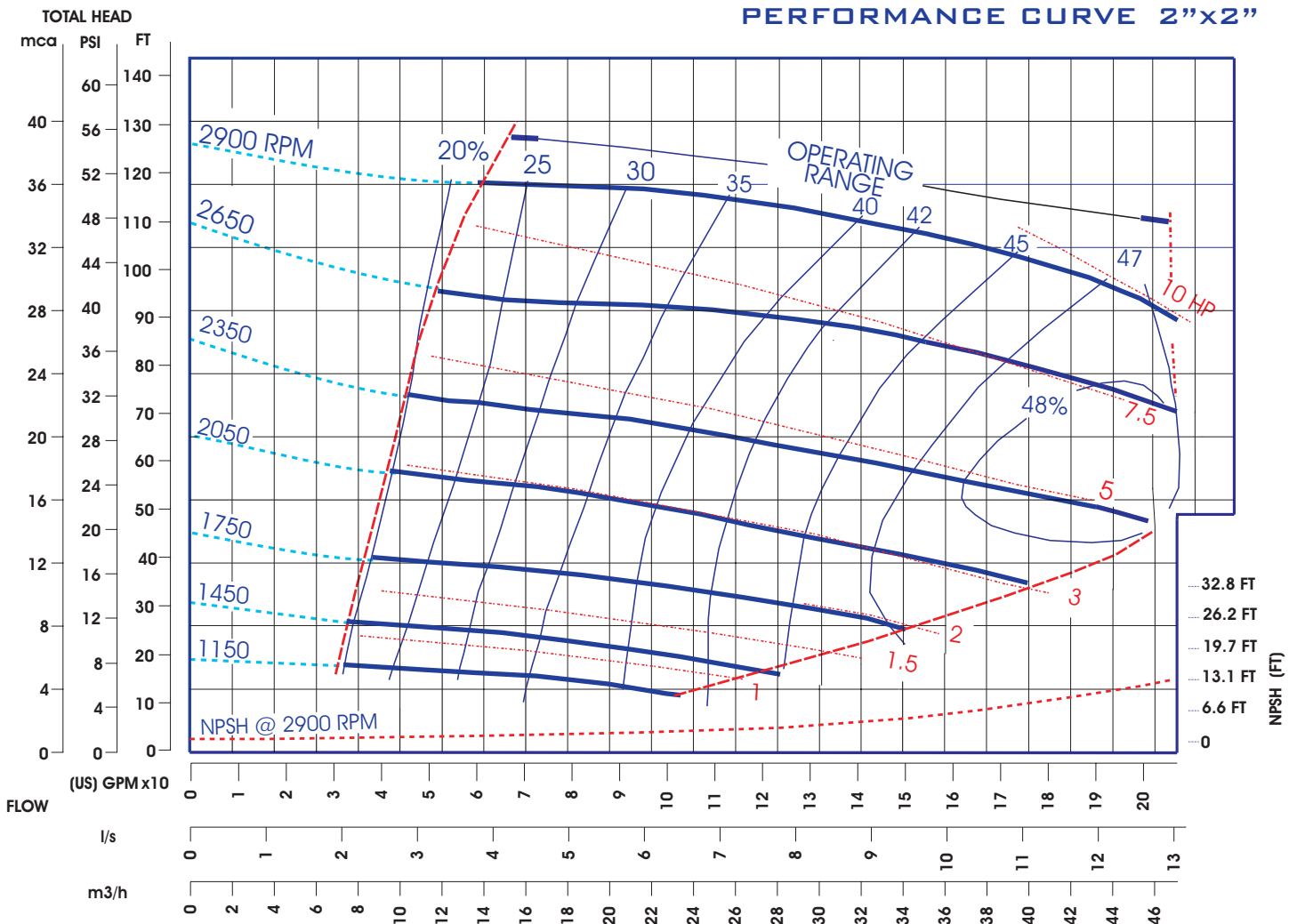
NET WEIGHT 92kg (203lbs)
SHIPPING WEIGHTS 114kg (252lbs)
IMPELLER DIA. 158,75mm (6.1/4")
R.P.M. FROM 1150rpm TO 2900rpm
MAX. SOLIDS 44,45mm (1.3/4")

SELF-PRIMING

1150 RPM 7,3m (24ft) - 1450 RPM 7,6m (25ft)
 1750 RPM 7,6m (25ft) - 2050 RPM 7,6m (25ft)
 2350 RPM 7,6m (25ft) - 2650 RPM 7,6m (25ft)
 2650 RPM 7,6m (25ft) - 2900 RPM 7,6m (25ft)

BEFORE USING THIS TABLE, CHECK THE NPSH.

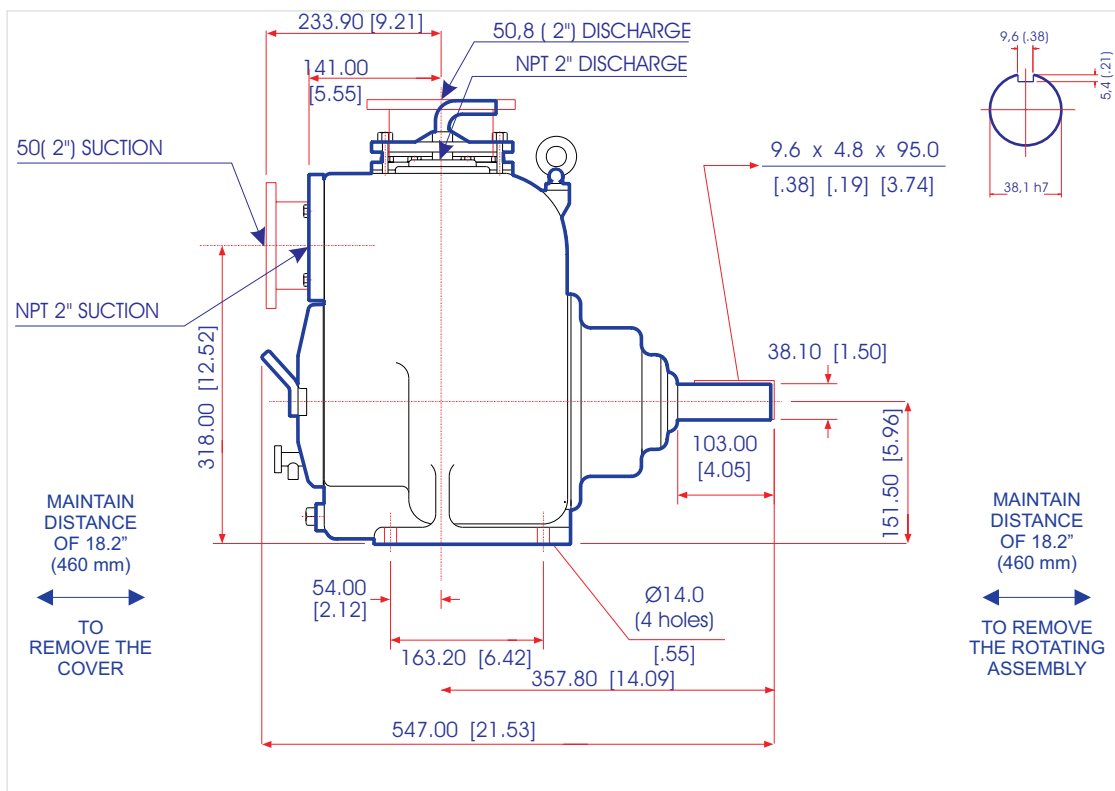
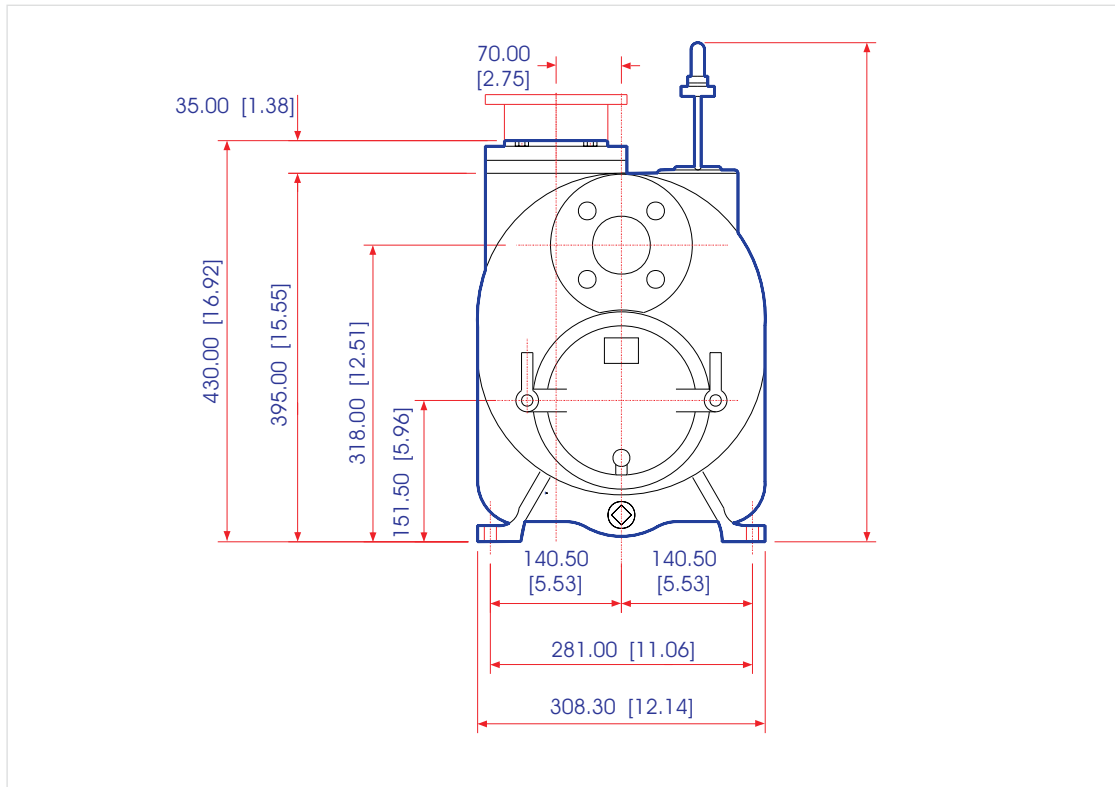
PERFORMANCE CURVE 2"x2"



Series 2V

Model 2V2

(INCHES)





Series 2V

Model 2V3



DATA SHEET

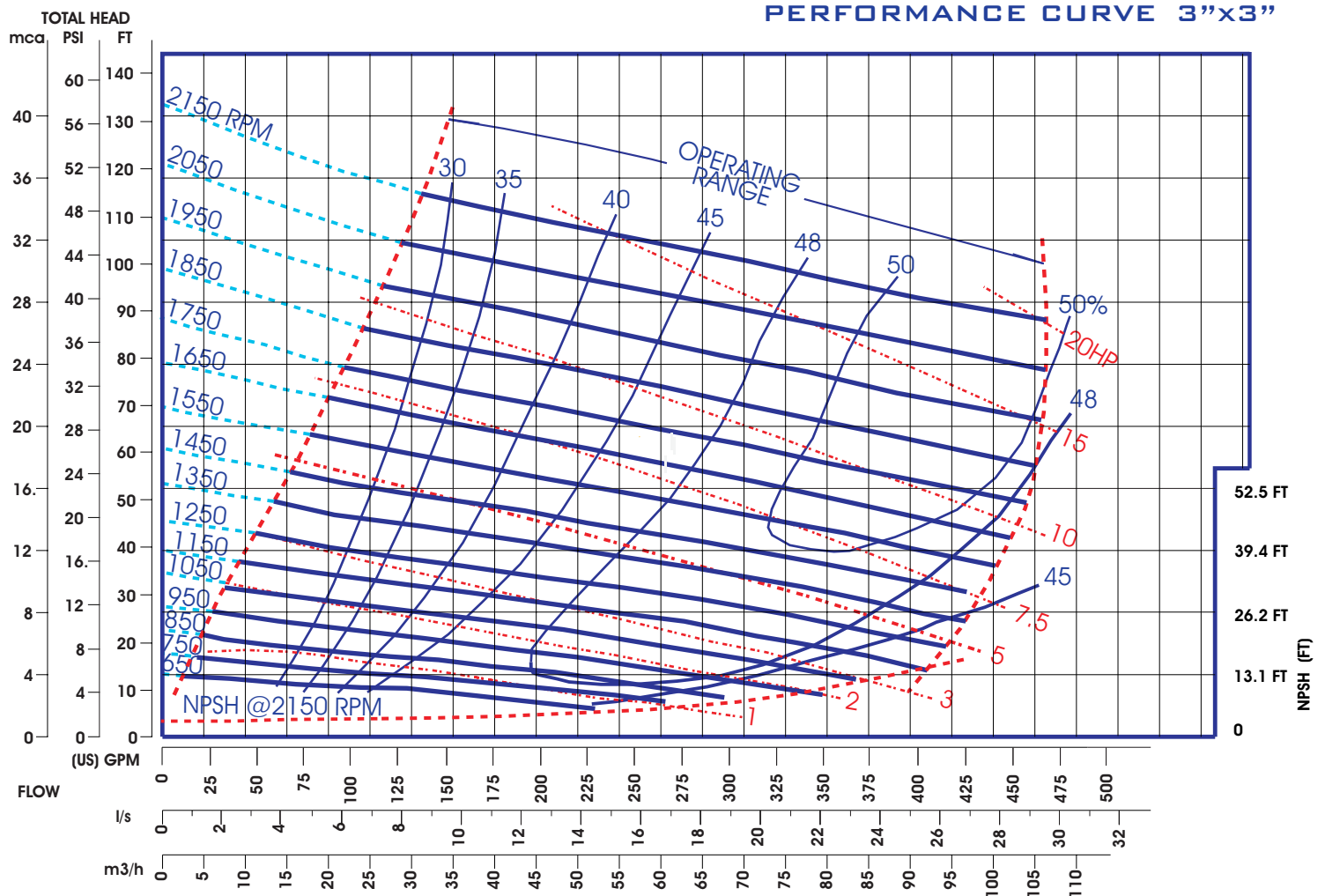
NET WEIGHT 183kg (404lbs)
SHIPPING WEIGHTS 205kg (452lbs)
IMPELLER DIA. 222,25mm (8.3/4")
R.P.M. FROM 650rpm TO 2150rpm
MAX. SOLIDS 63,5mm (2.1/2")

SELF-PRIMING

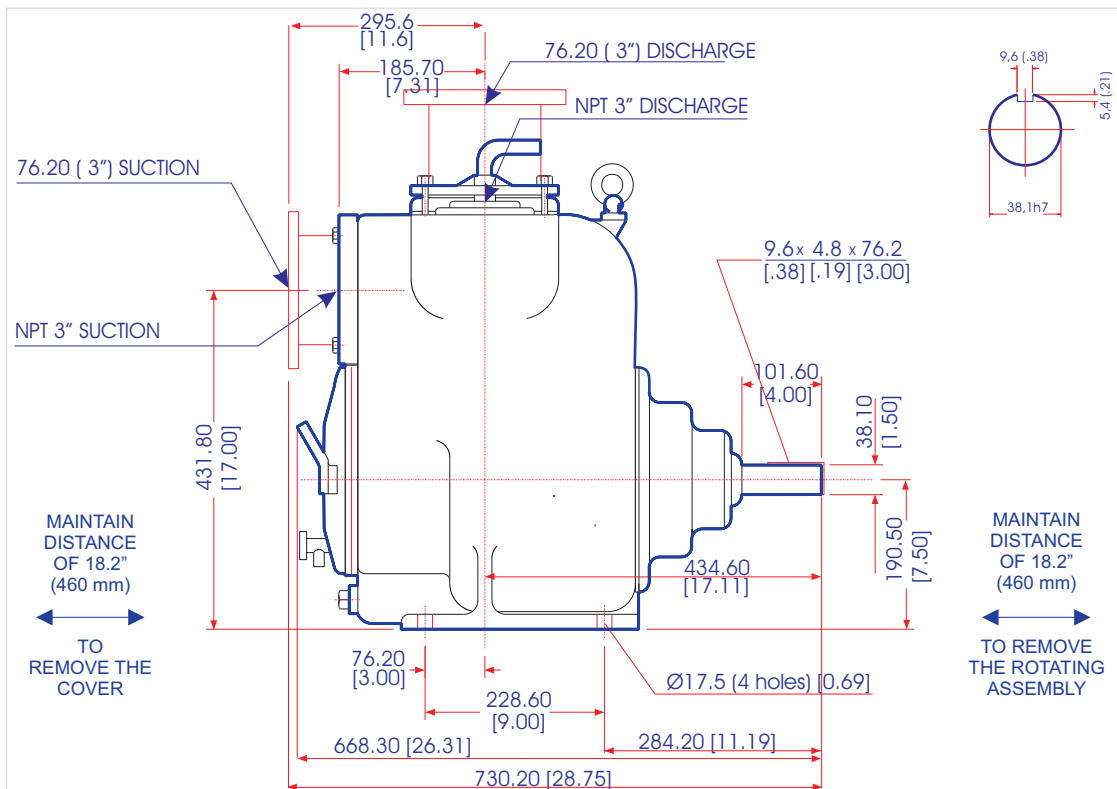
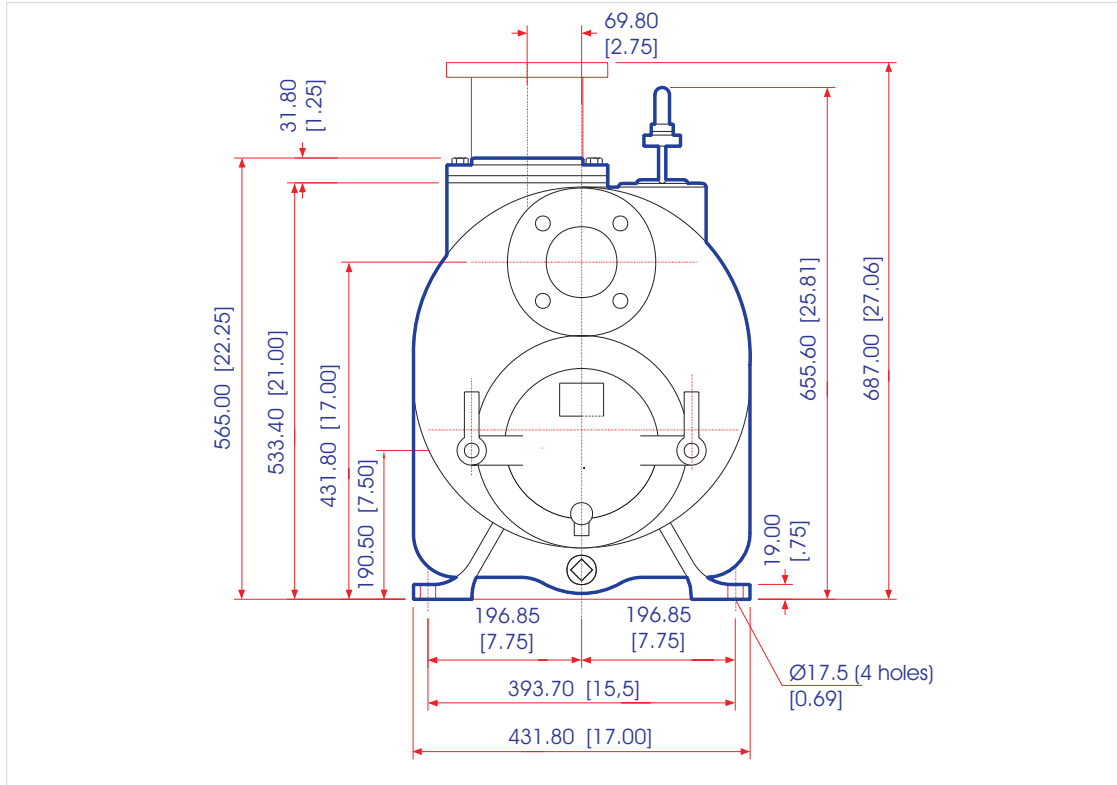
750 RPM	1,8m (6ft)	950 RPM	3,0m (10ft)
850 RPM	2,4m (8ft)	1050 RPM	4,0m (13ft)
1150 RPM	4,9m (16ft)	1250 RPM	5,5m (18ft)
1350 RPM	5,8m (19ft)	1450 RPM	6,4m (21ft)
1550 RPM	6,4m (21ft)	1650 RPM	6,7m (22ft)
1750 RPM	6,7m (22ft)	1850 RPM	7,6m (25ft)
1950 RPM	7,6m (25ft)	2050 RPM	7,6m (25ft)
2150 RPM	7,6m (25ft)		

BEFORE USING THIS TABLE, CHECK THE NPSH.

PERFORMANCE CURVE 3"x3"



EXTERNAL DIMENSIONS
MILLIMETERS (INCHES)





Series 2V

Model 2V4



DATA SHEET

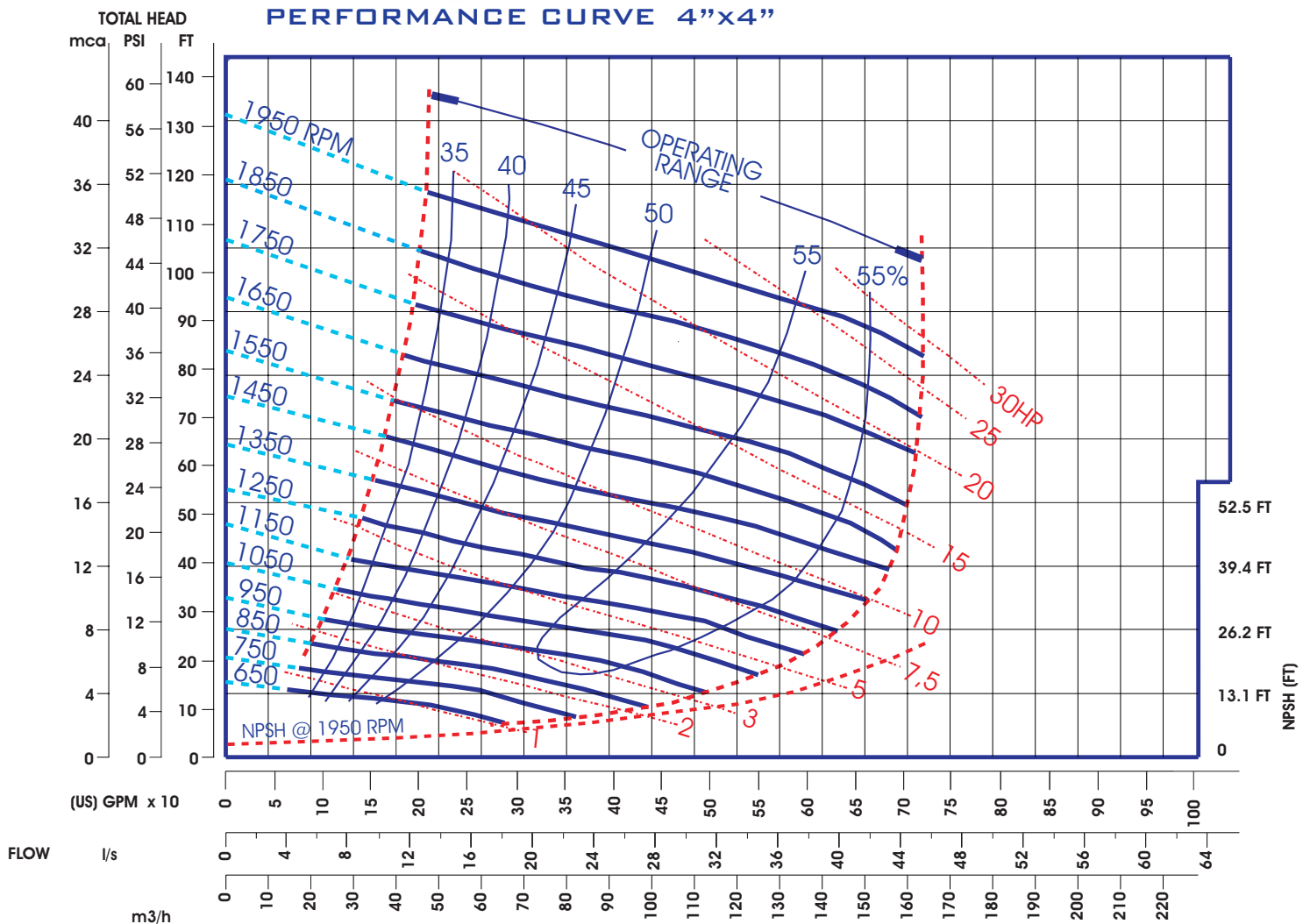
NET WEIGHT 259,5kg (600lbs)
SHIPPING WEIGHTS 280kg (655lbs)
IMPELLER DIA. 247,65mm (9.3/4")
R.P.M. FROM 650rpm TO 1950rpm
MAX. SOLIDS 76,2 mm (3")

SELF-PRIMING

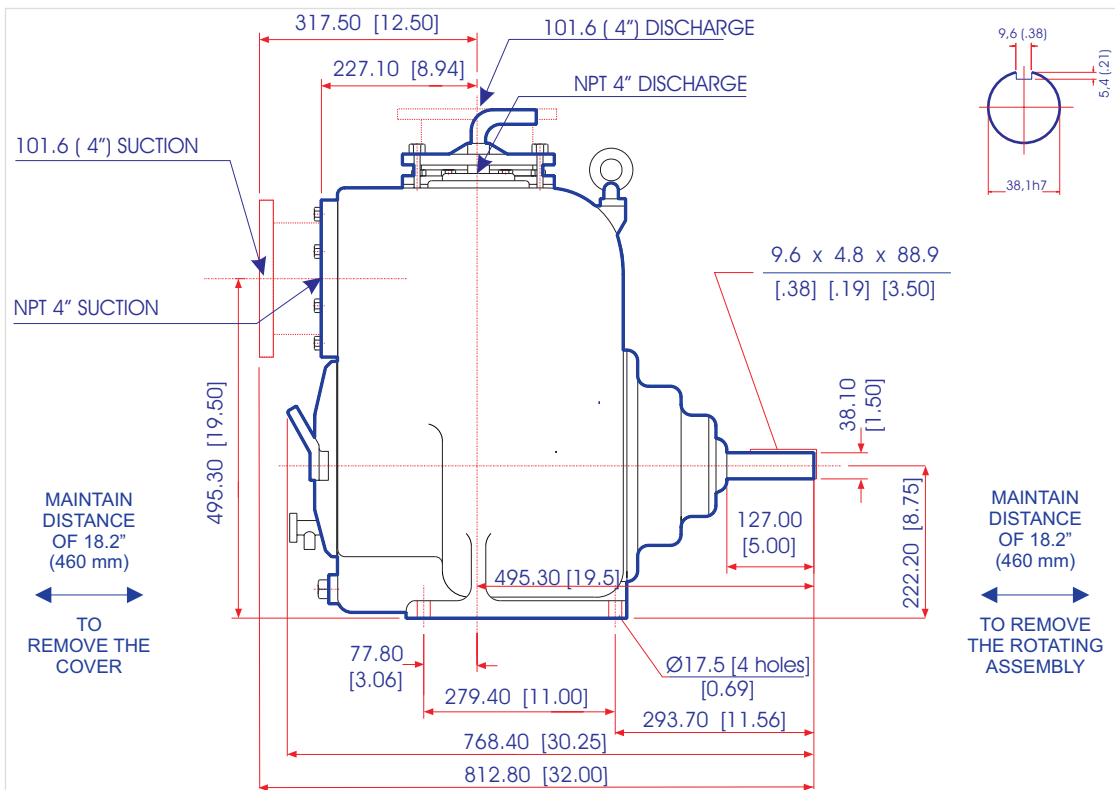
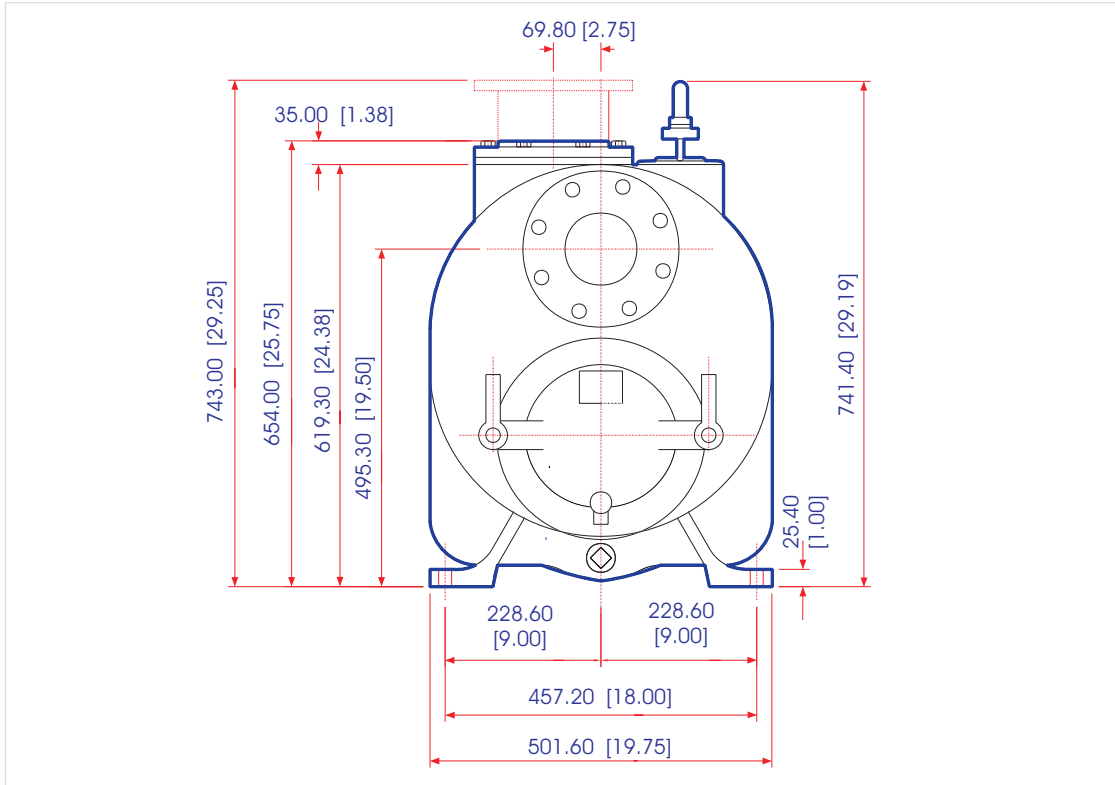
650 RPM 1,5m (5ft)	-	750 RPM 2,4m (8ft)
850 RPM 4,9m (16ft)	-	950 RPM 5,8m (19ft)
1050 RPM 6,7m (22ft)	-	1150 RPM 7,3m (24ft)
1250 RPM 7,6m (25ft)	-	1350 RPM 7,6m (25ft)
1450 RPM 7,6m (25ft)	-	1550 RPM 7,6m (25ft)
1650 RPM 7,6m (25ft)	-	1750 RPM 7,6m (25ft)
1850 RPM 7,6m (25ft)	-	1950 RPM 7,6m (25ft)

BEFORE USING THIS TABLE, CHECK THE NPSH.

PERFORMANCE CURVE 4"x4"



EXTERNAL DIMENSIONS
MILLIMETERS (INCHES)





Series 2V

Model 2V6



DATA SHEET

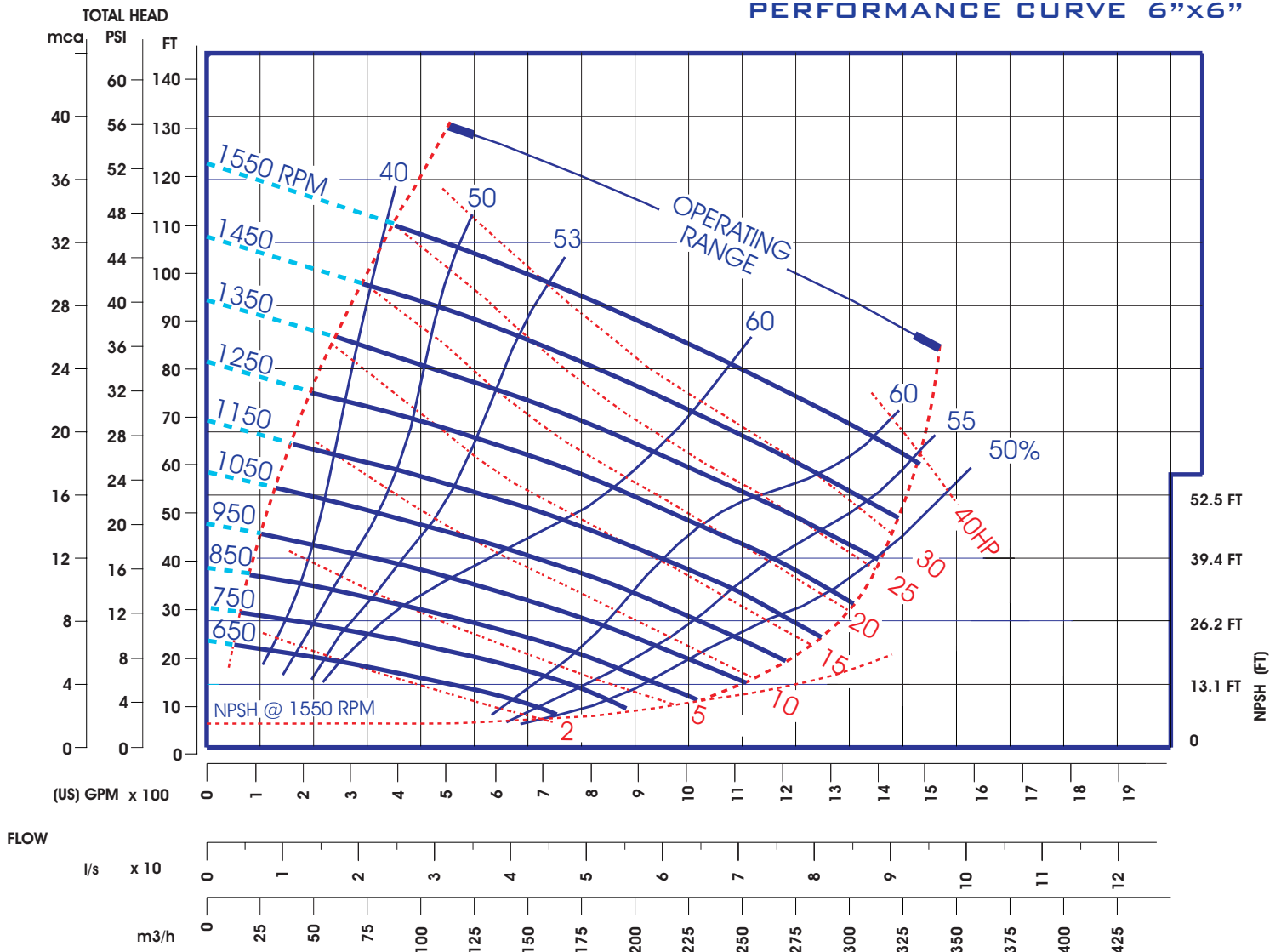
NET WEIGHT 364kg (802lbs)
SHIPPING WEIGHTS 391kg (862lbs)
IMPELLER DIA. 314,32mm (12.3/8")
R.P.M. FROM 650rpm TO 1550rpm
MAX. SOLIDS 76,2mm (3")

SELF-PRIMING

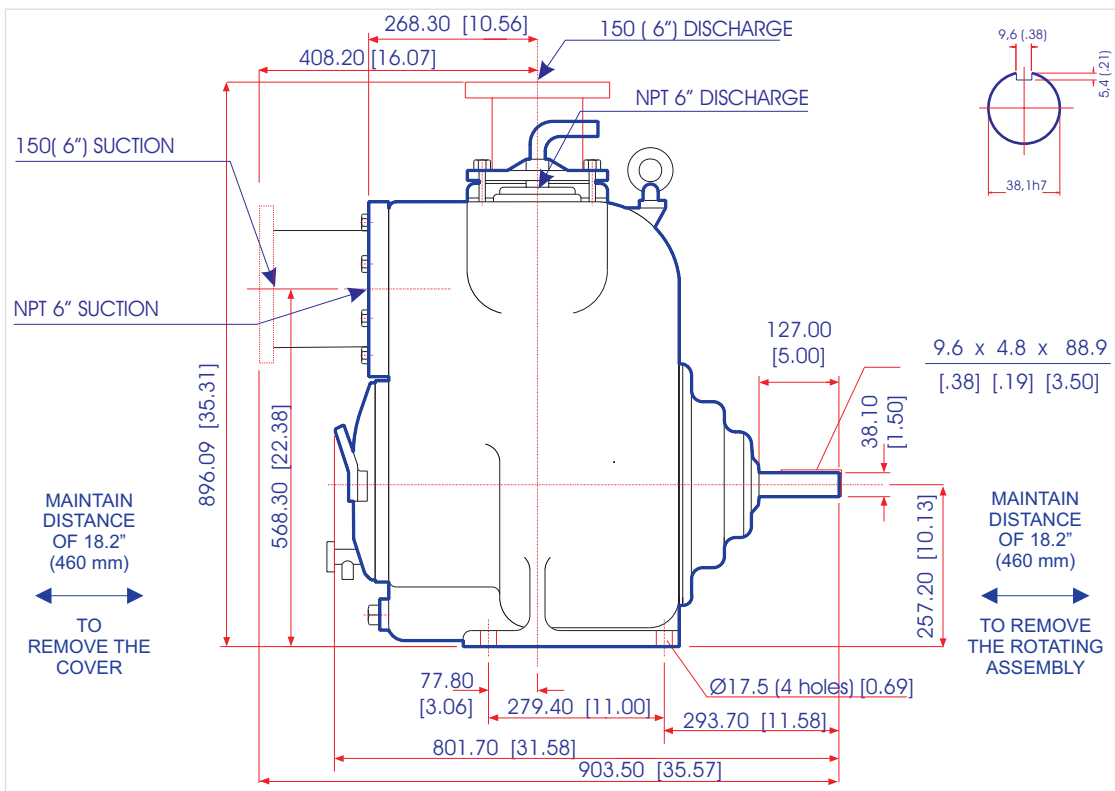
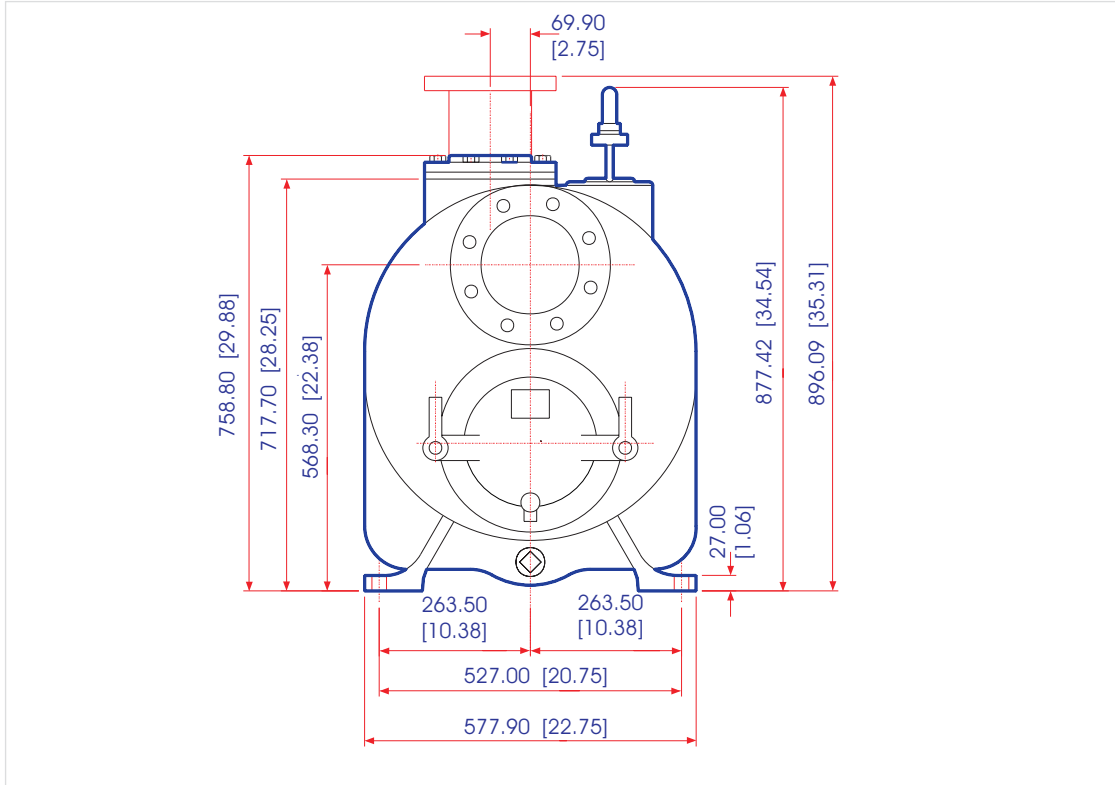
650 RPM 2,4m (8ft) - 750 RPM 2,7m (9ft)
 850 RPM 3,6m (12ft) - 950 RPM 4,2m (14ft)
 1050 RPM 5,5m (18ft) - 1150 RPM 6,4m (21ft)
 1250 RPM 6,4m (21ft) - 1350 RPM 6,7m (22ft)
 1450 RPM 7,0m (23ft) - 1550 RPM 7,6m (25ft)

BEFORE USING THIS TABLE, CHECK THE NPSH.

PERFORMANCE CURVE 6"x6"



EXTERNAL DIMENSIONS
MILLIMETERS (INCHES)





Series 2V

Model 2V8



DATA SHEET

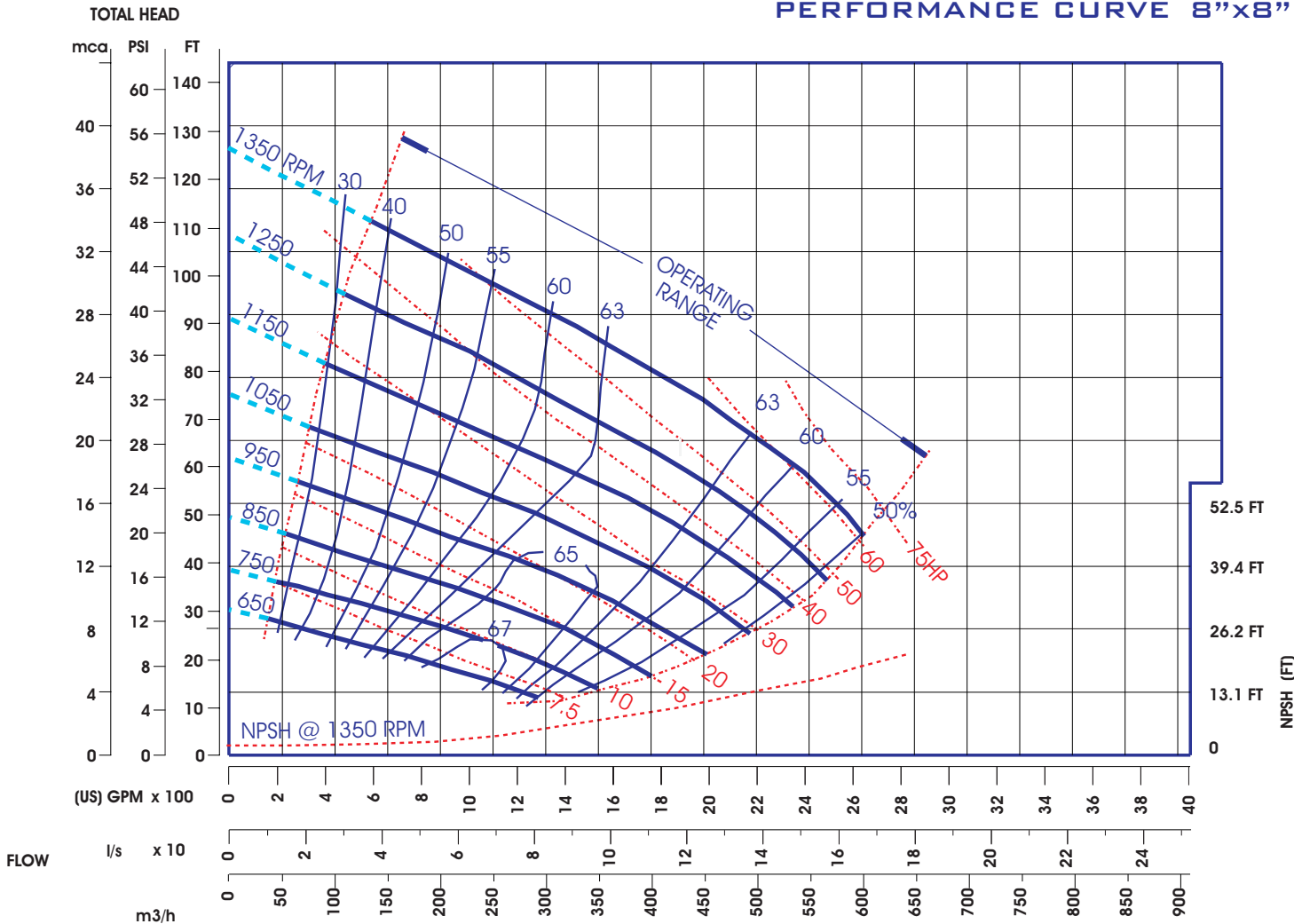
NET WEIGHT 581 kg (1295lbs)
SHIPPING WEIGHTS 634kg (1399lbs)
IMPELLER DIA. 374.65mm (14.3/4")
R.P.M. FROM 650rpm TO 1350rpm
MAX. SOLIDS 76,2mm (3")

SELF-PRIMING

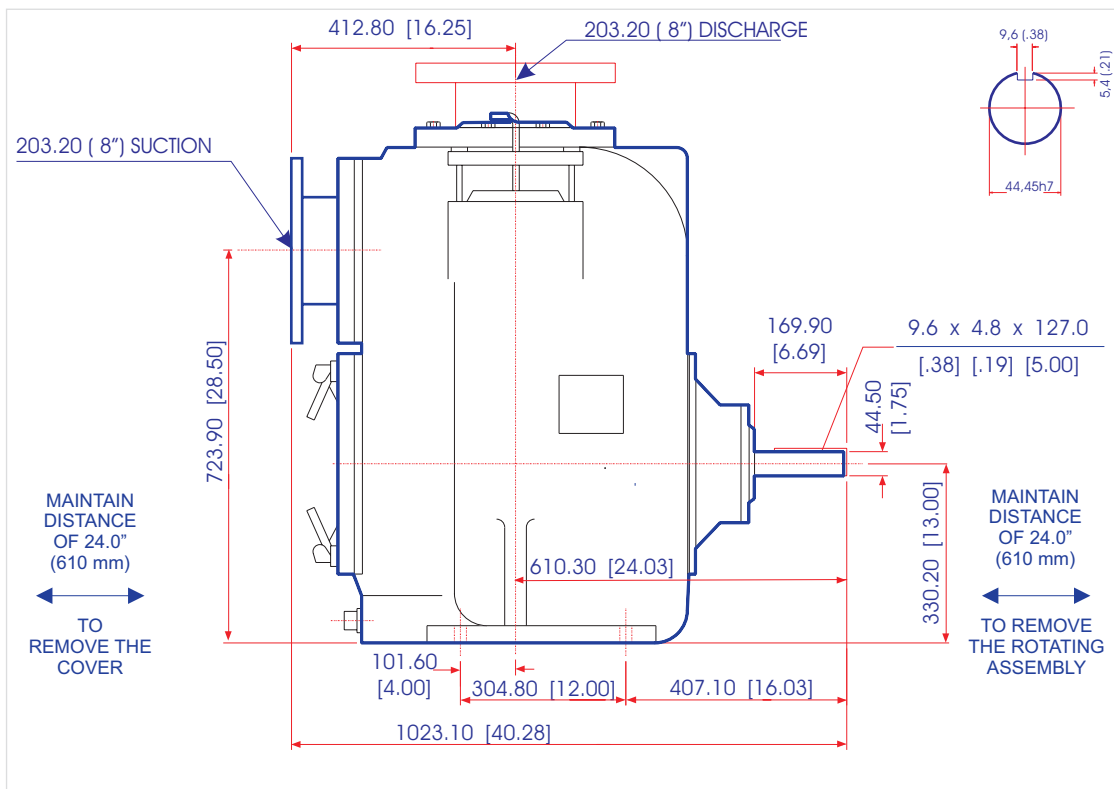
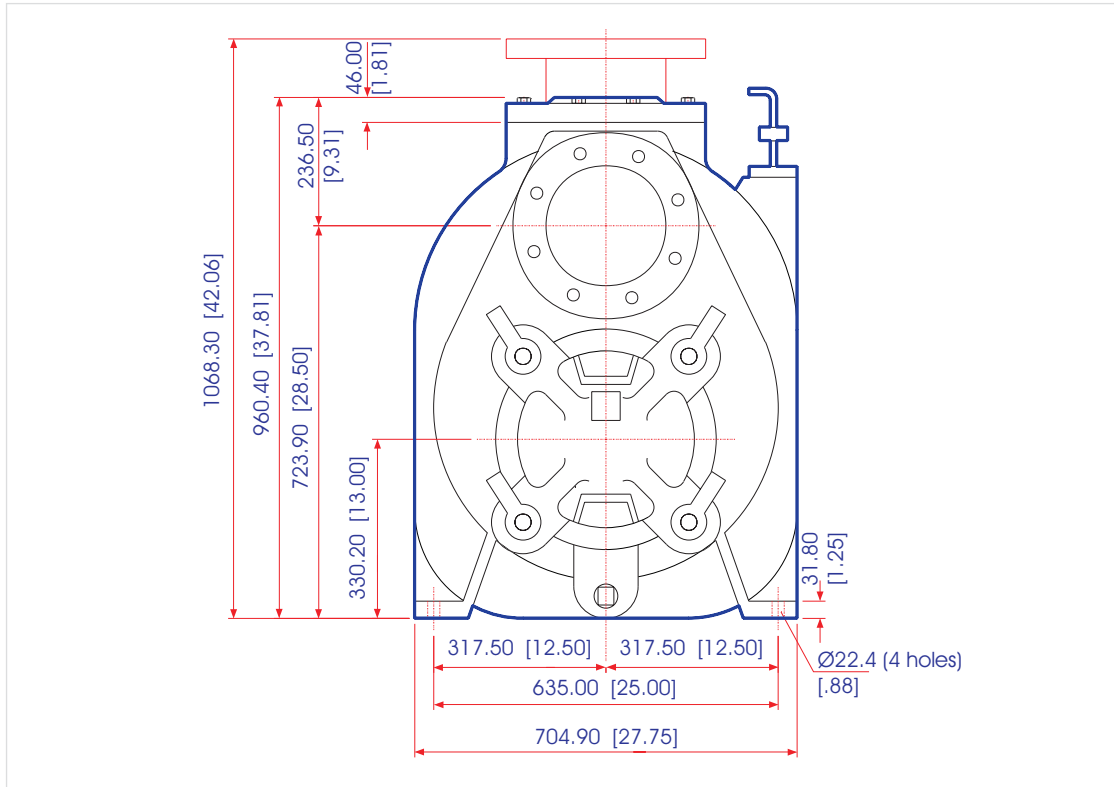
650 RPM 2,7m (9ft) - 750 RPM 3,7m (12ft)
 850 RPM 4,6m (15ft) - 950 RPM 5,2m (17ft)
 1050 RPM 6,1m (20ft) - 1150 RPM 6,4m (21ft)
 1250 RPM 6,7m (22ft) - 1350 RPM 7,0m (23ft)

BEFORE USING THIS TABLE, CHECK THE NPSH.

PERFORMANCE CURVE 8"x8"



EXTERNAL DIMENSIONS
MILLIMETERS (INCHES)





Series 2V

Model 2V10



DATA SHEET

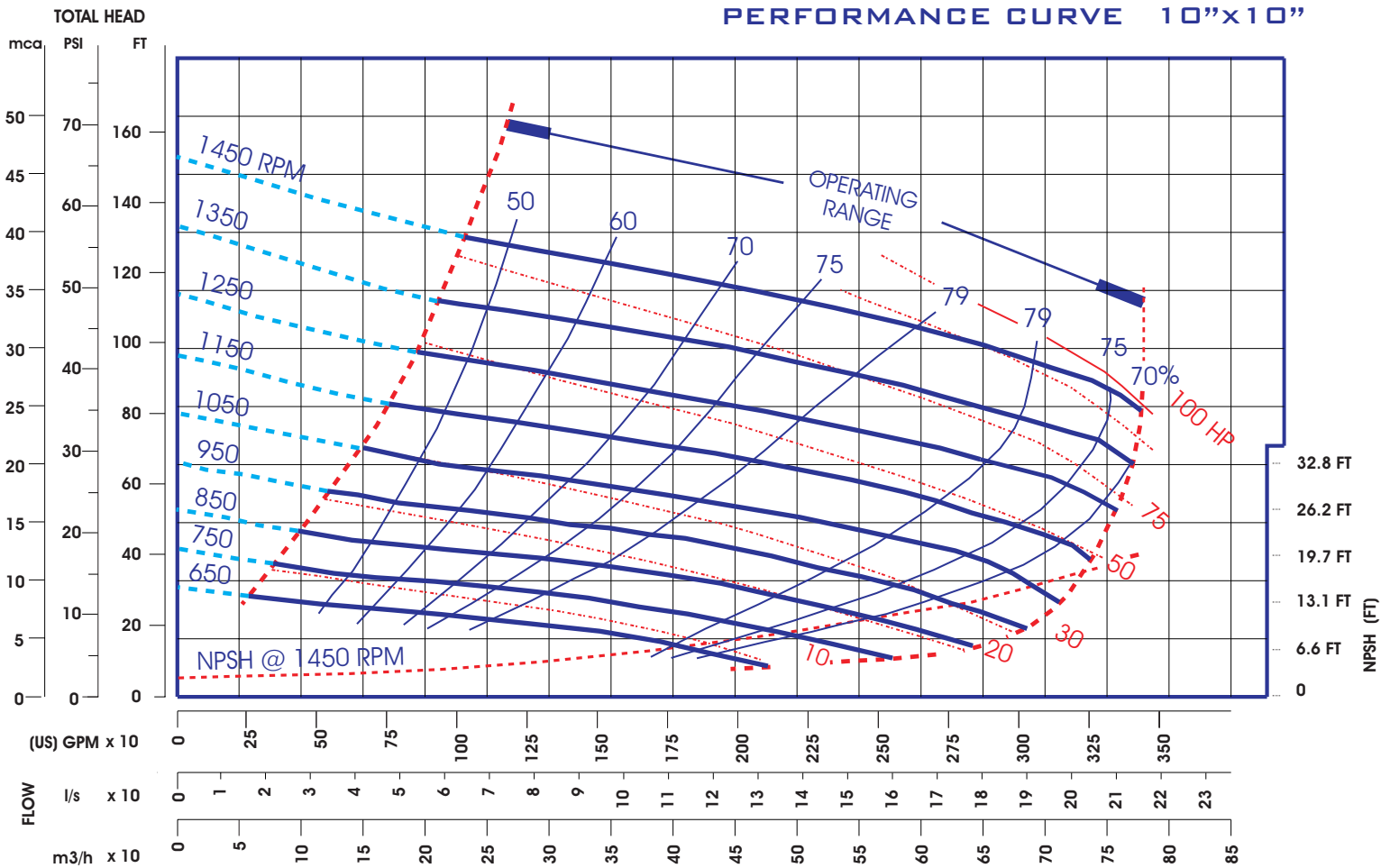
NET WEIGHT 635kg (1400lbs)
SHIPPING WEIGHTS 663kg (1461lbs)
IMPELLER DIA. 374,65mm (14.3/4")
R.P.M. FROM 650rpm TO 1450rpm
MAX. SOLIDS 76,2mm (3")

SELF-PRIMING

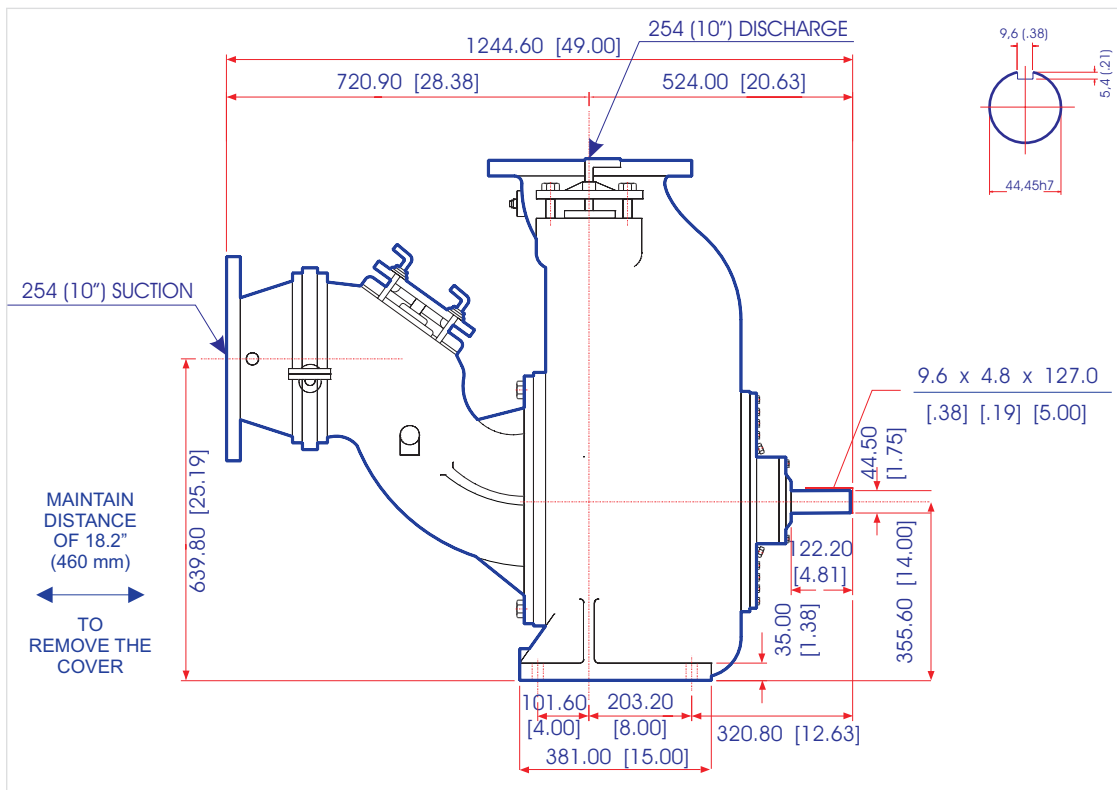
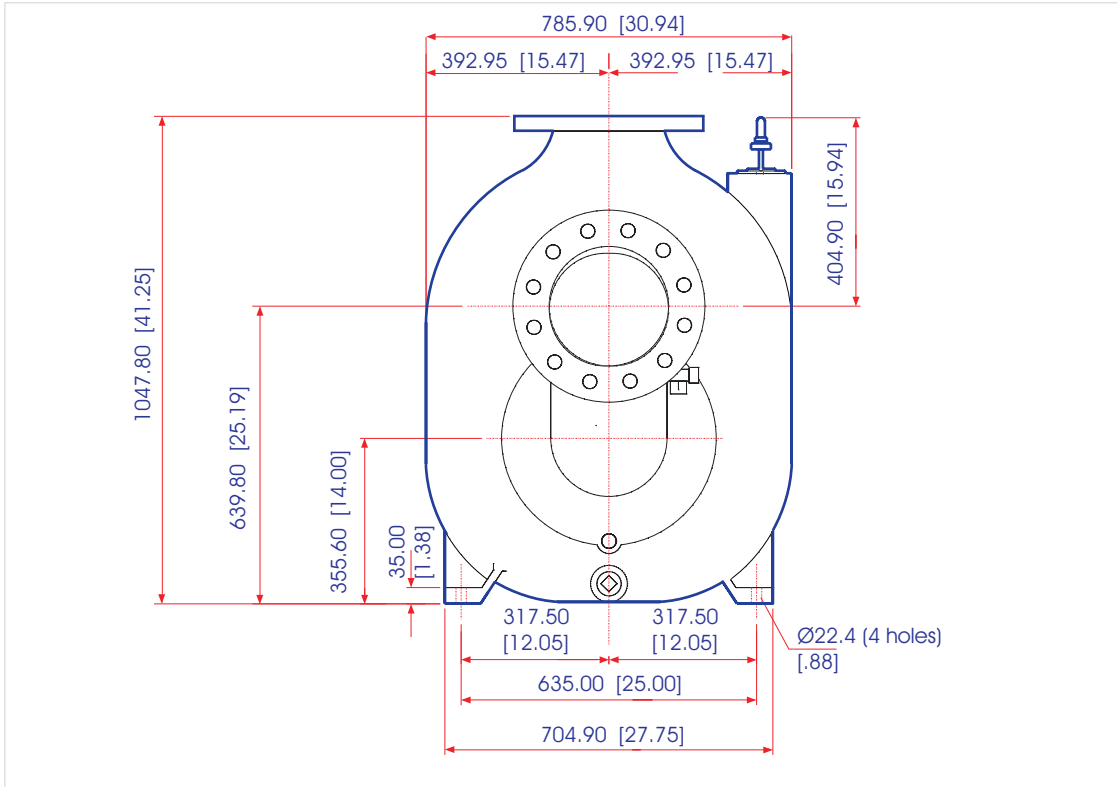
650 RPM 2,1m (7ft) - 750 RPM 3,4m (11ft)
 850 RPM 4,3m (14ft) - 950 RPM 5,2m (17ft)
 1050 RPM 5,5m (18ft) - 1150 RPM 5,5m (18ft)
 1250 RPM 5,8m (19ft) - 1350 RPM 6,7m (22ft)
 1450 RPM 6,7m (22ft)

BEFORE USING THIS TABLE, CHECK THE NPSH.

PERFORMANCE CURVE 10"x10"



EXTERNAL DIMENSIONS
MILLIMETERS (INCHES)





Series 2V

Model 2V12



DATA SHEET

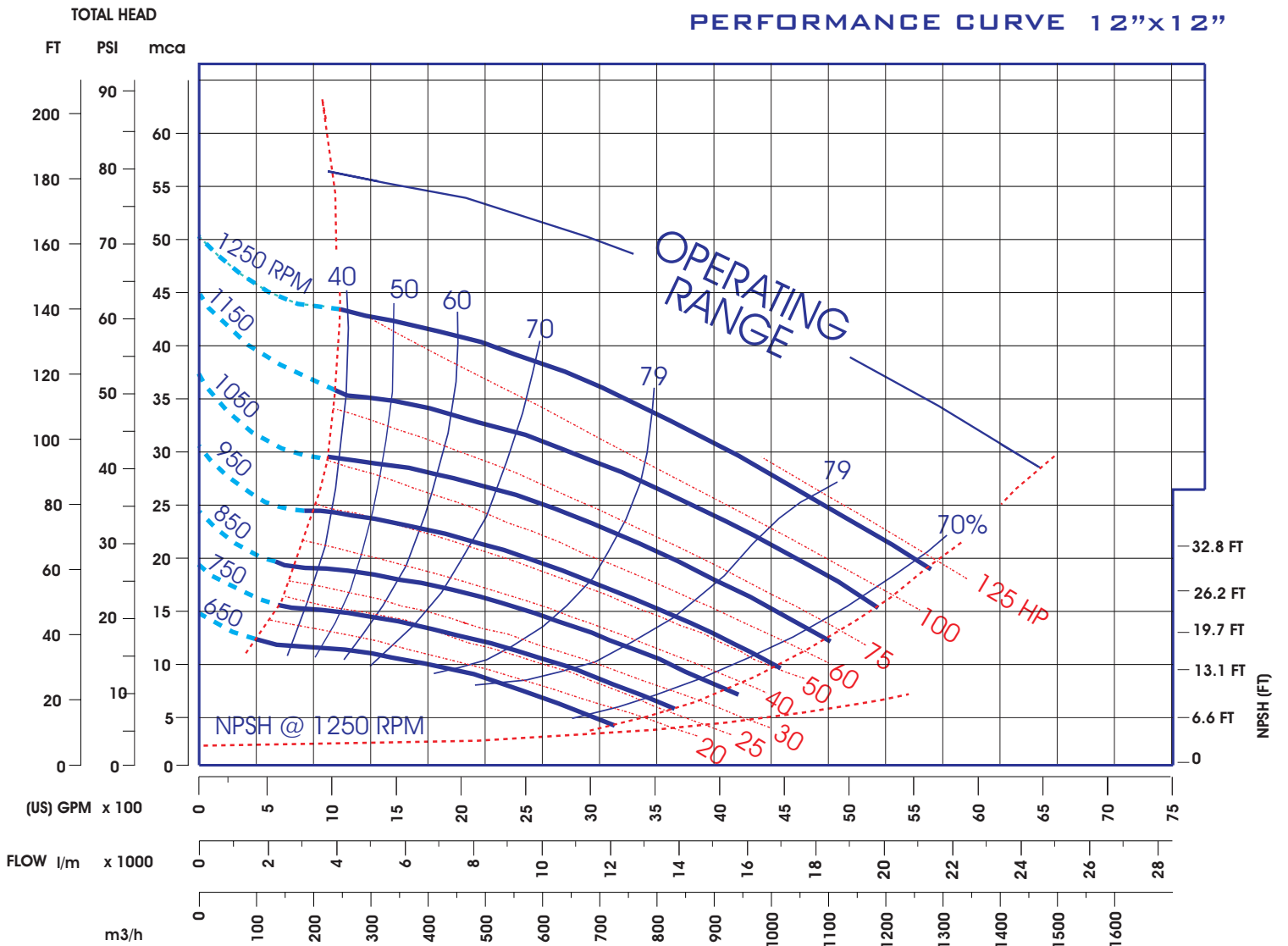
NET WEIGHT **998kg (2200lbs)**
 SHIPPING WEIGHTS **1066kg (2350lbs)**
 IMPELLER DIA.
 R.P.M. **FROM 650rpm TO 1250rpm**
 MAX. SOLIDS **76,2mm (3")**

SELF-PRIMING

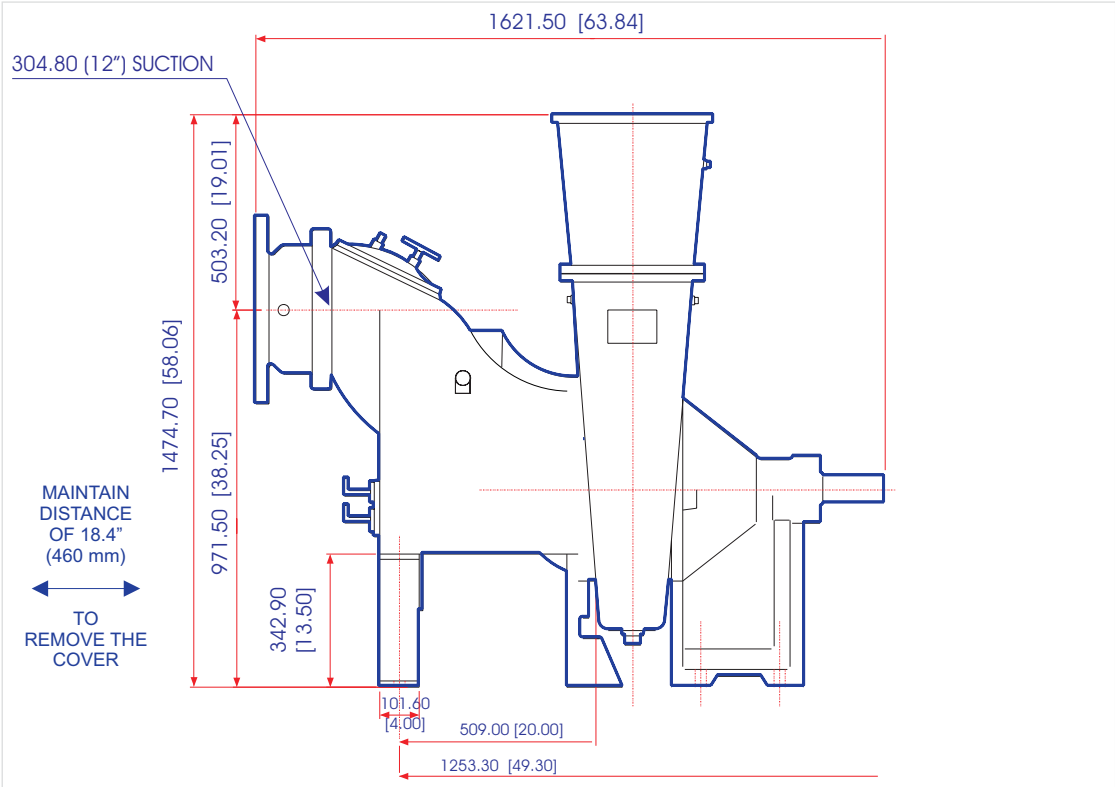
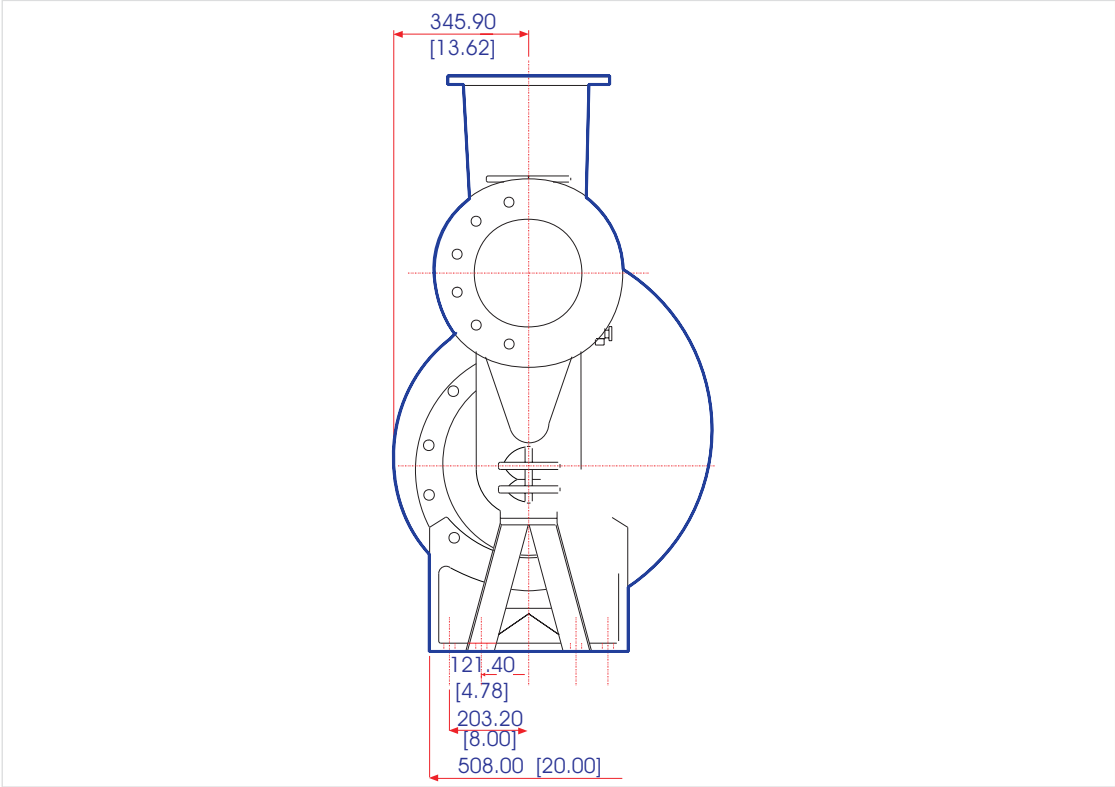
750 RPM ft 2,7 (9 m) ft
 850 RPM 3,9m (13ft) - 950 RPM 4,5m (15ft)
 1050 RPM 4,9m (16ft) - 1150 RPM 4,9m (16ft)
 1250 RPM 4,9m (16ft)

BEFORE USING THIS TABLE, CHECK THE NPSH.

PERFORMANCE CURVE 12"x12"



EXTERNAL DIMENSIONS
MILLIMETERS (INCHES)



PRESSURE TABLE

ALTITUDE ABOVE SEA LEVEL IN FEET	ALTITUDE ABOVE SEA LEVEL IN METERS	REDUCTION TO MAXIMUM PRACTICAL DYNAMIC LIFT IN FEET	REDUCTION TO MAXIMUM PRACTICAL DYNAMIC LIFT IN METERS	BAROMETRIC READING INCHES OF MERCURY	BAROMETRIC READING MILLIMETERS MERCURY	EQUIVALENT HEAD IN FEET OF WATER	EQUIVALENT HEAD IN METERS OF WATER
0	0	0	0	29.921	756	33.96	10.351
1000	304.8	1.2	.366	28.86	733	32.76	9.985
2000	609.6	2.33	.725	27.82	707	31.58	9.626
3000	914.4	3.53	1.076	26.81	681	30.43	9.275
4000	1219.2	4.63	1.411	25.84	656	29.33	8.490
5000	1524	5.71	1.74	24.89	632	28.25	8.611
6000	1828.8	6.74	2.054	23.98	609	27.22	8.297
7000	2133.6	7.75	2.362	23.09	586	26.21	7.989
8000	2438.4	8.74	2.664	22.22	564	25.22	7.687

TEMPERATURE		VAPOR PRESSURE				SPECIFIC GRAVITY
°F	°C	P.S.I. ABSOLUTE	KPa ABSOLUTE	FEET	METERS	
40	4.4	.1217	.8391	0.281	.0856	1.0000
50	10	.1781	1.2280	0.4115	.1254	.9997
60	15.6	.2563	1.7671	0.592	.1804	.9990
70	21.1	.3631	2.5035	0.815	.2482	.9980
80	26.7	.5069	3.4950	1.17	.3566	.9966
90	32.2	.6982	4.8140	1.612	.4913	.9950
100	37.8	.9492	6.5445	2.191	.6678	.9931
110	43.3	1.275	8.7909	2.942	.8967	.9910
120	48.9	1.692	11.6660	3.91	1.1918	.9888
130	54.4	2.223	15.3271	5.145	1.5682	.9857
140	60	2.889	19.9191	6.675	2.0345	.9833
150	65.6	3.718	25.6349	8.56	2.6091	.9803
160	71.1	4.741	32.6882	10.945	3.3360	.9773
170	76.7	5.992	41.3136	13.84	4.2184	.9738
180	82.2	7.510	51.7800	17.35	5.2883	.9702
190	87.8	9.339	64.3905	21.55	6.5684	.9660
200	93.3	11.5	79.4970	26.65	8.1229	.9632
210	98.9	14.12	97.3546	32.6	9.9365	.9592
220	104.4	17.19	118.5216	39.7	12.1006	.9552

ADVANTAGE OF SELF-PRIMERS

ADVANTAGE OF SELF-PRIMERS

- HIGH AND DRY** - ONLY SUCTION PIPE IN THE LIQUID.
- ACCESS** - PUMP IS AT FLOOR LEVEL FOR EASE OF INSTALLATION AND MAINTENANCE.
- HEADROOM** - NO ADDITIONAL HEADROOM IS REQUIRED AS WITH EXTENDED SHAFT PUMP.
- WEARING PARTS** - ONLY (3) SEAL, IMPELLER AND WEAR PLATE (RING).
- FOOT VALVES** - NOT REQUIRED.
- AIR HANDLING** - CAN REPRIME FOLLOWING SUCTION BREAKS. CAN HANDLE ENTRAINED AIR.
- BACK PULL OUT** - NO NEED TO DISTURB EXISTING PIPING FOR MAINTENANCE OR REPAIR.
- DRIVE** - USES STANDARD OFF-THE-SHELF MOTOR. CAN DIRECT OR V-BELT DRIVE. PUMPS AND MOTORS ARE INDEPENDENT UNITS
- IMPELLER** - SOLIDS HANDLING ABILITIES OF UP TO 3" SPHERES.
- INSPECTION COVER** - EASY TO UNCLOG PUMP; NO SPECIAL TOOLS REQUIRED. ALLOWS FOR REPLACEMENT OF IMPELLER, WEAR PLATE AND SEAL.
- PUMP OUT VANES** - LOCATED ON BACK SHROUD OF IMPELLER. REDUCE PRESSURE IN SEAL AREA. REDUCE BULLD UP OF MATERIAL IN STUFFING BOX.
- IMPELLERS TRIMS** - CAN TRIM IMPELLER TO MEET SPECIFIC OPERATING CONDITIONS AND/OR HORSEPOWER LIMITATIONS.
- SUCTION CHECK VALVE** - REDUCES THE NUMBER OF PRIMING CYCLES THE PUMP EXPERIENCES OR ELIMINATES THEM ALTOGETHER.

COMMON PUMP AND GAUGE CONVERSIONS

- FT OF WATER** = $\frac{\text{INCHES OF MERCURY} \times 1.132}{\text{SPECIFIC GRAVITY}}$
- INCHES OF MERCURY** = P.S.I. x 2.04
- P.S.I.** = INCHES OF MERCURY x 0.49
- P.S.I.** = FT. OF WATER x 0.43
- FT OF WATER** = $\frac{\text{P.S.I.} \times 2.31}{\text{SPECIFIC GRAVITY}}$
- INCHES OF MERCURY** = FT. OF WATER x 0.88
- BRAKE HORSEPOWER** = $\frac{\text{GPM} \times \text{TDH} \times \text{SP. GRAVITY}}{3960 \times \text{PUMP EFF.}}$

*ALL DATA BASED ON WATER WITH A SPECIFIC GRAVITY OF 1