



ST SERIES & SU SERIES

**Self-Priming Centrifugal Pump
Heavy Duty / Solid Handling**

DURAFLO PUMP®



SELF- PRIMING, SOLID HANDLING CENTRIFUGAL PUMP

DURAFLO self-priming pump are design for rugged and dependable solid handling application. The heavy duty and easy to maintain design provide economical and trouble free operation in handling solid-laden liquids and slurries

The large volute design enables the pump to reprime automatically, without the need for suction or discharge check valves. Automatic repriming is even possible with the pump casing only partially filled with liquid and with a completely dry suction line. SPT pumps are designed with ability to overcome priming and vapor handling problems common in conventional centrifugal pumps.

CLEANING AND INSPECTION

WITHOUT DISCONNECTING THE PIPEWORK (BACK - PULL - OUT)

Anoter advantage of the **DURAFLO** pump is that cleaning and clearing are simple tasks, as are inspection and substitution of the impeller and seal, when necessary. The ST pumps were especially designed for quick cleaning before returning to operation.



Even during preventive maintenance, internal inspection can be carried out quickly and safely. To do this , all that has to be done is to unscrew and lift the handles of the inspection cover, and then perform the cleaning operation, without removing the casing nor disconnection ten pipework.

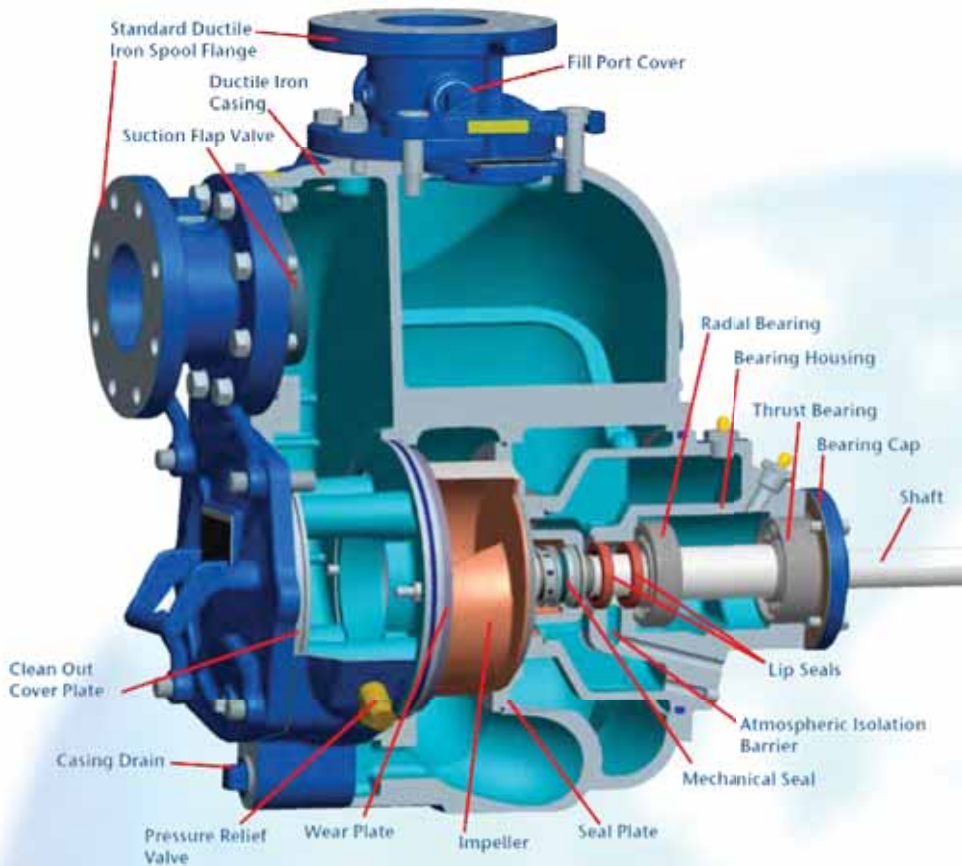


SHIMLESS EXTERNAL IMPELLER ADJUSTMENT

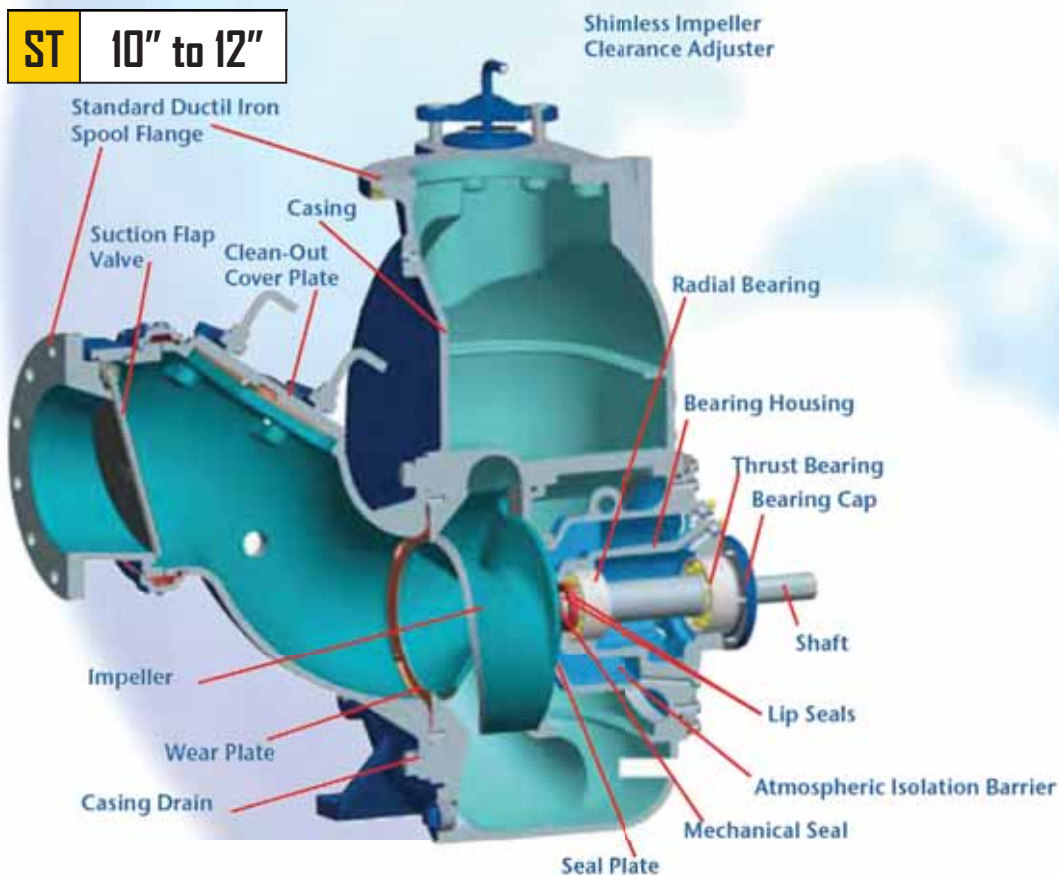
An exclusive system to externally adjust the impeller clearance without disassembling the pump. With the use of just an allen or fixed wrench, simple adjustment can optimize pump efficiency while extending the life of both impeller and wear plate



ST 2" to 8"

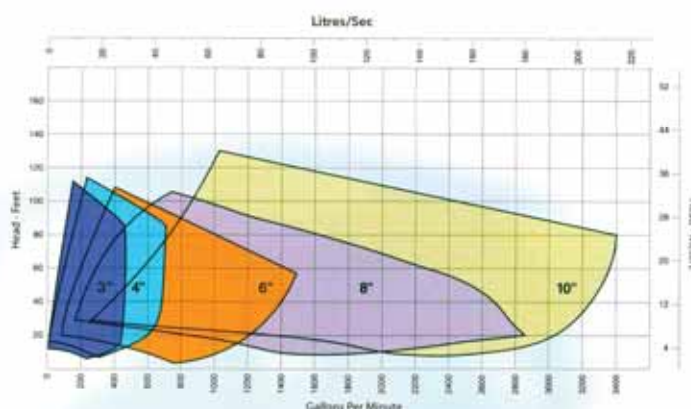


ST 10" to 12"

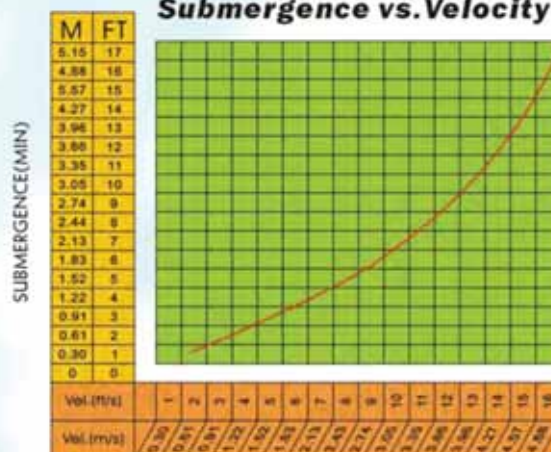


SELF- PRIMING, SOLID HANDLING CENTRIFUGAL PUMP

| PUMP SIZE | 2" (50mm) , 3" (75mm) 4" (100mm) , 6" (150mm) 8" (200mm) , 10" (250mm) 12" (300mm) |
|---|---|
| Max Capacity | 5,500 GPM (1250 M ³ /hr) |
| Max Head | 130' (40m) |
| Operation Pressure | Max 120 psi(797 kP) |
| Pump Casing | Cast Iron |
| Impeller | Semi Open type, two vane. Material -Ductile Iron Max 3" (76mm) solids |
| Shaft | AISI 420 |
| Wear Plate, Replaceable | SAE 1020 |
| Cover Plate | Cast Iron |
| Flap valve | Neoprene with steel |
| Bearing Housing | Cast Iron |
| Seal Plate | Cast Iron |
| Shaft Sleeve | 304 SS |
| Redia Bearing | Single ball |
| Thrust Bearing | Double ball |
| Bearing/Seal Cavity | SAE NO 30 oil |
| Flanges | 125 # ANS or DIN |
| Seal Plate | Silicon carbide/Tungsten carbide |
| O-Rings | Buna-n |
| Hardware | Plated steel |
| Pressure Release Valve | Brass |
| Oil Level Sight Gauges | Bearing and Seal Cavity |
| Optional: Materials 304SS, 316SS, CD4CMU. Epoxy and Ceramic internal coatings | |



Recommended Minimum Suction Line Submergence vs. Velocity



Note :

- 1 : The suggested suction should have the same nominal diameter as the pump, so that the solids be totally swept up.
- 2: The depth of submergence of the suction line is critical to efficient pump operation. See recommended chart

$$Vel. (Ft/sec) = \frac{GPM \times 0.4085}{Dia. in. inch^2}$$

$$Vel. (M/sec) = Ft/Sec \times 0.3048$$



ST 2



DATA SHEET

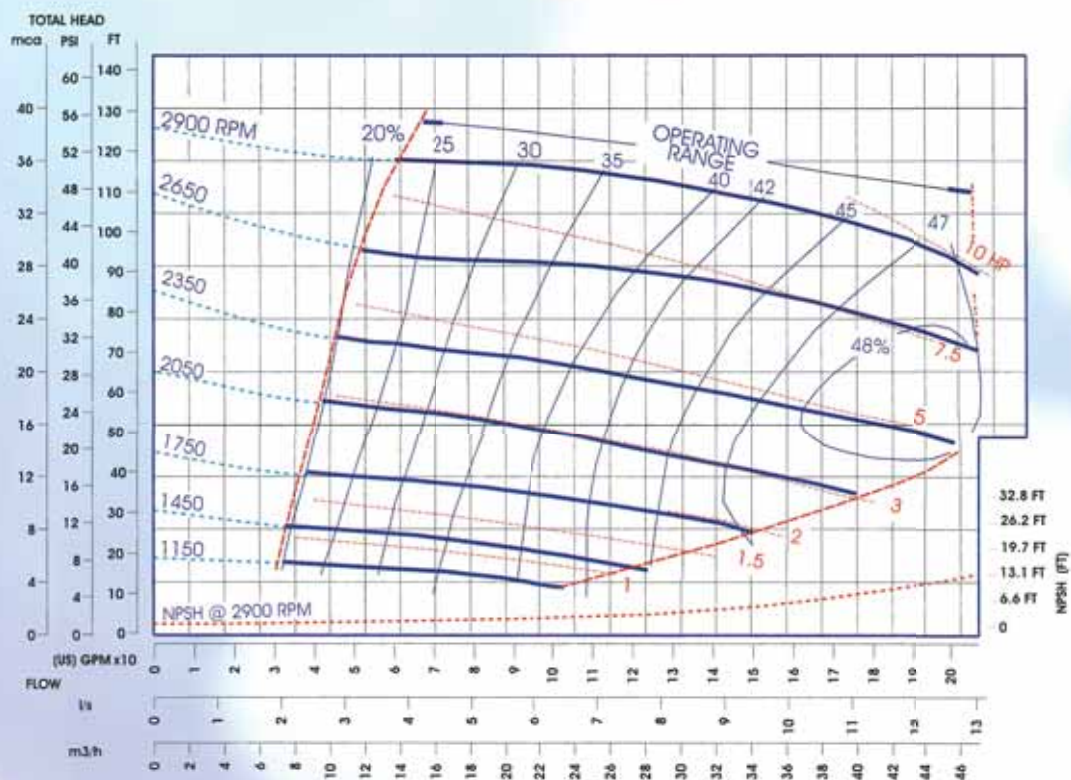
NET WEIGHT 92 kg (203 lbs)
 SHIPPING WEIGHTS 114 kg (252 lbs)
 IMPELLER DIA. 158,75 mm (6.1/4")
 R.P.M. FROM 1150 rpm TO 2900 rpm
 MAX. SOLIDS 44,45 mm (1.3/4")

SELF - PRIMING

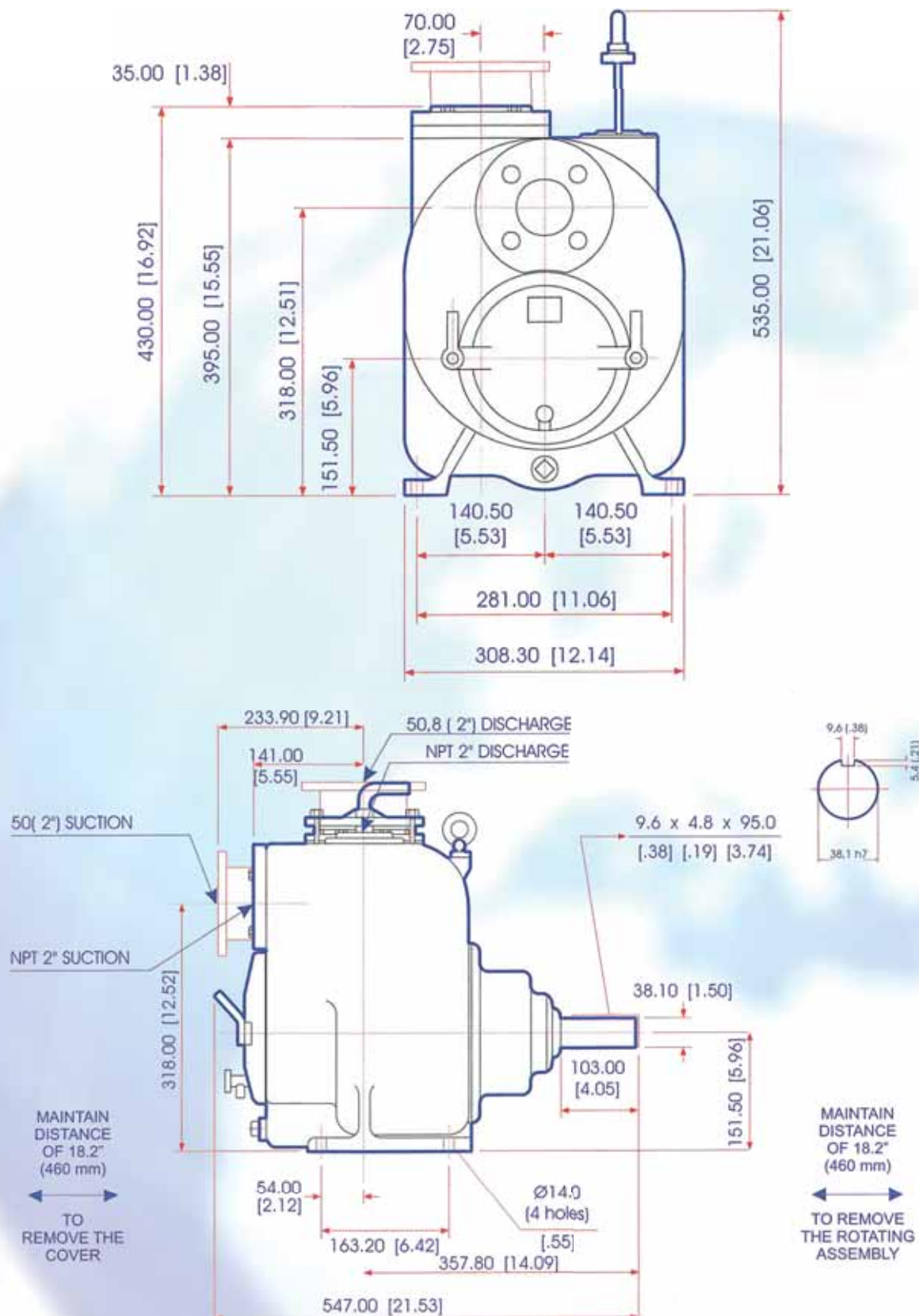
1150 RPM 7,3 m (24 ft) - 1450 RPM 7,6 m (25 ft)
 1750 RPM 7,6 m (25 ft) - 2050 RPM 7,6 m (25 ft)
 2350 RPM 7,6 m (25 ft) - 2650 RPM 7,6 m (25 ft)
 2650 RPM 7,6 m (25 ft) - 20 RPM 7,6 m (25 ft)

BEFORE USING THIS TABLE, CHECK THE NPSH.

PERFORMANCE CURVE



EXTERNAL DIMENSIONS



*MILLIMETERS (INCHES)

ST 3



DATA SHEET

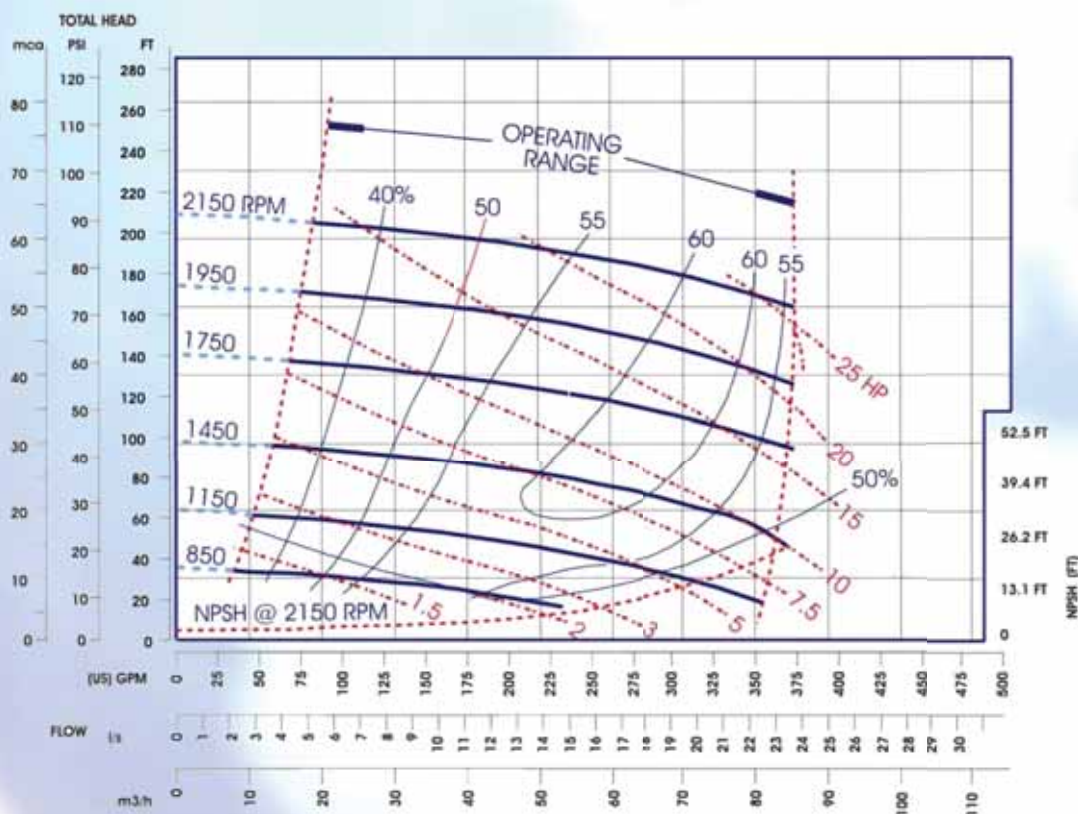
NET WEIGHT 183 kg (404 lbs)
 SHIPPING WEIGHTS 205 kg (452 lbs)
 IMPELLER DIA. 222,25 mm (8.3/4")
 R.P.M. FROM 650 rpm TO 2150 rpm
 MAX. SOLIDS 63,5 mm (2.1/2")

SELF - PRIMING

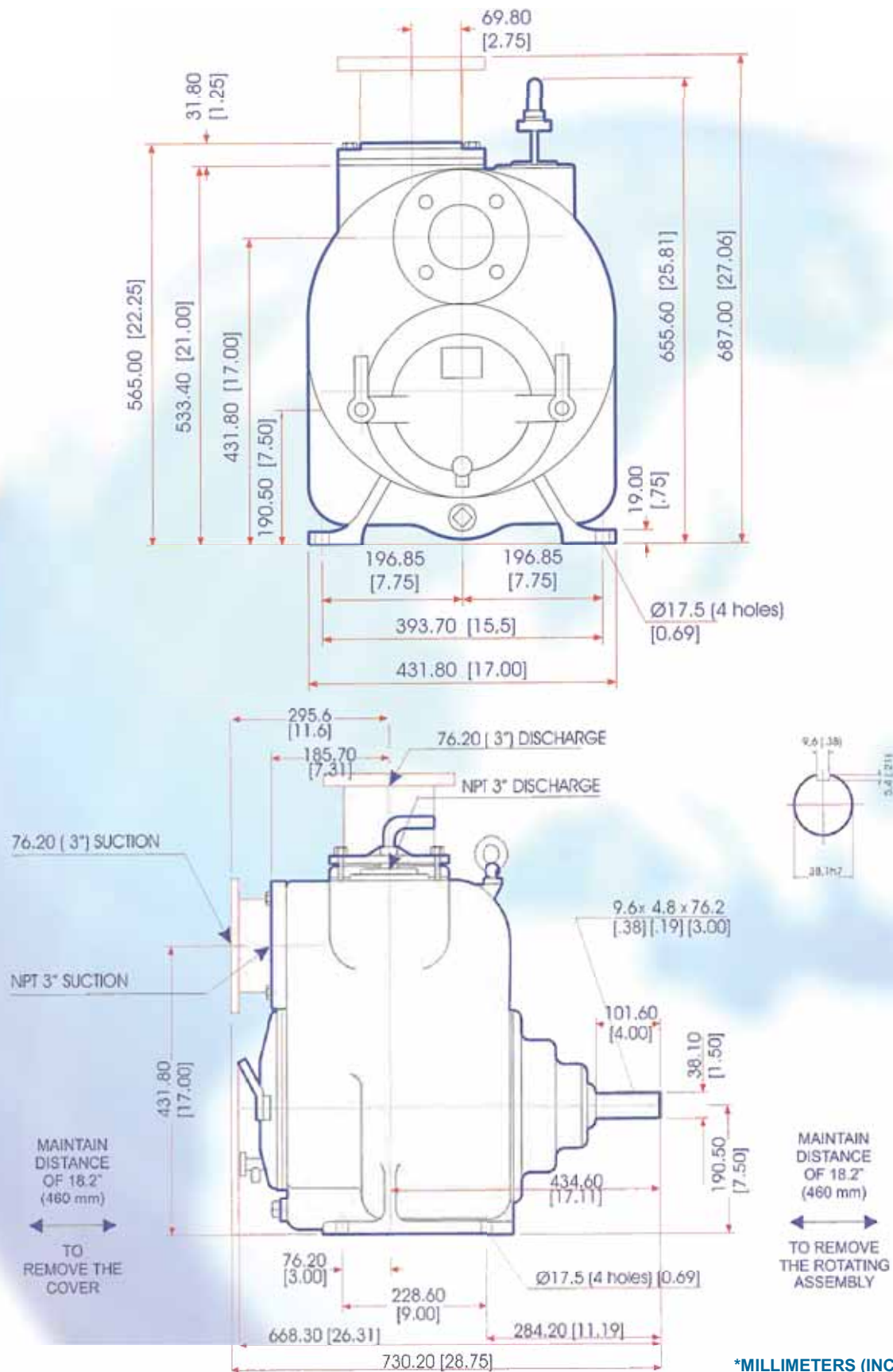
| | | |
|------------------------|---|------------------------|
| 650 RPM 1,5 m (5 ft) | - | 750 RPM 1,8 m (6 ft) |
| 850 RPM 2,4 m (8 ft) | - | 950 RPM 3,0 m (10 ft) |
| 1050 RPM 4,0 m (13 ft) | - | 1150 RPM 4,9 m (16 ft) |
| 1250 RPM 5,5 m (18 ft) | - | 1350 RPM 5,8 m (19 ft) |
| 1450 RPM 6,4 m (21 ft) | - | 1550 RPM 6,4 m (21 ft) |
| 1650 RPM 6,7 m (22 ft) | - | 1750 RPM 6,7 m (22 ft) |
| 1850 RPM 7,6 m (25 ft) | - | 1950 RPM 7,6 m (25 ft) |
| 2050 RPM 7,6 m (25 ft) | - | 2150 RPM 7,6 m (25 ft) |

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PERFORMANCE CURVE



EXTERNAL DIMENSIONS



ST 4



DATA SHEET

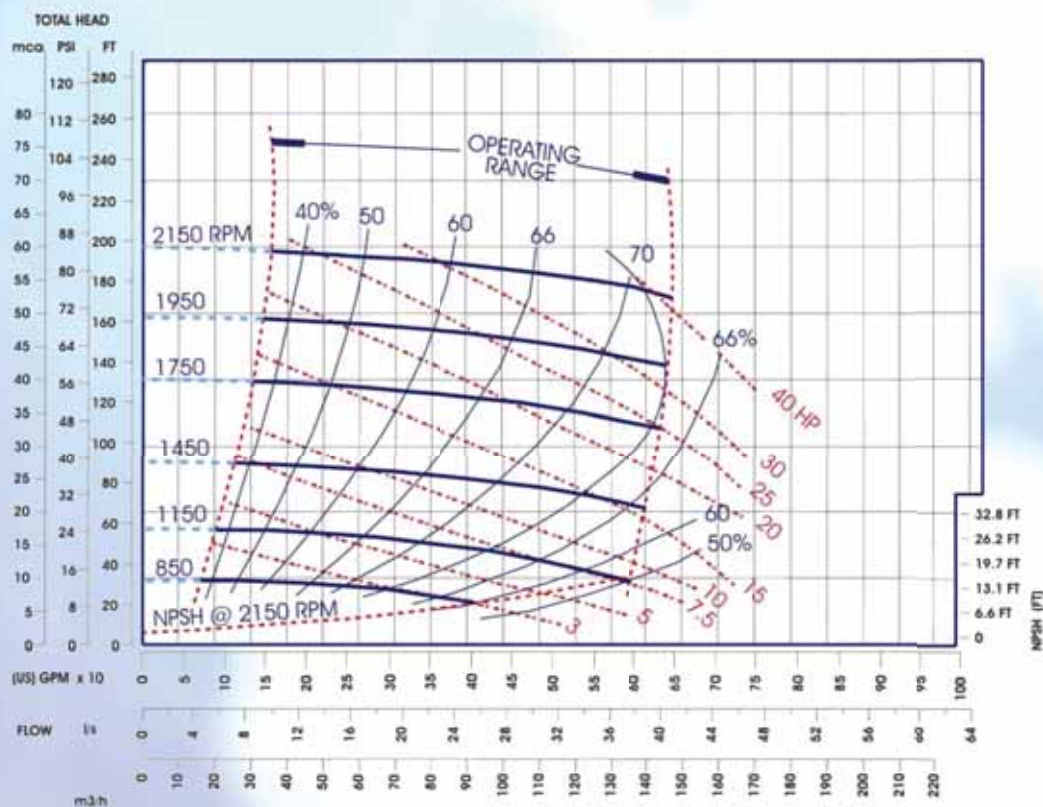
NET WEIGHT 259.5 kg (600 lbs)
 SHIPPING WEIGHTS 280 kg (655 lbs)
 IMPELLER DIA. 247,65 mm (9.3/4")
 R.P.M. FROM 650 rpm TO 1950 rpm
 MAX. SOLIDS 76,2 mm (3")

SELF - PRIMING

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

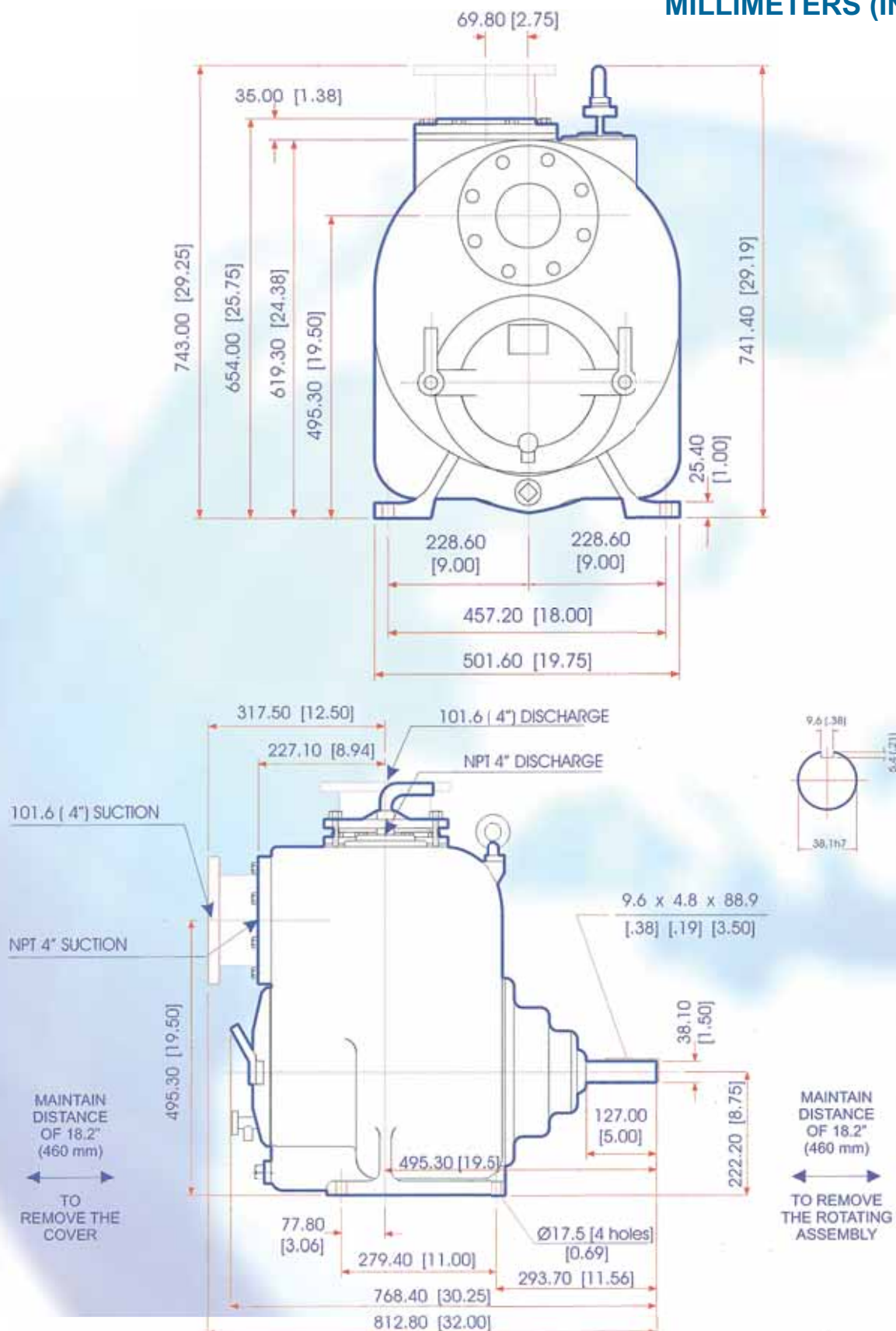
BEFORE USING THIS TABLE, CHECK THE NPSH.

PERFORMANCE CURVE



EXTERNAL DIMENSIONS

MILLIMETERS (INCHES)



ST 6



DATA SHEET

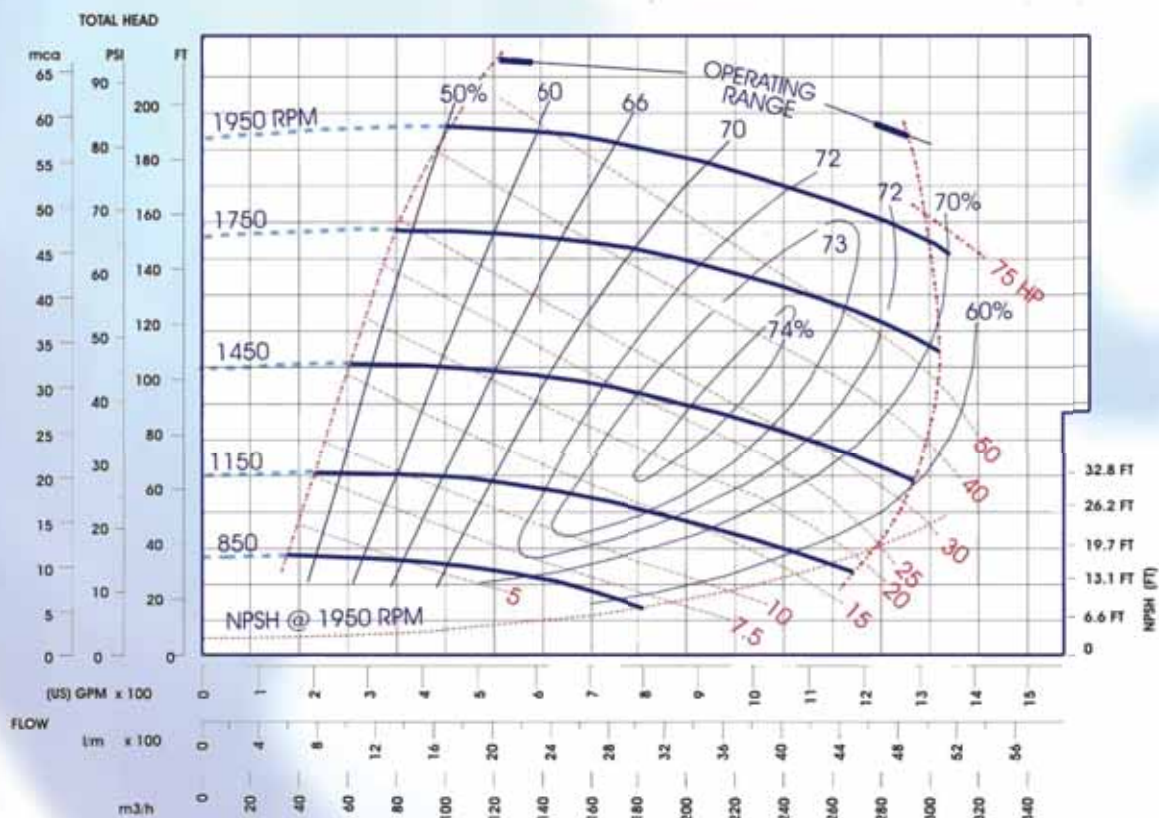
NET WEIGHT 364 kg (802 lbs)
 SHIPPING WEIGHTS 391 kg (862 lbs)
 IMPELLER DIA. 314,32 mm (12.3/8")
 R.P.M. FROM 650 rpm TO 1550 rpm
 MAX. SOLIDS 76,2 mm (3")

SELF - PRIMING

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

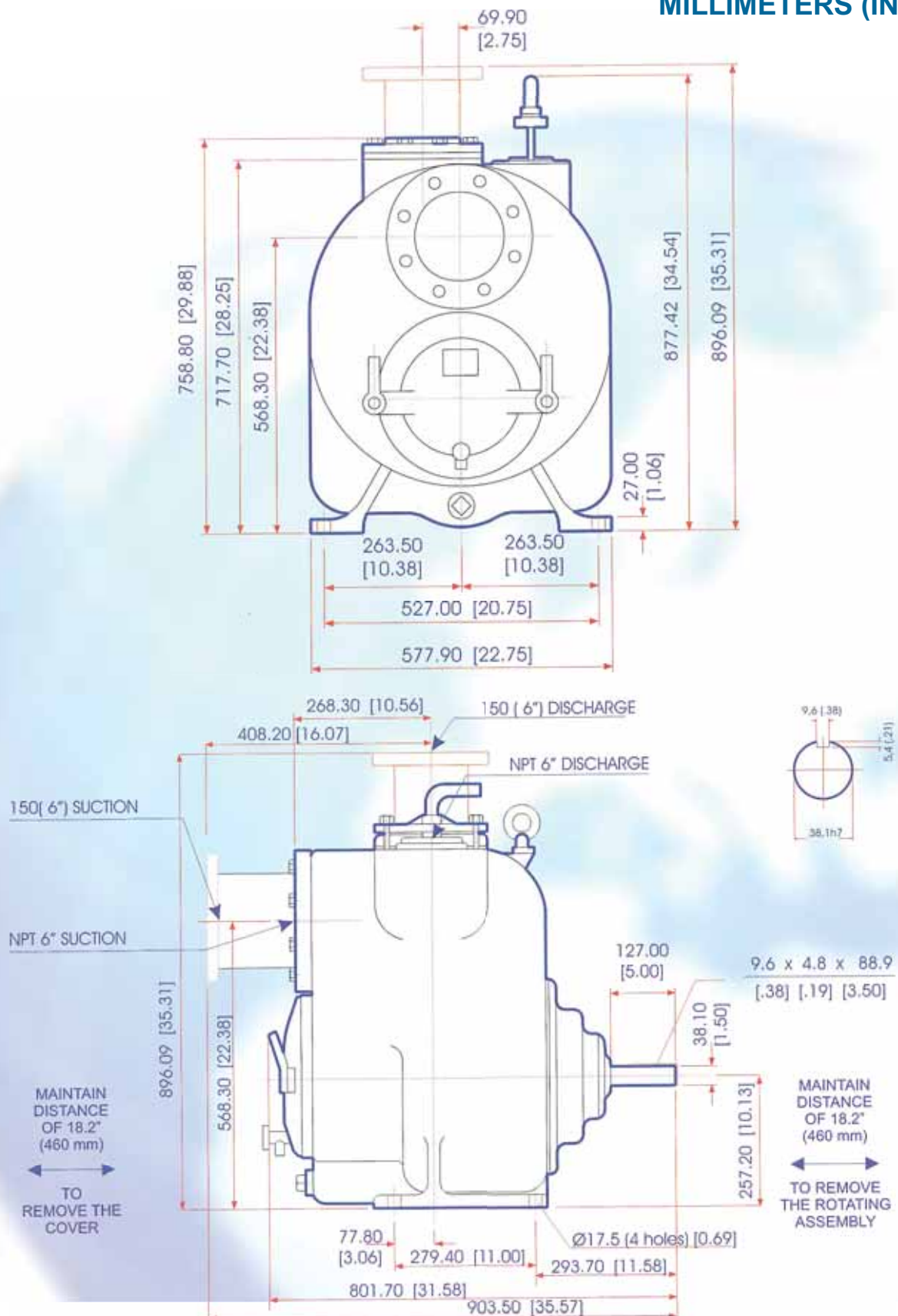
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PERFORMANCE CURVE



EXTERNAL DIMENSIONS

MILLIMETERS (INCHES)



ST 8



DATA SHEET

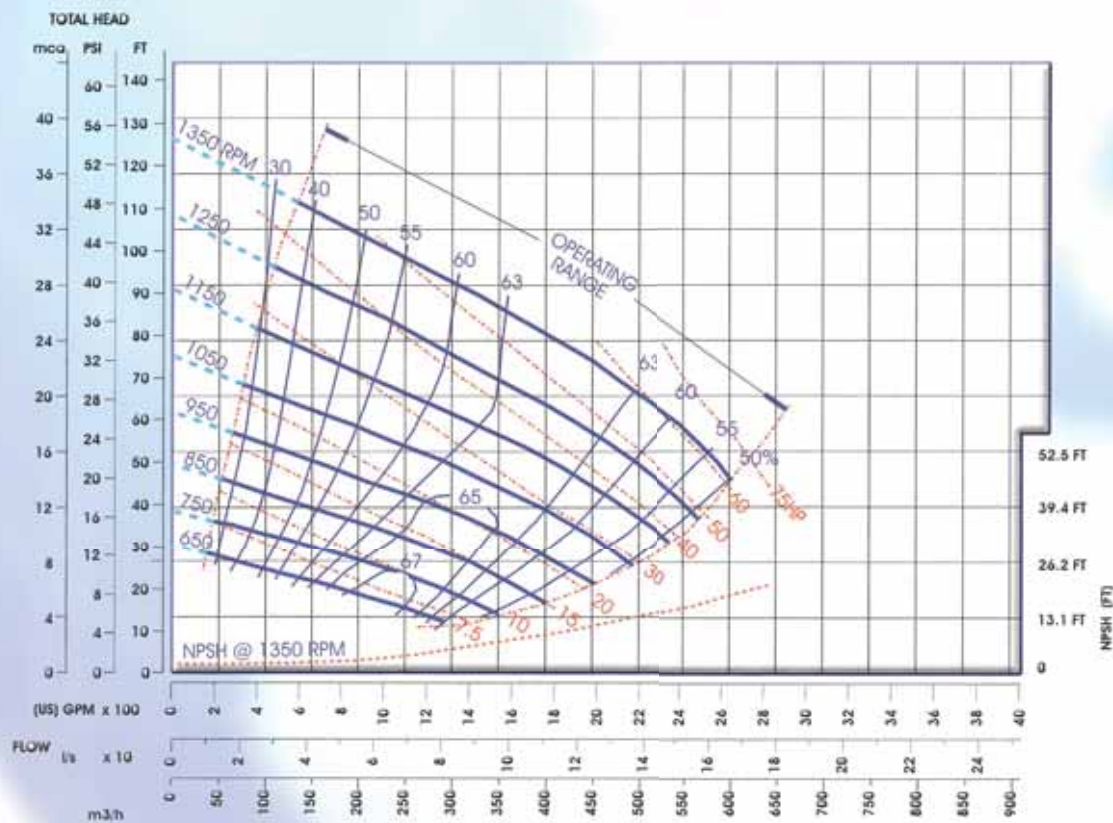
NET WEIGHT 581 kg (1295 lbs)
 SHIPPING WEIGHTS 634 kg (1399 lbs)
 IMPELLER DIA. 374.65 mm (14.3/4")
 R.P.M. FROM 650 rpm TO 1350 rpm
 MAX. SOLIDS 76,2 mm (3")

SELF - PRIMING

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

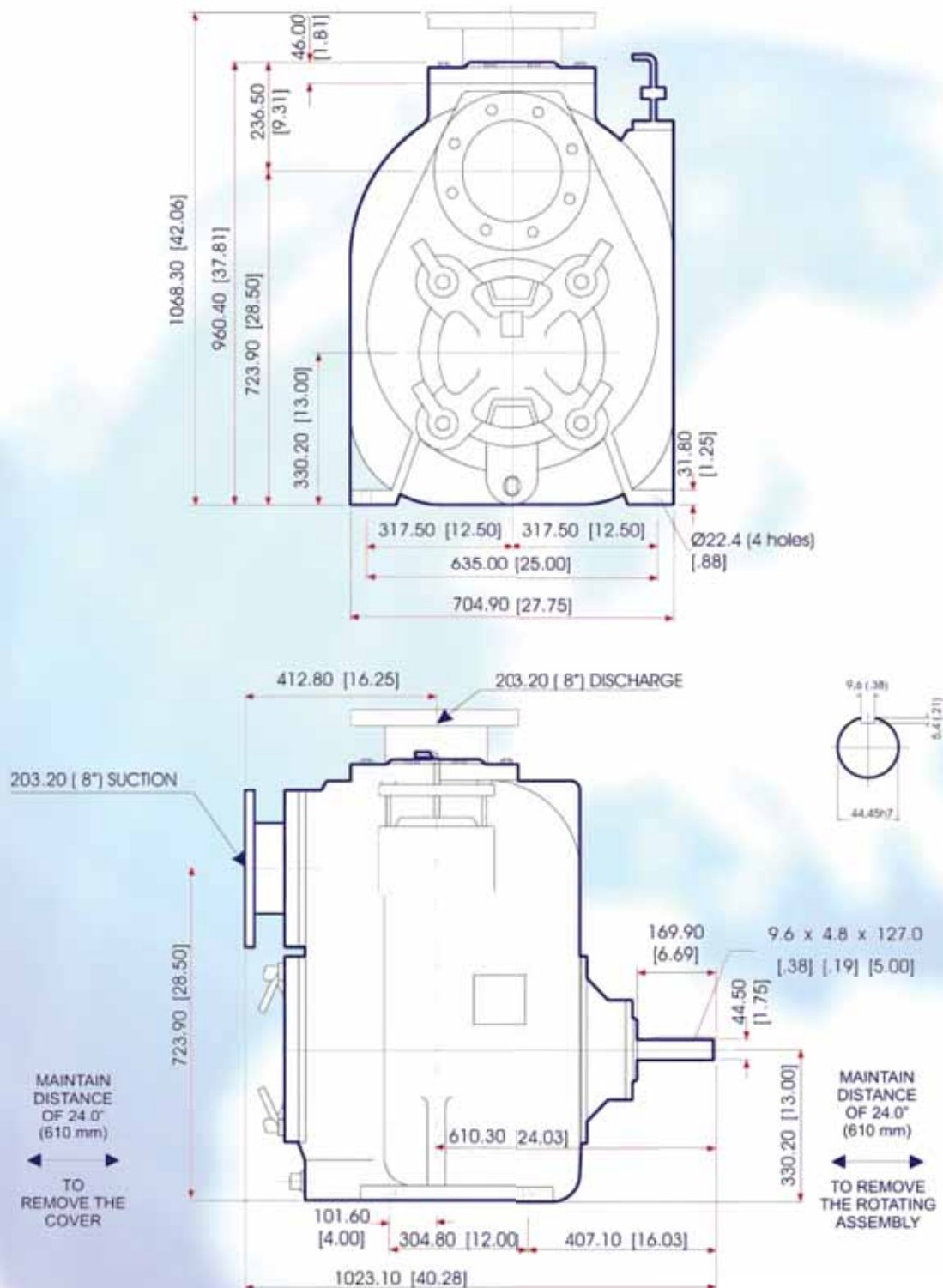
BEFORE USING THIS TABLE, CHECK THE NPSH.

PERFORMANCE CURVE



EXTERNAL DIMENSIONS

MILLIMETERS (INCHES)



ST 10

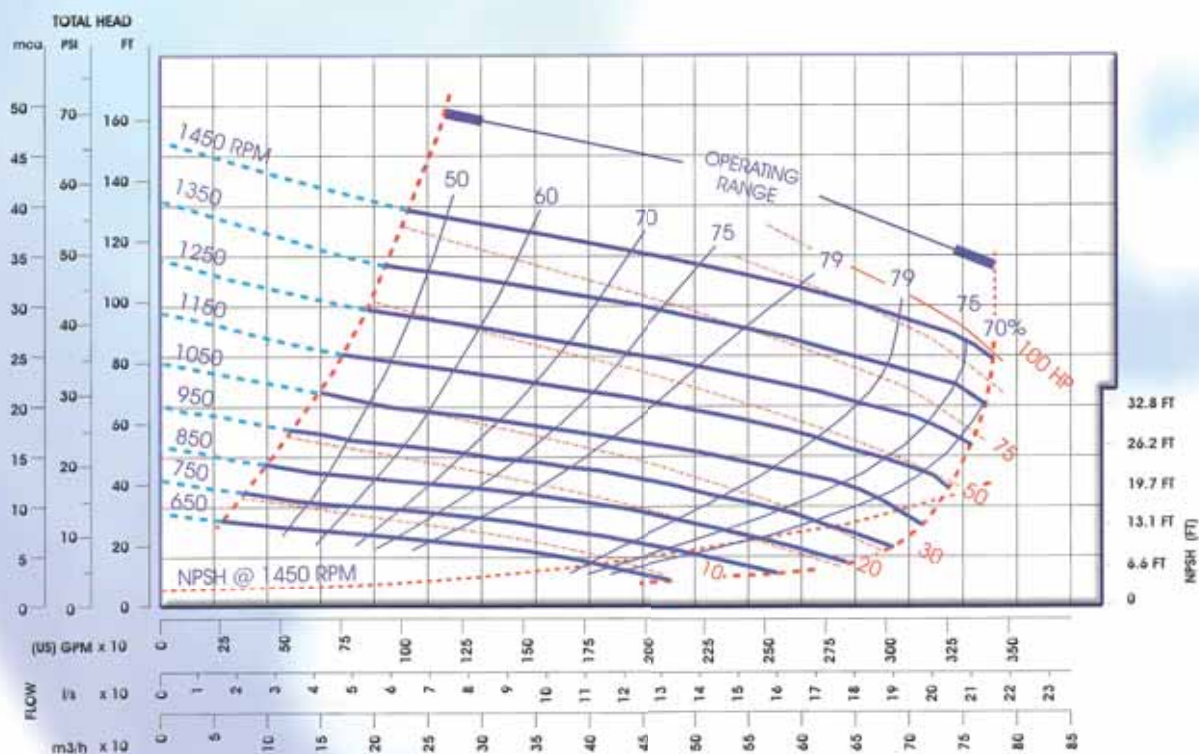
DATA SHEET

NET WEIGHT 635 kg (1400 lbs)
 SHIPPING WEIGHTS 663 kg (1461 lbs)
 IMPELLER DIA. 374.65 mm (14.3/4")
 R.P.M. FROM 650 rpm TO 1450 rpm
 MAX. SOLIDS 76,2 mm (3")

SELF - PRIMING

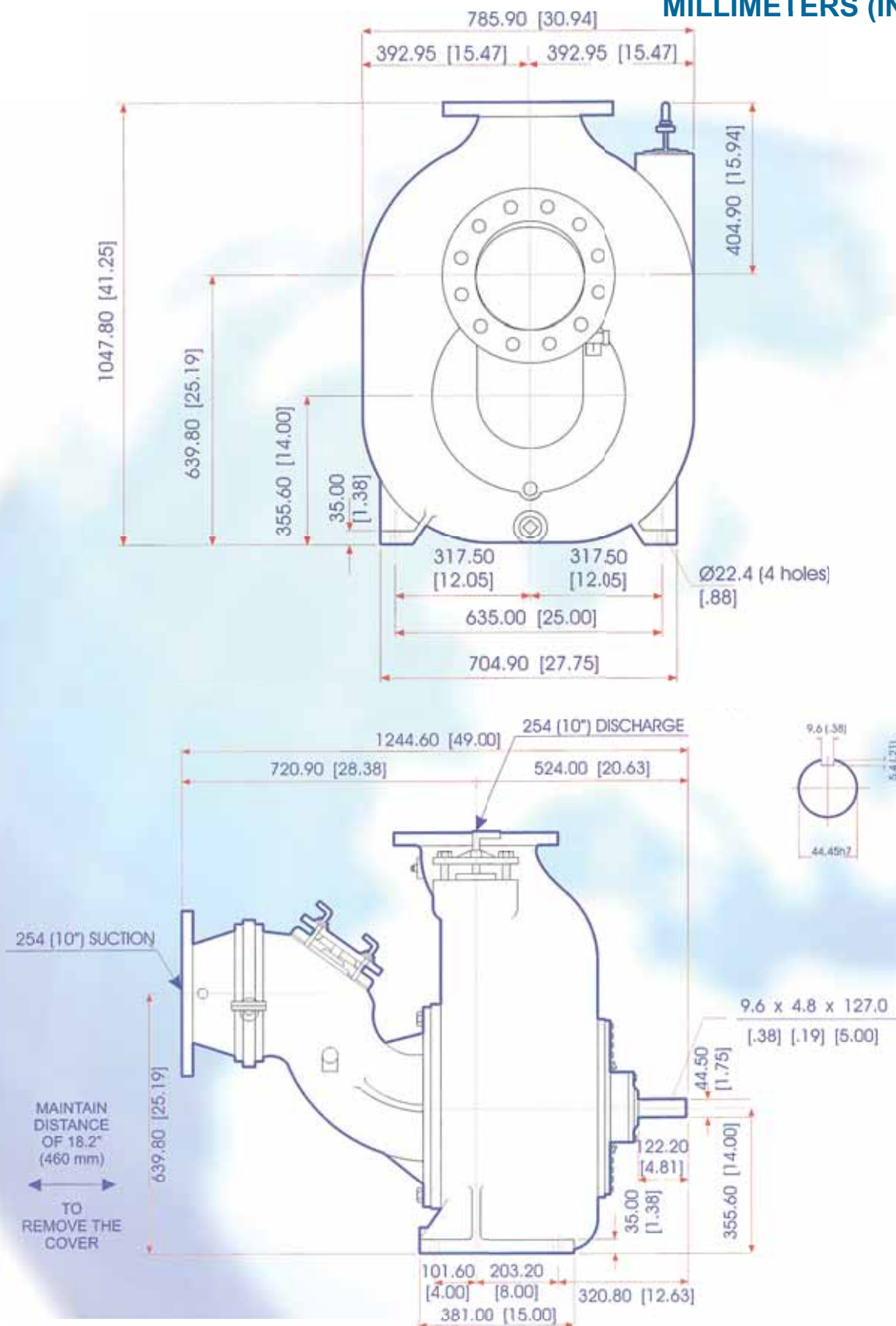
650 RPM 2,1 m (7ft) - 750 RPM 3,4 m (11 ft)
 850 RPM 4,3 m (14ft) - 950 RPM 5,2 m (17 ft)
 1050 RPM 5,5 m (18ft) - 1150 RPM 5,5 m (18 ft)
 1250 RPM 5,8 m (19ft) - 1350 RPM 6,7 m (22 ft)
 1450 RPM 6,7 m (22ft)

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PERFORMANCE CURVE


EXTERNAL DIMENSIONS

MILLIMETERS (INCHES)



ST 12



DATA SHEET

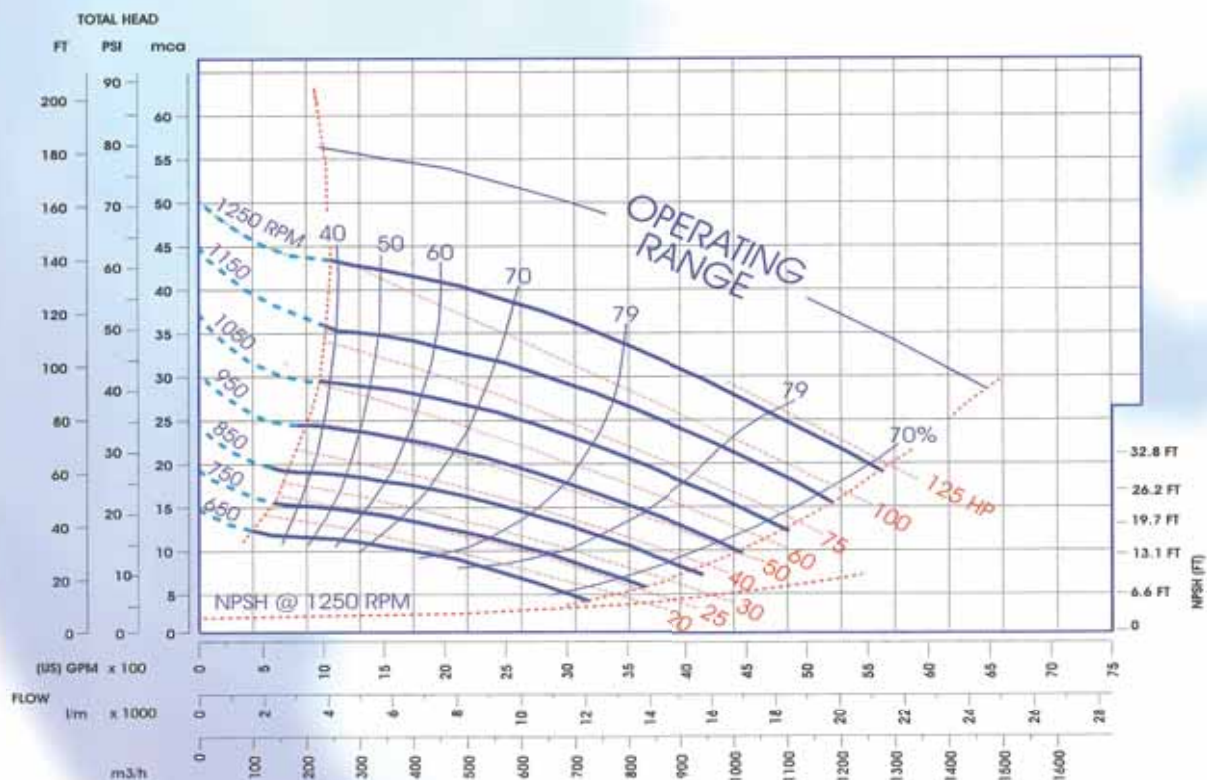
NET WEIGHT 998 kg (2200 lbs)
 SHIPPING WEIGHTS 1066 kg (2350 lbs)
 IMPELLER DIA. 457,2 mm (18")
 R.P.M. FROM 650 rpm TO 1250 rpm
 MAX. SOLIDS 76,2 mm (3")

SELF - PRIMING

650 RPM 1,6 m (5 ft) - 750 RPM 2,7 m (9 ft)
 850 RPM 3,9 m (13 ft) - 950 RPM 4,5 m (15 ft)
 1050 RPM 4,9 m (16 ft) - 1150 RPM 4,9 m (16 ft)
 1250 RPM 4,9 m (16 ft)

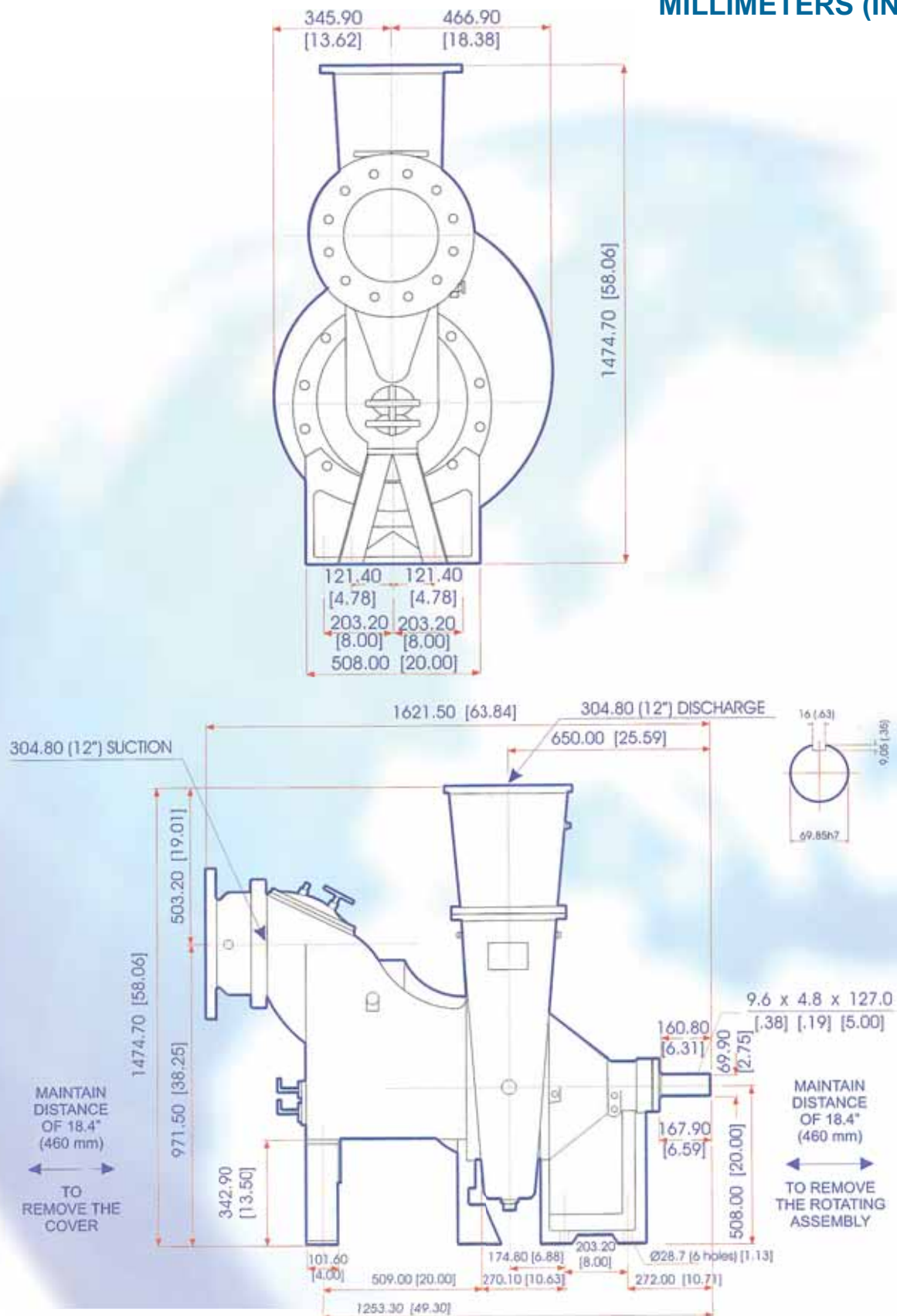
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PERFORMANCE CURVE



EXTERNAL DIMENSIONS

MILLIMETERS (INCHES)



SU 3



DATA SHEET

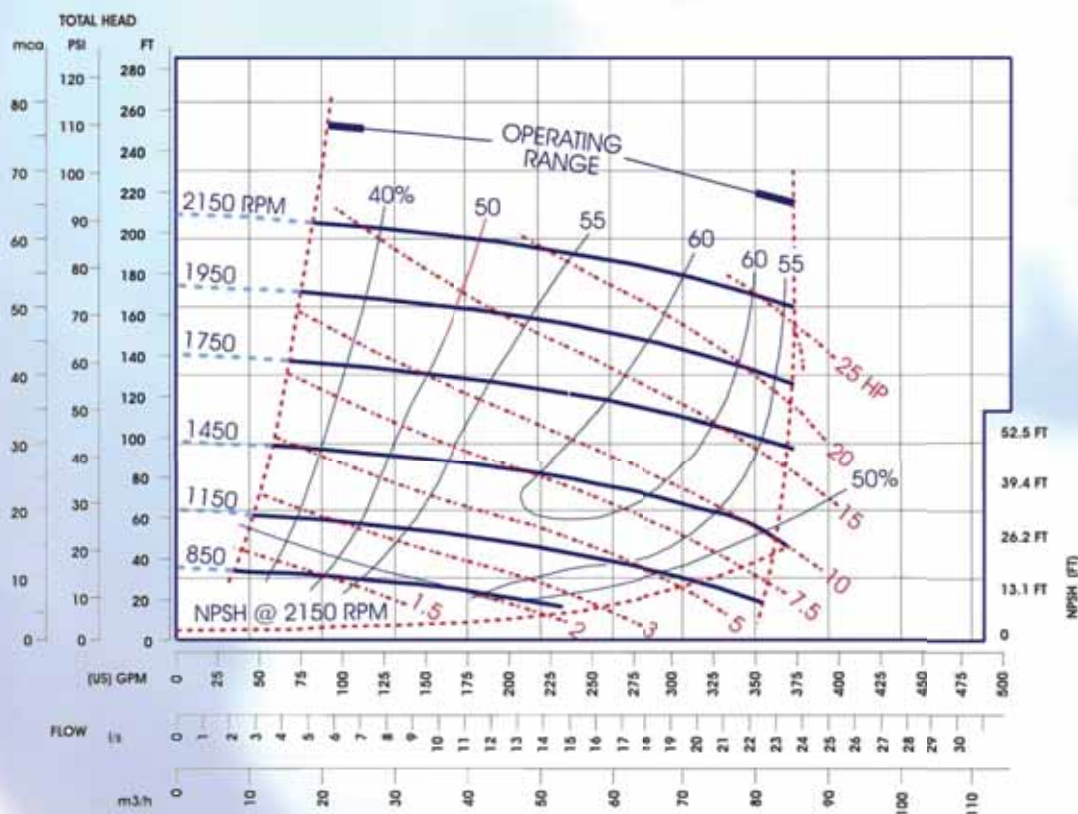
NET WEIGHT 214 kg (472 lbs)
 SHIPPING WEIGHTS 225 kg (497 lbs)
 IMPELLER DIA. 279,4 mm (11")
 R.P.M. FROM 850 rpm TO 2150 rpm
 MAX. SOLIDS 20,63 mm (13/16")

SELF - PRIMING

850 RPM 2,3 m (7 ft) - 1150 RPM 2,9 m (9 ft)
 1450 RPM 4,5 m (15 ft) - 1750 RPM 7,6 m (25 ft)
 1950 RPM 7,6 m (25 ft) - 2150 RPM 7,6 m (25 ft)

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PERFORMANCE CURVE



MILLIMETERS (INCHES)



SU 4



DATA SHEET

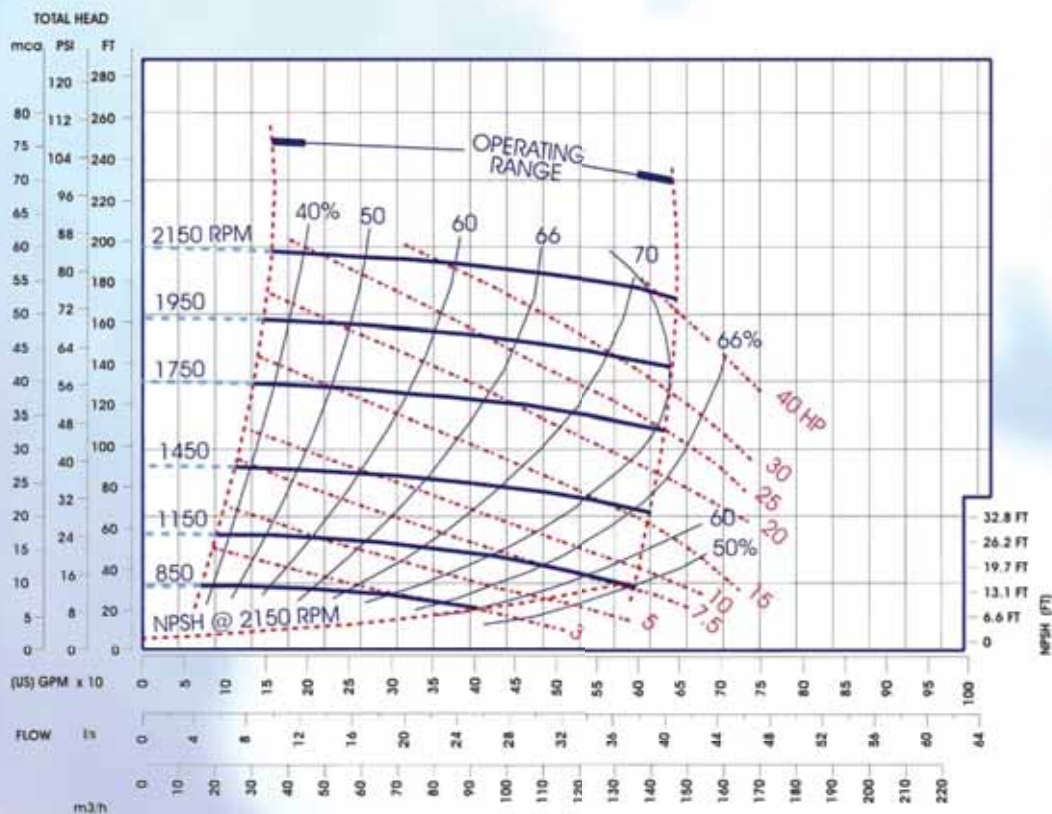
NET WEIGHT 272 kg (600 lbs)
 SHIPPING WEIGHTS 297 kg (655 lbs)
 IMPELLER DIA. 279,4 mm (11")
 R.P.M. FROM 850 rpm TO 2150 rpm
 MAX. SOLIDS 28.57 mm (1.1/8")

SELF - PRIMING

850 RPM 2,4 m (8 ft) - 1150 RPM 3,0 m (10 ft)
 1450 RPM 3,6 m (12 ft) - 1750 RPM 3,9 m (13 ft)
 1950 RPM 4,5 m (15 ft) - 2150 RPM 5,2 m (17 ft)

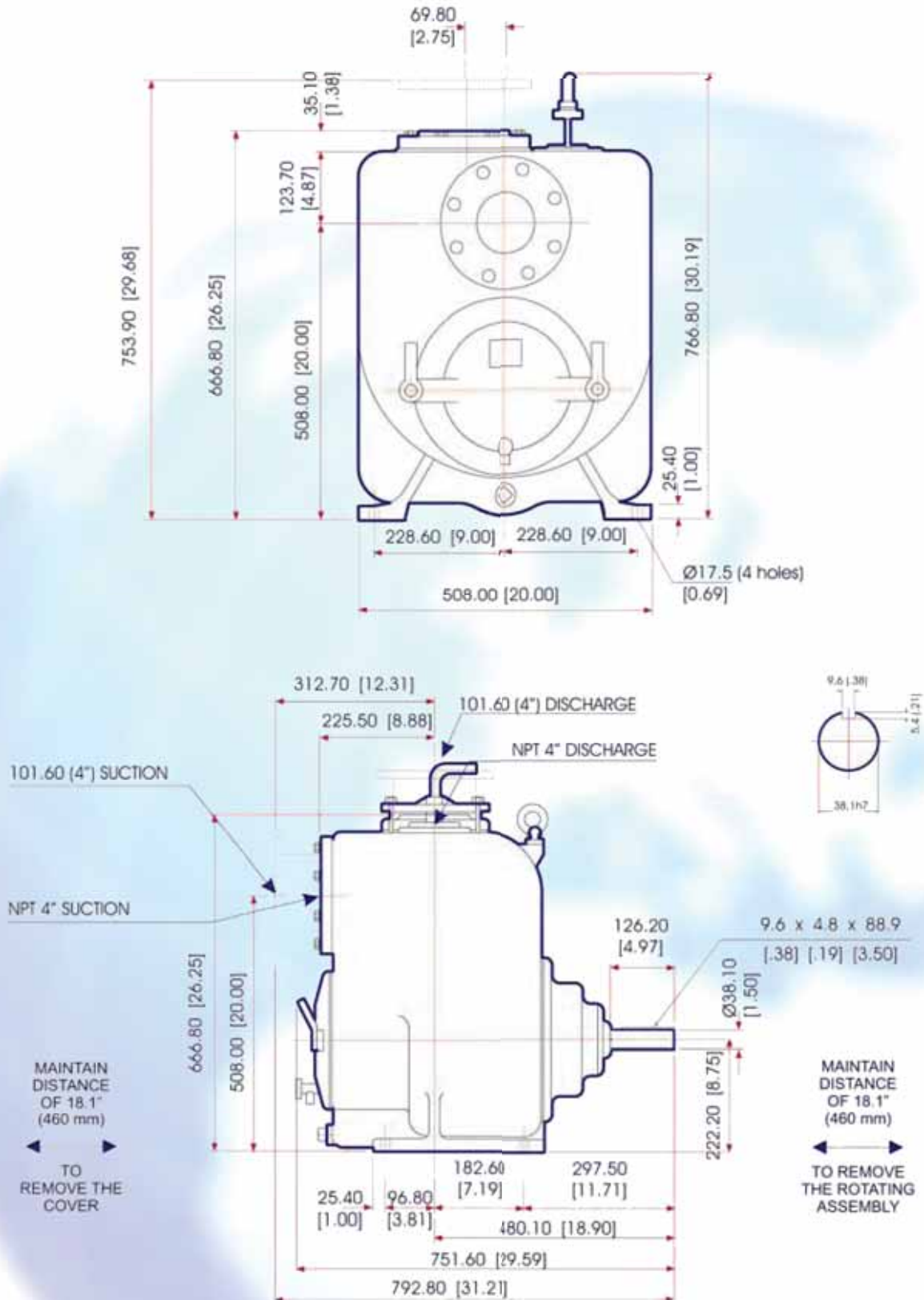
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PERFORMANCE CURVE



EXTERNAL DIMENSIONS

MILLIMETERS (INCHES)



SU 6



DATA SHEET

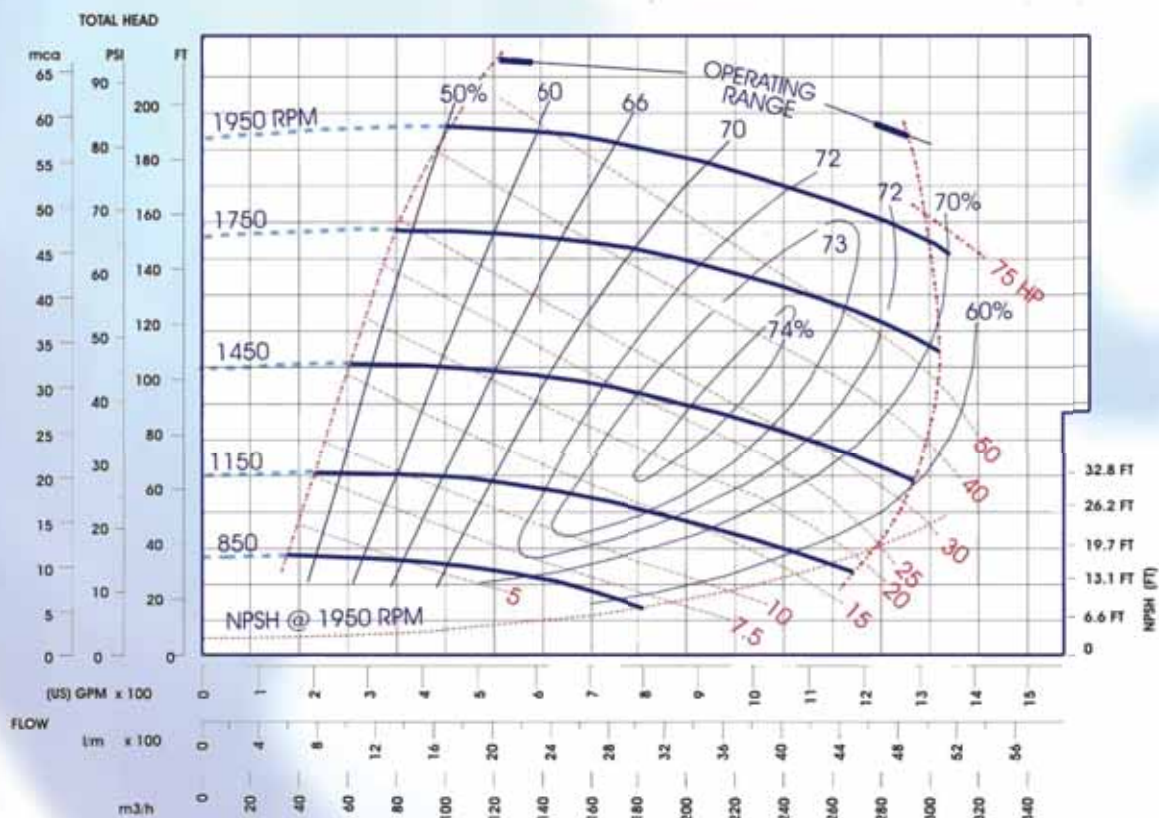
NET WEIGHT 413 kg (910 lbs)
SHIPPING WEIGHTS 437 kg (965 lbs)
IMPELLER DIA. 317,5 mm (12.1/2")
R.P.M. FROM 850 rpm TO 1950 rpm
MAX. SOLIDS 31,75 mm (1.1/4")

SELF - PRIMING

850 RPM 2,4 m (8ft) - 1150 RPM 3,0 m (10 ft)
1450 RPM 4,2 m (10ft) - 1750 RPM 4,5 m (15 ft)
1950 RPM 4,5 m (15ft)

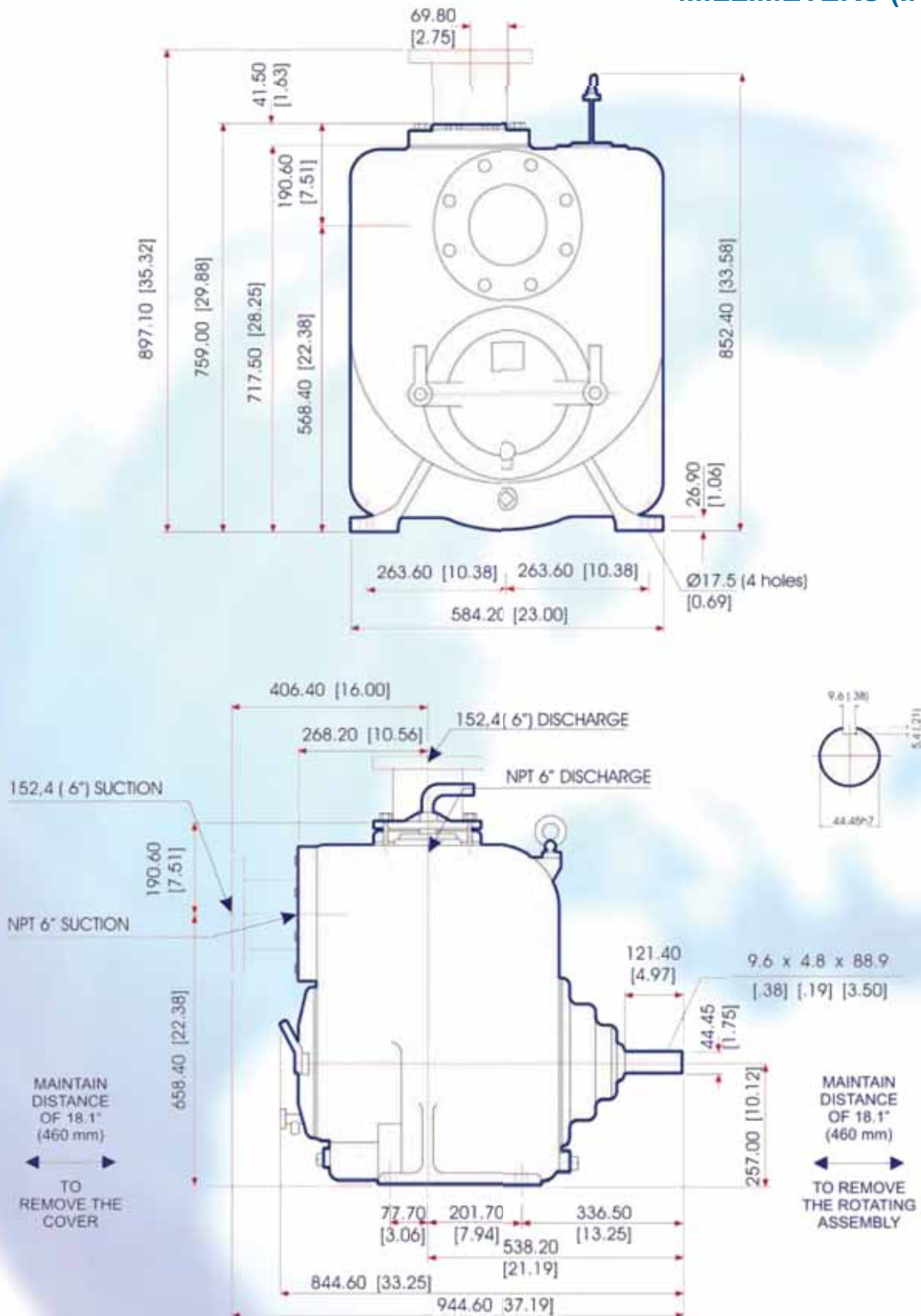
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PERFORMANCE CURVE



EXTERNAL DIMENSIONS

MILLIMETERS (INCHES)





Distributor