



C.R.I. PUMPS
Pumping trust... Worldwide.



NON-CLOG SEWAGE PUMPS ECN SERIES



T H E B E G I N N I N G

of C.R.I., way back in 1961, was a resolute attempt to produce a few irrigation equipments using the limited facilities of an in-house foundry. Eventually the founder's dream was coming true as the small production unit he started kept growing rapidly. Now, after more than five eventful decades, it is an enormous, widely reputed organization, which produces more than 2300 varieties of perfectly engineered pumps and motors and sells its products in numerous countries spread across 6 continents.

C . R . I . I S O N E A M O N G

the few pioneers in the world to produce 100% stainless steel submersible pumps. Having achieved a record production capacity of over 2 million pumps per annum, today C.R.I. is rubbing its shoulders with the best brands in the world, with advanced technology and safety standards as its hallmarks.

T H E I N F R A S T R U C T U R E

of C.R.I. is pretty comprehensive with state-of-the-art machineries and high potential in-house R&D recognised by the ministry of science and technology, Govt. of India - all within its own covered area of 300,000 square metres. The production environment is accredited with ISO 9001, ISO 14001 & OHSAS 18001 certifications and the products are CE, UR/UL, IEC, TSE & ISI certified. The R&D team always stays in tune with the changing scenario and seldom fails in coming up with outstanding solutions every time.

N E E D L E S S T O S A Y ,

behind this legendary growth lies the untiring, innovative, enthusiastic and dedicated team work. and, of course, a flawlessly maintained value system too. The name C.R.I. itself encapsulates the company's ethos: "Commitment, Reliability, Innovation".





Vision, Mission and Values

To be the industry leader providing best - in - class fluid management solutions to individual and institutional customers and societies in our chosen markets.

We will achieve this through our dedicated efforts to enhance the welfare of all our stakeholders and by living by our values of **commitment, reliability** and **innovation**.

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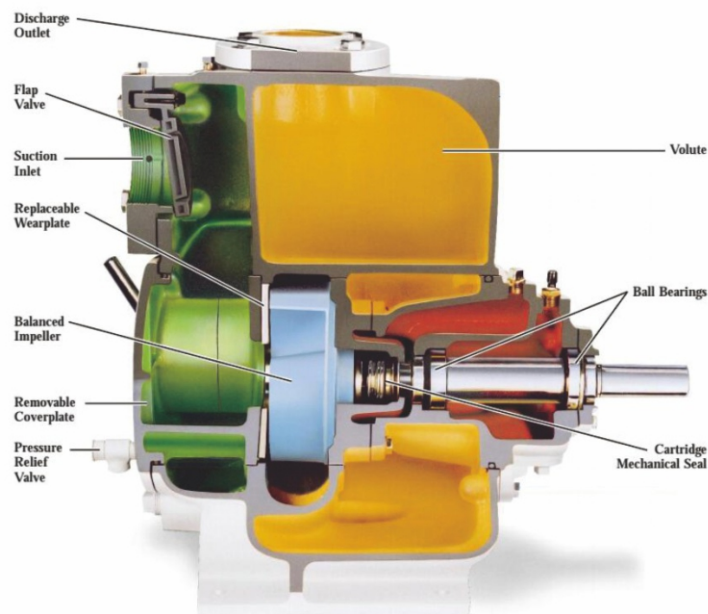
Non-Clog Sewage Pumps – ECN Series



DESCRIPTION

The ECN Series Non-Clog Self-Priming Sewage Pump is expertly engineered for reliable performance in wastewater, effluent, and sewage handling applications. Built for durability and ease of maintenance, this pump has become a trusted standard across a wide range of industries and municipal systems. Designed with heavy-duty construction, the ECN Series is ideal for demanding environments. Its robust build, combined with a user-friendly service design, ensures minimal downtime and reduced maintenance costs. The pump's non-clog impeller and large volute design enable it to handle solids effectively, providing trouble-free operation even in the most challenging conditions.

CROSS SECTIONAL VIEW



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KEY FEATURES

- Self-priming capability with dry suction line
- Handles solids and fibrous materials with non-clog impellers
- Robust, easy-to-service construction for long service life
- Wide range of configurations to meet diverse application needs
- Ideal for wastewater, sewage, and raw water pumping



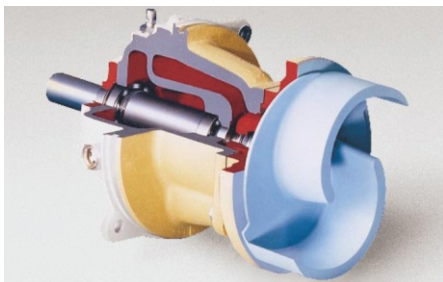
Solids Handling Impeller

Two-vane, semi-open solids handling impeller handles up to 3" (76 mm) diameter solids, depending on pump model. Pump out vanes on impeller shroud reduce foreign material buildup behind impeller and reduce pressure on seal and bearings.



Removable Coverplate

Removable coverplate provides quick and easy access to pump interior with-out disconnecting piping. Clogs can be removed and pump returned to service in minutes. Impeller, seal, wearplate and flap valve can also be accessed through coverplate opening for inspection or service.



Removable Rotating Assembly

Inspection of pump shaft or bearings is easily accomplished without disturbing pump casing or piping by removing rotating assembly. On most models, simply remove four bolts from the back of the pump and the assembly slides out.

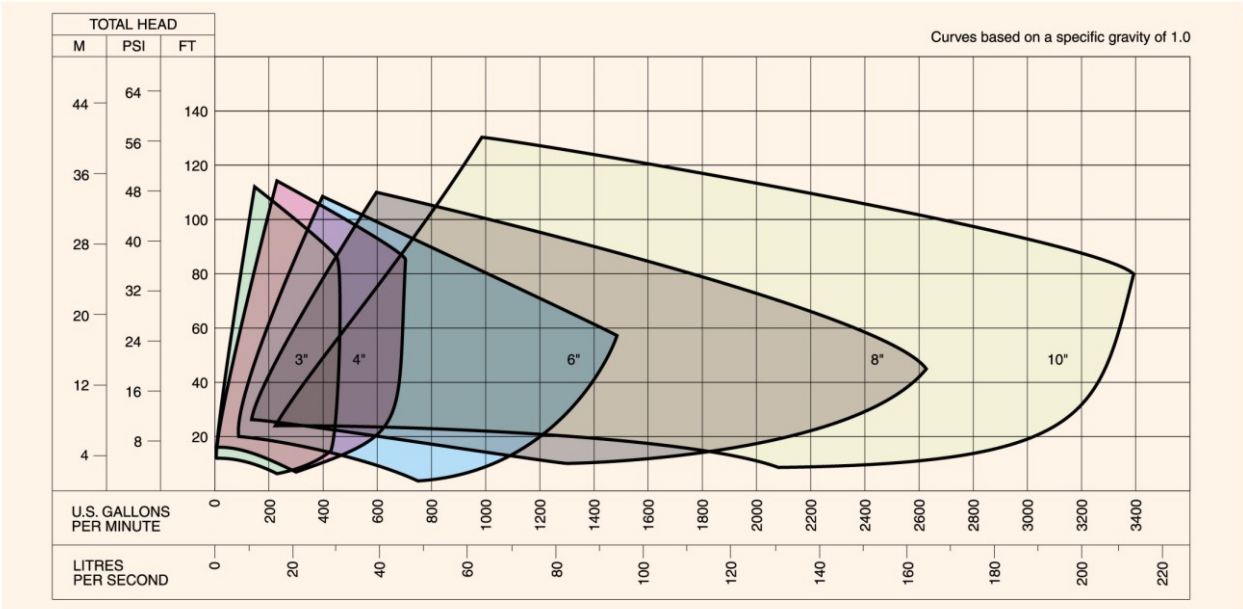
APPLICATION

- Municipal wastewater and stormwater pumping
- Industrial effluent and process water systems
- Slurry and sludge transfer
- Construction site dewatering
- Flood control and drainage operations
- Sewage treatment plants

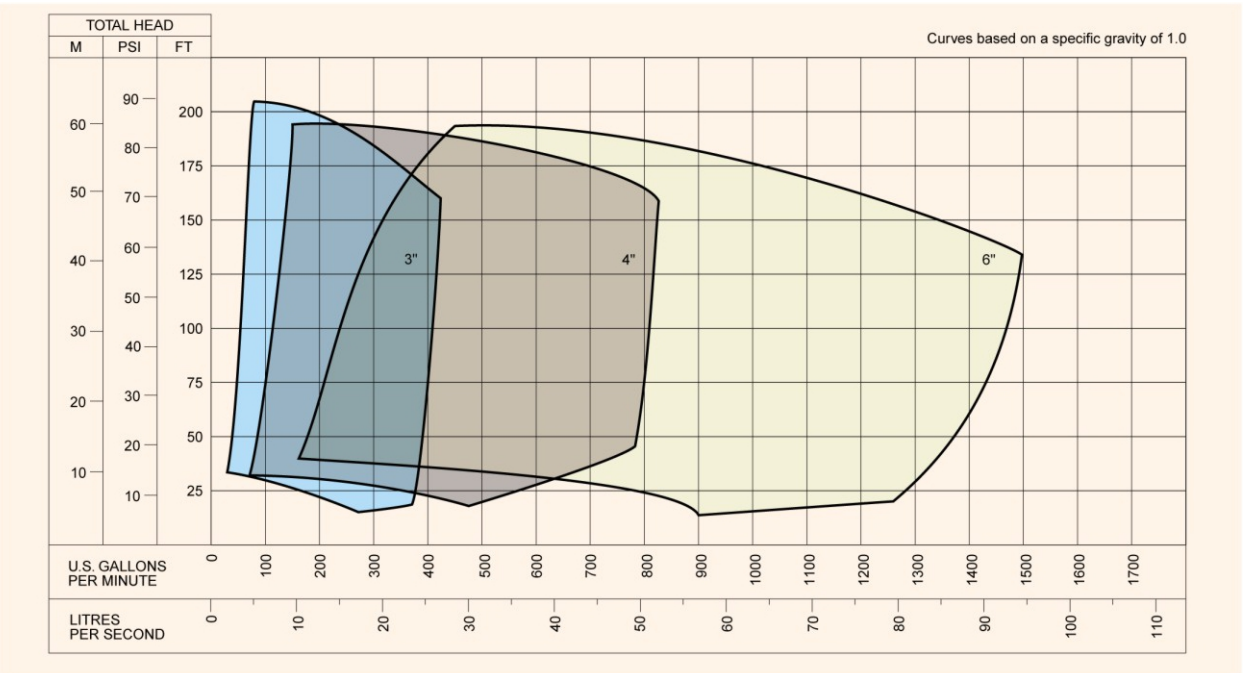
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GROUP PERFORMANCE CURVE

ECN - D SERIES



ECN - M SERIES



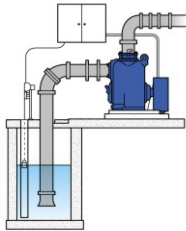
SPECIFICATION

Parameters	ECN-D Series	ECN-M Series
Flow Range	5 - 1275 m ³ /h	30 - 310 m ³ /h
Head Range	5 - 42 m	5 - 85m
Speed Range	650 - 3200 rpm	1150 - 2350 rpm
Impeller Type	Semi open impeller	Semi open impeller
Outlet Size	2", 3" 4", 6" 8", 10" & 12"	3", 4" & 6"
Power Range	1.5 - 63kW	2.2 - 67kW
Liquid Temperature	-10°C to 50°C	-10°C to 50°C
Solid Size Range	44 - 76mm	20 - 31mm
Shaft Seal	Mechanical seal (SiC/SiC/Buna N)	Mechanical seal (SiC/SiC/Buna N)
Maximum Suction Lift	7m	7m
Maximum working Pressure	4.2 bar	8.5 bar

MATERIALS OF CONSTRUCTION

Pump housing	Cast Iron & Stainless Steel
Impeller	Ductile Iron & Stainless Steel
Impeller washer	Stainless Steel
Impeller screw	Stainless Steel
Wear plate	High Corban Steel
Shaft	Medium Carbon steel & Stainless Steel
Mechanical Seal	SiC / SiC / Buna N
Flap valve	Buna-N

SELF-PRIMING - THE SUPERIOR SOLUTION FOR SEVERAL REASONS



1. High and dry mounting for fast and easy service and maintenance

The centrifugal pumps are self-priming, they can be mounted high and dry at floor level, with only the suction line down in the liquid. Service or maintenance can be performed quickly and simply with common hand tools and without having to pull the pump. There are no long drive shafts to install and align, no hoists or cranes required, and no need for service personnel to enter the sump.



2. Clogging is kept to a minimum, so downtime is virtually eliminated

The pumps help keep productivity high because they are designed for virtually clog-free performance. Solids handling pump models will handle spherical solids up to 3" (76 mm) in diameter and allow solids to pass through the entire pump, not just the impeller. If a clog does occur, it can be eliminated quickly and easily by opening the coverplate, removing the clog, and returning the pump to normal operation, all in just a few minutes' time.



3. Service is simple, fast and economical

Solids handling pump models are designed to make servicing a fast, simple and cost-efficient process. The removable coverplate allows for convenient inspection or service of the impeller, seal and wearplate, with no special tools required. If the pump shaft or bearings need service, the entire rotating assembly can be removed without disturbing the pump casing or piping. Plus, the rotating assembly is sealed with an O-ring which permits external clearance adjustments.



4. Automatic priming means dependable performance

Self-priming pumps are a sensible solutions for industry and municipalities because they require very little attention, resulting in significant savings of maintenance time and money. Properly applied and installed, and after an initial priming, pumps will continue to reprime automatically.

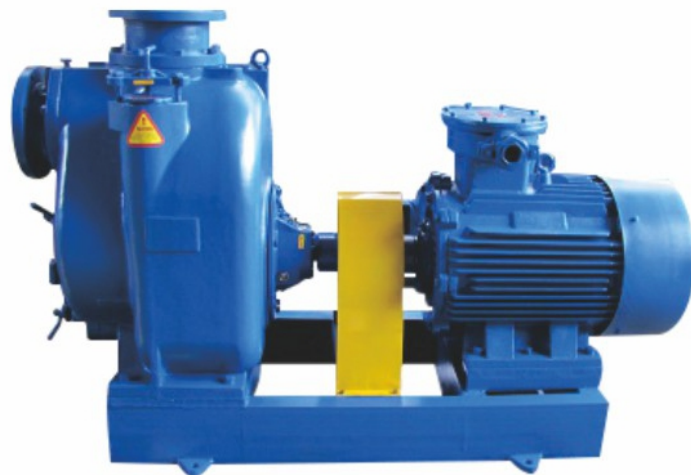
APPLICATION FIELD OF THE NON-CLOG SEWAGE PUMPS



TYPES OF INSTALLATION



Belt Driven Pumpset



Direct Flexible Coupled Pumpset

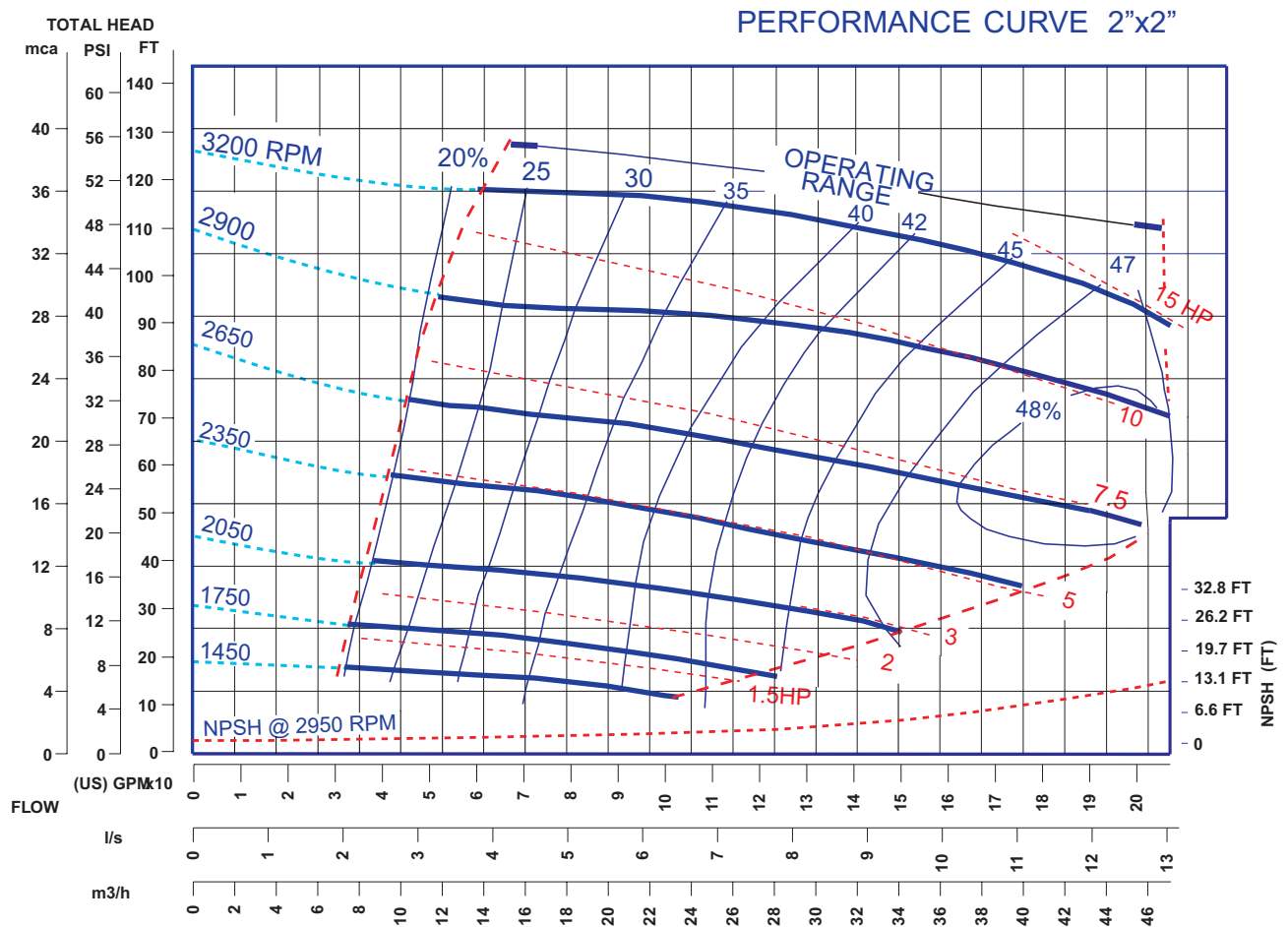
PERFORMANCE DETAILS

Model : ECN-50D

Net Weight : 92kg (203lbs)
 Shipping Weight : 114kg (252lbs)
 Impeller Dia. : 158,75mm (6.1¼")
 rpm : 1450 to 3200
 Max. Solids : 44,45mm (1.¾")

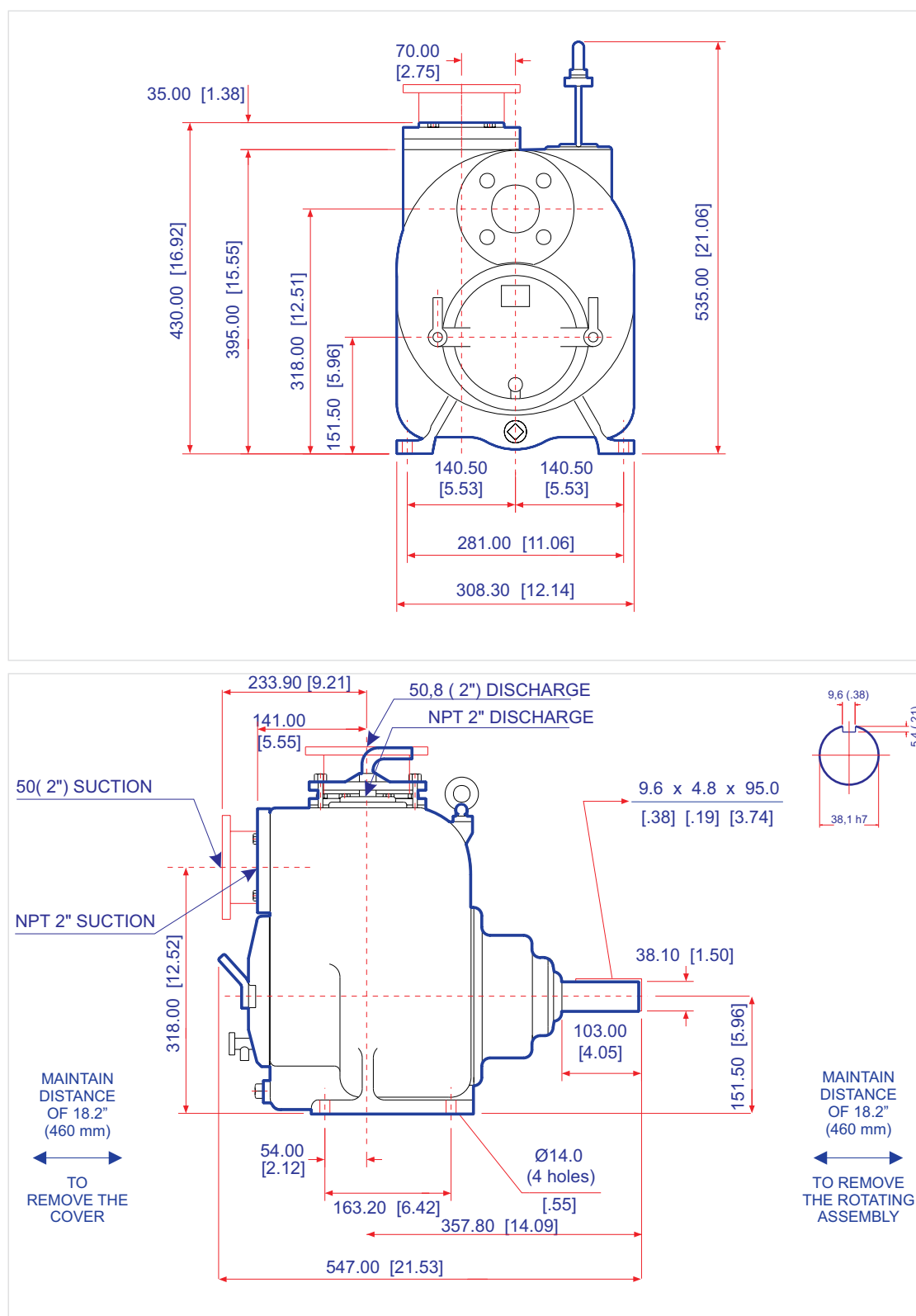
1450 rpm 7,3m (24ft) - 1750 rpm 7,6m (25ft)
 2050 rpm 7,6m (25ft) - 2350 rpm 7,6m (25ft)
 2650 rpm 7,6m (25ft) - 2900 rpm 7,6m (25ft)
 2900 rpm 7,6m (25ft) - 3200 rpm 7,6m (25ft)

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PUMP DIMENSIONAL DETAILS



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PERFORMANCE DETAILS

Model : ECN-80D

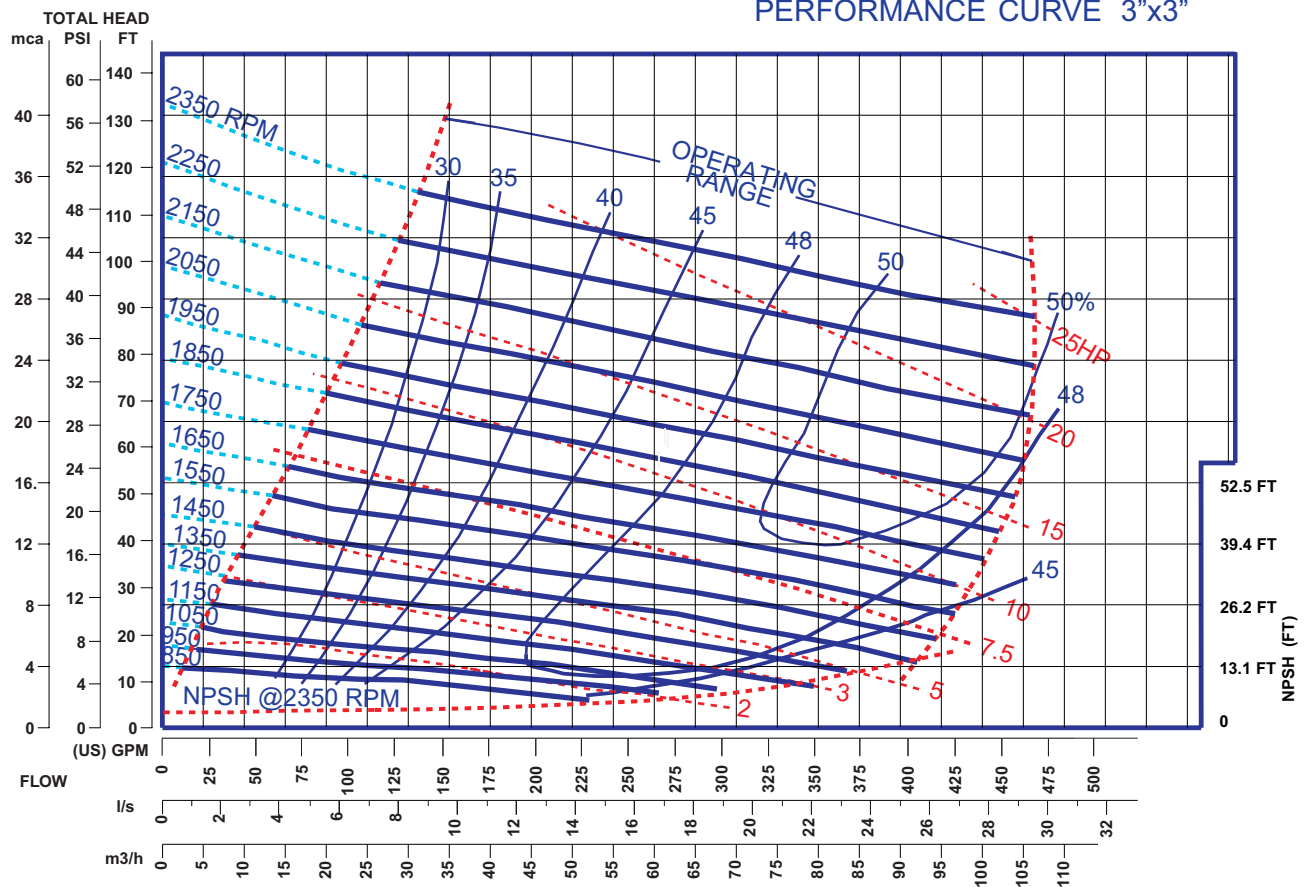
Net Weight : 183kg (404lbs)
 Shipping Weight : 205kg (452lbs)
 Impeller Dia. : 222,25mm (8.¾")
 rpm : 650 to 2150
 Max. Solids : 63,5mm (2.½")

800 rpm 1,5m (5ft) - 900 rpm 1,8m(6ft)
 1000 rpm 2,4 (8ft) -1100 rpm 3,0m (10ft)
 1200 rpm 4,0m (13ft) -1300 rpm 4,9m (16ft)
 1400 rpm 5,5m (18ft) -1500 rpm 5,8m (19ft)
 1600 rpm 6,4m (21ft) -1700 rpm 6,4m (21ft)
 1800 rpm 6,7m (22ft) -1900 rpm 6,7m (22ft)
 2000 rpm 7,6m (25ft) -2100 rpm 7,6m (25ft)
 2200 rpm 7,6m (25ft) -2300 rpm 7,6m (25ft)

Before using this table, check the NPSH.

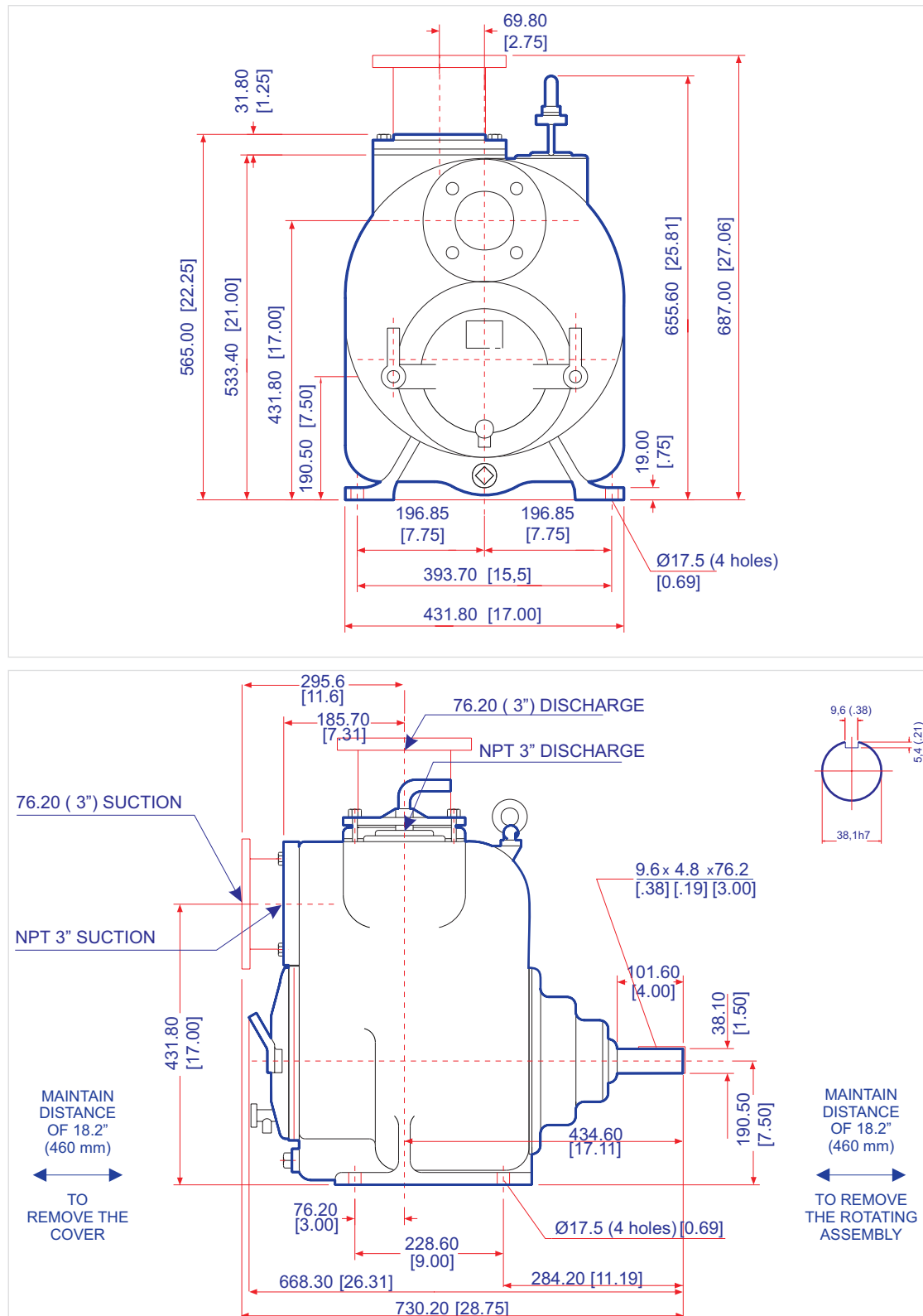


PERFORMANCE CURVE 3"x3"



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PUMP DIMENSIONAL DETAILS



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PERFORMANCE DETAILS

Model : ECN-100D

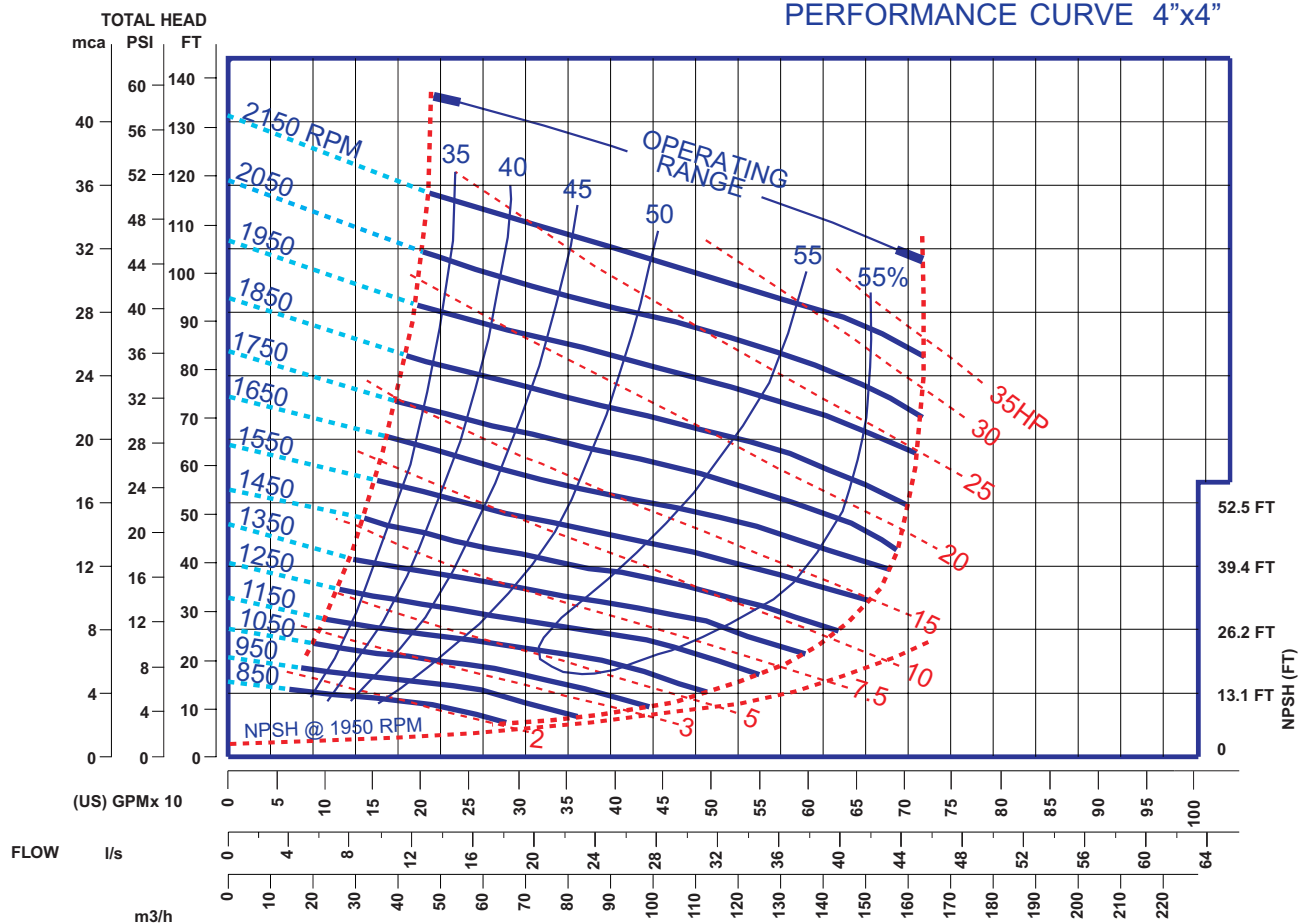
Net Weight : 259,5kg (600lbs)
 Shipping Weight : 280kg (655lbs)
 Impeller Dia. : 247,65mm (9.¾")
 rpm : 650 to 1950
 Max. Solids : 76,2mm (3")

800 rpm 1,5m (5ft) - 900 rpm 2,4m (8ft)
 1000 rpm 4,9m (16ft) - 1100 rpm 5,8m (19ft)
 1200 rpm 6,7m (22ft) - 1300 rpm 7,3m (24ft)
 1400 rpm 7,6m (25ft) - 1500 rpm 7,6m (25ft)
 1600 rpm 7,6m (25ft) - 1700 rpm 7,6m (25ft)
 1800 rpm 7,6m (25ft) - 1900 rpm 7,6m (25ft)
 2000 rpm 7,6m (25ft) - 2100 rpm 7,6m (25ft)



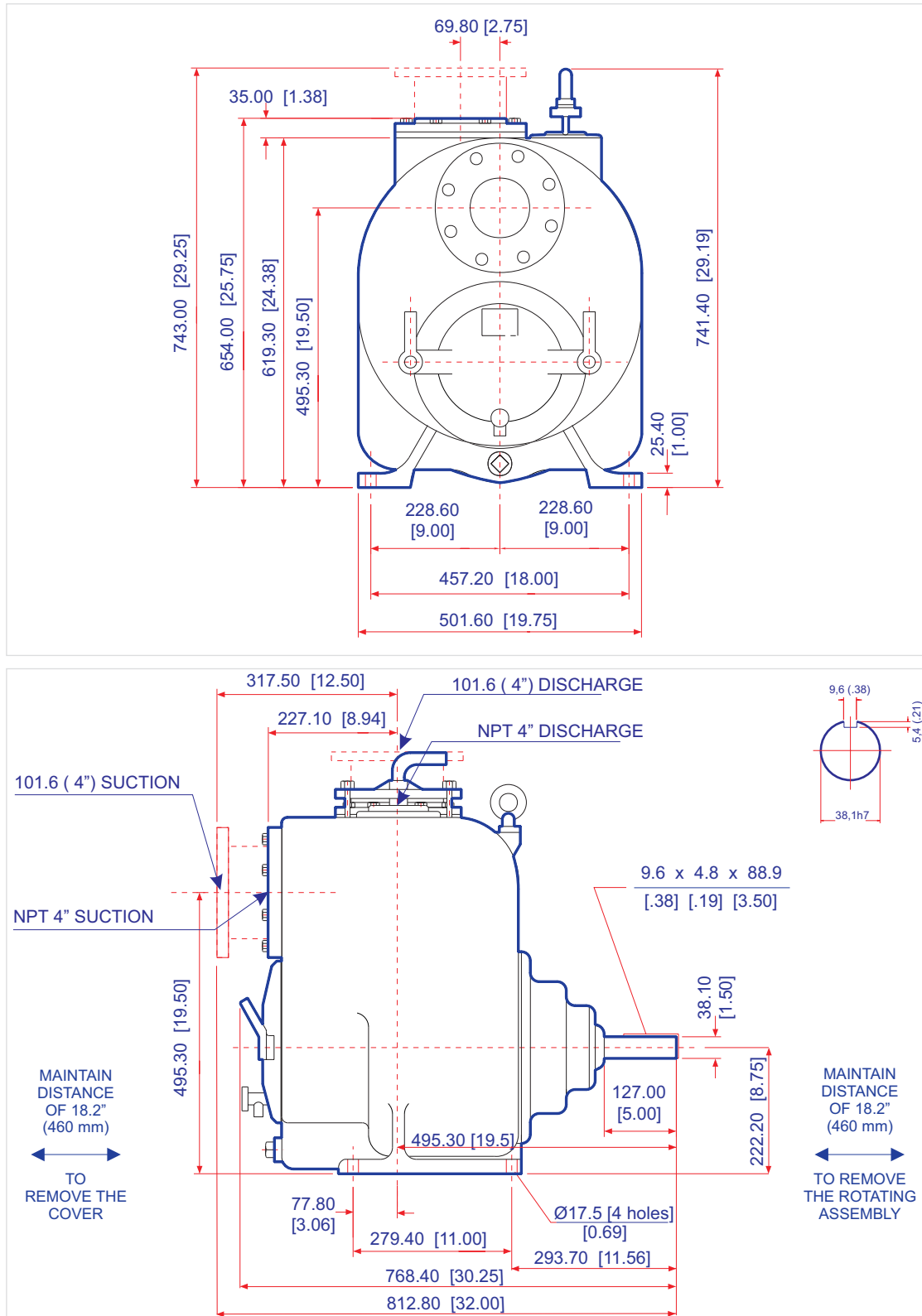
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PERFORMANCE CURVE 4"x4"



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PUMP DIMENSIONAL DETAILS



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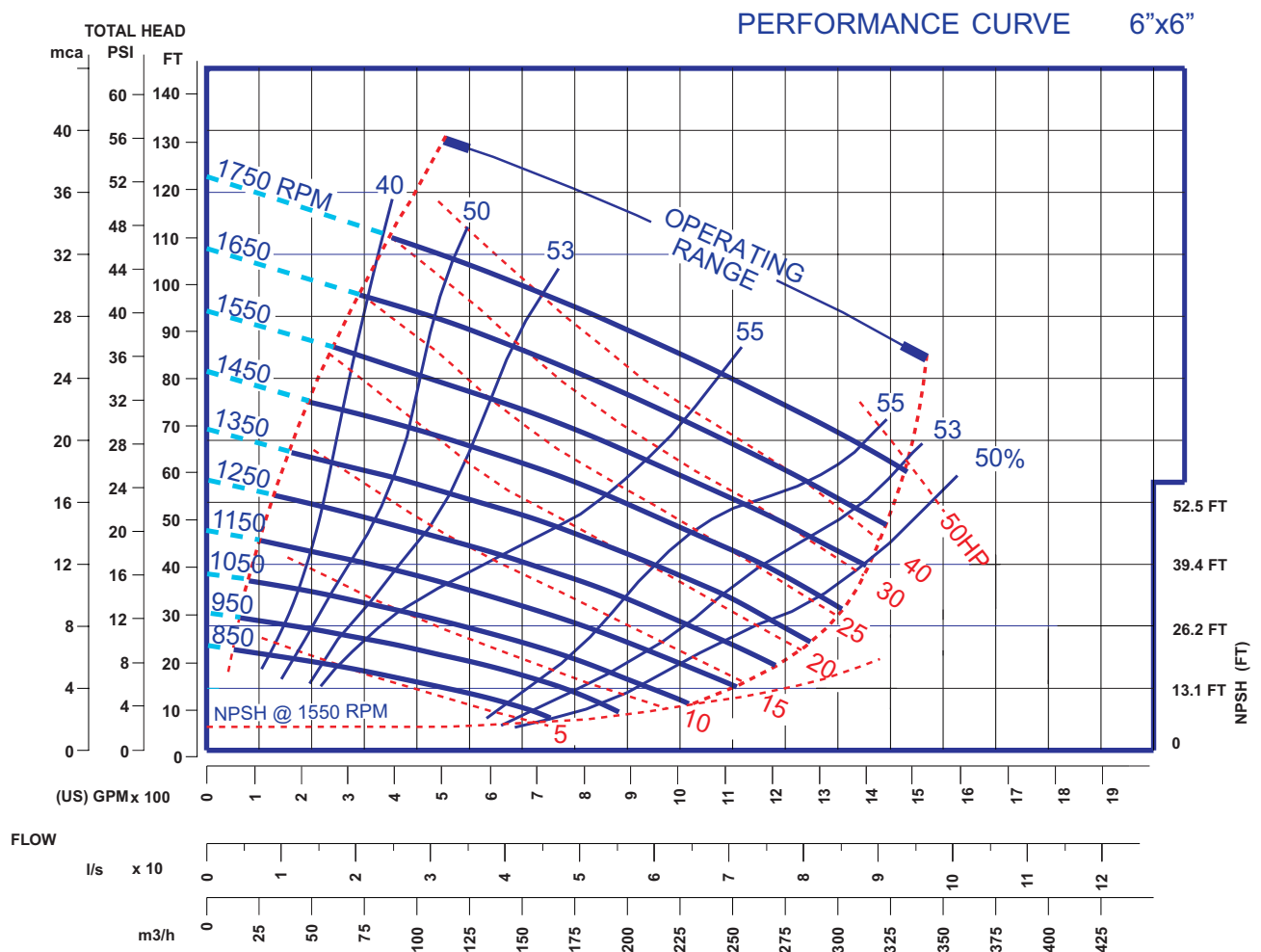
PERFORMANCE DETAILS

Model : ECN-150D

Net Weight : 364kg (802lbs)
 Shipping Weight : 391kg (862lbs)
 Impeller Dia. : 314,32mm (12.38")
 rpm : 650 to 1550
 Max. Solids : 76,2mm (3")

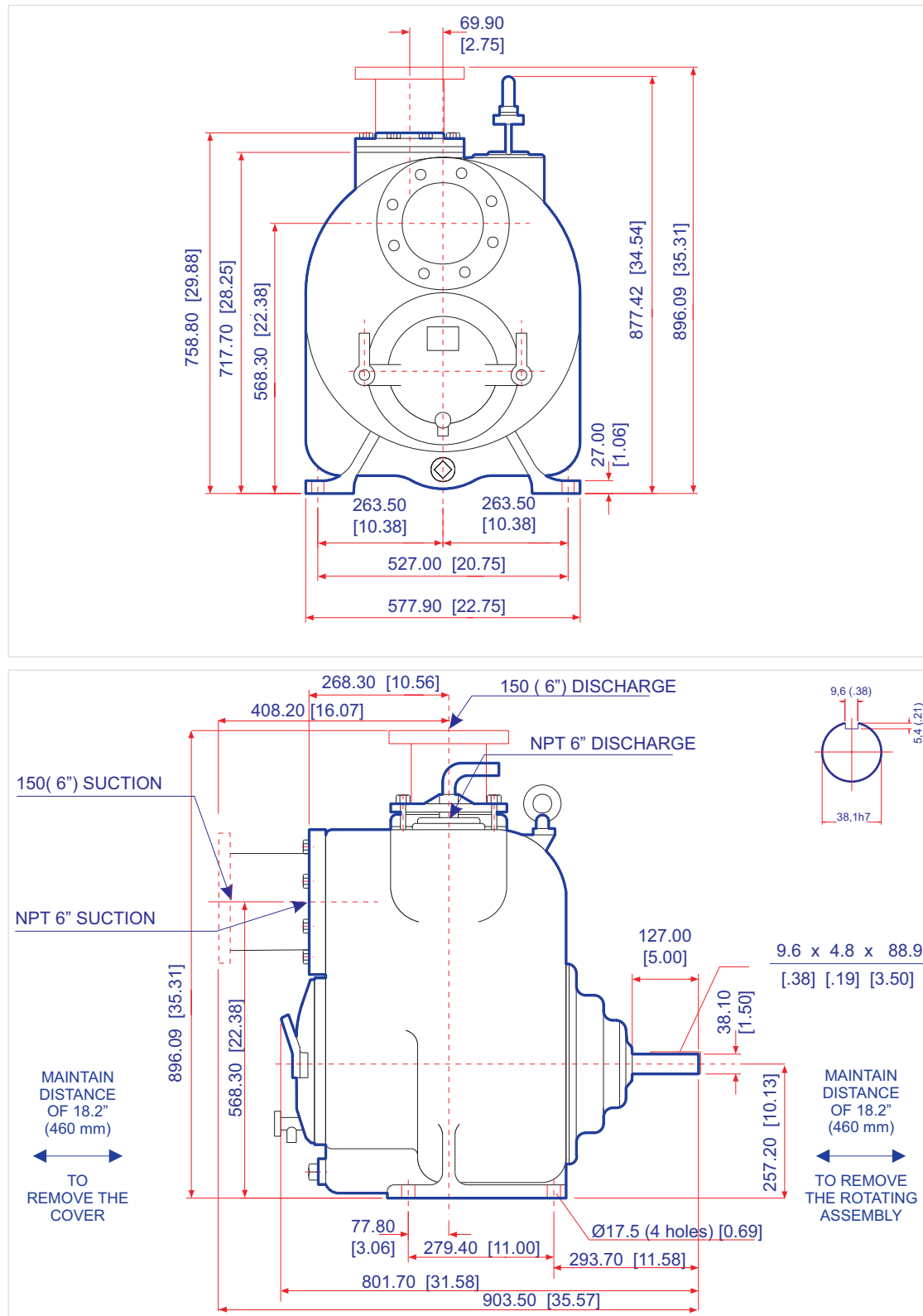
800 rpm 2,4m (8ft) - 900 rpm 2,7m (9ft)
 1000 rpm 3,6m (12ft) - 1100 rpm 4,2m (14ft)
 1200 rpm 5,5m (18ft) - 1300 rpm 6,4m (21ft)
 1400 rpm 6,4m (21ft) - 1500 rpm 6,7m (22ft)
 1600 rpm 7,0m (23ft) - 1700 rpm 7,6m (25ft)

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PUMP DIMENSIONAL DETAILS



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PERFORMANCE DETAILS

Model : ECN-200D

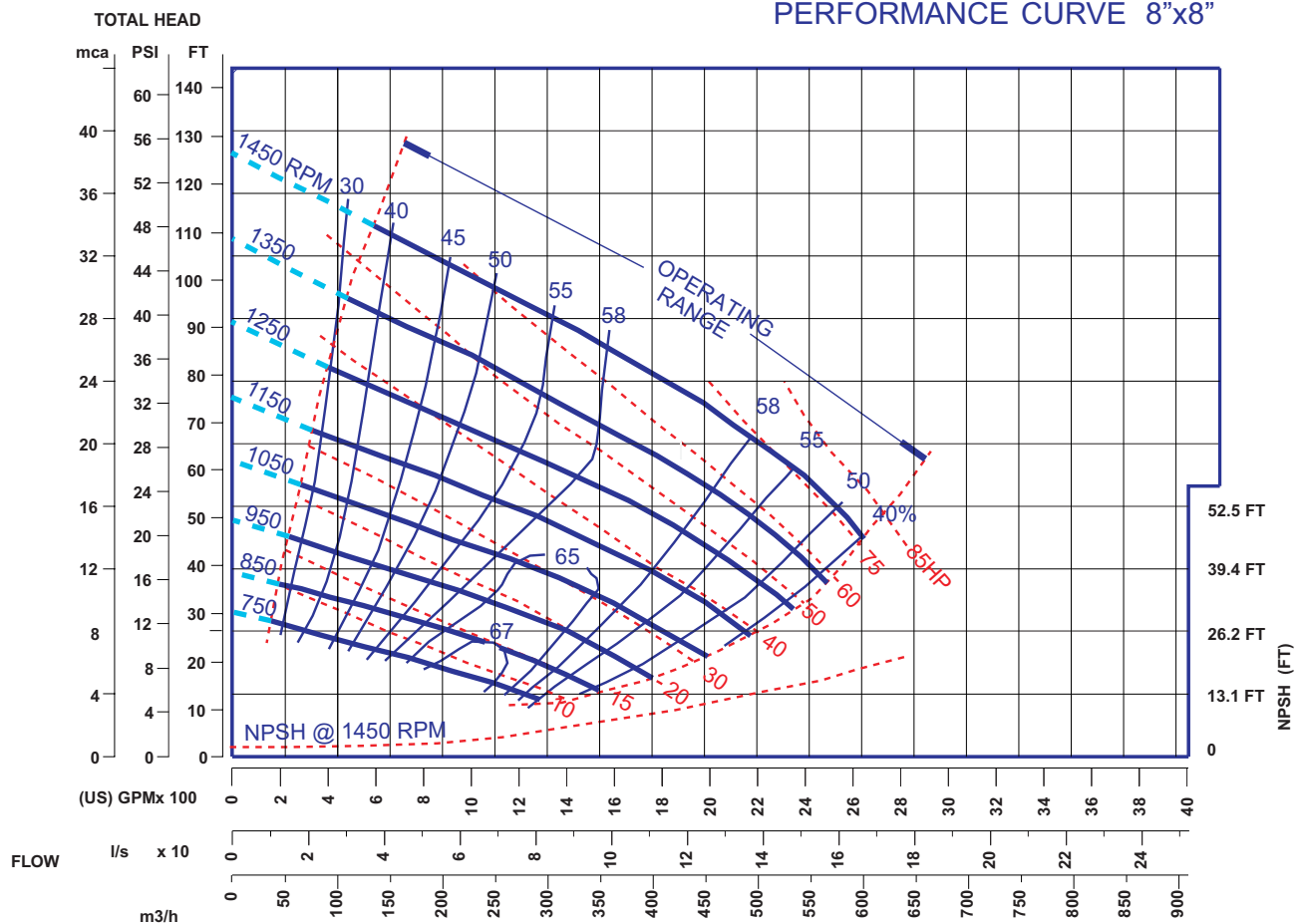
Net Weight : 581kg (1295lbs)
 Shipping Weight : 634kg (1399lbs)
 Impeller Dia. : 374.65mm (14.¾")
 rpm : 650 to 1350
 Max. Solids : 76,2mm (3")

700 rpm 2,7m (9ft) - 800 rpm 3,7m (12ft)
 900 rpm 4,6m (15ft) - 1000rpm 5,2m (17ft)
 1100 rpm 6,1m (20ft) - 1200 rpm 6,4m (21ft)
 1300 rpm 6,7m (22ft) - 1400 rpm 7,0m (23ft)

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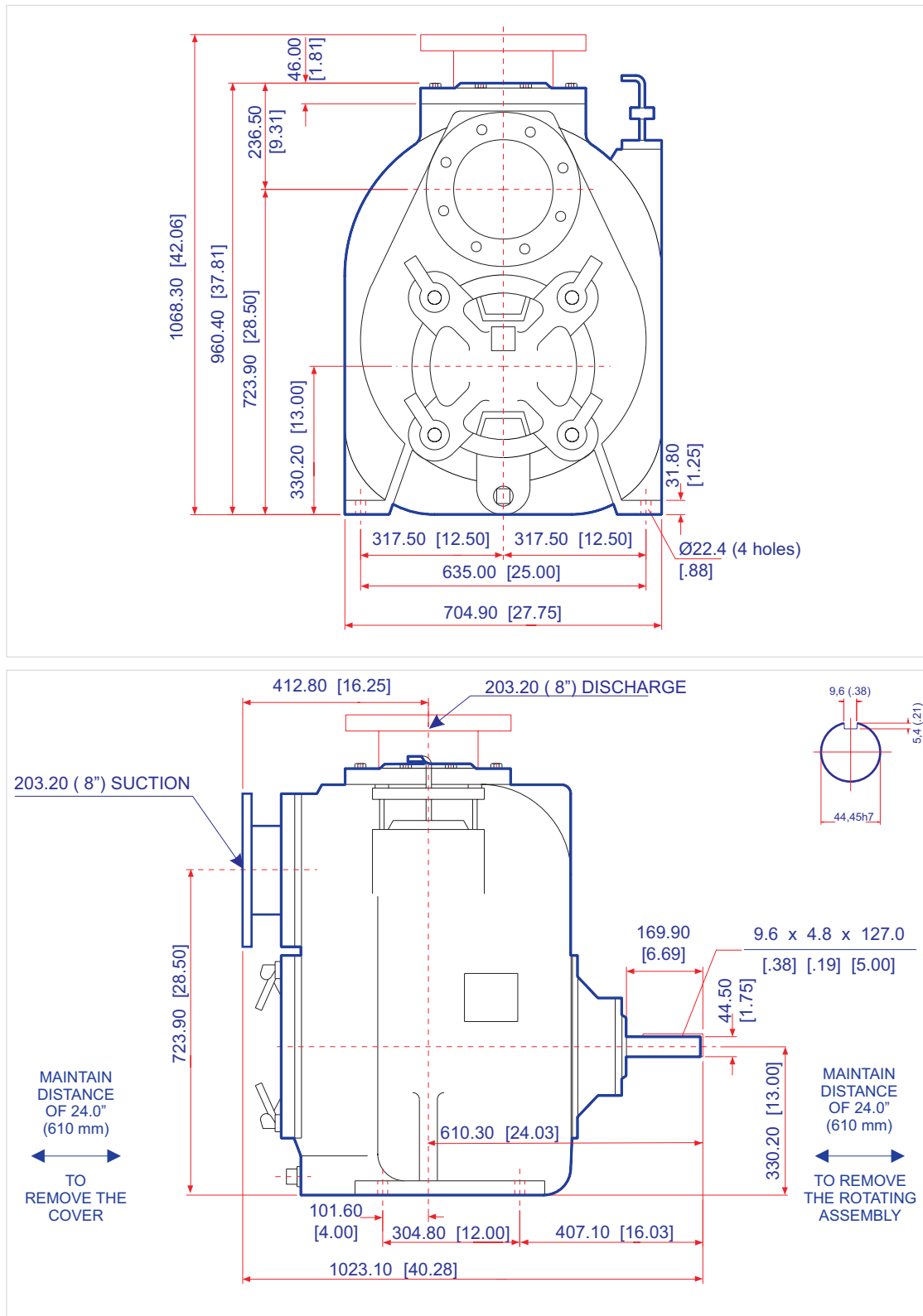


PERFORMANCE CURVE 8"x8"



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PUMP DIMENSIONAL DETAILS



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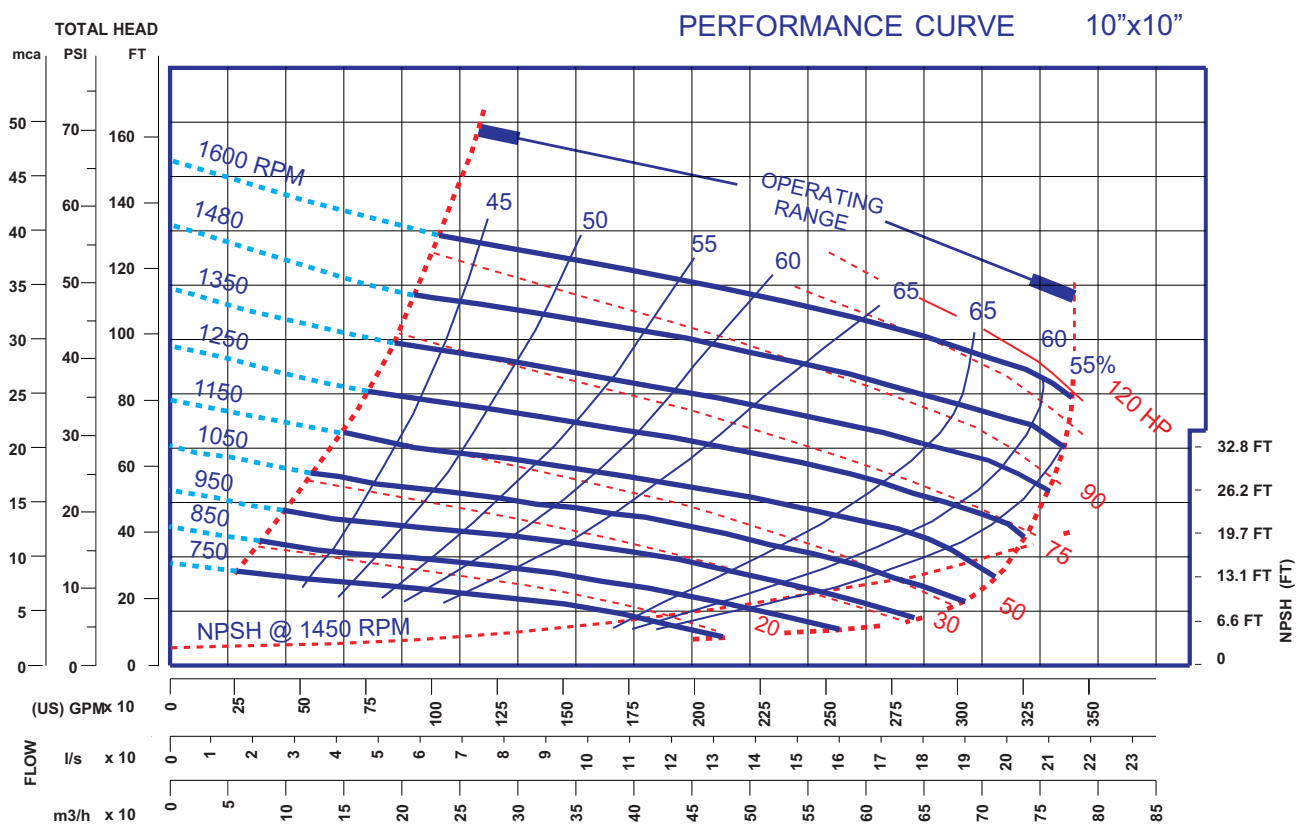
PERFORMANCE DETAILS

Model : ECN-250D

Net Weight : 635kg (1400lbs)
 Shipping Weight : 663kg (1461lbs)
 Impeller Dia. : 374.65mm (14.¾")
 rpm : 650 to 1450
 Max. Solids : 76,2mm (3")

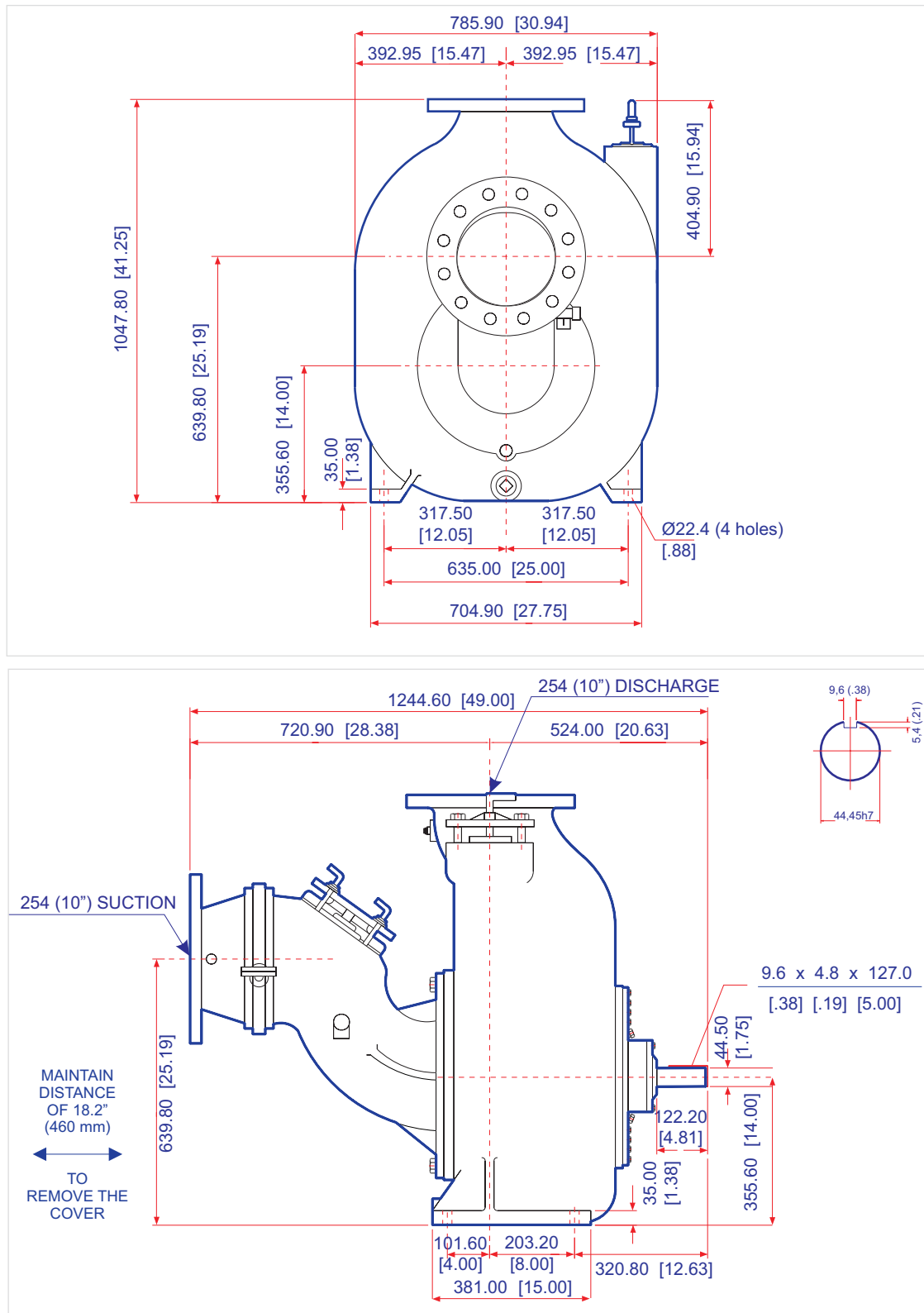
700 rpm 2,1m (7ft) - 800 rpm 3,4m (11ft)
 900 rpm 4,3m (14ft) - 1000rpm 5,2m (17ft)
 1100 rpm 5,5m (18ft) - 1200 rpm 5,5m (18ft)
 1300 rpm 5,8m (19ft) - 1400 rpm 6,7m (22ft)
 1500 rpm 6,7m (22ft)

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PUMP DIMENSIONAL DETAILS

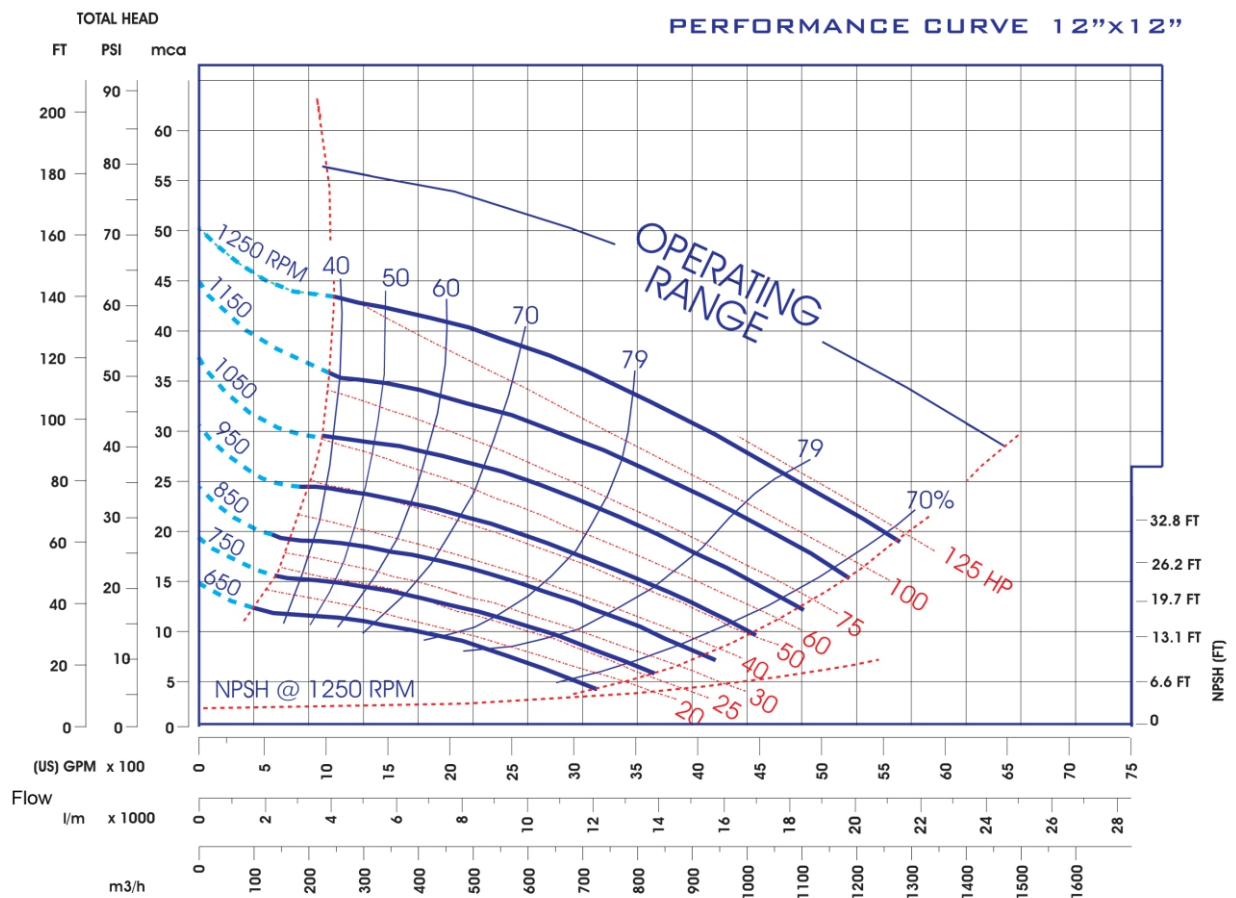


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PERFORMANCE DETAILS

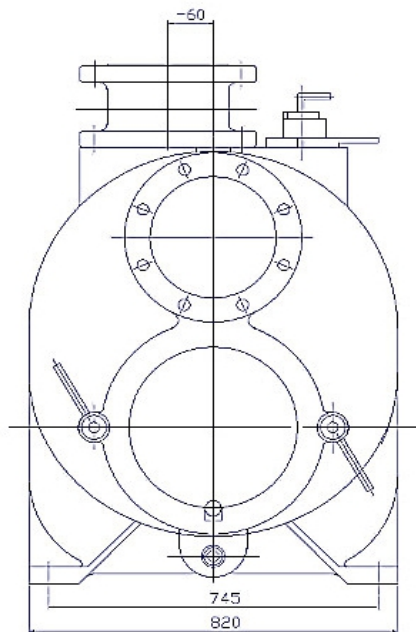
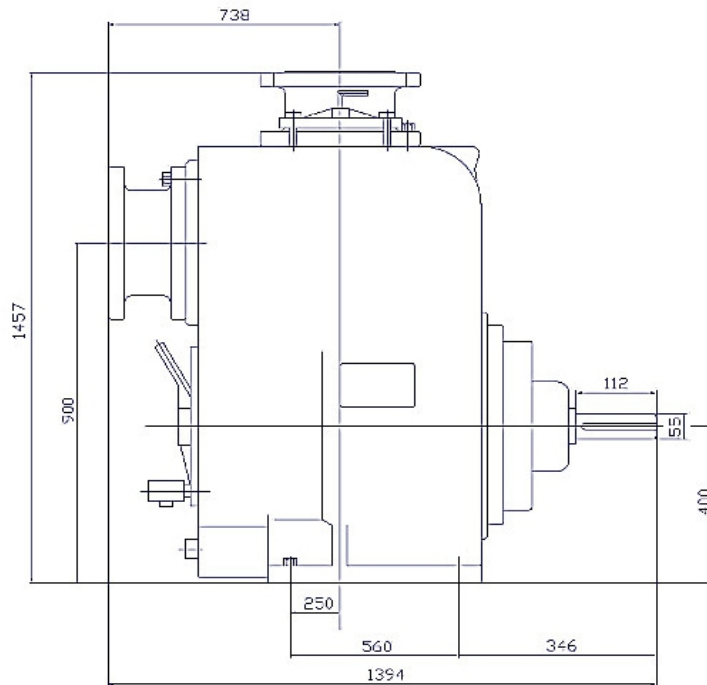
Model : ECN-300D

Size : 12" (300mm)
 Max. Capacity : 1275 m³/hr
 Max. Head : 42m
 Max. Solids : 76.2mm
 Materials of Construction : Cast Iron, Stainless Steel



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PUMP DIMENSIONAL DETAILS



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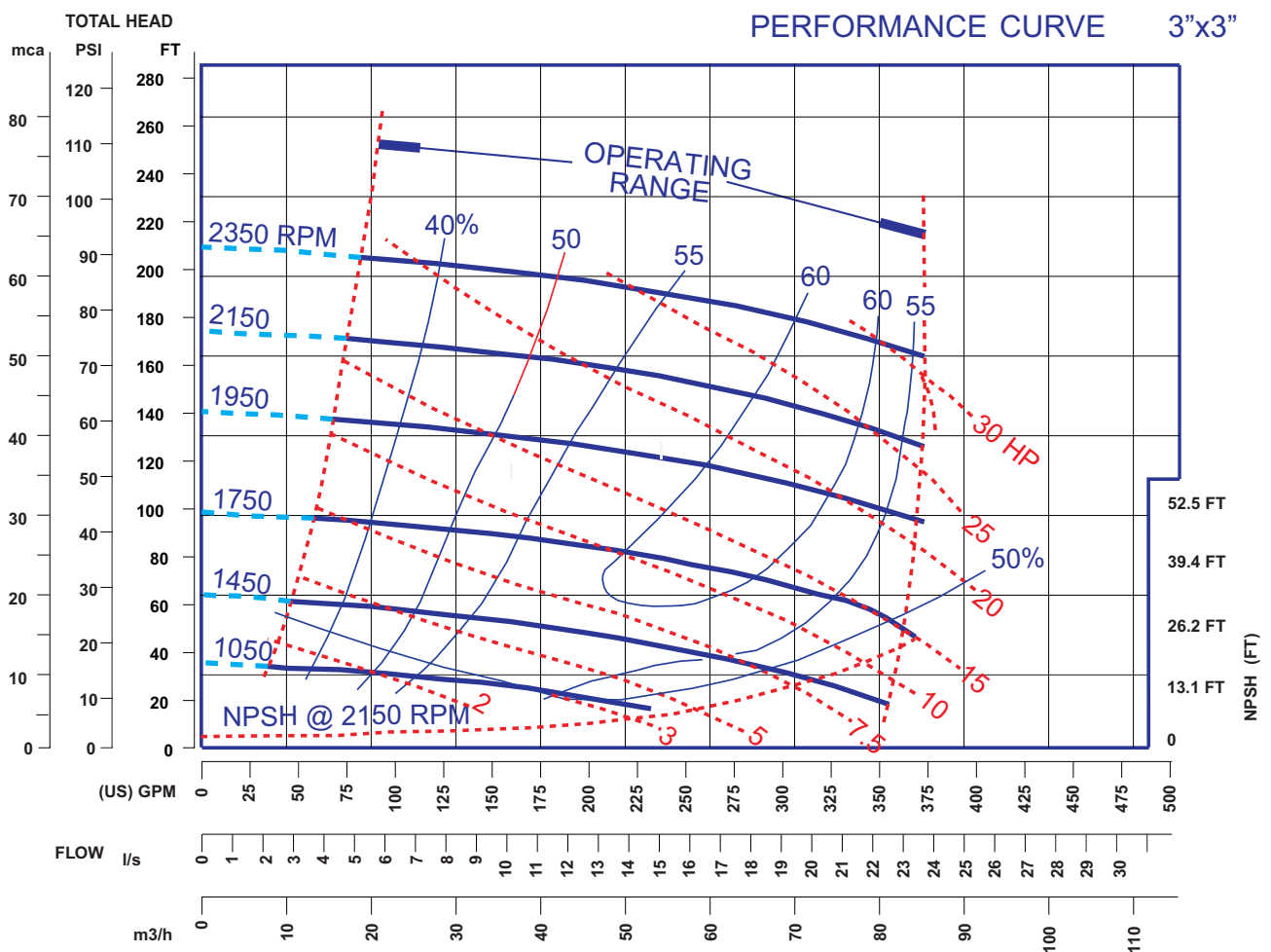
PERFORMANCE DETAILS

Model : ECN-80M

Net Weight : 214kg (472lbs)
 Shipping Weight : 225kg (497lbs)
 Impeller Dia. : 279,4mm (11")
 rpm : 850 to 2150
 Max. Solids : 20,63mm (13/16")

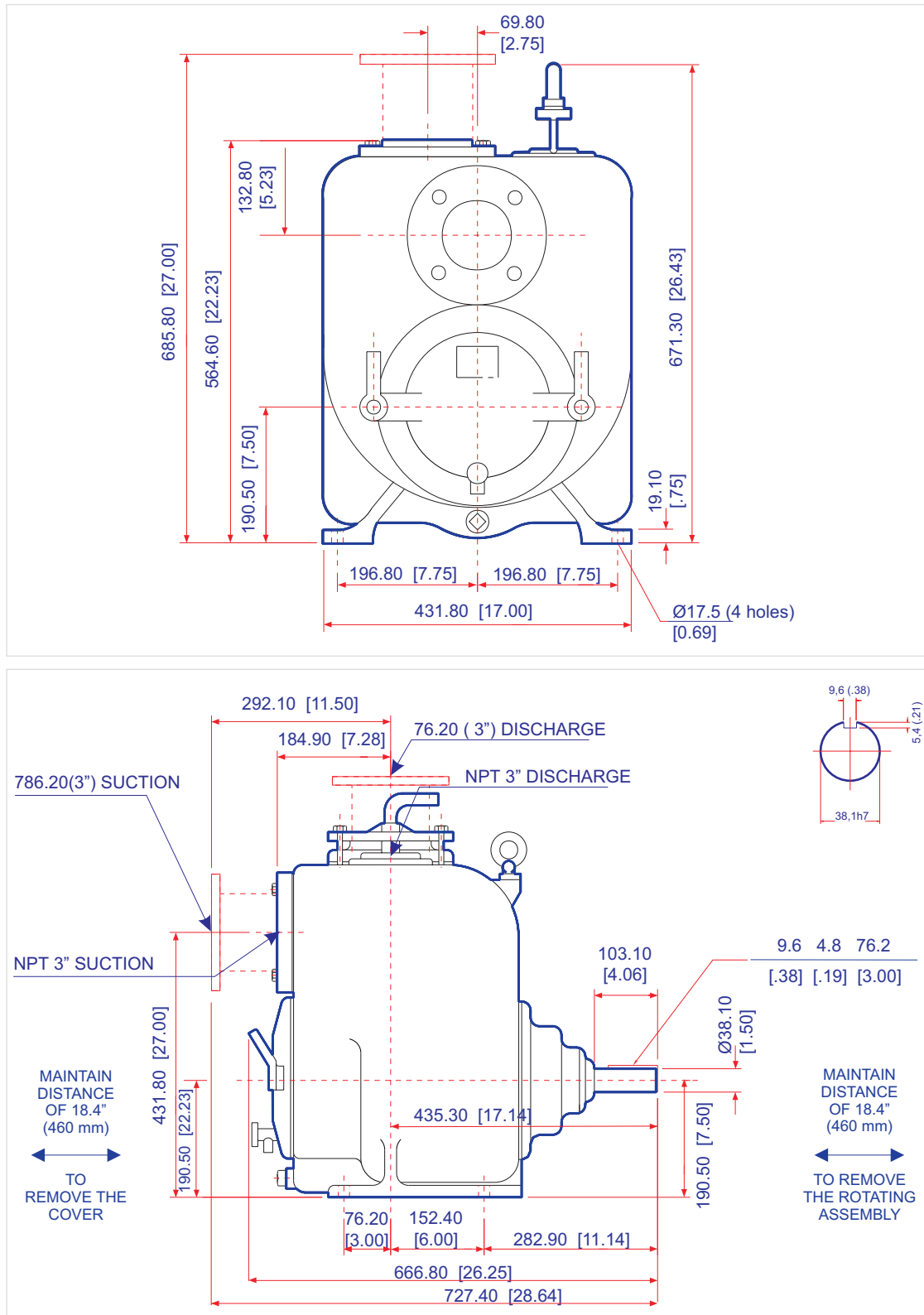
1000 rpm 2,3m (7ft) -1400 rpm 2,9m (9ft)
 1700 rpm 4,5m (15ft) -2000 rpm 7,6m (25ft)
 2100 rpm 7,6m (25ft) -2300 rpm 7,6m (23ft)

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PUMP DIMENSIONAL DETAILS



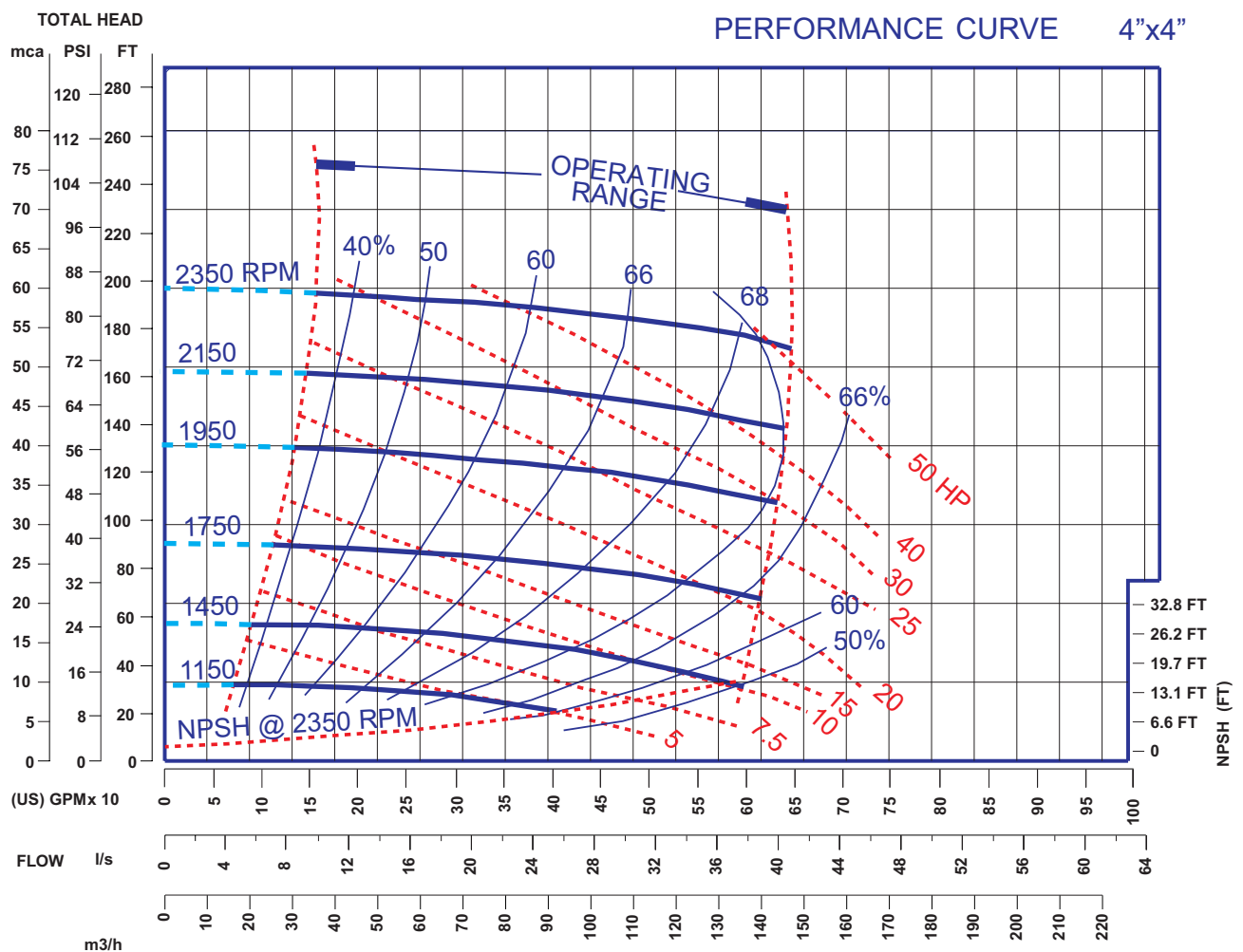
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PERFORMANCE DETAILS

Model : ECN-100M

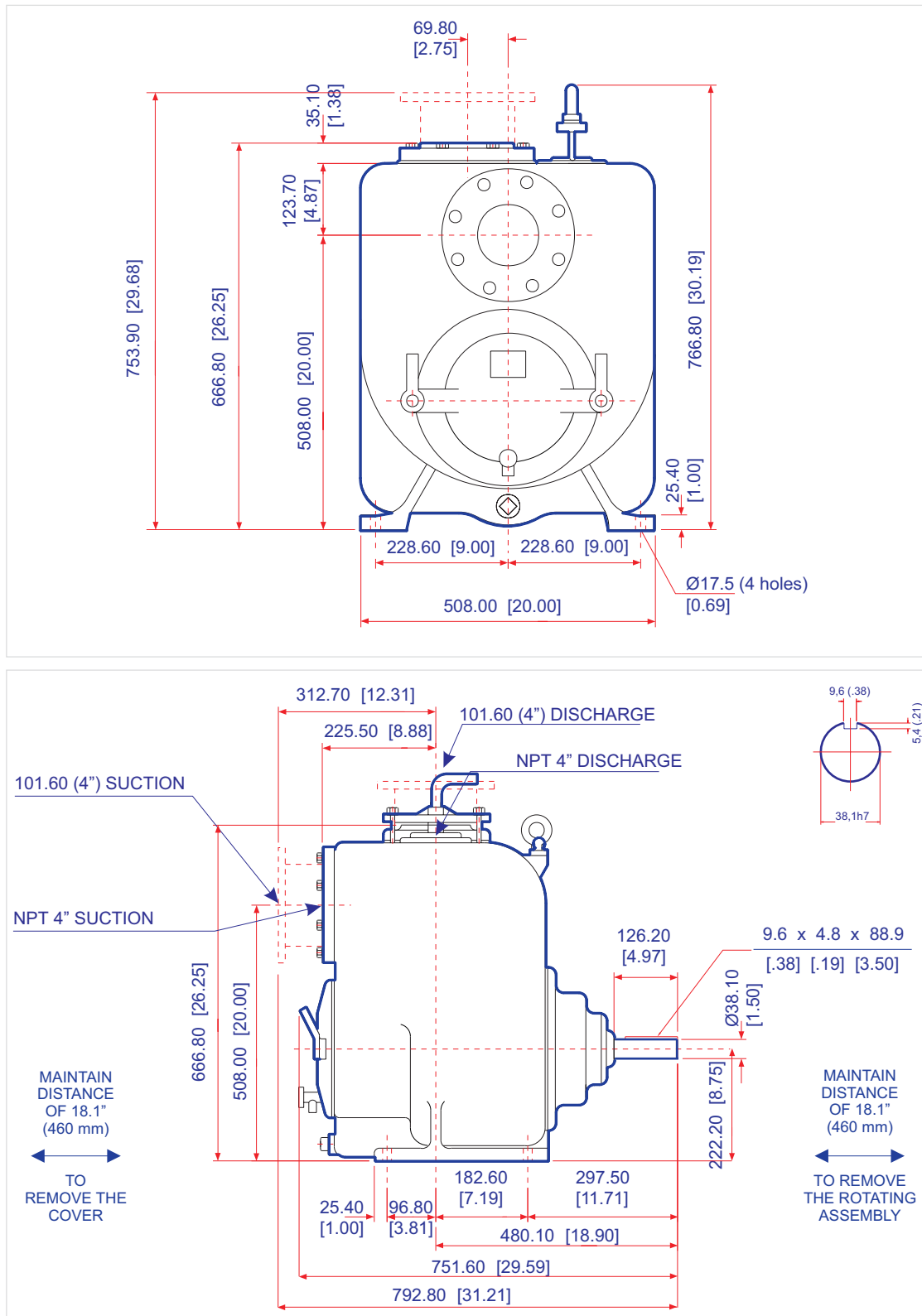
Net Weight : 272kg (600lbs)
 Shipping Weight : 297kg (655lbs)
 Impeller Dia. : 279,4mm (11")
 rpm : 850 to 2150
 Max. Solids : 28,57mm (1.1/8")

1100 rpm 2,4m (8ft) - 1400 rpm 3,0m (10ft)
 1700 rpm 3,6m (12ft) - 2000 rpm 3,9m (13ft)
 2100 rpm 4,5m (15ft) - 2300 rpm 5,2m (17ft)
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PUMP DIMENSIONAL DETAILS



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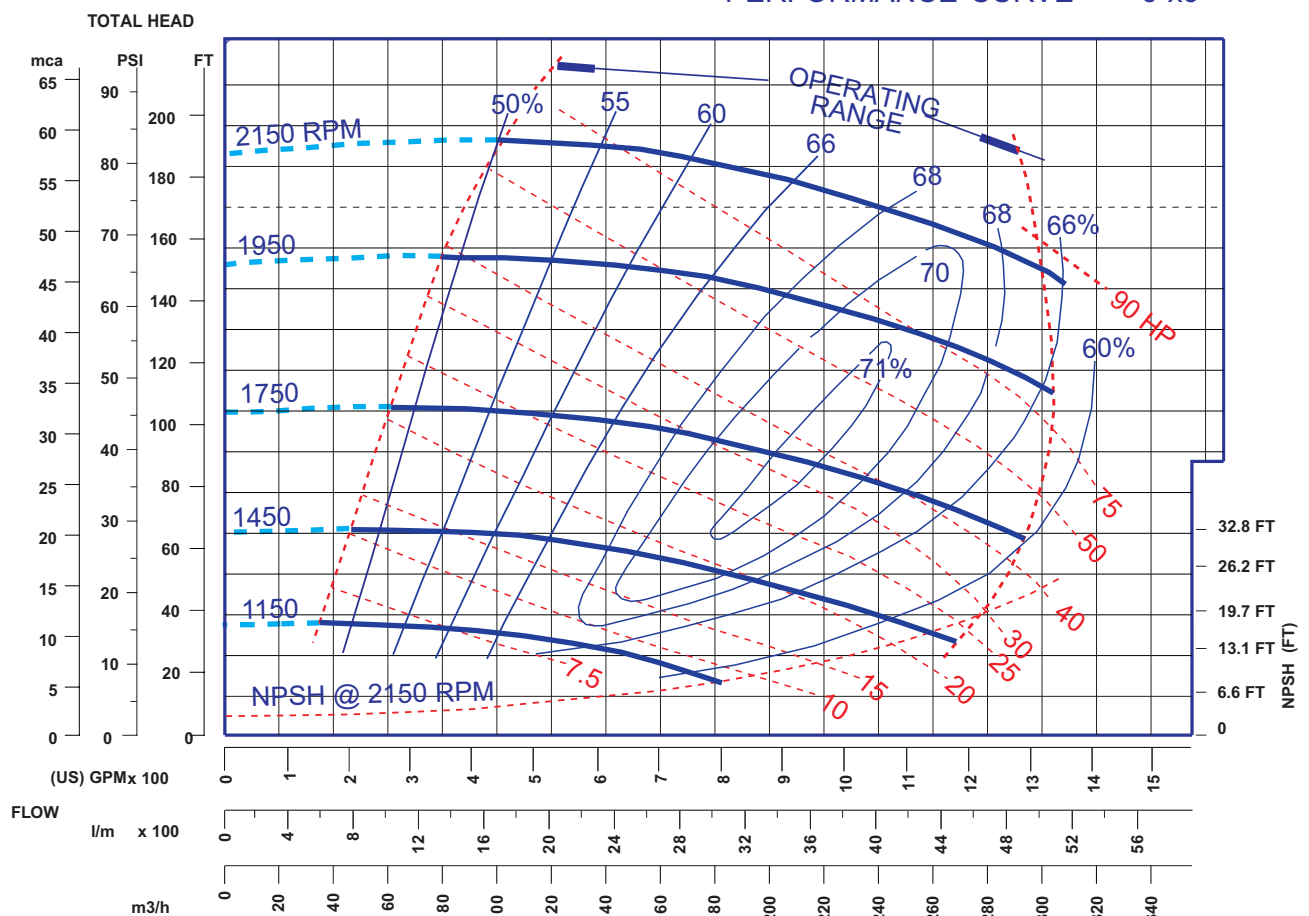
Model : ECN-150M

Net Weight : 413kg (910lbs)
 Shipping Weight : 437kg (965lbs)
 Impeller Dia. : 317,5mm (12.1/2")
 rpm : 850 to 1950
 Max. Solids : 31,75mm (1.1/4")

1100 rpm 2,4m (8ft) - 1400 rpm 3,0m (10ft)
 1700 rpm 4,2m (10ft) - 2000 rpm 4,5m (15ft)
 2100 rpm 4,5m (15ft)
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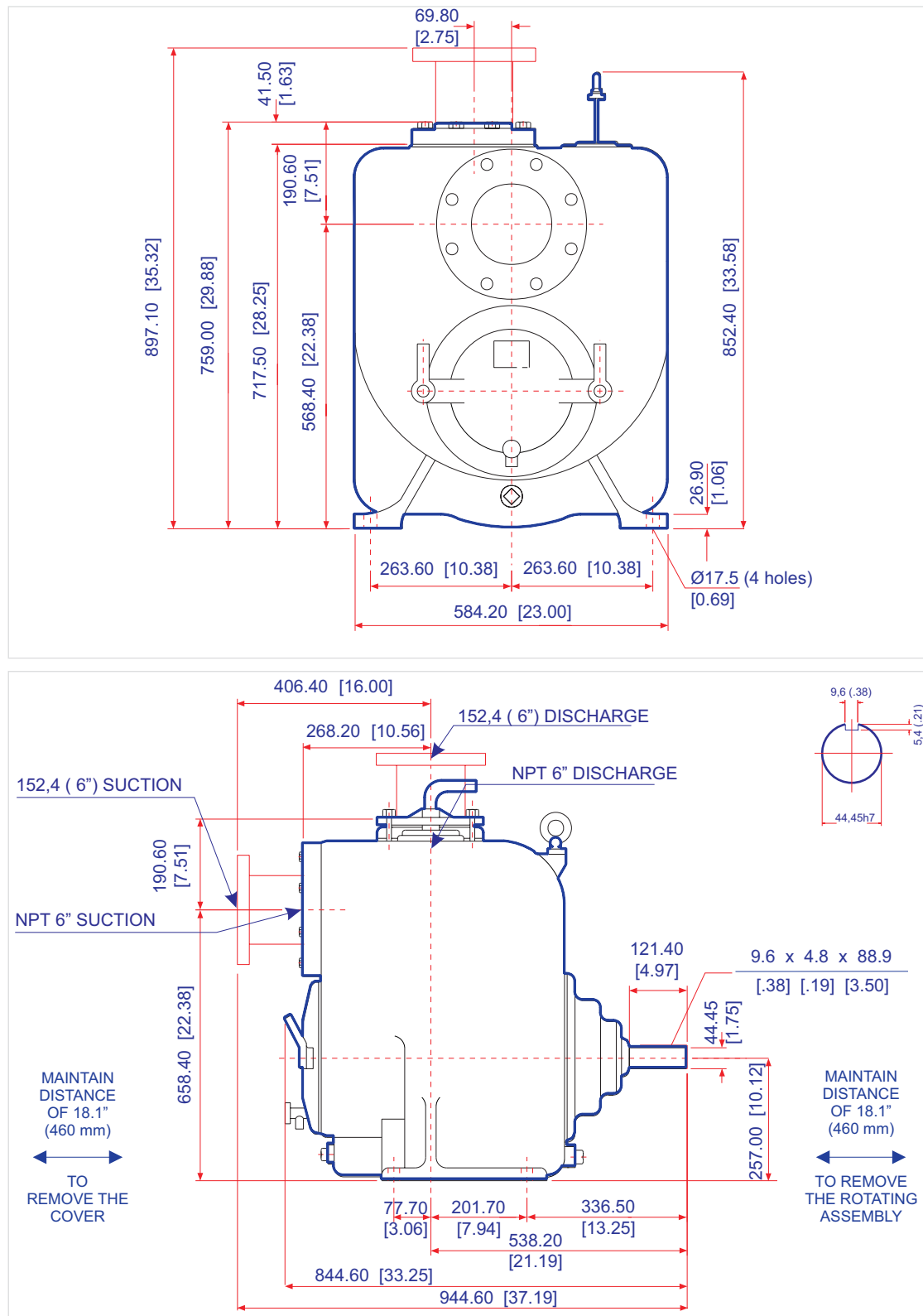


PERFORMANCE CURVE 6"x6"



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PUMP DIMENSIONAL DETAILS



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