

# Pearl<sup>®</sup> *Water Systems*

Centrifugal sprinkler water pump



# THOR



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### Centrifugal sprinkler water pump

#### Features

THOR is a self priming centrifugal pump. The pump was designed taking into consideration all the features needed to guarantee complete customer satisfaction, such as:

All components were designed to assure the best performance and reliability.

THOR's construction is it suitable for outdoor applications.

THOR is used in irrigation systems where high flow is important at pressures necessary for efficient irrigation. THOR also has applications in Air Conditioning, Water Recirculation, Residential Water Supply, Pressure Booster and many other applications.

Its construction makes THOR suitable for indoor and outdoor installations.

#### Applications

- Lifting water containing air or other gases
- Water recirculation
- Irrigation systems
- Lifting capability up to 25 ft.

#### Operating Conditions

- Liquid temperature: 32 °F - 150 °F
- Maximum working pressure: 125 PSI
- Continuous duty

#### Construction

- Closed coupled self-priming centrifugal pump
- High quality components for domestic water supply and irrigation in respect to low lead requirements
- Connections threaded ports NPT
- All hardware in Stainless Steel
- Pre-drilled priming port with plug
- Pre-drilled drain port with plug for maintenance
- U shape base on all models gives a complete full support to the pump

#### Motor

- Nema Standard ODP 56J motors for much cooler surface temperature
- Thermal overload protection
- Permanent Split Capacitor (PSC) without centrifugal switch for the 1 - 1½ - 2 Hp versions
- Front bearing 6204 for much longer life span
- All copper winding
- Class F Dupont Nomex Insulation System, cCSAus approved
- Single phase, 115/230V for 1 - 1½ Hp models
- Single phase, 230 V for 2 Hp models
- Easy voltage conversion for 1 - 1½ Hp models
- Maximum ambient temperature: 40 °C (104 °F)



#### Technical Data

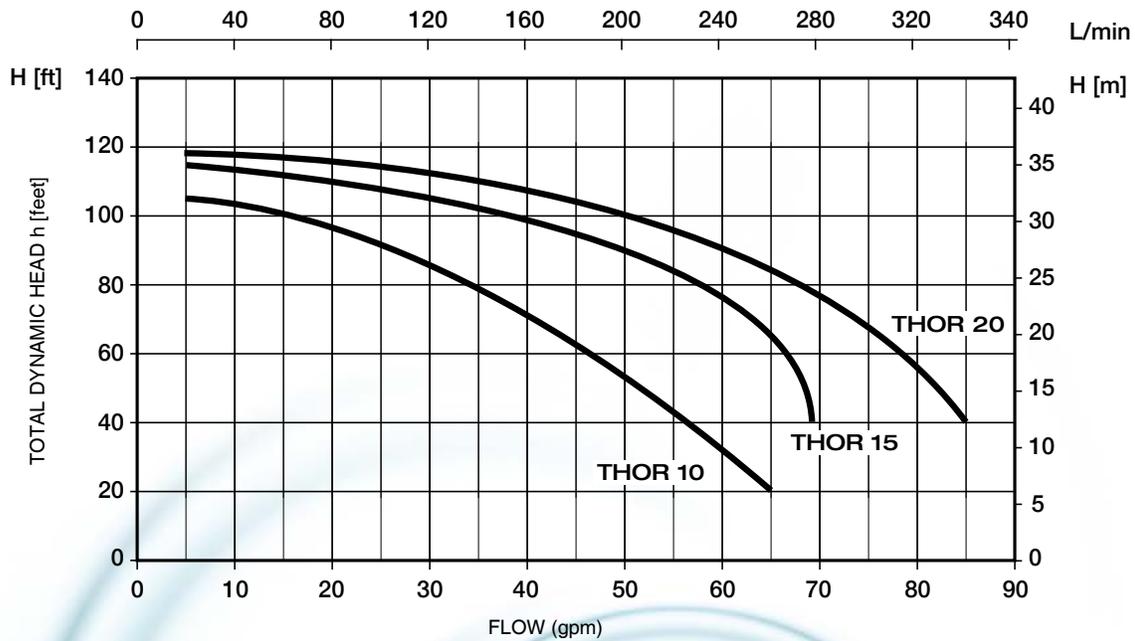
| MODEL   | HP  | VOLT    | PHASE | MAX. AMP | SUCT.  | DISCH. |
|---------|-----|---------|-------|----------|--------|--------|
| THOR 10 | 1   | 115/230 | 1     | 16.6/8.3 | 1 1/2" | 1 1/2" |
| THOR 15 | 1.5 | 115/230 | 1     | 21/10.5  | 1 1/2" | 1 1/2" |
| THOR 20 | 2   | 230     | 1     | 11.8     | 1 1/2" | 1 1/2" |

#### Materials

| COMPONENT       | MATERIAL  |
|-----------------|---|
| PUMP CASING     | CAST IRON   |
| IMPELLER        | PPE + PS, INCLUDING SS304 INSERTS                   |
| DIFFUSER        | PP, VOLUTE WITH SS304 WEAR RING                     |
| SHAFT           | STAINLESS STEELS AISI 304 + 40CR                    |
| MECHANICAL SEAL | SIC/SUS316/EPDM, SILICON CARBIDE VS. GRAPHITE FACES |

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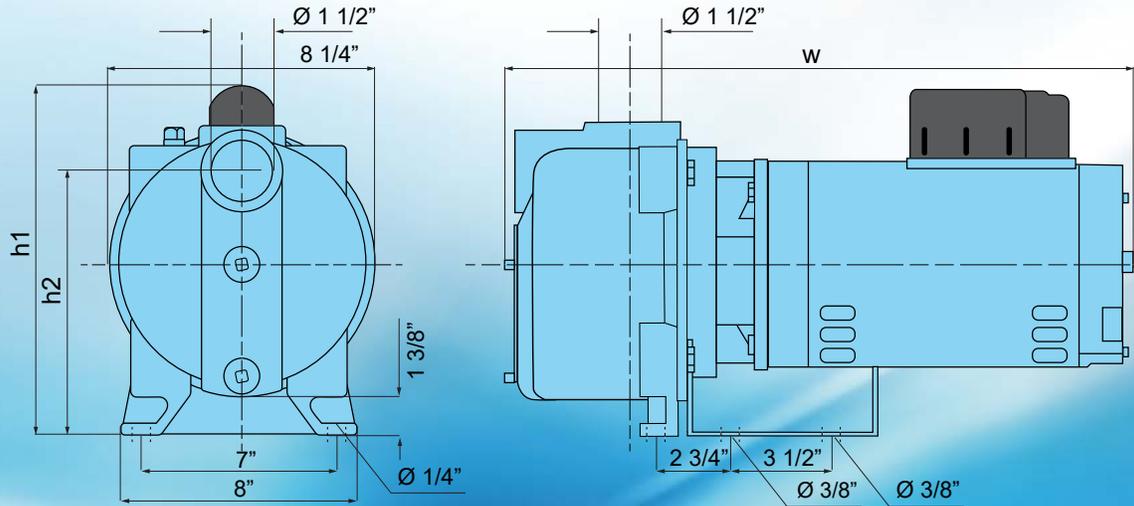
## Performance Curves | n = 3450 rpm



| MODEL   | HP  | SUCTION LIFT DEPTH (feet) | DISCHARGE PRESSURE - PSI |    |    | MAX SHUT - OFF PSI |
|---------|-----|---------------------------|--------------------------|----|----|--------------------|
|         |     |                           | 20                       | 30 | 40 |                    |
|         |     |                           | FLOW US GPM              |    |    |                    |
| THOR 10 | 1.0 | 0                         | 54                       | 41 | 25 | 46                 |
|         |     | 5                         | 51                       | 39 | 22 | 44                 |
|         |     | 10                        | 50                       | 34 | 19 | 40                 |
|         |     | 15                        | 46                       | 32 | 10 | 39                 |
|         |     | 20                        | 42                       | 26 | 8  | 38                 |
|         |     | 25                        | 38                       | 23 |    | 34                 |
| THOR 15 | 1.5 | 0                         | 68                       | 64 | 48 | 49                 |
|         |     | 5                         | 62                       | 58 | 45 | 48                 |
|         |     | 10                        | 60                       | 55 | 38 | 46                 |
|         |     | 15                        | 55                       | 51 | 33 | 44                 |
|         |     | 20                        | 48                       | 46 | 20 | 43                 |
|         |     | 25                        | 39                       | 37 | 10 | 41                 |
| THOR 20 | 2.0 | 0                         | 83                       | 73 | 60 | 51                 |
|         |     | 5                         | 82                       | 71 | 52 | 48                 |
|         |     | 10                        | 80                       | 68 | 47 | 47                 |
|         |     | 15                        | 77                       | 65 | 45 | 45                 |
|         |     | 20                        | 70                       | 60 | 32 | 44                 |
|         |     | 25                        | 65                       | 55 | 18 | 42                 |

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### Pump Dimensions

| MODEL   | SUCTION | DISCHARGE | DIMENSIONS |        |         | WEIGHT |
|---------|---------|-----------|------------|--------|---------|--------|
|         | DN      | DN        | h1         | h2     | w       | lbs    |
| THOR 10 | 1 1/2"  | 1 1/2"    | 10 1/8"    | 7 3/4" | 20 1/8" | 60     |
| THOR 15 | 1 1/2"  | 1 1/2"    | 10 1/8"    | 7 3/4" | 20 1/8" | 64     |
| THOR 20 | 1 1/2"  | 1 1/2"    | 10 1/8"    | 7 3/4" | 20 1/8" | 65     |

### Packaging Dimensions

| MODEL   | L       | W       | H       | WEIGHT |
|---------|---------|---------|---------|--------|
|         | inch    | inch    | inch    | lbs    |
| THOR 10 | 22 1/2" | 11 3/4" | 12 3/4" | 66     |
| THOR 15 | 22 1/2" | 11 3/4" | 12 3/4" | 70     |
| THOR 20 | 22 1/2" | 11 3/4" | 12 3/4" | 71     |

