

IN-LINE SERIES BOOSTER PUMPS

Cast Iron and Stainless Steel Booster Pumps

These heavy duty booster pumps are built for various flow rates at high heads, and designed to be whisper quiet.

The quality and performance you expect, along with industry best lead times and personalized service, only from Webtrol!



Features and Benefits

- Designed for various flow ranges at high heads
- Heavy duty, stainless steel cold drawn pump shaft
- High strength thermo-plastic impellers/diffusers
- Water cooled submersible motor for smooth, efficient and quiet operation

Typical Services

- Reverse Osmosis
- Deionization
- Car Wash
- Washdown
- Booster Lift Station
- Industrial
- Agricultural

Performance

HP: 5 HP, 60Hz.

Capacities to 40 GPM

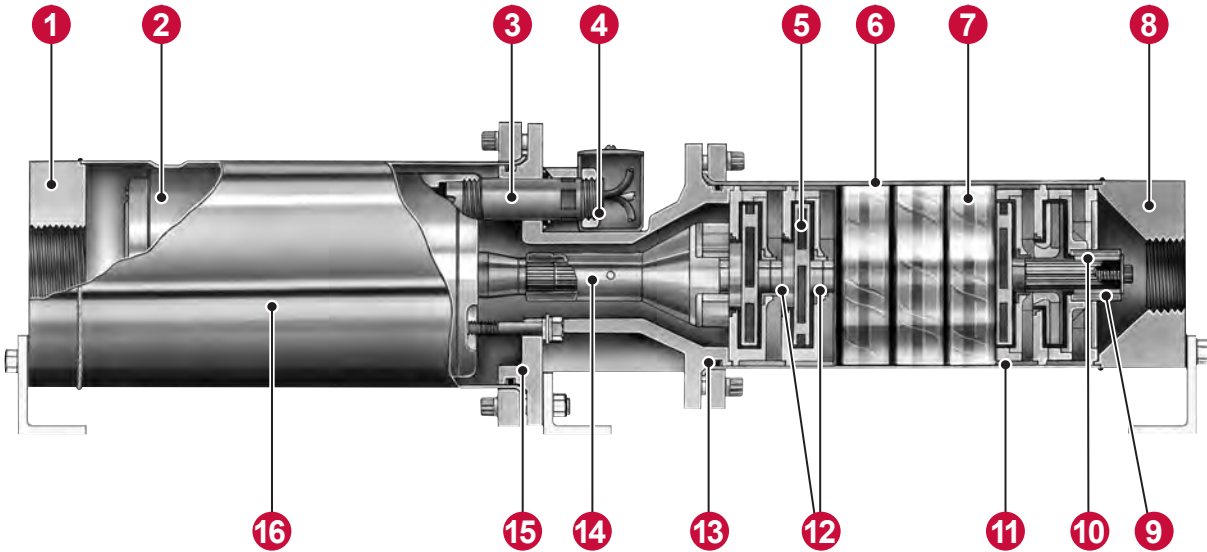
Pressures to 500 PSI

Temperatures to 122 °F

IN-LINE Series

IN-LINE SERIES BOOSTER PUMP

Construction & Design Features



| CONSTRUCTION MATERIALS | | |
|------------------------|---------------|-----------------|
| Part | Cast Iron | Stainless Steel |
| Inlet/Motor Bracket | Cast Iron | Cast 316 SS |
| Discharge | 316 SS | 316 SS |
| Pump Housing | 304 SS Tubing | 316 SS Tubing |
| Motor Housing | 316 SS | 316 SS |
| Inlet | Steel | 316 SS |
| Motor | 316 SS | 316 SS |
| Impellers | Noryl® | Noryl® |
| Diffusers | Noryl® | Noryl® |
| Wear Rings | 316 SS | 316 SS |
| Shaft & Coupling | Steel | 316 SS |
| Shaft Sleeve & Bearing | Steel | 316 SS |
| Shaft Bearing | Bronze | Rulon® |
| O-Rings | Viton™ | Viton™ |

NOTE: A 60-80 GPM pump is shown, although a 5-35 GPM pumps are similar and have the same design features. Consult the service manual for repair parts illustrations.

IN-LINE SERIES BOOSTER PUMP

Construction & Design Features

IN-LINE Series

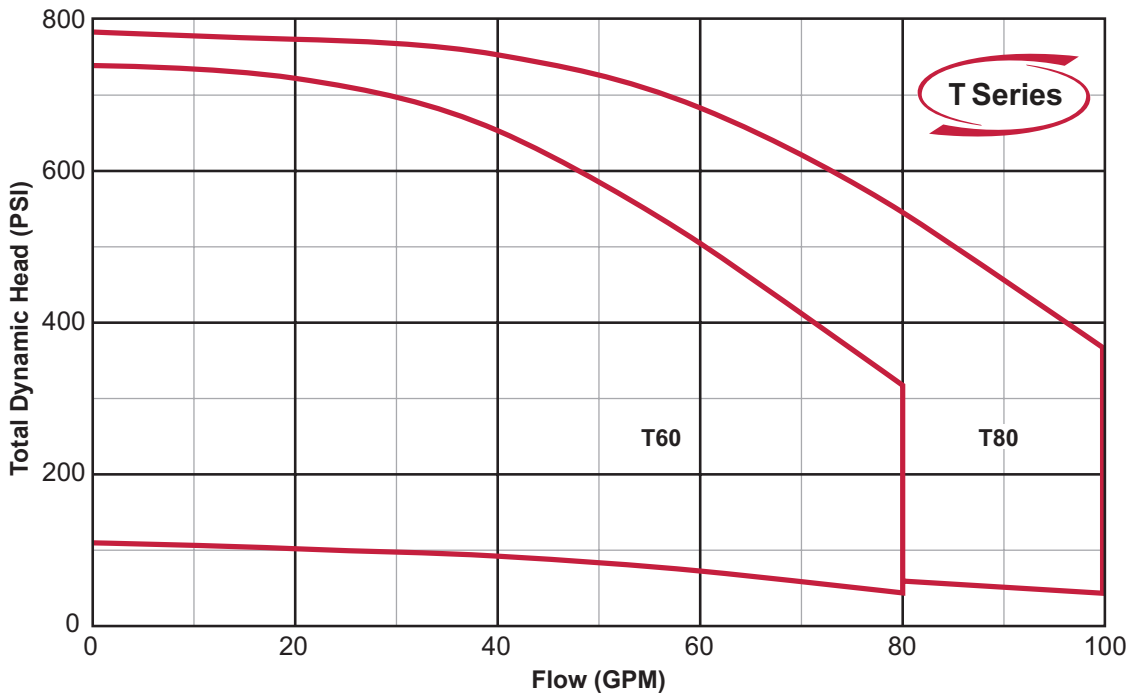
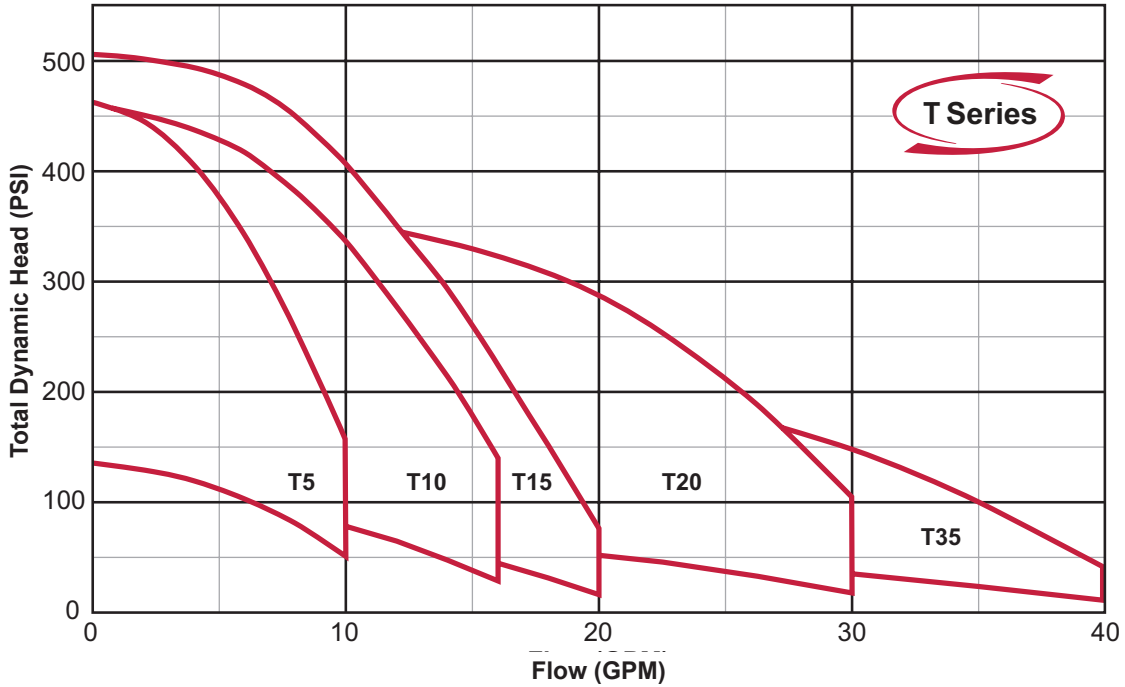
- 1 Inlet** - Heavy-duty 316 SS with NPT connection is standard. Flange, sanitary, and victaulic fittings are available upon request. Maximum inlet pressure is 250 PSIG. Minimum inlet pressure is 2 PSIG because allowable motor temperature is based upon having at least atmospheric pressure on the water surrounding the motor. (optional steel construction available).
- 2 Motor** - Standard on 316 stainless steel In-Line Series Boosters are 316 SS continuous duty submersible motors (other options are available). These motors run extremely quiet due to the fact that they operate submerged in water. A Kingsbury pivoting shoe bearing is used to support the pump thrust load. Since, the bearing and motor are water lubricated, eliminating the need for mechanical seals. Motors are available in single or three phase, 60 cycle, and three phase 50 cycle. Motor will handle inlet water temperature up to 95 °F, however water temperature up to 122 °F can be used if the motor is derated.
- 3 Wiring** - Motor wiring is not contacted by the feed-water, therefore the motor cannot short out from breaks in the wiring insulation caused by chemical attack. Wiring connections are made with wire nuts contained inside a conduit box.
- 4 Up-Thrust Bearing** - The Rulon® upthrust bearing protects the pump from damage during startup.
- 5 Impellers** - Impellers are Noryl® polyphenylene oxide thermoplastic. The centrifugal design delivers a steady, pulse free flow with minimal noise and wear. All thermoplastic pump components are injection molded at Weber Industries to insure the strictest of "Quality Control Standards".
- 6 Pump Housing** - The 304/316 SS pump housing is bolted, not threaded to the motor bracket. Since, it is not enclosed by another tube, maintenance and priming is easy. Prior to servicing, the wiring and cord seal do not have to be disconnected nor does the pump and motor have to be pulled out of a tube. Air or stagnant pockets of water cannot be trapped near the discharge and delay priming.
- 7 Rotating Assembly** - The entire rotating assembly is easily removed by simply unbolting the pump housing from the motor bracket, and removing it. Then remove the rotating assembly by slipping it off the motor shaft.
- 8 Discharge** - Rugged heavy-duty 316 SS with NPT connection is standard. Flange and sanitary, fittings are available upon request. Maximum working pressure is 1000 PSIG for the 60 and 80 GPM series and 750 PSIG for the 5 thru 35 GPM series. Ease of removal is guaranteed by the welded discharge/tube assembly (optional steel construction available).
- 9 Top Shaft Sleeve and Bearing** - 316 SS shaft sleeve is water lubricated and runs in a Rulon® bearing that is molded into the top diffuser then machined to close concentricity and bore tolerances. Longer pumps use several intermediate bearings to reduce shaft deflections.
- 10 Shaft** - 316 SS shaft is cold drawn and straightened to tight tolerances to eliminate shaft whip and resulting vibration.
- 11 Diffusers** - Diffuser assemblies molded of Noryl® polyphenylene oxide thermoplastic are assembled using concentric rabbit fits. Inside the pump housing, they are compressed to prevent interstage leakage and loss of pressure which improves efficiency.
- 12 Impeller Wear Rings** - 316 SS stamped wear rings are insert molded into each diffuser at both the suction and discharge side to eliminate plastic on plastic contact and maintain tight clearances for low leakage and high efficiency. O-Rings - Viton™
- 13 "O" Rings** are used throughout for resistance to aggressive high purity water.
- 14 Coupling** - The 316 SS coupling of this pump is rugged and simple. It is pressed onto the pump shaft, pinned, and splined to correctly fit the motor shaft. This design insures reliable operation and long life. Set screws are not necessary so assembly is simplified.
- 15 Motor/Pump Bracket** - 316 SS motor bracket is standard (steel is available). This is precision investment casting, machined for perfect alignment of the motor shaft with pump shaft coupling. Ribbing adds strength and stiffness for horizontal mounting.
- 16 Motor Housing** - The 316 SS motor housing is designed to provide a minimum water velocity past 4" motors of 0.25 ft/sec (3 GPM). These minimum flow rates will prevent premature motor failure. This motor heated feedwater tends to improve the efficiency of RO membranes. Dimples in the highly polished housing located close to the inlet assist in supporting the motor.



There when you need us most

IN-LINE Series

IN-LINE SERIES FAMILY CURVES

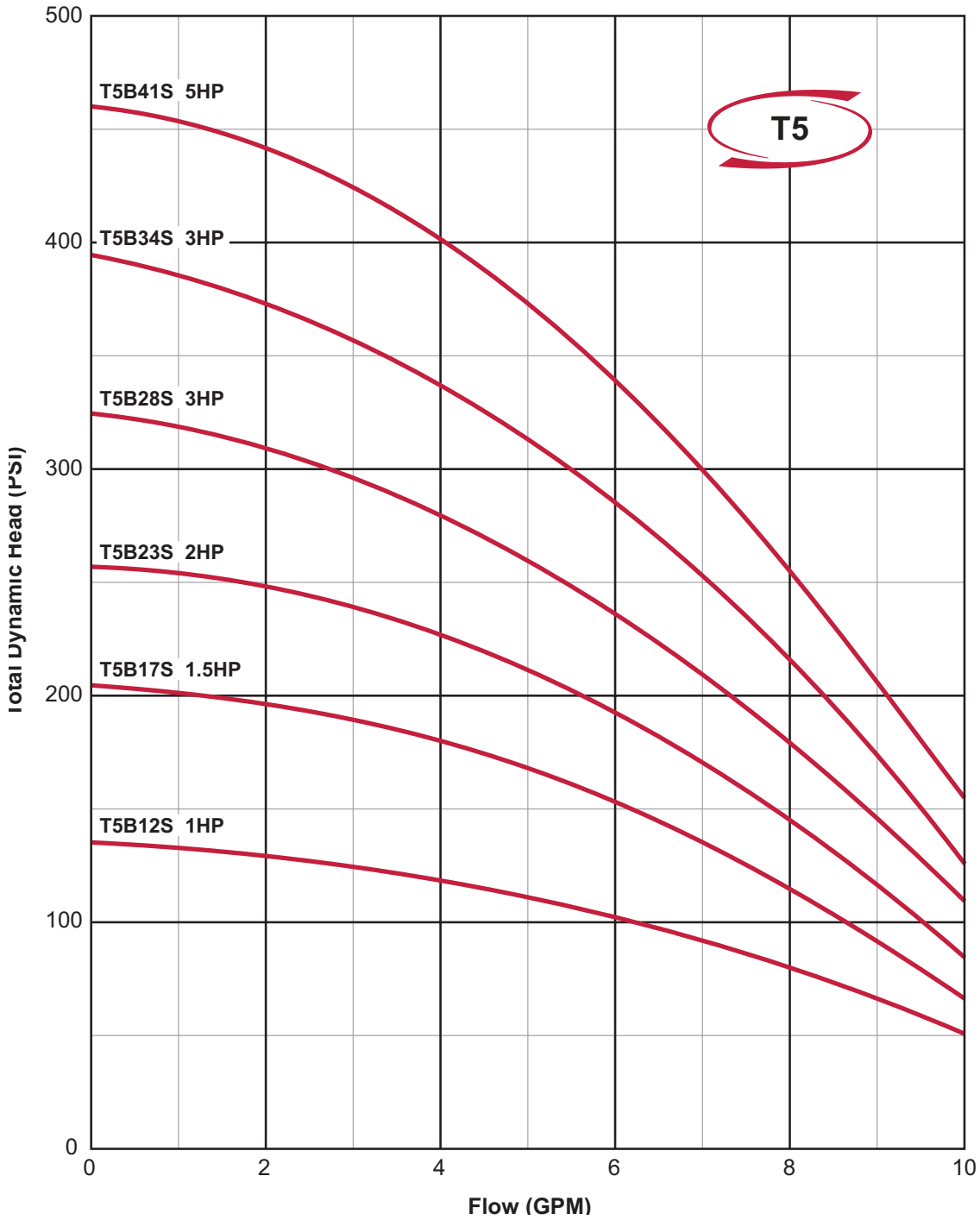




There when you need us most

IN-LINE T5 SERIES GROUP CURVES

IN-LINE
Series

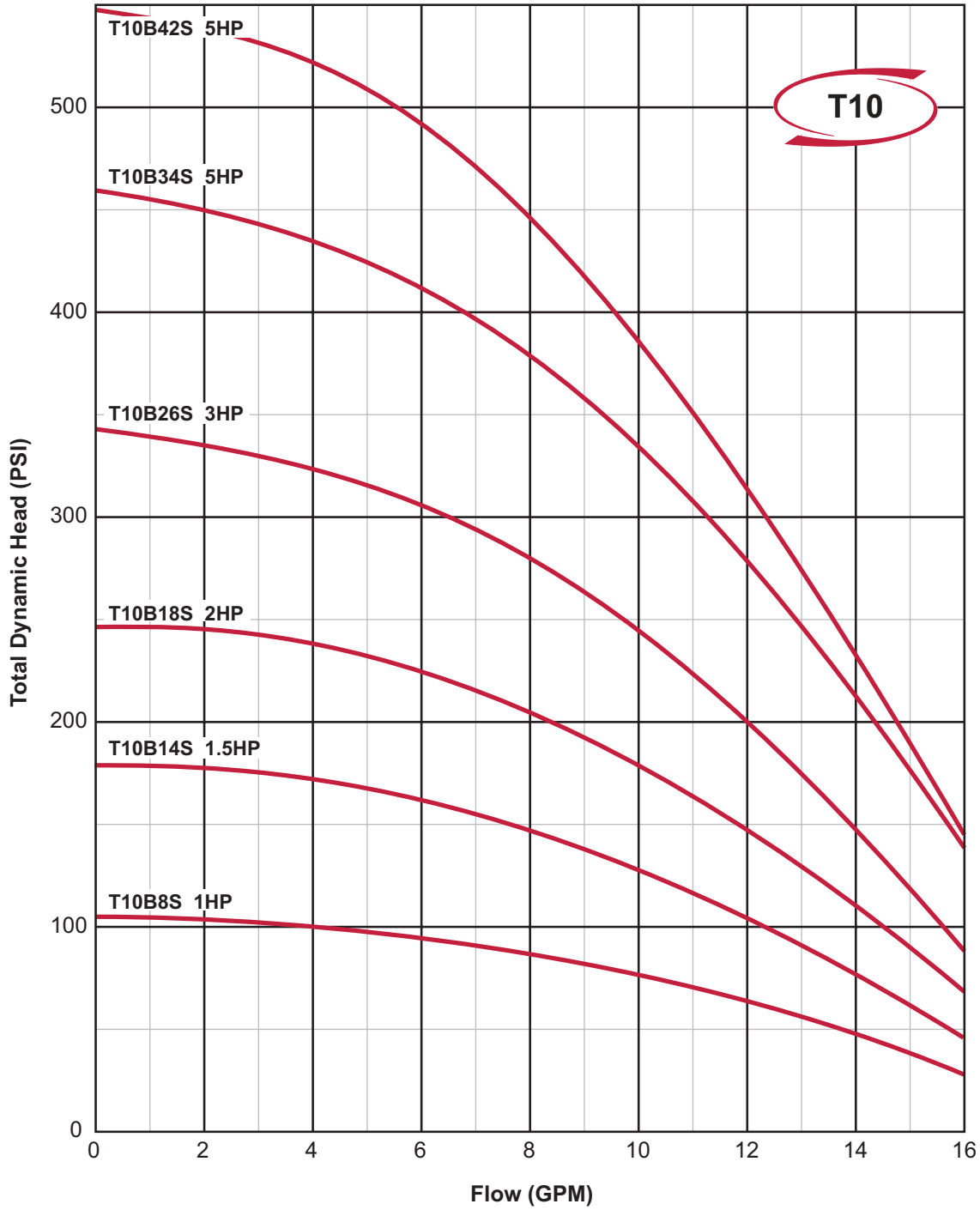




There when you need us most

IN-LINE Series

IN-LINE T10 SERIES GROUP CURVES

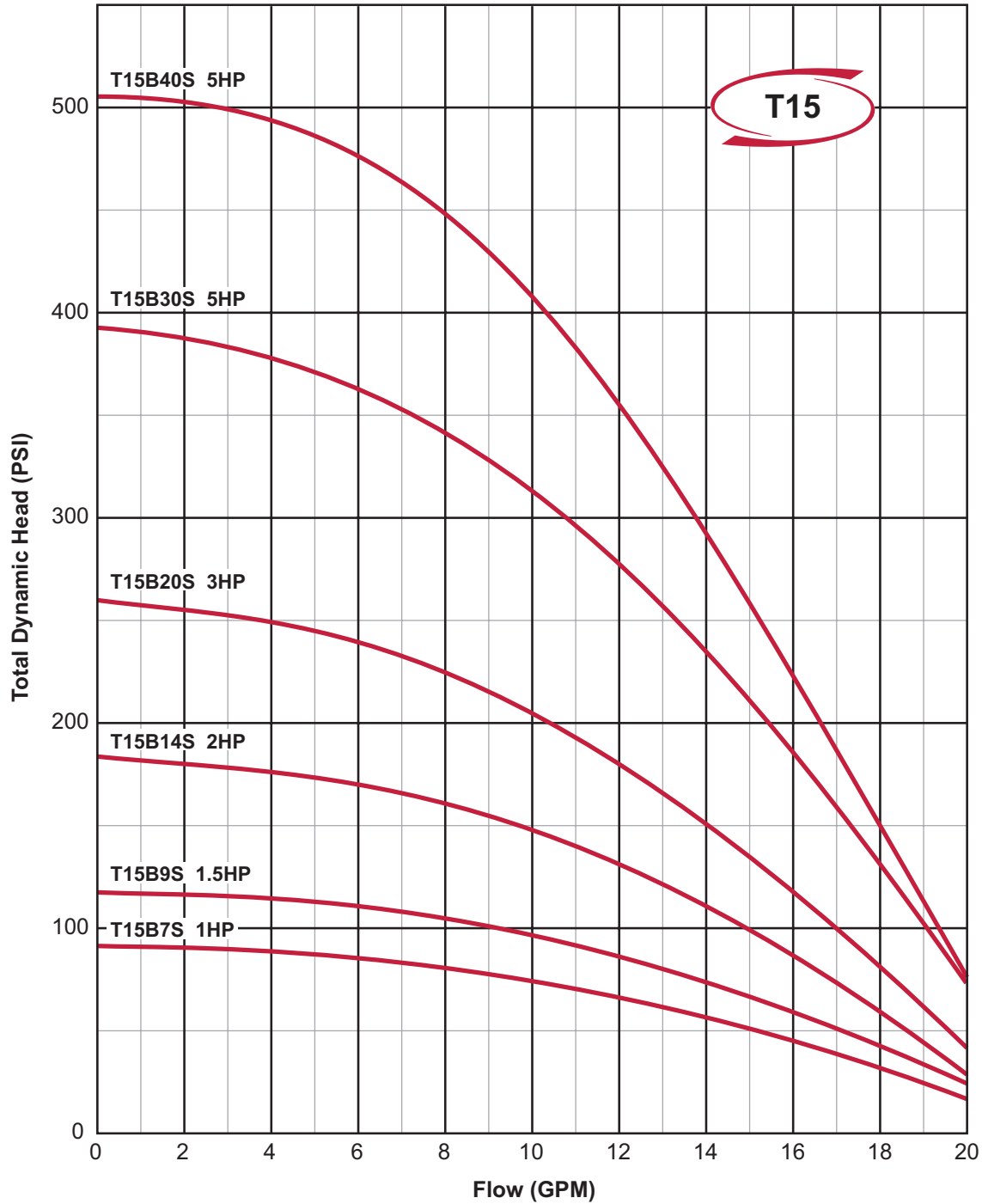




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IN-LINE T15 SERIES GROUP CURVES

IN-LINE
Series

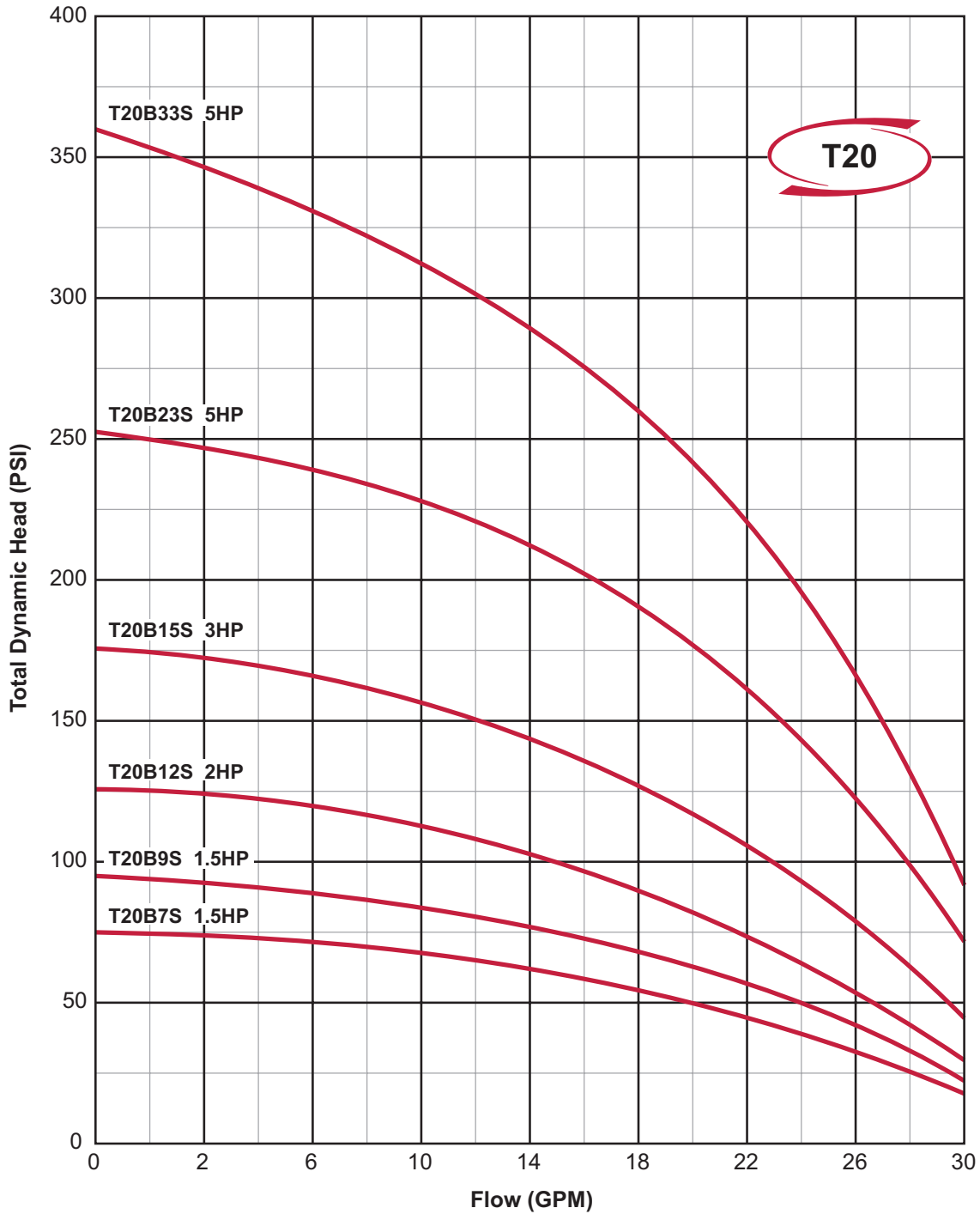




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IN-LINE Series

IN-LINE T20 SERIES GROUP CURVES

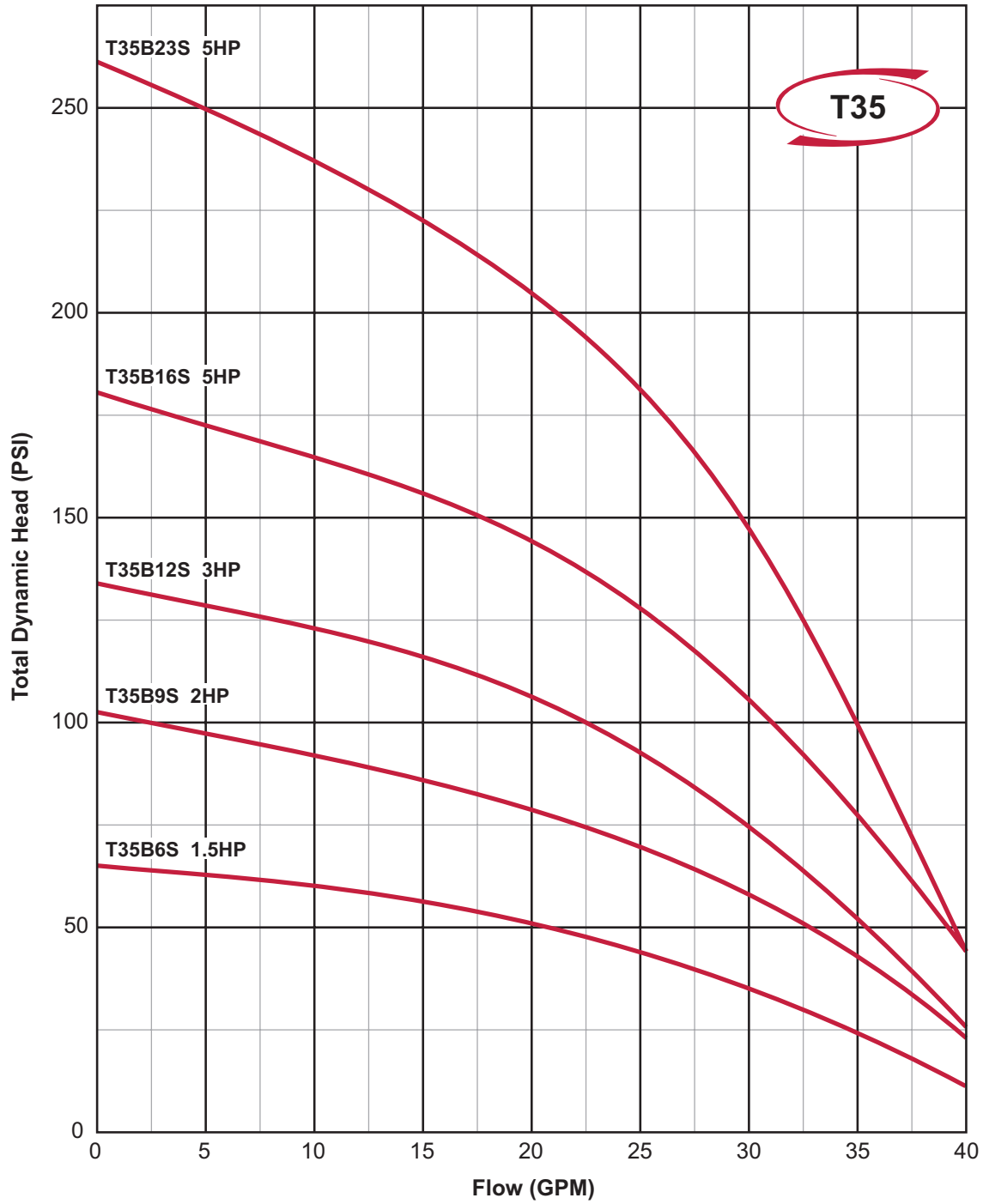




There when you need us most

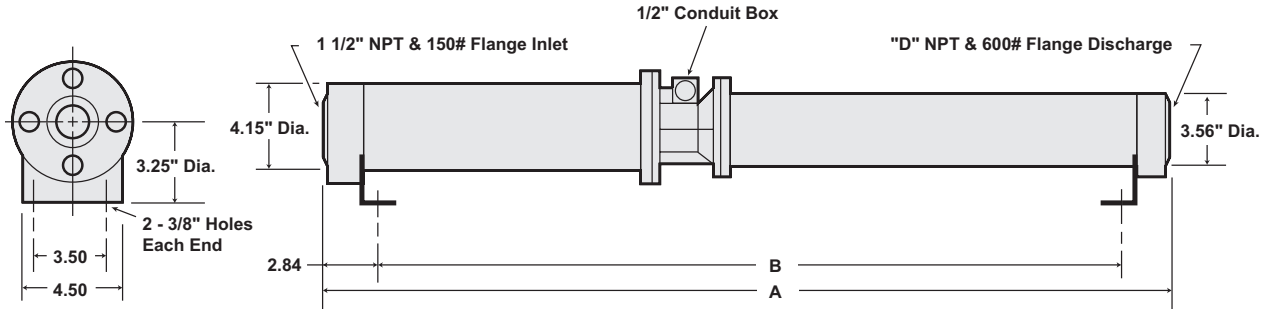
IN-LINE T35 SERIES GROUP CURVES

IN-LINE
Series



IN-LINE Series

IN-LINE SERIES DIMENSIONS 5, 10, 15, 20 & 35 Series



| Model No. | HP | A | | B | | C | D | Pump Weight (lbs) | |
|-----------|-----|---------|---------|---------|---------|-------|-------|-------------------|---------|
| | | 1 Phase | 3 Phase | 1 Phase | 3 Phase | | | 1 Phase | 3 Phase |
| T5B12S | 1 | 33.8 | 32.8 | 29.0 | 28.0 | 5.0 | 1 | 75 | 73 |
| T5B17S | 1.5 | 45.9 | 44.8 | 41.1 | 40.0 | 5.0 | 1 | 83 | 81 |
| T5B23S | 2 | 53.8 | 52.3 | 49.0 | 47.5 | 5.0 | 1 | 91 | 90 |
| T5B28S | 3 | 61.3 | 58.4 | 56.0 | 53.6 | 5.0 | 1 | 104 | 95 |
| T5B34S | 3 | 67.8 | 64.9 | 63.0 | 60.1 | 5.0 | 1 | 109 | 100 |
| T5B41S | 5 | 80.2 | 74.2 | 75.4 | 69.4 | 5.0 | 1 | 131 | 115 |
| T10B8S | 1 | 30.0 | 29.3 | 25.5 | 24.5 | 5.0 | 1 | 74 | 72 |
| T10B14S | 1.5 | 42.6 | 41.5 | 37.8 | 36.7 | 5.0 | 1 | 82 | 80 |
| T10B18S | 2 | 48.8 | 47.3 | 44.0 | 42.5 | 5.0 | 1 | 90 | 89 |
| T10B26S | 3 | 60.2 | 57.4 | 55.4 | 52.6 | 5.0 | 1 | 103 | 94 |
| T10B34S | 5 | 74.8 | 68.8 | 70.0 | 64.0 | 5.0 | 1 | 129 | 113 |
| T10B42S | 5 | 82.4 | 76.4 | 77.6 | 71.6 | 5.0 | 1 | 132 | 116 |
| T15B7S | 1 | 29.8 | 28.8 | 25.0 | 24.0 | 5.0 | 1 | 74 | 72 |
| T15B9S | 1.5 | 38.4 | 37.3 | 33.6 | 32.5 | 5.0 | 1 | 80 | 78 |
| T15B14S | 2 | 46.0 | 44.5 | 41.2 | 39.7 | 5.0 | 1 | 82 | 80 |
| T15B20S | 3 | 54.9 | 52.0 | 50.1 | 47.2 | 5.0 | 1 | 101 | 92 |
| T15B30S | 5 | 72.0 | 66.0 | 67.2 | 61.2 | 5.0 | 1 | 127 | 111 |
| T15B40S | 5 | 83.1 | 77.1 | 78.3 | 72.3 | 5.0 | 1 | 131 | 115 |
| T20B7S | 1.5 | 37.8 | 36.6 | 33.2 | 32.1 | 5 3/4 | 1 1/2 | 77 | 75 |
| T20B9S | 1.5 | 40.2 | 39.1 | 35.7 | 34.6 | 5 3/4 | 1 1/2 | 79 | 77 |
| T20B12S | 2 | 46.7 | 45.2 | 42.2 | 40.7 | 5 3/4 | 1 1/2 | 81 | 79 |
| T20B15S | 3 | 53.3 | 50.4 | 48.7 | 45.9 | 5 3/4 | 1 1/2 | 100 | 91 |
| T20B23S | 5 | 70.5 | 64.5 | 65.9 | 59.9 | 5 3/4 | 1 1/2 | 126 | 110 |
| T20B33S | 5 | 84.1 | 78.1 | 79.6 | 73.6 | 5 3/4 | 1 1/2 | 130 | 114 |
| T35B5S | 1.5 | 36.1 | 35.0 | 31.6 | 30.5 | 5 3/4 | 1 1/2 | 77 | 75 |
| T35B6S | 1.5 | 37.6 | 36.4 | 33.0 | 31.9 | 5 3/4 | 1 1/2 | 78 | 76 |
| T35B9S | 2 | 43.3 | 41.8 | 38.7 | 37.2 | 5 3/4 | 1 1/2 | 80 | 78 |
| T35B12S | 3 | 50.4 | 47.5 | 45.8 | 43.0 | 5 3/4 | 1 1/2 | 98 | 89 |
| T35B16S | 5 | 63.5 | 57.5 | 58.9 | 52.9 | 5 3/4 | 1 1/2 | 119 | 103 |
| T35B23S | 5 | 73.3 | 67.3 | 68.8 | 62.8 | 5 3/4 | 1 1/2 | 127 | 111 |



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