



PUMP SECTION

Centrifugal Pumps - Types E11 & E14

APPLICATION

The E Series type E11 and E14 pumps are of the double volute type for horizontal mounting. A flexible coupling is used to connect the motor to the centrifugal pump and all are mounted on a common base.

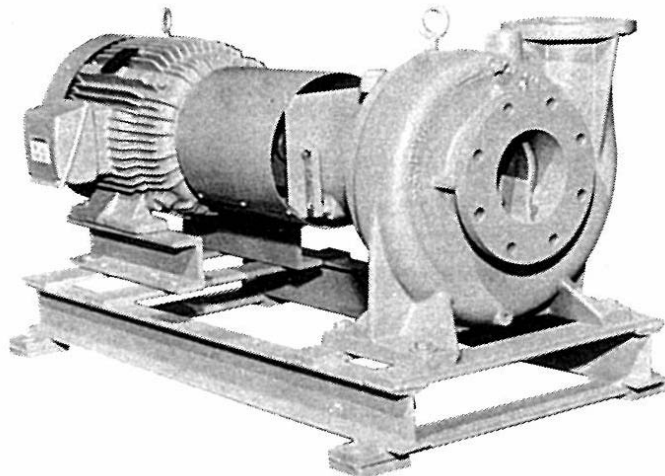
These pumps are offered in two basic sizes: the 4" E11 and the 6" E14. Each of these is offered with ball bearing pump assemblies.

EXAMPLE — 25 HP 4" EB11 - Ball bearing.

EXAMPLE — 40 HP 6" EB14 - Ball bearing

The E Series pumps are most commonly applied for water circulation to be used for heating or air conditioning. The particular quietness of these pumps makes them most suitable for handling hot and chilled water for hydronic systems. When radiation, fan coil units or piping is in the occupied space, noise level is of paramount importance. These pumps because of their wide range and flexibility are very successfully applied to industrial pumping applications as well as for cooling tower, water supply, and domestic water systems.

The E Series pumps have capacities up to 2600 GPM with heads to 220 feet. Pumps are furnished through 150 HP.



**Model E
Centrifugal Pump**

CONSTRUCTION FEATURES

BASE — The pump base is constructed of structural steel 'I' beams with cross members of welded bar stock. These base assemblies are supplied with integral feet for ease of installation and leveling on a foundation. The free area beneath the motor and pump assembly eliminates the sound box effect of solid bases and allows for neater installation and facilitates cleaning in the pump area.

COUPLING — Rugged in construction, longer bearing, motor and pump life as well as smooth noiseless operation of both motor and pump are assured. Simple in design and easily installed, the couplings are unaffected by abrasives, dirt or moisture. There is no need for lubrication or maintenance. The non-metallic sleeve acts as a barrier insulating the motor from the pump. Coupling Guards are supplied as standard equipment.

CASE — The case is of the double-volute design, accomplishing two functions: first, radial impeller loads are reduced for smaller bearing loads and less power loss. Second, higher pump efficiencies are obtained over a greater range of flow.

HEAD — The heavy cast-iron head suitable for 175 psi working pressure connects the pump case to the bearing assembly. A shaft sleeve covers the shaft in the wetted area to protect the pump-shaft from wear, corrosion and erosion.

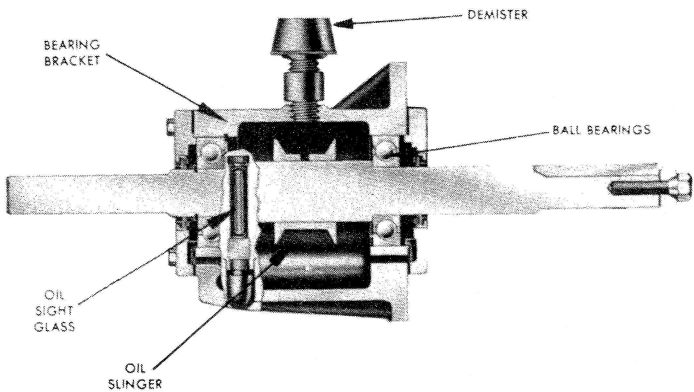
MECHANICAL SEAL — The mechanical seals used in the E Series pumps are specially selected and as applied to these pumps are suitable for water temperatures to 250° F. The carbon rotating member and ni-resist stationary member with precision lapped surfaces insure long life and positive prevention of leakage.

IMPELLERS — Bronze impellers of enclosed type are machined all over for greatest efficiency. These impellers are hydraulically balanced to assure minimum thrust.

WEARING RINGS — Bronze wearing rings are supplied as standard for both the case and head. These rings are replaceable and prevent costly wear to both the case and head.

Construction Features (continued)

BALL BEARING ASSEMBLY



BEARING BRACKETS — Bearing brackets offered are ball bearing in the 4" EB11 and 6" EB14 models and are high grade steel for highest yield and tensile strength, precision turned, ground and polished.

The ball bearing assembly employs precision over-size bearings front and back to handle thrust and radial loads. These bearings are of the oil lubricated type and incorporate the use of a demister to prevent loss of oil.

The bearing assemblies with pump head and impeller can be removed for servicing without disturbing the piping.

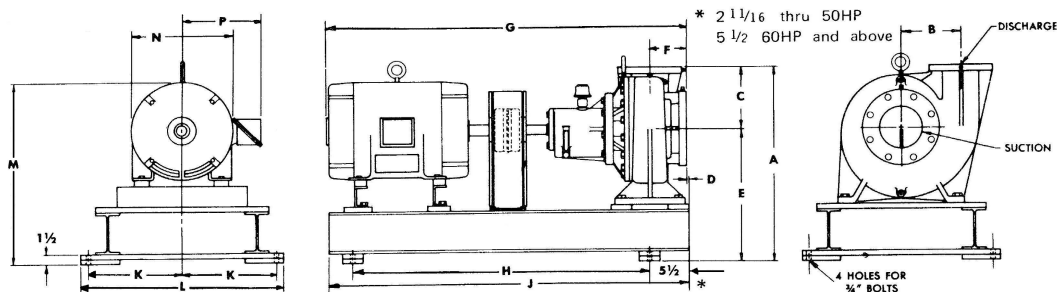
MOTORS — Only the highest quality name brand motors specially selected for quietness are used on the E Series pumps. Ball bearing motors are standard. Motors are offered for either 1750 RPM or 1150 RPM 3 phase and are 230/460 volt. ATL-2 step part wind on 230 volt only. The motors are sized so that the maximum brake HP output required is in all cases less than that allowed by the motor manufacturer's warranty.

Typical Specifications

Furnish and install where shown on plans, **MEPCO** type (4" EB11) (6" EB14) centrifugal pump or approved equal. Pump shall be equipped with a _____ HP _____ volt 60 cycle _____ RPM motor. The pump shall have a minimum capacity of _____ GPM against a total head of _____ feet. The case shall be cast iron of the double volute type. Vertically split with 6" flanged inlet and 4" flanged discharge on EB11 type — 8" flanged inlet and 6" flanged discharge on EB14 type and shall be suitable for 175 psi working pressure. The impellers shall be bronze, dynamically balanced of the enclosed type. Seal shall be of the rotary type and suitable for water temperature up to 250°F.

The motors shall be of the ball bearing type specially selected for quietness and shall be connected to the pump through flexible coupling. The bearing bracket shall be removable for servicing without disturbing the piping and shall have a steel shaft with navy 'M' bronze sleeve in the wetted area. Type (EB) bearings shall be oversize precision ball bearings. Bearings are oil lubricated and incorporate the use of a demister to prevent oil loss. The base shall be constructed from structural steel 'I' beams with welded cross members and integral feet for low noise level and sound transmission.

Dimensions



DIMENSIONS — 4" EB11 CENTRIFUGAL PUMPS
3 PHASE 60 HERTZ MOTORS 1750 RPM

| HP | DIS. | SUC. | MODEL | A | B | C | D | E | F | G | H | J | K | L | M | N | P | SHIPPING WT. LBS. |
|----|------|------|--------|-----|----|---|-----|-----|----|-----|----|---------|-----|----|-----|-----|----------|----------------------|
| 10 | 4 | x 6 | x EB11 | 25% | 8½ | 9 | 1/4 | 16% | 5¼ | 44 | 42 | 47 3/16 | 12½ | 27 | 22½ | 10% | 8% | 910 |
| 15 | 4 | x 6 | x EB11 | 25% | 8½ | 9 | 1/4 | 16% | 5¼ | 47 | 42 | 47 3/16 | 12½ | 27 | 23½ | 12½ | 9% | 950 |
| 20 | 4 | x 6 | x EB11 | 25% | 8½ | 9 | 1/4 | 16% | 5¼ | 49 | 42 | 47 3/16 | 12½ | 27 | 23½ | 12½ | 9% | 980 |
| 25 | 4 | x 6 | x EB11 | 25% | 8½ | 9 | 1/4 | 16% | 5¼ | 49 | 42 | 47 3/16 | 12½ | 27 | 23½ | 14 | 11½ | 1025 |
| 30 | 4 | x 6 | x EB11 | 25% | 8½ | 9 | 1/4 | 16% | 5¼ | 50½ | 42 | 47 3/16 | 12½ | 27 | 23½ | 14 | 11½ | 1070 |
| 40 | 4 | x 6 | x EB11 | 25% | 8½ | 9 | 1/4 | 16% | 5¼ | 51½ | 42 | 47 3/16 | 12½ | 27 | 24% | 16 | 13 11/16 | 1165 |

Dimensions (continued)

DIMENSIONS — 6" EB14 CENTRIFUGAL PUMPS

3 PHASE 60 HERTZ MOTORS 1750 RPM

| HP | DIS. SUC. MODEL | | | A | B | C | D | E | F | G | H | J | K | L | M | N | P | SHIPPING WT. LBS. | | |
|-----|-----------------|---|---|---|------|-----|----|----|---|-----|----|-----|----|---------------------------------|-----|----|-----|----------------------|----------------------------------|------|
| 25 | 6 | x | 8 | x | EB14 | 29% | 11 | 11 | 0 | 18% | 5½ | 49 | 42 | 47 ³ / ₁₆ | 12½ | 27 | 25% | 14 | 11½ | 1165 |
| 30 | 6 | x | 8 | x | EB14 | 29% | 11 | 11 | 0 | 18% | 5½ | 50½ | 42 | 47 ³ / ₁₆ | 12½ | 27 | 25% | 14 | 11½ | 1210 |
| 40 | 6 | x | 8 | x | EB14 | 29% | 11 | 11 | 0 | 18% | 5½ | 51½ | 42 | 47 ³ / ₁₆ | 12½ | 27 | 26% | 16 | 13 ¹¹ / ₁₆ | 1305 |
| 50 | 6 | x | 8 | x | EB14 | 29% | 11 | 11 | 0 | 18% | 5½ | 53 | 42 | 47 ³ / ₁₆ | 12½ | 27 | 26% | 16 | 13 ¹¹ / ₁₆ | 1350 |
| 60 | 6 | x | 8 | x | EB14 | 30% | 11 | 11 | 0 | 19% | 5½ | 54½ | 42 | 56% | 12½ | 27 | 28% | 18 | 16 ¹ / ₁₆ | 1560 |
| 75 | 6 | x | 8 | x | EB14 | 30% | 11 | 11 | 0 | 19% | 5½ | 55½ | 42 | 56% | 12½ | 27 | 28% | 18 | 16 ¹ / ₁₆ | 1620 |
| 100 | 6 | x | 8 | x | EB14 | 30% | 11 | 11 | 0 | 19% | 5½ | 58 | 42 | 56% | 12½ | 27 | 30 | 20% | 19¼ | 1860 |
| 125 | 6 | x | 8 | x | EB14 | 30% | 11 | 11 | 0 | 19% | 5½ | 59½ | 42 | 56% | 12½ | 27 | 30 | 20% | 19¼ | 1950 |
| 150 | 6 | x | 8 | x | EB14 | 30% | 11 | 11 | 0 | 19% | 5½ | 62½ | 42 | 56% | 12½ | 27 | 30% | 21¼ | 20 ⁹ / ₁₆ | 2230 |

DIMENSIONS — 4" EB11 CENTRIFUGAL PUMPS

3 PHASE 60 HERTZ MOTORS 1150 RPM

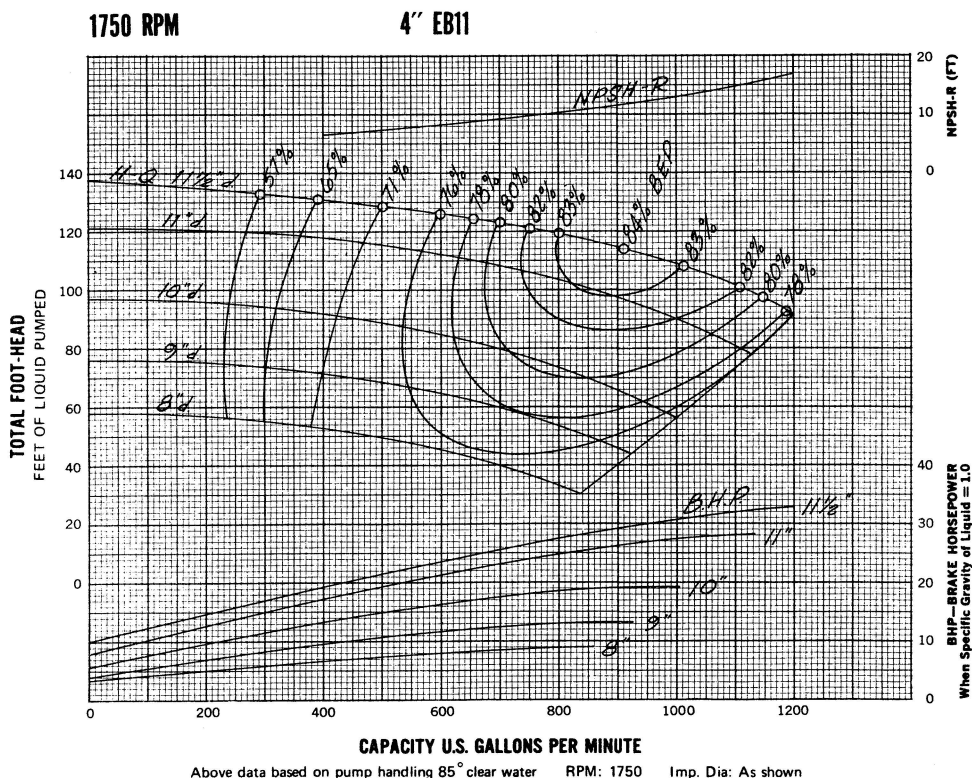
| HP | DIS. | SUC. | MODEL | A | B | C | D | E | F | G | H | J | K | L | M | N | P | SHIPPING WT. LBS. | | |
|----|------|------|-------|---|------|--------------------------------|-------------------------------|---|-------------------------------|--------------------------------|-------------------------------|----|----|---------------------------------|--------------------------------|----|--------------------------------|--------------------------------|--------------------------------|-----|
| 10 | 4 | x | 6 | x | EB11 | 25 ⁵ / ₈ | 8 ¹ / ₂ | 9 | 1 ¹ / ₄ | 16 ⁵ / ₈ | 5 ¹ / ₄ | 49 | 42 | 47 ³ / ₁₆ | 12 ¹ / ₂ | 27 | 23 ³ / ₈ | 12 ¹ / ₂ | 9 ⁵ / ₈ | 910 |
| 15 | 4 | x | 6 | x | EB11 | 25 ⁵ / ₈ | 8 ¹ / ₂ | 9 | 1 ¹ / ₄ | 16 ⁵ / ₈ | 5 ¹ / ₄ | 49 | 42 | 47 ³ / ₁₆ | 12 ¹ / ₂ | 27 | 23 ³ / ₈ | 14 | 11 ¹ / ₄ | 950 |

DIMENSIONS — 6" EB14 CENTRIFUGAL PUMPS

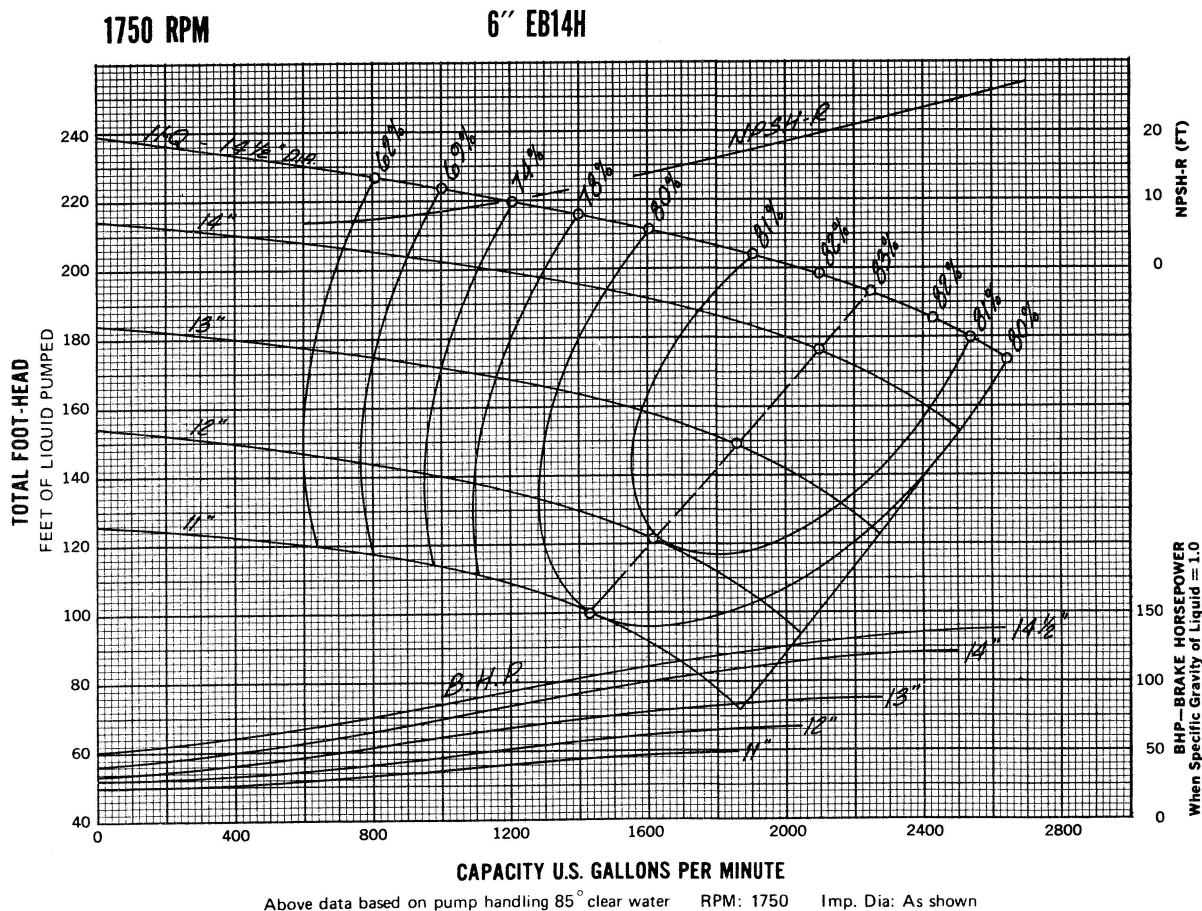
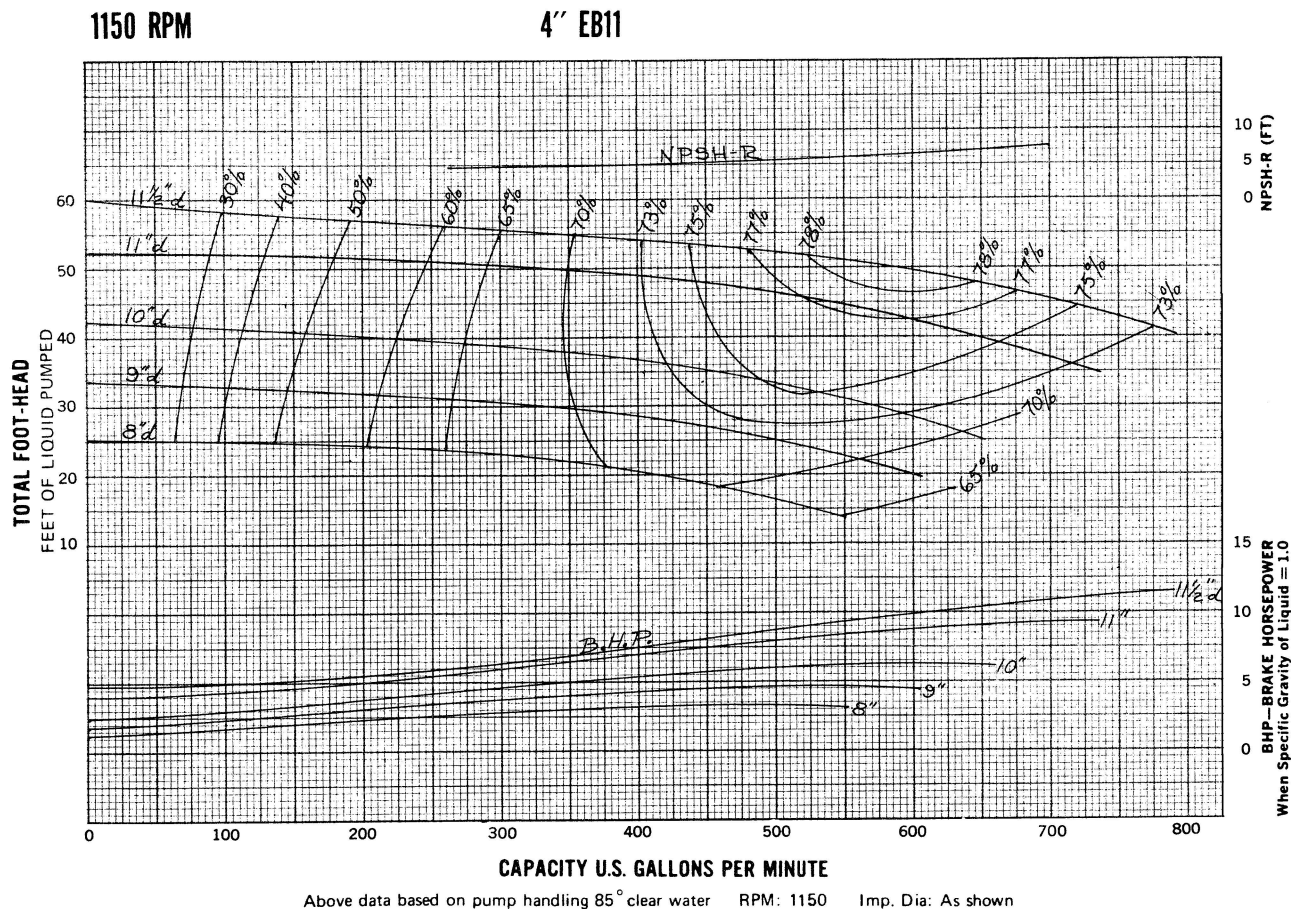
3 PHASE 60 HERTZ MOTORS 1150 RPM

| HP | DIS. SUC. MODEL | | | A | B | C | D | E | F | G | H | J | K | L | M | N | P | SHIPPING WT. LBS. | | |
|----|-----------------|---|---|---|------|-----|----|----|---|-----|----|-----|----|---------|-----|----|-----|----------------------|----------|------|
| 25 | 6 | x | 8 | x | EB14 | 29% | 11 | 11 | 0 | 18% | 5½ | 51½ | 42 | 47 ¾/16 | 12½ | 27 | 26% | 16 | 13 11/16 | 1235 |
| 30 | 6 | x | 8 | x | EB14 | 29% | 11 | 11 | 0 | 18% | 5½ | 53 | 42 | 47 ¾/16 | 12½ | 27 | 26% | 16 | 13 11/16 | 1260 |
| 40 | 6 | x | 8 | x | EB14 | 30% | 11 | 11 | 0 | 19% | 5½ | 54½ | 42 | 56¾ | 12½ | 27 | 28% | 18 | 16 1/16 | 1490 |
| 50 | 6 | x | 8 | x | EB14 | 30% | 11 | 11 | 0 | 19% | 5½ | 55½ | 42 | 56¾ | 12½ | 27 | 28% | 18 | 16 1/16 | 1550 |

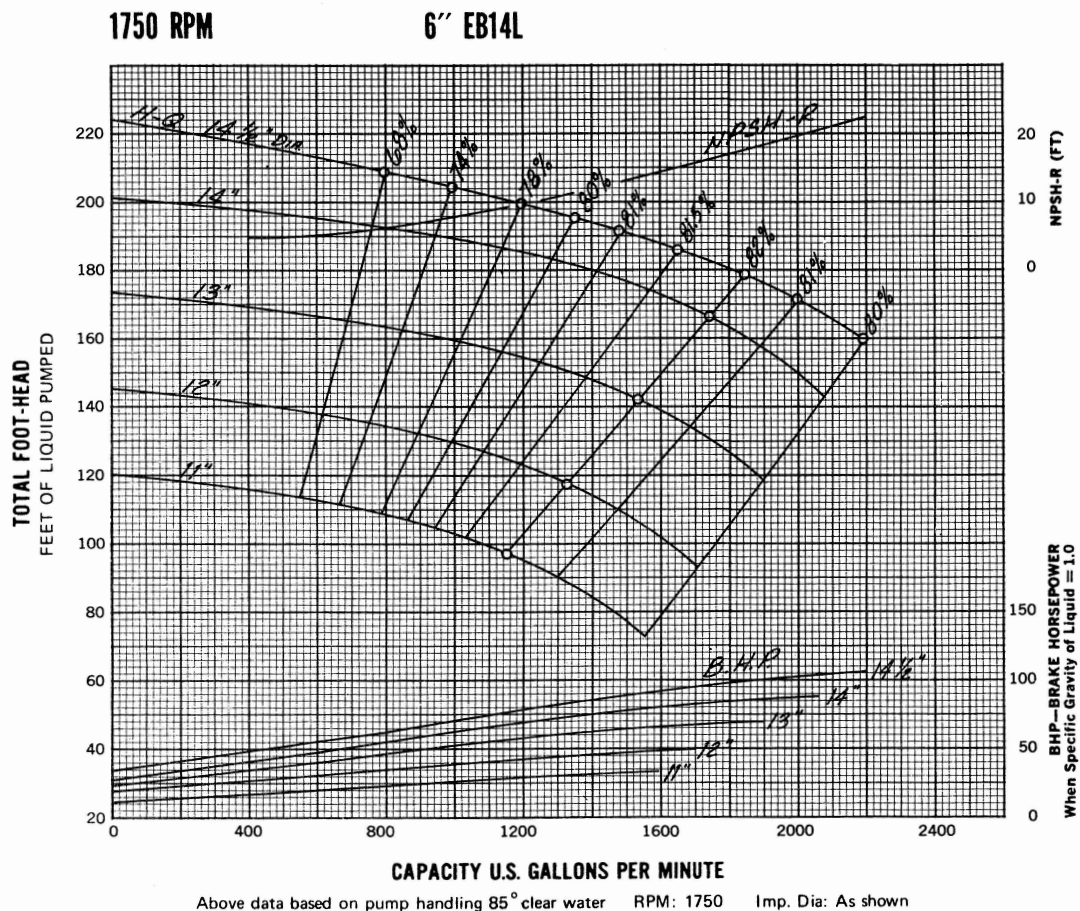
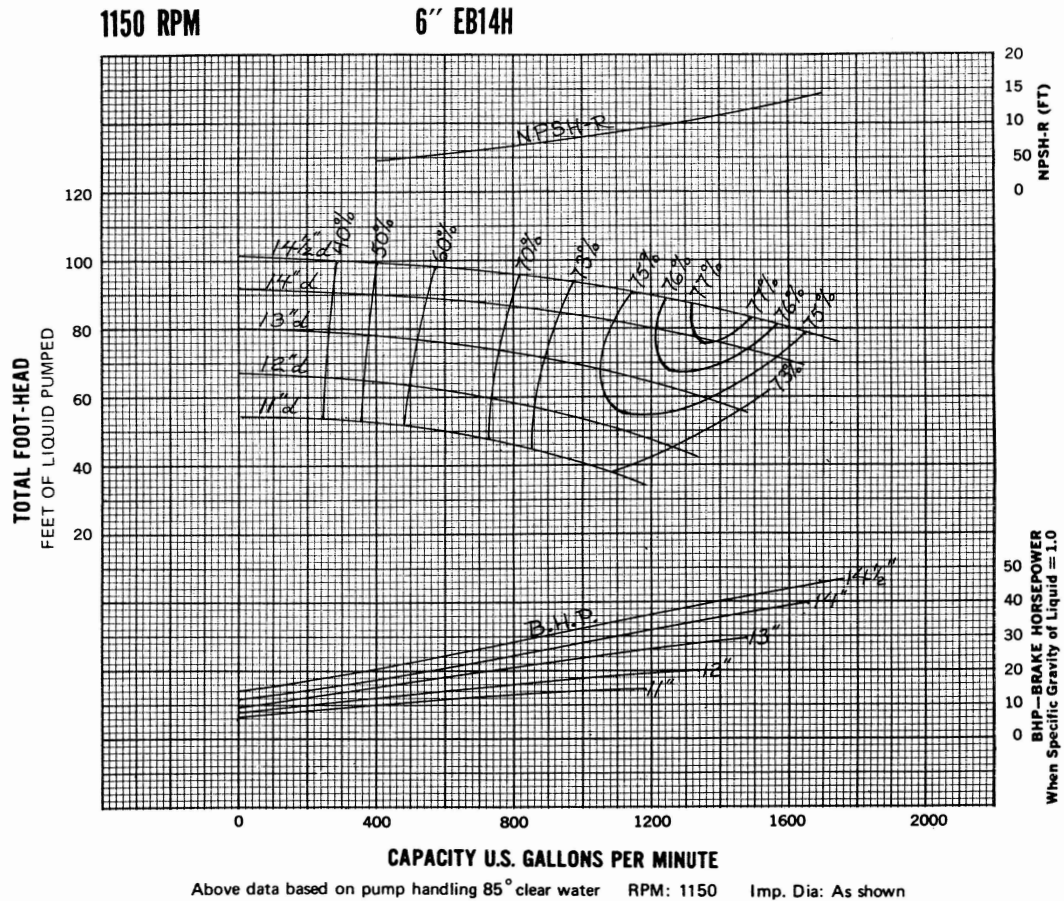
Selection Curves



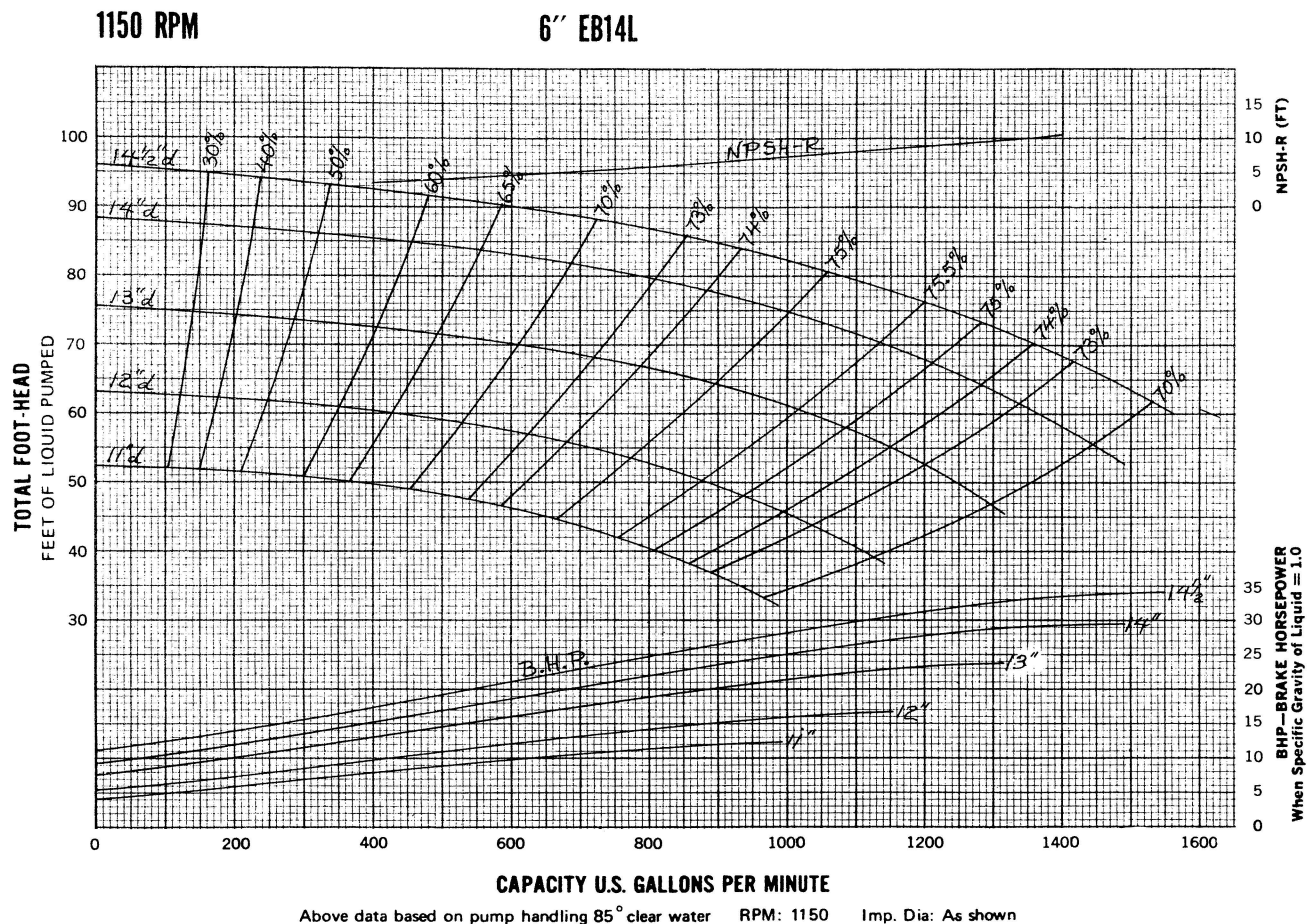
Selection Curves (continued)



Selection Curves (continued)



Selection Curves (continued)





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