PERFORMANCE CURVES

LINESHAFT & SUBMERSIBLE

3500 RPM
IMPELLER DATA
IMPELLER NUMBER  0189
TYPE   ENCLOSED
THRUST FACTOR  K=2.30
EYE AREA  3.82 SQ. IN.
WEIGHT   1.70 LB.
Minimum submergence above eye of bottom impeller:   10 IN.

EFFICIENCY CORRECTION
NUMBER OF BOWLS:  1  2  3  4  5
CHANGE AS FOLLOWS:  -4  -3  -2  -1  0
CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION
IMPELLER MATERIAL:  -1  0  -1  -4
BOWL MATERIAL:  -1  -1  -1  -8

THREADED BOWL DATA
BOWL NUMBER  0320
BOWL MAX. DIAMETER  5.500 IN.
BOWL MIN. DIAMETER  5.250 IN.
MAX. NO. STAGES  28
ONE STAGE WEIGHT  45 LB.
ADD STAGE WEIGHT  12 LB.
STD. SHAFT DIA.  1.000 IN.
STD. LATERAL  0.250 IN.
DISCHARGE SIZE  4 IN.
DISCHARGE CONNECTION  THD - FLG
SUCTION SIZE  4 IN.
SUCTION CONNECTION  THD
MAX. SPHERE SIZE  0.375 IN.
MAX. OPERATIONAL P.S.I.  360 (SPECIAL)

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
6FJC 3450 RPM

**IMPELLER DATA**
- Impeller Number: 6404
- Type: ENCLOSED
- Thrust Factor: K=1.56
- Eye Area: 2.41 SQ. IN.
- Weight: 1.80 LB.
- Minimum submergence above eye of bottom impeller: 10 IN.

**FLANGED BOWL DATA**
- Bowl Number: 6515
- Bowl Max. Diameter: 5.875 IN.
- Bowl Min. Diameter: 5.563 IN.
- Max. No. Stages: 60
- One Stage Weight: 75 LB.
- Add Stage Weight: 15 LB.
- Std. Shaft Dia.: 0.750 IN.
- Std. Lateral: 0.375 IN.
- Discharge Size: 4 IN.
- Discharge Connection: THD
- Suction Size: 4 IN.
- Suction Connection: THD
- Max. Sphere Size: 0.125 IN.
- Max. Operational P.S.I.: 360 (SPECIAL)

**EFFICIENCY CORRECTION**

<table>
<thead>
<tr>
<th>Change As Follows</th>
<th>-4</th>
<th>-2</th>
<th>-1</th>
<th>0</th>
</tr>
</thead>
</table>

Change in efficiency may affect both head and horsepower.

**PUMP MATERIAL EFFICIENCY CORRECTION**

- Impeller Material: -2 Ductile, 0 Bronze, -1 N-R, -6 Stainless
- Bowl Material: -1 Ductile, -1 Bronze, -1 N-R, -4 Stainless

Performance based on pumping clear, fresh water at a temperature not over 85°F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.

APRIL 2020
6FMC 3450 RPM

IMPELLER DATA

<table>
<thead>
<tr>
<th>IMPELLER NUMBER</th>
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<tbody>
<tr>
<td>TYPE</td>
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<tr>
<td>THRUST FACTOR</td>
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</tr>
<tr>
<td>EYE AREA</td>
<td>3.20 SQ. IN.</td>
</tr>
<tr>
<td>WEIGHT</td>
<td>2.15 LB.</td>
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</table>

Minimum submergence above eye of bottom impeller: 12 IN.

TRIM ANGLE: 27°

Efficiency Correction

<table>
<thead>
<tr>
<th>NUMBER OF BOWLS</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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</thead>
<tbody>
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Change in efficiency may affect both head and horsepower.

FLANGED BOWL DATA

<table>
<thead>
<tr>
<th>BOWL NUMBER</th>
<th>6616</th>
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<tbody>
<tr>
<td>BOWL MAX. DIAMETER</td>
<td>5.813 IN.</td>
</tr>
<tr>
<td>BOWL MIN. DIAMETER</td>
<td>5.563 IN.</td>
</tr>
<tr>
<td>MAX. NO. STAGES</td>
<td>26</td>
</tr>
<tr>
<td>ONE STAGE WEIGHT</td>
<td>75 LB.</td>
</tr>
<tr>
<td>ADD STAGE WEIGHT</td>
<td>15 LB.</td>
</tr>
<tr>
<td>STD. SHAFT DIA.</td>
<td>1.000 IN.</td>
</tr>
<tr>
<td>STD. LATERAL</td>
<td>0.438 IN.</td>
</tr>
<tr>
<td>DISCHARGE SIZE</td>
<td>4 IN.</td>
</tr>
<tr>
<td>DISCHARGE CONNECTION</td>
<td>THD</td>
</tr>
<tr>
<td>SUCTION SIZE</td>
<td>4 IN.</td>
</tr>
<tr>
<td>SUCTION CONNECTION</td>
<td>THD</td>
</tr>
<tr>
<td>MAX. SPHERE SIZE</td>
<td>0.188 IN.</td>
</tr>
<tr>
<td>MAX. OPERATIONAL P.S.I.</td>
<td>360 (SPECIAL)</td>
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PUMP MATERIAL EFFICIENCY CORRECTION

<table>
<thead>
<tr>
<th>DUCTILE</th>
<th>BRONZE</th>
<th>NI-R</th>
<th>STAINLESS</th>
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<tbody>
<tr>
<td>IMPELLER MATERIAL:</td>
<td>-2</td>
<td>0</td>
<td>-1</td>
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<tr>
<td>BOWL MATERIAL:</td>
<td>-1</td>
<td>-1</td>
<td>-1</td>
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Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
Turbine Pump Curve

**Single Stage Performance**

**6FHC 3450 RPM**

**Impeller Data**
- **Impeller Number**: 6606
- **Type**: Enclosed
- **Thrust Factor**: K=2.24
- **Eye Area**: 3.65 SQ. IN.
- **Weight**: 2.38 LB.
- **Minimum Submergence above eye of bottom impeller**: 12 IN.

**Flanged Bowl Data**
- **Bowl Number**: 6616
- **Bowl Max. Diameter**: 5.813 IN.
- **Bowl Min. Diameter**: 5.563 IN.
- **Max. No. Stages**: 26
- **One Stage Weight**: 75 LB.
- **Add Stage Weight**: 15 LB.
- **Std. Shaft Dia.**: 1.000 IN.
- **Std. Lateral**: 0.375 IN.
- **Discharge Size**: 4 IN.
- **Discharge Connection**: THD
- **Suction Size**: 4 IN.
- **Suction Connection**: THD
- **Max. Sphere Size**: 0.188 IN.
- **Max. Operational P.S.I.**: 360 (Special)

**Efficiency Correction**

<table>
<thead>
<tr>
<th>Number of Bowls</th>
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<th>-2</th>
<th>-1</th>
<th>0</th>
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</thead>
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Change in efficiency may affect both head and horsepower.

**Pump Material Efficiency Correction**

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<th></th>
<th>Ductile</th>
<th>Bronze</th>
<th>Ni-R</th>
<th>Stainless</th>
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</thead>
<tbody>
<tr>
<td>Impeller Material</td>
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</tr>
<tr>
<td>Bowl Material</td>
<td>-1</td>
<td>-1</td>
<td>-4</td>
<td>-1</td>
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Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
**IMPELLER DATA**

<table>
<thead>
<tr>
<th>IMPELLER NUMBER</th>
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<tr>
<td>TYPE</td>
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<tr>
<td>THRUST FACTOR</td>
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</tr>
<tr>
<td>EYE AREA</td>
<td>4.01 SQ. IN.</td>
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<tr>
<td>WEIGHT</td>
<td>2.15 LB.</td>
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**FLANGED BOWL DATA**

<table>
<thead>
<tr>
<th>BOWL NUMBER</th>
<th>6919</th>
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<tbody>
<tr>
<td>BOWL MAX. DIAMETER</td>
<td>5.813 IN.</td>
</tr>
<tr>
<td>BOWL MIN. DIAMETER</td>
<td>5.563 IN.</td>
</tr>
<tr>
<td>MAX. NO. STAGES</td>
<td>21</td>
</tr>
<tr>
<td>ONE STAGE WEIGHT</td>
<td>75 LB.</td>
</tr>
<tr>
<td>ADD STAGE WEIGHT</td>
<td>15 LB.</td>
</tr>
<tr>
<td>STD. SHAFT DIA.</td>
<td>1.000 IN.</td>
</tr>
<tr>
<td>STD. LATERAL</td>
<td>0.625 IN.</td>
</tr>
<tr>
<td>DISCHARGE SIZE</td>
<td>4 IN.</td>
</tr>
<tr>
<td>DISCHARGE CONNECTION</td>
<td>THD</td>
</tr>
<tr>
<td>SUCTION SIZE</td>
<td>4 IN.</td>
</tr>
<tr>
<td>SUCTION CONNECTION</td>
<td>THD</td>
</tr>
<tr>
<td>MAX. SPHERE SIZE</td>
<td>0.188 IN.</td>
</tr>
<tr>
<td>MAX. OPERATIONAL P.S.I.</td>
<td>360 (SPECIAL)</td>
</tr>
</tbody>
</table>

**EFFICIENCY CORRECTION**

- NUMBER OF BOWLS: 1 2 3 4
- CHANGE AS FOLLOWS: -4 -2 -1 0

CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

**PUMP MATERIAL EFFICIENCY CORRECTION**

<table>
<thead>
<tr>
<th>DUCTILE</th>
<th>BRONZE</th>
<th>NI-R</th>
<th>STAINLESS</th>
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<tbody>
<tr>
<td>IMPELLER MATERIAL:</td>
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<tr>
<td>BOWL MATERIAL:</td>
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Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
**TURBINE PUMP CURVE**

**SINGLE STAGE PERFORMANCE**

**APRIL 2020**

**6FWC 3450 RPM**

**IMPELLER DATA**
- **IMPELLER NUMBER**: 6808
- **TYPE**: ENCLOSED
- **THRUST FACTOR**: K=4.13
- **EYE AREA**: 6.88 SQ. IN.
- **WEIGHT**: 2.65 LB.
- **TRIM ANGLE**: 35°
- Minimum submergence above eye of bottom impeller: 20 IN.

**FLANGED BOWL DATA**
- **BOWL NUMBER**: 6818
- **BOWL MAX. DIAMETER**: 5.875 IN.
- **BOWL MIN. DIAMETER**: 5.563 IN.
- **MAX. NO. STAGES**: 16
- **ONE STAGE WEIGHT**: 75 LB.
- **ADD STAGE WEIGHT**: 15 LB.
- **STD. SHAFT DIA.**: 1.000 IN.
- **STD. LATERAL**: 0.438 IN.
- **DISCHARGE SIZE**: 4 IN.
- **DISCHARGE CONNECTION**: THD
- **SUCTION SIZE**: 4 IN.
- **SUCTION CONNECTION**: THD
- **MAX. SPHERE SIZE**: 0.500 IN.
- **MAX. OPERATIONAL P.S.I.**: 360 (SPECIAL)

**EFFICIENCY CORRECTION**

<table>
<thead>
<tr>
<th>NUMBER OF BOWLS:</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHANGE AS FOLLOW:</td>
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<td>-2</td>
<td>-1</td>
<td>0</td>
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</table>

Change in efficiency may affect both head and horsepower.

**PUMP MATERIAL EFFICIENCY CORRECTION**

<table>
<thead>
<tr>
<th></th>
<th>DUCTILE</th>
<th>BRONZE</th>
<th>NI-R</th>
<th>STAINLESS</th>
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<tbody>
<tr>
<td>IMPELLER</td>
<td>-2</td>
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<td>-1</td>
<td>-6</td>
</tr>
<tr>
<td>BOWL</td>
<td>-1</td>
<td>-1</td>
<td>-1</td>
<td>-4</td>
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</tbody>
</table>

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
TURBINE PUMP CURVE
SINGLE STAGE PERFORMANCE
APRIL 2020

6FYC 3450 RPM

IMPELLER DATA
- IMPeller NUMBER: 6414
- TYPE: ENCLOSED
- THRUST FACTOR: K=4.10
- EYE AREA: 7.51 SQ. IN.
- WEIGHT: 2.35 LB.
- Minimum submergence above eye of bottom impeller: 20 IN.

EFFICIENCY CORRECTION
- Change as follows:
  - Number of Bowls: 1 2 3 4
  - Change: -4 -2 -1 0

- CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION
- Ductile: -2 0 -1 -6
- Bronze: 0 0 -1 -6
- Ni-R: -1 -1 -1 -3
- Stainless: -6 -6 -6 -6

FLANGED BOWL DATA
- BOWL NUMBER: 6818
- BOWL MAX. DIAMETER: 5.875 IN.
- BOWL MIN. DIAMETER: 5.563 IN.
- MAX. NO. STAGES: 14
- ONE STAGE WEIGHT: 75 LB.
- ADD STAGE WEIGHT: 15 LB.
- STD. SHAFT DIA.: 1.000 IN.
- STD. LATERAL: 0.250 IN.
- DISCHARGE SIZE: 4 IN.
- DISCHARGE CONNECTION: THD
- SUCTION SIZE: 4 IN.
- SUCTION CONNECTION: THD
- MAX. SPHERE SIZE: 0.500 IN.
- MAX. OPERATIONAL P.S.I.: 360 (SPECIAL)

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
**IMPELLER DATA**

- **IMPELLER NUMBER:** 7647
- **TYPE:** ENCLOSED
- **THRUST FACTOR:** K=4.5
- **EYE AREA:** 11.3 SQ. IN.
- **WEIGHT:** 5.0 LB.

- **MINIMUM SUBMERGENCE ABOVE EYE OF BOTTOM IMPELLER:** 18 IN.

**EFFICIENCY CORRECTION**

<table>
<thead>
<tr>
<th>NUMBER OF BOWLS</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHANGE AS FOLLOWS</td>
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<td>-1</td>
<td>0</td>
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CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

**PUMP MATERIAL EFFICIENCY CORRECTION**

<table>
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<tr>
<th></th>
<th>DUCTILE</th>
<th>BRONZE</th>
<th>NI-R</th>
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<tr>
<td>BOWL MATERIAL</td>
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<td>-2</td>
<td>-2</td>
<td>-3</td>
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</table>

**FLANGED BOWL DATA**

- **BOWL NUMBER:** 6947
- **BOWL MAX. DIAMETER:** 7.313 IN.
- **BOWL MIN. DIAMETER:** 7.125 IN.
- **MAX. NO. STAGES:** 15
- **ONE STAGE WEIGHT:** 102 LB.
- **ADD STAGE WEIGHT:** 37 LB.
- **STD. SHAFT DIA.:** 1.188 IN.
- **STD. LATERAL:** 0.625 IN.
- **DISCHARGE SIZE:** 5 - 6 IN.
- **DISCHARGE CONNECTION:** THD
- **SUCTION SIZE:** 5 - 6 IN.
- **SUCTION CONNECTION:** THD
- **MAX. SPHERE SIZE:** 0.750 IN.
- **MAX. OPERATIONAL P.S.I.:** 695 (SPECIAL)

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
7FHC 3450 RPM

**IMPELLER DATA**
- **IMPELLER NUMBER:** 7656
- **TYPE:** ENCLOSED
- **THRUST FACTOR:** K=4.56
- **EYE AREA:** 11.3 SQ. IN.
- **WEIGHT:** 5.25 LB.
- **TRIM ANGLE:** 18°
- **Minimum submergence above eye of bottom impeller:** 18 IN.

**EFFICIENCY CORRECTION**
- **NUMBER OF BOWLS:**
  - 1
  - 2
  - 3
- **CHANGE AS FUNLLOWS:**
  - -2
  - -1
  - 0

**PUMP MATERIAL EFFICIENCY CORRECTION**
- **IMPELLER MATERIAL:**
  - DUCTILE: -2
  - BRONZE: 0
  - NI-R: -1
  - STAINLESS: -6
- **BOWL MATERIAL:**
  - DUCTILE: -2
  - BRONZE: -1
  - NI-R: -2
  - STAINLESS: -3

**FLANGED BOWL DATA**
- **BOWL NUMBER:** 6947
- **BOWL MAX. DIAMETER:** 7.313 IN.
- **BOWL MIN. DIAMETER:** 7.125 IN.
- **MAX. NO. STAGES:** 13
- **ONE STAGE WEIGHT:** 102 LB.
- **ADD STAGE WEIGHT:** 37 LB.
- **STD. SHAFT DIA.:** 1.188 IN.
- **STD. LATERAL:** 0.625 IN.
- **DISCHARGE SIZE:** 5 - 6 IN.
- **DISCHARGE CONNECTION:** THD
- **SUCTION SIZE:** 5 - 6 IN.
- **SUCTION CONNECTION:** THD
- **MAX. SPHERE SIZE:** 0.750 IN.
- **MAX. OPERATIONAL P.S.I.:** 692 (SPECIAL)

**Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.**
IMPELLER DATA

- **IMPELLER NUMBER**: 3628
- **TYPE**: ENCLOSED
- **THRUST FACTOR**: K=2.98
- **EYE AREA**: 3.65 SQ. IN.
- **WEIGHT**: 5.75 LB.

Troubleshooting:

- Minimum submergence above eye of bottom impeller: 18 IN.

**EFFICIENCY CORRECTION**

<table>
<thead>
<tr>
<th>NUMBER OF BOWLS</th>
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<tbody>
<tr>
<td>CHANGE AS FOLLOWS</td>
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Change in efficiency may affect both head and horsepower.

**PUMP MATERIAL EFFICIENCY CORRECTION**

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<th>IMPELLER MATERIAL</th>
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<td>-2</td>
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</table>

**FLANGED BOWL DATA**

- **BOWL NUMBER**: 3629
- **BOWL MAX. DIAMETER**: 7.813 IN.
- **BOWL MIN. DIAMETER**: 7.500 IN.
- **MAX. NO. STAGES**: 15
- **ONE STAGE WEIGHT**: 130 LB.
- **ADD STAGE WEIGHT**: 30 LB.
- **STD. SHAFT DIA.**: 1.000 IN.
- **STD. LATERAL**: 0.438 IN.
- **DISCHARGE SIZE**: 5 - 6 IN.
- **DISCHARGE CONNECTION**: THD
- **SUCTION SIZE**: 5 - 6 IN.
- **SUCTION CONNECTION**: THD
- **MAX. SPHERE SIZE**: 0.250 IN.
- **MAX. OPERATIONAL P.S.I.**: 692 (SPECIAL)

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
IMPELLER DATA

IMPELLER NUMBER: 3692
TYPE: SEMI-OPEN
THRUST FACTOR: K=3.52
EYE AREA: 3.18 SQ. IN.
WEIGHT: 3.55 LB.

Minimum submergence above eye of bottom impeller: 18 IN.

EFFICIENCY CORRECTION

NUMBER OF BOWLS: 1 2 3 4
CHANGE AS FOLLOWS: -4 -2 0 0
CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION

<table>
<thead>
<tr>
<th>IMPELLER MATERIAL:</th>
<th>DUCTILE</th>
<th>BRONZE</th>
<th>NI-R</th>
<th>STAINLESS</th>
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<th>BRONZE</th>
<th>NI-R</th>
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<td>-2</td>
<td>-4</td>
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FLANGED BOWL DATA

BOWL NUMBER: 3629
BOWL MAX. DIAMETER: 7.813 IN.
BOWL MIN. DIAMETER: 7.500 IN.
MAX. NO. STAGES: 15
ONE STAGE WEIGHT: 130 LB.
ADD STAGE WEIGHT: 30 LB.
STD. SHAFT DIA.: 1.000 IN.
STD. LATERAL: 0.438 IN.
DISCHARGE SIZE: 5 - 6 IN.
DISCHARGE CONNECTION: THD
SUCTION SIZE: 5 - 6 IN.
SUCTION CONNECTION: THD
MAX. SPHERE SIZE: 0.250 IN.
MAX. OPERATIONAL P.S.I.: 692 (SPECIAL)

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
IMPELLER DATA

- IMPPELLER NUMBER: 3630
- TYPE: ENCLOSED
- THRUST FACTOR: K = 2.98
- EYE AREA: 4.64 SQ. IN.
- WEIGHT: 5.75 LB.
- Minimum submergence above eye of bottom impeller: 18 IN.

Efficiency Correction

- NUMBER OF BOWLS: 1, 2, 3
- CHANGE AS FOLLOWS: -4, -2, 0
- CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION

<table>
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<tr>
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Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
**Pump Material Efficiency Correction**

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Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
IMPELLER DATA
- IMPELLER NUMBER: 3680
- TYPE: ENCLOSED
- THRUST FACTOR: K=3.93
- EYE AREA: 5.72 SQ. IN.
- WEIGHT: 5.50 LB.

- Minimum submergence above eye of bottom impeller: 18 IN.

EFFICIENCY CORRECTION
- NUMBER OF BOWLS: 1 2 3
- CHANGE AS FOLLOWS: -4 -2 0

CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION

- IMPELLER MATERIAL: -2 0 -1 -5
- BOWL MATERIAL: -2 -2 -2 -4

Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
IMPELLER DATA

IMPELLER NUMBER: 3693
TYPE: SEMI-OPEN
THRUST FACTOR: K=4.42
EYE AREA: 6.60 SQ. IN.
WEIGHT: 3.75 LB.

Minimum submergence above eye of bottom impeller: 20 IN.

FLANGED BOWL DATA

BOWL NUMBER: 3591
BOWL MAX. DIAMETER: 7.938 IN.
BOWL MIN. DIAMETER: 7.500 IN.
MAX. NO. STAGES: 10
ONE STAGE WEIGHT: 130 LB.
ADD STAGE WEIGHT: 30 LB.
STD. SHAFT DIA.: 1.000 IN.
STD. LATERAL: 0.438 IN.
DISCHARGE SIZE: 5 - 6 IN.
DISCHARGE CONNECTION: THD
SUCTION SIZE: 5 - 6 IN.
SUCTION CONNECTION: THD
MAX. SPHERE SIZE: 0.375 IN.
MAX. OPERATIONAL P.S.I.: 692 (SPECIAL)

EFFICIENCY CORRECTION

Number of Bowls: 1 2 3
Change as follows: -4 -2 0
Change in efficiency may affect both head and horsepower.

PUMP MATERIAL EFFICIENCY CORRECTION

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Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
IMPELLER DATA
IMPELLER NUMBER: 3589
TYPE: ENCLOSED
THRUST FACTOR: K=3.93
EYE AREA: 6.50 SQ. IN.
WEIGHT: 5.00 LB.

Minimum submergence above eye of bottom impeller: 22 IN.

Efficiency Correction

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Change in efficiency may affect both head and horsepower.

PUMP MATERIAL EFFICIENCY CORRECTION

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Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
**IMPELLER DATA**

- **IMPELLER NUMBER**: 3590
- **TYPE**: SEMI-OPEN
- **THRUST FACTOR**: K=4.28
- **EYE AREA**: 6.60 SQ. IN.
- **WEIGHT**: 4.125 LB.

- Minimum submergence above eye of bottom impeller: 24 IN.

**EFFICIENCY CORRECTION**

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Change in efficiency may affect both head and horsepower.

**PUMP MATERIAL EFFICIENCY CORRECTION**

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**FLANGED BOWL DATA**

- **BOWL NUMBER**: 3591
- **BOWL MAX. DIAMETER**: 7.938 IN.
- **BOWL MIN. DIAMETER**: 7.500 IN.
- **MAX. NO. STAGES**: 7
- **ONE STAGE WEIGHT**: 130 LB.
- **ADD STAGE WEIGHT**: 30 LB.
- **STD. SHAFT DIA.**: 1.00 IN.
- **STD. LATERAL**: 0.438 IN.
- **DISCHARGE SIZE**: 5 - 6 IN.
- **DISCHARGE CONNECTION**: THD
- **SUCTION SIZE**: 5 - 6 IN.
- **SUCTION CONNECTION**: THD
- **MAX. SPHERE SIZE**: 0.375 IN.
- **MAX. OPERATIONAL P.S.I.**: 692 (SPECIAL)

Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
**TURBINE PUMP CURVE**

**SINGLE STAGE PERFORMANCE**

**APRIL 2020**

**8FEHC 3450 RPM**

**IMPELLER DATA**

- **IMPELLER NUMBER**: 2978
- **TYPE**: ENCLOSED
- **THRUST FACTOR**: K=5.40
- **EYE AREA**: 8.33 SQ. IN.
- **WEIGHT**: 5.00 LB.

**FLANGED BOWL DATA**

- **BOWL NUMBER**: 2883
- **BOWL MAX. DIAMETER**: 7.938 IN.
- **BOWL MIN. DIAMETER**: 7.500 IN.
- **MAX. NO. STAGES**: 5
- **ONE STAGE WEIGHT**: 130 LB.
- **ADD STAGE WEIGHT**: 30 LB.
- **STD. SHAFT DIA.**: 1.188 IN.
- **STD. LATERAL**: 0.375 IN.
- **DISCHARGE SIZE**: 5 - 6 IN.
- **DISCHARGE CONNECTION**: THD
- **SUCTION SIZE**: 5 - 6 IN.
- **SUCTION CONNECTION**: THD
- **MAX. SPHERE SIZE**: 0.625 IN.
- **MAX. OPERATIONAL P.S.I.**: 692 (SPECIAL)

**EFFICIENCY CORRECTION**

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Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
IMPELLER DATA
IMPELLER NUMBER: 2981
TYPE: SEMI-OPEN
THRUST FACTOR: K=5.40
EYE AREA: 8.48 SQ. IN.
WEIGHT: 3.25 LB.
MINIMUM SUBMERGENCE ABOVE EYE OF BOTTOM IMPELLER: 24 IN.
TRIM ANGLE: 29.5°

EFFICIENCY CORRECTION
NUMBER OF BOWLS: 1 2 3 4
CHANGE AS FOLLOWS: -3 -2 -1 0

CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION
IMPELLER MATERIAL: -2 0 -1 -5
BOWL MATERIAL: -2 -2 -2 -4

FLANGED BOWL DATA
BOWL NUMBER: 2883
BOWL MAX. DIAMETER: 7.938 IN.
BOWL MIN. DIAMETER: 7.500 IN.
MAX. NO. STAGES: 5
ONE STAGE WEIGHT: 130 LB.
ADD STAGE WEIGHT: 30 LB.
STD. SHAFT DIA.: 1.188 IN.
STD. LATERAL: 0.375 IN.
DISCHARGE SIZE: 5 - 6 IN.
DISCHARGE CONNECTION: THD
SUCTION SIZE: 5 - 6 IN.
SUCTION CONNECTION: THD
MAX. SPHERE SIZE: 0.625 IN.
MAX. OPERATIONAL P.S.I.: 692 (SPECIAL)

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
IMPELLER DATA

- IMPELLER NUMBER: 5502
- TYPE: ENCLOSED
- THRUST FACTOR: K=8.00
- EYE AREA: 15.9 SQ. IN.
- WEIGHT: 5.25 LB.

- TRIM ANGLE: 37°
- Minimum submergence above eye of bottom impeller: 28 IN.

EFFICIENCY CORRECTION

- NUMBER OF BOWLS:
  - 1
  - 2
  - 3
  - 4
- CHANGE AS follows:
  - -3
  - -2
  - -1
  - 0

CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION

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FLANGED BOWL DATA

- BOWL NUMBER: 5503
- BOWL MAX. DIAMETER: 7.938 IN.
- BOWL MIN. DIAMETER: 7.500 IN.
- MAX. NO. STAGES: 9
- ONE STAGE WEIGHT: 139 LB.
- ADD STAGE WEIGHT: 39 LB.
- STD. SHAFT DIA.: 1.188 IN.
- STD. LATERAL: 0.375 IN.
- DISCHARGE SIZE: 5 - 6 IN.
- DISCHARGE CONNECTION THD
- SUCTION SIZE: 5 - 6 IN.
- SUCTION CONNECTION THD
- MAX. SPHERE SIZE: 1.125 IN.
- MAX. OPERATIONAL P.S.I.: 692 (SPECIAL)

Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
IMPELLER DATA

- IMPELLER NUMBER: 5506
- TYPE: SEMI-OPEN
- THRUST FACTOR: K=8.00
- EYE AREA: 15.9 SQ. IN.
- WEIGHT: 5.00 LB.
- Minimum submergence above eye of bottom impeller: 30 IN.

TRIM ANGLE: 37°

EFFICIENCY CORRECTION

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CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION

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Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.

FLANGED BOWL DATA

- BOWL NUMBER: 5503
- BOWL MAX. DIAMETER: 7.938 IN.
- BOWL MIN. DIAMETER: 7.500 IN.
- MAX. NO. STAGES: 9
- ONE STAGE WEIGHT: 139 LB.
- ADD STAGE WEIGHT: 39 LB.
- STD. SHAFT DIA.: 1.188 IN.
- STD. LATERAL: 0.375 IN.
- DISCHARGE SIZE: 5 - 6 IN.
- DISCHARGE CONNECTION: THD
- SUCTION SIZE: 5 - 6 IN.
- SUCTION CONNECTION: THD
- MAX. SPHERE SIZE: 1.125 IN.
- MAX. OPERATIONAL P.S.I.: 692 (SPECIAL)
**IMPELLER DATA**

- **IMPELLER NUMBER:** 7747
- **TYPE:** ENCLOSED
- **THRUST FACTOR:** K=4.90
- **EYE AREA:** 12.4 SQ. IN.
- **WEIGHT:** 8.20 LB.

- **Minimum submergence above eye of bottom impeller:** 30 IN.

**EFFICIENCY CORRECTION**

- **NUMBER OF BOWLS:**
  - 1
  - 2
  - 3
  - 4
- **CHANGE AS FOLLOWS:**
  - -2
  - -1
  - -0.5
  - 0

Performance may affect both head and horsepower.

**PUMP MATERIAL EFFICIENCY CORRECTION**

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**FLANGED BOWL DATA**

- **BOWL NUMBER:** 7038
- **BOWL MAX. DIAMETER:** 9.438 IN.
- **BOWL MIN. DIAMETER:** 9.250 IN.
- **MAX. NO. STAGES:** 12
- **ONE STAGE WEIGHT:** 145 LB.
- **ADD STAGE WEIGHT:** 50 LB.
- **STD. SHAFT DIA.:** 1.500 IN.
- **STD. LATERAL:** 0.875 IN.
- **DISCHARGE SIZE:** 6 - 8 IN.
- **DISCHARGE CONNECTION:** THD - FLG
- **SUCTION SIZE:** 6 - 8 IN.
- **SUCTION CONNECTION:** THD
- **MAX. SPHERE SIZE:** 0.750 IN.
- **MAX. OPERATIONAL P.S.I.:** 595 (SPECIAL)

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
IMPELLER DATA

IMPELLER NUMBER: 7756
TYPE: ENCLOSED
THRUST FACTOR: K=3.10
EYE AREA: 12.4 SQ. IN.
WEIGHT: 8.20 LB.

TRIM ANGLE: 17°
Minimum submergence above eye of bottom impeller: 30 IN.

EFFICIENCY CORRECTION

NUMBER OF BOWLS: 1 2 3 4
CHANGE AS FOLLOWS: -2 -1 -0.5 0
CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION

IMPELLER MATERIAL: DUCTILE BRONZE NI-R STAINLESS
-2 0 -1 -3
BOWL MATERIAL: DUCTILE BRONZE NI-R STAINLESS
-2 -2 -1 -3

FLANGED BOWL DATA

BOWL NUMBER: 7038
BOWL MAX. DIAMETER: 9.438 IN.
BOWL MIN. DIAMETER: 9.250 IN.
MAX. NO. STAGES: 9
ONE STAGE WEIGHT: 145 LB.
ADD STAGE WEIGHT: 50 LB.
STD. SHAFT DIA.: 1.500 IN.
STD. LATERAL: 0.875 IN.
DISCHARGE SIZE: 6 - 8 IN.
DISCHARGE CONNECTION: THD - FLG
SUCTION SIZE: 6 - 8 IN.
SUCTION CONNECTION: THD
MAX. SPHERE SIZE: 0.750 IN.
MAX. OPERATIONAL P.S.I.: 595 (SPECIAL)

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
IMPELLER DATA

IMPELLER NUMBER: 3094
TYPE: ENCLOSED
THRUST FACTOR: K = 3.98
EYE AREA: 7.89 SQ. IN.
WEIGHT: 9.25 LB.

Minimum submergence above eye of bottom impeller: 32 IN.

FLANGED BOWL DATA

BOWL NUMBER: 3096
BOWL MAX. DIAMETER: 9.875 IN.
BOWL MIN. DIAMETER: 9.500 IN.
MAX. NO. STAGES: 13
ONE STAGE WEIGHT: 230 LB.
ADD STAGE WEIGHT: 55 LB.
STD. SHAFTDia.: 1.500 IN.
STD. LATERAL: 0.500 IN.
DISCHARGE SIZE: 6 - 8 IN.
DISCHARGE CONNECTION: THD - FLG
SUCTION SIZE: 6 - 8 IN.
SUCTION CONNECTION: THD
MAX. SPHERE SIZE: 0.438 IN.
MAX. OPERATIONAL P.S.I.: 595 (SPECIAL)

EFFICIENCY CORRECTION

NUMBER OF BOWLS: 1 2 3 4 5
CHANGE AS FOLLOWS: -5 -4 -3 -2 -1

CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION

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Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
**IMPELLER DATA**

- **IMPELLER NUMBER:** 3095
- **TYPE:** ENCLOSED
- **THRUST FACTOR:** K=4.20
- **EYE AREA:** 7.89 SQ. IN.
- **WEIGHT:** 9.50 LB.

- **Minimum submergence above eye of bottom impeller:** 32 IN.

**FLANGED BOWL DATA**

- **BOWL NUMBER:** 3096
- **BOWL MAX. DIAMETER:** 9.875 IN.
- **BOWL MIN. DIAMETER:** 9.500 IN.
- **MAX. NO. STAGES:** 9
- **ONE STAGE WEIGHT:** 230 LB.
- **ADD STAGE WEIGHT:** 55 LB.
- **STD. SHAFT DIA.:** 1.500 IN.
- **STD. LATERAL:** 0.500 IN.
- **DISCHARGE SIZE:** 6 - 8 IN.
- **DISCHARGE CONNECTION:** THD - FLG
- **SUCTION SIZE:** 6 - 8 IN.
- **SUCTION CONNECTION:** THD
- **MAX. SPHERE SIZE:** 0.438 IN.
- **MAX. OPERATIONAL P.S.I.:** 595 (SPECIAL)

**EFFICIENCY CORRECTION**

- **NUMBER OF BOWLS:**
  - 1
  - 2
  - 3
  - 4
  - 5

- **CHANGE AS FOLLOWS:**
  - -5
  - -4
  - -3
  - -2
  - -1

- **CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.**

**PUMP MATERIAL EFFICIENCY CORRECTION**

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Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
10FLC 3450 RPM

**IMPELLER DATA**
- IMPELLER NUMBER: 3102
- TYPE: ENCLOSED
- THRUST FACTOR: K=6.60
- EYE AREA: 10.2 SQ. IN.
- WEIGHT: 9.75 LB.
- Minimum submergence above eye of bottom impeller: 36 IN.

**FLANGED BOWL DATA**
- BOWL NUMBER: 3098
- BOWL MAX. DIAMETER: 9.500 IN.
- BOWL MIN. DIAMETER: 9.250 IN.
- MAX. NO. STAGES: 13
- ONE STAGE WEIGHT: 230 LB.
- ADD STAGE WEIGHT: 55 LB.
- STD. SHAFT DIA.: 1.500 IN.
- STD. LATERAL: 0.563 IN.
- DISCHARGE SIZE: 6 - 8 IN.
- DISCHARGE CONNECTION: THD - FLG
- SUCTION SIZE: 6 - 8 IN.
- SUCTION CONNECTION: THD
- MAX. SPHERE SIZE: 0.500 IN.
- MAX. OPERATIONAL P.S.I.: 595 (SPECIAL)

**EFFICIENCY CORRECTION**
- NUMBER OF BOWLS: 1 2 3 4
- CHANGE AS FOLLOWS: -4 -2 -1 0

**PUMP MATERIAL EFFICIENCY CORRECTION**
- IMPELLER MATERIAL: -2 0 -1 -2
- BOWL MATERIAL: -2 -2 -2 -3

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
IMPELLER DATA

IMPELLER NUMBER: 3103
TYPE: SEMI-OPEN
THRUST FACTOR: K=7.50
EYE AREA: 11.7 SQ. IN.
WEIGHT: 6.25 LB.

Minimum submergence above eye of bottom impeller: 38 IN.

FLANGED BOWL DATA

BOWL NUMBER: 3098
BOWL MAX. DIAMETER: 9.500 IN.
BOWL MIN. DIAMETER: 9.250 IN.
MAX. NO. STAGES: 10
ONE STAGE WEIGHT: 230 LB.
ADD STAGE WEIGHT: 55 LB.
STD. SHAFT DIA.: 1.500 IN.
STD. LATERAL: 0.500 IN.
DISCHARGE SIZE: 6 - 8 IN.
DISCHARGE CONNECTION: THD - FLG
SUCTION SIZE: 6 - 8 IN.
SUCTION CONNECTION: THD
MAX. SPHERE SIZE: 0.500 IN.
MAX. OPERATIONAL P.S.I.: 595 (SPECIAL)

EFFICIENCY CORRECTION

NUMBER OF BOWLS: 1 2 3 4
CHANGE AS FOLLOWS: -4 -2 -1 0

CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION

<table>
<thead>
<tr>
<th>DUCTILE</th>
<th>BRONZE</th>
<th>NI-R</th>
<th>STAINLESS</th>
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<tr>
<td>IMPELLER MATERIAL:</td>
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Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
IMPELLER DATA

- **IMPELLER NUMBER**: 3097
- **TYPE**: ENCLOSED
- **THRUST FACTOR**: K=6.60
- **EYE AREA**: 11.7 SQ. IN.
- **WEIGHT**: 8.50 LB.

**Minimum submergence above eye of bottom impeller**: 36 IN.

**TRIM ANGLE**: 26°

EFFICIENCY CORRECTION

<table>
<thead>
<tr>
<th>NUMBER OF BOWLS</th>
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CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

FLANGED BOWL DATA

- **BOWL NUMBER**: 3098
- **BOWL MAX. DIAMETER**: 9.500 IN.
- **BOWL MIN. DIAMETER**: 9.250 IN.
- **MAX. NO. STAGES**: 8
- **ONE STAGE WEIGHT**: 230 LB.
- **ADD STAGE WEIGHT**: 55 LB.
- **STD. SHAFT DIA.**: 1.500 IN.
- **STD. LATERAL**: 0.625 IN.
- **DISCHARGE SIZE**: 6 - 8 IN.
- **DISCHARGE CONNECTION**: THD - FLG
- **SUCTION SIZE**: 6 - 8 IN.
- **SUCTION CONNECTION**: THD
- **MAX. SPHERE SIZE**: 0.625 IN.
- **MAX. OPERATIONAL P.S.I.**: 595 (SPECIAL)

**PUMP MATERIAL EFFICIENCY CORRECTION**

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<thead>
<tr>
<th>IMPELLER MATERIAL</th>
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Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
10FMS 3450 RPM

IMPELLER DATA
- IMPELLER NUMBER: 3099
- TYPE: SEMI-OPEN
- THRUST FACTOR: K=7.50
- EYE AREA: 11.7 SQ. IN.
- WEIGHT: 5.75 LB.
- Minimum submergence above eye of bottom impeller: 38 IN.

EFFICIENCY CORRECTION
- NUMBER OF BOWLS: 1 2 3 4
- CHANGE AS FOLLOWS: -4 -2 -1 0
- CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

BOWL NUMBER: 3098
- BOWL MAX. DIAMETER: 9.500 IN.
- BOWL MIN. DIAMETER: 9.250 IN.
- MAX. NO. STAGES: 8
- ONE STAGE WEIGHT: 230 LB.
- ADD STAGE WEIGHT: 55 LB.
- STD. SHAFT DIA.: 1.500 IN.
- STD. LATERAL: 0.625 IN.
- DISCHARGE SIZE: 6 - 8 IN.
- DISCHARGE CONNECTION: THD - FLG
- SUCTION SIZE: 6 - 8 IN.
- SUCTION CONNECTION: THD
- MAX. SPHERE SIZE: 0.625 IN.
- MAX. OPERATIONAL P.S.I.: 595 (SPECIAL)

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
**IMPELLER DATA**

<table>
<thead>
<tr>
<th>IMPELLER NUMBER</th>
<th>3542</th>
<th>TRIM ANGLE: 33.25°</th>
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<tbody>
<tr>
<td>TYPE</td>
<td>SEMI-OPEN</td>
<td>Minimum submergence above</td>
</tr>
<tr>
<td>THRUST FACTOR</td>
<td>K=11.40</td>
<td>eye of bottom impeller: 28 IN.</td>
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<tr>
<td>EYE AREA</td>
<td>19.4 SQ. IN.</td>
<td></td>
</tr>
<tr>
<td>WEIGHT</td>
<td>7.25 LB.</td>
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**FLANGED BOWL DATA**

| BOWL NUMBER | 3541 | |
|-------------|------| |
| BOWL MAX. DIAMETER | 9.875 IN. | |
| BOWL MIN. DIAMETER | 9.500 IN. | |
| MAX. NO. STAGES | 7 | |
| ONE STAGE WEIGHT | 250 LB. | |
| ADD STAGE WEIGHT | 60 LB. | |
| STD. SHAFT DIA. | 1.688 IN. | |
| STD. LATERAL | 0.875 IN. | |
| DISCHARGE SIZE | 6 - 8 IN. | |
| DISCHARGE CONNECTION | THD - FLG | |
| SUCTION SIZE | 6 - 8 IN. | |
| SUCTION CONNECTION | THD | |
| MAX. SPHERE SIZE | 0.875 IN. | |
| MAX. OPERATIONAL P.S.I. | 455 (SPECIAL) | |

**EFFICIENCY CORRECTION**

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<thead>
<tr>
<th>NUMBER OF BOWLS:</th>
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CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

**PUMP MATERIAL EFFICIENCY CORRECTION**

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Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
TURBINE PUMP CURVE
SINGLE STAGE PERFORMANCE  
APRIL 2020

10FYC 3450 RPM

IMPELLER DATA
IMPELLER NUMBER 3540
TYPE ENCLOSED
THRUST FACTOR K=10.30
EYE AREA 19.4 SQ. IN.
WEIGHT 11.0 LB.

Minimum submergence above eye of bottom impeller: 40 IN.

EFFICIENCY CORRECTION
NUMBER OF BOWLS: 1 2 3 4
CHANGE AS FOLLOWS: -4 -2 -1 0
CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION
IMPELLER MATERIAL: -2 0 -1 -2
BOWL MATERIAL: -2 -2 -2 -3

FLANGED BOWL DATA
BOWL NUMBER 3541
BOWL MAX. DIAMETER 9.875 IN.
BOWL MIN. DIAMETER 9.500 IN.
MAX. NO. STAGES 8
ONE STAGE WEIGHT 250 LB.
ADD STAGE WEIGHT 60 LB.
STD. SHAFT DIA. 1.688 IN.
STD. LATERAL 0.750 IN.
DISCHARGE SIZE 6 - 8 IN.
DISCHARGE CONNECTION THD - FLG
SUCTION SIZE 6 - 8 IN.
SUCTION CONNECTION THD
MAX. SPHERE SIZE 0.875 IN.
MAX. OPERATIONAL P.S.I. 455 (SPECIAL)

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
TURBINE PUMP CURVE
SINGLE STAGE PERFORMANCE  APRIL 2020

10FYS 3450 RPM

IMPELLER DATA
IMPELLER NUMBER: 3542
TYPE: SEMI-OPEN
THRUST FACTOR: K=11.40
EYE AREA: 19.4 SQ. IN.
WEIGHT: 7.25 LB.

Minimum submergence above eye of bottom impeller: 40 IN.

TRIM ANGLE: 33.25°

EFFICIENCY CORRECTION
NUMBER OF BOWLS:
CHANGE AS FOLLOWS:
CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

FLANGED BOWL DATA
BOWL NUMBER: 3541
BOWL MAX. DIAMETER: 9.875 IN.
BOWL MIN. DIAMETER: 9.500 IN.
MAX. NO. STAGES: 8
ONE STAGE WEIGHT: 250 LB.
ADD STAGE WEIGHT: 60 LB.
STD. SHAFT DIA.: 1.688 IN.
STD. LATERAL: 0.750 IN.
DISCHARGE SIZE: 6 - 8 IN.
DISCHARGE CONNECTION: THD - FLG
SUCTION SIZE: 6 - 8 IN.
SUCTION CONNECTION: THD
MAX. SPHERE SIZE: 0.875 IN.
MAX. OPERATIONAL P.S.I.: 455 (SPECIAL)

PUMP MATERIAL EFFICIENCY CORRECTION

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
11FLC 3450 RPM

**IMPELLER DATA**
- IMPELLER NUMBER: 0183
- TYPE: ENCLOSED
- THRUST FACTOR: K=7.90
- EYE AREA: 17.7 SQ. IN.
- WEIGHT: 13.30 LB.
- Minimum submergence above eye of bottom impeller: 30 IN.
- TRIM ANGLE: 23°

**FLANGED BOWL DATA**
- BOWL NUMBER: 0201
- BOWL MAX. DIAMETER: 11.188 IN.
- BOWL MIN. DIAMETER: 11.000 IN.
- MAX. NO. STAGES: 25
- ONE STAGE WEIGHT: 235 LB.
- ADD STAGE WEIGHT: 105 LB.
- STD. SHAFT DIA.: 1.688 IN.
- STD. LATERAL: 0.750 IN.
- DISCHARGE SIZE: 8 IN.
- DISCHARGE CONNECTION: THD - FLG
- SUCTION SIZE: 8 IN.
- SUCTION CONNECTION: THD
- MAX. SPHERE SIZE: 0.750 IN.
- MAX. OPERATIONAL P.S.I.: 380 (SPECIAL)

**EFFICIENCY CORRECTION**

<table>
<thead>
<tr>
<th>NUMBER OF BOWLS:</th>
<th>1</th>
<th>2</th>
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<td>CHANGE AS FOLLOWS:</td>
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CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

**PUMP MATERIAL EFFICIENCY CORRECTION**

<table>
<thead>
<tr>
<th>IMPELLER MATERIAL:</th>
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</table>

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
IMPELLER DATA

- ImPELLER NUMBER: 0184
- TYPE: ENCLOSED
- THRUST FACTOR: K=7.80
- EYE AREA: 17.7 SQ. IN.
- WEIGHT: 13.30 LB.
- Minimum submergence above eye of bottom impeller: 30 IN.

FLANGED BOWL DATA

- BOWL NUMBER: 0201
- BOWL MAX. DIAMETER: 11.188 IN.
- BOWL MIN. DIAMETER: 11.000 IN
- MAX. NO. STAGES: 22
- ONE STAGE WEIGHT: 235 LB.
- ADD STAGE WEIGHT: 105 LB.
- STD. SHAFT DIA.: 1.688 IN.
- STD. LATERAL: 0.750 IN.
- DISCHARGE SIZE: 8 IN.
- DISCHARGE CONNECTION: THD - FLG
- SUCTION SIZE: 8 IN.
- SUCTION CONNECTION: THD
- MAX. SPHERE SIZE: 0.750 IN.
- MAX. OPERATIONAL P.S.I.: 380 (SPECIAL)

EFFICIENCY CORRECTION

- NUMBER OF BOWLS: 1 2 3 4
- CHANGE AS FOLLOWS: -3 -2 -1 0

PUMP MATERIAL EFFICIENCY CORRECTION

- IMPELLER MATERIAL: -2 0 -1 -2
- BOWL MATERIAL: -2 -2 -1 -2

Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
11FHC 3450 RPM

IMPELLER DATA
- Impeller Number: 0185
- Type: Enclosed
- Thrust Factor: K=7.40
- Eye Area: 17.7 SQ. IN.
- Weight: 13.30 LB.
- Minimum submergence above eye of bottom impeller: 30 IN.

FLANGED BOWL DATA
- Bowl Number: 0201
- Bowl Max. Diameter: 11.188 IN.
- Bowl Min. Diameter: 11.000 IN.
- Max. No. Stages: 18
- One Stage Weight: 235 LB.
- Add Stage Weight: 105 LB.
- Standard Shaft Dia.: 1.688 IN.
- Standard Lateral: 0.750 IN.
- Discharge Size: 8 IN.
- Discharge Connection: THD - FLG
- Suction Size: 8 IN.
- Suction Connection: THD
- Max. Sphere Size: 0.750 IN.
- Max. Operational P.S.I.: 380 (SPECIAL)

EFFICIENCY CORRECTION

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<th>Bowl Material</th>
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<td>-2</td>
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Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
PERFORMANCE CURVES

LINESHAFT & SUBMERSIBLE

1750 RPM
IMPELLER DATA
IMPELLER NUMBER: 6404
TYPE: ENCLOSED
THRUST FACTOR: K=1.56
EYE AREA: 2.41 SQ. IN.
WEIGHT: 1.80 LB.

Minimum submergence above eye of bottom impeller: 10 IN.

FLANGED BOWL DATA
BOWL NUMBER: 6515
BOWL MAX. DIAMETER: 5.875 IN.
BOWL MIN. DIAMETER: 5.563 IN.
MAX. NO. STAGES: 55
ONE STAGE WEIGHT: 75 LB.
ADD STAGE WEIGHT: 15 LB.
STD. SHAFT DIA.: 0.750 IN.
STD. LATERAL: 0.375 IN.
DISCHARGE SIZE: 4 IN.
DISCHARGE CONNECTION: THD - FLG
SUCTION SIZE: 4 IN.
SUCTION CONNECTION: THD
MAX. SPHERE SIZE: 0.125 IN.
MAX. OPERATIONAL P.S.I.: 360 (SPECIAL)

EFFICIENCY CORRECTION
NUMBER OF BOWLS: 1 2 3 4
CHANGE AS FOLLOWS: -5 -3 -1 0
CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION

IMPELLER MATERIAL: DUCTILE BRONZE NI-R STAINLESS
-2 0 -1 -3
BOWL MATERIAL: DUCTILE BRONZE NI-R STAINLESS
-1 -1 -1 -6

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
IMPELLER DATA

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<td>EYE AREA</td>
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<tr>
<td>WEIGHT</td>
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Minimum submergence above eye of bottom impeller: 12 IN.

TRIM ANGLE: 27°

FLANGED BOWL DATA

<table>
<thead>
<tr>
<th>BOWL NUMBER</th>
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<tbody>
<tr>
<td>BOWL MAX. DIAMETER</td>
<td>5.813 IN.</td>
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<tr>
<td>BOWL MIN. DIAMETER</td>
<td>5.563 IN.</td>
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<tr>
<td>MAX. NO. STAGES</td>
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<td>ONE STAGE WEIGHT</td>
<td>75 LB.</td>
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<td>ADD STAGE WEIGHT</td>
<td>15 LB.</td>
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<td>STD. SHAFT DIA.</td>
<td>1.000 IN.</td>
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<tr>
<td>STD. LATERAL</td>
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<td>DISCHARGE SIZE</td>
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<td>DISCHARGE CONNECTION</td>
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<td>SUCTION SIZE</td>
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<td>SUCTION CONNECTION</td>
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<td>MAX. SPHERE SIZE</td>
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<tr>
<td>MAX. OPERATIONAL P.S.I.</td>
<td>360 (SPECIAL)</td>
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EFFICIENCY CORRECTION

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<th>NUMBER OF BOWLS:</th>
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CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION

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<tr>
<th>DUCTILE</th>
<th>BRONZE</th>
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<th>STAINLESS</th>
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Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
6FHC 1750 RPM

IMPELLER DATA
- Impeller Number: 6606
- Type: Enclosed
- Thrust Factor: K=2.24
- Eye Area: 3.65 SQ. IN.
- Weight: 2.38 LB.
- Minimum submergence above eye of bottom impeller: 12 IN.

FLANGED BOWL DATA
- Bowl Number: 6616
- Bowl Max. Diameter: 5.813 IN.
- Bowl Min. Diameter: 5.563 IN.
- Max. No. Stages: 50
- One Stage Weight: 75 LB.
- Add Stage Weight: 15 LB.
- Std. Shaft Dia.: 1.000 IN.
- Std. Lateral: 0.375 IN.
- Discharge Size: 4 IN.
- Discharge Connection: THD - FLG
- Suction Size: 4 IN.
- Suction Connection: THD
- Max. Sphere Size: 0.188 IN.
- Max. Operational P.S.I.: 360 (SPECIAL)

EFFICIENCY CORRECTION

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<th>Number of Bowls</th>
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Change in efficiency may affect both head and horsepower.

PUMP MATERIAL EFFICIENCY CORRECTION

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<th>Material</th>
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Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
TURBINE PUMP CURVE
SINGLE STAGE PERFORMANCE
APRIL 2020

6FXC 1750 RPM

IMPELLER DATA
IMPELLER NUMBER: 6909
TYPE: ENCLOSED
THRUST FACTOR: K=2.83
EYE AREA: 4.01 SQ. IN.
WEIGHT: 2.15 LB.

Minimum submergence above eye of bottom impeller: 20 IN.

FLANGED BOWL DATA
BOWL NUMBER: 6919
BOWL MAX. DIAMETER: 5.813 IN.
BOWL MIN. DIAMETER: 5.563 IN.
MAX. NO. STAGES: 50
ONE STAGE WEIGHT: 75 LB.
ADD STAGE WEIGHT: 15 LB.
STD. SHAFT DIA.: 1.000 IN.
STD. LATERAL: 0.625 IN.
DISCHARGE SIZE: 4 IN.
DISCHARGE CONNECTION: THD - FLG
SUCTION SIZE: 4 IN.
SUCTION CONNECTION: THD
MAX. SPHERE SIZE: 0.188 IN.
MAX. OPERATIONAL P.S.I.: 360 (SPECIAL)

EFFICIENCY CORRECTION
NUMBER OF BOWLS:
1 2 3 4
CHANGE AS FOLLOWS:
-4 -2 -1 0
CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION
IMPELLER MATERIAL:
DUCTILE 0 0 NI-R -3
BOWL MATERIAL:
-1 -1 -1 -6

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
6FWC 1750 RPM

IMPELLER DATA
- IMPELLER NUMBER: 6808
- TYPE: ENCLOSED
- THRUST FACTOR: K=4.13
- EYE AREA: 6.88 SQ. IN.
- WEIGHT: 2.65 LB.
- Minimum submergence above eye of bottom impeller: 20 IN.

FLANGED BOWL DATA
- BOWL NUMBER: 6818
- BOWL MAX. DIAMETER: 5.875 IN.
- BOWL MIN. DIAMETER: 5.563 IN.
- MAX. NO. STAGES: 43
- ONE STAGE WEIGHT: 75 LB.
- ADD STAGE WEIGHT: 15 LB.
- STD. SHAFT DIA.: 1.000 IN.
- STD. LATERAL: 0.438 IN.
- DISCHARGE SIZE: 4 IN.
- DISCHARGE CONNECTION: THD - FLG
- SUCTION SIZE: 4 IN.
- SUCTION CONNECTION: THD
- MAX. SPHERE SIZE: 0.500 IN.
- MAX. OPERATIONAL P.S.I.: 360 (SPECIAL)

EFFICIENCY CORRECTION
- NUMBER OF BOWLS: 1 2 3 4
- CHANGE AS FOLLOWS: -4 -2 -1 0

PUMP MATERIAL EFFICIENCY CORRECTION
- IMPELLER MATERIAL: -2 0 -1 -3
- BOWL MATERIAL: -1 -1 -1 -6

Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
IMPELLER DATA

- IMPELLER NUMBER: 6414
- TYPE: ENCLOSED
- THRUST FACTOR: K=4.10
- EYE AREA: 7.51 SQ. IN.
- WEIGHT: 2.35 LB.

Minimum submergence above eye of bottom impeller: 20 IN.

EFFICIENCY CORRECTION

- NUMBER OF BOWLS: 1 2 3 4
- CHANGE AS FOLLOWS: -4 -2 -1 0

CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION

- IMPELLER MATERIAL: -2 0 -1 -3
- BOWL MATERIAL: -1 -1 -1 -6

FLANGED BOWL DATA

- BOWL NUMBER: 6818
- BOWL MAX. DIAMETER: 5.875 IN.
- BOWL MIN. DIAMETER: 5.563 IN.
- MAX. NO. STAGES: 46
- ONE STAGE WEIGHT: 75 LB.
- ADD STAGE WEIGHT: 15 LB.
- STD. SHAFT DIA.: 1.000 IN.
- STD. LATERAL: 0.250 IN.
- DISCHARGE SIZE: 4 IN.
- DISCHARGE CONNECTION: THD - FLG
- SUCTION SIZE: 4 IN.
- SUCTION CONNECTION: THD
- MAX. SPHERE SIZE: 0.500 IN.
- MAX. OPERATIONAL P.S.I.: 360 (SPECIAL)

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
IMPELLER DATA

IMPELLER NUMBER: 7647
TYPE: ENCLOSED
THRUST FACTOR: K=4.5
EYE AREA: 11.3 SQ. IN.
WEIGHT: 5.00 LB.

Minimum submergence above eye of bottom impeller: 18 IN.

NUMBER OF BOWLS:

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<th>NUMBER</th>
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CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

FLANGED BOWL DATA

BOWL NUMBER: 6947
BOWL MAX. DIAMETER: 7.313 IN.
BOWL MIN. DIAMETER: 7.125 IN.
MAX. NO. STAGES: 32
ONE STAGE WEIGHT: 102 LB.
ADD STAGE WEIGHT: 37 LB.
STD. SHAFT DIA.: 1.188 IN.
STD. LATERAL: 0.625 IN.
DISCHARGE SIZE: 5 - 6 IN.
DISCHARGE CONNECTION: THD - FLG
SUCTION SIZE: 5 - 6 IN.
SUCTION CONNECTION: THD
MAX. SPHERE SIZE: 0.750 IN.
MAX. OPERATIONAL P.S.I.: 695 (SPECIAL)

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
**IMPELLER DATA**

- **IMPELLER NUMBER:** 7656
- **TYPE:** ENCLOSED
- **THRUST FACTOR:** $K=4.56$
- **EYE AREA:** 11.3 SQ. IN.
- **WEIGHT:** 5.25 LB.

**FLANGED BOWL DATA**

- **BOWL NUMBER:** 6947
- **BOWL MAX. DIAMETER:** 7.313 IN.
- **BOWL MIN. DIAMETER:** 7.125 IN.
- **MAX. NO. STAGES:** 32
- **ONE STAGE WEIGHT:** 102 LB.
- **ADD STAGE WEIGHT:** 37 LB.
- **STD. SHAFT DIA.:** 1.188 IN.
- **STD. LATERAL:** 0.625 IN.
- **DISCHARGE SIZE:** 5 - 6 IN.
- **DISCHARGE CONNECTION:** THD - FLG
- **SUCTION SIZE:** 5 - 6 IN.
- **SUCTION CONNECTION:** THD
- **MAX. SPHERE SIZE:** 0.750 IN.
- **MAX. OPERATIONAL P.S.I.:** 692 (SPECIAL)

**EFFICIENCY CORRECTION**

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<tr>
<td>CHANGE AS FOLLOWS</td>
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<td>-1</td>
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**PUMP MATERIAL EFFICIENCY CORRECTION**

- **DUCTILE:** -2
- **BRONZE:** 0
- **NI-R:** -1
- **STAINLESS:** -3
- **IMPELLER MATERIAL:** -2
- **BOWL MATERIAL:** -2

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
IMPELLER DATA

- IMPELLER NUMBER: 3628
- TYPE: ENCLOSED
- THRUST FACTOR: K=2.98
- EYE AREA: 3.65 SQ. IN.
- WEIGHT: 5.75 LB.
- Minimum submergence above eye of bottom impeller: 18 IN.

FLANGED BOWL DATA

- BOWL BUMBER: 3629
- BOWL MAX. DIAMETER: 7.813 IN.
- BOWL MIN. DIAMETER: 7.500 IN.
- MAX. NO. STAGES: 42
- ONE STAGE WEIGHT: 130 LB.
- ADD STAGE WEIGHT: 30 LB.
- STD. SHAFT DIA.: 1.000 IN.
- STD. LATERAL: 0.438 IN.
- DISCHARGE SIZE: 6 - 6 IN.
- DISCHARGE CONNECTION: THD - FLG
- SUCTION SIZE: 6 - 6 IN.
- SUCTION CONNECTION: THD
- MAX. SPHERE SIZE: 0.250 IN.
- MAX. OPERATIONAL P.S.I.: 692 (SPECIAL)

EFFICIENCY CORRECTION

- NUMBER OF BOWLS: 1, 2, 3
- CHANGE AS FOLLOWS: -3, -1, -0
- CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
8FJS 1760 RPM

IMPELLER DATA
- IMPELLER NUMBER: 3692
- TYPE: SEMI-OPEN
- THRUST FACTOR: K=3.52
- EYE AREA: 3.18 SQ. IN.
- WEIGHT: 3.55 LB.
- Minimum submergence above eye of bottom impeller: 14 IN.

FLANGED BOWL DATA
- BOWL NUMBER: 3629
- MAX. DIAMETER: 7.813 IN.
- MIN. DIAMETER: 7.500 IN.
- MAX. NO. STAGES: 42
- ONE STAGE WEIGHT: 130 LB.
- ADD STAGE WEIGHT: 30 LB.
- STD. SHAFT DIA.: 1.000 IN.
- STD. LATERAL: 0.438 IN.
- DISCHARGE SIZE: 5 - 6 IN.
- DISCHARGE CONNECTION: THD - FLG
- SUCTION SIZE: 5 - 6 IN.
- SUCTION CONNECTION: THD
- MAX. SPHERE SIZE: 0.250 IN.
- MAX. OPERATIONAL P.S.I.: 692 (SPECIAL)

EFFICIENCY CORRECTION
- NUMBER OF BOWLS:
  - 1
  - 2
  - 3
- CHANGE AS FOLLOWS:
  - -3
  - -1
  - 0

PUMP MATERIAL EFFICIENCY CORRECTION
- IMPELLER MATERIAL:
  - DUCTILE: -2
  - BRONZE: 0
  - NI-R: -1
  - STAINLESS: -2
- BOWL MATERIAL:
  - DUCTILE: -2
  - BRONZE: -2
  - NI-R: -2
  - STAINLESS: -5

Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
**IMPELLER DATA**
- IMPELLER NUMBER: 3630
- TYPE: ENCLOSED
- THRUST FACTOR: K=2.98
- EYE AREA: 4.64 SQ. IN.
- WEIGHT: 5.75 LB.
- Minimum submergence above eye of bottom impeller: 14 IN.

**FLANGED BOWL DATA**
- BOWL NUMBER: 3629
- BOWL MAX. DIAMETER: 7.813 IN.
- BOWL MIN. DIAMETER: 7.500 IN.
- MAX. NO. STAGES: 37
- ONE STAGE WEIGHT: 130 LB.
- ADD STAGE WEIGHT: 30 LB.
- STD. SHAFT DIA.: 1.000 IN.
- STD. LATERAL: 0.438 IN.
- DISCHARGE SIZE: 5 - 6 IN.
- DISCHARGE CONNECTION: THD - FLG
- SUCTION SIZE: 5 - 6 IN.
- SUCTION CONNECTION: THD
- MAX. SPHERE SIZE: 0.250 IN.
- MAX. OPERATIONAL P.S.I: 692 (SPECIAL)

**EFFICIENCY CORRECTION**
- NUMBER OF BOWLS: 1, 2, 3
- CHANGE AS FOLLOWS: -4, -2, 0
- CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

**PUMP MATERIAL EFFICIENCY CORRECTION**
- IMPELLER MATERIAL: DUCTILE -2, BRONZE 0, NI-R -1, STAINLESS -2
- BOWL MATERIAL: DUCTILE -2, BRONZE -2, NI-R -2, STAINLESS -5

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
IMPELLER DATA

| IMPELLER NUMBER | 3641 |
| TYPE            | SEMI-OPEN |
| THRUST FACTOR   | K=3.34 |
| EYE AREA        | 4.64 SQ. IN. |
| WEIGHT          | 4.25 LB. |

TRIM ANGLE: 0°
Minimum submergence above eye of bottom impeller: 14IN.

EFFICIENCY CORRECTION

| NUMBER OF BOWLS: | 1 | 2 | 3 |
| CHANGE AS FOLLOWS: | -4 | -2 | 0 |

CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION

| IMPELLER MATERIAL: | DUCTILE | BRONZE | N-I-R | STAINLESS |
|                   | -2      | 0      | -1   | -2        |
| BOWL MATERIAL:     | -2      | -2     | -2   | -5        |

Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.

FLANGED BOWL DATA

| BOWL NUMBER         | 3629                          |
| BOWL MAX. DIAMETER  | 7.813 IN.                     |
| BOWL MIN. DIAMETER  | 7.500 IN.                     |
| MAX. NO. STAGES     | 37                            |
| ONE STAGE WEIGHT    | 130 LB.                       |
| ADD STAGE WEIGHT    | 30 LB.                        |
| STD. SHAFT DIA.     | 1.000 IN.                     |
| STD. LATERAL        | 0.438 IN.                     |
| DISCHARGE SIZE      | 5 - 6 IN.                     |
| DISCHARGE CONNECTION| THD - FLG                     |
| SUCTION SIZE        | 5 - 6 IN.                     |
| SUCTION CONNECTION  | THD                           |
| MAX. SPHERE SIZE    | 0.250 IN.                     |
| MAX. OPERATIONAL P.S.I. | 692 (SPECIAL)                |

Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
TURBINE PUMP CURVE
SINGLE STAGE PERFORMANCE
APRIL 2020

8FKC 1750 RPM

IMPELLER DATA
- IMPELLER NUMBER: 3680
- TYPE: ENCLOSED
- THRUST FACTOR: K=3.93
- EYE AREA: 5.72 SQ. IN.
- WEIGHT: 5.50 LB.

Minimum submergence above eye of bottom impeller: 18 IN.

TRIM ANGLE: 18°

EFFICIENCY CORRECTION
- NUMBER OF BOWLS:
  - 1
  - 2
  - 3
- CHANGE AS FOLLOWS:
  - -3
  - -1
  - 0

CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION
- IMPELLER MATERIAL:
  - DUCTILE: -2
  - BRONZE: 0
  - NI-R: -1
  - STAINLESS: -2
- BOWL MATERIAL:
  - DUCTILE: -2
  - BRONZE: -2
  - NI-R: -2
  - STAINLESS: -5

FLANGED BOWL DATA
- BOWL NUMBER: 3591
- BOWL MAX. DIAMETER: 7.938 IN.
- BOWL MIN. DIAMETER: 7.500 IN.
- MAX. NO. STAGES: 37
- ONE STAGE WEIGHT: 130 LB.
- ADD STAGE WEIGHT: 30 LB.
- STD. SHAFT DIA.: 1.000 IN.
- STD. LATERAL: 0.438 IN.
- DISCHARGE SIZE: 5 - 6 IN.
- DISCHARGE CONNECTION: THD - FLG
- SUCTION SIZE: 5 - 6 IN.
- SUCTION CONNECTION: THD
- MAX. SPHERE SIZE: 0.375 IN.
- MAX. OPERATIONAL P.S.I.: 692 (SPECIAL)

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
**IMPELLER DATA**

- **IMPELLER NUMBER:** 3693
- **TYPE:** SEMI-OPEN
- **THRUST FACTOR:** K=4.42
- **EYE AREA:** 6.60 SQ. IN.
- **WEIGHT:** 3.75 LB.

- **Minimum submergence above eye of bottom impeller:** 20 IN.

**FLANGED BOWL DATA**

- **BOWL NUMBER:** 3591
- **BOWL MAX. DIAMETER:** 7.938 IN.
- **BOWL MIN. DIAMETER:** 7.500 IN.
- **MAX. NO. STAGES:** 37
- **ONE STAGE WEIGHT:** 130 LB.
- **ADD STAGE WEIGHT:** 30 LB.
- **STD. SHAFT DIA.:** 1.000 IN.
- **STD. LATERAL:** 0.438 IN.
- **DISCHARGE SIZE:** 5 - 6 IN.
- **DISCHARGE CONNECTION:** THD - FLG
- **SUCTION SIZE:** 5 - 6 IN.
- **SUCTION CONNECTION:** THD
- **MAX. SPHERE SIZE:** 0.375 IN.
- **MAX. OPERATIONAL P.S.I.:** 692 (SPECIAL)

**EFFICIENCY CORRECTION**

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Change in efficiency may affect both head and horsepower.

**PUMP MATERIAL EFFICIENCY CORRECTION**

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Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
IMPELLER DATA
- IMPELLER NUMBER: 3589
- TYPE: ENCLOSED
- THRUST FACTOR: K=3.93
- EYE AREA: 6.50 SQ. IN.
- WEIGHT: 5.00 LB.
- Minimum submergence above eye of bottom impeller: 22 IN.

EFFICIENCY CORRECTION
- NUMBER OF BOWLS: 1, 2, 3, 4, 5
- CHANGE AS FOLLOWS: -4, -3, -2, -1, 0

CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

FLANGED BOWL DATA
- BOWL NUMBER: 3591
- BOWL MAX. DIAMETER: 7.938 IN.
- BOWL MIN. DIAMETER: 7.500 IN.
- MAX. NO. STAGES: 23
- ONE STAGE WEIGHT: 130 LB.
- ADD STAGE WEIGHT: 30 LB.
- STD. SHAFT DIA.: 1.000 IN.
- STD. LATERAL: 0.438 IN.
- DISCHARGE SIZE: 5 - 6 IN.
- DISCHARGE CONNECTION THD - FLG
- SUCTION SIZE: 5 - 6 IN.
- SUCTION CONNECTION: THD
- MAX. SPHERE SIZE: 0.375 IN.
- MAX. OPERATIONAL P.S.I.: 692 (SPECIAL)

PUMP MATERIAL EFFICIENCY CORRECTION
- IMPPELLER MATERIAL: -2, 0, -1, -2
- BOWL MATERIAL: -2, -2, -2, -5

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
**TURBINE PUMP CURVE**

**SINGLE STAGE PERFORMANCE**

**8FMS 1760 RPM**

**IMPELLER DATA**
- **IMPELLER NUMBER**: 3590
- **TYPE**: SEMI-OPEN
- **THRUST FACTOR**: K=4.28
- **EYE AREA**: 6.60 SQ. IN.
- **WEIGHT**: 4.125 LB.
- **Minimum submergence above eye of bottom impeller**: 24 IN.

**FLANGED BOWL DATA**
- **BOWL NUMBER**: 3591
- **BOWL MAX. DIAMETER**: 7.938 IN.
- **BOWL MIN. DIAMETER**: 7.500 IN.
- **MAX. NO. STAGES**: 23
- **ONE STAGE WEIGHT**: 130 LB.
- **ADD STAGE WEIGHT**: 30 LB.
- **STD. SHAFT DIA.**: 1.000 IN.
- **STD. LATERAL**: 0.438 IN.
- **DISCHARGE SIZE**: 5 - 6 IN.
- **DISCHARGE CONNECTION**: THD - FLG
- **SUCTION SIZE**: 5 - 6 IN.
- **SUCTION CONNECTION**: THD
- **MAX. SPHERE SIZE**: 0.375 IN.
- **MAX. OPERATIONAL P.S.I.**: 692 (SPECIAL)

**EFFICIENCY CORRECTION**
- **NUMBER OF BOWLS**: 1 2 3 4 5
- **CHANGE AS FOLLOWS**: -4 -3 -2 -1 0

CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

**PUMP MATERIAL EFFICIENCY CORRECTION**

<table>
<thead>
<tr>
<th>DUCTILE</th>
<th>BRONZE</th>
<th>NI-R</th>
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Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
IMPELLER DATA

IMPELLER NUMBER: 2978
TYPE: ENCLOSED
THRUST FACTOR: K=5.40
EYE AREA: 8.33 SQ. IN.
WEIGHT: 5.00 LB.

Minimum submergence above eye of bottom impeller: 22 IN.

FLANGED BOWL DATA

BOWL NUMBER: 2883
BOWL MAX. DIAMETER: 7.938 IN.
BOWL MIN. DIAMETER: 7.500 IN.
MAX. NO. STAGES: 19
ONE STAGE WEIGHT: 130 LB.
ADD STAGE WEIGHT: 30 LB.
STD. SHAFT DIA.: 1.188 IN.
STD. LATERAL: 0.375 IN.
DISCHARGE SIZE: 5 - 6 IN.
DISCHARGE CONNECTION: THD - FLG
SUCTION SIZE: 5 - 6 IN.
SUCTION CONNECTION: THD
MAX. SPHERE SIZE: 0.625 IN.
MAX. OPERATIONAL P.S.I.: 692 (SPECIAL)

EFFICIENCY CORRECTION

NUMBER OF BOWLS:
1 2 3
CHANGE AS FOLLOWS:
-3 -2 -1
CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION

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Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
IMPELLER DATA

IMPELLER NUMBER: 2981
TYPE: SEMI-OPEN
THRUST FACTOR: K=5.40
EYE AREA: 8.48 SQ. IN.
WEIGHT: 3.25 LB.

Minimum submergence above eye of bottom impeller: 24 IN.
TRIM ANGLE: 29.5°

EFFICIENCY CORRECTION

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<th>NUMBER OF BOWLS</th>
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CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION

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FLANGED BOWL DATA

BOWL NUMBER: 2883
BOWL MAX. DIAMETER: 7.938 IN.
BOWL MIN. DIAMETER: 7.500 IN.
MAX. NO. STAGES: 19
ONE STAGE WEIGHT: 130 LB.
ADD STAGE WEIGHT: 30 LB.
STD. SHAFT DIA.: 1.188 IN.
STD. LATERAL: 0.375 IN.
DISCHARGE SIZE: 5 - 6 IN.
DISCHARGE CONNECTION: THD
SUCTION SIZE: 5 - 6 IN.
SUCTION CONNECTION: THD
MAX. SPHERE SIZE: 0.625 IN.
MAX. OPERATIONAL P.S.I.: 692 (SPECIAL)

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
IMPELLER NUMBER: 5502
TYPE: ENCLOSED
THRUST FACTOR: K=8.00
EYE AREA: 15.9 SQ. IN.
WEIGHT: 5.25 LB.

Minimum submergence above eye of bottom impeller: 28 IN.

CHANGE AS FOLLOWS:

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CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION

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<th>DUCTILE</th>
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BOWL NUMBER: 5503
BOWL MAX. DIAMETER: 7.938 IN.
BOWL MIN. DIAMETER: 7.500 IN.
MAX. NO. STAGES: 32
ONE STAGE WEIGHT: 139 LB.
ADD STAGE WEIGHT: 39 LB.
STD. SHAFT DIA.: 1.188 IN.
STD. LATERAL: 0.375 IN.
DISCHARGE SIZE: 5 - 6 IN.
DISCHARGE CONNECTION: THD - FLG
SUCTION SIZE: 5 - 6 IN.
SUCTION CONNECTION: THD
MAX. SPHERE SIZE: 1.125 IN.
MAX. OPERATIONAL P.S.I.: 692 (SPECIAL)

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
IMPELLER DATA

- IMPELLER NUMBER: 5506
- TYPE: SEMI-OPEN
- THRUST FACTOR: K=8.00
- EYE AREA: 15.9 SQ. IN.
- WEIGHT: 5.00 LB.

- Minimum submergence above eye of bottom impeller: 30 IN.

EFFICIENCY CORRECTION

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CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION

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FLANGED BOWL DATA

- BOWL NUMBER: 5503
- BOWL MAX. DIAMETER: 7.938 IN.
- BOWL MIN. DIAMETER: 7.500 IN.
- MAX. NO. STAGES: 32
- ONE STAGE WEIGHT: 139 LB.
- ADD STAGE WEIGHT: 39 LB.
- STD. SHAFT DIA.: 1.188 IN.
- STD. LATERAL: 0.375 IN.
- DISCHARGE SIZE: 5 - 6 IN.
- DISCHARGE CONNECTION: THD - FLG
- SUCTION SIZE: 5 - 6 IN.
- SUCTION CONNECTION: THD
- MAX. SPHERE SIZE: 1.125 IN.
- MAX. OPERATIONAL P.S.I.: 692 (SPECIAL)

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
IMPELLER DATA
IMPELLER NUMBER  7747
TYPE   ENCLOSED
THRUST FACTOR  K=4.90
EYE AREA  12.4 SQ. IN.
WEIGHT   8.20 LB.

Minimum submergence above eye of bottom impeller: 30 IN.

Efficiency Correction

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Change in efficiency may affect both head and horsepower.

FLANGED BOWL DATA
BOWL NUMBER  7038
BOWL MAX. DIAMETER  9.438 IN.
BOWL MIN. DIAMETER  9.250 IN.
MAX. NO. STAGES  46
ONE STAGE WEIGHT  145 LB.
ADD STAGE WEIGHT  50 LB.
STD. SHAFT DIA.  1.500 IN.
STD. LATERAL  0.875 IN.
DISCHARGE SIZE  6 - 8 IN.
DISCHARGE CONNECTION THD - FLG
SUCTION SIZE  6 - 8 IN.
SUCTION CONNECTION THD
MAX. SPHERE SIZE  1.125 IN.
MAX. OPERATIONAL P.S.I.  595 (SPECIAL)

Performance based on pumping clear, fresh water at a temperature not over 85°F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
9FHC 1750 RPM

**IMPELLER DATA**
- IMPELLER NUMBER: 7756
- TYPE: ENCLOSED
- THRUST FACTOR: K=3.10
- EYE AREA: 12.4 SQ. IN.
- WEIGHT: 8.20 LB.
- Minimum submergence above eye of bottom impeller: 30 IN.

**TRIM ANGLE:** 17°

**EFFICIENCY CORRECTION**
- NUMBER OF BOWLS:
  - 1
  - 2
  - 3
- CHANGE AS FOLLOWS:
  - 1
  - 2
  - 0.5

Change in efficiency may affect both head and horsepower.

**PUMP MATERIAL EFFICIENCY CORRECTION**
- IMPELLER MATERIAL:
  - DUCTILE: -1
  - BRONZE: 0
  - NI-R: -1
  - STAINLESS: -2
- BOWL MATERIAL:
  - DUCTILE: -2
  - BRONZE: -2
  - NI-R: -1
  - STAINLESS: -3

**BOWL DATA**
- BOWL NUMBER: 7038
- BOWL MAX. DIAMETER: 9.438 IN.
- BOWL MIN. DIAMETER: 9.250 IN.
- MAX. NO. STAGES: 36
- ONE STAGE WEIGHT: 145 LB.
- ADD STAGE WEIGHT: 50 LB.
- STD. SHAFT DIA.: 1.500 IN.
- STD. LATERAL: 0.875 IN.
- DISCHARGE SIZE: 6 - 8 IN.
- DISCHARGE CONNECTION: THD - FLG
- SUCTION SIZE: 6 - 8 IN.
- SUCTION CONNECTION: THD
- MAX. SPHERE SIZE: 1.125 IN.
- MAX. OPERATIONAL P.S.I.: 595 (SPECIAL)

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
IMPELLER DATA
- IMPPELLER NUMBER: 3095
- TYPE: ENCLOSED
- THRUST FACTOR: K = 4.20
- EYE AREA: 7.89 SQ. IN.
- WEIGHT: 9.50 LB.

Minimum submergence above eye of bottom impeller: 32 IN.

TRIM ANGLE: 25.5°

EFFICIENCY CORRECTION
- NUMBER OF BOWLS: 1 2 3 4 5
- CHANGE AS FOLLOWS: -5 -4 -3 -1 0

CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION
- IMPPELLER MATERIAL: DUCTILE 0 0 0 0 0
- BOWL MATERIAL: BRONZE 0 0 0 0 0

FLANGED BOWL DATA
- BOWL NUMBER: 3096
- BOWL MAX. DIAMETER: 9.875 IN.
- BOWL MIN. DIAMETER: 9.500 IN.
- MAX. NO. STAGES: 33
- ONE STAGE WEIGHT: 230 LB.
- ADD STAGE WEIGHT: 55 LB.
- STD. SHAFT DIA.: 1.500 IN.
- STD. LATERAL: 0.500 IN.
- DISCHARGE SIZE: 6 - 8 IN.
- DISCHARGE CONNECTION: THD - FLG
- SUCTION SIZE: 6 - 8 IN.
- SUCTION CONNECTION: THD
- MAX. SPHERE SIZE: 0.438 IN.
- MAX. OPERATIONAL P.S.I.: 595 (SPECIAL)

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
**10FLC 1750 RPM**

**IMPELLER DATA**
- IMPELLER NUMBER: 3102
- TYPE: ENCLOSED
- THRUST FACTOR: K=6.60
- EYE AREA: 10.2 SQ. IN.
- WEIGHT: 9.75 LB.
- Minimum submergence above eye of bottom impeller: 36 IN.
- TRIM ANGLE: 20°

**FLANGED BOWL DATA**
- BOWL NUMBER: 3098
- BOWL MAX. DIAMETER: 9.500 IN.
- BOWL MIN. DIAMETER: 9.250 IN.
- MAX. NO. STAGES: 34
- ONE STAGE WEIGHT: 230 LB.
- ADD STAGE WEIGHT: 55 LB.
- STD. SHAFT DIA.: 1.500 IN.
- STD. LATERAL: 0.563 IN.
- DISCHARGE SIZE: 6 - 8 IN.
- DISCHARGE CONNECTION: THD - FLG
- SUCTION SIZE: 6 - 8 IN.
- SUCTION CONNECTION: THD
- MAX. SPHERE SIZE: 0.500 IN.
- MAX. OPERATIONAL P.S.I.: 595 (SPECIAL)

**EFFICIENCY CORRECTION**
- Number of Bowls: 1 2 3 4
- Change as follows: -4 -2 -1 0

Change in efficiency may affect both head and horsepower.

**PUMP MATERIAL EFFICIENCY CORRECTION**

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Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
IMPELLER DATA

IMPELLER NUMBER: 3103
TYPE: SEMI-OPEN
THRUST FACTOR: K=7.50
EYE AREA: 11.7 SQ. IN.
WEIGHT: 6.25 LB.

Minimum submergence above eye of bottom impeller: 38 IN.

TRIM ANGLE: 20°

EFFICIENCY CORRECTION

<table>
<thead>
<tr>
<th>NUMBER OF BOWLS</th>
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<th>2</th>
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CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION

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FLANGED BOWL DATA

BOWL NUMBER: 3098
BOWL MAX. DIAMETER: 9.500 IN.
BOWL MIN. DIAMETER: 9.250 IN.
MAX. NO. STAGES: 34
ONE STAGE WEIGHT: 230 LB.
ADD STAGE WEIGHT: 55 LB.
STD. SHAFT DIA.: 1.500 IN.
STD. LATERAL: 0.500 IN.
DISCHARGE SIZE: 6 - 8 IN.
DISCHARGE CONNECTION: THD - FLG
SUCTION SIZE: 6 - 8 IN.
SUCTION CONNECTION: THD
MAX. SPHERE SIZE: 0.500 IN.
MAX. OPERATIONAL P.S.I.: 595 (SPECIAL)

Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
IMPELLER DATA
- IMPELLER NUMBER: 3097
- TYPE: ENCLOSED
- THRUST FACTOR: K=6.60
- EYE AREA: 11.7 SQ. IN.
- WEIGHT: 8.50 LB.

Minimum submergence above eye of bottom impeller: 36 IN.

TRIM ANGLE: 26°

EFFICIENCY CORRECTION
- NUMBER OF BOWLS: 1 2 3 4
- CHANGE AS FOLLOWS: -5 -2 -1 0

CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION
- IMPELLER MATERIAL: -1 0 -1 -2
- BOWL MATERIAL: -2 -2 -1 -3

FLANGED BOWL DATA
- BOWL NUMBER: 3098
- BOWL MAX. DIAMETER: 9.500 IN.
- BOWL MIN. DIAMETER: 9.250 IN.
- MAX. NO. STAGES: 30
- ONE STAGE WEIGHT: 230 LB.
- ADD STAGE WEIGHT: 55 LB.
- STD. SHAFT DIA.: 1.500 IN.
- STD. LATERAL: 0.625 IN.
- DISCHARGE SIZE: 6 - 8 IN.
- DISCHARGE CONNECTION: THD - FLG
- SUCTION SIZE: 6 - 8 IN.
- SUCTION CONNECTION: THD
- MAX. SPHERE SIZE: 0.625 IN.
- MAX. OPERATIONAL P.S.I.: 595 (SPECIAL)

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
10FMS 1760 RPM

IMPELLER DATA
- IMPeller NUMBER: 3099
- TYPE: SEMI-OPEN
- THRUST FACTOR: K=7.50
- EYE AREA: 11.7 SQ. IN.
- WEIGHT: 5.75 LB.

Minimum submergence above eye of bottom impeller: 38 IN.

EFFICIENCY CORRECTION
- NUMBER OF BOWLS: 1 2 3 4
- CHANGE AS FOLLOWS: -4 -2 -1 0

CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION
- DUCTILE: -1
- BRONZE: 0
- NI-R: -1
- STAINLESS: -2

FLANGED BOWL DATA
- BOWL NUMBER: 3098
- BOWL MAX. DIAMETER: 9.500 IN.
- BOWL MIN. DIAMETER: 9.250 IN.
- MAX. NO. STAGES: 30
- ONE STAGE WEIGHT: 230 LB.
- ADD STAGE WEIGHT: 55 LB.
- STD. SHAFT DIA.: 1.500 IN.
- STD. LATERAL: 0.625 IN.
- DISCHARGE SIZE: 6 - 8 IN.
- DISCHARGE CONNECTION: THD - FLG
- SUCTION SIZE: 6 - 8 IN.
- SUCTION CONNECTION: THD
- MAX. SPHERE SIZE: 0.625 IN.
- MAX. OPERATIONAL P.S.I.: 595 (SPECIAL)

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
**IMPELLER DATA**

- **IMPELLER NUMBER**: 3577
- **TYPE**: ENCLOSED
- **THRUST FACTOR**: $K = 10.30$
- **EYE AREA**: 19.4 SQ. IN.
- **WEIGHT**: 11.50 LB.

**Minimum submergence above eye of bottom impeller**: 28 IN.

**FLANGED BOWL DATA**

- **BOWL NUMBER**: 3541
- **BOWL MAX. DIAMETER**: 9.875 IN.
- **BOWL MIN. DIAMETER**: 9.500 IN.
- **MAX. NO. STAGES**: 28
- **ONE STAGE WEIGHT**: 250 LB.
- **ADD STAGE WEIGHT**: 60 LB.
- **STD. SHAFT DIA.**: 1.688 IN.
- **STD. LATERAL**: 0.875 IN.
- **DISCHARGE SIZE**: 6 - 8 IN.
- **DISCHARGE CONNECTION**: THD - FLG
- **SUCTION SIZE**: 6 - 8 IN.
- **SUCTION CONNECTION**: THD
- **MAX. SPHERE SIZE**: 0.875 IN.
- **MAX. OPERATIONAL P.S.I.**: 455 (SPECIAL)

**EFFICIENCY CORRECTION**

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**PUMP MATERIAL EFFICIENCY CORRECTION**

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Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
IMPELLER NUMBER: 3542
TYPE: SEMI-OPEN
THRUST FACTOR: K=11.20
EYE AREA: 19.4 SQ. IN.
WEIGHT: 7.25 LB.

MINIMUM SUBMERGENCE ABOVE EYE OF BOTTOM IMPELLER: 28 IN.

BOWL NUMBER: 3541
MAX. DIAMETER: 9.875 IN.
MIN. DIAMETER: 9.500 IN.
MAX. NO. STAGES: 28
ONE STAGE WEIGHT: 250 LB.
ADD STAGE WEIGHT: 60 LB.
STD. SHAFT DIA.: 1.688 IN.
STD. LATERAL: 0.875 IN.
DISCHARGE SIZE: 6 - 8 IN.
DISCHARGE CONNECTION: THD - FLG
SUCTION SIZE: 6 - 8 IN.
SUCTION CONNECTION: THD
MAX. SPHERE SIZE: 0.875 IN.
MAX. OPERATIONAL P.S.I.: 455 (SPECIAL)

EFFICIENCY CORRECTION
NUMBER OF BOWLS: 1 2 3 4
CHANGE AS FOLLOWS: -4 -2 -1 0
CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

DUCTILE | BRONZE | NI-R | STAINLESS
------- | ------ | ---- | -------
IMPELLER MATERIAL: -1 | 0 | -1 | -2
BOWL MATERIAL: -2 | -2 | -1 | -3

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
10FYC 1750 RPM

**IMPELLER DATA**
- IMPELLER NUMBER: 3540
- TYPE: ENCLOSED
- THRUST FACTOR: K=10.30
- EYE AREA: 19.4 SQ. IN.
- WEIGHT: 11.00 LB.

**BOWL DATA**
- BOWL NUMBER: 3541
- MAX. DIAMETER: 9.875 IN.
- MIN. DIAMETER: 9.500 IN.
- MAX. NO. STAGES: 28
- ONE STAGE WEIGHT: 250 LB.
- ADD STAGE WEIGHT: 60 LB.
- STD. SHAFT DIA.: 1.688 IN.
- STD. LATERAL: 0.750 IN.
- DISCHARGE SIZE: 6 - 8 IN.
- DISCHARGE CONNECTION: THD - FLG
- SUCTION SIZE: 6 - 8 IN.
- SUCTION Connection: THD
- MAX. SPHERE SIZE: 0.875 IN.
- MAX. OPERATIONAL P.S.I.: 455 (SPECIAL)

**EFFICIENCY CORRECTION**
- NUMBER OF BOWLS: 1 2 3 4
- CHANGE AS FOLLOWS: -4 -2 -1 0

**PUMP MATERIAL EFFICIENCY CORRECTION**

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Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
**IMPELLER DATA**

- **IMPELLER NUMBER:** 3542
- **TYPE:** SEMI-OPEN
- **THRUST FACTOR:** K = 11.40
- **EYE AREA:** 19.4 SQ. IN.
- **WEIGHT:** 7.25 LB.

**FLANGED BOWL DATA**

- **BOWL NUMBER:** 3541
- **BOWL MAX. DIAMETER:** 9.875 IN.
- **BOWL MIN. DIAMETER:** 9.500 IN.
- **MAX. NO. STAGES:** 28
- **ONE STAGE WEIGHT:** 250 LB.
- **ADD STAGE WEIGHT:** 60 LB.
- **STD. SHAFT DIA.:** 1.688 IN.
- **STD. LATERAL:** 0.750 IN.
- **DISCHARGE SIZE:** 6 - 8 IN.
- **DISCHARGE CONNECTION:** THD - FLG
- **SUCTION SIZE:** 6 - 8 IN.
- **SUCTION CONNECTION:** THD
- **MAX. SPHERE SIZE:** 0.875 IN.
- **MAX. OPERATIONAL P.S.I.:** 455 (SPECIAL)

**EFFICIENCY CORRECTION**

- **NUMBER OF BOWLS:** 1 2 3 4
- **CHANGE AS FOLLOWS:** -4 -2 -1 0

**PUMP MATERIAL EFFICIENCY CORRECTION**

- **IMPELLER MATERIAL:**
  - DUCTILE: -1
  - BRONZE: 0
  - NI-R: -2
  - STAINLESS: -3

- **BOWL MATERIAL:**
  - DUCTILE: -2
  - BRONZE: -2
  - NI-R: -1
  - STAINLESS: -3

Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
TURBINE PUMP CURVE
SINGLE STAGE PERFORMANCE
APRIL 2020

10FZC 1750 RPM

IMPELLER DATA
- IMPELLER NUMBER: 3862
- TYPE: ENCLOSED
- THRUST FACTOR: K=13.60
- EYE AREA: 26.7 SQ. IN.
- WEIGHT: 9.75 LB.
- Minimum submergence above eye of bottom impeller: 30 IN.

IMPELLER MATERIAL: BRONZE

FLANGED BOWL DATA
- BOWL NUMBER: 3864
- BOWL MAX. DIAMETER: 9.875 IN.
- BOWL MIN. DIAMETER: 9.500 IN.
- MAX. NO. STAGES: 26
- ONE STAGE WEIGHT: 250 LB.
- ADD STAGE WEIGHT: 60 LB.
- STD. SHAFT DIA.: 1.688 IN.
- STD. LATERAL: 0.500 IN.
- DISCHARGE SIZE: 6 - 8 IN.
- DISCHARGE CONNECTION: THD - FLG
- SUCTION SIZE: 6 - 8 IN.
- SUCTION CONNECTION: THD
- MAX. SPHERE SIZE: 1.438 IN.
- MAX. OPERATIONAL P.S.I.: 455 (SPECIAL)

EFFICIENCY CORRECTION
- NUMBER OF BOWLS:
  - 1
  - 2
  - 3
  - 4
  - 5
- CHANGE AS FOLLOWS:
  - -6
  - -5
  - -3
  - -1
  - 0
- CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION
- IMPPELLER MATERIAL:
  - DUCTILE: -1
  - BRONZE: 0
  - NI-R: -1
  - STAINLESS: -2
- BOWL MATERIAL:
  - DUCTILE: -2
  - BRONZE: -2
  - NI-R: -1
  - STAINLESS: -3

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
10FZS 1760 RPM

IMPELLER DATA
- IMPELLER NUMBER: 3863
- TYPE: SEMI-OPEN
- THRUST FACTOR: K=13.50
- EYE AREA: 26.7 SQ. IN.
- WEIGHT: 5.75 LB.

- Minimum submergence above eye of bottom impeller: 30 IN.
- TRIM ANGLE: 42°

EFFICIENCY CORRECTION
- NUMBER OF BOWLS:
  - 1: -1
  - 2: -2
  - 3: -3
  - 4: -4
  - 5: -5
- CHANGE AS FOLLOWS:
  - 1: -1
  - 2: -2
  - 3: -3
  - 4: -4
  - 5: -5

CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

FLANGED BOWL DATA
- BOWL NUMBER: 3864
- BOWL MAX. DIAMETER: 9.875 IN.
- BOWL MIN. DIAMETER: 9.500 IN.
- MAX. NO. STAGES: 26
- ONE STAGE WEIGHT: 250 LB.
- ADD STAGE WEIGHT: 60 LB.
- STD. SHAFT DIA.: 1.688 IN.
- STD. LATERAL: 0.500 IN.
- DISCHARGE SIZE: 6 - 8 IN.
- DISCHARGE CONNECTION: THD - FLG
- SUCTION SIZE: 6 - 8 IN.
- SUCTION CONNECTION: THD
- MAX. SPHERE SIZE: 1.438 IN.
- MAX. OPERATIONAL P.S.I.: 455 (SPECIAL)

Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
**IMPELLER DATA**

- **Impeller Number:** 0183
- **Type:** ENCLOSED
- **Thrust Factor:** K=7.90
- **Eye Area:** 17.7 SQ. IN.
- **Weight:** 15.40 LB.
- **Minimum Submergence Above Eye of Bottom Impeller:** 24 IN.

**EFFICIENCY CORRECTION**

- **Number of Bowls:**
  - 1
  - 2
  - 3
  - 4
- **Change as Follows:**
  - -3
  - -2
  - -1
  - 0

Change in efficiency may affect both head and horsepower.

**PUMP MATERIAL EFFICIENCY CORRECTION**

- **Impeller Material:**
  - Ductile: -1
  - Bronze: 0
  - Ni-R: -1
  - Stainless: -2
- **Bowl Material:**
  - Ductile: -2
  - Bronze: -1
  - Ni-R: -1
  - Stainless: -2

**FLANGED BOWL DATA**

- **Bowl Number:** 0201
- **Bowl Max. Diameter:** 11.188 IN.
- **Bowl Min. Diameter:** 11.000 IN.
- **Max. No. Stages:** 25
- **One Stage Weight:** 235 LB.
- **Add Stage Weight:** 105 LB.
- **Std. Shaft Dia.:** 1.688 IN.
- **Std. Lateral:** 0.750 IN.
- **Discharge Size:** 8 IN.
- **Discharge Connection:** THD - FLG
- **Suction Size:** 8 IN.
- **Suction Connection:** THD
- **Max. Sphere Size:** 0.500 IN.
- **Max. Operational P.S.I.:** 585 (SPECIAL)

Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
**TURBINE PUMP CURVE**

**SINGLE STAGE PERFORMANCE**

**APRIL 2020**

**11FMC 1750 RPM**

**IMPELLER DATA**
- **IMPELLER NUMBER**: 0184
- **TYPE**: ENCLOSED
- **THRUST FACTOR**: K=7.80
- **EYE AREA**: 17.7 SQ. IN.
- **WEIGHT**: 15.50 LB.

**Minimum submergence above eye of bottom impeller**: 24 IN.

**FLANGED BOWL DATA**
- **BOWL NUMBER**: 0201
- **BOWL MAX. DIAMETER**: 11.188 IN.
- **BOWL MIN. DIAMETER**: 11.000 IN.
- **MAX. NO. STAGES**: 22
- **ONE STAGE WEIGHT**: 235 LB.
- **ADD STAGE WEIGHT**: 105 LB.
- **STD. SHAFT DIA.**: 1.688 IN.
- **STD. LATERAL**: 0.750 IN.
- **DISCHARGE SIZE**: 8 IN.
- **DISCHARGE CONNECTION**: THD - FLG
- **SUCTION SIZE**: 8 IN.
- **SUCTION CONNECTION**: THD
- **MAX. SPHERE SIZE**: 0.500 IN.
- **MAX. OPERATIONAL P.S.I.**: 585 (SPECIAL)

**EFFICIENCY CORRECTION**

<table>
<thead>
<tr>
<th>NUMBER OF BOWLS</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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</thead>
<tbody>
<tr>
<td>CHANGE AS FOLLOWS</td>
<td>-3</td>
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CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

**PUMP MATERIAL EFFICIENCY CORRECTION**

<table>
<thead>
<tr>
<th></th>
<th>DUCTILE</th>
<th>BRONZE</th>
<th>NI-R</th>
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<td>IMPELLER MATERIAL</td>
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</table>

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
TURBINE PUMP CURVE
SINGLE STAGE PERFORMANCE
APRIL 2020

11FHC 1750 RPM

IMPELLER DATA
IMPELLER NUMBER 0185
TYPE ENCLOSED
THRUST FACTOR K=7.40
EYE AREA 17.7 SQ. IN.
WEIGHT 15.50 LB.

Minimum submergence above eye of bottom impeller: 24 IN.

TRIM ANGLE: 23°

FLANGED BOWL DATA
BOWL NUMBER 0201
BOWL MAX. DIAMETER 11.188 IN.
BOWL MIN. DIAMETER 11.000 IN.
MAX. NO. STAGES 20
ONE STAGE WEIGHT 235 LB.
ADD STAGE WEIGHT 105 LB.
STD. SHAFT DIA. 1.688 IN.
STD. LATERAL 0.750 IN.
DISCHARGE SIZE 8 IN.
DISCHARGE CONNECTION THD - FLG
SUCTION SIZE 8 IN.
SUCTION CONNECTION THD
MAX. SPHERE SIZE 0.500 IN.
MAX. OPERATIONAL P.S.I. 585 (SPECIAL)

EFFICIENCY CORRECTION
NUMBER OF BOWLS: 1 2 3 4
CHANGE AS FOLLOWS: -3 -2 -1 0

CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION

<table>
<thead>
<tr>
<th></th>
<th>DUCTILE</th>
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<th>NI-R</th>
<th>STAINLESS</th>
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Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
**IMPELLER DATA**

<table>
<thead>
<tr>
<th>IMPPELLER NUMBER</th>
<th>TYPE</th>
<th>THRUST FACTOR</th>
<th>EYE AREA</th>
<th>WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>2995</td>
<td>ENCLOSED</td>
<td>K=5.13</td>
<td>15.9 SQ. IN.</td>
<td>14.25 LB.</td>
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</table>

**TRIM ANGLE:** 25°

Minimum submergence above eye of bottom impeller: 24 IN.

**EFFICIENCY CORRECTION**

<table>
<thead>
<tr>
<th>NUMBER OF BOWLS:</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHANGE AS FOLLOWS:</td>
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<td>-1</td>
<td>0</td>
</tr>
</tbody>
</table>

Change in efficiency may affect both head and horsepower.

**PUMP MATERIAL EFFICIENCY CORRECTION**

<table>
<thead>
<tr>
<th>IMPPELLER MATERIAL:</th>
<th>DUCTILE</th>
<th>BRONZE</th>
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<tbody>
<tr>
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<td>-1</td>
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<table>
<thead>
<tr>
<th>BOWL MATERIAL:</th>
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<th>BRONZE</th>
<th>NI-R</th>
<th>STAINLESS</th>
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<tbody>
<tr>
<td>-2</td>
<td>-1</td>
<td>-2</td>
<td>-2</td>
<td>-3</td>
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</tbody>
</table>

**FLANGED BOWL DATA**

<table>
<thead>
<tr>
<th>BOWL NUMBER</th>
<th>BOWL MAX. DIAMETER</th>
<th>BOWL MIN. DIAMETER</th>
<th>MAX. NO. STAGES</th>
<th>ONE STAGE WEIGHT</th>
<th>ADD STAGE WEIGHT</th>
<th>STD. SHAFT DIA.</th>
<th>STD. LATERAL</th>
<th>DISCHARGE SIZE</th>
<th>DISCHARGE CONNECTION</th>
<th>SUCTION SIZE</th>
<th>SUCTION CONNECTION</th>
<th>MAX. SPHERE SIZE</th>
<th>MAX. OPERATIONAL P.S.I.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2993</td>
<td>11.688 IN.</td>
<td>11.563 IN.</td>
<td>19</td>
<td>340 LB.</td>
<td>100 LB.</td>
<td>1.688 IN.</td>
<td>0.625 IN.</td>
<td>6 - 8 IN.</td>
<td>THD - FLG</td>
<td>6 - 8 IN.</td>
<td>THD</td>
<td>0.625 IN.</td>
<td>585 (SPECIAL)</td>
</tr>
</tbody>
</table>

Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
**12FJC 1750 RPM**

**IMPELLER DATA**
- Impeller Number: 2990
- Type: ENCLOSED
- Thrust Factor: K=6.60
- Eye Area: 15.9 SQ. IN.
- Weight: 14.50 LB.
- Minimum submergence above eye of bottom impeller: 24 IN.

**FLANGED BOWL DATA**
- Bowl Number: 2993
- Bowl Max. Diameter: 11.688 IN.
- Bowl Min. Diameter: 11.563 IN.
- Max. No. Stages: 19
- One Stage Weight: 340 LB.
- Add Stage Weight: 100 LB.
- Std. Shaft Dia.: 1.688 IN.
- Std. Lateral: 0.625 IN.
- Discharge Size: 6 - 8 IN.
- Discharge Connection: THD - FLG
- Suction Size: 6 - 8 IN.
- Suction Connection: THD
- Max. Sphere Size: 0.500 IN.
- Max. Operational P.S.I.: 585 (SPECIAL)

**EFFICIENCY CORRECTION**

<table>
<thead>
<tr>
<th>Number of Bowls</th>
<th>-3</th>
<th>-2</th>
<th>-1</th>
<th>0</th>
</tr>
</thead>
</table>

Change in efficiency may affect both head and horsepower.

**PUMP MATERIAL EFFICIENCY CORRECTION**

<table>
<thead>
<tr>
<th></th>
<th>Ductile</th>
<th>Bronze</th>
<th>Ni-R</th>
<th>Stainless</th>
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</thead>
<tbody>
<tr>
<td>Impeller</td>
<td>-2</td>
<td>0</td>
<td>-1</td>
<td>-2</td>
</tr>
<tr>
<td>Bowl</td>
<td>-2</td>
<td>-1</td>
<td>-2</td>
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</tr>
</tbody>
</table>

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
TURBINE PUMP CURVE
SINGLE STAGE PERFORMANCE
APRIL 2020

12FIC 1750 RPM

IMPELLER DATA
- IMPELLER NUMBER: 2996
- TYPE: ENCLOSED
- THRUST FACTOR: K=6.75
- EYE AREA: 18.1 SQ. IN.
- WEIGHT: 15.00 LB.

Minimum submergence above eye of bottom impeller: 30 IN.

TRIM ANGLE: 23°

EFFICIENCY CORRECTION
- NUMBER OF BOWLS: 1 2 3 4 5
- CHANGE AS FOLLOWS: -4 -3 -2 -1 0

CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION
- IMPELLER MATERIAL: -2 0 -1 -2
- BOWL MATERIAL: -2 -1 -2

FLANGED BOWL DATA
- BOWL NUMBER: 2994
- BOWL MAX. DIAMETER: 12.000 IN.
- BOWL MIN. DIAMETER: 11.500 IN.
- MAX. NO. STAGES: 19
- ONE STAGE WEIGHT: 340 LB.
- ADD STAGE WEIGHT: 100 LB.
- STD. SHAFT DIA.: 1.688 IN.
- STD. LATERAL: 0.625 IN.
- DISCHARGE SIZE: 8 - 10 IN.
- DISCHARGE CONNECTION: THD - FLG
- SUCTION SIZE: 8 - 10 IN.
- SUCTION CONNECTION: THD
- MAX. SPHERE SIZE: 0.625 IN.
- MAX. OPERATIONAL P.S.I.: 585 (SPECIAL)

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
12FIS 1760 RPM

IMPELLER DATA

<table>
<thead>
<tr>
<th>IMPELLER NUMBER</th>
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</tr>
</thead>
<tbody>
<tr>
<td>TYPE</td>
<td>SEMI-OPEN</td>
</tr>
<tr>
<td>THRUST FACTOR</td>
<td>K=8.20</td>
</tr>
<tr>
<td>EYE AREA</td>
<td>18.1 SQ. IN.</td>
</tr>
<tr>
<td>WEIGHT</td>
<td>9.50 LB.</td>
</tr>
</tbody>
</table>

Minimum submergence above eye of bottom impeller: 30 IN.

IMPELLER MATERIAL:

FLANGED BOWL DATA

<table>
<thead>
<tr>
<th>BOWL NUMBER</th>
<th>2994</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOWL MAX. DIAMETER</td>
<td>12.000 IN.</td>
</tr>
<tr>
<td>BOWL MIN. DIAMETER</td>
<td>11.500 IN.</td>
</tr>
<tr>
<td>MAX. NO. STAGES</td>
<td>19</td>
</tr>
<tr>
<td>ONE STAGE WEIGHT</td>
<td>340 LB.</td>
</tr>
<tr>
<td>ADD STAGE WEIGHT</td>
<td>100 LB.</td>
</tr>
<tr>
<td>STD. SHAFT DIA.</td>
<td>1.688 IN.</td>
</tr>
<tr>
<td>STD. LATERAL</td>
<td>0.625 IN.</td>
</tr>
<tr>
<td>DISCHARGE SIZE</td>
<td>8 - 10 IN.</td>
</tr>
<tr>
<td>DISCHARGE CONNECTION</td>
<td>THD - FLG</td>
</tr>
<tr>
<td>SUCTION SIZE</td>
<td>8 - 10 IN.</td>
</tr>
<tr>
<td>SUCTION CONNECTION</td>
<td>THD</td>
</tr>
<tr>
<td>MAX. SPHERE SIZE</td>
<td>0.625 IN.</td>
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<tr>
<td>MAX. OPERATIONAL P.S.I.</td>
<td>585 (SPECIAL)</td>
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</tbody>
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Efficiency Correction

<table>
<thead>
<tr>
<th>NUMBER OF BOWLS:</th>
<th>1</th>
<th>2</th>
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<th>4</th>
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<tbody>
<tr>
<td>CHANGE AS FOLLOWS:</td>
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</tr>
</tbody>
</table>

Change in efficiency may affect both head and horsepower.

Pump Material Efficiency Correction

<table>
<thead>
<tr>
<th>DUCTILE</th>
<th>BRONZE</th>
<th>NI-R</th>
<th>STAINLESS</th>
</tr>
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<tbody>
<tr>
<td>IMPELLER MATERIAL:</td>
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<td>-1</td>
</tr>
<tr>
<td>BOWL MATERIAL:</td>
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<td>-1</td>
<td>-2</td>
</tr>
</tbody>
</table>

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
IMPELLER DATA

<table>
<thead>
<tr>
<th>IMPELLER NUMBER</th>
<th>2991</th>
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<tbody>
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<td>TYPE</td>
<td>ENCLOSED</td>
</tr>
<tr>
<td>THRUST FACTOR</td>
<td>6.50</td>
</tr>
<tr>
<td>EYE AREA</td>
<td>18.1 SQ. IN.</td>
</tr>
<tr>
<td>WEIGHT</td>
<td>16.00 LB.</td>
</tr>
</tbody>
</table>

TRIM ANGLE: 23°
Minimum submergence above eye of bottom impeller: 30 IN.

EFFICIENCY CORRECTION

<table>
<thead>
<tr>
<th>NUMBER OF BOWLS:</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
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<tr>
<td>CHANGE AS FOLLOWS:</td>
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<td>-3</td>
<td>-2</td>
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CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

FLANGED BOWL DATA

<table>
<thead>
<tr>
<th>BOWL NUMBER</th>
<th>2994</th>
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<tbody>
<tr>
<td>BOWL MAX. DIAMETER</td>
<td>12.000 IN.</td>
</tr>
<tr>
<td>BOWL MIN. DIAMETER</td>
<td>11.500 IN.</td>
</tr>
<tr>
<td>MAX. NO. STAGES</td>
<td>19</td>
</tr>
<tr>
<td>ONE STAGE WEIGHT</td>
<td>340 LB.</td>
</tr>
<tr>
<td>ADD STAGE WEIGHT</td>
<td>100 LB.</td>
</tr>
<tr>
<td>STD. SHAFT DIA.</td>
<td>1.688 IN.</td>
</tr>
<tr>
<td>STD. LATERAL</td>
<td>0.625 IN.</td>
</tr>
<tr>
<td>DISCHARGE SIZE</td>
<td>8 - 10 IN.</td>
</tr>
<tr>
<td>DISCHARGE CONNECTION</td>
<td>THD - FLG</td>
</tr>
<tr>
<td>SUCTION SIZE</td>
<td>8 - 10 IN.</td>
</tr>
<tr>
<td>SUCTION CONNECTION</td>
<td>THD</td>
</tr>
<tr>
<td>MAX. SPHERE SIZE</td>
<td>0.625 IN.</td>
</tr>
<tr>
<td>MAX. OPERATIONAL P.S.I.</td>
<td>584 (SPECIAL)</td>
</tr>
</tbody>
</table>

Performance based on pumping clear, fresh water at a temperature not over 85°F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
12FKS 1760 RPM

IMPELLER DATA

<table>
<thead>
<tr>
<th>IMPELLER NUMBER</th>
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<tbody>
<tr>
<td>TYPE</td>
<td>SEMI-OPEN</td>
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<tr>
<td>THRUST FACTOR</td>
<td>K=7.75</td>
</tr>
<tr>
<td>EYE AREA</td>
<td>20.4 SQ. IN.</td>
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<tr>
<td>WEIGHT</td>
<td>9.00 LB.</td>
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TRIM ANGLE: 23°
Minimum submergence above eye of bottom impeller: 30 IN.

FLANGED BOWL DATA

<table>
<thead>
<tr>
<th>BOWL NUMBER</th>
<th>2994</th>
</tr>
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<tbody>
<tr>
<td>BOWL MAX. DIAMETER</td>
<td>12.000 IN.</td>
</tr>
<tr>
<td>BOWL MIN. DIAMETER</td>
<td>11.500 IN.</td>
</tr>
<tr>
<td>MAX. NO. STAGES</td>
<td>16</td>
</tr>
<tr>
<td>ONE STAGE WEIGHT</td>
<td>340 LB.</td>
</tr>
<tr>
<td>ADD STAGE WEIGHT</td>
<td>100 LB.</td>
</tr>
<tr>
<td>STD. SHAFT DIA.</td>
<td>1.688 IN.</td>
</tr>
<tr>
<td>STD. LATERAL</td>
<td>0.500 IN.</td>
</tr>
<tr>
<td>DISCHARGE SIZE</td>
<td>8 - 10 IN.</td>
</tr>
<tr>
<td>DISCHARGE CONNECTION</td>
<td>THD - FLG</td>
</tr>
<tr>
<td>SUCTION SIZE</td>
<td>8 - 10 IN.</td>
</tr>
<tr>
<td>SUCTION CONNECTION</td>
<td>THD</td>
</tr>
<tr>
<td>MAX. SPHERE SIZE</td>
<td>0.625 IN.</td>
</tr>
<tr>
<td>MAX. OPERATIONAL P.S.I.</td>
<td>584 (SPECIAL)</td>
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</table>

EFFICIENCY CORRECTION

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<tr>
<th>NUMBER OF BOWLS:</th>
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<th>3</th>
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<th>5</th>
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<tr>
<td>CHANGE AS FOLLOWS:</td>
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<td>-3</td>
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<td>-1</td>
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CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION

<table>
<thead>
<tr>
<th>DUCTILE</th>
<th>BRONZE</th>
<th>NI-R</th>
<th>STAINLESS</th>
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<tr>
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<td>-1</td>
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<tr>
<td>BOWL MATERIAL:</td>
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<td>-1</td>
<td>-2</td>
</tr>
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</table>

Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.

Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
IMPELLER DATA

IMPELLER NUMBER: 0704
TYPE: ENCLOSED
THRUST FACTOR: K = 4.40
EYE AREA: 14.1 SQ. IN.
WEIGHT: 12.50 LB.

MINIMUM SUBMERGENCE ABOVE EYE OF BOTTOM IMPELLER: 30 IN.

TRIM ANGLE: 26°

EFFICIENCY CORRECTION

NUMBER OF BOWLS:

- CHANGE AS FOLLOWS:

  - 1
  - 2
  - 3

CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

FLANGED BOWL DATA

BOWL NUMBER: 0902
BOWL MAX. DIAMETER: 12.188 IN.
BOWL MIN. DIAMETER: 11.750 IN.
MAX. NO. STAGES: 13
ONE STAGE WEIGHT: 245 LB.
ADD STAGE WEIGHT: 102 LB.
STD. SHAFT DIA.: 1.688 IN.
STD. LATERAL: 0.625 IN.
DISCHARGE SIZE: 8 - 10 IN.
DISCHARGE CONNECTION: THD - FLG
SUCTION SIZE: 8 - 10 IN.
SUCTION CONNECTION: THD
MAX. SPHERE SIZE: 0.750 IN.
MAX. OPERATIONAL P.S.I.: 515 (SPECIAL)

PUMP MATERIAL EFFICIENCY CORRECTION

<table>
<thead>
<tr>
<th></th>
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<th>BRONZE</th>
<th>NI-R</th>
<th>STAINLESS</th>
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Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
12FLC 1750 RPM

IMPELLE NUMBER: 3778
TYPE: ENCLOSED
THRUST FACTOR: K=10.60
EYE AREA: 20.1 SQ. IN.
WEIGHT: 15.50 LB.

Minimum submergence above eye of bottom impeller: 28 IN.

TRIM ANGLE: 21.5°

FLANGED BOWL DATA

BOWL NUMBER: 2952
MAX. DIAMETER: 11.563 IN.
MIN. DIAMETER: 11.250 IN.
MAX. NO. STAGES: 19
ONE STAGE WEIGHT: 340 LB.
ADD STAGE WEIGHT: 100 LB.
STD. SHAFT DIA.: 1.688 IN.
STD. LATERAL: 0.875 IN.
DISCHARGE SIZE: 8 - 10 IN.
DISCHARGE CONNECTION: THD - FLG
SUCTION SIZE: 8 - 10 IN.
SUCTION CONNECTION: THD
MAX. SPHERE SIZE: 0.625 IN.
MAX. OPERATIONAL P.S.I.: 584 (SPECIAL)

Efficiency Correction

<table>
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<tr>
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<th>CHANGE AS FOLLOWS</th>
<th>CHANGE IN EFFICIENCY</th>
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Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
**IMPELLER DATA**

<table>
<thead>
<tr>
<th>IMPELLER NUMBER</th>
<th>TYPE</th>
<th>THRUST FACTOR</th>
<th>EYE AREA</th>
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</thead>
<tbody>
<tr>
<td>3779</td>
<td>SEMI-OPEN</td>
<td>K=12.50</td>
<td>20.1 SQ. IN.</td>
<td>8.13 LB.</td>
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**TRIM ANGLE:** 21.5°

**Minimum submergence above eye of bottom impeller:** 30 IN.

**EFFICIENCY CORRECTION**

<table>
<thead>
<tr>
<th>NUMBER OF BOWLS</th>
<th>1</th>
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Change in efficiency may affect both head and horsepower.

**FLANGED BOWL DATA**

<table>
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<tr>
<th>BOWL NUMBER</th>
<th>BOWL MAX. DIAMETER</th>
<th>BOWL MIN. DIAMETER</th>
<th>MAX. NO. STAGES</th>
<th>ONE STAGE WEIGHT</th>
<th>ADD STAGE WEIGHT</th>
<th>STD. SHAFT DIA.</th>
<th>STD. LATERAL</th>
<th>DISCHARGE SIZE</th>
<th>DISCHARGE CONNECTION</th>
<th>SUCTION SIZE</th>
<th>SUCTION CONNECTION</th>
<th>MAX. SPHERE SIZE</th>
<th>MAX. OPERATIONAL P.S.I.</th>
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</thead>
<tbody>
<tr>
<td>2952</td>
<td>11.563 IN.</td>
<td>11.250 IN.</td>
<td>19</td>
<td>340 LB.</td>
<td>100 LB.</td>
<td>1.688 IN.</td>
<td>0.875 IN.</td>
<td>8 - 10 IN.</td>
<td>THD - FLG</td>
<td>8 - 10 IN.</td>
<td>THD</td>
<td>0.625 IN.</td>
<td>584 (SPECIAL)</td>
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**PUMP MATERIAL EFFICIENCY CORRECTION**

<table>
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<th>DUCTILE</th>
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Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
12FMC 1750 RPM

IMPELLER DATA
- IMPELLER NUMBER: 2951
- TYPE: ENCLOSED
- THRUST FACTOR: K=10.60
- EYE AREA: 20.1 SQ. IN.
- WEIGHT: 15.00 LB.

Minimum submergence above eye of bottom impeller: 24 IN.

EYE AREA = 20.1 SQ. IN.
TRIM ANGLE: 21.5°

EFFICIENCY CORRECTION

<table>
<thead>
<tr>
<th>NUMBER OF BOWLS</th>
<th>1</th>
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<th>3</th>
<th>4</th>
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<tr>
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Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.

FLANGED BOWL DATA
- BOWL NUMBER: 2952
- BOWL MAX. DIAMETER: 12.563 IN.
- BOWL MIN. DIAMETER: 11.250 IN.
- MAX. NO. STAGES: 14
- ONE STAGE WEIGHT: 340 LB.
- ADD STAGE WEIGHT: 100 LB.
- STD. SHAFT DIA.: 1.688 IN.
- STD. LATERAL: 0.750 IN.
- DISCHARGE SIZE: 8 - 10 IN.
- DISCHARGE CONNECTION: THD - FLG
- SUCTION SIZE: 8 - 10 IN.
- SUCTION CONNECTION: THD
- MAX. SPHERE SIZE: 0.625 IN.
- MAX. OPERATIONAL P.S.I.: 584 (SPECIAL)
**TURBINE PUMP CURVE**

**12FMS 1760 RPM**

**IMPELLER DATA**

- **IMPELLER NUMBER**: 2956
- **TYPE**: SEMI-OPEN
- **THRUST FACTOR**: K=12.50
- **EYE AREA**: 20.1 SQ. IN.
- **WEIGHT**: 10.00 LB.
- **Minimum submergence above eye of bottom impeller**: 30 IN.
- **TRIM ANGLE**: 21.5°

**EFFICIENCY CORRECTION**

- **NUMBER OF BOWLS**: 1, 2, 3, 4
- **CHANGE AS FOLLOWS**: -3, -2, -1, 0

**PUMP MATERIAL EFFICIENCY CORRECTION**

- **IMPELLER MATERIAL**: -2, 0, -1, -2
- **BOWL MATERIAL**: -2, -1, -2, -3

**FLANGED BOWL DATA**

- **BOWL NUMBER**: 2952
- **BOWL MAX. DIAMETER**: 11.563 IN.
- **BOWL MIN. DIAMETER**: 11.250 IN.
- **MAX. NO. STAGES**: 14
- **ONE STAGE WEIGHT**: 340 LB.
- **ADD STAGE WEIGHT**: 100 LB.
- **STD. SHAFT DIA.**: 1.688 IN.
- **STD. LATERAL**: 0.750 IN.
- **DISCHARGE SIZE**: 8 - 10 IN.
- **DISCHARGE CONNECTION**: THD - FLG
- **SUCTION SIZE**: 8 - 10 IN.
- **SUCTION CONNECTION**: THD
- **MAX. SPHERE SIZE**: 0.625 IN.
- **MAX. OPERATIONAL P.S.I.**: 584 (SPECIAL)

Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
12FHC 1750 RPM

**IMPELLER DATA**
- IMPeller NUMBER: 2914
- TYPE: ENCLOSED
- THRUST FACTOR: K=16.50
- EYE AREA: 32.4 SQ. IN.
- WEIGHT: 11.50 LB.
- Minimum submergence above eye of bottom impeller: 26 IN.

**FLANGED BOWL DATA**
- BOWL NUMBER: 2915
- BOWL MAX. DIAMETER: 11.563 IN.
- BOWL MIN. DIAMETER: 11.250 IN.
- MAX. NO. STAGES: 15
- ONE STAGE WEIGHT: 340 LB.
- ADD STAGE WEIGHT: 100 LB.
- STD. SHAFT DIA: 1.688 IN.
- STD. LATERAL: 0.750 IN.
- DISCHARGE SIZE: 8 - 10 IN.
- DISCHARGE CONNECTION: THD - FLG
- SUCTION SIZE: 8 - 10 IN.
- SUCTION CONNECTION: THD
- MAX. SPHERE SIZE: 0.750 IN.
- MAX. OPERATIONAL P.S.I.: 584 (SPECIAL)

**EFFICIENCY CORRECTION**
- NUMBER OF BOWLS: 1 2 3 4
- CHANGE AS FOLLOWS: -4 -2 -1 0

Change in efficiency may affect both head and horsepower.

**PUMP MATERIAL EFFICIENCY CORRECTION**

<table>
<thead>
<tr>
<th></th>
<th>DUCTILE</th>
<th>BRONZE</th>
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Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
12FHS 1760 RPM

TURBINE PUMP CURVE

IMPELLER DATA
- IMPPELLER NUMBER: 2953
- TYPE: SEMI-OPEN
- THRUST FACTOR: K=19.00
- EYE AREA: 32.4 SQ. IN.
- WEIGHT: 1 1.25 LB.
- Minimum submergence above eye of bottom impeller: 30 IN.
- TRIM ANGLE: 30°

FLANGED BOWL DATA
- BOWL NUMBER: 2915
- BOWL MAX. DIAMETER: 11.563 IN.
- BOWL MIN. DIAMETER: 11.250 IN.
- MAX. NO. STAGES: 15
- ONE STAGE WEIGHT: 340 LB.
- ADD STAGE WEIGHT: 100 LB.
- STD. SHAFT DIA.: 1.688 IN.
- STD. LATERAL: 0.750 IN.
- DISCHARGE SIZE: 8 - 10 IN.
- DISCHARGE CONNECTION: THD - FLG
- SUCTION SIZE: 8 - 10 IN.
- SUCTION CONNECTION: THD
- MAX. SPHERE SIZE: 0.750 IN.
- MAX. OPERATIONAL P.S.I.: 584 (SPECIAL)

EFFICIENCY CORRECTION
- NUMBER OF BOWLS: 1 2 3 4
- CHANGE AS FOLLOWS: -4 -2 -1 0

PUMP MATERIAL EFFICIENCY CORRECTION
- IMPPELLER MATERIAL: -2 0 -1 -2
- BOWL MATERIAL: -2 -1 -2 -3

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.

APRIL 2020
**IMPELLER DATA**
- IMPELLER NUMBER: 3360
- TYPE: ENCLOSED
- THRUST FACTOR: K=18.20
- EYE AREA: 36.6 SQ. IN.
- WEIGHT: 15.25 LB.
- Minimum submergence above eye of bottom impeller: 28 IN.

**TRIM ANGLE:** 26.5°

**EFFICIENCY CORRECTION**
- NUMBER OF BOWLS: 1, 2, 3, 4
- CHANGE AS FOLLOWS: -4, -2, -1, 0

**FLANGED BOWL DATA**
- BOWL NUMBER: 3361
- BOWL MAX. DIAMETER: 11.563 IN.
- BOWL MIN. DIAMETER: 11.250 IN.
- MAX. NO. STAGES: 14
- ONE STAGE WEIGHT: 340 LB.
- ADD STAGE WEIGHT: 100 LB.
- STD. SHAFT DIA.: 1.688 IN.
- STD. LATERAL: 0.875 IN.
- DISCHARGE SIZE: 8 - 10 IN.
- DISCHARGE CONNECTION: THD - FLG
- SUCTION SIZE: 8 - 10 IN.
- SUCTION CONNECTION: THD
- MAX. SPHERE SIZE: 1.000 IN.
- MAX. OPERATIONAL P.S.I.: 584 (SPECIAL)

**PUMP MATERIAL EFFICIENCY CORRECTION**
- IMPELLER MATERIAL: DUCTILE: -2, BRONZE: 0, NI-R: -1, STAINLESS: -2

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
**IMPELLER DATA**

- IMPELLER NUMBER: 3374
- TYPE: SEMI-OPEN
- THRUST FACTOR: K=20.80
- EYE AREA: 35.6 SQ. IN.
- WEIGHT: 11.50 LB.

**FLANGED BOWL DATA**

- BOWL NUMBER: 3361
- BOWL MAX. DIAMETER: 11.563 IN.
- BOWL MIN. DIAMETER: 11.250 IN.
- MAX. NO. STAGES: 11
- ONE STAGE WEIGHT: 340 LB.
- ADD STAGE WEIGHT: 100 LB.
- STD. SHAFT DIA.: 1.688 IN.
- STD. LATERAL: 0.875 IN.
- DISCHARGE SIZE: 8 - 10 IN.
- DISCHARGE CONNECTION: THD - FLG
- SUCTION SIZE: 8 - 10 IN.
- SUCTION CONNECTION: THD
- MAX. SPHERE SIZE: 1.000 IN.
- MAX. OPERATIONAL P.S.I.: 584 (SPECIAL)

**EFFICIENCY CORRECTION**

- NUMBER OF BOWLS: 1 2 3 4
- CHANGE AS FOLLOWS: -4 -2 -1 0

CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

**PUMP MATERIAL EFFICIENCY CORRECTION**

<table>
<thead>
<tr>
<th></th>
<th>DUCTILE</th>
<th>BRONZE</th>
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Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
12FWC 1750 RPM

TURBINE PUMP CURVE

IMPELLER DATA
- IMPELLER NUMBER: 4777
- TYPE: ENCLOSED
- THRUST FACTOR: K=16.20
- EYE AREA: 29.7 SQ. IN.
- WEIGHT: 21.00 LB.

Minimum submergence above eye of bottom impeller: 30 IN.

BOWL DATA
- BOWL NUMBER: 4771
- MAX. DIAMETER: 12.188 IN.
- MIN. DIAMETER: 11.750 IN.
- MAX. NO. STAGES: 10
- ONE STAGE WEIGHT: 415 LB.
- ADD STAGE WEIGHT: 140 LB.
- STD. SHAFT DIA.: 1.688 IN.
- STD. LATERAL: 0.750 IN.
- DISCHARGE SIZE: 8 - 10 IN.
- DISCHARGE CONNECTION THD - FLG
- SUCTION SIZE: 8 - 10 IN.
- SUCTION CONNECTION THD
- MAX. SPHERE SIZE: 1.375IN.
- MAX. OPERATIONAL P.S.I.: 584 (SPECIAL)

EFFICIENCY CORRECTION
- NUMBER OF BOWLS: 1 2 3 4
- CHANGE AS follows: -3 -2 -1 0

CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION
- IMPELLER MATERIAL: -2 0 -1 -2
- BOWL MATERIAL: -2 -1 -2 -3

Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.

Power - hp

US gpm

Head - ft

NPSHr - ft

APRIL 2020
12FWS 1760 RPM

IMPELLER DATA
- IMPELLER NUMBER: 4777
- TYPE: SEMI-OPEN
- THRUST FACTOR: K = 17.40
- EYE AREA: 29.7 SQ. IN.
- WEIGHT: 14.50 LB.
- Minimum submergence above eye of bottom impeller: 32 IN.

FLANGED BOWL DATA
- BOWL NUMBER: 4771
- BOWL MAX. DIAMETER: 12.188 IN.
- BOWL MIN. DIAMETER: 11.750 IN.
- MAX. NO. STAGES: 9
- ONE STAGE WEIGHT: 415 LB.
- ADD STAGE WEIGHT: 140 LB.
- STD. SHAFT DIA.: 1.688 IN.
- STD. LATERAL: 0.750 IN.
- DISCHARGE SIZE: 8 - 10 IN.
- DISCHARGE CONNECTION: THD - FLG
- SUCTION SIZE: 8 - 10 IN.
- SUCTION CONNECTION: THD
- MAX. SPHERE SIZE: 1.375 IN.
- MAX. OPERATIONAL P.S.I.: 584 (SPECIAL)

EFFICIENCY CORRECTION
- NUMBER OF BOWLS:
  - 1
  - 2
  - 3
  - 4
- CHANGE AS FOLLOWS:
  - -3
  - -2
  - -1
  - 0

PUMP MATERIAL EFFICIENCY CORRECTION
- IMPELLER MATERIAL:
  - DUCTILE: -2
  - BRONZE: 0
  - NI-R: -1
  - STAINLESS: -2
- BOWL MATERIAL:
  - DUCTILE: -2
  - BRONZE: -1
  - NI-R: -2
  - STAINLESS: -3

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
TURBINE PUMP CURVE
SINGLE STAGE PERFORMANCE APRIL 2020

IMPELLER DATA
- IMPELLER NUMBER: 4778
- TYPE: ENCLOSED
- THRUST FACTOR: K=14.20
- EYE AREA: 38.0 SQ. IN.
- WEIGHT: 19.00 LB.
- Minimum submergence above eye of bottom impeller: 36 IN.

TRIM ANGLE: 35°

FLANGED BOWL DATA
- BOWL NUMBER: 4772
- BOWL MAX. DIAMETER: 12.188 IN.
- BOWL MIN. DIAMETER: 11.750 IN.
- MAX. NO. STAGES: 9
- ONE STAGE WEIGHT: 415 LB.
- ADD STAGE WEIGHT: 140 LB.
- STD. SHAFT DIA.: 1.688 IN.
- STD. LATERAL: 0.875 IN.
- DISCHARGE SIZE: 8 - 10 IN.
- DISCHARGE CONNECTION: THD - FLG
- SUCTION SIZE: 8 - 10 IN.
- SUCTION CONNECTION: THD
- MAX. SPHERE SIZE: 1.500 IN.
- MAX. OPERATIONAL P.S.I.: 584 (SPECIAL)

EFFICIENCY CORRECTION
- NUMBER OF BOWLS: 1 2 3 4
- CHANGE AS FOLLOWS: -4 -2 -1 0

CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION
- DUCTILE: -2 0 -1 -2
- BRONZE: -2 -1 -2 -3
- NI-R: -2 -1 -2 -3
- STAINLESS: -2 -1 -2 -3

Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
**IMPELLER DATA**

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<tr>
<th>IMPELLER NUMBER</th>
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<th>TRIM ANGLE: 35°</th>
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<td>TYPE</td>
<td>SEMI-OPEN</td>
<td>Minimum submergence above eye of bottom impeller: 36 IN.</td>
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<tr>
<td>THRUST FACTOR</td>
<td>K=16.50</td>
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<tr>
<td>EYE AREA</td>
<td>38.0 SQ. IN.</td>
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</tr>
<tr>
<td>WEIGHT</td>
<td>19.00 LB.</td>
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**FLANGED BOWL DATA**

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<tr>
<td>BOWL MIN. DIAMETER</td>
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<td>MAX. NO. STAGES</td>
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</tr>
<tr>
<td>ONE STAGE WEIGHT</td>
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</tr>
<tr>
<td>ADD STAGE WEIGHT</td>
<td>140 LB.</td>
</tr>
<tr>
<td>STD. SHAFT DIA.</td>
<td>1.688 IN.</td>
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<tr>
<td>STD. LATERAL</td>
<td>0.875 IN.</td>
</tr>
<tr>
<td>DISCHARGE SIZE</td>
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<td>DISCHARGE CONNECTION</td>
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<td>SUCTION SIZE</td>
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<td>SUCTION CONNECTION</td>
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<td>MAX. SPHERE SIZE</td>
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<tr>
<td>MAX. OPERATIONAL P.S.I.</td>
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**EFFICIENCY CORRECTION**

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<th>NUMBER OF BOWLS:</th>
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CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

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Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
**IMPELLER DATA**

- **IMPELLER NUMBER**: 2999
- **TYPE**: ENCLOSED
- **THRUST FACTOR**: K=7.90
- **EYE AREA**: 23.4 SQ. IN.
- **WEIGHT**: 14.70 LB.

- Minimum submergence above eye of bottom impeller: 24 IN.

**FLANGED BOWL DATA**

- **BOWL NUMBER**: 2998
- **BOWL MAX. DIAMETER**: 12.500 IN.
- **BOWL MIN. DIAMETER**: 12.125 IN.
- **MAX. NO. STAGES**: 14
- **ONE STAGE WEIGHT**: 240 LB.
- **ADD STAGE WEIGHT**: 115 LB.
- **STD. SHAFT DIA.**: 1.688 IN.
- **STD. LATERAL**: 0.813 IN.
- **DISCHARGE SIZE**: 8 - 10 IN.
- **DISCHARGE CONNECTION**: THD - FLG
- **SUCTION SIZE**: 8 - 10 IN.
- **SUCTION CONNECTION**: THD
- **MAX. SPHERE SIZE**: 0.750 IN.
- **MAX. OPERATIONAL P.S.I.**: 584 (SPECIAL)

**EFFICIENCY CORRECTION**

- **NUMBER OF BOWLS**: 1 2 3 4 5
- **CHANGE AS FOLLOWS**: -4 -3 -2 -1 0

Change in efficiency may affect both head and horsepower.

**PUMP MATERIAL EFFICIENCY CORRECTION**

<table>
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<tr>
<th></th>
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Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
14FLC 1750 RPM

IMPELLER DATA

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<tr>
<td>TYPE</td>
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<tr>
<td>THRUST FACTOR</td>
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<tr>
<td>EYE AREA</td>
<td>31.5 SQ. IN.</td>
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<tr>
<td>WEIGHT</td>
<td>28.00 LB.</td>
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TRIM ANGLE: 23°

Minimum submergence above eye of bottom impeller: 30 IN.

FLANGED BOWL DATA

<table>
<thead>
<tr>
<th>BOWL NUMBER</th>
<th>3106</th>
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<tbody>
<tr>
<td>BOWL MAX. DIAMETER</td>
<td>13.500 IN.</td>
</tr>
<tr>
<td>BOWL MIN. DIAMETER</td>
<td>13.250 IN.</td>
</tr>
<tr>
<td>MAX. NO. STAGES</td>
<td>12</td>
</tr>
<tr>
<td>ONE STAGE WEIGHT</td>
<td>490 LB.</td>
</tr>
<tr>
<td>ADD STAGE WEIGHT</td>
<td>175 LB.</td>
</tr>
<tr>
<td>STD. SHAFT DIA.</td>
<td>1.938 IN.</td>
</tr>
<tr>
<td>STD. LATERAL</td>
<td>0.875 IN.</td>
</tr>
<tr>
<td>DISCHARGE SIZE</td>
<td>10 - 12 IN.</td>
</tr>
<tr>
<td>DISCHARGE CONNECTION</td>
<td>THD - FLG</td>
</tr>
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<td>SUCTION SIZE</td>
<td>10 - 12 IN.</td>
</tr>
<tr>
<td>SUCTION CONNECTION</td>
<td>THD</td>
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<tr>
<td>MAX. SPHERE SIZE</td>
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<tr>
<td>MAX. OPERATIONAL P.S.I.</td>
<td>540 (SPECIAL)</td>
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EFFICIENCY CORRECTION

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CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION

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Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
14FLS 1750 RPM

**IMPELLER DATA**
- IMPELLER NUMBER: 3107
- TYPE: ENCLOSED
- THRUST FACTOR: K=19.70
- EYE AREA: 31.5 SQ. IN.
- WEIGHT: 18.50 LB.
- Minimum submergence above eye of bottom impeller: 30 IN.

**FLANGED BOWL DATA**
- BOWL NUMBER: 3106
- BOWL MAX. DIAMETER: 13.500 IN.
- BOWL MIN. DIAMETER: 13.250 IN.
- MAX. NO. STAGES: 12
- ONE STAGE WEIGHT: 490 LB.
- ADD STAGE WEIGHT: 175 LB.
- STD. SHAFT DIA.: 1.938 IN.
- STD. LATERAL: 0.875 IN.
- DISCHARGE SIZE: 10 - 12 IN.
- DISCHARGE CONNECTION: THD - FLG
- SUCTION SIZE: 10 - 12 IN.
- SUCTION CONNECTION: THD
- MAX. SPHERE SIZE: 0.750 IN.
- MAX. OPERATIONAL P.S.I.: 540 (SPECIAL)

**EFFICIENCY CORRECTION**
- NUMBER OF BOWLS: 1 2 3
- CHANGE AS FOLLOWS: -2 -1 0
- Change in Efficiency may affect both head and horsepower.

**PUMP MATERIAL EFFICIENCY CORRECTION**
- IMPELLER MATERIAL: DUCTILE: -2 BRONZE: 0 NI-R: -1 STAINLESS: -1

Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
**IMPELLER DATA**

- IMPeller NUMBER: 3078
- TYPE: SEMI-OPEN
- THRUST FACTOR: K = 23.40
- EYE AREA: 40.9 SQ. IN.
- WEIGHT: 20.25 LB.

Minimum submergence above eye of bottom impeller: 30 IN.

**TRIM ANGLE:** 30°

**EFFICIENCY CORRECTION**

- NUMBER OF BOWLS:
  - 1
  - 2
  - 3
  - 4
- CHANGE AS FOLLOWS:
  - -3
  - -2
  - -1
  - 0

Change in efficiency may affect both head and horsepower.

**PUMP MATERIAL EFFICIENCY CORRECTION**

- IMPeller MATERIAL:
  - DUCTILE: -2
  - BRONZE: 0
  - NI-R: -1
  - STAINLESS: -1
- BOWL MATERIAL:
  - DUCTILE: -2
  - BRONZE: -1
  - NI-R: -2
  - STAINLESS: -1

**FLANGED BOWL DATA**

- BOWL NUMBER: 3042
- BOWL MAX. DIAMETER: 13.500 IN.
- BOWL MIN. DIAMETER: 13.250 IN.
- MAX. NO. STAGES: 10
- ONE STAGE WEIGHT: 490 LB.
- ADD STAGE WEIGHT: 175 LB.
- STD. SHAFT DIA.: 1.938 IN.
- STD. LATERAL: 0.875 IN.
- DISCHARGE SIZE: 10 - 12 IN.
- DISCHARGE CONNECTION: THD - FLG
- SUCTION SIZE: 10 - 12 IN.
- SUCTION CONNECTION: THD
- MAX. SPHERE SIZE: 1.250 IN.
- MAX. OPERATIONAL P.S.I.: 540 (SPECIAL)

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
IMPELLER DATA
IMPELLER NUMBER 3029
TYPE ENCLOSED
THRUST FACTOR K=21.80
EYE AREA 40.9 SQ. IN.
WEIGHT 30.25 LB.
Minimum submergence above eye of bottom impeller: 32 IN.

EFFICIENCY CORRECTION
NUMBER OF BOWLS:
CHANGE AS FOLLOWS:
CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION
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FLANGED BOWL DATA
BOWL NUMBER 3042
BOWL MAX. DIAMETER 13.500 IN.
BOWL MIN. DIAMETER 13.250 IN.
MAX. NO. STAGES 9
ONE STAGE WEIGHT 490 LB.
ADD STAGE WEIGHT 175 LB.
STD. SHAFT DIA. 1.938 IN.
STD. LATERAL 0.875 IN.
DISCHARGE SIZE 10 - 12 IN.
DISCHARGE CONNECTION THD - FLG
SUCTION SIZE 10 - 12 IN.
SUCTION CONNECTION THD
MAX. SPHERE SIZE 1.250 IN.
MAX. OPERATIONAL P.S.I. 540 (SPECIAL)

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
**IMPELLER DATA**

- **IMPELLER NUMBER**: 3029
- **TYPE**: SEMI-OPEN
- **THRUST FACTOR**: K=25.20
- **EYE AREA**: 43.9 SQ. IN.
- **WEIGHT**: 21.25 LB.

**Efficiency Correction**

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**Flanged Bowl Data**

- **BOWL NUMBER**: 3042
- **BOWL MAX. DIAMETER**: 13.500 IN.
- **BOWL MIN. DIAMETER**: 13.250 IN.
- **MAX. NO. STAGES**: 9
- **ONE STAGE WEIGHT**: 490 LB.
- **ADD STAGE WEIGHT**: 175 LB.
- **STD. SHAFT DIAM.**: 1.938 IN.
- **STD. LATERAL**: 0.875 IN.
- **DISCHARGE SIZE**: 10 - 12 IN.
- **DISCHARGE CONNECTION**: THD - FLG
- **SUCTION SIZE**: 10 - 12 IN.
- **SUCTION CONNECTION**: THD
- **MAX. SPHERE SIZE**: 1.250 IN.
- **MAX. OPERATIONAL P.S.I.**: 540 (SPECIAL)

**Pump Material Efficiency Correction**

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<tr>
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Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
**TURBINE PUMP CURVE**

**14FXC 1750 RPM**

---

**IMPELLER DATA**

- **IMPELLER NUMBER**: 3086
- **TYPE**: ENCLOSED
- **THRUST FACTOR**: K=21.80
- **EYE AREA**: 40.9 SQ. IN.
- **WEIGHT**: 29.25 LB.

**Minimum submergence above eye of bottom impeller**: 32 IN.

**TRIM ANGLE**: 32.5°

---

**FLANGED BOWL DATA**

- **BOWL NUMBER**: 3042
- **BOWL MAX. DIAMETER**: 13.500 IN.
- **BOWL MIN. DIAMETER**: 13.250 IN.
- **MAX. NO. STAGES**: 9
- **ONE STAGE WEIGHT**: 490 LB.
- **ADD STAGE WEIGHT**: 175 LB.
- **STD. SHAFT DIA.**: 1.938 IN.
- **STD. LATERAL**: 0.875 IN.
- **DISCHARGE SIZE**: 10 - 12 IN.
- **DISCHARGE CONNECTION**: THD - FLG
- **SUCTION SIZE**: 10 - 12 IN.
- **SUCTION CONNECTION**: THD
- **MAX. SPHERE SIZE**: 1.250 IN.
- **MAX. OPERATIONAL P.S.I.**: 540 (SPECIAL)

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**EFFICIENCY CORRECTION**

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<tr>
<th>NUMBER OF BOWLS</th>
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**CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.**

---

**PUMP MATERIAL EFFICIENCY CORRECTION**

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Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
14FXS 1750 RPM

IMPELLER DATA
- IMPELLER NUMBER: 3092
- TYPE: SEMI-OPEN
- THRUST FACTOR: K=23.40
- EYE AREA: 40.9 SQ. IN.
- WEIGHT: 20.25 LB.
- Minimum submergence above eye of bottom impeller: 32 IN.
- TRIM ANGLE: 32.5°

EFFICIENCY CORRECTION
- NUMBER OF BOWLS: 1 2 3 4
- CHANGE AS FOLLOWS: -3 -2 -1 0

CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

FLANGED BOWL DATA
- BOWL NUMBER: 3042
- BOWL MAX. DIAMETER: 13.500 IN.
- BOWL MIN. DIAMETER: 13.250 IN.
- MAX. NO. STAGES: 8
- ONE STAGE WEIGHT: 490 LB.
- ADD STAGE WEIGHT: 175 LB.
- STD. SHAFT DIA.: 1.938 IN.
- STD. LATERAL: 0.875 IN.
- DISCHARGE SIZE: 10 - 12 IN.
- DISCHARGE CONNECTION: THD - FLG
- SUCTION SIZE: 10 - 12 IN.
- SUCTION CONNECTION: THD
- MAX. SPHERE SIZE: 1.250 IN.
- MAX. OPERATIONAL P.S.I.: 540 (SPECIAL)

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
14FWC 1750 RPM

IMPELLER DATA
- IMPELLER NUMBER: 4151
- TYPE: ENCLOSED
- THRUST FACTOR: K=24.80
- EYE AREA: 47.4 SQ. IN.
- WEIGHT: 31.75 LB.
- Minimum submergence above eye of bottom impeller: 34 IN.

FLANGED BOWL DATA
- BOWL NUMBER: 4152
- BOWL MAX. DIAMETER: 14.063 IN.
- BOWL MIN. DIAMETER: 13.750 IN.
- MAX. NO. STAGES: 9
- ONE STAGE WEIGHT: 500 LB.
- ADD STAGE WEIGHT: 185 LB.
- STD. SHAFT DIA.: 1.938 IN.
- STD. LATERAL: 0.875 IN.
- DISCHARGE SIZE: 10 - 12 IN.
- DISCHARGE CONNECTION: THD - FLG
- SUCTION SIZE: 10 - 12 IN.
- SUCTION CONNECTION: THD
- MAX. SPHERE SIZE: 1.500 IN.
- MAX. OPERATIONAL P.S.I.: 540 (SPECIAL)

EFFICIENCY CORRECTION
- NUMBER OF BOWLS: 1 2 3 4
- CHANGE AS FOLLOWS: -4 -2 -1 0

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
14FWS 1750 RPM

**IMPELLER DATA**

- **IMPELLER NUMBER**: 4153
- **TYPE**: SEMI-OPEN
- **THRUST FACTOR**: \( K = 26.20 \)
- **EYE AREA**: 47.3 SQ. IN.
- **WEIGHT**: 23.25 LB.

**FLANGED BOWL DATA**

- **BOWL NUMBER**: 4152
- **BOWL MAX. DIAMETER**: 14.063 IN.
- **BOWL MIN. DIAMETER**: 13.750 IN.
- **MAX. NO. STAGES**: 9
- **ONE STAGE WEIGHT**: 500 LB.
- **ADD STAGE WEIGHT**: 185 LB.
- **STD. SHAFT DIA.**: 1.938 IN.
- **STD. LATERAL**: 0.875 IN.
- **DISCHARGE SIZE**: 10 - 12 IN.
- **DISCHARGE CONNECTION**: THD - FLG
- **SUCTION SIZE**: 10 - 12 IN.
- **SUCTION CONNECTION**: THD
- **MAX. SPHERE SIZE**: 1.500 IN.
- **MAX. OPERATIONAL P.S.I.**: 540 (SPECIAL)

**EFFICIENCY CORRECTION**

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<tr>
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Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
**IMPELLER DATA**
- **IMPELLER NUMBER**: 3878
- **TYPE**: ENCLOSED
- **THRUST FACTOR**: K=24.00
- **EYE AREA**: 57.0 SQ. IN.
- **WEIGHT**: 28.00 LB.

**FLANGED BOWL DATA**
- **BOWL NUMBER**: 3869
- **BOWL MAX. DIAMETER**: 13.750 IN.
- **BOWL MIN. DIAMETER**: 13.500 IN.
- **MAX. NO. STAGES**: 9
- **ONE STAGE WEIGHT**: 335 LB.
- **ADD STAGE WEIGHT**: 188 LB.
- **STD. SHAFT DIA.**: 1.938 IN.
- **STD. LATERAL**: 0.635 IN.
- **DISCHARGE SIZE**: THD - FLG
- **SUCTION SIZE**: 10 - 12 IN.
- **SUCTION CONNECTION**: THD
- **MAX. SPHERE SIZE**: 1.250 IN.
- **MAX. OPERATIONAL P.S.I.**: 540 (SPECIAL)

**EFFICIENCY CORRECTION**
- **NUMBER OF BOWLS**:
  - 1
  - 2
  - 3
  - 4
- **CHANGE AS FOLLOWS**:
  - -3
  - -2
  - -1
  - 0

**PUMP MATERIAL EFFICIENCY CORRECTION**
- **IMPELLER MATERIAL**:
  - DUCTILE: -2
  - BRONZE: 0
  - NI-R: -1
  - STAINLESS: -2
- **BOWL MATERIAL**:
  - DUCTILE: -2
  - BRONZE: -1
  - NI-R: -1
  - STAINLESS: -2

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
IMPELLER DATA

IMPELLER NUMBER: 3896
TYPE: ENCLOSED
THRUST FACTOR: K=24.70
EYE AREA: 58.5 SQ. IN.
WEIGHT: 28.00 LB.

TRIM ANGLE: 35°
Minimum submergence above eye of bottom impeller: 34 IN.

FLANGED BOWL DATA

BOWL NUMBER: 3869
BOWL MAX. DIAMETER: 13.750 IN.
BOWL MIN. DIAMETER: 13.500 IN.
MAX. NO. STAGES: 6
ONE STAGE WEIGHT: 335 LB.
ADD STAGE WEIGHT: 188 LB.
STD. SHAFT DIA.: 1.938 IN.
STD. LATERAL: 0.625 IN.
DISCHARGE SIZE: 10 - 12 IN.
DISCHARGE CONNECTION: THD - FLG
SUCTION SIZE: 10 - 12 IN.
SUCTION CONNECTION: THD
MAX. SPHERE SIZE: 1.250 IN.
MAX. OPERATIONAL P.S.I.: 540 (SPECIAL)

EFFICIENCY CORRECTION

NUMBER OF BOWLS:
CHANGE AS Follows:

-3 -2 -1 0

CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION

IMPELLER MATERIAL: -2 0 -1 -1
BOWL MATERIAL: -2 -1 -2 -2

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
**PUMP MATERIAL EFFICIENCY CORRECTION**

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Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
14FMCR 1750 RPM

IMPELLER DATA:
- IMPELLER NUMBER: 0101
- TYPE: ENCLOSED
- THRUST FACTOR: K=15.50
- EYE AREA: 37.8 SQ. IN.
- WEIGHT: 26.00 LB.
- Minimum submergence above eye of bottom impeller: 36 IN.
- TRIM ANGLE: 31°

FLANGED BOWL DATA:
- BOWL NUMBER: 5447
- BOWL MAX. DIAMETER: 14.250 IN.
- BOWL MIN. DIAMETER: 14.125 IN.
- MAX. NO. STAGES: 16
- ONE STAGE WEIGHT: 700 LB.
- ADD STAGE WEIGHT: 265 LB.
- STD. SHAFT DIA.: 2.188 IN.
- STD. LATERAL: 0.813 IN.
- DISCHARGE SIZE: 10 - 12 IN.
- DISCHARGE CONNECTION: THD - FLG
- SUCTION SIZE: 10 - 12 IN.
- SUCTION CONNECTION: THD
- MAX. SPHERE SIZE: 1.250 IN.
- MAX. OPERATIONAL P.S.I.: 540 (SPECIAL)

EFFICIENCY CORRECTION:
- NUMBER OF BOWLS: 1 2 3
- CHANGE AS FOLLOWS: -4 -2 0
- CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION:
- IMPELLER MATERIAL: DUCTILE BRONZE NI-R STAINLESS
  -2 0 -1 -1
- BOWL MATERIAL: DUCTILE BRONZE NI-R STAINLESS
  -2 -1 -2 -2

Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
IMPELLER DATA
IMPELLER NUMBER: 0103
TYPE: ENCLOSED
THRUST FACTOR: K=15.50
EYE AREA: 37.8 SQ. IN.
WEIGHT: 26.00 LB.

Minimum submergence above eye of bottom impeller: 36 IN.

TRIM ANGLE: 31°

EFFICIENCY CORRECTION
NUMBER OF BOWLS:
CHANGE AS FOLLOWS:
CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION
IMPELLER MATERIAL:
BOWL MATERIAL:

Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
Performance based on pumping clear, fresh water at a temperature not over 85°F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
**IMPELLER DATA**

- IMPELLER NUMBER
- TYPE: ENCLOSED
- THRUST FACTOR: K=20.00
- EYE AREA: 51.3 SQ. IN.
- WEIGHT: 32.30 LB.

**FLANGED BOWL DATA**

- BOWL BUMBER
- BOWL MAX. DIAMETER: 15.375 IN.
- BOWL MIN. DIAMETER: 15.375 IN.
- MAX. NO. STAGES: 7
- ONE STAGE WEIGHT: 630 LB.
- ADD STAGE WEIGHT: 260 LB.
- STD. SHAFT DIA.: 2.250 IN.
- STD. LATERAL: 0.563 IN.
- DISCHARGE SIZE: N/A
- DISCHARGE CONNECTION: FLG
- SUCTION BELL DIA.: 16.750 IN.
- SUCTION CONNECTION: BELL
- MAX. SPHERE SIZE: 1.375 IN.
- MAX. OPERATIONAL P.S.I.: 300 (SPECIAL)

**EFFICIENCY CORRECTION**

- NUMBER OF BOWLS: 1 2 3
- CHANGE AS FOLLOWS: -2 -1 0

**PUMP MATERIAL EFFICIENCY CORRECTION**

<table>
<thead>
<tr>
<th></th>
<th>DUCTILE</th>
<th>BRONZE</th>
<th>Ni-R</th>
<th>STAINLESS</th>
</tr>
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<tbody>
<tr>
<td>IMPELLER MATERIAL:</td>
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<td>-1</td>
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</tr>
</tbody>
</table>

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
16FMC 1750 RPM

TURBINE PUMP CURVE
SINGLE STAGE PERFORMANCE
APRIL 2020

IMPELLER DATA

<table>
<thead>
<tr>
<th>IMPELLER NUMBER</th>
<th>TYPE</th>
<th>TRIM ANGLE: 27°</th>
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<tr>
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<tr>
<td>THRUST FACTOR</td>
<td>K=23.00</td>
<td>Minimum submergence above</td>
</tr>
<tr>
<td>EYE AREA</td>
<td>58.4 SQ. IN.</td>
<td>eye of bottom impeller: 36 IN.</td>
</tr>
<tr>
<td>WEIGHT</td>
<td>42.00 LB.</td>
<td></td>
</tr>
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</table>

Flanged Bowl Data

<table>
<thead>
<tr>
<th>BOWL BUMBER</th>
<th>BOWL MAX. DIAMETER</th>
<th>16.000 IN.</th>
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<tbody>
<tr>
<td>BOWL MIN. DIAMETER</td>
<td>16.000 IN.</td>
<td></td>
</tr>
<tr>
<td>MAX. NO. STAGES</td>
<td>5</td>
<td></td>
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<tr>
<td>ONE STAGE WEIGHT</td>
<td>630 LB.</td>
<td></td>
</tr>
<tr>
<td>ADD STAGE WEIGHT</td>
<td>260 LB.</td>
<td></td>
</tr>
<tr>
<td>STD. SHAFT DIA.</td>
<td>2.250 IN.</td>
<td></td>
</tr>
<tr>
<td>STD. LATERAL</td>
<td>0.750 IN.</td>
<td></td>
</tr>
<tr>
<td>DISCHARGE SIZE</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>DISCHARGE CONNECTION</td>
<td>FLG</td>
<td></td>
</tr>
<tr>
<td>SUCTION BELL DIA.</td>
<td>7.375 IN.</td>
<td></td>
</tr>
<tr>
<td>SUCTION CONNECTION</td>
<td>BELL</td>
<td></td>
</tr>
<tr>
<td>MAX. SPHERE SIZE</td>
<td>1.688 IN.</td>
<td></td>
</tr>
<tr>
<td>MAX. OPERATIONAL P.S.I.</td>
<td>300 (SPECIAL)</td>
<td></td>
</tr>
</tbody>
</table>

EFFICIENCY CORRECTION

<table>
<thead>
<tr>
<th>NUMBER OF BOWLS</th>
<th>CHANGE AS FOLLOWS:</th>
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</thead>
<tbody>
<tr>
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<td>-2</td>
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<tr>
<td></td>
<td>-1</td>
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<td></td>
<td>0</td>
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</tbody>
</table>

CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION

<table>
<thead>
<tr>
<th>IMPELLER MATERIAL</th>
<th>DUCTILE</th>
<th>BRONZE</th>
<th>NI-R</th>
<th>STAINLESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMPELLER MATERIAL</td>
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<td>-1</td>
<td>-2</td>
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</tbody>
</table>

Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
**IMPELLER DATA**

- **IMPELLER NUMBER**: 16
- **TYPE**: ENCLOSED
- **THRUST FACTOR**: K=23.00
- **EYE AREA**: 58.4 SQ. IN.
- **WEIGHT**: 52.00 LB.
- **Minimum submergence above eye of bottom impeller**: 36 IN.

**FLANGED BOWL DATA**

- **BOWL BUMBER**: N/A
- **BOWL MAX. DIAMETER**: 16.000 IN.
- **BOWL MIN. DIAMETER**: 16.000 IN.
- **MAX. NO. STAGES**: 5
- **ONE STAGE WEIGHT**: 630 LB.
- **ADD STAGE WEIGHT**: 260 LB.
- **STD. SHAFT DIA.**: 2.250 IN.
- **STD. LATERAL**: 0.750 IN.
- **DISCHARGE SIZE**: N/A
- **DISCHARGE CONNECTION**: FLG
- **SUCTION BELL DIA.**: 17.375 IN.
- **SUCTION CONNECTION**: BELL
- **MAX. SPHERE SIZE**: 1.688 IN.
- **MAX. OPERATIONAL P.S.I.**: 300 (SPECIAL)

**EFFICIENCY CORRECTION**

- **NUMBER OF BOWLS**: 1
  - **CHANGE AS FOLLOWS**: -2
- **NUMBER OF BOWLS**: 2
  - **CHANGE AS FOLLOWS**: -0.5
- **NUMBER OF BOWLS**: 3
  - **CHANGE AS FOLLOWS**: 0

Change in efficiency may affect both head and horsepower.

**PUMP MATERIAL EFFICIENCY CORRECTION**

- **IMPELLER MATERIAL**: -2 0 -1 -1
- **BOWL MATERIAL**: -2 -1 -2 -2

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
18FLC 1750 RPM

**IMPELLER DATA**

<table>
<thead>
<tr>
<th>IMPELLER NUMBER</th>
<th>3914</th>
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<tbody>
<tr>
<td>TYPE</td>
<td>ENCLOSED</td>
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<tr>
<td>THRUST FACTOR</td>
<td>K=21.75</td>
</tr>
<tr>
<td>EYE AREA</td>
<td>46.0 SQ. IN.</td>
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<tr>
<td>WEIGHT</td>
<td>42.00 LB.</td>
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</table>

Minimum submergence above eye of bottom impeller: 48 IN.

**FLANGED BOWL DATA**

<table>
<thead>
<tr>
<th>BOWL NUMBER</th>
<th>3905</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOWL MAX. DIAMETER</td>
<td>17.750 IN.</td>
</tr>
<tr>
<td>BOWL MIN. DIAMETER</td>
<td>17.500 IN.</td>
</tr>
<tr>
<td>MAX. NO. STAGES</td>
<td>9</td>
</tr>
<tr>
<td>ONE STAGE WEIGHT</td>
<td>750 LB.</td>
</tr>
<tr>
<td>ADD STAGE WEIGHT</td>
<td>325 LB.</td>
</tr>
<tr>
<td>STD. SHAFT DIA.</td>
<td>2.188 IN.</td>
</tr>
<tr>
<td>STD. LATERAL</td>
<td>0.500 IN.</td>
</tr>
<tr>
<td>DISCHARGE SIZE</td>
<td>N/A</td>
</tr>
<tr>
<td>DISCHARGE CONNECTION</td>
<td>FLG</td>
</tr>
<tr>
<td>SUCTION BELL SIZE</td>
<td>18.000 IN.</td>
</tr>
<tr>
<td>SUCTION CONNECTION</td>
<td>BELL</td>
</tr>
<tr>
<td>MAX. SPHERE SIZE</td>
<td>1.250 IN.</td>
</tr>
<tr>
<td>MAX. OPERATIONAL P.S.I.</td>
<td>450 (SPECIAL)</td>
</tr>
</tbody>
</table>

**EFFICIENCY CORRECTION**

<table>
<thead>
<tr>
<th>NUMBER OF BOWLS:</th>
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<th>2</th>
<th>3</th>
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<tbody>
<tr>
<td>CHANGE AS FOLLOWS:</td>
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<td>-1</td>
<td>0</td>
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Change in efficiency may affect both head and horsepower.

**PUMP MATERIAL EFFICIENCY CORRECTION**

<table>
<thead>
<tr>
<th>IMPELLER MATERIAL:</th>
<th>DUCTILE</th>
<th>BRONZE</th>
<th>Ni-R</th>
<th>STAINLESS</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>-2</td>
<td>0</td>
<td>-1</td>
<td>-1</td>
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<table>
<thead>
<tr>
<th>BOWL MATERIAL:</th>
<th>DUCTILE</th>
<th>BRONZE</th>
<th>Ni-R</th>
<th>STAINLESS</th>
</tr>
</thead>
<tbody>
<tr>
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<td>-2</td>
<td>-1</td>
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</tr>
</tbody>
</table>

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
**TURBINE PUMP CURVE**

**SINGLE STAGE PERFORMANCE**

**APRIL 2020**

**18FMC 1750 RPM**

**IMPELLER DATA**
- **IMPELLER NUMBER**: 3923
- **TYPE**: ENCLOSED
- **THRUST FACTOR**: K=21.75
- **EYE AREA**: 50.3 SQ. IN.
- **WEIGHT**: 42.00 LB.

**Minimum submergence above eye of bottom impeller: 48 IN.**

**EFFICIENCY CORRECTION**
- **NUMBER OF BOWLS**: 1 2 3
- **CHANGE AS FOLLOWS**: -2 -1 0

**CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.**

**PUMP MATERIAL EFFICIENCY CORRECTION**
- **IMPELLER MATERIAL**: -2 0 -1 -1
- **BOWL MATERIAL**: -2 -1 -2 -2

**BOWL NUMBER**: 3905
- **BOWL MAX. DIAMETER**: 17.750 IN.
- **BOWL MIN. DIAMETER**: 17.500 IN.
- **MAX. NO. STAGES**: 7
- **ONE STAGE WEIGHT**: 750 LB.
- **ADD STAGE WEIGHT**: 325 LB.
- **STD. SHAFT DIA.**: 2.188 IN.
- **STD. LATERAL**: 0.500 IN.
- **DISCHARGE SIZE**: N/A
- **DISCHARGE CONNECTION**: FLG
- **SUCTION BELL DIA.**: 18.000 IN.
- **SUCTION CONNECTION**: BELL
- **MAX. SPHERE SIZE**: 1.250 IN.
- **MAX. OPERATIONAL P.S.I.**: 450 (SPECIAL)

Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
**IMPELLER DATA**

<table>
<thead>
<tr>
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<tr>
<td>TYPE</td>
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<tr>
<td>THRUST FACTOR</td>
<td>K=32.00</td>
</tr>
<tr>
<td>EYE AREA</td>
<td>102 SQ. IN.</td>
</tr>
<tr>
<td>WEIGHT</td>
<td>LB.</td>
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**FLANGED BOWL DATA**

<table>
<thead>
<tr>
<th>BOWL NUMBER</th>
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<tbody>
<tr>
<td>BOWL MAX. DIAMETER</td>
<td>18.625 IN.</td>
</tr>
<tr>
<td>BOWL MIN. DIAMETER</td>
<td>18.250 IN.</td>
</tr>
<tr>
<td>MAX. NO. STAGES</td>
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</tr>
<tr>
<td>ONE STAGE WEIGHT</td>
<td>LB.</td>
</tr>
<tr>
<td>ADD STAGE WEIGHT</td>
<td>LB.</td>
</tr>
<tr>
<td>STD. SHAFT DIA.</td>
<td>2.188 IN.</td>
</tr>
<tr>
<td>STD. LATERAL</td>
<td>0.750 IN.</td>
</tr>
<tr>
<td>DISCHARGE SIZE</td>
<td>N/A</td>
</tr>
<tr>
<td>DISCHARGE CONNECTION</td>
<td>FLG</td>
</tr>
<tr>
<td>SUCTION BELL DIA.</td>
<td>18.813 IN.</td>
</tr>
<tr>
<td>SUCTION CONNECTION</td>
<td>BELL</td>
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<tr>
<td>MAX. SPHERE SIZE</td>
<td>1.250 IN.</td>
</tr>
<tr>
<td>MAX. OPERATIONAL P.S.I.</td>
<td>450 (SPECIAL)</td>
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</table>

**EFFICIENCY CORRECTION**

<table>
<thead>
<tr>
<th>NUMBER OF BOWLS:</th>
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<th>2</th>
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</thead>
<tbody>
<tr>
<td>CHANGE AS FOLLOWS:</td>
<td>-0.5</td>
<td>0</td>
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CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

**PUMP MATERIAL EFFICIENCY CORRECTION**

<table>
<thead>
<tr>
<th>DUCTILE</th>
<th>BRONZE</th>
<th>NI-R</th>
<th>STAINLESS</th>
</tr>
</thead>
<tbody>
<tr>
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<td>-2</td>
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Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
**IMPELLER DATA**

<table>
<thead>
<tr>
<th>IMPELLER NUMBER</th>
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<tbody>
<tr>
<td>TYPE</td>
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</tr>
<tr>
<td>THRUST FACTOR</td>
<td>K=32.00</td>
</tr>
<tr>
<td>EYE AREA</td>
<td>74.5 SQ. IN.</td>
</tr>
<tr>
<td>WEIGHT</td>
<td>54.00 LB.</td>
</tr>
</tbody>
</table>

**EFFICIENCY CORRECTION**

| NUMBER OF BOWLS: | 1 | 2 |
| CHANGE AS FOLLOWS: | -1 | 0 |

CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

**FLANGED BOWL DATA**

<table>
<thead>
<tr>
<th>BOWL BUMBER</th>
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</thead>
<tbody>
<tr>
<td>BOWL MAX. DIAMETER</td>
</tr>
<tr>
<td>BOWL MIN. DIAMETER</td>
</tr>
<tr>
<td>MAX. NO. STAGES</td>
</tr>
<tr>
<td>ONE STAGE WEIGHT</td>
</tr>
<tr>
<td>ADD STAGE WEIGHT</td>
</tr>
<tr>
<td>STD. SHAFT DIA.</td>
</tr>
<tr>
<td>STD. LATERAL</td>
</tr>
<tr>
<td>DISCHARGE SIZE</td>
</tr>
<tr>
<td>DISCHARGE CONNECTION</td>
</tr>
<tr>
<td>SUCTION BELL DIA.</td>
</tr>
<tr>
<td>SUCTION CONNECTION</td>
</tr>
<tr>
<td>MAX. SPHERE SIZE</td>
</tr>
<tr>
<td>MAX. OPERATIONAL P.S.I.</td>
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**PUMP MATERIAL EFFICIENCY CORRECTION**

<table>
<thead>
<tr>
<th>DUCTILE</th>
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<th>STAINLESS</th>
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<td>BOWL MATERIAL:</td>
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<td>-2</td>
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Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
**IMPELLER DATA**

<table>
<thead>
<tr>
<th>IMPELLER NUMBER</th>
<th>TYPE</th>
<th>TRIM ANGLE: 26°</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>SEMI-OPEN</td>
<td>Minimum submergence above eye of bottom impeller: 42 IN.</td>
</tr>
</tbody>
</table>

- THRUST FACTOR: K=32.00
- EYE AREA: 74.5 SQ. IN.
- WEIGHT: 54.00 LB.

- Minimum submergence above eye of bottom impeller: 42 IN.

**EFFICIENCY CORRECTION**

<table>
<thead>
<tr>
<th>NUMBER OF BOWLS:</th>
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**PUMP MATERIAL EFFICIENCY CORRECTION**

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<tr>
<th>IMPELLER MATERIAL:</th>
<th>DUCTILE</th>
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<th>STAINLESS</th>
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</table>

<table>
<thead>
<tr>
<th>BOWL MATERIAL:</th>
<th>DUCTILE</th>
<th>BRONZE</th>
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<th>STAINLESS</th>
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<tbody>
<tr>
<td></td>
<td>-2</td>
<td>-2</td>
<td>-2</td>
<td>-2</td>
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</tbody>
</table>

**FLANGED BOWL DATA**

- BOWL BUMBER
- BOWL MAX. DIAMETER: 18.625 IN.
- BOWL MIN. DIAMETER: 18.625 IN.
- MAX. NO. STAGES: 4
- ONE STAGE WEIGHT: 770 LB.
- ADD STAGE WEIGHT: 447 LB.
- STD. SHAFT DIA.: 2.188 IN.
- STD. LATERAL: 0.750 IN.
- DISCHARGE SIZE: N/A
- DISCHARGE CONNECTION: FLG
- SUCTION BELL DIA.: 21.000 IN.
- SUCTION CONNECTION: BELL
- MAX. SPHERE SIZE: 1.000 IN.
- MAX. OPERATIONAL P.S.I.: 350 (SPECIAL)

Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.

APRIL 2020
IMPELLER DATA

- IMPELLER NUMBER: UNIVEN
- TYPE: ENCLOSED
- THRUST FACTOR: K=32.00
- EYE AREA: 74.5 SQ. IN.
- WEIGHT: 54.00 LB.

- TRIM ANGLE: 26°
- Minimum submergence above eye of bottom impeller: 42 IN.

EFFICIENCY CORRECTION

- NUMBER OF BOWLS: 1, 2
- CHANGE AS FOLLOWS: -1, 0

CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION

- IMPELLER MATERIAL: DUCTILE -2, BRONZE 0, NI-R -2, STAINLESS -2
- BOWL MATERIAL: DUCTILE -2, BRONZE -2, NI-R -2, STAINLESS -2

FLANGED BOWL DATA

- BOWL BUMBER
- BOWL MAX. DIAMETER: 18.625 IN.
- BOWL MIN. DIAMETER: 18.625 IN.
- MAX. NO. STAGES: 4
- ONE STAGE WEIGHT: 770 LB.
- ADD STAGE WEIGHT: 447 LB.
- STD. SHAFT DIA.: 2.188 IN.
- STD. LATERAL: 0.750 IN.
- DISCHARGE SIZE: N/A
- DISCHARGE CONNECTION: FLG
- SUCTION BELL DIA.: 21.000 IN.
- SUCTION CONNECTION: BELL
- MAX. SPHERE SIZE: 1.000 IN.
- MAX. OPERATIONAL P.S.I.: 350 (SPECIAL)

Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
**IMPELLER DATA**

- IMPELLER NUMBER: 19
- TYPE: SEMI-OPEN
- THRUST FACTOR: K=32.00
- EYE AREA: 74.5 SQ. IN.
- WEIGHT: 54.00 LB.

**FLANGED BOWL DATA**

- BOWL BUMBER
- BOWL MAX. DIAMETER: 18.625 IN.
- BOWL MIN. DIAMETER: 18.625 IN.
- MAX. NO. STAGES: 4
- ONE STAGE WEIGHT: 770 LB.
- ADD STAGE WEIGHT: 447 LB.
- STD. SHAFT DIA.: 2.188 IN.
- STD. LATERAL: 0.750 IN.
- DISCHARGE SIZE: N/A
- DISCHARGE CONNECTION: FLG
- SUCTION BELL DIA.: 21.000 IN.
- SUCTION CONNECTION: BELL
- MAX. SPHERE SIZE: 1.000 IN.
- MAX. OPERATIONAL P.S.I.: 350 (SPECIAL)

**EFFICIENCY CORRECTION**

- NUMBER OF BOWLS: 1
- CHANGE AS FOLLOWS: -1
- CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

**PUMP MATERIAL EFFICIENCY CORRECTION**

- IMPELLER MATERIAL:
  - DUCTILE: -2
  - BRONZE: 0
  - NI-R: -2
  - STAINLESS: -2
- BOWL MATERIAL:
  - DUCTILE: -2
  - BRONZE: -2
  - NI-R: -2
  - STAINLESS: -2

Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
**IMPELLER DATA**

- **IMPELLER NUMBER**: 4838
- **TYPE**: ENCLOSED
- **THRUST FACTOR**: K=29.40
- **EYE AREA**: 72.6 SQ. IN.
- **WEIGHT**: 69.00 LB.

**BOWL DATA**

- **BOWL NUMBER**: 3969
- **BOWL MAX. DIAMETER**: 19.875 IN.
- **BOWL MIN. DIAMETER**: 19.250 IN.
- **MAX. NO. STAGES**: 5
- **ONE STAGE WEIGHT**: 790 LB.
- **ADD STAGE WEIGHT**: 569 LB.
- **STD. SHAFT DIA.**: 2.438 IN.
- **STD. LATERAL**: 0.750 IN.
- **DISCHARGE SIZE**: N/A
- **DISCHARGE CONNECTION**: FLG
- **SUCTION BELL DIA.**: 20.875 IN.
- **SUCTION CONNECTION**: BELL
- **MAX. SPHERE SIZE**: 2.000 IN.
- **MAX. OPERATIONAL P.S.I.**: 350 (SPECIAL)

**EFFICIENCY CORRECTION**

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<tr>
<th>NUMBER OF BOWLS:</th>
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<td>CHANGE AS FOLLOWS:</td>
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CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

**PUMP MATERIAL EFFICIENCY CORRECTION**

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<tr>
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Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
**IMPELLER DATA**

- **IMPELLER NUMBER:** 4847
- **TYPE:** ENCLOSED
- **THRUST FACTOR:** \(K = 29.40\)
- **EYE AREA:** 72.6 SQ. IN.
- **WEIGHT:** 69.00 LB.

**Minimum submergence above eye of bottom impeller:** 33 IN.

**FLANGED BOWL DATA**

- **BOWL NUMBER:** 3969
- **BOWL MAX. DIAMETER:** 19.875 IN.
- **BOWL MIN. DIAMETER:** 19.250 IN.
- **MAX. NO. STAGES:** 5
- **ONE STAGE WEIGHT:** 790 LB.
- **ADD STAGE WEIGHT:** 569 LB.
- **STD. SHAFT DIA.:** 2.438 IN.
- **STD. LATERAL:** 0.750 IN.
- **DISCHARGE SIZE:** N/A
- **DISCHARGE CONNECTION:** FLG
- **SUCTION BELL DIA.:** 20.875 IN.
- **SUCTION CONNECTION:** BELL
- **MAX. SPHERE SIZE:** 2.000 IN.
- **MAX. OPERATIONAL P.S.I.:** 350 (SPECIAL)

**EFFICIENCY CORRECTION**

- **NUMBER OF BOWLS:** 1 2
- **CHANGE AS FOLLOWS:** -2 0

**CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.**

**PUMP MATERIAL EFFICIENCY CORRECTION**

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<tr>
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<th>NI-R</th>
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Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
PERFORMANCE CURVES

LINESHAFT & SUBMERSIBLE

1180 RPM
**Performance** based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.

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<th>US gpm</th>
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<tr>
<td>200</td>
<td>5</td>
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<tr>
<td>1100</td>
<td>50</td>
</tr>
<tr>
<td>1200</td>
<td>55</td>
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<th>NPSHr - ft</th>
<th>Head - ft</th>
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</thead>
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<td>500</td>
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<td>1100</td>
<td>3.000 in</td>
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<tr>
<td>1200</td>
<td>2.375 in</td>
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**IMPELLER DATA**
- IMPELLER NUMBER: 2999
- TYPE: ENCLOSED
- THRUST FACTOR: K=7.90
- EYE AREA: 23.4 SQ. IN.
- WEIGHT: 14.70 LB.
- MINIMUM SUBMERGENCE ABOVE EYE OF BOTTOM IMPELLER: 24 IN.
- TRIM ANGLE: 30°
- MINIMUM SUBMERGENCE ABOVE EYE OF BOTTOM IMPELLER: 24 IN.

**EFFICIENCY CORRECTION**
- NUMBER OF BOWLS: 1 2 3 4 5
- CHANGE AS FOLLOWS: -4 -3 -2 -1 0
- CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

**FLANGED BOWL DATA**
- BOWL NUMBER: 2998
- BOWL MAX. DIAMETER: 12.500 IN.
- BOWL MIN. DIAMETER: 12.125 IN.
- MAX. NO. STAGES: 13
- ONE STAGE WEIGHT: 240 LB.
- ADD STAGE WEIGHT: 115 LB.
- STD. SHAFT DIA.: 1.688 IN.
- STD. LATERAL: 0.813 IN.
- DISCHARGE SIZE: 8 - 10 IN.
- DISCHARGE CONNECTION: THD - FLG
- SUCTION SIZE: 8 - 10 IN.
- SUCTION CONNECTION: THD
- MAX. SPHERE SIZE: 0.750 IN.
- MAX. OPERATIONAL P.S.I.: 584 (SPECIAL)

**PUMP MATERIAL EFFICIENCY CORRECTION**
- IMPPELLER MATERIAL: DUCTILE -2 BRONZE 0 NI-R -1 STAINLESS -1
- BOWL MATERIAL: DUCTILE -2 BRONZE -1 NI-R -1 STAINLESS -3
Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
**TURBINE PUMP CURVE**

**SINGLE STAGE PERFORMANCE**

**APRIL 2020**

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**14FLS 1160 RPM**

**IMPELLER DATA**

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<th>IMPELLER NUMBER</th>
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<td>THRUST FACTOR</td>
<td>K=19.70</td>
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<tr>
<td>EYE AREA</td>
<td>31.5 SQ. IN.</td>
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<tr>
<td>WEIGHT</td>
<td>18.50 LB.</td>
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**FLANGED BOWL DATA**

<table>
<thead>
<tr>
<th>BOWL NUMBER</th>
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</thead>
<tbody>
<tr>
<td>BOWL MAX. DIAMETER</td>
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</tr>
<tr>
<td>BOWL MIN. DIAMETER</td>
<td>13.250 IN.</td>
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<td>MAX. NO. STAGES</td>
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</tr>
<tr>
<td>ONE STAGE WEIGHT</td>
<td>490 LB.</td>
</tr>
<tr>
<td>ADD STAGE WEIGHT</td>
<td>175 LB.</td>
</tr>
<tr>
<td>STD. SHAFT DIA.</td>
<td>1.938 IN.</td>
</tr>
<tr>
<td>STD. LATERAL</td>
<td>0.875 IN.</td>
</tr>
<tr>
<td>DISCHARGE SIZE</td>
<td>10 - 12 IN.</td>
</tr>
<tr>
<td>DISCHARGE CONNECTION</td>
<td>THD - FLG</td>
</tr>
<tr>
<td>SUCTION SIZE</td>
<td>10 - 12 IN.</td>
</tr>
<tr>
<td>SUCTION CONNECTION</td>
<td>THD</td>
</tr>
<tr>
<td>MAX. SPHERE SIZE</td>
<td>0.750 IN.</td>
</tr>
<tr>
<td>MAX. OPERATIONAL P.S.I.</td>
<td>540 (SPECIAL)</td>
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**EFFICIENCY CORRECTION**

<table>
<thead>
<tr>
<th>NUMBER OF BOWLS:</th>
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<tbody>
<tr>
<td>CHANGE AS FOLLOWS:</td>
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<td>0</td>
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**PUMP MATERIAL EFFICIENCY CORRECTION**

<table>
<thead>
<tr>
<th>IMPELLER MATERIAL:</th>
<th>DUCTILE</th>
<th>BRONZE</th>
<th>NI-R</th>
<th>STAINLESS</th>
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<tbody>
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</table>

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
**IMPELLER DATA**
- IMPELLER NUMBER: 3065
- TYPE: ENCLOSED
- THRUST FACTOR: K=21.80
- EYE AREA: 40.9 SQ. IN.
- WEIGHT: 28.00 LB.
- Minimum submergence above eye of bottom impeller: 30 IN.

**FLANGED BOWL DATA**
- BOWL NUMBER: 3042
- BOWL MAX. DIAMETER: 13.500 IN.
- BOWL MIN. DIAMETER: 13.250 IN.
- MAX. NO. STAGES: 23
- ONE STAGE WEIGHT: 490 LB.
- ADD STAGE WEIGHT: 175 LB.
- STD. SHAFT DIA.: 1.938 IN.
- STD. LATERAL: 0.875 IN.
- DISCHARGE SIZE: 10 - 12 IN.
- DISCHARGE CONNECTION: THD - FLG
- SUCTION SIZE: 10 - 12 IN.
- SUCTION CONNECTION: THD
- MAX. SPHERE SIZE: 1.250 IN.
- MAX. OPERATIONAL P.S.I.: 540 (SPECIAL)

**EFFICIENCY CORRECTION**
- NUMBER OF BOWLS: 1 2 3 4
- CHANGE AS FOLLOWS: -4 -2 -1 0
- CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

**PUMP MATERIAL EFFICIENCY CORRECTION**
- DUCTILE  BRONZE  NI-R  STAINLESS
- IMPELLER MATERIAL:  -2  0  -1  -1
- BOWL MATERIAL:  -2  -1  -2  -2

Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
**IMPELLER DATA**

- **IMPELLER NUMBER**: 3078
- **TYPE**: SEMI-OPEN
- **THRUST FACTOR**: K=23.40
- **EYE AREA**: 40.9 SQ. IN.
- **WEIGHT**: 20.25 LB.

**FLANGED BOWL DATA**

- **BOWL NUMBER**: 3042
- **BOWL MAX. DIAMETER**: 13.500 IN.
- **BOWL MIN. DIAMETER**: 13.250 IN.
- **MAX. NO. STAGES**: 10
- **ONE STAGE WEIGHT**: 490 LB.
- **ADD STAGE WEIGHT**: 175 LB.
- **STD. SHAFT DIA.**: 1.938 IN.
- **STD. LATERAL**: 0.875 IN.
- **DISCHARGE SIZE**: 10 - 12 IN.
- **DISCHARGE CONNECTION**: THD - FLG
- **SUCTION SIZE**: 10 - 12 IN.
- **SUCTION CONNECTION**: THD
- **MAX. SPHERE SIZE**: 1.250 IN.
- **MAX. OPERATIONAL P.S.I.**: 540 (SPECIAL)

**EFFICIENCY CORRECTION**

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<tr>
<th>NUMBER OF BOWLS:</th>
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CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

**PUMP MATERIAL EFFICIENCY CORRECTION**

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<tr>
<th>DUCTILE</th>
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<td>BOWL MATERIAL:</td>
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<td>-1</td>
<td>-2</td>
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Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
14FHC 1170 RPM

Performance based on pumping clear, fresh water at a temperature not over 85°F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
IMPELLER DATA

IMPELLER NUMBER 3029
TYPE SEMI-OPEN
THRUST FACTOR K=25.20
EYE AREA 43.9 SQ. IN.
WEIGHT 21.25 LB.

Minimum submergence above eye of bottom impeller: 32 IN.

TRIM ANGLE: 32.5°

EFFICIENCY CORRECTION
NUMBER OF BOWLS: 1 2 3 4
CHANGE AS FOLLOWS: -3 -2 -1 0
CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION

IMPELLER MATERIAL: -2 0 -1 -1
BOWL MATERIAL: -2 -1 -2

FLANGED BOWL DATA

BOWL NUMBER 3042
BOWL MAX. DIAMETER 13.500 IN.
BOWL MIN. DIAMETER 13.250 IN.
MAX. NO. STAGES 9
ONE STAGE WEIGHT 490 LB.
ADD STAGE WEIGHT 175 LB.
STD. SHAFT DIA. 1.938 IN.
STD. LATERAL 0.875 IN.
DISCHARGE SIZE 10 - 12 IN.
DISCHARGE CONNECTION THD - FLG
SUCTION SIZE 10 - 12 IN.
SUCTION CONNECTION THD
MAX. SPHERE SIZE 1.250 IN.
MAX. OPERATIONAL P.S.I. 540 (SPECIAL)

Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
**IMPELLER DATA**

<table>
<thead>
<tr>
<th>Impeller Number</th>
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<th>Thrust Factor</th>
<th>Eye Area</th>
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<tr>
<td>3092</td>
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<td>40.9 SQ. IN.</td>
<td>20.25 LB.</td>
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TRIM ANGLE: 32.5°  
Minimum submergence above eye of bottom impeller: 32 IN.

**FLANGED BOWL DATA**

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<thead>
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<th>Bowl Number</th>
<th>Bowl Max. Diameter</th>
<th>Bowl Min. Diameter</th>
<th>Max. No. Stages</th>
<th>One Stage Weight</th>
<th>Add Stage Weight</th>
<th>Std. Shaft Dia.</th>
<th>Std. Lateral</th>
<th>Discharge Size</th>
<th>Discharge Connection</th>
<th>Suction Size</th>
<th>Suction Connection</th>
<th>Max. Sphere Size</th>
<th>Max. Operational P.S.I.</th>
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<tr>
<td>3042</td>
<td>13.500 IN.</td>
<td>13.250 IN.</td>
<td>8</td>
<td>490 LB.</td>
<td>175 LB.</td>
<td>1.938 IN.</td>
<td>0.875 IN.</td>
<td>10 - 12 IN.</td>
<td>THD - FLG</td>
<td>10 - 12 IN.</td>
<td>THD</td>
<td>1.250 IN.</td>
<td>540 (SPECIAL)</td>
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**EFFICIENCY CORRECTION**

<table>
<thead>
<tr>
<th>Number of Bowls</th>
<th>Change As Follows</th>
<th>Change in Efficiency May Affect Both Head and Horsepower.</th>
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Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
14FWC 1170 RPM

**IMPELLER DATA**

- **IMPELLER NUMBER:** 4151
- **TYPE:** ENCLOSED
- **THRUST FACTOR:** K=24.80
- **EYE AREA:** 47.4 SQ. IN.
- **WEIGHT:** 31.75 LB.

**FLANGED BOWL DATA**

- **BOWL NUMBER:** 4152
- **BOWL MAX. DIAMETER:** 14.063 IN.
- **BOWL MIN. DIAMETER:** 13.750 IN.
- **MAX. NO. STAGES:** 21
- **ONE STAGE WEIGHT:** 500 LB.
- **ADD STAGE WEIGHT:** 185 LB.
- **STD. SHAFT DIA.:** 1.938 IN.
- **STD. LATERAL:** 0.875 IN.
- **DISCHARGE SIZE:** 10 - 12 IN.
- **DISCHARGE CONNECTION:** THD - FLG
- **SUCTION SIZE:** 10 - 12 IN.
- **SUCTION CONNECTION:** THD
- **MAX. SPHERE SIZE:** 1.500 IN.
- **MAX. OPERATIONAL P.S.I.:** 540 (SPECIAL)

**EFFICIENCY CORRECTION**

- **NUMBER OF BOWLS:** 1 2 3 4
- **CHANGE AS FOLLOWS:** -4 -2 -1 0

Change in efficiency may affect both head and horsepower.

**PUMP MATERIAL EFFICIENCY CORRECTION**

<table>
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<tr>
<th></th>
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<th>STAINLESS</th>
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Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
14FWS 1160 RPM

**IMPELLER DATA**

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<td>EYE AREA</td>
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<tr>
<td>WEIGHT</td>
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**FLANGED BOWL DATA**

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<th>BOWL NUMBER</th>
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<td>BOWL MAX. DIAMETER</td>
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<tr>
<td>BOWL MIN. DIAMETER</td>
<td>13.750 IN.</td>
</tr>
<tr>
<td>MAX. NO. STAGES</td>
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</tr>
<tr>
<td>ONE STAGE WEIGHT</td>
<td>500 LB.</td>
</tr>
<tr>
<td>ADD STAGE WEIGHT</td>
<td>185 LB.</td>
</tr>
<tr>
<td>STD. SHAFT DIA.</td>
<td>1.938 IN.</td>
</tr>
<tr>
<td>STD. LATERAL</td>
<td>0.875 IN.</td>
</tr>
<tr>
<td>DISCHARGE SIZE</td>
<td>10 - 12 IN.</td>
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<tr>
<td>DISCHARGE CONNECTION</td>
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<tr>
<td>SUCTION SIZE</td>
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<td>MAX. SPHERE SIZE</td>
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**EFFICIENCY CORRECTION**

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CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

**PUMP MATERIAL EFFICIENCY CORRECTION**

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<th>DUCTILE</th>
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Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
Performance based on pumping clear, fresh water at a temperature not over 85°F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
14FZC 1170 RPM

TURBINE PUMP CURVE
SINGLE STAGE PERFORMANCE
APRIL 2020

Performance based on pumping clear, fresh water at a temperature not over 85°F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.

IMPELLER DATA
- IMPELLER NUMBER: 3896
- TYPE: ENCLOSED
- THRUST FACTOR: K=24.70
- EYE AREA: 58.5 SQ. IN.
- WEIGHT: 28.00 LB.
- TRIM ANGLE: 35°
- Minimum submergence above eye of bottom impeller: 34 IN.

FLANGED BOWL DATA
- BOWL NUMBER: 3869
- BOWL MAX. DIAMETER: 13.750 IN.
- BOWL MIN. DIAMETER: 13.500 IN.
- MAX. NO. STAGES: 12
- ONE STAGE WEIGHT: 335 LB.
- ADD STAGE WEIGHT: 188 LB.
- STD. SHAFT DIA.: 1.938 IN.
- STD. LATERAL: 0.625 IN.
- DISCHARGE SIZE: 10 - 12 IN.
- DISCHARGE CONNECTION: THD - FLG
- SUCTION SIZE: 10 - 12 IN.
- SUCTION CONNECTION: THD
- MAX. SPHERE SIZE: 1.250 IN.
- MAX. OPERATIONAL P.S.I.: 540 (SPECIAL)

EFFICIENCY CORRECTION
- NUMBER OF BOWLS: 1 2 3 4
- CHANGE AS FOLLOWING: -3 -2 -1 0
- CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION
- IMPELLER MATERIAL: DUCTILE 0 0 0 0
- BOWL MATERIAL: DUCTILE 0 0 0 0

Performance based on pumping clear, fresh water at a temperature not over 85°F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
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Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
IMPELLER DATA
IMPELLER NUMBER: 0004
TYPE: SEMI-OPEN
THRUST FACTOR: K=30.00
EYE AREA: 63.6 SQ. IN.
WEIGHT: 21.00 LB.

Minimum submergence above eye of bottom impeller: 36 IN.

TRIM ANGLE: 34°

EFFICIENCY CORRECTION
NUMBER OF BOWLS:
1 2 3 4

CHANGE AS FOLLOWS:
-3 -2 -1 0

CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION
IMPELLER MATERIAL: -2 0 -1 -1
BOWL MATERIAL: -2 -1 -2 -2

FLANGED BOWL DATA
BOWL NUMBER: 0001
BOWL MAX. DIAMETER: 15.250 IN.
BOWL MIN. DIAMETER: 14.750 IN.
MAX. NO. STAGES: 6
ONE STAGE WEIGHT: 375 LB.
ADD STAGE WEIGHT: 170 LB.
STD. SHAFT DIA.: 1.938 IN.
STD. LATERAL: 0.688 IN.
DISCHARGE SIZE: 10 - 12 IN.
DISCHARGE CONNECTION: THD - FLG
SUCTION SIZE: 10 - 12 IN.
SUCTION CONNECTION: THD
MAX. SPHERE SIZE: 2.250 IN.
MAX. OPERATIONAL P.S.I.: 540 (SPECIAL)

Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
16FMC 1170 RPM

TURBINE PUMP CURVE
SINGLE STAGE PERFORMANCE
APRIL 2020

Performance based on pumping clear, fresh water at a temperature not over 85°F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
16FHC 1170 RPM

Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
18FMC 1170 RPM

**ImPELLER DATA**

- **IMPELLER NUMBER**: 3923
- **TYPE**: ENCLOSED
- **THRUST FACTOR**: K=21.75
- **EYE AREA**: 50.3 SQ. IN.
- **WEIGHT**: 42.00 LB.

**FLANGED BOWL DATA**

- **BOWL NUMBER**: 3905
- **BOWL MAX. DIAMETER**: 17.750 IN.
- **BOWL MIN. DIAMETER**: 17.500 IN.
- **MAX. NO. STAGES**: 10
- **ONE STAGE WEIGHT**: 750 LB.
- **ADD STAGE WEIGHT**: 325 LB.
- **STD. SHAFT DIA.**: 2.188 IN.
- **STD. LATERAL**: 0.500 IN.
- **DISCHARGE SIZE**: N/A
- **DISCHARGE CONNECTION**: FLG
- **SUCTION BELL DIA.**: 18.000 IN.
- **SUCTION CONNECTION**: BELL
- **MAX. SPHERE SIZE**: 1.250 IN.
- **MAX. OPERATIONAL P.S.I.**: 450 (SPECIAL)

**EFFICIENCY CORRECTION**

- **NUMBER OF BOWLS**: 1 2 3
- **CHANGE AS FOLLOWS**: -2 -1 0

Change in efficiency may affect both head and horsepower.

**PUMP MATERIAL EFFICIENCY CORRECTION**

<table>
<thead>
<tr>
<th>DUCTILE</th>
<th>BRONZE</th>
<th>NI-R</th>
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Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
IMPELLER DATA

IMPELLER NUMBER: 3491
TYPE: ENCLOSED
THRUST FACTOR: K=23.50
EYE AREA: 67.5 SQ. IN.
WEIGHT: 42.00 LB.

Minimum submergence above eye of bottom impeller: 32 IN.

Flanged Bowl Data

BOWL NUMBER: 3905
Bowl Max. Diameter: 17.500 IN.
Bowl Min. Diameter: 17.750 IN.
Max. No. Stages: 10
One Stage Weight: 750LB.
Add Stage Weight: 325LB.
Std. Shaft Dia.: 2.188 IN.
Std. Lateral: 0.500 IN.
Discharge Size: 10 - 12 IN.
Discharge Connection: THD - FLG
Suction Size: 12 IN.
Suction Connection: FLG
Max. Sphere Size: 1.375IN.
Max. Operational P.S.I.: 500 (SPECIAL)

EFFICIENCY CORRECTION

Number of Bowls: 1, 2, 3
Change as follows: -2, -1, 0
Change in efficiency may affect both head and horsepower.

PUMP MATERIAL EFFICIENCY CORRECTION

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<th>Material</th>
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Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
PERFORMANCE based on pumping clear, fresh water at a temperature not over 85°F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.

**IMPELLER DATA**
- IMPELLER NUMBER: 0777
- TYPE: ENCLOSED
- THRUST FACTOR: K=32.00
- EYE AREA: 102 SQ. IN.
- WEIGHT: 49.00 LB.
- Minimum submergence above eye of bottom impeller: 48 IN.
- TRIM ANGLE: 30°

**FLANGED BOWL DATA**
- BOWL NUMBER: 0224
- BOWL MAX. DIAMETER: 18.625 IN.
- BOWL MIN. DIAMETER: 18.250 IN.
- MAX. NO. STAGES: 10
- ONE STAGE WEIGHT: LB.
- ADD STAGE WEIGHT: LB.
- STD. SHAFT DIA.: 2.188 IN.
- STD. LATERAL: 0.750 IN.
- DISCHARGE SIZE: N/A
- DISCHARGE CONNECTION: FLG
- SUCTION BELL DIA.: 18.813 IN.
- SUCTION CONNECTION: BELL
- MAX. SPHERE SIZE: 1.250 IN.
- MAX. OPERATIONAL P.S.I.: 450 (SPECIAL)

**EFFICIENCY CORRECTION**
- NUMBER OF BOWLS: 1 2
- CHANGE AS FOLLOWS: -0.5 0

**PUMP MATERIAL EFFICIENCY CORRECTION**

<table>
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<tr>
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Performance based on pumping clear, fresh water at a temperature not over 85°F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
TURBINE PUMP CURVE
SINGLE STAGE PERFORMANCE
APRIL 2020

19FMC 1170 RPM

Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly
adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.

IMPELLER DATA
IMPELLER NUMBER 0353
TYPE ENCLOSED
THRUST FACTOR K=32.00
EYE AREA 74.5 SQ. IN.
WEIGHT 54.00 LB.
TRIM ANGLE: 26°
Minimum submergence above eye of bottom impeller: 42 IN.

FLANGED BOWL DATA
BOWL NUMBER 0358
BOWL MAX. DIAMETER 18.625 IN.
BOWL MIN. DIAMETER 18.625 IN.
MAX. NO. STAGES 10
ONE STAGE WEIGHT 770 LB.
ADD STAGE WEIGHT 447 LB.
STD. SHAFT DIA. 2.188 IN.
STD. LATERAL 0.750 IN.
DISCHARGE SIZE N/A
DISCHARGE CONNECTION FLG
SUCTION BELL DIA. 21.000 IN.
SUCTION CONNECTION BELL
MAX. SPHERE SIZE 1.000 IN.
MAX. OPERATIONAL P.S.I. 350 (SPECIAL)

EFFICIENCY CORRECTION
NUMBER OF BOWLS: 1 2
CHANGE AS FOLLOWS: -1 0
CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION

<table>
<thead>
<tr>
<th></th>
<th>DUCTILE</th>
<th>BRONZE</th>
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</table>

Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly
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Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
**IMPELLER DATA**

- **IMPELLER NUMBER**: 3987
- **TYPE**: ENCLOSED
- **THRUST FACTOR**: K=58.0
- **EYE AREA**: 113 SQ. IN.
- **WEIGHT**: 94.00 LB.

**FLANGED BOWL DATA**

- **BOWL NUMBER**: 3996
- **BOWL MAX. DIAMETER**: 20.000 IN.
- **BOWL MIN. DIAMETER**: 19.750 IN.
- **MAX. NO. STAGES**: 4
- **ONE STAGE WEIGHT**: 845 LB.
- **ADD STAGE WEIGHT**: 560 LB.
- **STD. SHAFT DIA.**: 2.438 IN.
- **STD. LATERAL**: 0.625 IN.
- **DISCHARGE SIZE**: N/A
- **DISCHARGE CONNECTION**: FLG.
- **SUCTION BELL DIA.**: 23.313 IN.
- **SUCTION CONNECTION**: BELL
- **MAX. SPHERE SIZE**: 2.000 IN.
- **MAX. OPERATIONAL P.S.I.**: 350 (SPECIAL)

**EFFICIENCY CORRECTION**

- **NUMBER OF BOWLS**: 1 2 3 4
- **CHANGE AS FOLLOWS**: -2 -1 0 +1

**PUMP MATERIAL EFFICIENCY CORRECTION**

<table>
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IMPELLER DATA

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<th>IMPELLER NUMBER</th>
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<th>WEIGHT</th>
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<td>93.0 SQ. IN.</td>
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TRIM ANGLE: 18°

Minimum submergence above eye of bottom impeller: 32 IN.

EFFICIENCY CORRECTION

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<th>NUMBER OF BOWLS</th>
<th>CHANGE AS FOLLOWS</th>
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CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION

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FLANGED BOWL DATA

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<tr>
<th>BOWL NUMBER</th>
<th>BOWL MAX. DIAMETER</th>
<th>BOWL MIN. DIAMETER</th>
<th>MAX. NO. STAGES</th>
<th>ONE STAGE WEIGHT</th>
<th>ADD STAGE WEIGHT</th>
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<th>STD. LATERAL</th>
<th>DISCHARGE SIZE</th>
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<th>SUCTION BELL DIA.</th>
<th>SUCTION CONNECTION</th>
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<th>MAX. OPERATIONAL P.S.I.</th>
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<td>24.000 IN.</td>
<td>23.750 IN.</td>
<td>6</td>
<td>1150 LB.</td>
<td>850 LB.</td>
<td>2.688 IN.</td>
<td>0.938 IN.</td>
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<td>24.750 IN.</td>
<td>BELL</td>
<td>2.000 IN.</td>
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Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
**IMPELLER DATA**

- IMPELLER NUMBER: 4874
- TYPE: ENCLOSED
- THRUST FACTOR: K=41.20
- EYE AREA: 93.0 SQ. IN.
- WEIGHT: 82.00 LB.

Minimum submergence above eye of bottom impeller: 32 IN.

**EFFICIENCY CORRECTION**

<table>
<thead>
<tr>
<th>NUMBER OF BOWLS:</th>
<th>1</th>
<th>2</th>
<th>3</th>
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Change in efficiency may affect both head and horsepower.

**FLANGED BOWL DATA**

- BOWL NUMBER: 5329
- BOWL MAX. DIAMETER: 24.000 IN.
- BOWL MIN. DIAMETER: 23.750 IN.
- MAX. NO. STAGES: 6
- ONE STAGE WEIGHT: 1150 LB.
- ADD STAGE WEIGHT: 850 LB.
- STD. SHAFT DIA.: 2.688 IN.
- STD. LATERAL: 0.938 IN.
- DISCHARGE SIZE: N/A
- DISCHARGE CONNECTION: FLG.
- SUCTION BELL DIA.: 24.750 IN.
- SUCTION CONNECTION: BELL
- MAX. SPHERE SIZE: 2.000 IN.
- MAX. OPERATIONAL P.S.I.: 250 (SPECIAL)

**PUMP MATERIAL EFFICIENCY CORRECTION**

<table>
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<th></th>
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Performance based on pumping clear, fresh water at a temperature not over 85°F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
IMPELLER DATA
- IMPELLER NUMBER: 4883
- TYPE: ENCLOSED
- THRUST FACTOR: K=41.20
- EYE AREA: 93.0 SQ. IN.
- WEIGHT: 82.00 LB.
- MINIMUM SUBMERGENCE ABove eye of bottom impeller: 32 IN.

EFFICIENCY CORRECTION
- TRIM ANGLE: 18°
- CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION

<table>
<thead>
<tr>
<th>IMPELLER MATERIAL</th>
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FLANGED BOWL DATA
- BOWL NUMBER: 5329
- BOWL MAX. DIAMETER: 24.000 IN.
- BOWL MIN. DIAMETER: 23.750 IN.
- MAX. NO. STAGES: 5
- ONE STAGE WEIGHT: 1150 LB.
- ADD STAGE WEIGHT: 850 LB.
- STD. SHAFT DIA.: 2.688 IN.
- STD. LATERAL: 0.938 IN.
- DISCHARGE SIZE: N/A
- DISCHARGE CONNECTION: FLG.
- SUCTION BELL DIA.: 24.750 IN.
- SUCTION CONNECTION: BELL
- MAX. SPHERE SIZE: 2.000 IN.
- MAX. OPERATIONAL P.S.I.: 250 (SPECIAL)

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
28FLC 1170 RPM

TURBINE PUMP CURVE
SINGLE STAGE PERFORMANCE
APRIL 2020

IMPELLER DATA
IMPELLER NUMBER: 4892
TYPE: ENCLOSED
THRUST FACTOR: K=61.00
EYE AREA: 133 SQ. IN.
WEIGHT: 255 LB.

TRIM ANGLE: 22.5°
Minimum submergence above eye of bottom impeller: 56 IN.

NUMBER OF BOWLS:
1 2 3
CHANGE AS FOLLOWS:
-1 0 +1

CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

FLANGED BOWL DATA
BOWL NUMBER: 5338
BOWL MIN. DIAMETER: 27.000 IN.
MAX. NO. STAGES: 3
ONE STAGE WEIGHT: 2300 LB.
ADD STAGE WEIGHT: 920 LB.
STD. SHAFT DIA.: 2.688 IN.
STD. LATERAL: 0.875 IN.
DISCHARGE SIZE: N/A
DISCHARGE CONNECTION: FLG.
SUCTION BELL DIA.: 30.750 IN.
SUCTION CONNECTION: BELL
MAX. SPHERE SIZE: 1.750 IN.
MAX. OPERATIONAL P.S.I: 250 (SPECIAL)

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
28FMC 1170 RPM

**TURBINE PUMP CURVE**

**IMPELLER DATA**
- IMPELLER NUMBER: 4901
- TYPE: ENCLOSED
- THRUST FACTOR: K=61.00
- EYE AREA: 133 SQ. IN.
- WEIGHT: 255 LB.
- Minimum submergence above eye of bottom impeller: 60 IN.

**FLANGED BOWL DATA**
- BOWL NUMBER: 5338
- BOWL MAX. DIAMETER: 27.000 IN.
- BOWL MIN. DIAMETER: 27.000 IN.
- MAX. NO. STAGES: 2
- ONE STAGE WEIGHT: 2300 LB.
- ADD STAGE WEIGHT: 920 LB.
- STD. SHAFT DIA.: 2.688 IN.
- STD. LATERAL: 0.875 IN.
- DISCHARGE SIZE: N/A
- DISCHARGE CONNECTION: FLG.
- SUCTION BELL DIA.: 30.750 IN.
- SUCTION CONNECTION: BELL
- MAX. SPHERE SIZE: 1.750 IN.
- MAX. OPERATIONAL P.S.I.: 250 (SPECIAL)

**EFFICIENCY CORRECTION**

<table>
<thead>
<tr>
<th>NUMBER OF BOWLS</th>
<th>-1</th>
<th>0</th>
<th>+1</th>
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</thead>
<tbody>
<tr>
<td>CHANGE AS FOLLOWS</td>
<td>+1</td>
<td>0</td>
<td>+1</td>
</tr>
</tbody>
</table>

Change in efficiency may affect both head and horsepower.

**PUMP MATERIAL EFFICIENCY CORRECTION**

<table>
<thead>
<tr>
<th>IMPELLER MATERIAL</th>
<th>DUCTILE</th>
<th>BRONZE</th>
<th>NI-R</th>
<th>STAINLESS</th>
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<tr>
<th>BOWL MATERIAL</th>
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Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
28FHC 1170 RPM

IMPELLER DATA
- Impeller Number: 0104
- Type: Enclosed
- Thrust Factor: K=61.00
- Eye Area: 133 SQ. IN.
- Weight: 255 LB.
- Minimum submergence above eye of bottom impeller: 62 IN.

Efficiency correction:
- Number of Bowls: 1, 2, 3
- Change as follows: -1, 0, +1

Efficiency correction may affect both head and horsepower.

Pump material efficiency correction:
- Impeller Material: -1, 0, -1, -1
- Bowl Material: -1, -1, -1, -2

Flanged bowl data
- Bowl Number: 5338
- Bowl Max. Diameter: 27.000 IN.
- Bowl Min. Diameter: 27.000 IN.
- Max. NO. Stages: 2
- One Stage Weight: 2300 LB.
- Add Stage Weight: 920 LB.
- Std. Shaft Dia.: 2.688 IN.
- Std. Lateral: 0.875 IN.
- Discharge Size: N/A
- Discharge connection: Flg.
- Suction Bell Dia.: 30.750 IN.
- Suction connection: Bell
- Max. Sphere Size: 1.750 IN.
- Max. Operational P.S.I.: 250 (Special)

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
30FLC 1170 RPM

**IMPELLER DATA**
- Impeller Number: 0192
- Type: Enclosed
- Thrust Factor: $K=67.50$
- Eye Area: 175 SQ. IN.
- Weight: 440 LB.
- Minimum submergence above eye of bottom impeller: 60 IN.

**IMPELLER MATERIAL:**
- BRONZE

**FLANGED BOWL DATA**
- Bowl Number: 0235
- Bowl Max. Diameter: 30.000 IN.
- Bowl Min. Diameter: 30.000 IN.
- Max. No. Stages: 5
- One Stage Weight: 4500 LB.
- Add Stage Weight: 2000 LB.
- Std. Shaft Dia.: 3.250 IN.
- Std. Lateral: 1.375 IN.
- Discharge Size: N/A
- Discharge Connection: FLG.
- Suction Bell Dia.: 33.250 IN.
- Suction Connection: BELL
- Max. Sphere Size: 2.500 IN.
- Max. Operational P.S.I.: 250 (SPECIAL)

**EFFICIENCY CORRECTION**
- Number of Bowls:
  - 1: -2
  - 2: 0
  - 3: +1
- Change in efficiency may affect both head and horsepower.

**PUMP MATERIAL EFFICIENCY CORRECTION**
- Impeller Material: -1 0 -1 -1
- Bowl Material: -1 -1 -1 -2

Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
PERFORMANCE BASED ON PUMPING CLEAR, FRESH WATER AT A TEMPERATURE NOT OVER 85°F., FREE OF GAS, AIR OR ABRASIVES AND WITH BOWLS PROPERLY ADJUSTED AND SUBMERGED. PERFORMANCE CURVE REFLECTS HYDRAULIC INSTITUTE TOLERANCES AND GUIDELINES.
PERFORMANCE CURVES

LINESHAFT & SUBMERSIBLE

880 RPM
Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
TURBINE PUMP CURVE
SINGLE STAGE PERFORMANCE
APRIL 2020

14FLS 860 RPM

IMPELLER DATA
IMPELLER NUMBER 3107
TYPE ENCLOSED
THRUST FACTOR K=19.70
EYE AREA 31.5 SQ. IN.
WEIGHT 18.50 LB.

Minimum submergence above eye of bottom impeller: 30 IN.

EFFICIENCY CORRECTION
NUMBER OF BOWLS: 1 2 3
CHANGE AS FOLLOWS: -2 -1 0
CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION

<table>
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<tr>
<th></th>
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<th>BRONZE</th>
<th>NI-R</th>
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<tr>
<td>IMPELLER MATERIAL:</td>
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<td>BOWL MATERIAL:</td>
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<td>-1</td>
<td>-2</td>
<td>-2</td>
</tr>
</tbody>
</table>

FLANGED BOWL DATA
BOWL NUMBER 3106
BOWL MAX. DIAMETER 13.500 IN.
BOWL MIN. DIAMETER 13.250 IN.
MAX. NO. STAGES 12
ONE STAGE WEIGHT 490 LB.
ADD STAGE WEIGHT 175 LB.
STD. SHAFT DIA. 1.938 IN.
STD. LATERAL 0.875 IN.
DISCHARGE SIZE 10 - 12 IN.
DISCHARGE CONNECTION THD - FLG
SUCTION SIZE 10 - 12 IN.
SUCTION CONNECTION THD
MAX. SPHERE SIZE 0.750 IN.
MAX. OPERATIONAL P.S.I. 540 (SPECIAL)

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
Performance based on pumping clear, fresh water at a temperature not over 85°F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
IMPELLER DATA

<table>
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<tr>
<th>IMPELLER NUMBER</th>
<th>TYPE</th>
<th>THRUST FACTOR</th>
<th>EYE AREA</th>
<th>WEIGHT</th>
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<tr>
<td>3078</td>
<td>SEMI-OPEN</td>
<td>K=23.40</td>
<td>40.9 SQ. IN.</td>
<td>20.25 LB.</td>
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TRIM ANGLE: 30°

Minimum submergence above eye of bottom impeller: 30 IN.

EFFICIENCY CORRECTION

<table>
<thead>
<tr>
<th>NUMBER OF BOWLS:</th>
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<th>2</th>
<th>3</th>
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<tr>
<td>CHANGE AS FOLLOWS:</td>
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<td>-2</td>
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CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION

<table>
<thead>
<tr>
<th>DUCTILE</th>
<th>BRONZE</th>
<th>NI-R</th>
<th>STAINLESS</th>
</tr>
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<tr>
<td>IMPELLER MATERIAL:</td>
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<tr>
<td>BOWL MATERIAL:</td>
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Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.

FLANGED BOWL DATA

<table>
<thead>
<tr>
<th>BOWL NUMBER</th>
<th>BOWL MAX. DIAMETER</th>
<th>BOWL MIN. DIAMETER</th>
<th>MAX. NO. STAGES</th>
<th>ONE STAGE WEIGHT</th>
<th>ADD STAGE WEIGHT</th>
<th>STD. SHAFT DIA.</th>
<th>STD. LATERAL</th>
<th>DISCHARGE SIZE</th>
<th>DISCHARGE CONNECTION</th>
<th>SUCTION SIZE</th>
<th>SUCTION CONNECTION</th>
<th>MAX. SPHERE SIZE</th>
<th>MAX. OPERATIONAL P.S.I.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3042</td>
<td>13.500 IN.</td>
<td>13.250 IN.</td>
<td>10</td>
<td>490 LB.</td>
<td>175 LB.</td>
<td>1.938 IN.</td>
<td>0.875 IN.</td>
<td>10 - 12 IN.</td>
<td>THD - FLG</td>
<td>10 - 12 IN.</td>
<td>THD</td>
<td>1.250 IN.</td>
<td>540 (SPECIAL)</td>
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</table>
Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
IMPELLER DATA

IMPELLER NUMBER: 3029
TYPE: SEMI-OPEN
THRUST FACTOR: K=25.20
EYE AREA: 43.9 SQ. IN.
WEIGHT: 21.25 LB.

FLANGED BOWL DATA

BOWL NUMBER: 3042
BOWL MAX. DIAMETER: 13.500 IN.
BOWL MIN. DIAMETER: 13.250 IN.
MAX. NO. STAGES: 9
ONE STAGE WEIGHT: 490 LB.
ADD STAGE WEIGHT: 175 LB.
STD. SHAFT DIA.: 1.938 IN.
STD. LATERAL: 0.875 IN.
DISCHARGE SIZE: 10 - 12 IN.
DISCHARGE CONNECTION: THD - FLG
SUCTION SIZE: 10 - 12 IN.
SUCTION CONNECTION: THD
MAX. SPHERE SIZE: 1.250 IN.
MAX. OPERATIONAL P.S.I.: 540 (SPECIAL)

EFFICIENCY CORRECTION

NUMBER OF BOWLS: 1 2 3 4
CHANGE AS FOLLOWS: -3 -2 -1 0
CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION

IMPELLER MATERIAL: -2 0 -1 -1
BOWL MATERIAL: -2 -1 -2 -2

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
IMPELLER DATA
- IMPPELLER NUMBER: 3092
- TYPE: SEMI-OPEN
- THRUST FACTOR: K=23.40
- EYE AREA: 40.9 SQ. IN.
- WEIGHT: 20.25 LB.
- Minimum submergence above eye of bottom impeller: 32 IN.

FLANGED BOWL DATA
- BOWL NUMBER: 3042
- BOWL MAX. DIAMETER: 13.500 IN.
- BOWL MIN. DIAMETER: 13.250 IN.
- MAX. NO. STAGES: 8
- ONE STAGE WEIGHT: 490 LB.
- ADD STAGE WEIGHT: 175 LB.
- STD. SHAFT DIA.: 1.938 IN.
- STD. LATERAL: 0.875 IN.
- DISCHARGE SIZE: 10 - 12 IN.
- DISCHARGE CONNECTION: THD - FLG
- SUCTION SIZE: 10 - 12 IN.
- SUCTION CONNECTION: THD
- MAX. SPHERE SIZE: 1.250 IN.
- MAX. OPERATIONAL P.S.I.: 540 (SPECIAL)

EFFICIENCY CORRECTION
- NUMBER OF BOWLS: 1, 2, 3, 4
- CHANGE AS FOLLOWS: -3, -2, -1, 0

变更效率可能影响流量和马达功率。

PUMP MATERIAL EFFICIENCY CORRECTION
- DUCTILE: -2, 0, -1, -1
- BRONZE: -2, -1, -2, -2
- NI-R: -2, -1, -1, -1
- STAINLESS: -2, -1, -1, -1

Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
IMPELLER DATA

- IMPPELLER NUMBER: 4153
- TYPE: SEMI-OPEN
- THRUST FACTOR: K=26.20
- EYE AREA: 47.3 SQ. IN.
- WEIGHT: 23.25 LB.

- Minimum submergence above eye of bottom impeller: 34 IN.

FLANGED BOWL DATA

- BOWL NUMBER: 4152
- BOWL MAX. DIAMETER: 14.063 IN.
- BOWL MIN. DIAMETER: 13.750 IN.
- MAX. NO. STAGES: 9
- ONE STAGE WEIGHT: 500 LB.
- ADD STAGE WEIGHT: 185 LB.
- STD. SHAFT DIA.: 1.938 IN.
- STD. LATERAL: 0.875 IN.
- DISCHARGE SIZE: 10 - 12 IN.
- DISCHARGE CONNECTION: THD - FLG
- SUCTION SIZE: 10 - 12 IN.
- SUCTION CONNECTION: THD
- MAX. SPHERE SIZE: 1.500 IN.
- MAX. OPERATIONAL P.S.I.: 540 (SPECIAL)

EFFICIENCY CORRECTION

- NUMBER OF BOWLS:
  - 1: -4
  - 2: -2
  - 3: -1
  - 4: 0

CHANGE AS FOLLOWS:

- CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION

- IMPPELLER MATERIAL:
  - DUCTILE: -2
  - BRONZE: 0
  - NI-R: -1
  - STAINLESS: -1

- BOWL MATERIAL:
  - DUCTILE: -2
  - BRONZE: -1
  - NI-R: -2
  - STAINLESS: -2

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
Performance based on pumping clear, fresh water at a temperature not over 85 °F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
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Performance based on pumping clear, fresh water at a temperature not over 85°F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
15FKS 860 RPM

**IMPELLER DATA**
- **IMPELLER NUMBER:** 0004
- **TYPE:** SEMI-OPEN
- **THRUST FACTOR:** K=30.00
- **EYE AREA:** 63.6 SQ. IN.
- **WEIGHT:** 21.00 LB.
- **Minimum submergence above eye of bottom impeller:** 36 IN.

**FLANGED BOWL DATA**
- **BOWL NUMBER:** 0001
- **BOWL MAX. DIAMETER:** 15.250 IN.
- **BOWL MIN. DIAMETER:** 14.750 IN.
- **MAX. NO. STAGES:** 6
- **ONE STAGE WEIGHT:** 375 LB.
- **ADD STAGE WEIGHT:** 170 LB.
- **STD. SHAFT DIA.** 1.938 IN.
- **STD. LATERAL** 0.688 IN.
- **DISCHARGE SIZE:** 10 - 12 IN.
- **DISCHARGE CONNECTION THD - FLG**
- **SUCTION SIZE**
- **SUCTION CONNECTION**
- **MAX. SPHERE SIZE:** 2.250 IN.
- **MAX. OPERATIONAL P.S.I.** 540 (SPECIAL)

**EFFICIENCY CORRECTION**
- **NUMBER OF BOWLS:** 1 2 3 4
- **CHANGE AS FOLLOWS:** -3 -2 -1 0

CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

**PUMP MATERIAL EFFICIENCY CORRECTION**
- **DUCTILE**
- **BRONZE**
- **NI-R**
- **STAINLESS**

**IMPELLER MATERIAL:**
-2 0 -1 -1

**BOWL MATERIAL:**
-2 -1 -2 -2

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
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TURBINE PUMP CURVE
SINGLE STAGE PERFORMANCE
APRIL 2020

18FLC 870 RPM

IMPELLER DATA

<table>
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<tr>
<th>IMPELLER NUMBER</th>
<th>TYPE</th>
<th>THRUST FACTOR</th>
<th>EYE AREA</th>
<th>WEIGHT</th>
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<tr>
<td>3914</td>
<td>ENCLOSED</td>
<td>K=21.75</td>
<td>46.0 SQ. IN.</td>
<td>42.00 LB.</td>
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TRIM ANGLE: 20°
Minimum submergence above eye of bottom impeller: 48 IN.

EFFICIENCY CORRECTION

<table>
<thead>
<tr>
<th>NUMBER OF BOWLS</th>
<th>CHANGE AS FOLLOWS</th>
</tr>
</thead>
<tbody>
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<td>3</td>
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CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

FLANGED BOWL DATA

<table>
<thead>
<tr>
<th>BOWL NUMBER</th>
<th>BOWL MAX. DIAMETER</th>
<th>BOWL MIN. DIAMETER</th>
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<tbody>
<tr>
<td>3905</td>
<td>17.750 IN.</td>
<td>17.500 IN.</td>
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</table>

MAX. NO. STAGES: 12
ONE STAGE WEIGHT: 750 LB.
ADD STAGE WEIGHT: 325 LB.
STD. SHAFT DIA.: 2.188 IN.
STD. LATERAL: 0.500 IN.
DISCHARGE SIZE: N/A
DISCHARGE CONNECTION: FLG
SUCTION BELL SIZE: 18.000 IN.
SUCTION CONNECTION BELL
MAX. SPHERE SIZE: 1.250 IN.
MAX. OPERATIONAL P.S.I.: 450 (SPECIAL)

PUMP MATERIAL EFFICIENCY CORRECTION

<table>
<thead>
<tr>
<th>DUCTILE</th>
<th>BRONZE</th>
<th>NI-R</th>
<th>STAINLESS</th>
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<tr>
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<td>BOWL MATERIAL: -2</td>
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Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
18FMC 870 RPM

TURBINE PUMP CURVE
SINGLE STAGE PERFORMANCE
APRIL 2020

IMPELLER DATA

<table>
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<tr>
<th>IMPPELLER NUMBER</th>
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<tr>
<td>THRUST FACTOR</td>
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<tr>
<td>EYE AREA</td>
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<tr>
<td>WEIGHT</td>
<td>42.00 LB.</td>
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TRIM ANGLE: 20°
Minimum submergence above eye of bottom impeller: 48 IN.

FLANGED BOWL DATA

<table>
<thead>
<tr>
<th>BOWL NUMBER</th>
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<tr>
<td>BOWL MAX. DIAMETER</td>
<td>17.750 IN.</td>
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<tr>
<td>BOWL MIN. DIAMETER</td>
<td>17.500 IN.</td>
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<tr>
<td>MAX. NO. STAGES</td>
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<tr>
<td>ONE STAGE WEIGHT</td>
<td>750 LB.</td>
</tr>
<tr>
<td>ADD STAGE WEIGHT</td>
<td>325 LB.</td>
</tr>
<tr>
<td>STD. SHAFT DIA.</td>
<td>2.188 IN.</td>
</tr>
<tr>
<td>STD. LATERAL</td>
<td>0.500 IN.</td>
</tr>
<tr>
<td>DISCHARGE SIZE</td>
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<td>DISCHARGE CONNECTION</td>
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<tr>
<td>SUCTION BELL DIA.</td>
<td>18.000 IN.</td>
</tr>
<tr>
<td>SUCTION CONNECTION</td>
<td>BELL</td>
</tr>
<tr>
<td>MAX. SPHERE SIZE</td>
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</tr>
<tr>
<td>MAX. OPERATIONAL P.S.I.</td>
<td>450 (SPECIAL)</td>
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EFFICIENCY CORRECTION

<table>
<thead>
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<th>NUMBER OF BOWLS:</th>
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<tr>
<td>CHANGE AS FOLLOWS:</td>
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CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION

<table>
<thead>
<tr>
<th>DUCTILE</th>
<th>BRONZE</th>
<th>NI-R</th>
<th>STAINLESS</th>
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<tbody>
<tr>
<td>IMPPELLER MATERIAL:</td>
<td>-2</td>
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<td>-1</td>
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<tr>
<td>BOWL MATERIAL:</td>
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</tr>
</tbody>
</table>

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
**IMPELLER DATA**

- **IMPELLER NUMBER:** 0777
- **TYPE:** ENCLOSED
- **THRUST FACTOR:** K=32.00
- **EYE AREA:** 102 SQ. IN.
- **WEIGHT:** 49.00 LB.

**Minimum submergence above eye of bottom impeller:** 48 IN.

**EYEBLADES:**

- 77
- 80
- 85
- 90
- 95

**FLANGED BOWL DATA**

- **BOWL NUMBER:** 0224
- **BOWL MAX. DIAMETER:** 18.625 IN.
- **BOWL MIN. DIAMETER:** 18.250 IN.
- **MAX. NO. STAGES:** 10
- **ONE STAGE WEIGHT:** LB.
- **ADD STAGE WEIGHT:** LB.
- **STD. SHAFT DIA.:** 2.188 IN.
- **STD. LATERSAL:** 0.750 IN.
- **DISCHARGE SIZE:** N/A
- **DISCHARGE CONNECTION:** FLG
- **SUCTION BELL DIA.:** 18.813 IN.
- **SUCTION CONNECTION:** BELL
- **MAX. SPHERE SIZE:** 1.250 IN.
- **MAX. OPERATIONAL P.S.I.:** 450 (SPECIAL)

**EFFICIENCY CORRECTION**

- **NUMBER OF BOWLS:** 1 2
- **CHANGE AS FOLLOWS:** -0.5 0

**PUMP MATERIAL EFFICIENCY CORRECTION**

<table>
<thead>
<tr>
<th>Material</th>
<th>Ductile</th>
<th>Bronze</th>
<th>Ni-R</th>
<th>Stainless</th>
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<td>Bowl</td>
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<td>-1</td>
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</table>

Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
**TURBINE PUMP CURVE**

**SINGLE STAGE PERFORMANCE**  
APRIL 2020

**19FHC 870 RPM**

![Graph showing pump performance data with various parameters such as Power, US gpm, Head, NPSHr, and IMPELLER DATA.]

**IMPELLER DATA**
- IMPELLER NUMBER: 0357
- TYPE: ENCLOSED
- THRUST FACTOR: K=32.00
- EYE AREA: 74.5 SQ. IN.
- WEIGHT: 54.00 LB.
- Minimum submergence above eye of bottom impeller: 42 IN.

**EFFICIENCY CORRECTION**
- NUMBER OF BOWLS: 1
- CHANGE AS FOLLOWS: -1 0
- CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

**FLANGED BOWL DATA**
- BOWL NUMBER: 0358
- BOWL MAX. DIAMETER: 18.625 IN.
- BOWL MIN. DIAMETER: 18.625 IN.
- MAX. NO. STAGES: 10
- ONE STAGE WEIGHT: 770 LB.
- ADD STAGE WEIGHT: 447 LB.
- STD. SHAFT DIA.: 2.188 IN.
- STD. LATERAL: 0.750 IN.
- DISCHARGE SIZE: N/A
- DISCHARGE CONNECTION: FLG
- SUCTION BELL DIA.: 21.000 IN.
- SUCTION CONNECTION: BELL
- MAX. SPHERE SIZE: 1.000 IN.
- MAX. OPERATIONAL P.S.I.: 350 (SPECIAL)

**PUMP MATERIAL EFFICIENCY CORRECTION**

<table>
<thead>
<tr>
<th>Material</th>
<th>DUCTILE</th>
<th>BRONZE</th>
<th>NI-R</th>
<th>STAINLESS</th>
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<td>IMPELLER</td>
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<td>BOWL</td>
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Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
TURBINE PUMP CURVE
SINGLE STAGE PERFORMANCE
APRIL 2020

20FLC 870 RPM

IMPELLER DATA
IMPELLER NUMBER: 4838
TYPE: ENCLOSED
THRUST FACTOR: K=29.40
EYE AREA: 72.6 SQ. IN.
WEIGHT: 69.00 LB.

Minimum submergence above eye of bottom impeller: 33 IN.

FLANGED BOWL DATA
BOWL NUMBER: 3969
BOWL MAX. DIAMETER: 19.875 IN.
BOWL MIN. DIAMETER: 19.250 IN.
MAX. NO. STAGES: 13
ONE STAGE WEIGHT: 790 LB.
ADD STAGE WEIGHT: 569 LB.
STD. SHAFT DIA.: 2.438 IN.
STD. LATERAL: 0.750 IN.
DISCHARGE SIZE: N/A
DISCHARGE CONNECTION: FLG
SUCTION BELL DIA.: 20.875 IN.
SUCTION CONNECTION: BELL
MAX. SPHERE SIZE: 2.000 IN.
MAX. OPERATIONAL P.S.I.: 350 (SPECIAL)

EFFICIENCY CORRECTION
NUMBER OF BOWLS:
1 2
CHANGE AS FOLLOWS:
-2 0

CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION
IMPELLER MATERIAL: DUCTILE BRONZE NI-R STAINLESS -1 0 -1 -1
BOWL MATERIAL: DUCTILE BRONZE NI-R STAINLESS -1 -2 -2 -2

Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
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Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
IMPELLER DATA

IMPELLER NUMBER: 4883
TYPE: ENCLOSED
THRUST FACTOR: K=41.20
EYE AREA: 93.0 SQ. IN.
WEIGHT: 82.00 LB.

Minimum submergence above eye of bottom impeller: 32 IN.

TRIM ANGLE: 18°

FLANGED BOWL DATA

BOWL NUMBER: 5329
BOWL MAX. DIAMETER: 24.000 IN.
BOWL MIN. DIAMETER: 23.750 IN.
MAX. NO. STAGES: 5
ONE STAGE WEIGHT: 1150 LB.
ADD STAGE WEIGHT: 850 LB.
STD. SHAFT DIA.: 2.688 IN.
STD. LATERAL: 0.938 IN.
DISCHARGE SIZE: N/A
DISCHARGE CONNECTION: FLG.
SUCTION BELL DIA.: 24.750 IN.
SUCTION CONNECTION: BELL
MAX. SPHERE SIZE: 2.000 IN.
MAX. OPERATIONAL P.S.I.: 250 (SPECIAL)

EFFICIENCY CORRECTION

NUMBER OF BOWLS: 1 2 3
CHANGE AS FOLLOWS: -2 -1 0

CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION

<table>
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<tr>
<th></th>
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<th>NI-R</th>
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Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
28FMC 870 RPM

TURBINE PUMP CURVE
SINGLE STAGE PERFORMANCE
APRIL 2020

IMPELLER DATA
IMPELLER NUMBER: 4901
TYPE: ENCLOSED
THRUST FACTOR: K=61.00
EYE AREA: 133 SQ. IN.
WEIGHT: 255 LB.

Minimum submergence above eye of bottom impeller: 60 IN.

TRIM ANGLE: 22.5°

Efficiency Correction

<table>
<thead>
<tr>
<th>NUMBER OF BOWLS</th>
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<th>3</th>
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<tbody>
<tr>
<td>CHANGE AS FOLLOWS</td>
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CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION

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FLANGED BOWL DATA

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<tr>
<td>BOWL MIN. DIAMETER</td>
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<td>MAX. NO. STAGES</td>
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<tr>
<td>ONE STAGE WEIGHT</td>
<td>2300 LB.</td>
</tr>
<tr>
<td>ADD STAGE WEIGHT</td>
<td>920 LB.</td>
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<tr>
<td>STD. SHAFT DIA.</td>
<td>2.688 IN.</td>
</tr>
<tr>
<td>STD. LATERAL</td>
<td>0.875 IN.</td>
</tr>
<tr>
<td>DISCHARGE SIZE N/A</td>
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</tr>
<tr>
<td>DISCHARGE CONNECTION</td>
<td>FLG.</td>
</tr>
<tr>
<td>SUCTION BELL DIA.</td>
<td>30.750 IN.</td>
</tr>
<tr>
<td>SUCTION CONNECTION</td>
<td>BELL</td>
</tr>
<tr>
<td>MAX. SPHERE SIZE</td>
<td>1.750 IN.</td>
</tr>
<tr>
<td>MAX. OPERATIONAL P.S.I.</td>
<td>250 (SPECIAL)</td>
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</tbody>
</table>

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
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Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
30FMC 870 RPM

TURBINE PUMP CURVE
SINGLE STAGE PERFORMANCE
APRIL 2020

IMPELLER DATA
IMPELLER NUMBER: 0193
TYPE: ENCLOSED
THRUSTR FACTOR: K=67.50
EYE AREA: 175 SQ. IN.
WEIGHT: 440 LB.

Minimum submergence above:
eye of bottom impeller: 50 IN.

EFFICIENCY CORRECTION
NUMBER OF BOWLS: 1 2
CHANGE AS FOLLOWS: -2 0

CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION
IMPELLER MATERIAL: DUCTILE BRONZE NI-R STAINLESS
-1 0 -1 -1

BOWL MATERIAL: DUCTILE BRONZE NI-R STAINLESS
-1 -1 -1 -2

FLANGED BOWL DATA
BOWL NUMBER: 0235
BOWL MAX. DIAMETER: 30.000 IN.
BOWL MIN. DIAMETER: 30.000 IN.
MAX. NO. STAGES: 5
ONE STAGE WEIGHT: 4500 LB.
ADD STAGE WEIGHT: 2000 LB.
STD. SHAFT DIA.: 3.250 IN.
STD. LATERAL: 1.375 IN.
DISCHARGE SIZE: N/A
DISCHARGE CONNECTION: BELL
SUCTION BELL DIA.: 33.250 IN.
SUCTION CONNECTION: BELL
MAX. SPHERE SIZE: 2.500 IN.
MAX. OPERATIONAL P.S.I.: 250 (SPECIAL)

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
**TURBINE PUMP CURVE**

**SINGLE STAGE PERFORMANCE**

**APRIL 2020**

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**36FLC 870 RPM**

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**IMPELLER DATA**

- **IMPELLER NUMBER:** 1927
- **TYPE:** ENCLOSED
- **THRUST FACTOR:** $K=94.50$
- **EYE AREA:** 215 SQ. IN.
- **WEIGHT:** 440 LB.

**FLANGED BOWL DATA**

- **BOWL NUMBER:** 1909
- **BOWL MAX. DIAMETER:** 36.000 IN.
- **BOWL MIN. DIAMETER:** 36.000 IN.
- **MAX. NO. STAGES:** 2
- **ONE STAGE WEIGHT:** 4500 LB.
- **ADD STAGE WEIGHT:** 2000 LB.
- **STD. SHAFT DIA.:** 3.250 IN.
- **STD. LATERAL:** 1.250 IN.
- **DISCHARGE SIZE:** N/A
- **DISCHARGE CONNECTION:** FLG.
- **SUCTION BELL DIA.:** 42.000 IN.
- **SUCTION CONNECTION:** BELL
- **MAX. SPHERE SIZE:** 2.500 IN.
- **MAX. OPERATIONAL P.S.I.:** 200 (SPECIAL)

---

**EFFICIENCY CORRECTION**

- **NUMBER OF BOWLS:** 1
- **CHANGE AS FOLLOWS:** -2
- **CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.**

<table>
<thead>
<tr>
<th>PUMP MATERIAL EFFICIENCY CORRECTION</th>
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<tbody>
<tr>
<td>DUCTILE</td>
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<tr>
<td>IMPELLER MATERIAL:</td>
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<tr>
<td>BOWL MATERIAL:</td>
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Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
36FMC 870 RPM

**TURBINE PUMP CURVE**
**SINGLE STAGE PERFORMANCE**
**APRIL 2020**

**IMPELLER DATA**
- IMPELLER NUMBER: 1936
- TYPE: ENCLOSED
- THRUST FACTOR: K=94.50
- EYE AREA: 215 SQ. IN.
- WEIGHT: 440 LB.

**MINIMUM SUBMERGENCE ABOVE EYE OF BOTTOM IMPELLER:** 65 IN.

**FLANGED BOWL DATA**
- BOWL NUMBER: 1909
- BOWL MAX. DIAMETER: 36.000 IN.
- BOWL MIN. DIAMETER: 36.000 IN.
- MAX. NO. STAGES: 2
- ONE STAGE WEIGHT: 4500 LB.
- ADD STAGE WEIGHT: 2000 LB.
- STD. SHAFT DIA.: 3.250 IN.
- STD. LATERAL: 1.250 IN.
- DISCHARGE SIZE: N/A
- DISCHARGE CONNECTION: FLG.
- SUCTION BELL DIA.: 42.000 IN.
- SUCTION CONNECTION: BELL
- MAX. SPHERE SIZE: 2.500 IN.
- MAX. OPERATIONAL P.S.I.: 200 (SPECIAL)

**EFFICIENCY CORRECTION**
- NUMBER OF BOWLS: 1, 2, 3
- CHANGE AS FOLLOWS: -2, -1, 0

CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

**PUMP MATERIAL EFFICIENCY CORRECTION**
- IMPELLER MATERIAL: DUCTILE -1, BRONZE 0, NI-R -1, STAINLESS -1
- BOWL MATERIAL: DUCTILE -1, BRONZE -1, NI-R -1, STAINLESS -2

Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
PERFORMANCE CURVES

LINESHAFT & SUBMERSIBLE

710 RPM
**IMPELLER DATA**

- **IMPELLER NUMBER:** 0192
- **TYPE:** ENCLOSED
- **THRUST FACTOR:** \( K = 67.50 \)
- **EYE AREA:** 175 SQ. IN.
- **WEIGHT:** 440 LB.

**MINIMUM SUBMERSION ABOVE EYE OF BOTTOM IMPELLER:** 60 IN.

**TRIM ANGLE:** 27.5°

**EFFICIENCY CORRECTION**

<table>
<thead>
<tr>
<th>NUMBER OF BOWLS</th>
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<th>2</th>
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</thead>
<tbody>
<tr>
<td>CHANGE AS FOLLOWS</td>
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<td>0</td>
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</table>

**CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.**

**FLANGED BOWL DATA**

- **BOWL NUMBER:** 0235
- **BOWL MAX. DIAMETER:** 30.000 IN.
- **BOWL MIN. DIAMETER:** 30.000 IN.
- **MAX. NO. STAGES:** 5
- **ONE STAGE WEIGHT:** 4500 LB.
- **ADD STAGE WEIGHT:** 2000 LB.
- **STD. SHAFT DIA.:** 3.250 IN.
- **STD. LATERAL:** 1.375 IN.
- **DISCHARGE SIZE:** N/A
- **DISCHARGE CONNECTION:** FLG.
- **SUCTION BELL DIA.:** 33.250 IN.
- **SUCTION CONNECTION:** BELL
- **MAX. SPHERE SIZE:** 2.500 IN.
- **MAX. OPERATIONAL P.S.I.:** 250 (SPECIAL)

**PUMP MATERIAL EFFICIENCY CORRECTION**

<table>
<thead>
<tr>
<th></th>
<th>DUCTILE</th>
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Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
IMPELLER DATA

IMPELLER NUMBER: 0193
TYPE: ENCLOSED
THRUST FACTOR: K=67.50
EYE AREA: 175 SQ. IN.
WEIGHT: 440 LB.

Minimum submergence above eye of bottom impeller: 50 IN.

EFFICIENCY CORRECTION

NUMBER OF BOWLS:

- CHANGE AS FOLLOWS:
  - 1: -2
  - 2: 0

CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION

- DUCTILE
- BRONZE
- NI-R
- STAINLESS

IMPELLER MATERIAL:
-1
0
-1
-1

BOWL MATERIAL:
-1
-1
-1
-2

Performance based on pumping clear, fresh water at a temperature not over 85°F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
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Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
36FHC 710 RPM

IMPELLER DATA

IMPELLER NUMBER: 1945
TYPE: ENCLOSED
THRUST FACTOR: K=94.50
EYE AREA: 215 SQ. IN.
WEIGHT: 440 LB.

MINIMUM SUBMERGENCE ABOVE EYE OF BOTTOM IMPELLER: 65 IN.

TRIM ANGLE: 20°

FLANGED BOWL DATA

BOWL NUMBER: 1909
BOWL MAX. DIAMETER: 36.000 IN.
BOWL MIN. DIAMETER: 36.000 IN.
MAX. NO. STAGES: 2
ONE STAGE WEIGHT: 4500 LB.
ADD STAGE WEIGHT: 2000 LB.
STD. SHAFT DIA.: 3.250 IN.
STD. LATERAL: 1.250 IN.
DISCHARGE SIZE: N/A
DISCHARGE CONNECTION: FLG.
SUCTION BELL DIA.: 42.000 IN.
SUCTION CONNECTION: BELL
MAX. SPHERE SIZE: 2.500 IN.
MAX. OPERATIONAL P.S.I.: 200 (SPECIAL)

EFFICIENCY CORRECTION

NUMBER OF BOWLS:
1 2 3
CHANGE AS follows:
-2 -1 0

CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION

DUCTILE BRONZE NI-R STAINLESS
IMPELLER MATERIAL: -1 0 -1 -1
BOWL MATERIAL: -1 -1 -1 -2

Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
**IMPELLER DATA**

- **IMPELLER NUMBER**: 0244
- **TYPE**: ENCLOSED
- **THRUST FACTOR**: $K = 150.00$
- **EYE AREA**: 390 SQ. IN.
- **WEIGHT**: 875 LB.

**Minimum submergence above eye of bottom impeller**: 90 IN.

**FLANGED BOWL DATA**

- **BOWL NUMBER**: 0242
- **BOWL MAX. DIAMETER**: 42.500 IN.
- **BOWL MIN. DIAMETER**: 42.500 IN.
- **MAX. NO. STAGES**: 3
- **ONE STAGE WEIGHT**: 5250 LB.
- **ADD STAGE WEIGHT**: 3550 LB.
- **STD. SHAFT DIA.**: 4.000 IN.
- **STD. LATERAL**: 1.125 IN.
- **DISCHARGE SIZE**: N/A
- **DISCHARGE CONNECTION**: FLG.
- **SUCTION BELL DIA.**: 48.000 IN.
- **SUCTION CONNECTION**: BELL
- **MAX. SPHERE SIZE**: 3.500 IN.
- **MAX. OPERATIONAL P.S.I.**: 200 (SPECIAL)

**EFFICIENCY CORRECTION**

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<th>NUMBER OF BOWLS:</th>
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<td>CHANGE AS FOLLOWS:</td>
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CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

**PUMP MATERIAL EFFICIENCY CORRECTION**

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<th>Ni-R</th>
<th>STAINLESS</th>
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<td>BOWL MATERIAL:</td>
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</tbody>
</table>

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
PERFORMANCE CURVES

LINESHAFT & SUBMERSIBLE

590 RPM
30FLC 590 RPM

TURBINE PUMP CURVE
SINGLE STAGE PERFORMANCE
APRIL 2020

IMPELLER DATA

<table>
<thead>
<tr>
<th>IMPELLER NUMBER</th>
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<tr>
<td>TYPE</td>
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<tr>
<td>THRUST FACTOR</td>
<td>K=67.50</td>
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<tr>
<td>EYE AREA</td>
<td>175 SQ. IN.</td>
</tr>
<tr>
<td>WEIGHT</td>
<td>440 LB.</td>
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TRIM ANGLE: 27.5°
Minimum submergence above eye of bottom impeller: 60 IN.

EFFICIENCY CORRECTION

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<thead>
<tr>
<th>NUMBER OF BOWLS</th>
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<tr>
<td>CHANGE AS FOLLOWS</td>
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CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION

<table>
<thead>
<tr>
<th>IMPELLER MATERIAL</th>
<th>DUCTILE</th>
<th>BRONZE</th>
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<th>STAINLESS</th>
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<tbody>
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FLANGED BOWL DATA

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<thead>
<tr>
<th>BOWL NUMBER</th>
<th>0235</th>
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<tbody>
<tr>
<td>BOWL MAX. DIAMETER</td>
<td>30.000 IN.</td>
</tr>
<tr>
<td>BOWL MIN. DIAMETER</td>
<td>30.000 IN.</td>
</tr>
<tr>
<td>MAX. NO. STAGES</td>
<td>5</td>
</tr>
<tr>
<td>ONE STAGE WEIGHT</td>
<td>4500 LB.</td>
</tr>
<tr>
<td>ADD STAGE WEIGHT</td>
<td>2000 LB.</td>
</tr>
<tr>
<td>STD. SHAFT DIA.</td>
<td>3.250 IN.</td>
</tr>
<tr>
<td>STD. LATERAL</td>
<td>1.375 IN.</td>
</tr>
<tr>
<td>DISCHARGE SIZE</td>
<td>N/A</td>
</tr>
<tr>
<td>DISCHARGE CONNECTION</td>
<td>FLG.</td>
</tr>
<tr>
<td>SUCTION BELL DIA.</td>
<td>33.250 IN.</td>
</tr>
<tr>
<td>SUCTION CONNECTION</td>
<td>BELL</td>
</tr>
<tr>
<td>MAX. SPHERE SIZE</td>
<td>2.500 IN.</td>
</tr>
<tr>
<td>MAX. OPERATIONAL P.S.I.</td>
<td>250 (SPECIAL)</td>
</tr>
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</table>

Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
36FLC 590 RPM

**IMPELLER DATA**

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<tr>
<td>EYE AREA</td>
<td>215 SQ. IN.</td>
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<tr>
<td>WEIGHT</td>
<td>440 LB.</td>
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**TRIM ANGLE:** 20°

Minimum submergence above eye of bottom impeller: 65 IN.

**FLANGED BOWL DATA**

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<thead>
<tr>
<th>BOWL NUMBER</th>
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<tbody>
<tr>
<td>BOWL MAX. DIAMETER</td>
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<tr>
<td>BOWL MIN. DIAMETER</td>
<td>36.000 IN.</td>
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<td>MAX. NO. STAGES</td>
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<tr>
<td>ONE STAGE WEIGHT</td>
<td>4500 LB.</td>
</tr>
<tr>
<td>ADD STAGE WEIGHT</td>
<td>2000 LB.</td>
</tr>
<tr>
<td>STD. SHAFT DIA.</td>
<td>3.250 IN.</td>
</tr>
<tr>
<td>STD. LATERAL</td>
<td>1.250 IN.</td>
</tr>
<tr>
<td>DISCHARGE SIZE</td>
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</tr>
<tr>
<td>DISCHARGE CONNECTION</td>
<td>FLG.</td>
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<tr>
<td>SUCTION BELL DIA.</td>
<td>42.000 IN.</td>
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<td>SUCTION CONNECTION</td>
<td>BELL</td>
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<tr>
<td>MAX. SPHERE SIZE</td>
<td>2.500 IN.</td>
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<tr>
<td>MAX. OPERATIONAL P.S.I.</td>
<td>200 (SPECIAL)</td>
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**EFFICIENCY CORRECTION**

<table>
<thead>
<tr>
<th>NUMBER OF BOWLS</th>
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<tr>
<td>CHANGE AS FOLLOWS</td>
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CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

**PUMP MATERIAL EFFICIENCY CORRECTION**

<table>
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<tr>
<th>DUCTILE</th>
<th>BRONZE</th>
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Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
IMPELLER DATA

IMPELLER NUMBER: 1936
TYPE: ENCLOSED
THRUST FACTOR: K = 94.50
EYE AREA: 215 sq. in.
WEIGHT: 440 lb.

Minimum submergence above eye of bottom impeller: 65 in.

FLANGED BOWL DATA

BOWL NUMBER: 1909
BOWL MAX. DIAMETER: 36.000 in.
BOWL MIN. DIAMETER: 36.000 in.
MAX. NO. STAGES: 2
ONE STAGE WEIGHT: 4500 lb.
ADD STAGE WEIGHT: 2000 lb.
STD. SHAFT DIA.: 3.250 in.
STD. LATERAL: 1.250 in.
DISCHARGE SIZE: N/A
DISCHARGE CONNECTION: FLG.
SUCTION BELL DIA.: 42.000 in.
SUCTION CONNECTION: BELL
MAX. SPHERE SIZE: 2.500 in.
MAX. OPERATIONAL P.S.I.: 200 (SPECIAL)

EFFICIENCY CORRECTION

NUMBER OF BOWLS: 1 2 3
CHANGE AS FOLLOWS: -2 -1 0
CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION

<table>
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<th>DUCTILE</th>
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Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
**IMPELLER DATA**

- IMPELLER NUMBER: 0244
- TYPE: ENCLOSED
- THRUST FACTOR: K=150.00
- EYE AREA: 390 SQ. IN.
- WEIGHT: 875 LB.

**FLANGED BOWL DATA**

- BOWL NUMBER: 0242
- BOWL MAX. DIAMETER: 42.500 IN.
- BOWL MIN. DIAMETER: 42.500 IN.
- MAX. NO. STAGES: 3
- ONE STAGE WEIGHT: 5250 LB.
- ADD STAGE WEIGHT: 3550 LB.
- STD. SHAFT DIA.: 4.000 IN.
- STD. LATERAL: 1.125 IN.
- DISCHARGE SIZE: N/A
- DISCHARGE CONNECTION: FLG.
- SUCTION BELL DIA.: 48.000 IN.
- SUCTION CONNECTION: BELL
- MAX. SPHERE SIZE: 3.500 IN.
- MAX. OPERATIONAL P.S.I.: 200 (SPECIAL)

**EFFICIENCY CORRECTION**

- NUMBER OF BOWLS: 1 2
- CHANGE AS FOLLOWS: -1 0

Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
IMPELLER DATA

IMPELLER NUMBER: 0245
TYPE: ENCLOSED
THRUST FACTOR: K = 150.00
EYE AREA: 390 SQ. IN.
WEIGHT: 875 LB.

Minimum submergence above eye of bottom impeller: 90 IN.

EFFICIENCY CORRECTION

NUMBER OF BOWLS: 1 2
CHANGE AS FOLLOWS: -1 0

CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION

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<tr>
<th>MATERIAL</th>
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FLANGED BOWL DATA

BOWL NUMBER: 0242
BOWL MAX. DIAMETER: 42.500 IN.
BOWL MIN. DIAMETER: 42.500 IN.
MAX. NO. STAGES: 3
ONE STAGE WEIGHT: 5250 LB.
ADD STAGE WEIGHT: 3550 LB.
STD. SHAFT DIA.: 4.000 IN.
STD. LATERAL: 1.125 IN.
DISCHARGE SIZE: N/A
DISCHARGE CONNECTION: FLG.
SUCTION BELL DIA.: 48.000 IN.
SUCTION CONNECTION: BELL
MAX. SPHERE SIZE: 3.500 IN.
MAX. OPERATIONAL P.S.I.: 200 (SPECIAL)

Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
PERFORMANCE CURVES

LINESHAFT & SUBMERSIBLE

490 RPM
Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
**IMPELLER DATA**

- **IMPELLER NUMBER**: 0193
- **TYPE**: ENCLOSED
- **THRUST FACTOR**: K=67.50
- **EYE AREA**: 175 SQ. IN.
- **WEIGHT**: 440 LB.
- **MINIMUM SUBMERSION ABOVE EYE OF BOTTOM IMPELLER**: 50 IN.

**FLANGED BOWL DATA**

- **BOWL NUMBER**: 0235
- **BOWL MAX. DIAMETER**: 30.000 IN.
- **BOWL MIN. DIAMETER**: 30.000 IN.
- **MAX. NO. STAGES**: 5
- **ONE STAGE WEIGHT**: 4500 LB.
- **ADD STAGE WEIGHT**: 2000 LB.
- **STD. SHAFT DIA.**: 3.250 IN.
- **STD. LATERAL**: 1.375 IN.
- **DISCHARGE SIZE**: N/A
- **DISCHARGE CONNECTION**: BELL
- **SUCTION BELL DIA.**: 33.250 IN.
- **SUCTION CONNECTION**: BELL
- **MAX. SPHERE SIZE**: 2.500 IN.
- **MAX. OPERATIONAL P.S.I.**: 250 (SPECIAL)

**EFFICIENCY CORRECTION**

- **NUMBER OF BOWLS**: 1
- **CHANGE AS FOLLOWS**: -2
- **CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.**

**PUMP MATERIAL EFFICIENCY CORRECTION**

<table>
<thead>
<tr>
<th></th>
<th>DUCTILE</th>
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Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
Performance based on pumping clear, fresh water at a temperature not over 85°F, free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
36FMC 490 RPM

TURBINE PUMP CURVE
SINGLE STAGE PERFORMANCE
APRIL 2020

IMPELLER DATA
IMPELLER NUMBER: 1936
TYPE: ENCLOSED
THRUST FACTOR: K=94.50
EYE AREA: 215 SQ. IN.
WEIGHT: 440 LB.

Minimum submergence above eye of bottom impeller: 65 IN.

FLANGED BOWL DATA
BOWL NUMBER: 1909
BOWL MAX. DIAMETER: 36.000 IN.
BOWL MIN. DIAMETER: 36.000 IN.
MAX. NO. STAGES: 2
ONE STAGE WEIGHT: 4500 LB.
ADD STAGE WEIGHT: 2000 LB.
STD. SHAFT DIA.: 3.250 IN.
STD. LATERAL: 1.250 IN.
DISCHARGE SIZE: N/A
DISCHARGE CONNECTION: FLG.
SUCTION BELL DIA.: 42.000 IN.
SUCTION CONNECTION: BELL
MAX. SPHERE SIZE: 2.500 IN.
MAX. OPERATIONAL P.S.I.: 200 (SPECIAL)

EFFICIENCY CORRECTION
NUMBER OF BOWLS:
1 2 3
CHANGE AS FOLLOWS:
-2 -1 0
CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.
IMPELLER DATA

IMPELLER NUMBER: 1945
TYPE: ENCLOSED
THRUSS FACTOR: K=94.50
EYE AREA: 215 SQ. IN.
WEIGHT: 440 LB.

Minimum submergence above eye of bottom impeller: 65 IN.

FLANGED BOWL DATA

BOWL NUMBER: 1909
BOWL MAX. DIAMETER: 36.000 IN.
BOWL MIN. DIAMETER: 36.000 IN.
MAX. NO. STAGES: 2
ONE STAGE WEIGHT: 4500 LB.
ADD STAGE WEIGHT: 2000 LB.
STD. SHAFT DIA.: 3.250 IN.
STD. LATERAL: 1.250 IN.
DISCHARGE SIZE: N/A
DISCHARGE CONNECTION: FLG.
SUCTION BELL DIA.: 42.000 IN.
SUCTION CONNECTION: BELL
MAX. SPHERE SIZE: 2.500 IN.
MAX. OPERATIONAL P.S.I.: 200 (SPECIAL)

EFFICIENCY CORRECTION

NUMBER OF BOWLS:
1 2 3
CHANGE AS FOLLOWS:
-2 -1 0

CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

PUMP MATERIAL EFFICIENCY CORRECTION

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<td>BOWL MATERIAL:</td>
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