

**PERFORMANCE ON DESIGN CURVE AT 3540 RPM**

	Shut Off	Design [2]	Run Out [5]		
Flow (USGPM)	0.0	100.0	187.0	Best Efficiency	75.20 % at 125.0 USgpm
TDH-Bowl (ft)	461.0	435.0	243.0	Design Flow % BEP	80.00 %
TDH-Disch Flange ( ft)	460.2	434.2	242.1	Pump Efficiency	72.18 %
Bowl Efficiency (%)	-	73.20	65.00	Overall Efficiency	0.00 %
Guaranteed Bowl Efficiency (%)	-	69.54	-	NOL Power	17.8 Hp at 170.0 USgpm
Power (Hp)	10.3	15.0	17.7	Guaranteed NOL Power	19.2 Hp at 170.0 USgpm
Guaranteed Power (Hp)	-	16.2	-	Max Power (NOL) at Max Trim	20.2 Hp at 181.0 USgpm
NPSHr (ft) [1]	-	5.0	12.1	Guaranteed Max Power (NOL) at Max Trim	21.8 Hp at 181.0 USgpm
NPSH Margin (ft) [1]	-	27.4	20.3	Specified NPSH Ratio	1.1
Hydraulic Thrust(lb)	922.0	870.0	487.0	Thrust Load Power Loss	0.23957 Hp
Thrust (lb)	1004.5	948.8	538.6	Total Flow Derate Factor	1.00
Pressure-Bowl (psi)	199.6	188.3	105.2	Total Head Derate Factor	1.00
Pressure-Disch Flange (psi)	199.2	188.0	104.8	Total Efficiency Derate Factor	1.00
Min Submergence (Inch) [3]	-	15.57	18.67	Actual Submergence	0.00 in
Friction Loss (ft) [4]	-	0.06	0.20	Shaft Friction Power Loss	-0.03 Hp
Lineshaft Elongation (Inch)	-0.00126	-0.00119	-	Min Flow (MCSF)	31.2 USgpm
Column Elongation (Inch)	-0.00024	-0.00023	-	kWh per 1000 gal	0.00000
Lateral (Inch)	0.12898	0.12904	-	Impeller Running Clearance	0.13 in

[1] at 1st impeller eye [2] rated values [3] from bottom of pump [4] from bowl to disch flange [5] based on user entered TDH

**OPERATING CONDITIONS**

Specified Flow	100.00 USgpm
Specified TDH	428.00 ft
Rated Speed	3540 RPM
Atmospheric Pressure	14.70 psi
NPSHa at 1st Impeller	32.4 ft
NPSHa at Grade	33.9 ft

**FLUID CHARACTERISTICS**

Fluid	Water
Fluid Temperature	68.0 °F
Specific Gravity	1.0000
Viscosity	1.0017 cP
Vapor Pressure	0.3393 psi
Density	62 lbs/ft³

**MATERIALS & DIMENSIONS**

**Bowl Data**

Bowl Material	Cast Iron
Bowl Material Derate Factor	1.00
Impeller Material	Bronze
Impeller Matl Derate Factor	1.00
Bowlshaft Material	416SS
Impeller Attachment	Taper Lock
Taperlock Material	Carbon Steel
Discharge Bowl Material	Cast Iron
Suction Type	Bell
Suction Material	Cast Iron
Bowl Bolting Material	316SS
Sand Collar	304SS
Pipe Plug	Iron
Suction Bearing	Bronze
Discharge Bowl Bearing	Bronze
Intermediate Bowl Bearing	Bronze
Strainer Type	Clip-On Bell Type Strainer
Strainer Material	Galvanized Steel

**Bowl Data**

Impeller Trim	5.25 in
Max Impeller Trim	5.50 in
Thrust K-Factor	2.0 lb/ft
Bowl Pressure Limit	410 psi
Model Max Sphere Size	0.25 in
Available Lateral	0.34 in
Bowl Assembly Length (BL)	31.20 in
Disch Bowl Length OLS (O1)	3.69 in
Disch Bowl Length ELS (L2)	4.38 in
Bowl Shaft Diameter	1 3/16 in [30.2 mm]
Impeller Balance	Manufacturer's Standard
Impeller Design	Enclosed
Suction Pipe Diameter	No Suction Pipe
Bowl Diameter (D)	7.50 in
Bowl Length (L3)	5.00 in
Bowl Flange Diameter (A)	3.13 in
Bowl Flange Thickness (E)	5.63 in
Strainer Length (SL)	1.94 in

**DO NOT USE FOR CONSTRUCTION UNLESS CERTIFIED**

Certified By	
Project	ITT SN 514495 Replacement BA
Tag	
PO Number	
Serial Number	