

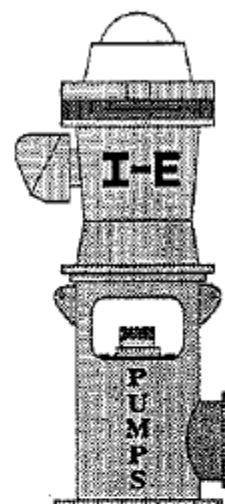
ONE
STAGE S...

HEAD IN FEET

HORSEPOWER

GALLONS PER MINUTE

NPSHR



1567 E. HWY. 160
P.O. BOX 112
MONTE VISTA
COLORADO 81144

(719) 852-5174

I-E
"TOP-O-THE LINE"

13CH-1400

DESIGN

1770

R.P.M.

SECTION N

PAGE 234

DATE 10-11-90

IMPELLER DATA

TRIM DIAMETER: A 9.970 " B 9.375 " C " " " "
One stage deduct -1 % 2 stage deduct 0 % 3 stage deduct 0 %
EFFICIENCY CORRECTION: stage add % stage add % stage add %
EFFECTIVE IMPELLER EYE AREA 29.07 sq. inches NUMBER OF IMPELLER VANES
THRUST CONSTANT (K) 10.6 Lbs./Ft. WR^2 (See Note #) .744 Lbs. Ft.² MAXIMUM SPHERE SIZE .875 %
IMPELLER EYE FLUID VELOCITY CONSTANT (K_e) IMPELLER PERIPHERAL SPEED CONSTANT (N_e) (Ft./Sec.) (Ft./Min.)

BOWL ASSEMBLY DATA

NOMINAL DIAMETER = 12 " , MINIMUM DIAMETER = 11.75 " , BELL DIAMETER 13.875 " , MIN. BELL DIAMETER 12.875 " .
 MAXIMUM NO. STAGES (Std. Constr.) 3 MAXIMUM HEAD (Std. Constr.) 635 Ft.
 DIAMETER IMPELLER SHAFT 1.6875 " , MINIMUM IMPELLER SHAFT THREADS _____ " .
 LATERAL (See explanation below)* NOMINAL _____ " , MINIMUM _____ " , STANDARD .875 " , MAXIMUM _____ " .
 WEAR RING CLEARANCE (Nominal) .012 " , SHAFT / BEARING CLEARANCE (Nominal) .007 " .
 FORMULAS: HYDRAULIC THRUST = K Factor x Laboratory Head in feet = 275 Lbs.

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IMPELLER PERIPHERAL SPEED (U_2) = N_1 Constant x Impeller Diameter _____ Ft./Sec. or _____ Ft./Min.

IMPELLER EYE FLUID VELOCITY (V) = K_{Constant} x GPM = _____ Ft./Sec.

NOTE ϕ = per impeller. WR^2 includes impeller, impeller collet, and a stage length of impeller shaft

NOTE * = see lateral definition on Page 8.1, Section 2.1, dated 2/15/63.

NOTE - NOMINAL PROJECTIONS ARE: SHAFT = 14 " Tube = 6 "

(referenced pipe butt or flange face)

- A - Length one-stage assembly / threaded suction
- B - Length one-stage assembly / bell suction
- C - Additional stage length
- D - Bowl diameter
- E - Bell diameter
- F - Projection of bearing hub / bell suction
- G - O.D. bell suction basket strainer
- J - Basket length below bell suction tip
- K - Minimum required submergence, above bottom of bearing hub
- L - Bottom of bearing hub to impeller eye
- M - Pipe butt to top bowl flange
- N - Column pipe flange to bowl flange
- P - Suction case (or coupling) thread engagement
- R - Suction case flange diameter
- S - Flange to flange / bowl to column

APPLICABLE DIMENSIONS

[illegible]