

HEAD IN FEET

HORSEPOWER

10

NPSHR

0

40

30

20

10

GALLONS PER MINUTE

0

25

50

75

100

125

150

175

200

225

250

I-E

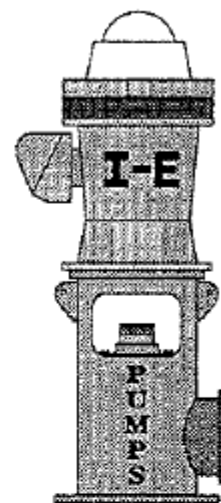
"TOP-O-THE LINE"

8CM-175

DESIGN

1770

R.P.M.



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

(719) 852-5174

SECTION N
PAGE 202
DATE 10-11-90

IMPELLER DATA

TRIM DIAMETER: A 6.000 " B _____ " C _____ " \ _____ " _____ "

One stage deduct -4 %, 2 stage deduct -3 %, 3 stage deduct 2 %.

EFFICIENCY CORRECTION: _____ stage add _____ %, _____ stage add _____ %, _____ stage add _____ %.

EFFECTIVE IMPELLER EYE AREA 8.18 sq. inches NUMBER OF IMPELLER VANES _____

THRUST CONSTANT (K) 3.6 Lbs./Ft. WR^2 (See Note *) .105 Lbs. Ft.² MAXIMUM SPHERE SIZE .563 "

IMPELLER EYE FLUID VELOCITY CONSTANT (K_e) _____ IMPELLER PERIPHERAL SPEED CONSTANT (N_1) _____ (Ft./Sec.) _____ (Ft./Min.)

BOWL ASSEMBLY DATA

NOMINAL DIAMETER = 7.875 ", MINIMUM DIAMETER 7.625 ", BELL DIAMETER 11.375 ", MIN. BELL DIAMETER 10.375 "

MAXIMUM NO. STAGES (Std. Constr.) 18 MAXIMUM HEAD (Std. Constr.) 1104 Ft.

DIAMETER IMPELLER SHAFT 1.250 " MINIMUM IMPELLER SHAFT THREADS 1 "

LATERAL (See explanation below)* NOMINAL _____ " MINIMUM _____ " STANDARD .750 " MAXIMUM _____ "

WEAR RING CLEARANCE (Nominal) .012 " SHAFT/BEARING CLEARANCE (Nominal) .007 "

FORMULAS: HYDRAULIC THRUST = K Factor x Laboratory Head in feet = 478 Lbs.

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

IMPELLER EYE FLUID VELOCITY (V_e) = K_e Constant x GPM = _____ Ft./Sec.

NOTE * = 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 lip
- 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

DIMENSION	A	B	C	D	E	F	G	J	K	L	M	N	P	R	S
INCHES	18.625	21.375	6.375	7.875	11.375	—	12.375	6.0					2.0		

