

ONE
STAGE ()
PAGES

HEAD IN FEET

HORSEPOWER

125

100

75

50

25

10

5

0

0

50

100

150

200

250

300

350

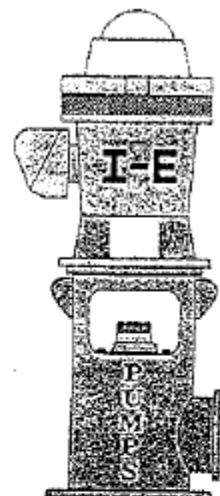
400

450

500

GALLONS PER MINUTE

1 = 5.875"
2 = 5.625"
3 = 5.375"
4 = 5.125"



NPSHR
40
20
0

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

(719) 852-5174

I-E
"TOP-O-THE LINE"

8SL-281
DESIGN

3450
R.P.M.

SECTION _____
PAGE 805
DATE 4-18-91

IMPELLER DATA

TRIM DIAMETER: A 5.875", B 5.625", C 5.375", 5.125", —, —
 One stage deduct 4%, two stage deduct 3%, three stage deduct 2%
 EFFICIENCY CORRECTION: 5 stage add 0%, — stage add —%, — stage add —%
 EFFECTIVE IMPELLER EYE AREA 7.08 sq. inches NUMBER OF IMPELLER VANES —
 THRUST CONSTANT (K) 3.6 Lbs./Ft. WR_2 (See Note 6) .108 Lbs./Ft.2 MAXIMUM SPHERE SIZE .313
 IMPELLER EYE FLUID VELOCITY CONSTANT (K_v) — IMPELLER PERIPHERAL SPEED CONSTANT (N_1) — (Ft/Sec) — (Ft/Min)

BOWL ASSEMBLY DATA

NOMINAL DIAMETER = 7.875", MINIMUM DIAMETER = —", BELL DIAMETER 11.375", MIN. BELL DIAMETER —"
 MAXIMUM NO. STAGES (Std. Constr.) 10 MAXIMUM HEAD (Std. Constr.) 1104 Ft
 DIAMETER IMPELLER SHAFT 1.25", MINIMUM IMPELLER SHAFT THREADS —"
 LATERAL (See explanation below)* NOMINAL —", MINIMUM —", STANDARD —", MAXIMUM —"
 WEAR RING CLEARANCE (Nominal) .012", SHAFT/BEARING CLEARANCE (Nominal) .007"

FORMULAS: HYDRAULIC THRUST=K Factor x Laboratory Head in feet= — Lbs
 IMPELLER PERIPHERAL SPEED (U_2)= N_1 Constant x Impeller Diameter — Ft/Sec or — Ft/Min
 IMPELLER EYE FLUID VELOCITY (V_e)= K_v 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	—	6.375	7.875	—	2.75	—	—	11	—	—	—	—	—	—

