

ONE
STAGE ()
AGES

HEAD IN FEET

HORSEPOWER

125

100

75

50

25

20

10

0

0 100 200 300 400 500 600 700 800

US GALLONS PER MINUTE

I-E
"TOP-O-THE LINE"

8SH-350

DESIGN

3450

R.P.M.

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



50

25

0

NPSHR

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

(719) 852-5174

SECTION 0

PAGE 807

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 8.63 sq. inches NUMBER OF IMPELLER VANES ---

THRUST CONSTANT (K) 3.6 Lbs./Ft. WR_2 (See Note 6) .105 Lbs./Ft.2 MAXIMUM SPHERE SIZE .750

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.) 17 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_1)= 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	-	-	-	-	-	-

