

HEAD IN FEET

HORSEPOWER

100

80

60

40

20

10

5

0

0

100

200

300

400

500

600

700

800

U.S. GALLONS PER MINUTE

1 = 5.500"

2 = 5.250"

3 = 5.000"

60

65

70

75

77

75

70

65

60

75

50

25

0

NPSHR

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

(719) 852-5174

SECTION 0

PAGE 810

DATE 4-18-91

I-E

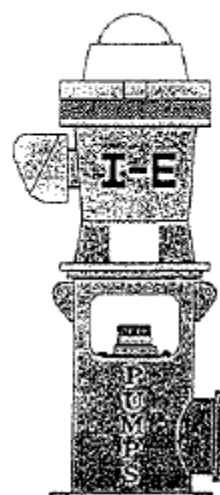
"TOP-O-THE LINE"

7SM-516

DESIGN

3450

R.P.M.



IMPELLER DATA

TRIM DIAMETER: A 5.500 ", B 5.250 ", C 5.0 ", — ", — ", — "

One stage deduct 3.5 %, two stage deduct 2 %, three stage deduct 1 %

EFFICIENCY CORRECTION: 4 stage add 0 %, -- stage add -- %, — stage add — %

EFFECTIVE IMPELLER EYE AREA 12.1 sq. inches NUMBER OF IMPELLER VANES --

THRUST CONSTANT (K) 5.2 Lbs./Ft. WR_2 (See Note 6) .10 Lbs./Ft.2 MAXIMUM SPHERE SIZE .500

IMPELLER EYE FLUID VELOCITY CONSTANT (K_v) -- IMPELLER PERIPHERAL SPEED CONSTANT (N_1) -- (Ft/Sec) -- (Ft/Min)

BOWL ASSEMBLY DATA

NOMINAL DIAMETER = 7.0 ", MINIMUM DIAMETER = -- ", BELL DIAMETER -- ", MIN. BELL DIAMETER -- "

MAXIMUM NO. STAGES (Std. Constr.) 17 MAXIMUM HEAD (Std. Constr.) 1070 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	--	--	17.25	7	-	2.75	-	-	12	-	-	-	-	-	-

