MET 330 HK 3.3 | M. VAUGHN

(22) PUMP $1\frac{1}{2} \times 3 - 6$

- $1\frac{1}{2}$ — DISCHARGE
- 3 — SUCTION
- 6 — IMPELLER DIAMETER OR SMALLER

(23) $Q = 100$ GPM $H = 300$ ft

FIG. 13.22

USE PUMP $1\frac{1}{2} \times 3 - 10$

- 3 — SUCTION
- 10 — IMPELLER

(25) $2 \times 3 - 10$ $H = 200$ ft FIG 13.28

8" = 230 GPM $P = 20$ hp

NPSH = 11 ft $e = 54\%$

(34) a) 500 GPM $H = 80$ ft

RECIPROCATING & ROTARY PUMPS

b) 500 GPM $H = 800$ ft

CENTRIFUGAL PUMP - 3500 RPM

c) 500 GPM $H = 80$ ft (VISCOUS ADHESIVE)

ROTARY PUMP

d) 80 GPM $H = 8000$ ft

RECIPROCATING PUMP

e) 80 GPM $H = 800$ ft

CENTRIFUGAL PUMP - 3500 RPM, ROTARY PUMP

f) 8000 GPM $H = 200$ ft

CENTRIFUGAL PUMP - 1750 RPM

g) 8000 GPM $H = 60$ ft

CENTRIFUGAL PUMP - 1750 RPM

h) 8000 GPM $H = 12$ ft

AXIAL FLOW PUMPS

(17) $\frac{h_{a_1}}{h_{a_2}} = \left(\frac{N_1}{N_2}\right)^2$ $\quad N_2 = \frac{N_1}{2}$

$\frac{h_{a_1}}{h_{a_2}} = \left(\frac{N_1}{\frac{N_1}{2}}\right)^2$ $\quad \frac{h_{a_1}}{h_{a_2}} = 4$ $\quad h_{a_2} = \frac{h_{a_1}}{4}$

FACTOR OF 4 (REDUCED)

(19) $\frac{Q_1}{Q_2} = \frac{D_1}{D_2}$ $\quad D_2 = 0.75 D_1$

$\frac{Q_1}{Q_2} = \frac{D_1}{0.75 D_1} = \frac{1}{0.75}$ $\quad Q_2 = 0.75(Q_1)$ $\quad$ 25%

(55)