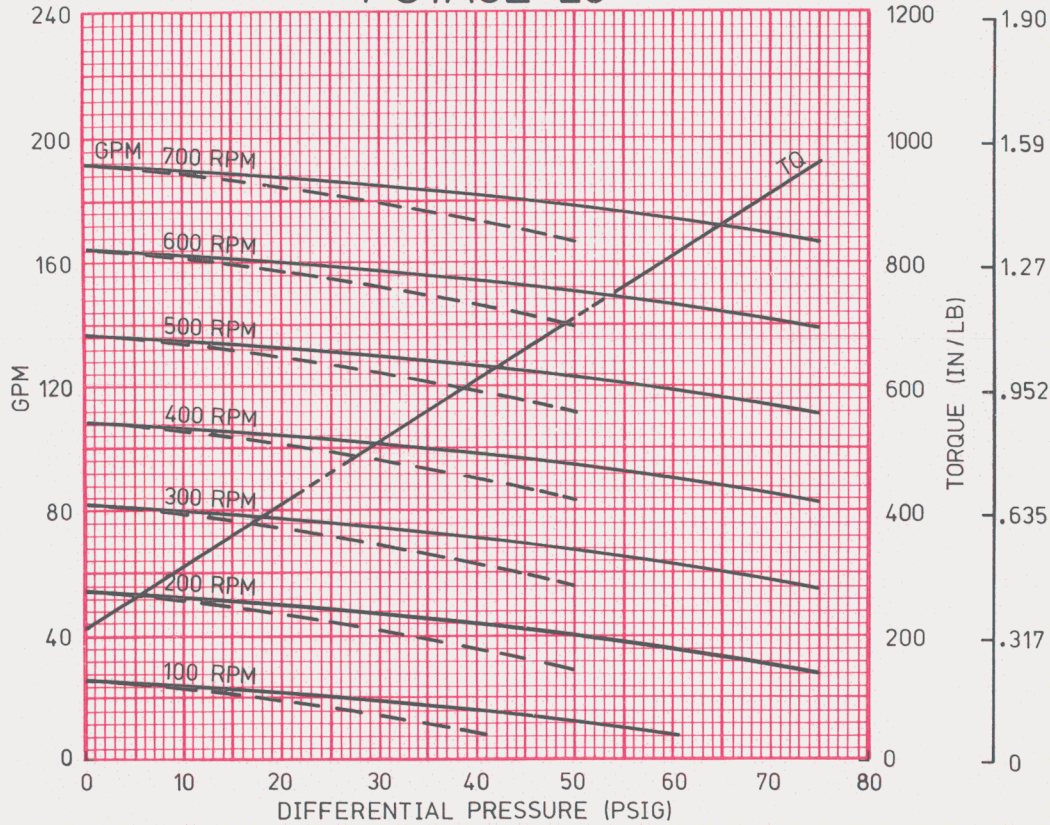


1 STAGE 28



RPM	NPSHR (FT)
100	1.1
200	2.1
300	3.2
400	4.7
500	7.4
600	9.9
700	12.6

STARTING TORQUE 888 IN/LB
 SEE GENERAL INSTRUCTIONS
 CURVE BASED ON 70°F WATER
 — 70 DUROMETER -- 50 DUROMETER
 $HP = \frac{(TQ)(RPM)}{63025}$

TABLE A ABRASIVE CONDITIONS MAX. PRESSURE & SPEED

ABRASION	NONE	LIGHT	MEDIUM	HEAVY
MAX. PRESS	75	60	35	15
MAX. SPEED	750	565	375	190

TABLE B APPARENT VISCOSITY - TORQUE ADDITIVE (IN/LB) & MAX. SPEED

CPS	100	1000	2500	5000	10,000	50,000	100,000	150,000	200,000
TQ	129	370	565	772	1065	2255	3100	3750	4275
RPM	750	750	750	600	320	80	40	30	25

TABLE C WATER BASE SLURRY TORQUE ADDITIVE (IN/LB)

NOTE: MAXIMUM PARTICLE SIZE .8 INCH

SIZE %	FINE .01" TO .04"	MEDIUM .04" TO .08"	COARSE .08" & LARGER
10	201	231	333
30	603	693	999
50	1005	1155	1666

TABLE D STARTING TORQUE MULTIPLIERS (IN/LB) FOR TEMPERATURE

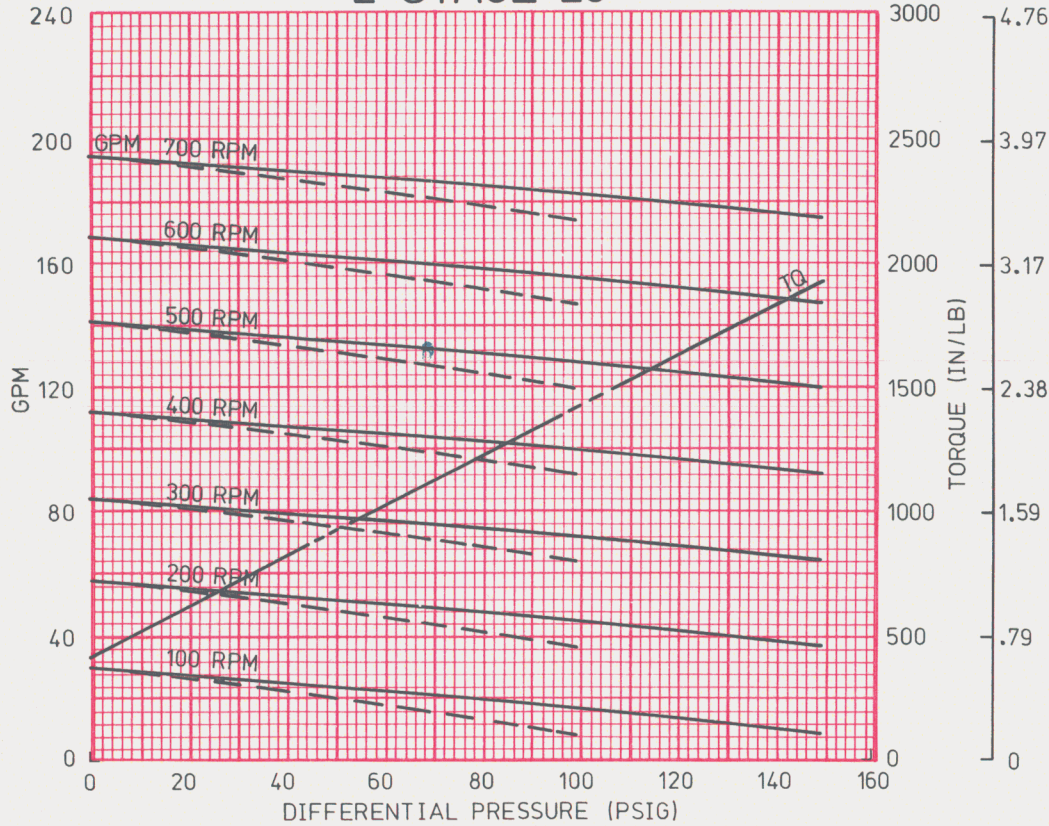
ROTOR °F	70	100	125	150	175	200	230	250	275	300	350
STD	1.0	1.1	1.3	1.6	1.8						
SGL U/S					1.1	1.3	1.6	1.8	2.0		
DBL U/S							1.0	1.1	1.3	1.6	1.8

- 1) DETERMINE WHICH TABLE (B OR C) APPLIES TO YOUR FLUID AND FIND THE APPROPRIATE CHARACTERISTICS. DETERMINE THE TORQUE ADDITIVE AND ADD IT TO THE TORQUE FOUND FOR WATER ON THE CURVE. IF YOUR FLUID IS A COMBINATION OF BOTH SLURRY AND VISCOUS MATERIAL. DETERMINE THE APPROPRIATE TORQUE ADDITIVE FROM BOTH TABLES AND ONLY USE THE GREATER OF THE TWO TO ADD TO THE TORQUE FOUND FOR WATER.
- 2) FIND THE FACTOR FROM TABLE D THAT CORRESPONDS TO THE TEMPERATURE OF YOUR FLUID AND STYLE OF ROTOR. MULTIPLY THE STARTING TORQUE SHOWN BY THIS FACTOR TO OBTAIN THE CORRECTED STARTING TORQUE.

COMPARE THE RESULTS FROM STEPS 1 AND 2. THE REQUIRED TORQUE WILL BE THE GREATER OF THE TWO.

71X28

2 STAGE 28



RPM	NPSHR (FT)
100	1.1
200	2.1
300	3.2
400	4.7
500	7.4
600	9.9
700	12.6

STARTING TORQUE 1500 IN/LB
 SEE GENERAL INSTRUCTIONS
 CURVE BASED ON 70°F WATER
 — 70 DUROMETER -- 50 DUROMETER

$$HP = \frac{(TQ)(RPM)}{63025}$$

TABLE A ABRASIVE CONDITIONS MAX. PRESSURE & SPEED

ABRASION	NONE	LIGHT	MEDIUM	HEAVY
MAX. PRESS	150	120	70	30
MAX. SPEED	750	565	375	190

TABLE B APPARENT VISCOSITY - TORQUE ADDITIVE (IN/LB) & MAX. SPEED

CPS	100	1000	2500	5000	10,000	50,000	100,000	150,000	200,000
TQ	258	740	1130	1544	2130	4510	6200	7500	8550
RPM	750	750	750	600	320	80	40	30	25

TABLE C WATER BASE SLURRY TORQUE ADDITIVE (IN/LB)

NOTE: MAXIMUM PARTICLE SIZE .8 INCH

SIZE %	FINE .01" TO .04"	MEDIUM .04" TO .08"	COARSE .08" & LARGER
10	265	305	440
30	796	914	1319
50	1326	1524	2198

TABLE D STARTING TORQUE MULTIPLIERS (IN/LB) FOR TEMPERATURE

ROTOR / °F	70	100	125	150	175	200	230	250	275	300	350
STD	1.0	1.1	1.3	1.6	1.8						
SGL U/S					1.1	1.3	1.6	1.8	2.0		
DBL U/S							1.0	1.1	1.3	1.6	1.8

- 1) DETERMINE WHICH TABLE (B OR C) APPLIES TO YOUR FLUID AND FIND THE APPROPRIATE CHARACTERISTICS. DETERMINE THE TORQUE ADDITIVE AND ADD IT TO THE TORQUE FOUND FOR WATER ON THE CURVE. IF YOUR FLUID IS A COMBINATION OF BOTH SLURRY AND VISCOUS MATERIAL. DETERMINE THE APPROPRIATE TORQUE ADDITIVE FROM BOTH TABLES AND ONLY USE THE GREATER OF THE TWO TO ADD TO THE TORQUE FOUND FOR WATER.
- 2) FIND THE FACTOR FROM TABLE D THAT CORRESPONDS TO THE TEMPERATURE OF YOUR FLUID AND STYLE OF ROTOR. MULTIPLY THE STARTING TORQUE SHOWN BY THIS FACTOR TO OBTAIN THE CORRECTED STARTING TORQUE.
 COMPARE THE RESULTS FROM STEPS 1 AND 2. THE REQUIRED TORQUE WILL BE THE GREATER OF THE TWO.

72X28