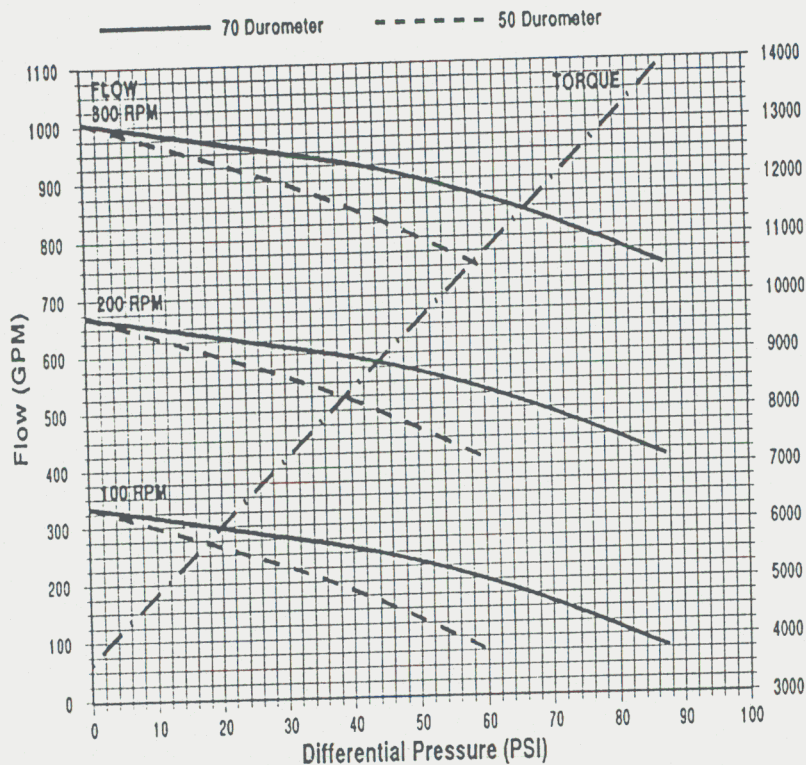


1 STAGE 335



Starting torque 5953 lbf-in.

See General Instructions for Performance Data.

Curve based on 70°F water and 14.7 PSIA at pump inlet.

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

RPM	100	200	300			
NPSHR (ft)	2.9	8.8	16.3			

Table A Abrasive Conditions - Maximum Pressure and Speed

Abrasion	None	Light	Medium	Heavy
Max. Pressure	87	70	40	15
Max. Speed	300	225	150	75

Table B Apparent Viscosity - Torque Additive (lbf-in.) and Max. Speed

cPs	100	1000	2500	5000	10,000	50,000	100,000	150,000	200,000
TQ	1619	4595	6933	9454	13,235	27,101	37,185	44,118	50,697
RPM	300	300	300	300	300	80	40	30	25

Table C Water Base Slurry Torque (lbf-in.) Additive

Note: Maximum particle size 1.8 Inches			
Size	Fine	Medium	Coarse
Concentration	(.04" & smaller)	(.04" to .08")	(.08" to .19")
10 %	1261	1538	2603
30 %	3782	4613	7815
50 %	6303	7689	13,046

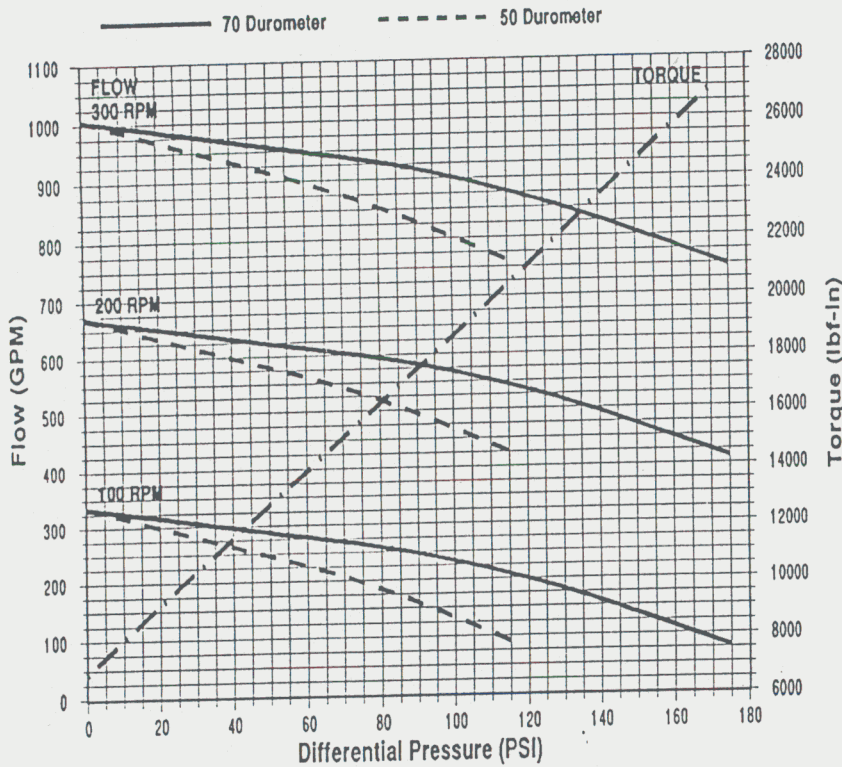
Table D Starting Torque Multipliers for Temperature

°F	70	100	125	150	175	200	230	250	275	300	350
Standard size rotor	1.0	1.1	1.3	1.6	1.8						
Single Undersize rotor					1.1	1.3	1.6	1.8	2.0		
Double Undersize rotor							1.0	1.1	1.3	1.6	1.8

- 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.
- 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.

2 STAGE 335



Starting torque 8579 lbf-in.

See General Instructions for Performance Data.

Curve based on 70°F water and 14.7 PSIA at pump inlet.

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

RPM	100	200	300			
NPSHR (ft)	2.9	8.8	16.3			

Table A Abrasive Conditions - Maximum Pressure and Speed

Abrasion	None	Light	Medium	Heavy
Max. Pressure	175	140	80	30
Max. Speed	300	225	150	75

Table B Apparent Viscosity - Torque Additive (lbf-in.) and Max. Speed

cPs	100	1000	2500	5000	10,000	50,000	100,000	150,000	200,000
TQ	3238	9190	13,866	18,908	26,471	54,202	74,370	88,235	101,394
RPM	300	300	300	300	300	80	40	30	25

Table C Water Base Slurry Torque (lbf-in.) Additive

Note: Maximum particle size 1.8 inches			
Size	Fine	Medium	Coarse
Concentration	(.04" & smaller)	(.04" to .08")	(.08" to .19")
10 %	1639	1998	3384
30 %	4916	5994	10,147
50 %	8193	10,021	16,954

Table D Starting Torque Multipliers for Temperature

°F	70	100	125	150	175	200	230	250	275	300	350
Standard size rotor	1.0	1.1	1.3	1.6	1.8						
Single Undersize rotor					1.1	1.3	1.6	1.8	2.0		
Double Undersize rotor							1.0	1.1	1.3	1.6	1.8

- 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.
 - 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.