



# TECH BULLETIN

**008**  
01/78

*Published regarding engineering changes and improvements*

## SUBJECT: Motor Pulley Selection Chart

Frequently questions arise concerning the selection of the proper motor pulley to get the required pump performance.

Here are charts which show the available motor pulley sizes with the respective pump RPM that each motor pulley will deliver as well as the total pump output in G.P.M.

Because of the many pulley selections available for the 25 Frame thru 68 Frame pumps, they are not included here. Please see Tech Bulletin 003 for a complete selection of Drive Accessory Packages available for 7 FR, 10 FR, 15 FR, 25 FR, 35 FR, and 60 FR which include drive hub and pulley, pump hub and pulley, key and belts. These Drive Accessory Packages are used in our complete Power Units and are available as individual accessories to simplify your assembly.

### Plunger Pump Motor Pulley Selection Chart

Motor Pulley Size	270-277		310-311-317		530		56		650-651		1050-51-57	
	5" Pulley		8" Pulley		9.75" Pulley		9.75" Pulley		9.75" Pulley		9.75" Pulley	
	RPM	GPM	RPM	GPM	RPM	GPM	RPM	GPM	RPM	GPM	RPM	GPM
3.3	1217	3.0	713	3.0	583	2.6	583	2.6	583	4.1	583	6.0
4.1	1420	3.5	884	3.7	725	3.3	725	3.3	725	5.1	725	7.6
4.4			950	4.0	778	3.5	778	3.5	778	5.4	778	8.1
4.7	1625	4.0	1013	4.2	832	3.8	832	3.8	832	4.8	832	8.7
4.9			1056	4.4	858	3.9	858	3.9	858	6.0	867	9.0
5.0			1078	4.5	880	4.0	880	4.0	880	6.2	884	9.2
5.1			1099	4.6	900	4.1	900	4.1	900	6.3	903	9.4
5.5			1190	5.0	973	4.4	973	4.4	973	6.8	973	10.2
5.6					990	4.5	990	4.5	990	6.9	990	10.3
5.7					1008	4.6	1000	4.5	1000	7.0	1008	10.5
6.3					1100	5.0	1110	5.0			1100	11.6
6.5										1150	1150	12.0
7.5							1320	6.0				

Piston Pump Charts on reverse side

Rev. 02/96

## Piston Pump Motor Pulley Selection Chart

Motor Pulley Size	Model 280				Model 333				Model 430			
	5" Pulley		8" Pulley		5" Pulley		8" Pulley		5" Pulley		8" Pulley	
	RPM	GPM	RPM	GPM	RPM	GPM	RPM	GPM	RPM	GPM	RPM	GPM
1.00	345	.7	215	.4	345	1.2	215	.8	345	1.6	215	1.0
1.25	430	.9	265	.5	430	1.6	265	.9	430	2.0	265	1.2
1.50	515	1.1	320	.7	515	1.9	320	1.1	515	2.4	320	1.5
1.75	600	1.3	375	.8	600	2.2	375	1.4	600	2.8	375	1.8
2.00	690	1.5	430	.9	690	2.5	430	1.6	690	3.3	430	2.0
2.25	775	1.7	485	1.0	775	2.8	485	1.8	775	3.7	485	2.3
2.50	860	1.9	535	1.2	860	3.2	535	2.0	860	4.1	535	2.5
2.75	945	2.1	590	1.3	945	3.5	590	2.2	945	4.5	590	2.8
3.00	1035	2.3	645	1.4	1035	3.8	645	2.4	1035	4.9	645	3.1
3.25	1120	2.5	700	1.5	1120	4.1	700	2.6	1120	5.3	700	3.3
3.50	1205	2.7	750	1.6			750	2.8			750	3.6
3.75	1290	2.9	803	1.8			803	3.0			803	3.8
4.00	1380	3.1	860	1.9			860	3.2			860	4.1
4.25			915	2.0			915	3.4			915	4.3
4.50			970	2.1			970	3.6			970	4.6
4.75			1020	2.3			1020	3.8			1020	4.9
5.00			1075	2.4			1075	4.0			1070	5.1
5.25			1130	2.5								
5.50			1185	2.6								
5.75			1235	2.7								
6.00			1290	2.9								
6.25			1345	3.0								

Motor Pulley Size	Model 623		Model 820		Model 1010		Model 1020		Model 1520		Model 2020		Model 2520	
	9.75" Pulley		9.75" Pulley		9.75" Pulley		9.75" Pulley		9.75" Pulley		9.75" Pulley		9.75" Pulley	
	RPM	GPM	RPM	GPM	RPM	GPM	RPM	GPM	RPM	GPM	RPM	GPM	RPM	GPM
3.35	550	3.8	550	5.8	550	7.3	550	7.5	550	10.0	550	12.7	550	17.8
3.55	585	4.1	585	6.2	585	7.8	585	8.0	585	10.6	585	13.5	585	18.9
3.75	620	4.3	620	6.5	620	8.2	620	8.4	620	11.2	620	14.3	620	20.0
3.95	660	4.5	660	7.0	660	8.8	660	9.0	660	12.0	660	15.2	660	21.3
4.25	709	5.0	709	7.6	709	9.5	709	9.7	709	13.0	709	16.5	709	23.1
4.45	750	5.2	750	7.9	750	10.0	750	10.2	750	13.6	750	17.3	750	24.2
4.75	805	5.6	805	8.5	805	10.7			805	14.6	805	18.5	805	26.0
4.95	840	5.9	840	8.9	840	11.2			840	15.2	840	19.4		
5.25	900	6.3	900	9.5	900	12.0					900	20.7		
5.45			935	9.9										

**NOTE:** All figures based on 1725 RPM motor speed. Pulley sizes are expressed in outside diameters. Pulleys are all double grooved "B" section.

**NOTE:** The above ratings show total pump output (GPM), including any by-pass flow. Since many regulating devices and systems require a minimum by-pass flow, be sure your selection takes this into account.

Maximum Ratings:	280	333	430	623	820	1010	1020	1520	2020	2520
RPM	1330	1070	1040	850	940	900	720	830	870	772
GPM	3.0	4.0	5.0	6.0	10.0	12.0	10.0	15.1	20.0	25.0
PSI	1000	1200	1000	1200	1000	700	1200	1000	800	800
HP	2.1	3.3	3.4	4.9	6.9	5.8	8.2	10.3	11.0	13.7

CAT PUMPS

Technical Services Department