DURST PUMP DRIVE APPLICATION DATA SHEET

To determine the proper pump drive for your application please use the following steps to calculate your Maximum Rated Input Torque. Then fill in the questions on Page 2.

Service Factor Chart (S.F.)

Prime Mover	Duration of Service	Driven Machine Load Classification Multiplier Uniform	Moderate Shock	Heavy Shock
Electric Motor, Steam Turbine, or Hydraulic Motor	Occasional ½ hr. per day	0.50	0.80	1.25
	Intermittent 3 hr. per day	0.80	1.00	1.50
	Over 3 hr. per day and incl. 10 hr. per day	1.00	1.25	1.75
	Over 10 hr. per day	1.25	1.50	2.00
Multi-Cylinder Internal Combustion Engine	Occasional ½ hr. per day	0.80	1.00	1.50
	Intermittent 3 hr. per day	1.00	1.25	1.75
	Over 3 hr. per day and incl. 10 hr. per day	1.25	1.50	2.00
	Over 10 hr. per day	1.50	1.75	2.25
Single Cylinder Internal Combustion Engine	Occasional ½ hr. per day	1.00	1.25	1.75
	Intermittent 3 hr. per day	1.25	1.50	2.00
	Over 3 hr. per day and incl. 10 hr. per day	1.50	1.75	2.25
	Over 10 hr. per day	1.75	2.00	2.50

Input Torque Calculations

Torque = (H.P. / RPM) x 5252

Maximum Rated Input Torque = Max Torque x Service Factor

Durst Pump Drive Maximum Input Torque Rating

1 Pad	2 Pad	3 Pad	4 Pad
1PD06 - 1040 lb.ft.	2PD06 - 1040 lb.ft.	3PD06 - 1040 lb.ft	4PD08 - 1524 lb.ft.
	2PD08 - 1524 lb.ft.	3PD08 - 1524 lb.ft.	4PD09 - 1710 lb.ft.
	2PD10 - 1996 lb.ft.	3PD10 - 1996 lb.ft.	4PD11 - 2153 lb.ft.

Duty Service for Clutch Models

Clutch	Recommended Maximum Working Torque (lb.ft.)	Recommended Engine HP LD	ND	HD	Max. Scale Operating Speed
8”	229	55	43	30	3050
10”	327	86	67	47	2650
11½”	386	111	87	61	2200
11½” D.P.	907	203	129	80	2200
14”	810	169	131	92	1950
14” D.P.	1620	308	196	122	1950

Light Duty (LD)

The clutch should engage within two (2) seconds and start the load less than six (6) times per hour. The pressure plate should not exceed handle able temperatures.

Normal Duty (ND)

The clutch should start the heaviest load within three (3) seconds with starting frequencies up to thirty (30) engagements per hour.

Engagement slip (sec.) x Engagements (per hr.) < 90

Heavy Duty (HD)

The clutch should start the heaviest load within four (4) seconds with starting frequencies up to sixty (60) engagements per hour.

Engagement slip (sec.) x Engagements (per hr.) < 180 (Note: If >180 must contact Engineering)

DURST PUMP DRIVE APPLICATION DATA SHEET 2 of 2

1. What is the prime mover of the pump drive?

Type: ☐ Electric Motor ☐ Gasoline Engine ☐ Diesel Engine ☐ Other _____
Brand Name: _____ Model No. _____
Power _____Hp @ _____rpm Max Torque _____lb-ft @ _____rpm
Duty Cycle: _____ Hrs/Day _____ Days/Week _____Weeks/Year

2. Select model of pump drive per Maximum Input Torque Rating chart from page 1:

1 Pad	2 Pad	3 Pad	4 Pad
☐ 1PD06	☐ 2PD06	☐ 3PD06	☐ 4PD08
	☐ 2PD08	☐ 3PD08	☐ 4PD09
	☐ 2PD10	☐ 3PD10	☐ 4PD11

Indicate Pump Drive Mounting Orientation: ☐ Normal / Horizontal ☐ Vertical / Inverted

3. Specify gear ratio of the pump drive:

☐ 1:1 Ratio ☐ Increasing Ratio: _____ ☐ Decreasing Ratio: _____

4. Specify size of the engine housing the pump drive will be attached to
(If the pump drive is NOT mounted to an engine, skip to question 7):

☐ SAE 0 ☐ SAE 1 ☐ SAE 2 ☐ SAE 3 ☐ SAE 4 ☐ Other_____

5. Specify size of drive plate that is required **(If a clutch is needed, skip to question 6)**:

☐ SAE 18 ☐ SAE 14 ☐ SAE 11 ½ ☐ SAE 10 ☐ SAE 8 ☐ Other_____

6. Specify Clutch Size, Type, and Pilot Bearing Diameter:

☐ SAE 14 - double plate – 1.00" offset ☐ SAE 11 ½ - double plate – 1.56" offset
☐ SAE 11 ½ - single plate – 1.56" offset ☐ SAE 10 - single plate – 2.12" offset ☐ other_____

6a. Pilot Bearing: **1**☐ 3.94 dia. (for SP214) **2**☐ 3.15 dia. (for SP214) **3**☐ 2.83 dia. (all others)

7. Specify type of shaft needed to drive the pump drive
(For NON-drive plate and NON-clutch driven pump drives only):

☐ Companion Flange Spicer 1810	☐ Companion Flange Spicer 1610	☐ Keyed Shaft 2 ½ dia. w/ .63 keyway	☐ Keyed Shaft 2 ¼ dia. W/ .50 keyway
☐ Splined Shaft 29T-12/24	☐ Splined Shaft 20T-10/20	☐ Splined Shaft 15T-8/16	☐Other_____

8. Specify pump pad size (SAE **A**, **B**, **C**, **D**, **D2**, **E**, or **F**) and pump pad orientation (**H**-horizontal, **V**-vertical, or **45º**); pump pads are numbered according to the drawings below:

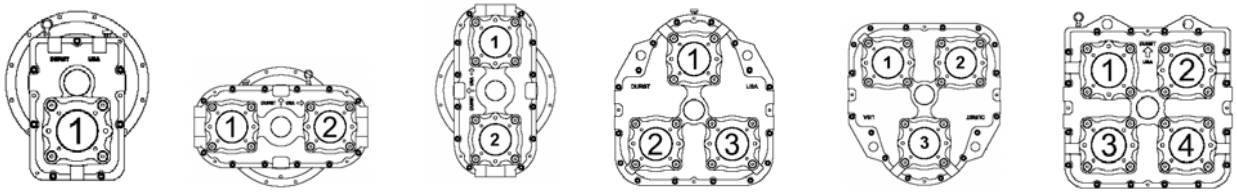
Pad 1 ____ ____ **Pad 2** ____ ____ **Pad 3** ____ ____ **Pad 4** ____ ____

9. Specify pump spline location according to the drawings below;
SAE **A** (9T-16/32), SAE **B** (13T-16/32), SAE **BB** (15T-16/32), SAE **C** (14T-12/24), SAE **CC** (17-12/24T), SAE **D** or **E** (13T-8/16), SAE **F** (15T-8/16), **21T**-16/32, **23T**-16/32, **27T**-16/32, or **other**:

Pad 1 _____ **Pad 2** _____ **Pad 3** _____ **Pad 4** _____

10. Identify dipstick (required on all normal/horizontal mountings) location, as viewed from output side of gearbox:

☐ Left ☐ Right (N/A on 1PD06) ☐ None for Vertical / Inverted



Requested By: _____ Company: _____ Date: _____
Email Address: _____ Phone: _____