STANDARD SP CLUTCH

SP314S

QUALITY IS STANDARD

- STRADDLE BEARING DESIGN
- NO PILOT
- BALL BEARING THROW OUT
- OPTIONAL SINTERED IRON PLATES
- BUILT IN HEX NUT
- ALLOWS FOR MAXIMUM SIDE LOAD CAPACITY
- EASE OF INSTALLATION
- ALLOWS FOR MORE FREQUENT ENGAGEMENTS
- CREATES 25% HIGHER TORQUE CAPACITY
- EASES ADJUSTMENT VERIFICATION

SPECIFICATIONS – SP314S

Model Number	SAE HSG.	Max. Input Torque Nm (lb-ft)		Maximum Safe Speed	Weight kg (lbs)
		Organic	Sintered		
SP314S	1	3297 (2430)	4125 (3040)	3000	261 (575)

LOAD CLASSIFICATIONS BASED UPON AGMA LOAD CHARACTERISTICS

PRIME MOVER	DURATION OF SERVICE	DRIVEN MACHINE LOAD CLASSIFICATIONS		
		UNIFORM	MODERATE SHOCK	HEAVY SHOCK
Electric motor	Up to 3 hours per day 3-10 hours per day Over 10 hours per day	1.00 1.00 1.25	1.25 1.25 1.50	1.50 1.75 2.00
Multi-cylinder internal combustion engine	Up to 3 hours per day 3-10 hours per day Over 10 hours per day	1.00 1.25 1.50	1.25 1.50 1.75	1.75 2.00 2.25
Multi-cylinder internal combustion engine with high torque rise	Up to 3 hours per day 3-10 hours per day Over 10 hours per day	1.50 1.75 2.00	1.75 2.00 2.25	2.25 2.50 2.75
Single cylinder internal combustion engine	Up to 3 hours per day 3-10 hours per day Over 10 hours per day	1.25 1.50 1.75	1.50 1.75 2.00	2.00 2.25 2.50

All clutch engagements to be with prime mover below 1000 RPM. High inertia loads may require use of larger clutch. Contact Twin Disc application engineering department for assistance.

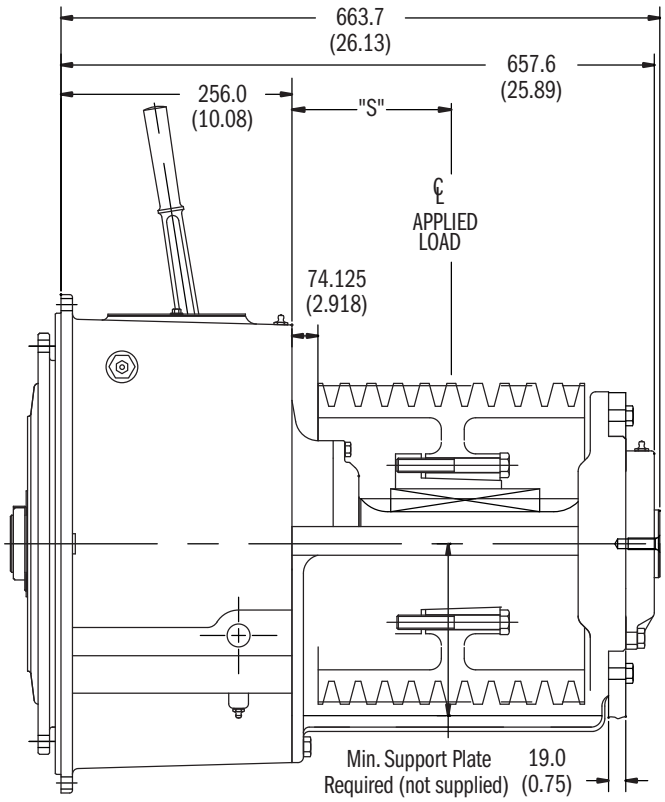
TO CALCULATE APPLICATION TORQUE:

$$\frac{5252 \times HP}{\text{Engine RPM}} = \text{Torque}$$

Torque x Load Factor = Application Torque

Use load factor from chart at left

SP314S



Dimensions are in mm (inches)

STANDARD AND STRETCH SIDE LOAD CAPACITY VALUES

S DIMENSION mm (in)	2400 RPM MAX. LOAD Nm (lbs)	2100 RPM MAX. LOAD Nm (lbs)	1800 RPM MAX. LOAD Nm (lbs)	1500 RPM MAX. LOAD Nm (lbs)
127.0 (5.0)	40744 (9160)	42478 (9550)	44480 (10000)	47149 (10600)
152.4 (6.0)	45814 (10300)	47816 (10750)	50040 (11250)	52931 (11900)
177.8 (7.0)	52486 (11800)	54488 (12250)	56934 (12800)	60493 (13600)
203.2 (8.0)	56934 (12800)	59158 (13300)	61827 (13900)	65386 (14700)
228.6 (9.0)	49595 (11150)	51597 (11600)	54043 (12150)	56934 (12800)
254.0 (10.0)	44035 (9900)	45814 (10300)	47816 (10750)	50485 (11350)

The following general formula should be used for determining the actual applied load: $L = \frac{126{,}000 \times HP}{N \times D} \times F \times LF$

WHERE
- L = Actual Applied Load (lbs)
- N = Shaft Speed (RPM)
- D = Pitch Diameter (in) of Sheave, etc.
- F = Load Factor
  1.0 for Chain or Gear Drive, 1.5 for Timing Belts, 2.5 for All V Belts, 3.5 for Flat Belts
- LF = 2.1 for Reciprocating Compressors and other Severe Shock Drives and 1.8 for Large Inertia Type Drives (i.e. crushers, chippers, planers, etc.)

Compound Drives and Power Engaged Power Take-Off applications must have written factory review.

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