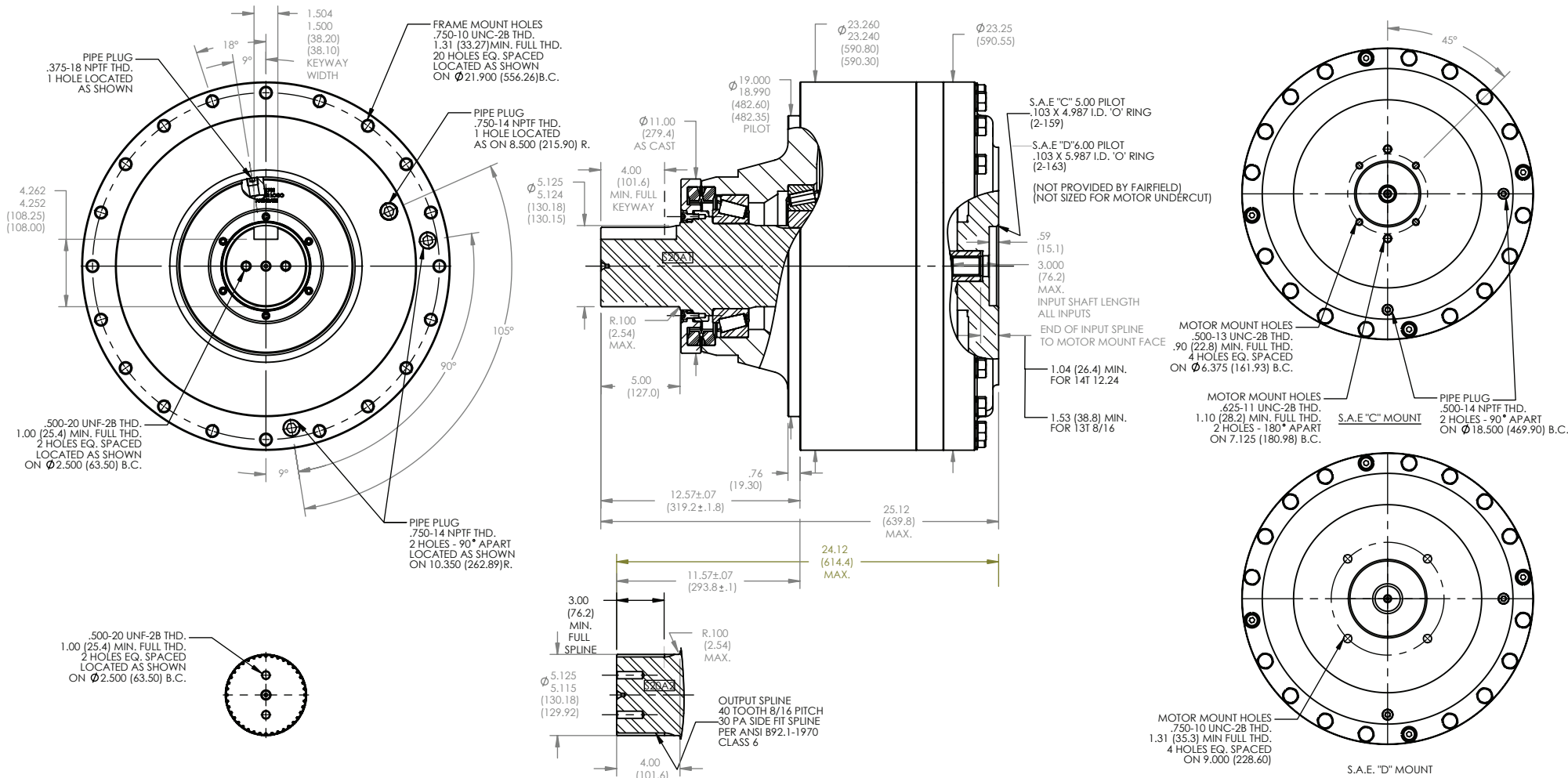


# S20A1 Application Sheet

**TORQUE-HUB**  
Planetary Final Drives



**æerlikon**  
fairfield

Catalog prints are representative of the units.  
Before final design request a certified print from Fairfield.

NOTE: MM SHOWN IN ( )  
MOTOR CAVITY DIMENSIONS VARY WITH MODEL

OTHER MODELS ALSO AVAILABLE  
FAIRFIELD BRAKE AVAILABLE

## S20A1

### Performance Data

Continuous	Intermittent	Peak
250,000 lb-in	500,000 lb-in	600,000 lb-in
20,833 lb-ft	41,667 lb-ft	50,000 lb-ft
28,245 Nm	56,490 Nm	67,800 Nm
2,880 kg-m	5,760 kg-m	6,900 kg-m

For ultimate torque and horsepower capacities, contact a Torque-Hub® representative.

### Speed Limitations

**Input Speed:** 1,500- 1,800 RPM Maximum Intermittent

(Contact Fairfield for specific speed information.)

### Weight

**Approximately** 1,350 lbs (608 kg)

Note: Specific models will change weights.

### S20A1 Model Formula

### Oil

Fill to half full with 90 weight gear lube with EP additive on most applications.

**Approximate Volume** 256 oz. (7,573 cm<sup>3</sup>)

Note: Oil level and type will vary with specific model and application.

### Conditions of Bearing Curve

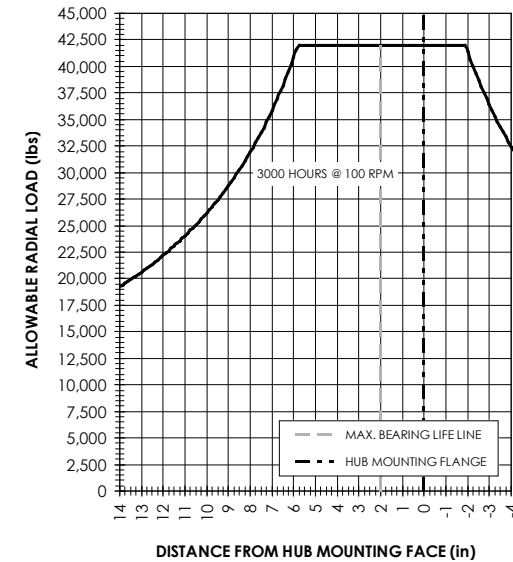
**Life** = 3,000 hours B-10

**Speed** = 100 RPM output

To adjust for loads and speeds other than shown on curve:

$$\text{Adjusted Life (hrs)} = 3,000 \left( \frac{100 \text{ RPM}}{\text{Speed (Adjusted)}} \right) \times \left( \frac{\text{Load (Curve)}}{\text{Load (Adjusted)}} \right)^{10/3}$$

### Bearing Curve



**S 20 A1 9 4 4 116**

### S – Torque-Hub® Shaft Output

#### 20 – Series

	Shaft	Hub	
	Configuration	Hub Flange Thickness	Flange B.C.
A1	5.125 Dia. 1-1/2" Keyway	No Flange	(20) 3/4-10 Holes 21.900 B.C.
A2	5.125 Dia. 40T, 8/16 Spline	No Flange	(20) 3/4-10 Holes 21.900 B.C.

#### Reduction

**27** – 27.2:1  
**37** – 37.6:1  
**54** – 54.2:1  
**62** – 62.2:1  
**86** – 86.3:1  
**116** – 116.3:1

#### Input

**4** – 14T, 12/24 Spline  
**5** – 13T, 8/16 Spline

#### Internal Gear

**4** –Reduction 27:1 & 54:1  
**5** –Reduction 37:1 & 62:1  
**9** –Reduction 86:1 & 116:1

#### Motor Mount

**4** –S.A.E. "C" (5.005/5.001) Pilot (2 & 4 Bolt)  
**5** –S.A.E. "D" (6.005/6.001) Pilot

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First in Custom Gears and Drive Systems

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