

AuburnGear
Engineered Drive Solutions



Power Wheel®

Model 70CD, 110CD, 161CD, and 160CD Drives
Compact Final Drives

260.925.3200 AuburnGear.com



Compact Final Drive
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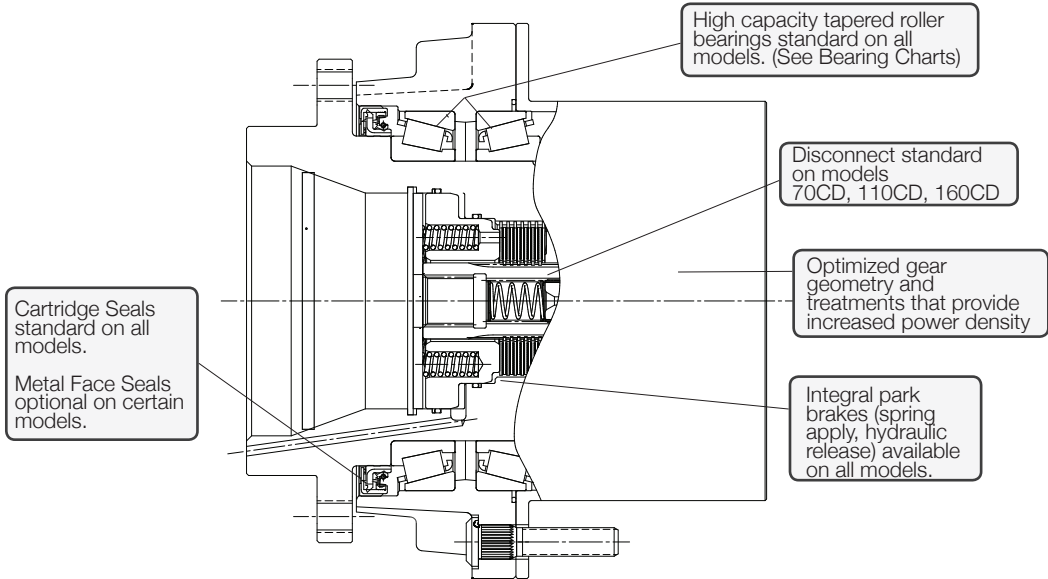
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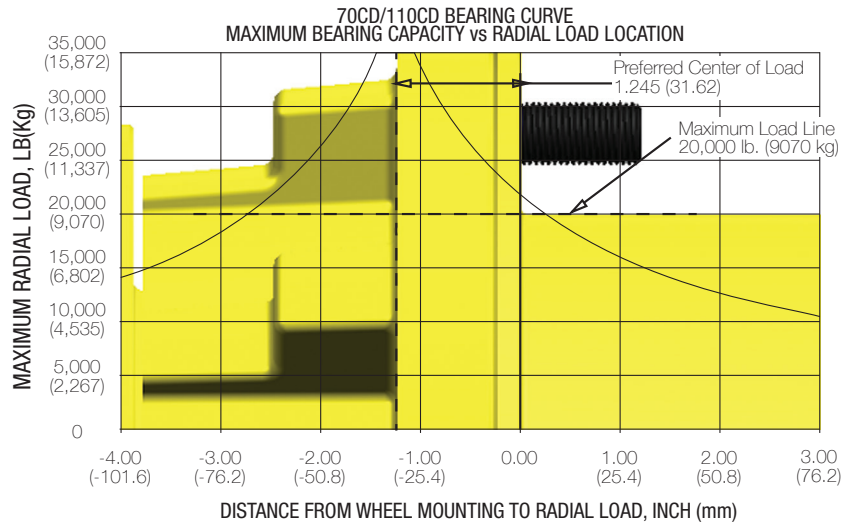
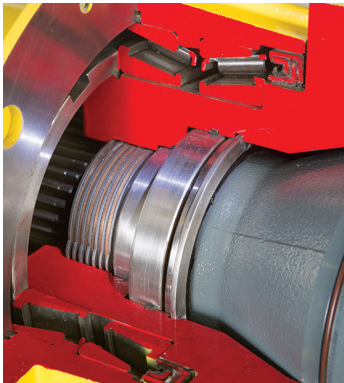
Model 160 CD
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Compact Final Drive Features

- One by-product of a plug-in style motor design is larger tapered roller bearings
- As part of the motor is buried into the spindle this forces the designer to use a larger bearing set
- Auburn Gear has taken this a step further by spreading these bearings out as well to provide more radial capacity over a larger area

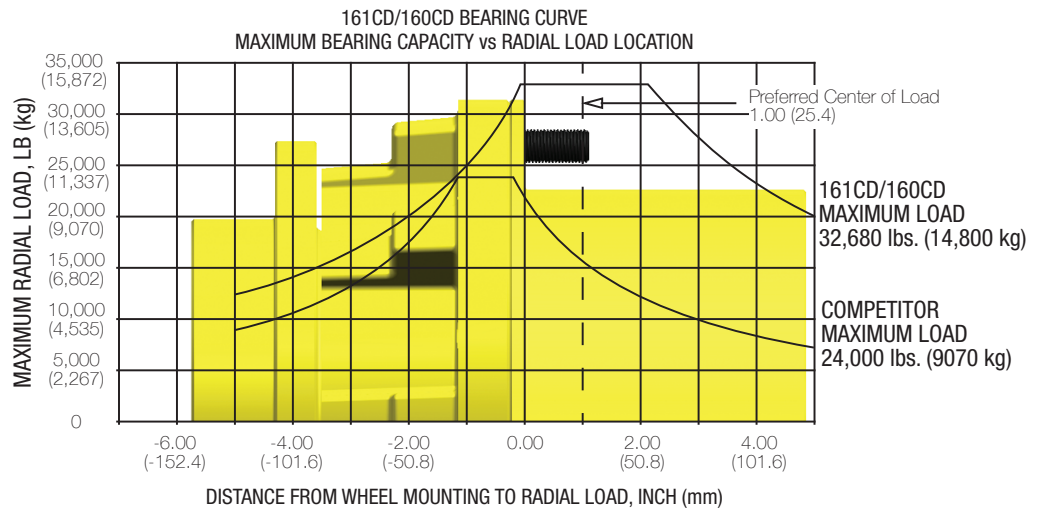


Compact Final Drive Bearing Curves



Two Advantages of 161CD/160CD vs Competition:

- 1 – Increased radial load capacity by 27%
- 2 – Increased max load range by 50%, and the max load range is in a load location customer will utilize



NOTE:

These curves are supplied as a design guide and apply to resultant radial load only. They indicate the importance of maintaining load position over the bearing center. The curves were developed based on a B10 life of 3000 hours at 100 RPM.

For actual analysis, applications should be reviewed by Auburn Gear Engineering using data supplied on Application Data Form.

Power Wheel® Model 70CD Compact Final Drive

General Specifications

Double Reduction

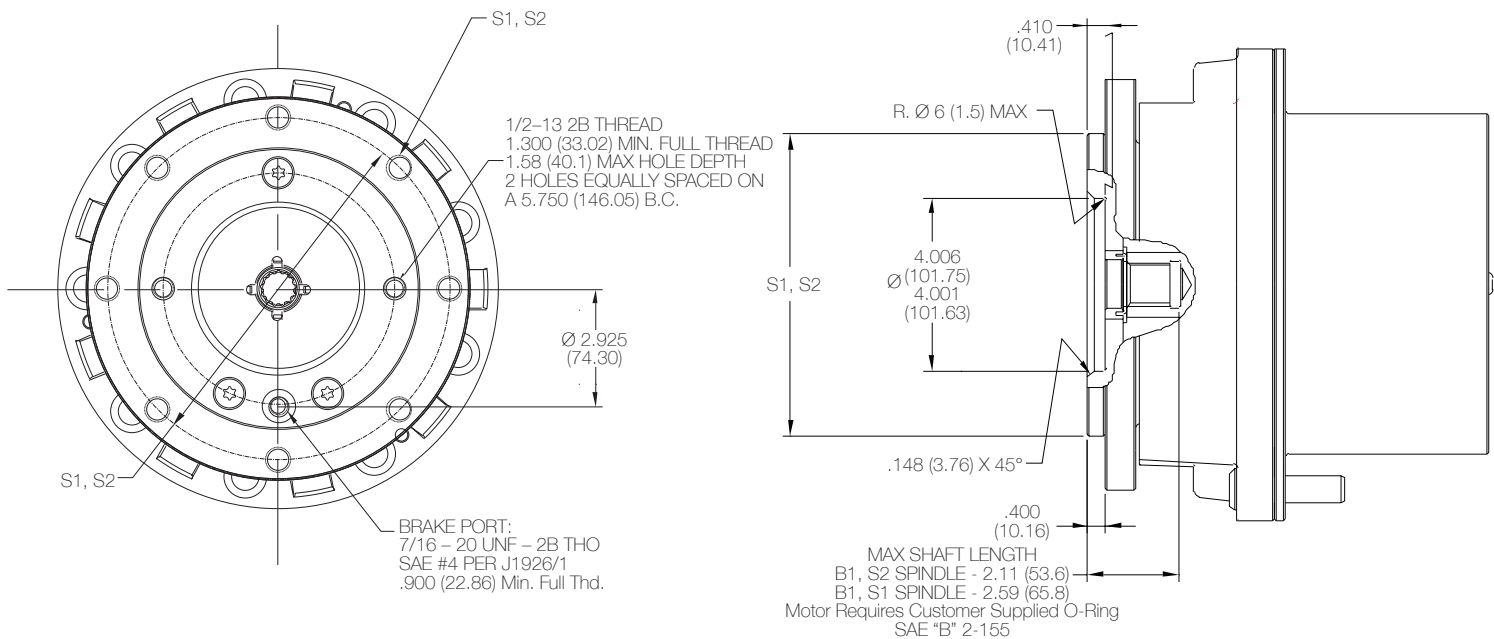
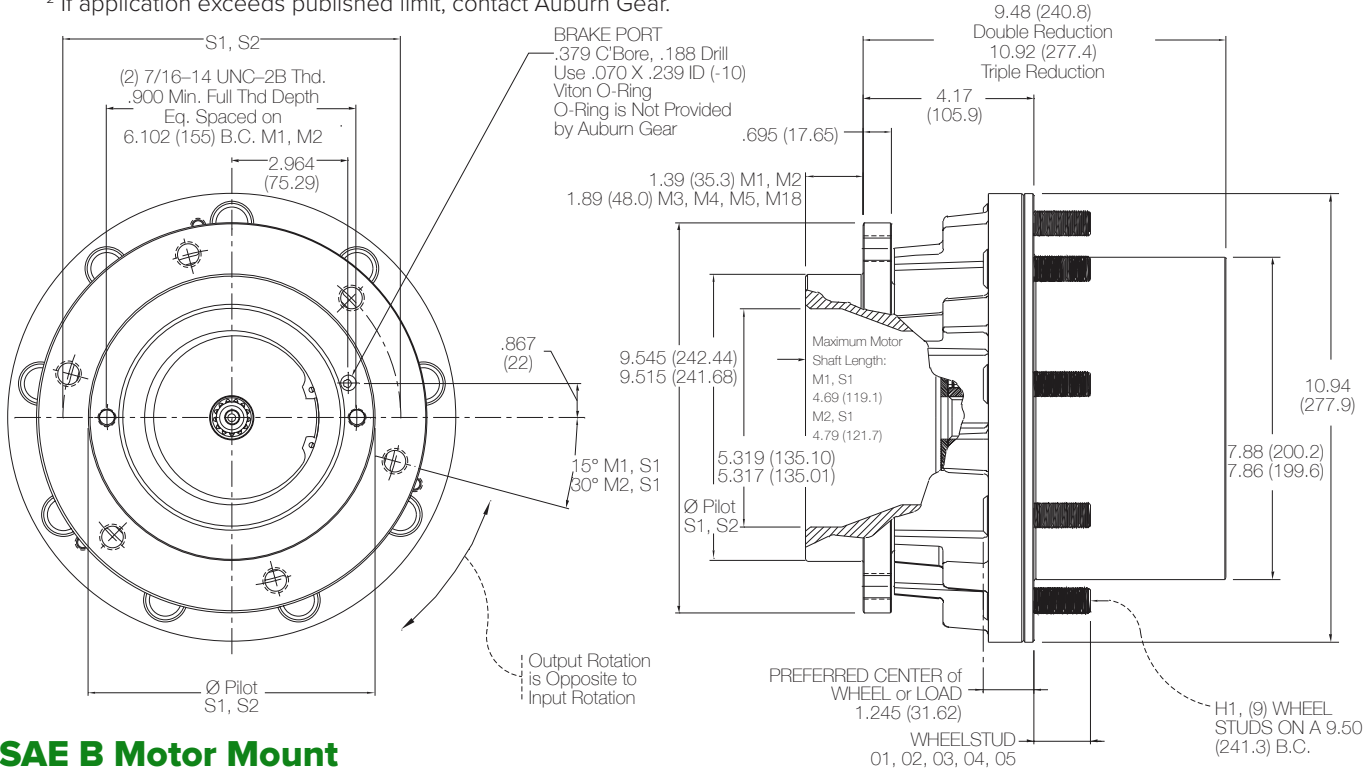
Max. intermittent output torque^{1,2}.....70,000 lb-in (7,910 Nm)
 Max. input speed²5,000 RPM
 Approximate Weight 110 lbs (50 kg)
 Oil capacity 22 oz (650 cc)
 Max. radial load: (@ pref. load center).....20,000 lbs (9100 kg)

Triple Reduction

Max. intermittent output torque^{1,2}.....70,000 lb-in (7,910 Nm)
 Max. input speed²5,000 RPM
 Approximate Weight 125 lbs (57 kg)
 Oil capacity 35 oz (1035 cc)
 Max. radial load: (@ pref. load center).....20,000 lbs (9100 kg)

¹ Depending on the duty cycle and the nature of the application, a normal continuous output torque of 1/3 to 1/2 of the maximum Intermittent should yield satisfactory Power Wheel® life. Customer testing and application analysis is strongly recommended.

² If application exceeds published limit, contact Auburn Gear.



70CD

Model Formula

Ratios	Triple Reductions
014 = 14.30:1	080 = 80.70:1
017 = 17.94:1	087 = 87.89:1
022 = 22.71:1	097 = 97.04:1
025 = 25.15:1	100 = 100.00:1
028 = 28.37:1	109 = 109.03:1
032 = 32.79:1	125 = 125.59:1
037 = 37.52:1	136 = 136.72:1
046 = 46.74:1	150 = 150.90:1
058 = 58.09:1	169 = 169.47:1
066 = 66.98:1	195 = 195.12:1
	220 = 220.57:1
	253 = 253.91:1
	276 = 276.35:1
	304 = 304.90:1
	342 = 342.28:1
	393 = 393.35:1

Wheel Studs (Size x Stud length from hub face)
 00 = None, 0.681/0.678 (17.30/17.22) thru holes
 01 = 1/2-20 UNF-2A x 1.50 (38.1)
 02 = 5/8-18 UNF-2A x 1.38 (35.1)
 03 = 9/16-18 UNF-2A x 1.70 (43.2)
 04 = M16 x 1.5-6g x 50
 05 = M18 x 1.5-6g x 45

Brakes
 N0 = No Brake
 N1 = 1,600 lb-in (180 Nm), 140 psi (9.6 Bar) release
 N2 = 2,400 lb-in (270 Nm), 180 psi (12.4 Bar) release
 N3 = 3,600 lb-in (405 Nm), 200 psi (13.8 Bar) release

Model 70CD
CW070

Hub Mount
 H1-(9) Wheel Studs on 9.50 (241.3) B.C.
 H2-(12) M14 x 2.0 threaded thru on 10.316 (262.0) B.C.

CW070 M1 H1 S1 014 01 N1 Z

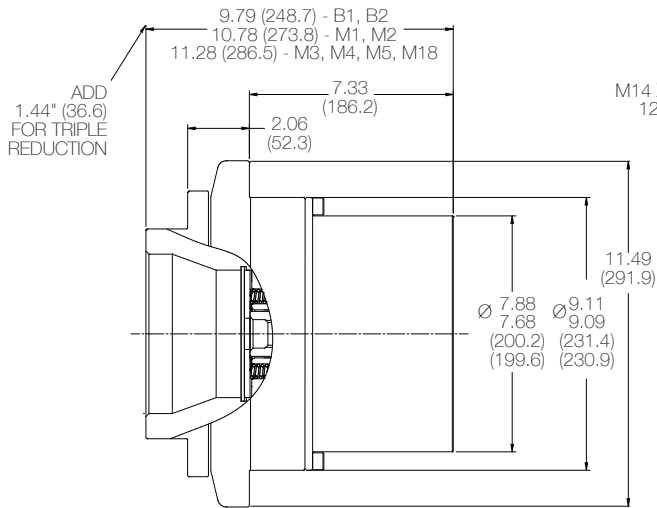
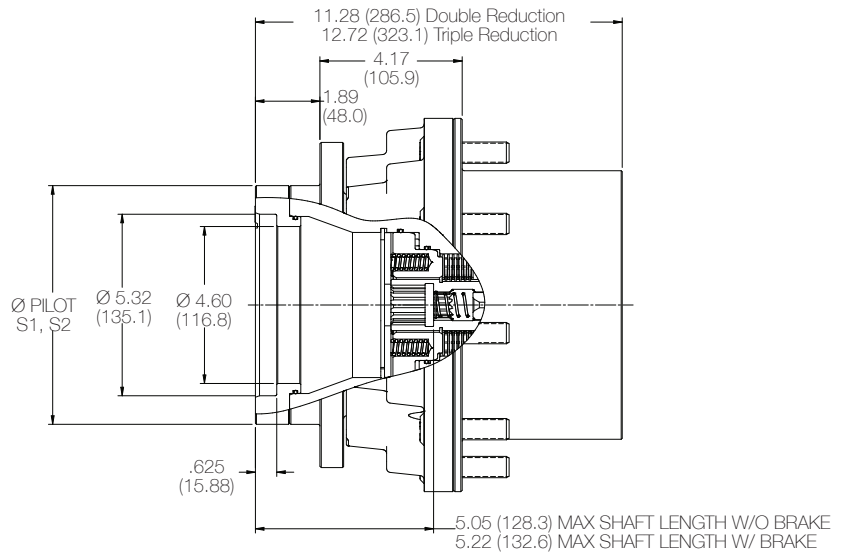
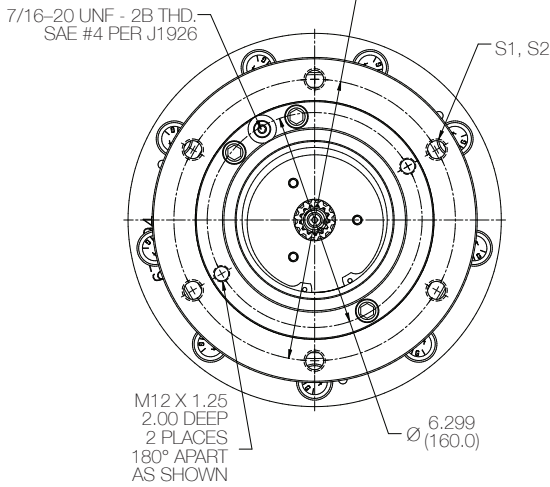
Cartridge Motor Inputs
 M1-Danfoss KC-15T Input M5-Parker F12-30
 M2-Danfoss LC-13T Input M18-Sunfab 025 & 034
 M3-Bosch A6VE (28cc) 14T, 2 Module
 M4-Bosch A2FE (28cc and 32cc)

B1-SAE B Motor Mounting, 13T
 B2-SAE B Motor Mounting, 15T

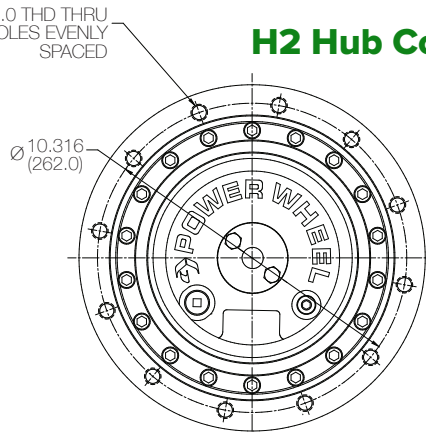
Spindle Frame Mount
 S1-(6) 5/8-11 UNC-2B on 8.25 (209.6) B.C.
 Pilot-7.000/6.995 (177.80/177.67)
 S2-(8) 5/8-11 UNC-2B on 8.50 (215.9) B.C.
 Pilot-6.895/6.865 (175.13/174.37)

Special Options
 0= None
 Z= Boot Seal
 DH= Disc Holes
 D= Assembled Rotor

M18 Motor Mount



H2 Hub Configuration



Power Wheel® Model 110CD Compact Final Drive

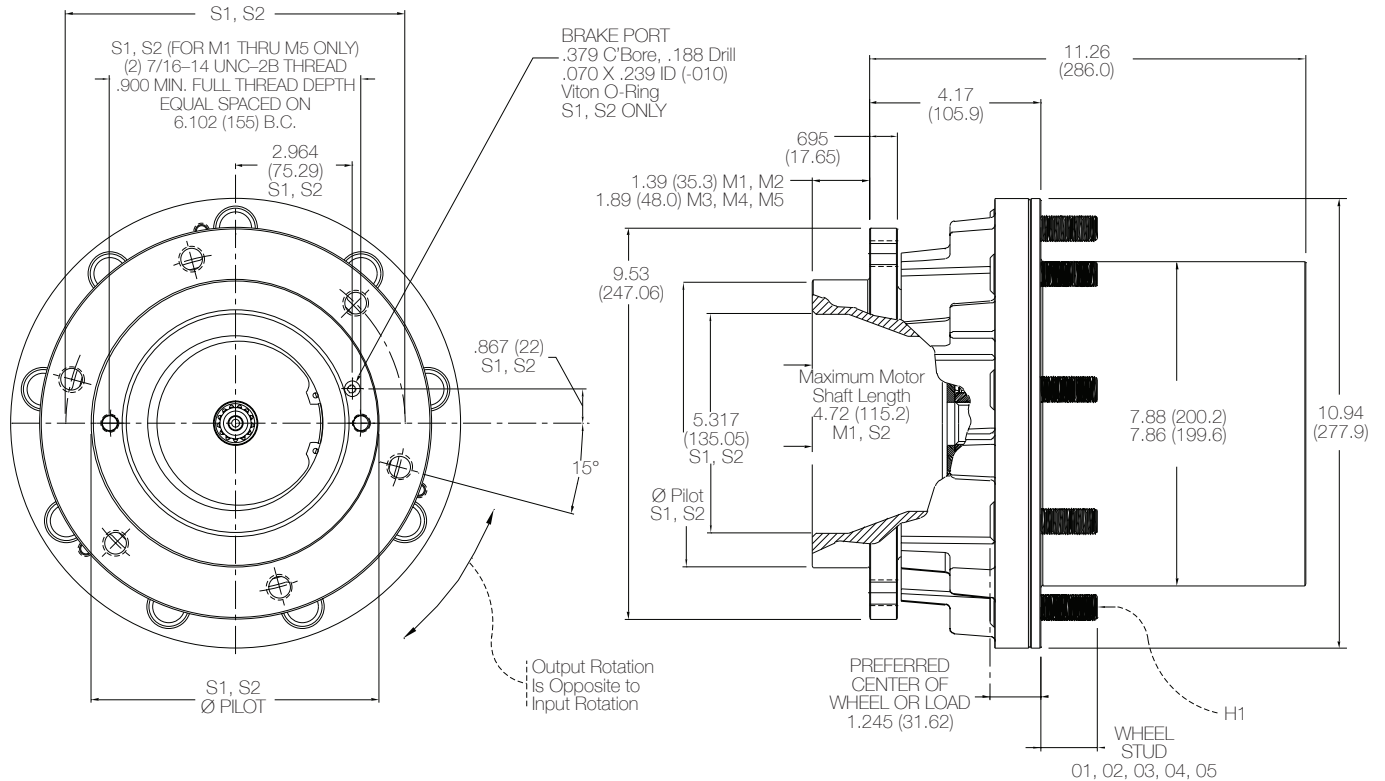
General Specifications

Max. intermittent output torque ^{1,2}110,000 lb-in (12,430 Nm)	Approximate Weight 125 lbs (57 kg)
Max. input speed ²5,000 RPM	Oil capacity 35 oz (1035 cc)
	Max. radial load:(@ pref. load center).....20,000 lbs (9100 kg)

¹ Depending on the duty cycle and the nature of the application, a normal continuous output torque of 1/3 to 1/2 of the maximum Intermittent should yield satisfactory Power Wheel® life. Customer testing and application analysis is strongly recommended.

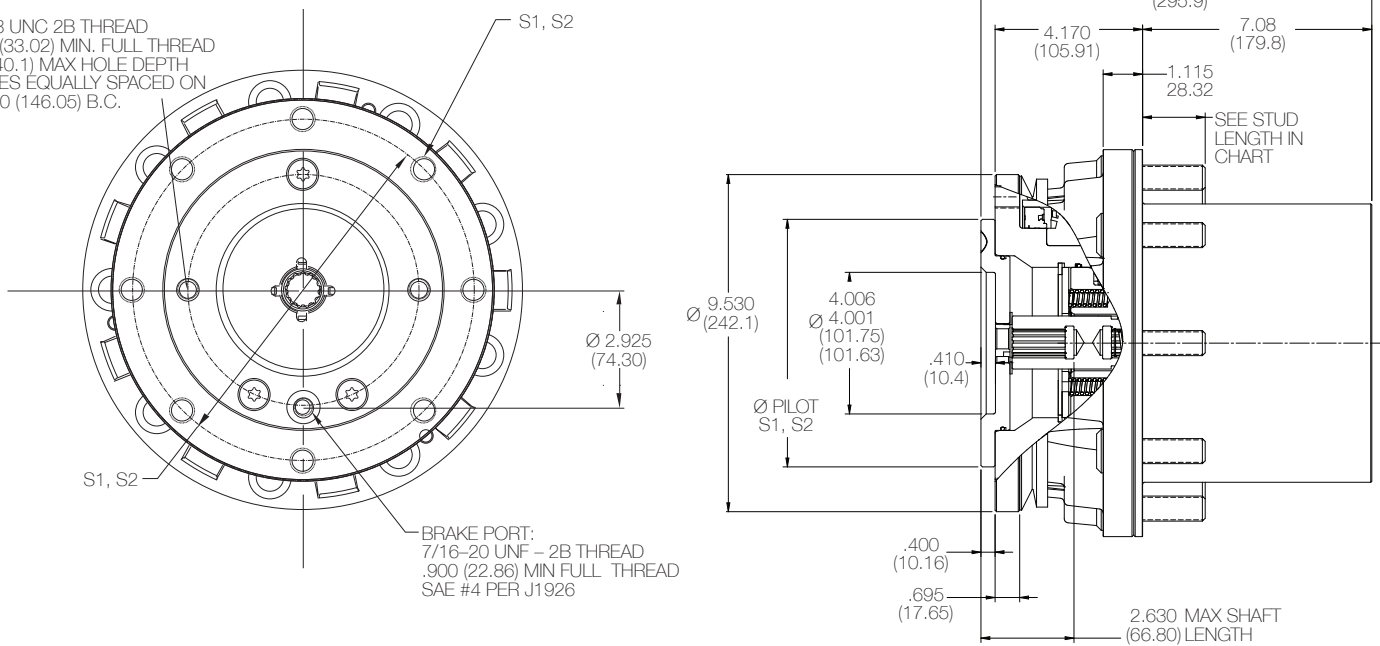
² If application exceeds published limit, contact Auburn Gear.

Small Cavity Motors - M1 thru M5



SAE B Motor Mount

1/2-13 UNC 2B THREAD
1.300 (33.02) MIN. FULL THREAD
1.58 (40.1) MAX HOLE DEPTH
2 HOLES EQUALLY SPACED ON
A 5.750 (146.05) B.C.



110CD

Model Formula

Model 110CD
CW110

Ratios
014 = 14.30:1 032 = 32.79:1
017 = 17.94:1 037 = 37.52:1
022 = 22.71:1 046 = 46.74:1
025 = 25.15:1 058 = 58.09:1
028 = 28.37:1 066 = 66.98:1

Hub Mount
H1—(9) Wheel Studs on
9.50 (241.3) B.C.
H3—(18) 5/8-11 UNC on
9.50 (241.3) B.C.

Wheel Studs
00 = None, 0.681/0.678 (17.30/17.22) thru holes
01 = 1/2-20 UNF-2A x 1.50 (38.1)
02 = 5/8-18 UNF-2A x 1.38 (35.1)
03 = 9/16-18 UNF-2A x 1.7 (43.2)
04 = M16 x 1.5-6g x 50
05 = M18 x 1.5-6g x 45

Brakes
N0 = No Brake
N1 = 1,600 lb-in (180 Nm), 140 psi (9.6 Bar) release
N2 = 2,400 lb-in (270 Nm), 180 psi (12.4 Bar) release
N3 = 3,600 lb-in (405 Nm), 200 psi (13.8 Bar) release

CW110 M1 H1 S1 014 01 N1 Z

Cartridge Motor Inputs

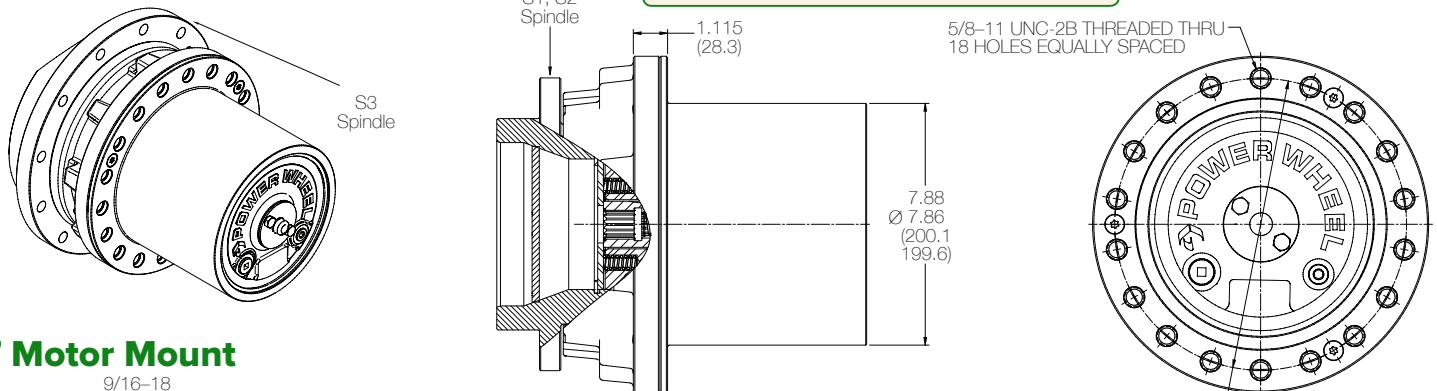
*M1—Danfoss KC-15T Input	‡M8—Danfoss 90K42
*M2—Danfoss LC-13T Input	‡M9—Danfoss 90K55
*M3—Bosch A6VE (28cc)	‡M10—Bosch A2FE45
*M4—Bosch A2FE (28cc and 32cc)	‡M11—Bosch A2FE56
*M5—Parker F12-30	‡M12—Bosch A2FE63
‡M6—Danfoss 51C060	‡M13—Bosch A10VE63 (15T)
‡M7—Danfoss H1B060, Rexroth A6VE55	‡M14—Parker/VOAC F12-40
	‡M15—Parker/VOAC F12-60
	‡M16—Parker/VOAC V12-60 (W30)

Special Options
0 = None
D = Assembled Rotor
DH = Disc Holes
Z = Boot Seal
FS = Face Seal *
*Available with Motors M6—M17 only

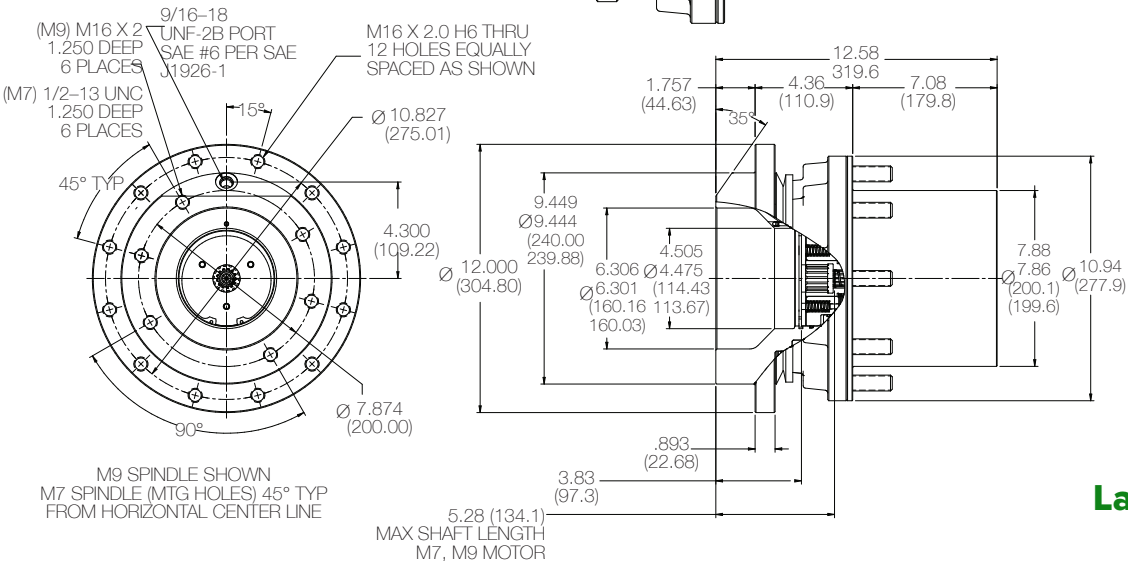
Spindle Frame Mount
S1—(6) 5/8-11 UNC-2B on 8.25 (209.55) B.C. Pilot-7.000/6.995 (177.78/177.67)
S2—(8) 5/8-11 UNC-2B on 8.50 (215.90) B.C. Pilot-6.895/6.865 (175.13/174.37)
S3—(12) M16 x 2-6H on 10.827 (275.0) B.C. Pilot-9.449/9.444 (240.00/239.88)
S4—(12) 5/8-11 UNC-2B on 8.25 (209.55) B.C. Pilot-7.000/6.995 (177.78/177.67)

*B1—SAE B Motor Mounting, 13T * Use S1 or S2 spindle
*B2—SAE B Motor Mounting, 15T ‡ Use S3 spindle

H3 Hub Configuration



M7 Motor Mount



Large Cavity Motors

Power Wheel® Model 161CD Compact Final Drive

General Specifications

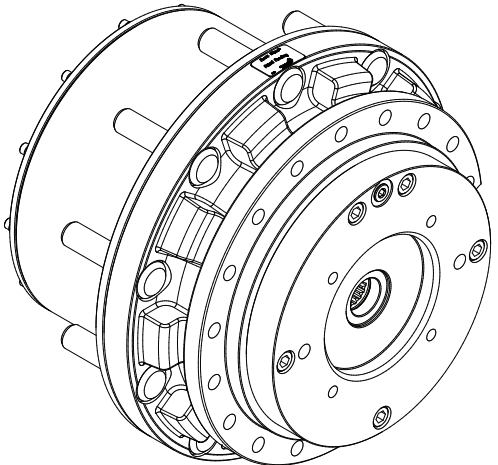
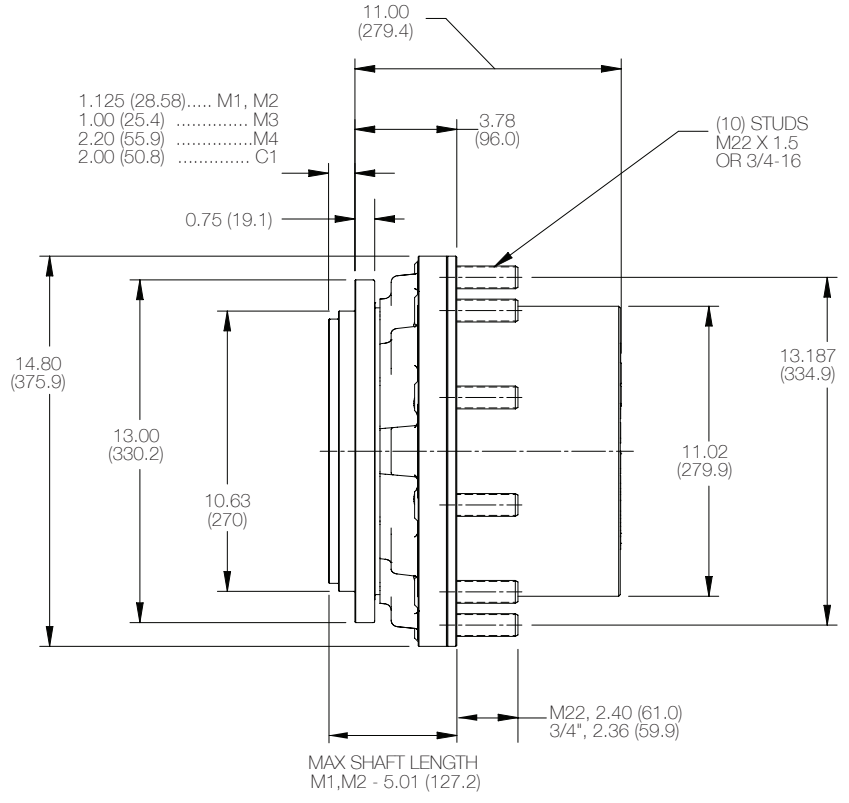
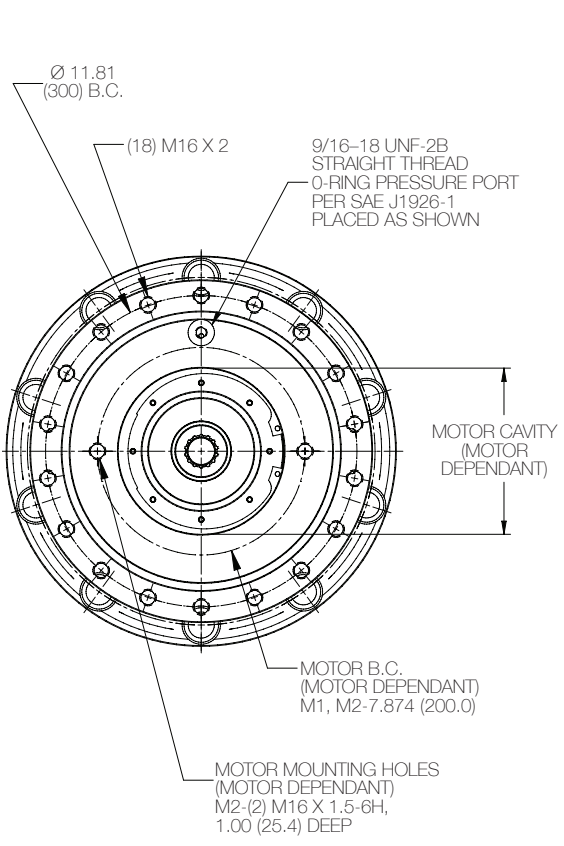
Max. intermittent output torque^{1,2}160,000 lb-in (18,000 Nm)
 Max. input speed²5,000 RPM

Approximate Weight 250 lbs (113 kg)
 Oil capacity 70 oz (2100 cc)
 Max. radial load: (@ pref. load center)32,680 lbs (14,800 kg)

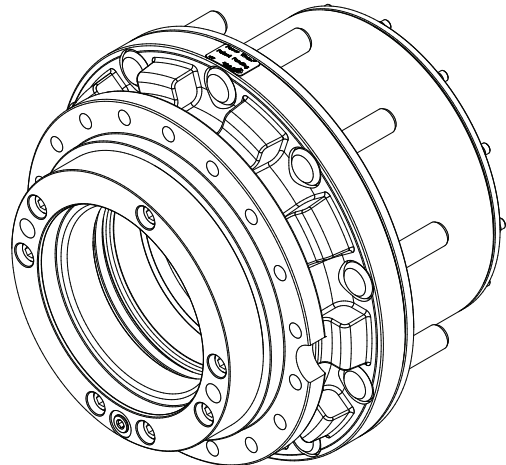
¹ Depending on the duty cycle and the nature of the application, a normal continuous output torque of 1/3 to 1/2 of the maximum Intermittent should yield satisfactory Power Wheel® life. Customer testing and application analysis is strongly recommended.

² If application exceeds published limit, contact Auburn Gear.

- M1 = DANFOSS H1 060, REXROTH A6VE 55
- M2 = DANFOSS H1 080
- M3 = DANFOSS 90 SERIES 55cc, Hydro Leduc MSI50
- M4 = BOSCH A6VE 80
- C1 = SAE C MOUNT



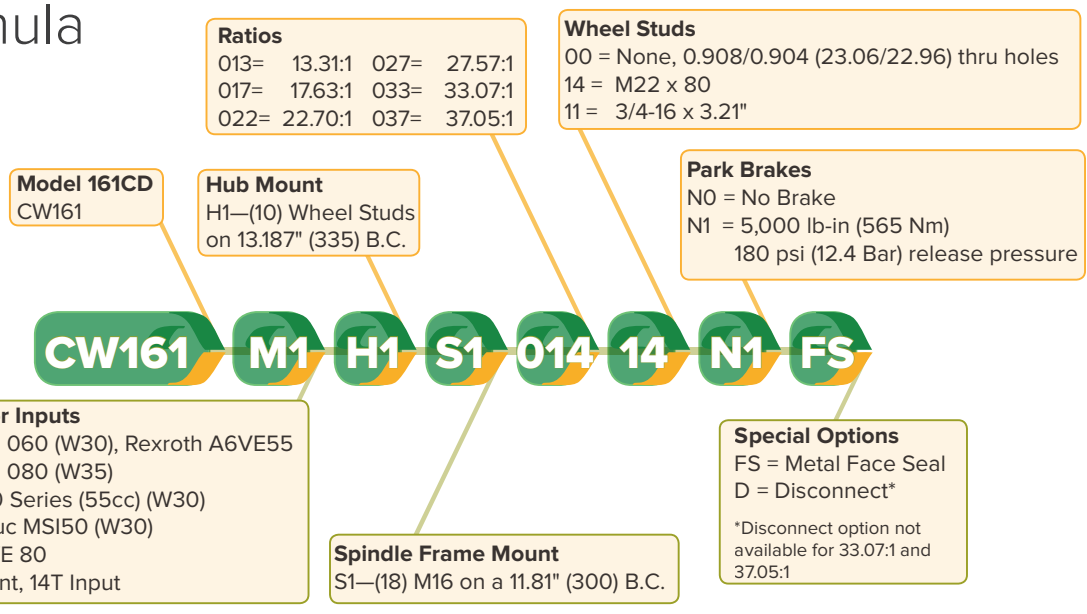
SAE C Motor Mount



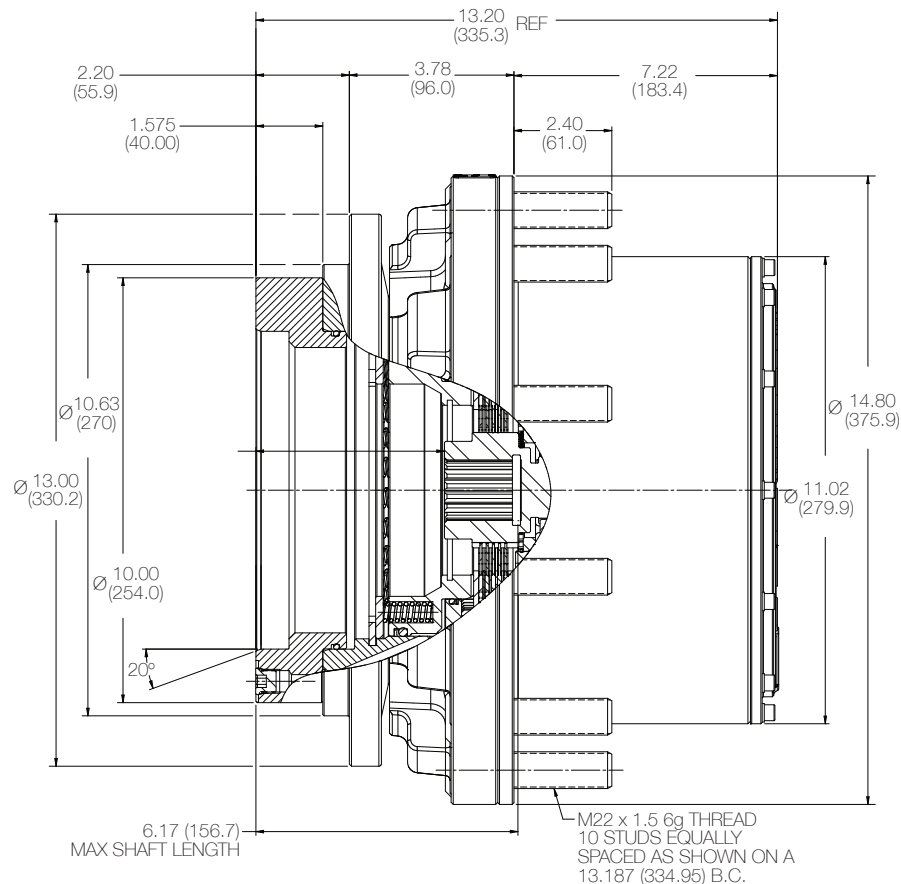
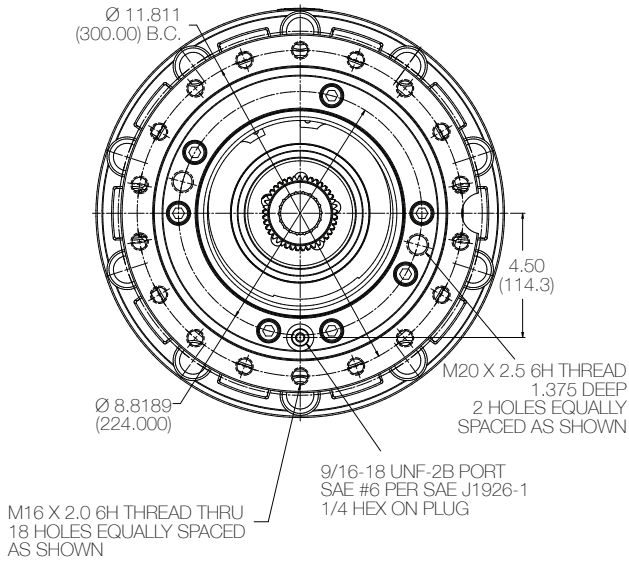
M4 Motor Mount

161CD

Model Formula



M4 Motor Mount



Power Wheel® Model 160CD Compact Final Drive

General Specifications

Double Reduction

Max. intermittent output torque^{1,2}.....160,000 lb-in (18,000 Nm)
 Max. input speed²5,000 RPM
 Approximate Weight250 lbs (113 kg)
 Oil capacity70 oz (2100 cc)
 Max. radial load: (@ pref. load center)32,680 lbs (14,800 kg)

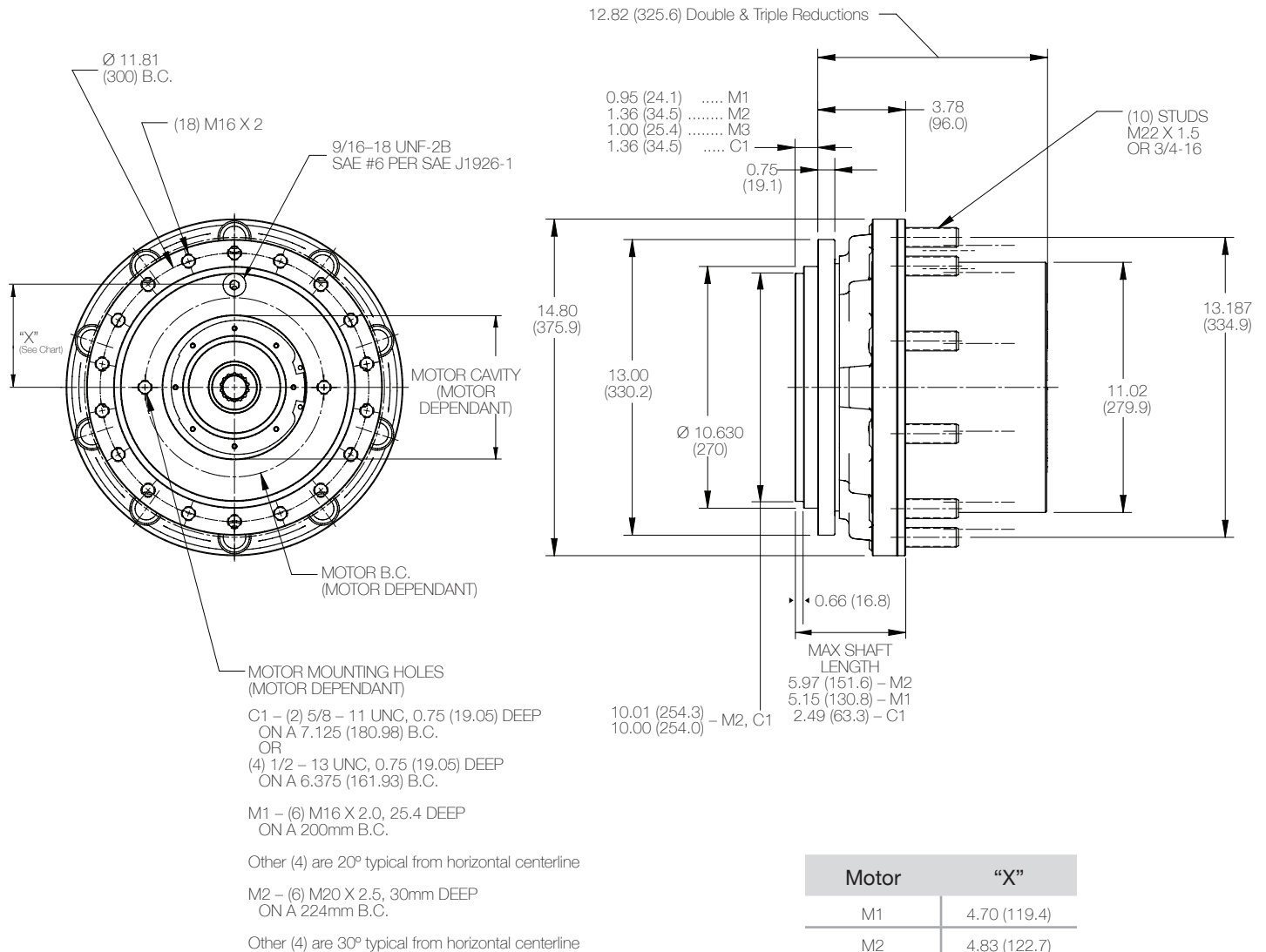
Triple Reduction

Max. intermittent output torque^{1,2}.....160,000 lb-in (18,000 Nm)
 Max. input speed²5,000 RPM
 Approximate Weight275 lbs (125 kg)
 Oil capacity80 oz (2400 cc)
 Max. radial load: (@ pref. load center)32,680 lbs (14,800 kg)

¹ Depending on the duty cycle and the nature of the application, a normal continuous output torque of 1/3 to 1/2 of the maximum Intermittent should yield satisfactory Power Wheel® life. Customer testing and application analysis is strongly recommended.

² If application exceeds published limit, contact Auburn Gear.

M1 = DANFOSS H1 060
 M2 = DANFOSS H1 080
 M3 = DANFOSS 90 SERIES 55cc, Hydro Leduc MSI50
 M4 = BOSCH A6VE 80
 C1 = SAE C MOUNT



160CD

Model Formula

Ratios
 041 = 41.88:1 094 = 94.16:1
 015 = 15.20:1 051 = 51.10:1 112 = 112.12:1
 018 = 18.51:1 060 = 60.95:1 138 = 138.35:1
 022 = 22.41:1 072 = 72.57:1 199 = 199.0:1
 027 = 27.20:1 077 = 77.32:1 239 = 239.70:1
 032 = 32.30:1 086 = 86.74:1

Wheel Studs
 00 = None, 0.908/0.904 (23.06/22.96) thru holes
 14 = M22 x 80
 11 = 3/4-16 x 3.21"

Model 160CD
 CW160

Hub Mount
 H1—(10) Wheel Studs on 13.187" (335) B.C.
 H2—(18) M16x2, 38.1 DEEP on 12.99 (330) B.C.

Park Brakes
 N0 = No Brake
 N1 = 5,000 lb-in (565 Nm)
 150 psi (10.3 Bar) release pressure

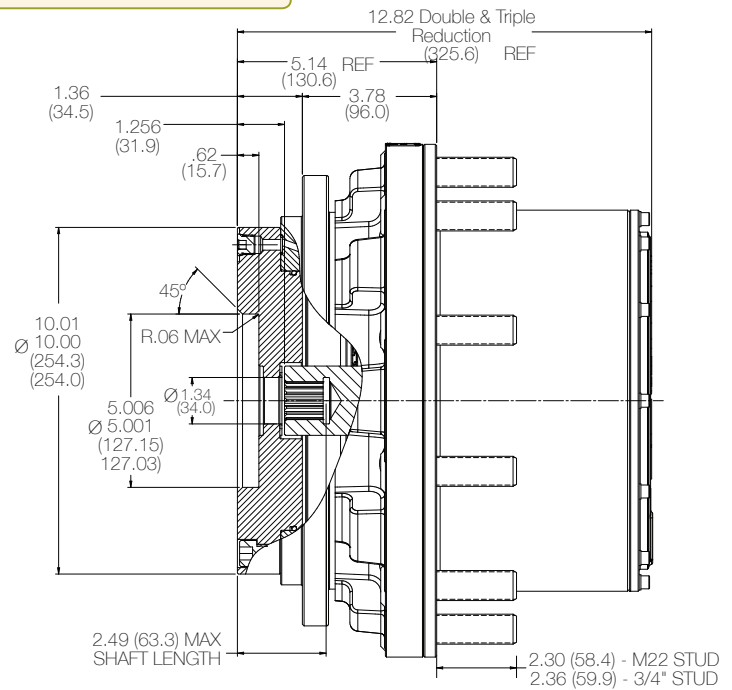
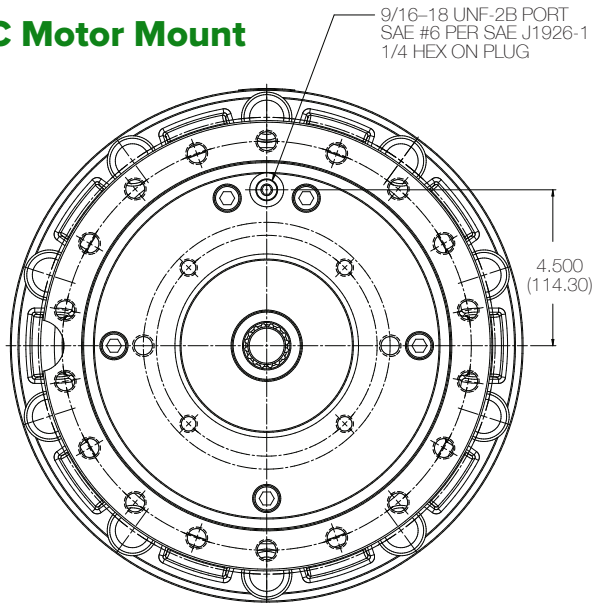
CW160 M1 H1 S1 041 14 N1 Q

Cartridge Motor Inputs
 M1—Danfoss H1 060 (W30), Rexroth A6VE 55
 M2—Danfoss H1 080 (W35)
 M3—Danfoss 90 Series (55cc) (W30)
 —Hydro Leduc MS150 (W30)
 M4—Bosch A6VE 80
 C1—SAE C Mount, 2 or 4 bolt 14T Input

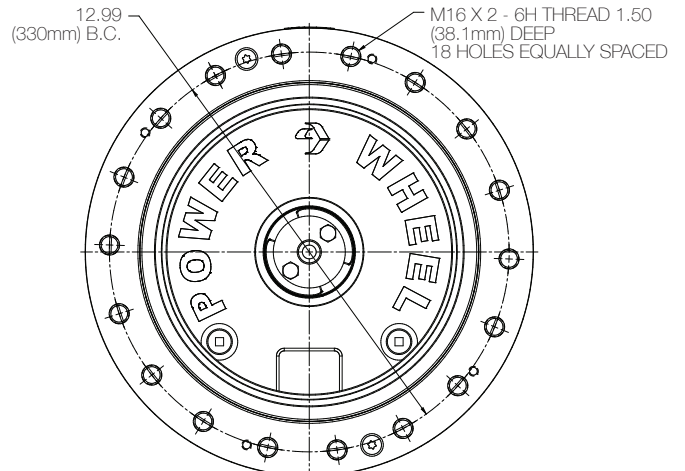
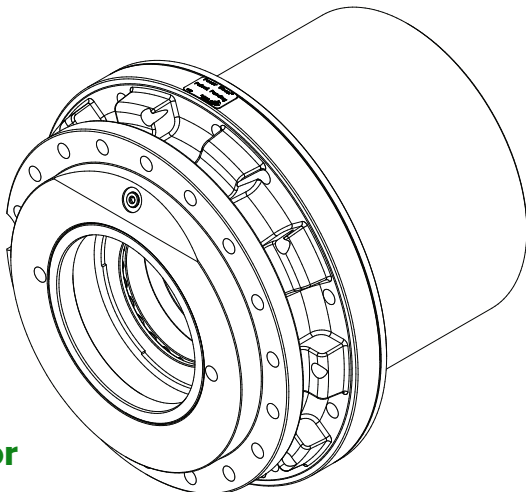
Spindle Frame Mount
 S1—(18) M16 x 2 on a 11.81" (300) B.C.

Special Options
 FS = Metal Face Seal
 Q = Quick Disconnect

SAE C Motor Mount



M1 Motor Mount



H2 Hub Configuration

Providing Technology, Quality & Customer Support Around the Globe



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