

SideDrive

OS69-120-215-210-12168

Direct-Drive Rotary Motion (DDRM)

Stainless Steel
NEMA 56C Bolt Pattern
IP69k Washdown Safe

Torque: 40Nm (29.5 ft-lbs)

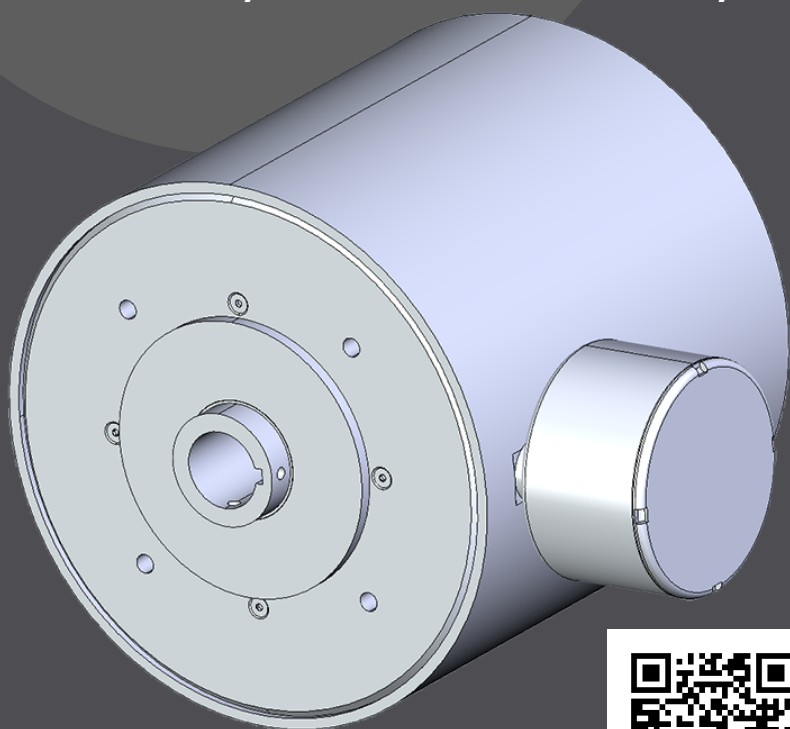
Peak: 120Nm (88.6 ft-lbs)

Speed Range: 0-300 rpm

1.25" Shaft Input Size

Built For Hygienic Washdown Applications
Highly Efficient Permanent Magnetic Arrays
Synchronous Motion Control

Backed by a 3-Year Warranty



Learn More



Designed to Replace
1HP AC Motor + Gearbox Systems
Servo Motor + Gearbox Systems

Perfect Drop-In Retrofit

- Uses existing 56C bolt mount
- Works with any VFD supporting PM motors
- 40 Nm continuous / 120 Nm peak torque
- Ideal for start / stop / timing precision
- No encoder / servo drive required

Key Benefits

- True IP69K
- 100% Oil-free
- 3-year warranty
- Proven 6 year+ service life
- Reduction in spare parts
- 56C Face Mount
- Wide speed range

Annual Savings Per Unit

- Up to 55% less energy
- Half-Ton CO₂ emission savings
- 62% less cost of ownership
(Compared to AC Motor + Gearbox)

Request a Quote

Oil-Free
Gearbox-Free
Zero Maintenance

 **ONE MOTION**

3-Year Cost Comparison

1 HP AC Motor + Gearbox vs. SideDrive

	Stainless Washdown Motor + Gearbox	One Motion SideDrive	3-year Savings with SideDrive
3 Yr. Energy Cost (@ \$0.14 /kWh)	\$1,311	\$591	\$720
Routine Maintenance (seals, bearings)	\$900	\$0	\$900
Motor Replacement (avg. 1 failure /yr)	\$5,000	\$0	\$5,000
3-Year Total Cost	\$7,211	\$591	\$6,620

Numbers based on average stainless steel AC Motor + Gearbox setups

Eliminated Contamination Risk

Average Contamination Recall Cost \$10M (FDA)

**IP69K
RATED**



**316
Stainless
Steel**

ZERO COMPROMISES

Gearbox Ratios Replaced for Speed

Inverter Rated Washdown AC Motor	Gearbox Ratio	Min Speed	Max Speed
1 HP	6:1	0 rpm	300 rpm
1 HP	15:1	0 rpm	300 rpm
1 HP	20:1	0 rpm	300 rpm
1 HP	30:1	0 rpm	300 rpm
1 HP	Above +	0 rpm	300 rpm

Gearbox Ratios Replaced for Torque

Inverter Rated Washdown AC Motor	Gearbox Ratio	AC Peak Torque Output	SideDrive Peak Torque Output
1 HP	10:1	40 Nm / 29.5 ft-lb	120 Nm / 88.5 ft-lb
1 HP	15:1	60 Nm / 44.3 ft-lb	120 Nm / 88.5 ft-lb
1 HP	20:1	80 Nm / 59.0 ft-lb	120 Nm / 88.5 ft-lb
1 HP	25:1	100 Nm / 73.8 ft-lb	120 Nm / 88.5 ft-lb
1 HP	30:1	120 Nm / 88.5 ft-lb	120 Nm / 88.5 ft-lb

Variable speed control from 0Hz - 120Hz+

Contact om.support@actionpaq.com for ratios not listed

Direct Motor Gearbox Replacement

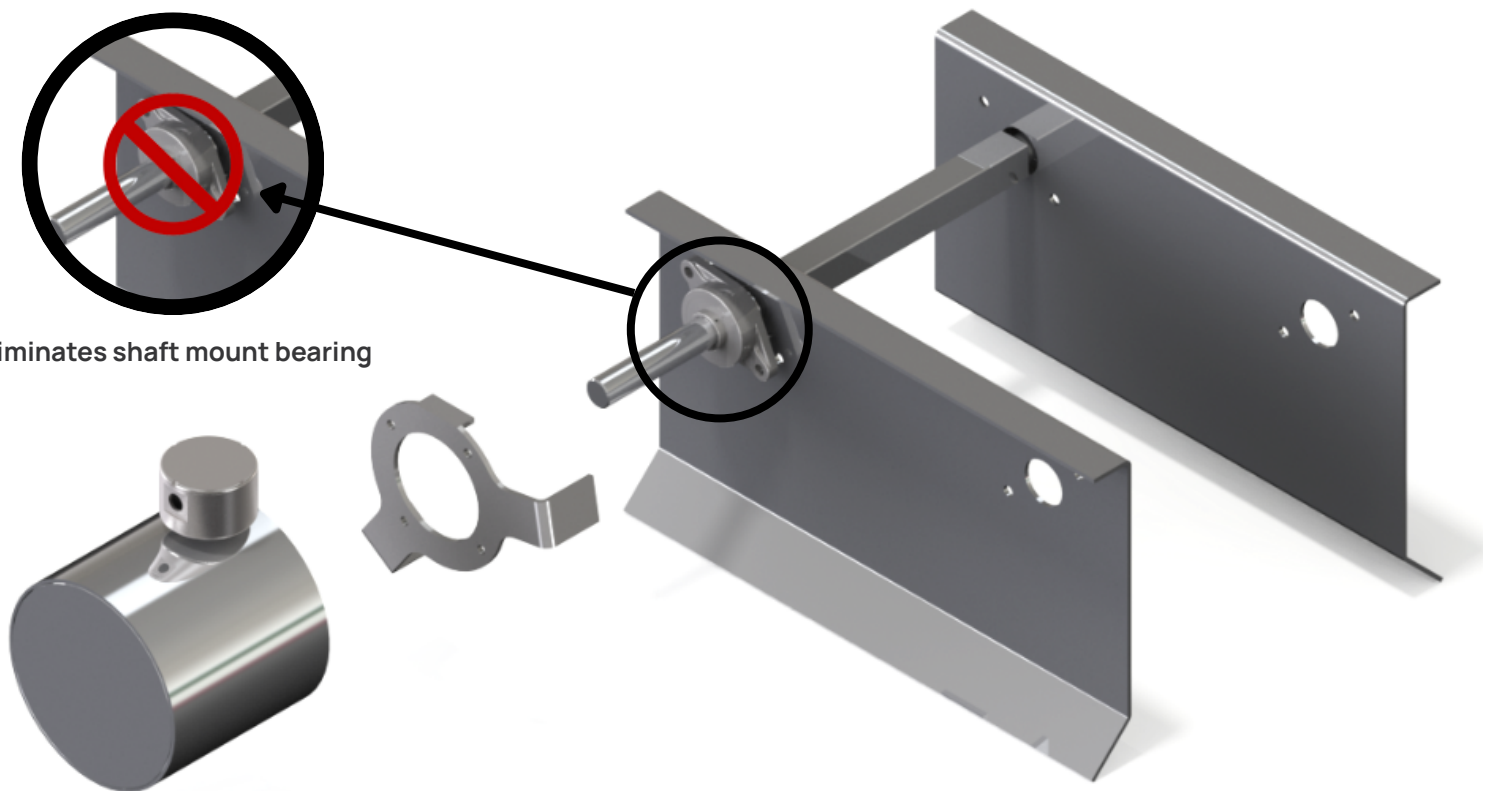
Before



After



Eliminates shaft mount bearing



Monitoring / Direct Feedback

Our technology provides direct feedback using standard output readings from a VFD.

This allows you to detect issues with your machines in real time by monitoring for increases in amperage draw.

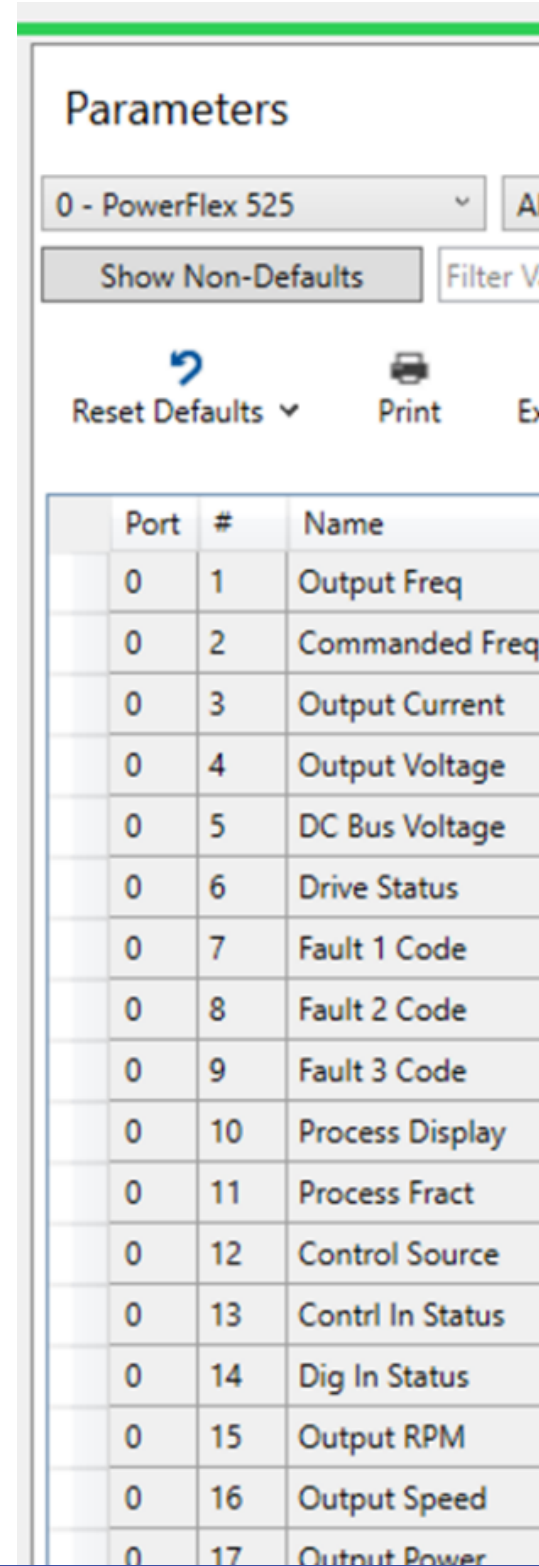
This load sensitive monitoring capability is possible due to the direct nature of the motion.

Increased amperage draw is a result of resistance in the machine. SideDrive is compatible with any permanent magnet mode capable VFD.

Protection Parameters

You can set shear pin settings on your VFD to set a healthy current threshold. This will prevent overcurrent events from causing damage to your system.

These settings can be set directly on your VFD and require no additional equipment or software.



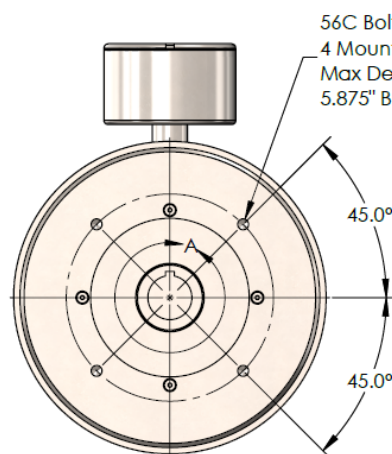
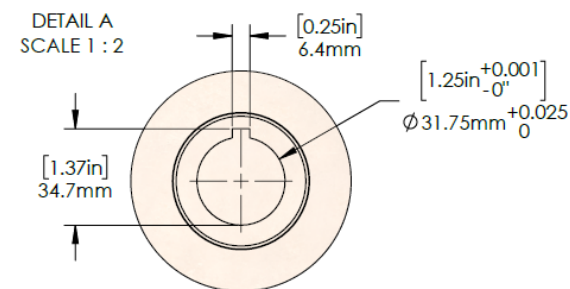
The screenshot shows the 'Parameters' section of the SideDrive software. At the top, there is a dropdown menu set to '0 - PowerFlex 525'. Below it are buttons for 'Show Non-Defaults' and 'Filter V'. Further down are icons for 'Reset Defaults' (a circular arrow) and 'Print' (a printer icon). The main part of the screenshot is a table with 17 rows of parameters. The table has three columns: 'Port', '#', and 'Name'. The parameters listed are: Output Freq, Commanded Freq, Output Current, Output Voltage, DC Bus Voltage, Drive Status, Fault 1 Code, Fault 2 Code, Fault 3 Code, Process Display, Process Fract, Control Source, Contrl In Status, Dig In Status, Output RPM, Output Speed, and Output Power.

Port	#	Name
0	1	Output Freq
0	2	Commanded Freq
0	3	Output Current
0	4	Output Voltage
0	5	DC Bus Voltage
0	6	Drive Status
0	7	Fault 1 Code
0	8	Fault 2 Code
0	9	Fault 3 Code
0	10	Process Display
0	11	Process Fract
0	12	Control Source
0	13	Contrl In Status
0	14	Dig In Status
0	15	Output RPM
0	16	Output Speed
0	17	Output Power

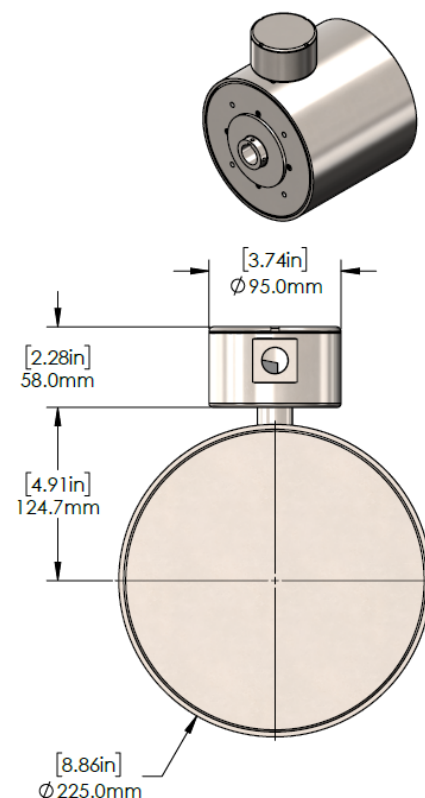
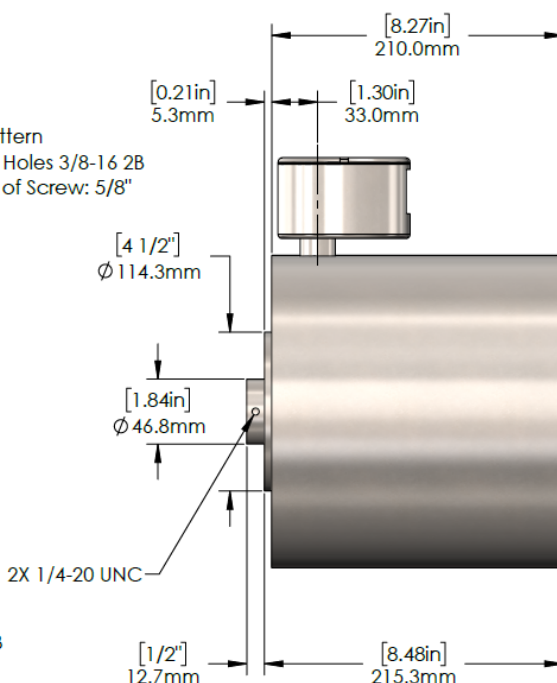
SideDrive

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DETAIL A
SCALE 1 : 2



56C Bolt Pattern
4 Mounting Holes 3/8-16 2B
Max Depth of Screw: 5/8"
5.875" BCD



Mounting Distances

56C Bolt Pattern, 4 Mounting Holes 3/8-16 2B
Maximum Depth of Screw: 5/8"
5.875" BCD

Electrical

IP69k - Junction Box, Conduit Threads: 1/2" NPT
36N/40P, G3.1.2.55

Face

C Face Mounted / Hollow Core

IP Rating

IP69k

UNLESS OTHERWISE SPECIFIED:	
DIMENSIONS ARE IN mm	
TOLERANCES:	
0-6:	±0.1
>6-30:	±0.2
>30-120:	±0.3
>120-400:	±0.4
>400-1000:	±0.5
MATERIAL	SS 316
FINISH	N/A
DO NOT SCALE DRAWING	

PART NO. OS69-120-215-210-12168

TITLE:

Powered Shaft, IP69k, 120Nm (88.6 ft/lbs), Single Core:
100mm (3.94"), 36N/40P, G3.1.2.55, 215mm (8.5"), 210mm
(8.3"), C Face Mounted / Hollow Core, IP69k-Junction Box,
Conduit Threads: 1/2 NPT, Bolt Mount, Mounting Distance:
0mm (0") Offset #1: 5.3mm (0.21") | Offset #2: 0mm (0")

SIZE

A

ONE MOTION

SCALE: 1:4 Weight(kg): 48.85 SHEET 1 OF 1

Peak Torque: 120Nm (88.6 ft/lbs)

Torque: 40Nm (29.5 ft/lbs)

Belt Pull: N/A

Synchronous Speed: 180 RPM

IP Rating: 69

- Power: 0.75 / 2.26 / 0.45 kw
- Current: 2.93 / 8.79 amps
- Averages: 98.66 Nm / 45.47 RPM / 7.34 amps v
- BEMF @ 60hz: 229.5 V
- Name Plate Volts: 460 v

ONE MOTION

VFD Requirements:

One Motion permanent magnet synchronous motors can operate with a wide range of VFD ratings and voltages, from 110V - 1P to 460V - 3P.

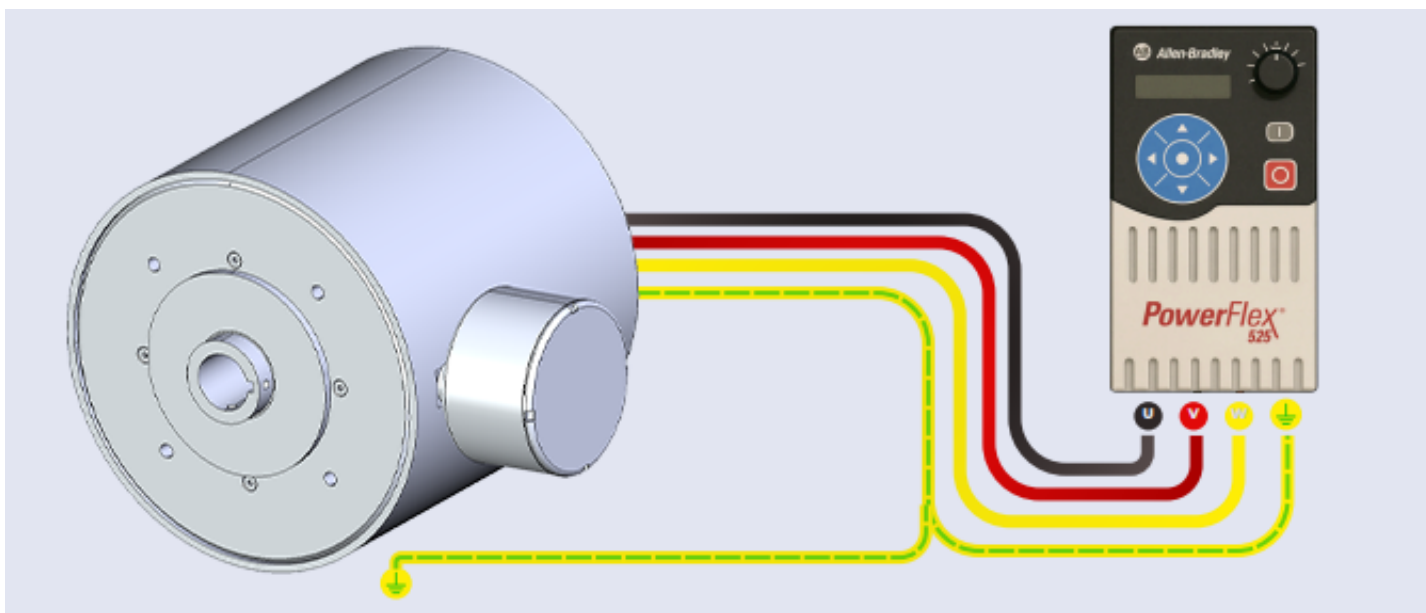
***We recommend the AB525-460V-3HP or comparable for most applications.**

Wire Type:

We recommend a shielded 4-conductor VFD cable rated for up to 600 V.

Specifications:

One Motion is a permanent magnet synchronous motor; it always requires a VFD with a PM mode or sensorless vector control.



Caution : Connecting to main power without a VFD will cause severe damage and void the warranty .

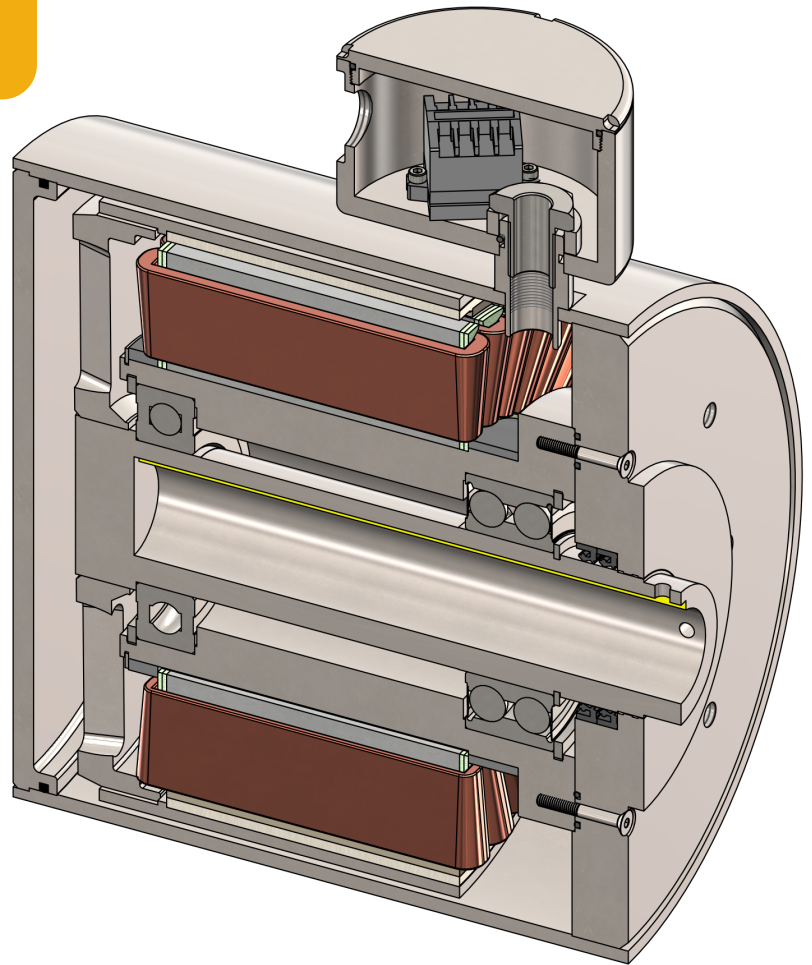
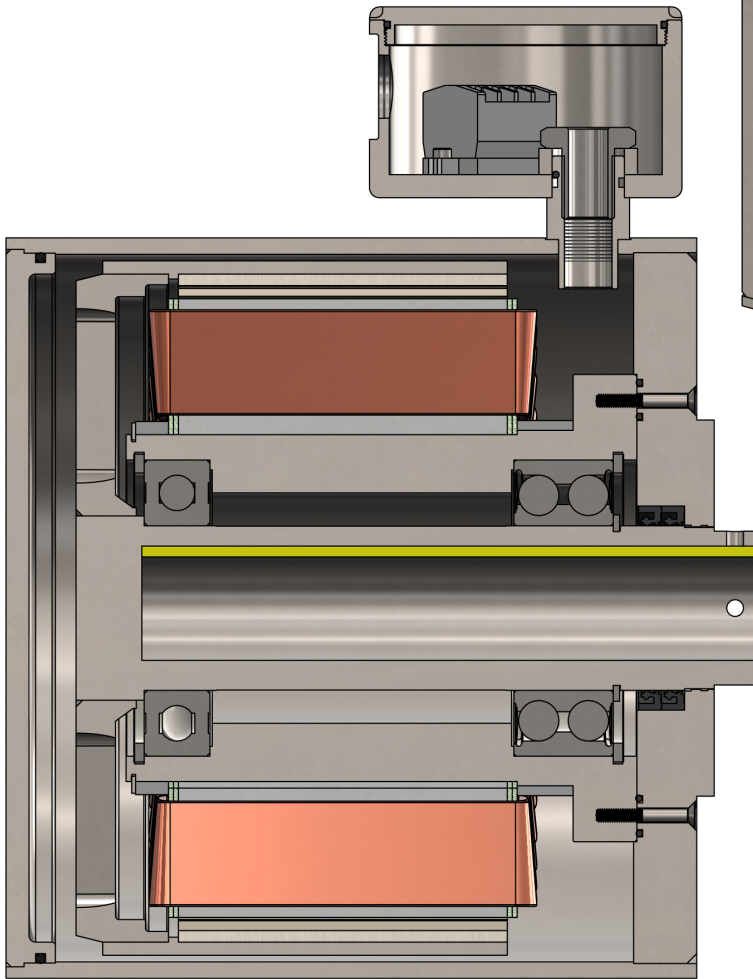
SideDrive

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Outrunner Design

Oil-Free / Gear-Free / Zero Maintenance

Direct-Drive Rotary Motion (DDRM)



Fully Sealed IP69k
316 Stainless Steel Shell
NEMA 56C Bolt Pattern

No contamination risk due to oil leakage.

No maintenance required.