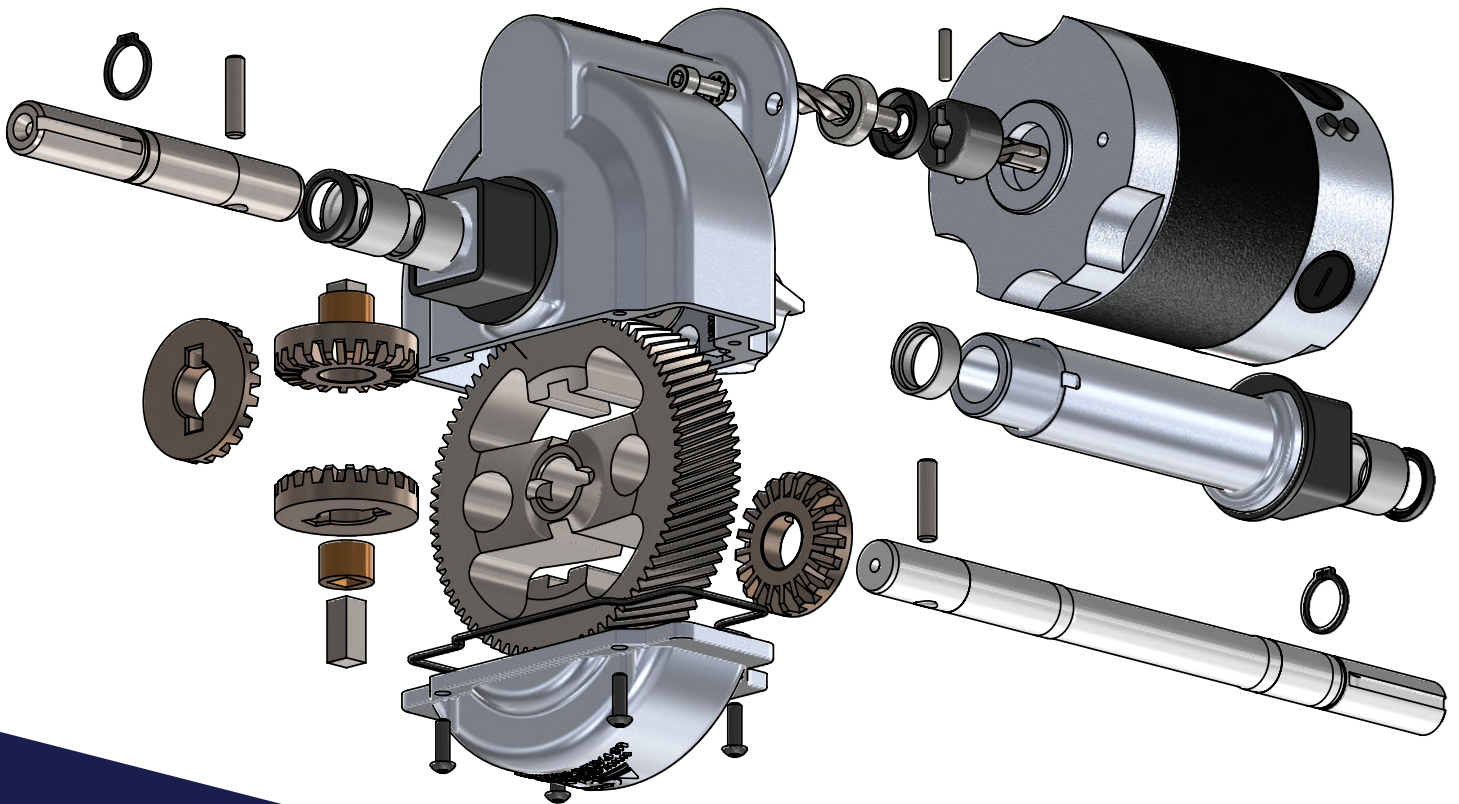




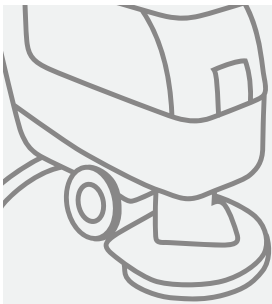
# PRODUCT CATALOG



GEAR DRIVES FOR BATTERY POWERED MACHINES

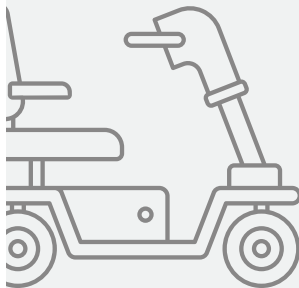
# ACHIEVING PEAK PERFORMANCE IN MULTIPLE INDUSTRIES

With over 38 years of experience, our team has developed the expertise to deliver excellence to our customers time and time again. Specifically, we excel in these six industries:



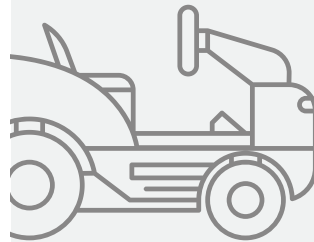
## FLOOR CARE

High efficiency drives tailored for low noise and high torque



## MEDICAL MOBILITY

Powerful solutions for personal scooters, hospital beds, electric wheelchairs, and other mobile equipment



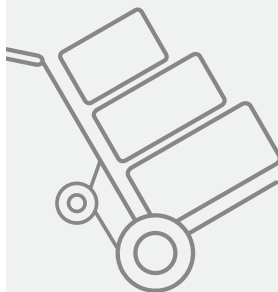
## OUTDOOR POWER EQUIPMENT

Transaxles and wheel drives suited to precision farming robots, powered wheelbarrows, and more



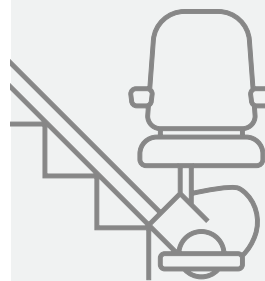
## MOBILE ROBOTS AND AGVS

Custom engineered gear drives for both steering and non-steering applications



## MATERIAL HANDLING

Ideal products for applications used in manufacturing, warehousing, and distribution



## STAIR LIFTS

Flexible options with various output gears for both straight and curved stair lifts

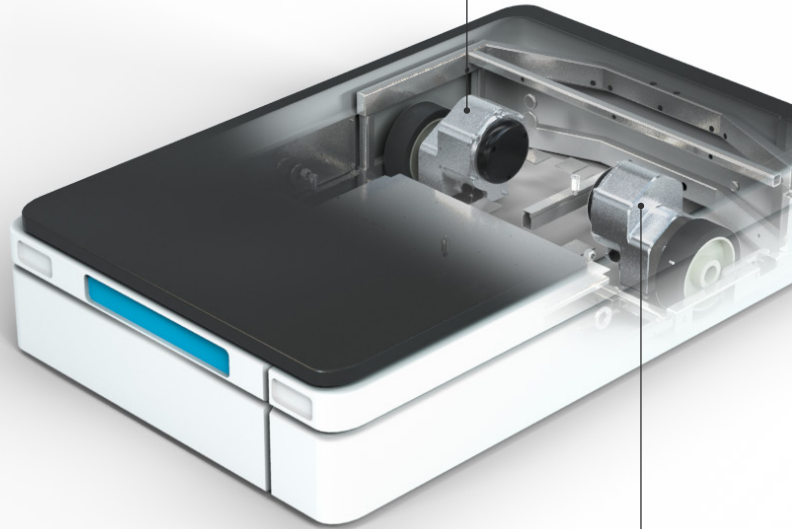
# GUIDED BY INNOVATION. DRIVEN TO PERFECTION.

And fully invested  
in your success.

For over 38 years, ASI has designed, engineered and manufactured complex wheel drive systems and transaxles recognized globally for their robust construction and worry-free dependability. During that time, we've become the known and trusted partner to companies ranging from small, independent startups to large, multinational organizations. Whether off-the-shelf or fully customized, they know our products will solve their challenges quickly and cost effectively. It's why they turn to ASI first.

- The battery-powered vehicle and machine markets rely on our demonstrated commitment to engineering excellence
- Highly disciplined manufacturing processes keep costs down and quality high
- Custom projects can be taken from concept to working prototype in as few as two weeks
- We scrutinize every detail, from material selection through final computerized inspection
- We're easy to work with, committed to your satisfaction, and fully invested in your success

**Rugged, industry-leading construction  
provides years of worry-free performance**



**Compact, high-efficiency  
designs move more using less**




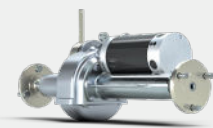

**EXPERIENCE THE DIFFERENCE OUR DEDICATION  
TO INNOVATION, QUALITY AND SERVICE MAKES.**

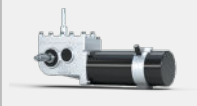





Contact us at [sales@asidrives.com](mailto:sales@asidrives.com) or (215) 661-1002  
to explore how we can quickly solve your challenges.



# LASTING SOLUTIONS TO DRIVE YOUR MACHINES.

More than industrial designers and engineers, we're a team of passionate problem solvers. Please see below for an overview of our transaxles and wheel drives, delivering reliable, highly efficient performance.

TRANSAXLES			
	Mark 400	Mark 500	Mark 600
Gross Vehicle Weight (kg)*	450	550	650
Speed (RPM)	Up to 200	Up to 165	Up to 132
Torque (Nm)*	90	175	270
Transaxles per Vehicle	1	1	1

WHEEL DRIVES						
	Lightning 200	Storm 400	Storm 500	Thunder 1500	Gemini 500	Cyclone 700
Gross Vehicle Weight (kg)*	220	400	500	1350	450	680
Speed (RPM)	Up to 135	Up to 250	Up to 180	Up to 120	Up to 200	393 ft/min
Torque (Nm)*	90	80	130	230	180	0.38 kw
Drives per Vehicle	2	2	2	2	1	1

Please contact us for a custom solution.

\*Typical Gross Vehicle Weight and typical Torque

# MARK 400

Industry-Defining Fully Enclosed Transaxle



Floor  
Care



Medical  
Mobility



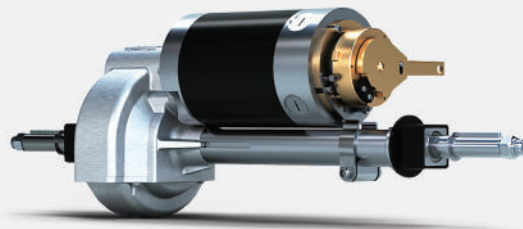
Material  
Handling



Mobile  
Robots  
& AGVs



Outdoor Power  
Equipment



## FEATURES

**Single-piece casting:** Improved gear alignment; quiet operation

**Reduction ratios:** From 13:1 to 21:1

**Fully enclosed axle:** Mounting width flexibility

**Optional components:** Electromagnetic power-off brake, connectors, brake cover, IP67 conformity

**Widths:** 9.37 in (238 mm) to 19.32 in (491 mm); custom widths available

**Motors:** Permanent magnet DC 2-pole, 3.28 in (83.2 mm) diameter, or 4-pole, 3.98 in (101 mm) diameter, brushless DC option available

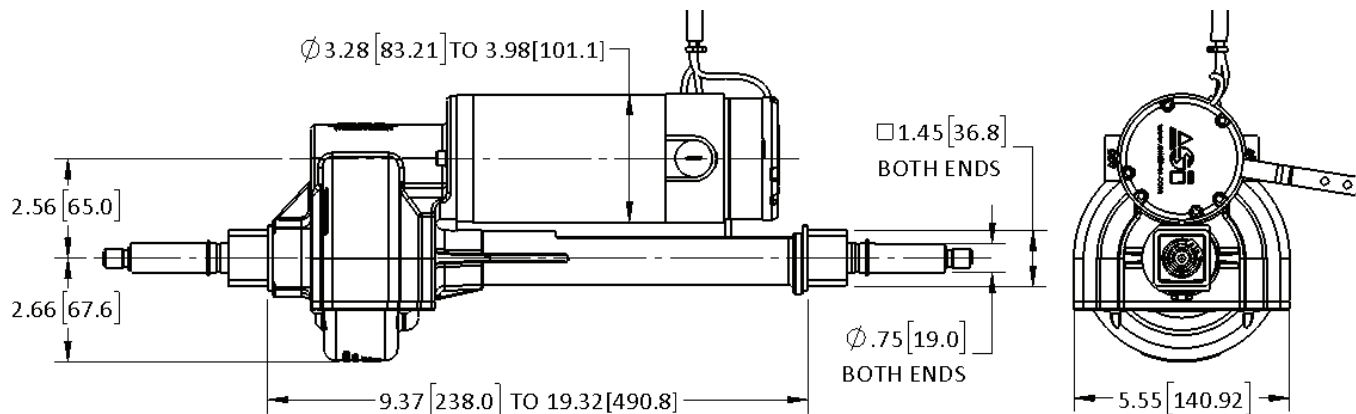
**Voltage:** 24V to 36V DC

**Axle configurations:** Custom

## PERFORMANCE EXAMPLES

High Torque (4 inch – 21:1 @ 24V)			
	No Load	Typical	High
Torque, Nm	0.00	28.35	94.49
RPM	112	95	56
Current, Amps	2.0	16.0	48.6
Power Out, Watts	0	283	554
Power In, Watts	48	383	1165
Efficiency	0%	74%	48%

High Speed (3 inch – 18:1 @ 24V)			
	No Load	Typical	High
Torque, Nm	0.00	24.84	82.80
RPM	215	183	108
Current, Amps	1.9	25.6	81.0
Power Out, Watts	0	476	933
Power In, Watts	46	615	1945
Efficiency	0%	77%	48%



# MARK 500

## Heavy Duty Single-Stage Electric Transaxle



Floor  
Care



Medical  
Mobility



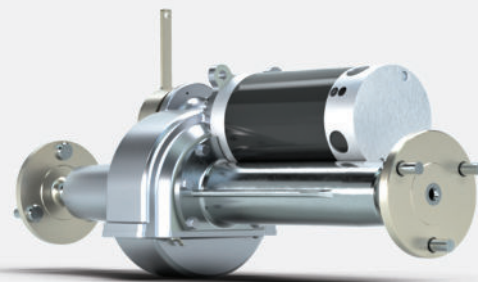
Material  
Handling



Mobile  
Robots  
& AGVs



Outdoor Power  
Equipment



## FEATURES

**Single-piece casting:** Improved gear alignment; quiet operation

**Reduction ratio:** 19.2:1

**Fully enclosed axle:** Mounting width flexibility

**Optional components:** Electromagnetic power-off brake, connectors, brake cover, IP67 conformity

**Widths:** 22.35 in (567.7 mm); custom widths available

**Motors:** Permanent magnet DC 4-pole, 3.98 in (101 mm) diameter, brushless DC option available

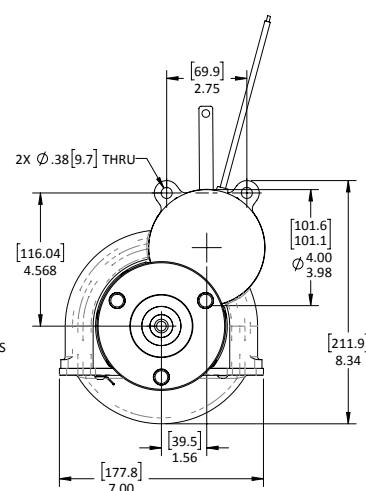
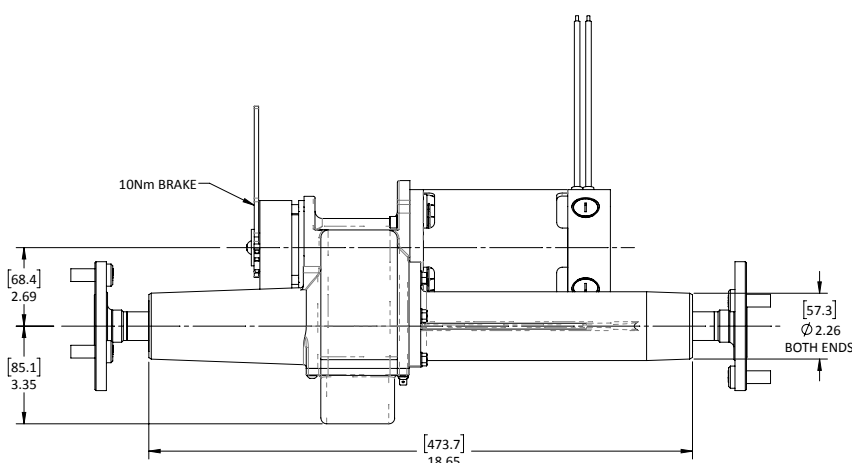
**Voltage:** 24V to 36V DC

**Axle configurations:** Hubs and custom

## PERFORMANCE EXAMPLES

PMDC Motor (19.2:1 @ 24V)			
	No Load	Typical	High
<b>Torque, Nm</b>	0.0	29.5	118.2
<b>RPM</b>	116	102	58
<b>Current, Amps</b>	3.0	17.6	61.4
<b>Power Out, Watts</b>	0.0	314.9	719.7
<b>Power In, Watts</b>	71.1	421.8	1473.9
<b>Efficiency</b>	0.0%	74.7%	48.8%

BLDC Motor (19.2:1 @ 24V)			
	No Load	Typical	High
<b>Torque, Nm</b>	0.0	40.5	162.0
<b>RPM</b>	191	167	95
<b>Current, Amps</b>	3.8	35.2	129.6
<b>Power Out, Watts</b>	0.0	707.2	1616.4
<b>Power In, Watts</b>	90.9	845.9	3110.6
<b>Efficiency</b>	0.0%	83.6%	52.0%





# MARK 600

Heavy Duty Fully Enclosed Transaxle



Material  
Handling



Outdoor Power  
Equipment



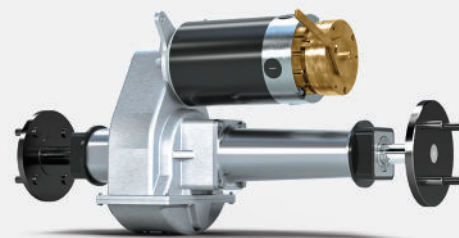
Floor  
Care



Mobile  
Robots  
& AGVs



Medical  
Mobility



## FEATURES

**Single-piece casting:** Improved gear alignment; quiet operation

**Reduction ratios:** From 11.5:1 to 36:1

**Fully enclosed axle:** Mounting width flexibility

**Optional components:** Electromagnetic power-off brake, connectors, brake cover, IP67 conformity

**Widths:** 9.35 in (237 mm) to 23.45 in (596 mm);  
custom widths available

**Motors:** Permanent magnet DC 4-pole, 4.8 in (122 mm) diameter,  
brushless DC and AC available up to 6.0 in (152 mm) diameter

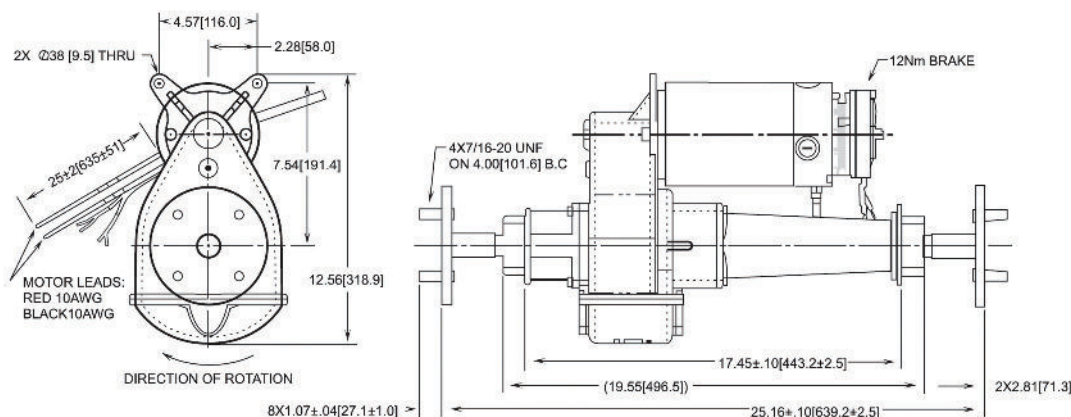
**Voltage:** 24V to 48V DC

**Axle configurations:** Hubs and custom

## PERFORMANCE EXAMPLES

High Torque (36:1 @ 36V)			
	No Load	Typical	High
Torque, Nm	0	90	270
RPM	90	80	60
Current, Amps	4.7	31.9	86.4
Power Out, Watts	0	754	1684
Power In, Watts	169	1148	3110
Efficiency	0.0%	65.7%	54.2%

High Speed (11.5:1 @ 24V)			
	No Load	Typical	High
Torque, Nm	0	16	132
RPM	283	271	155
Current, Amps	5.6	28.5	193.9
Power Out, Watts	0	451	2125
Power In, Watts	134	685	4655
Efficiency	0.0%	65.8%	45.6%



# LIGHTNING 200

Right Angle Wheel Drive



Material  
Handling



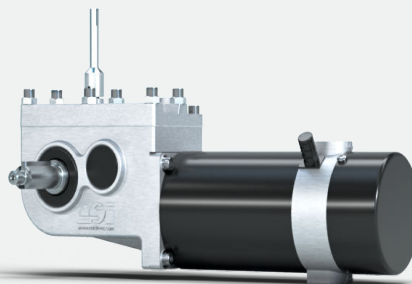
Mobile Robots  
& AGVs



Medical  
Mobility



Floor  
Care



## FEATURES

**Motors:** Permanent magnet DC 2-pole, 3.23 in (82 mm) diameter, and 4-pole, 3.98 in (101 mm) diameter, brushless DC option available

**Reduction ratio:** 32:1

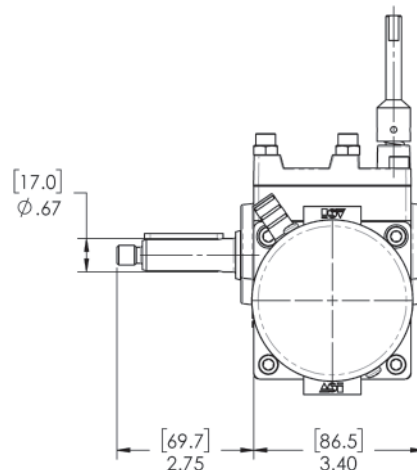
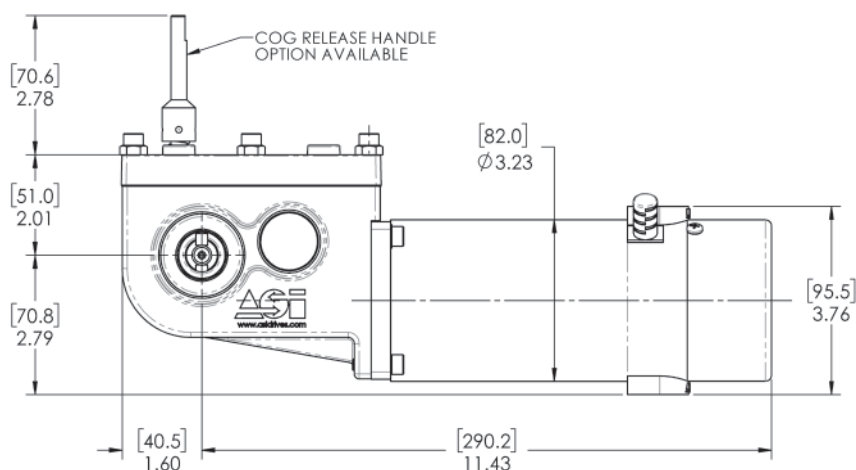
**Optional components:** Electromagnetic power-off brake, internal encoder, safety encoder, connectors, brake cover, IP67 conformity

**Encoder options available:** Digital position and motion information

## PERFORMANCE EXAMPLES

12V Option			
	No Load	Typical	High
<b>Torque, Nm</b>	0	15	45
<b>RPM</b>	64	56	33
<b>Current, Amps</b>	2.5	13.7	35.3
<b>Power Out, Watts</b>	0	88	156
<b>Power In, Watts</b>	30	164	424
<b>Efficiency</b>	0%	54%	37%

24V Option			
	No Load	Typical	High
<b>Torque, Nm</b>	0	30	90
<b>RPM</b>	135	112	65
<b>Current, Amps</b>	5.1	27.3	71.7
<b>Power Out, Watts</b>	0	352	611
<b>Power In, Watts</b>	122	655	1721
<b>Efficiency</b>	0%	54%	35%



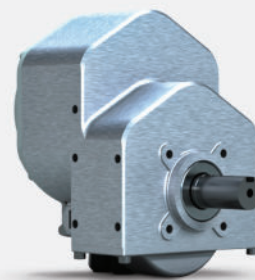


# STORM 400

Brushless Wheel Drive



Mobile  
Robots  
& AGVs



## FEATURES

**Sealed drive system:** Rugged; usable outdoors

**Optional components:** Electromagnetic power-off brake, internal encoder, safety encoder, connectors, brake cover, IP67 conformity

**Encoder options available:** Shaft and axle encoders available

**Voltage:** 24V DC

**Motor:** Brushless DC

**Lead Exit:** 3 location options and 2 directions available

**Axle Material:** Stainless steel or hardened carbon steel

**Axle Diameter:** Up to 20 mm

**Gear:** Single stage helical

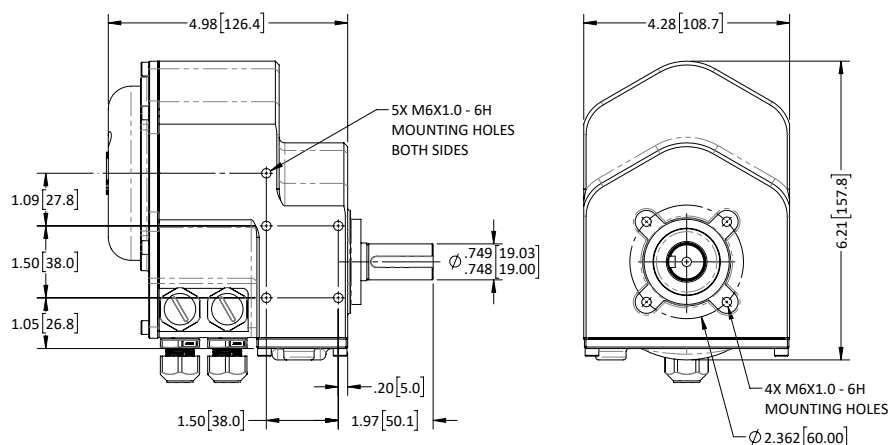
**Reduction ratio:** 12.2:1 or 25.3:1

**Brake options available:** 6 Nm, release lever

## PERFORMANCE EXAMPLES

Low Speed			
	No Load	Typical	High
<b>Torque, Nm</b>	0	24.9	95.3
<b>RPM</b>	120	104	60
<b>Current, Amps</b>	2.4	16.0	54.5
<b>Power Out, Watts</b>	0	270	596
<b>Power In, Watts</b>	58	384	1308
<b>Efficiency</b>	0%	70%	46%

High Speed			
	No Load	Typical	High
<b>Torque, Nm</b>	0	12.0	46.0
<b>RPM</b>	248	216	124
<b>Current, Amps</b>	2.4	16.0	54.5
<b>Power Out, Watts</b>	0	271	599
<b>Power In, Watts</b>	58	384	1308
<b>Efficiency</b>	0%	71%	46%



# STORM 500

Wheel Drive



Mobile  
Robots  
& AGVs



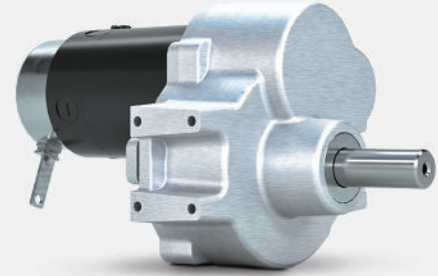
Medical  
Mobility



Material  
Handling



Outdoor Power  
Equipment



## FEATURES

**Sealed drive system:** Rugged; usable outdoors

**Optional components:** Electromagnetic power-off brake, internal encoder, safety encoder, connectors, brake cover, IP67 conformity

**Voltage:** 24V DC

**Motor:** Permanent magnet DC, brushless option

**Axle Material:** Stainless steel or hardened carbon steel

**Axle Diameter:** Up to 25 mm

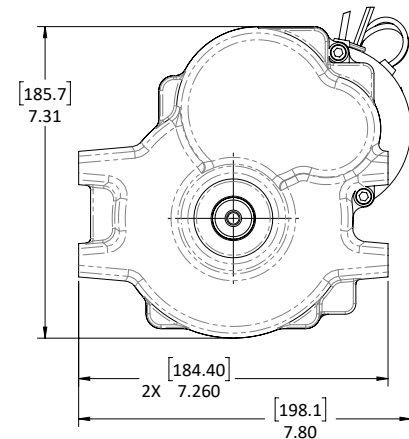
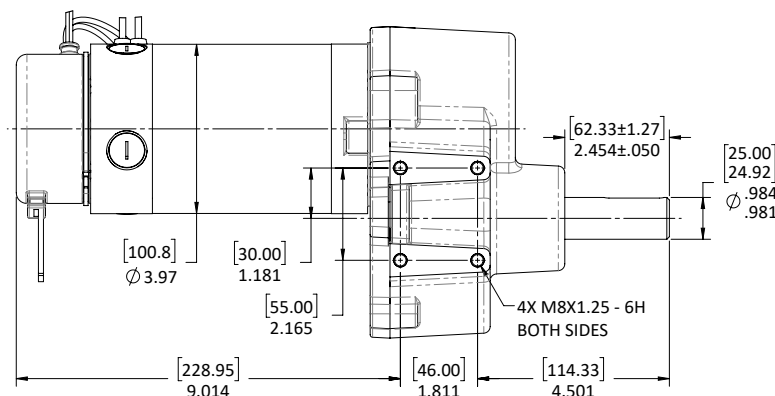
**Gear:** Two stage helical

**Reduction ratio:** 25:1

**Brake options available:** 6 Nm, release lever

## PERFORMANCE EXAMPLE

PMDC Motor (25:1 @ 24V)			
	No Load	Typical	High
<b>Torque, Nm</b>	0	26	130
<b>RPM</b>	186	167	93
<b>Current, Amps</b>	3.5	26.0	116.0
<b>Power Out, Watts</b>	0	455	1263
<b>Power In, Watts</b>	84	624	2785
<b>Efficiency</b>	0%	73%	45%



# THUNDER 1500

## Heavy Duty Dual Stage Wheel Drive



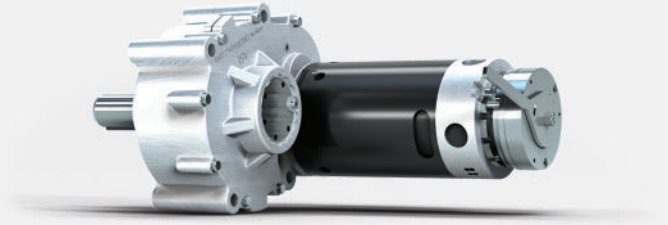
Material  
Handling



Mobile Robots  
& AGVs



Outdoor Power  
Equipment



## FEATURES

**Sealed drive system:** Rugged; usable outdoors

**Optional components:** Electromagnetic power-off brake, internal encoder, safety encoder, connectors, brake cover, IP67 conformity

**Motors:** Permanent magnet DC 4-pole, 4.8 in (122 mm) diameter, brushless DC and AC available up to 6.0 in (152 mm) diameter

**Encoder options available:** Digital position and motion information

**Axle Material:** Hardened carbon steel

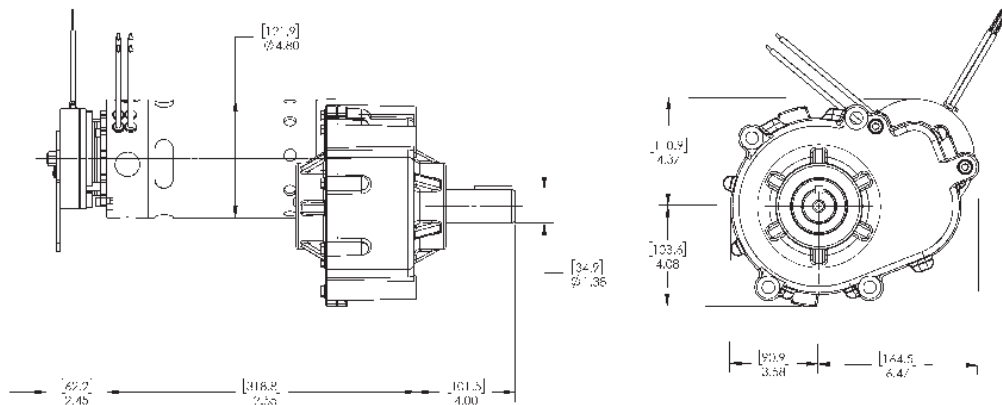
**Gear:** Dual stage helical

**Reduction ratio:** 31:1

**Voltage:** 12V to 48V DC

## PERFORMANCE EXAMPLES

	Low speed (24V Option)			High Speed (24V Option)			36V Option		
	No Load	Typical	High	No Load	Typical	High	No Load	Typical	High
<b>Torque, Nm</b>	0	101	430	0	97	385	0	90	290
<b>RPM</b>	74	65	37	109	95	54	114	97	57
<b>Current, Amps</b>	5.5	40.0	152.8	8.4	58.2	206.2	6.3	37.5	106.7
<b>Power Out, Watts</b>	0	691	1660	0	967	2194	0	912	1745
<b>Power In, Watts</b>	132	961	3667	202	1398	4949	227	1349	3843
<b>Efficiency</b>	0%	72%	45%	0%	69%	44%	0%	68%	45%



# GEMINI 500

Dual Wheel Drive



Floor  
Care



Medical  
Mobility



Mobile  
Robots  
& AGVs



## FEATURES

**Single-piece casting:** Improved gear alignment; quiet operation

**Reduction ratios:** From 13:1 to 21:1

**Fully enclosed axle:** Mounting width flexibility

**Optional components:** Electromagnetic power-off brake, encoder, connectors, brake cover, IP67 conformity

**Encoder options available:** Digital position and motion information

**Widths:** 14.0 in (356 mm) minimum; custom widths available

**Motors:** Permanent magnet DC 4-pole, 3.98 in (101 mm) diameter, brushless DC option available

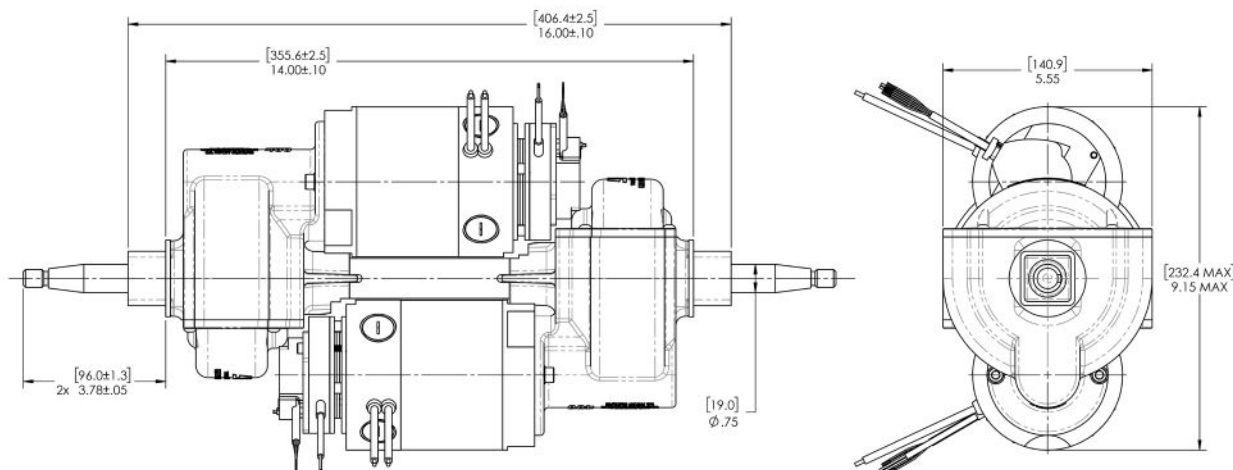
**Voltage:** 24V to 36V DC

**Axle configurations:** Custom; Each axle independently driven by a separate motor

## PERFORMANCE EXAMPLES

High Torque (4 inch - 21:1 @ 24V) Combined Performance			
	No Load	Typical	High
Torque, Nm	0.0	40.0	66.2
RPM	120	102	90
Current, Amps	4.0	24.8	38.6
Power Out, Watts	0	422	622
Power In, Watts	96	594	926
Efficiency	0%	71%	67%

High Speed (4 inch - 16:1 @ 24V) Combined Performance			
	No Load	Typical	High
Torque, Nm	0.0	31.0	41.4
RPM	153	130	122
Current, Amps	4.0	24.8	31.6
Power Out, Watts	0	422	530
Power In, Watts	96	594	760
Efficiency	0%	71%	70%



# CYCLONE 700

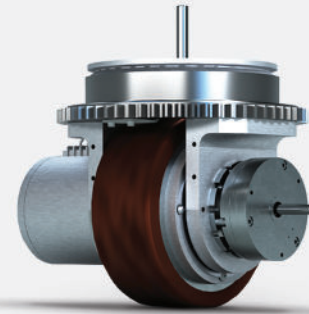
Steerable Wheel Drive



Floor  
Care



Mobile Robots  
& AGVs



## FEATURES

**Sealed drive system:** Rugged; compact

**Optional components:** Electromagnetic power-off brake, encoder, safety encoder, connectors, brake cover, IP67 conformity

**Voltage:** 48V DC

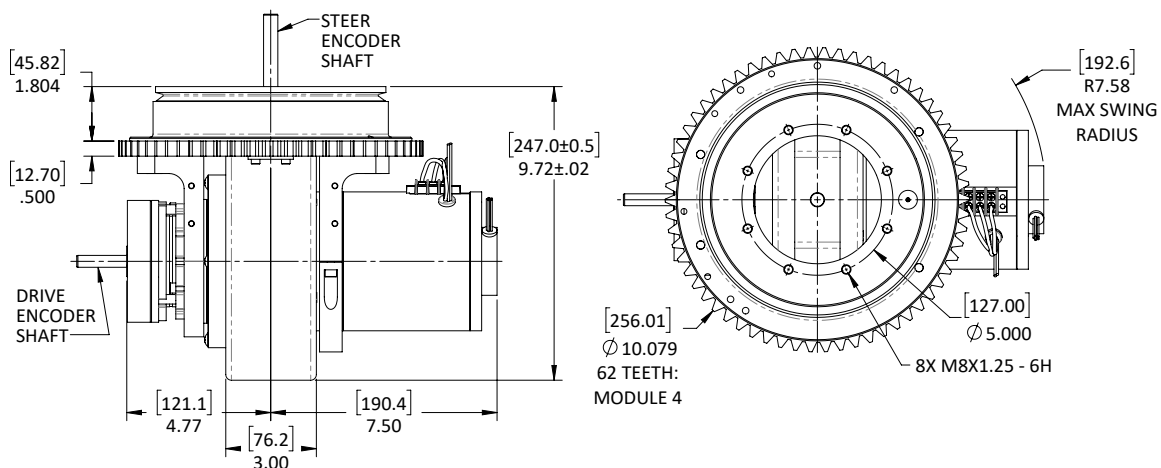
**Wheel:** Integral 200 mm diameter

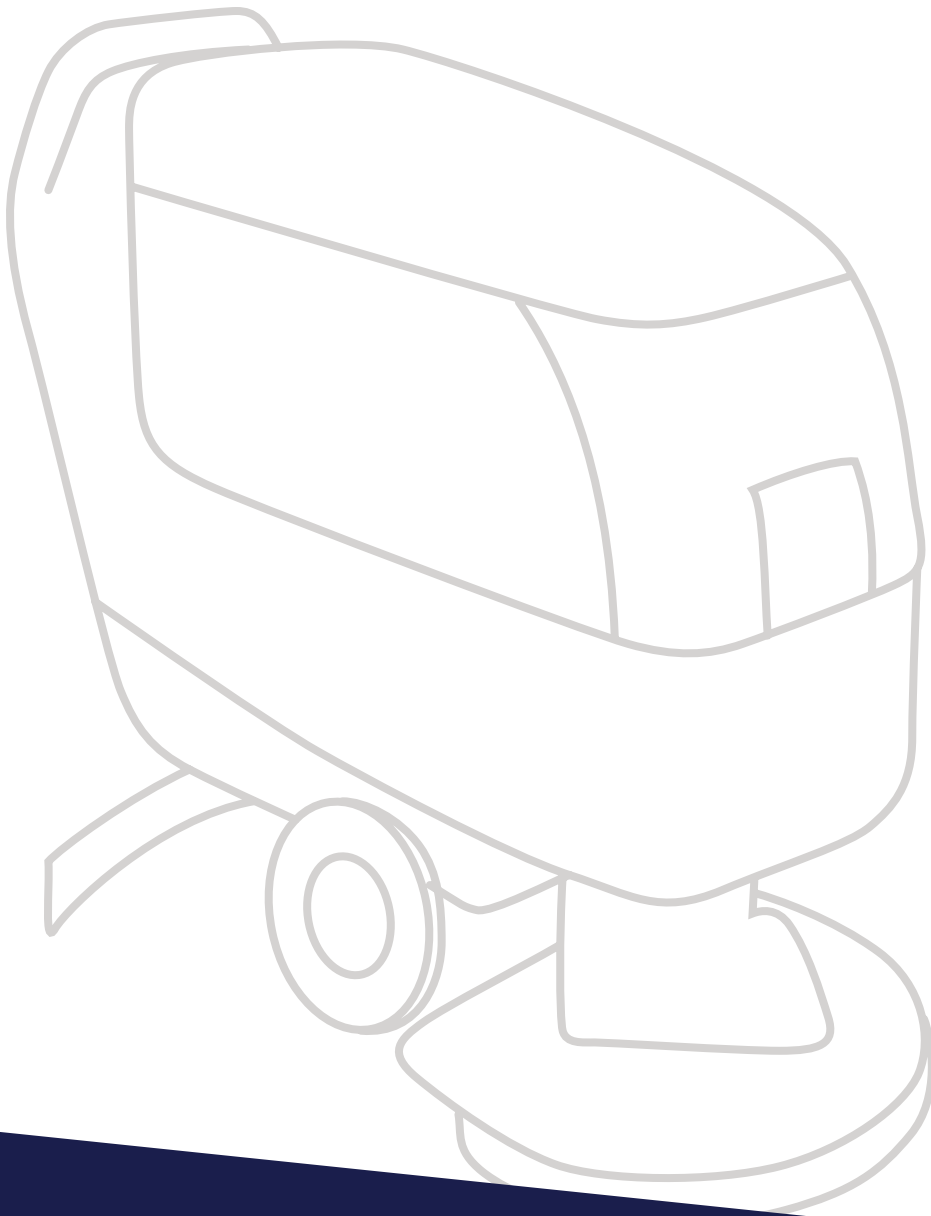
**Gearing:** Helical compound planetary

**Brake options available:** Up to 12 Nm

## PERFORMANCE EXAMPLE

Sample Application Data			
Maximum Wheel Load	1,500 lbs	Motor Type	BLDC with Hall Effect Board
Maximum Grade	7%	Gear Ratio Between Encoder Shaft and Output Shaft	20:1
Minimum Speed Loaded on Level Ground	393 ft/min	Acceleration on Level Ground	0.5 m/s <sup>2</sup>
Minimum Speed Loaded on Grade	300 ft/min	Power Consumption Fully Loaded on 7% Grade at 300 ft/min	1.47 kW





# SCRUB BRUSH MOTORS **GEARED FOR SUCCESS**

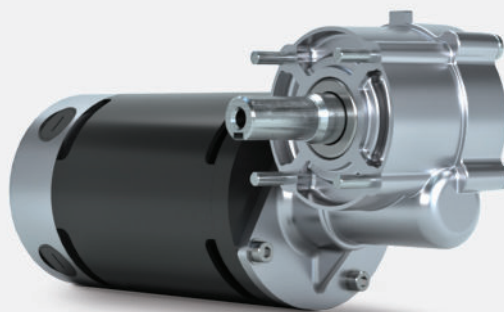
Our geared scrub brush motors deliver high performance for scrub deck applications. These motors are designed to handle the unique requirements of driving disc scrub brushes on floor cleaning machines. Available as a parallel axis design or a right angle design, these drives utilize a gear reduction to match the motor RPM to the intended scrub brush RPM for maximum efficiency.

# SPRITE 200

Right Angle Geared Scrub Brush Motor



Floor  
Care



## FEATURES

**Single-piece casting:** Improved gear alignment; quiet operation

**Reduction ratio:** 10:1

**Voltage:** 24V to 36V DC

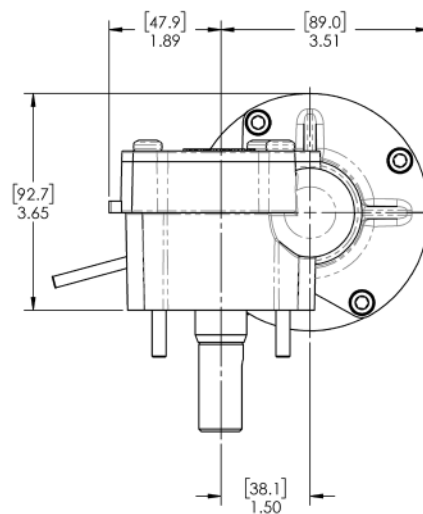
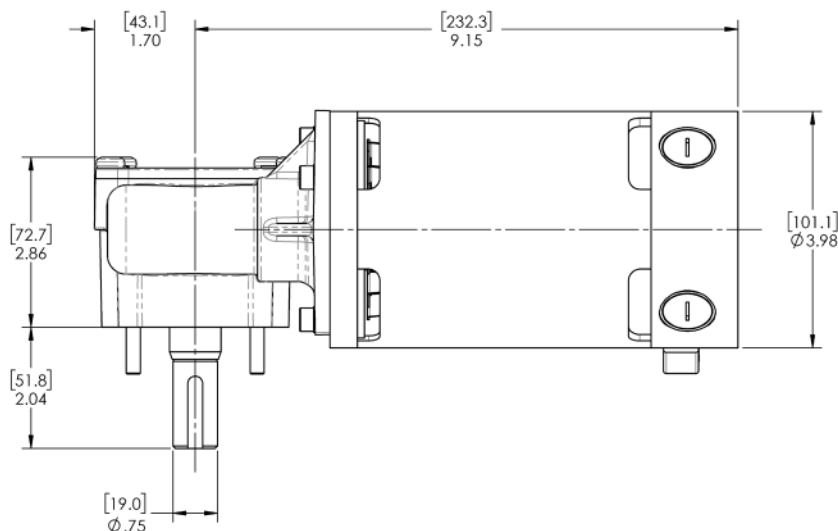
**Motors:** Permanent magnet DC 4-pole, 3.98 in (101 mm) diameter,  
Brushless DC option available

**Shaft configuration:** Custom up to 20 mm diameter

## PERFORMANCE EXAMPLES

10:1 @ 24V		
	No Load	1/2 HP
<b>Torque, Nm</b>	0.0	14.0
<b>RPM</b>	318	255
<b>Current, Amps</b>	3.0	23.5
<b>Power Out, Watts</b>	0	373
<b>Power In, Watts</b>	72	564
<b>Efficiency</b>	0%	66%

10:1 @ 36V			
	No Load	1/2 HP	5/8 HP
<b>Torque, Nm</b>	0.0	12.0	15.6
<b>RPM</b>	320	296	285
<b>Current, Amps</b>	2.0	15.3	19.3
<b>Power Out, Watts</b>	0	373	466
<b>Power In, Watts</b>	72	552	696
<b>Efficiency</b>	0%	68%	67%





# ZEUS

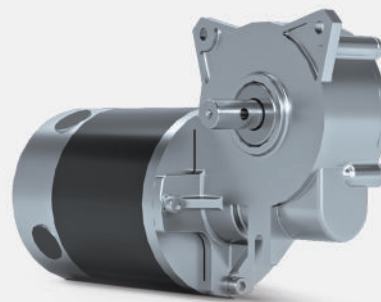
Geared Scrub Brush Motor / Right Angle Worm Drive for Stair Lifts



Floor  
Care



Stair  
Lift



## FEATURES

**Motors:** Permanent magnet DC 4-pole, 3.98 in (101 mm) diameter, brushless DC option

**Voltage:** 24V to 36V DC

**Output shaft:** Hardened carbon steel

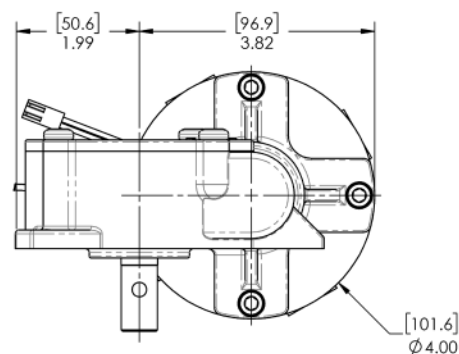
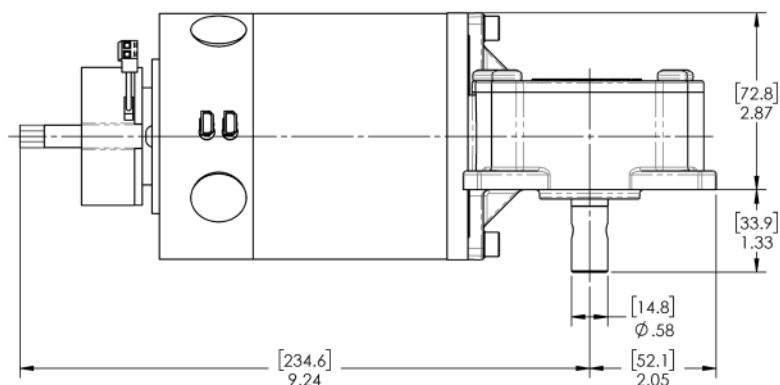
**Optional components:** Electromagnetic power-off brake, internal encoder

**Reduction ratios:** 14:1, 19:1, 21:1, and 37:1

## PERFORMANCE EXAMPLES

Gear Scrub Brush Motor (14:1 @ 24V)			
	No Load	Typical	High
<b>Torque, Nm</b>	0.0	7.5	10.0
<b>RPM</b>	214	190	181
<b>Current, Amps</b>	2.0	13.5	17.3
<b>Power Out, Watts</b>	0	150	190
<b>Power In, Watts</b>	48	323	414
<b>Efficiency</b>	0%	46%	46%

Stair Lift Drive (37:1 @ 24V)			
	No Load	Typical	High
<b>Torque, Nm</b>	0	10	20
<b>RPM</b>	82	76	71
<b>Current, Amps</b>	3.0	8.6	14.4
<b>Power Out, Watts</b>	0	80	149
<b>Power In, Watts</b>	72	207	347
<b>Efficiency</b>	0%	39%	43%

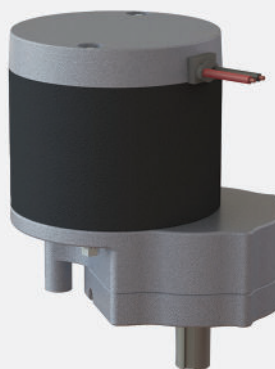


# SD400

Geared Scrub Brush Motor



Floor  
Care



## FEATURES

**Integral motor casting:** Improved gear alignment; quiet operation

**Construction:** All ball bearing; high efficiency

**Shaft configuration:** Custom up to 20 mm diameter

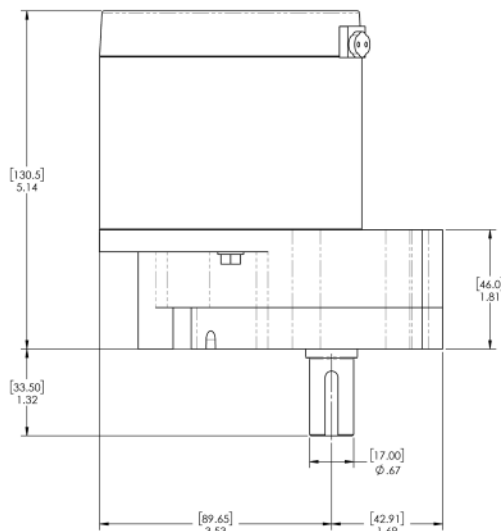
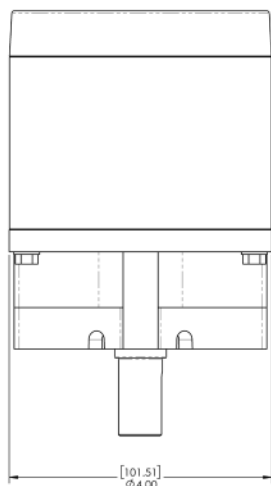
**Motor:** 4-pole, 3.98 in (101 mm) diameter

**Voltage:** 24V DC

**Reduction ratio:** 10:1

## PERFORMANCE EXAMPLE

10:1 @ 24V			
	No Load	Typical (Continuous Duty)	High (65% Duty)
<b>Torque, Nm</b>	0.0	5.4	10.0
<b>RPM</b>	251	220	200
<b>Current, Amps</b>	1.5	7.9	14.2
<b>Power Out, Watts</b>	0	125	209
<b>Power In, Watts</b>	35	191	341
<b>Efficiency</b>	0%	65%	61%



# SD500

## Geared Scrub Brush Motor



Floor  
Care



## FEATURES

**Single-piece casting:** Improved gear alignment; quiet operation

**Reduction ratios:** From 8:1 to 13:1

**Construction:** All ball bearing; high efficiency

**Voltage:** 24V to 36V DC

**Shaft configuration:** Custom up to 24 mm diameter

**Motors:** Permanent magnet DC 4-pole, 4.8 in (122 mm) diameter, Brushless DC option available

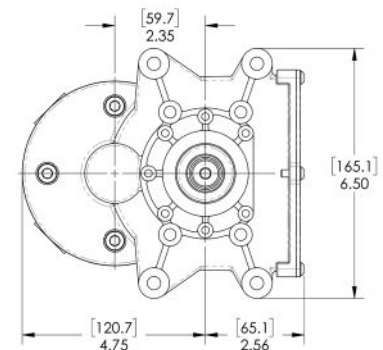
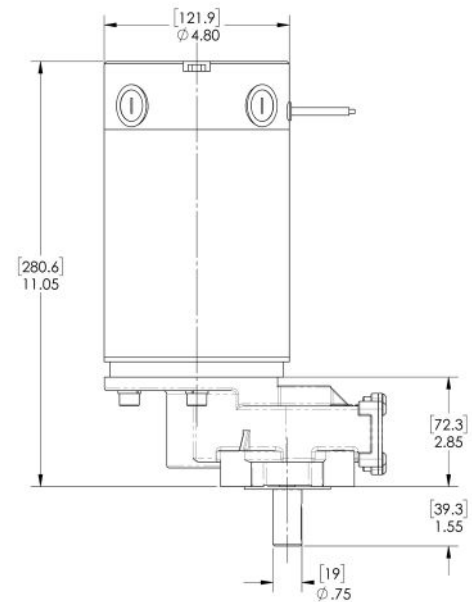
**Mounting options:** Multiple mounting options including US-Type, Euro-Type, and 4 additional through-hole options for bolts, nuts or cap screws

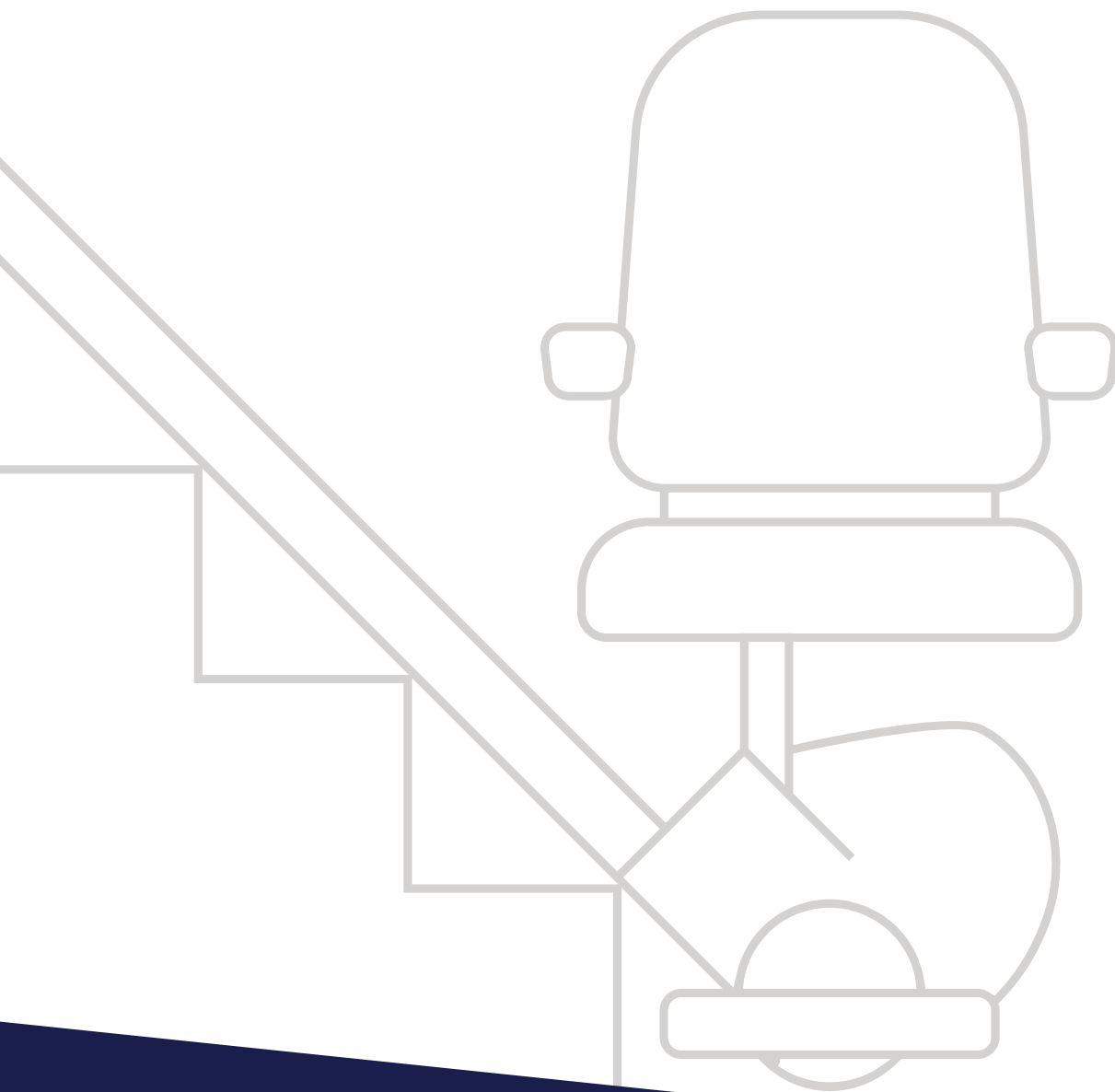
## PERFORMANCE EXAMPLE

9:1 @ 24V				
	No Load	1/2 HP	3/4 HP	1 HP
Torque, Nm	0.0	11.0	17.3	24.3
RPM	350	324	309	293
Current, Amps	5.0	23.3	33.7	45.4
Power Out, Watts	0	373	560	746
Power In, Watts	120	558	809	1090
Efficiency	0%	67%	69%	68%

11:1 @ 24V				
	No Load	1/2 HP	3/4 HP	1 HP
Torque, Nm	0.0	13.0	20.5	28.8
RPM	295	274	261	247
Current, Amps	5	23.3	33.7	45.4
Power Out, Watts	0	373	560	746
Power In, Watts	120	558	809	1090
Efficiency	0%	67%	69%	68%

13:1 @ 24V				
	No Load	1/2 HP	3/4 HP	1 HP
Torque, Nm	0.0	15.8	24.9	35.1
RPM	242	225	214	203
Current, Amps	5.0	23.3	33.7	45.4
Power Out, Watts	0	373	560	746
Power In, Watts	120	558	809	1090
Efficiency	0%	67%	69%	68%





# POWER YOUR **STAIR LIFTS YOUR WAY**

ASI offers drive products for straight and curved stair lifts, each one specifically engineered to your application. Our advanced technology provides maximum torque density and operates quietly, all within an easy-to-use package. We can design your drive with motors, brakes, and encoders to fit your requirements and flexible options to suit your needs, including a variety of output gears.

# ZEUS

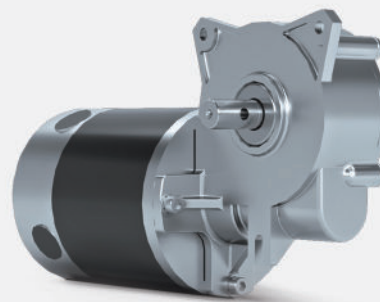
Geared Scrub Brush Motor / Right Angle Worm Drive for Stair Lifts



Floor  
Care



Stair  
Lift



## FEATURES

**Motors:** Permanent magnet DC 4-pole, 3.98 in (101 mm) diameter, brushless DC option

**Voltage:** 24V to 36V DC

**Output shaft:** Hardened carbon steel

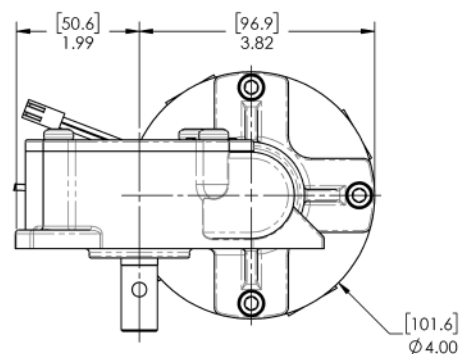
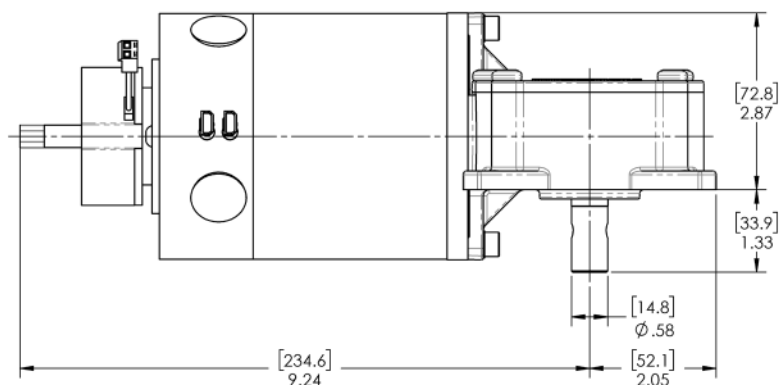
**Optional components:** Electromagnetic power-off brake, internal encoder

**Reduction ratios:** 14:1, 19:1, 21:1, and 37:1

## PERFORMANCE EXAMPLES

Gear Scrub Brush Motor (14:1 @ 24V)			
	No Load	Typical	High
<b>Torque, Nm</b>	0.0	7.5	10.0
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<b>Efficiency</b>	0%	46%	46%

Stair Lift Drive (37:1 @ 24V)			
	No Load	Typical	High
<b>Torque, Nm</b>	0	10	20
<b>RPM</b>	82	76	71
<b>Current, Amps</b>	3.0	8.6	14.4
<b>Power Out, Watts</b>	0	80	149
<b>Power In, Watts</b>	72	207	347
<b>Efficiency</b>	0%	39%	43%

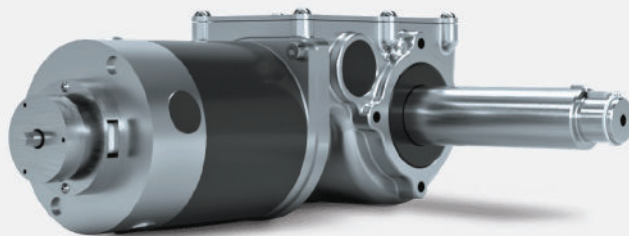


# PLUTO

Right Angle Worm Drive for Stair Lifts



Stair  
Lift



## FEATURES

**Motors:** Permanent magnet DC 4-pole, 3.98 in (101 mm) diameter, brushless DC option

**Voltage:** 24V DC

**Optional components:** Electromagnetic power-off brake, internal encoder

**Encoder options available:** Digital position and motion information

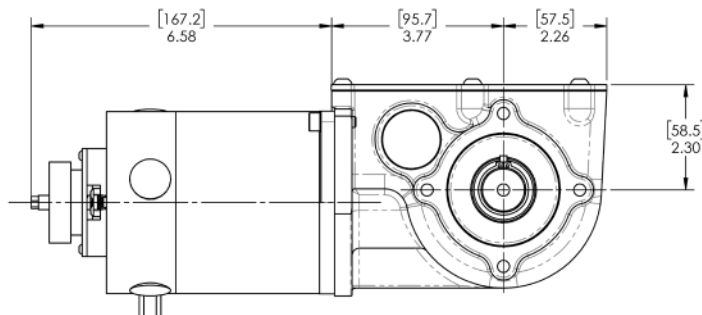
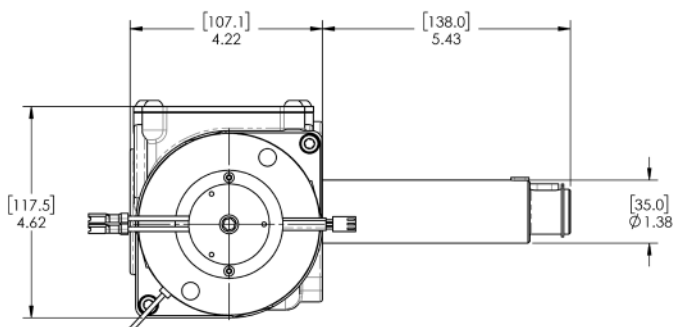
**Output shaft:** Hardened carbon steel

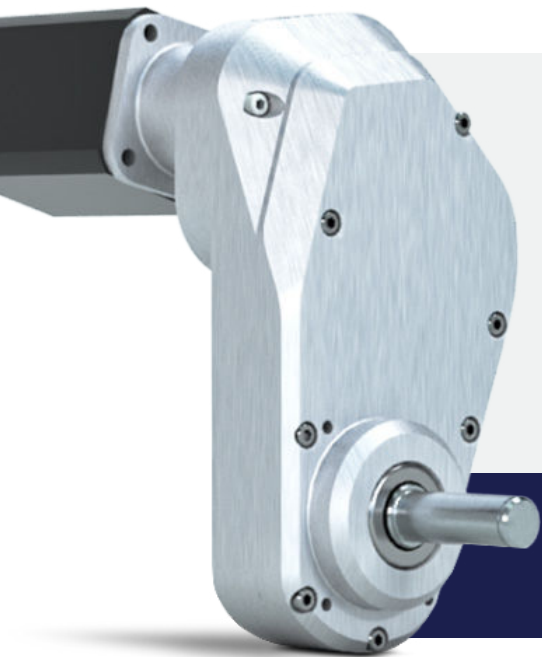
**Reduction ratio:** 72:1

**Weight capacity:** 350 lbs.

## PERFORMANCE EXAMPLE

24V Option			
	No Load	Typical	High
<b>Torque, Nm</b>	0	65	87
<b>RPM</b>	35	30	28
<b>Current, Amps</b>	1.5	14.0	18.0
<b>Power Out, Watts</b>	0	201	253
<b>Power In, Watts</b>	36	336	432
<b>Efficiency</b>	0%	60%	58%





## UNIQUE CHALLENGES REQUIRE UNIQUE SOLUTIONS

Our deep knowledge of gear technologies allows us to develop custom, high-quality products at the lowest possible cost. To date, we have delivered over 740 tailored engineered solutions — a track record of innovation recognized by 7 awarded patents. Thanks to our in-house gear manufacturing, we produce applications built for reliability and longevity.

### GEAR DESIGN TECHNOLOGIES

We utilize Evoloid Gearing, combined with conventional gear expertise, for a complete selection of the best arrangement for your project.

### EVOLOID GEARING:

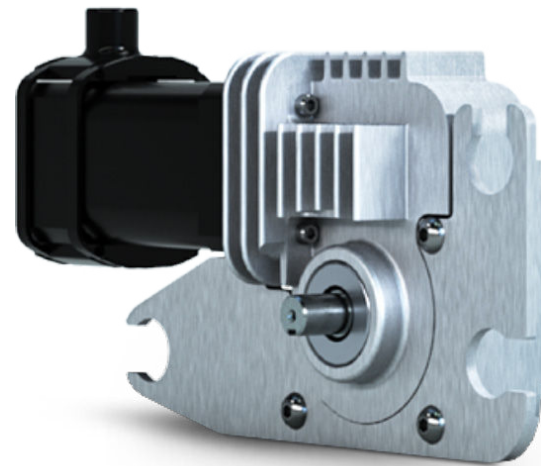
- Provides excellent efficiency and high-power density
- 3, 4, 5 tooth parallel axis helical pinions, no undercut, no pointed teeth
- Single stage ratios from 7:1 to 22:1
- Computerized stress analysis
- Mesh efficiencies generally over 95%

### WORM GEARING:

- We can design efficient worm gear reduction
- Modern proprietary worm gear material and lubrication achieve high efficiencies
- A variety of existing designs can be quickly adapted to your needs

### CONVENTIONAL GEARING:

- We use computerized stress analysis standards of the American Gear Manufacturers Association
- We analyze bearings, shafts, and other interfacing components
- We can match ratios, center distances, and other special requirements







# EXPERIENCE BETTER PRODUCTS FOR **BETTER GROWTH**

Based in Pennsylvania, USA, ASI Drives has earned a reputation as one of the most reliable manufacturers of custom gear drives. We've designed, engineered, and assembled the solutions that have helped drive businesses forward — and we can do the same for yours.

**GET IN TOUCH TO LEARN MORE.**



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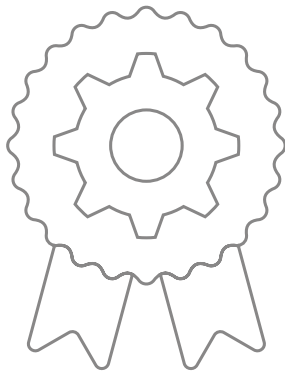
[sales@asidrives.com](mailto:sales@asidrives.com)

[www.asidrives.com](http://www.asidrives.com)



Lasting solutions to drive your machines.  
More than industrial designers and engineers,  
we're a team of passionate problem solvers.  
ASI Drives: Gear drive systems for battery  
powered machines up to one ton.

# OUR CLIENTS HAVE BEEN WITH US FOR **OVER 14 YEARS BECAUSE OF OUR:**



## **DEEP EXPERTISE:**

Creating over 740 tailored  
engineered solutions

Offering cost sensitive designs  
with manufacturing efficiencies

A history of innovation recognized  
with 7 awarded patents

In-house gear manufacturing  
offers supply chain predictability



## **OUR 38-YEAR COMMITMENT:**

Excellent customer service

"Best in class" partnership  
with OEM industry leaders

Our entrepreneurial size  
ensures personal executive  
level accountability and  
responsiveness



## **DEEP INDUSTRY KNOWLEDGE & FOCUS:**

Insights and solutions  
to your specific  
challenges & opportunities

We know your  
competitive landscape

**EXPERIENCE THE DIFFERENCE OUR DEDICATION  
TO INNOVATION, QUALITY AND SERVICE MAKES.**

Contact us at [sales@asidrives.com](mailto:sales@asidrives.com) to explore how we can  
quickly solve your most pressing challenges.

