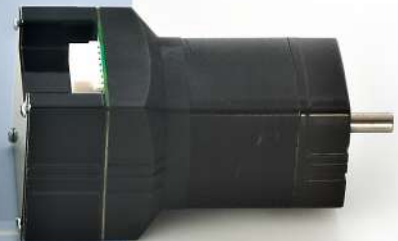


Standard Products

AC Induction • Permanent Magnet DC • Brushless DC

Gearmotors
Motors
Controls
Accessories



BODINE[®]
ELECTRIC
COMPANY

bodine-electric.com

Standard Gearmotors and Motors

We offer over 1,300 standard gearmotors and motors, ranging from 1/200 to 3/4 HP (4-560 Watts). Our standard product line includes AC fixed-speed and variable speed products, as well as an extensive selection of permanent magnet DC, and brushless DC gearmotors, motors and controls.

Bodine Electric Company manufactures right angle, parallel shaft, and hollow shaft gearmotors, with torque ratings from 6 to 1000 lb-in. (0.7-113 Nm).

- AC: 1/200-3/4 HP; 0.9-3,600 rpm; up to 1,000 lb-in.
- PMDC: 1/50-1/2 HP; 0.7-11,500 rpm; up to 700 lb-in.
- BLDC: 1/16-3/8 HP; 8-10,000 rpm; up to 350 lb-in.



System Matched Controls

Our motion controls are precisely engineered to provide maximum performance from our motors and gearmotors. Purchase a Bodine gearmotor and speed control together and get our extended 2-year system warranty.

Bodine designs and manufactures a complete line of permanent magnet DC and brushless DC motor speed controls (24V and 130V). We also offer 3-phase AC inverter controls. Bodine's unique INTEGRAMotor™ combines a motion control, a brushless DC motor and a gearhead in one compact package.

- AC: 1/2-1 HP; 115, 230 VAC 1-phase input, 3-phase 230 VAC output
- PMDC: 1/17-7/16 HP; 115 VAC, 115/230 VAC, 12, 24 VDC input; 0-24, 0-130, 0-180 VDC output; 0.5-5.5 Amps
- BLDC: 1/6-3/8 HP; 24 VDC, 115 VAC input; 0-90, 0-24, 0-130 VDC output; 3.0-22 Amps



Bodine Type 34B/FV
INTEGRAMotor™



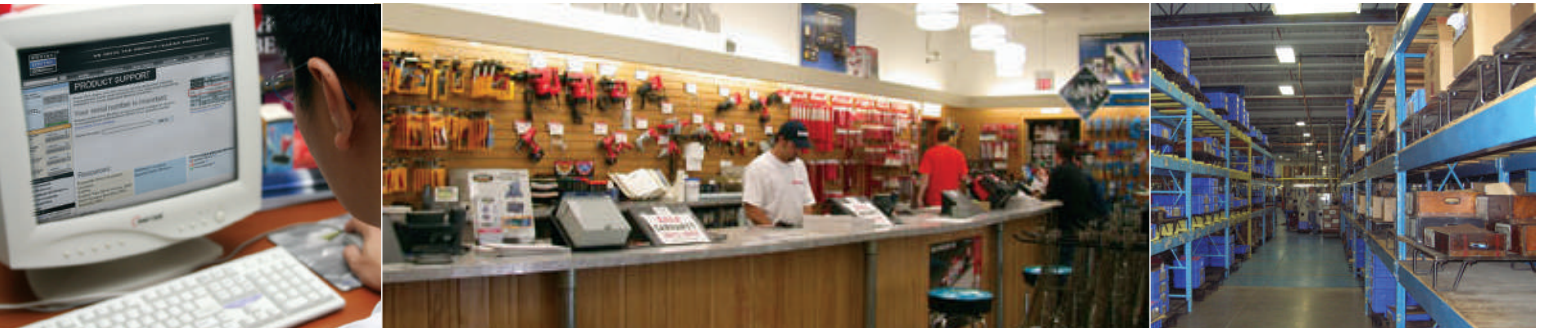
Product Support

Authorized Distributors

Bodine Electric Company products are available from your local distributor and authorized service center. Our distributors are ready to provide special delivery and vendor-managed inventory programs, on-site technical support, and modifications to standard products.

www.bodine-electric.com

Our website is continuously upgraded to meet customer needs. It contains the latest product information and support, as well as helpful Tech Tools designed to answer the most commonly asked motion control questions.



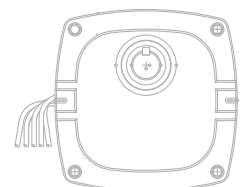
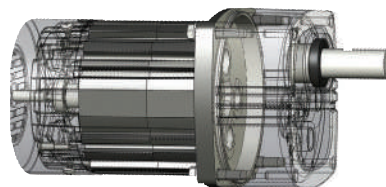
Authorized Bodine distributors are your local source for:

Turn-key solutions: single source gearmotor, motor and controls

Special drive shafts, gear ratios, encoders, terminal boxes, capacitors, mounting brackets, wire harnesses

Maintenance services, on-site support

For distributor locations, 2D/3D CAD drawings, visit www.bodine-electric.com.



Product Solutions

For a Wide Range of Applications

When performance, reliability, and competitive prices are critical, manufacturers turn to Bodine Electric Company. For over 100 years our design and application engineers have developed high-performance motion control solutions for applications such as medical devices, printing presses, scientific and laboratory equipment and factory automation.



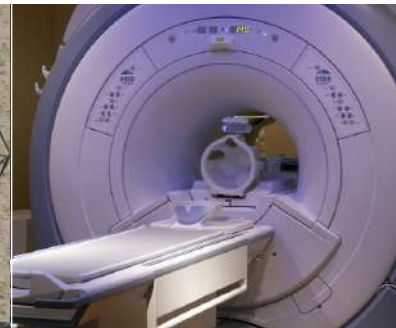
Factory Automation



Laboratory Equipment



Low Voltage Applications



Medical Equipment

Bodine products drive many of the leading brands of conveyor and transfer systems in North America. Our AC inverter-duty, brushless DC, or permanent magnet DC variable speed gearmotors offer a lower cost alternative to expensive servomotor systems.

Bodine has decades of experience providing gearmotors, motors and speed controls for laboratory equipment such as metering pumps, stirrers, rotators, mixers, and even lens grinders. We offer low-cost permanent magnet DC drive solutions, as well as high-performance brushless DC systems for demanding continuous duty applications.

Bodine engineers have helped customers optimize low-voltage solutions for many battery and solar powered applications. They have applied their expertise in the design and manufacture of drive systems for low-voltage products ranging from solar power generators, battery-driven gates, pollution control devices, and off-grid pumping stations.

Predictable performance, long life, and reliability are prerequisites for medical applications, where anything less than perfect performance is unacceptable. Bodine gearmotors, motors, and controls drive medical devices as diverse as blood and dialysis pumps, mobility devices (stair lifts), MRI/CT scanners, and mammography machines.

Motors Without Gearing Inverter Duty AC, Fixed-Speed AC, Permanent Magnet DC, and Brushless DC

Bodine fixed-speed AC motors are available with three winding types: permanent split capacitor, split phase, or three-phase. Inverter duty AC 3-phase motors can be used with VFDs for variable speed operation. AC motors are available with voltage ratings of 115 VAC, 60 Hz (single-phase), 230 VAC, 60 Hz (3-phase) and 230/460 VAC, 60 Hz (3-phase). Our metric/international models are rated 230 VAC, 50 Hz (1- or 3-phase). PMDC motors are available with voltage ratings of 12/24 VDC, 24 VDC, 90/130 VDC, 130 VDC and 180 VDC (metric). Brushless DC motors are available with voltage ratings of 24 and 130 VDC. We also offer four frame sizes of AC torque motors for holding applications.

	Variable Speed Pacesetter Inverter Duty AC				Fixed-Speed AC				Permanent Magnet DC			Brushless DC		INTEGRA BLDC		
	30R	34R	42R	48R	K-2	30R	34R	42R	48R	24A	33A	42A	22B	34B	22B	34B
Power (HP)	1/25 - 1/17	1/8 - 1/4	3/8	1/3 - 3/4	1/1600 - 1/200	1/40 - 1/30	1/15-1/5	1/12-1/4	1/5-1/2	1/50 - 1/7	1/16 - 1/3	1/5-1/2	1/16-1/5	1/5-3/8	1/16-1/8	1/4
Torque (oz-in.)	24-35	70-148	222	185-445	.35 - 3.2	10-20	38-119	48-148	112-296	8-24	34-134	101-180	20-50	33-151	25-50	100
Rated Speed (rpm)	1700	1700, 1800	1700	1700, 1800	1200, 1550, 1800, 3600	1700, 1800, 3400	1700, 1800, 3400	1700, 1800, 3450	1700, 1800	2500, 11,500	2500	2500	2500, 10,000	2500, 10,000	2500	2500

Gearmotors

Type 60P (Planetary) Inline Gearmotors | up to 226 lb-in.



	Inverter Duty AC	Permanent Magnet DC	Brushless DC
Motor Type	30R* (230V)	24A (12, 24, 90/130V)	22B (24, 130V)
HP	1/17	1/23-1/11	1/8
Torque (lb-in.)	6-172	4.6-226	10-226
Speed (rpm)	10-425	11-658	11-658

*OEM only

Type A/T (K-2) Parallel Shaft Gearmotors | up to 120 oz-in.



	Fixed-Speed AC		
	PSC, Normal Slip, Non-Synchronous	PSC, High Slip, Non-Synchronous	PSC, Synchronous
HP	1/700-1/300	1/1000-1/450	1/2000-1/900
Torque (oz-in.)	12-120	8.9-120	8.9-120
Speed (rpm)	0.9-260	0.9-200	1-100

Type D Parallel Shaft Gearmotors | up to 40 lb-in.



	Inverter Duty AC	Fixed-Speed AC	PMDC	BLDC	INTEGRA BLDC	
Motor Type	30R	30R	24A	22B	22B/SR	22B/FV
HP	1/25-1/17	1/50-1/30	1/29-1/17	1/16	1/16	1/16
Torque (lb-in.)	19-40	5-40	3.3-40	5.8-40	5.8-40	5.8-40
Speed (rpm)	9-142	3.8-285	5.6-417	14-417	0.7-417	0.3-417

Type Z Parallel Shaft Gearmotors | up to 120 lb-in.

Now available with SCR Rated 90V or 180VDC windings.



	Inverter Duty AC	Fixed-Speed AC	PMDC		BLDC	INTEGRA BLDC	
Motor Type	34R	34R	24A	33A	22B	22B/SR	22B/FV
HP	1/6	1/15	1/17	1/12	1/16-1/11	1/16-1/11	1/16-1/11
Torque (lb-in.)	21-120	12-100	7-100	10-95	10-100	10-100	10-100
Speed (rpm)	9-283	9.6-283	14-417	42-417	14-417	0.7-417	0.7-417

Type WX Parallel Shaft Gearmotors | up to 210 lb-in.

Now available with SCR Rated 90V or 180VDC windings.



	Fixed-Speed AC	Permanent Magnet DC				Brushless DC
Motor Type	34R (115V)	33A (12/24V)		33A (90/130V)		34B (24/130V)
HP	1/7	1/11	1/4	1/8	1/4	1/5
Torque (lb-in.)	9-210	9-205	9-205	9-205	9-205	9-205
Speed (rpm)	5-447	2.9-237	8-658	5-447	8-658	8-658

Type E or F and FX Parallel Shaft Gearmotors | up to 350 lb-in.

Now available with SCR Rated 90V or 180VDC windings.



Motor Type	Inverter Duty AC		Fixed-Speed AC		Permanent Magnet DC		Brushless DC	INTEGRA BLDC
	34R-E	42R-F	42R-E	48R-F	33A-E/F	42A-E/F	34B-E/F	34B/FV-F
HP	1/6	3/8	1/12-1/4	1/3-1/2	1/16-1/3	1/8-1/3	1/5-3/8	1/4
Torque (lb-in.)	25-341	58-250	25-341	56-250	19-341	25-341	25-350	28-341
Speed (rpm)	5.7-340	57-340	5.7-340	47-340	5.8-500	8.3-500	8.3-500	14-500

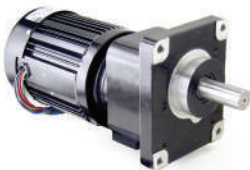
Type F gearmotors feature hardened gears for increased output torque in lower ratios.

Type HG Parallel Shaft Gearmotors | up to 1000 lb-in.



Motor Type	Inverter Duty AC	Fixed-Speed AC	Permanent Magnet DC	
	42R	42R	33A (24V)	33A (90/130V)
HP	3/8	1/5	1/3	1/6
Torque (lb-in.)	289-1000	150-599	170-680	120-481
Speed (rpm)	16-63	16-63	23-93	16-64

Type CG Parallel Shaft Gearmotors | up to 1000 lb-in.



Motor Type	Inverter Duty AC	Permanent Magnet DC	
	48R	42A (24V)	42A (130V)
HP	3/4	7/16	7/16
Torque (lb-in.)	360-1000	220-660	190-580
Speed (rpm)	28-85	38-115	42-125

Type 3F and Type 3N Right Angle Gearmotors* | up to 37 lb-in.



Motor Type	Inverter Duty AC	Fixed-Speed AC	PMDC	Brushless DC	INTEGRA BLDC	INTEGRA BLDC
	30R-3N	34R-3F	24A-3N	22B-3N	22B/SR-3N	22B/FV-3N
HP	1/17	1/15	1/17	1/8	1/8	1/8
Torque (lb-in.)	8-37	16-37	5.2-22	11-37	11-37	11-37
Speed (rpm)	28-340	28-170	42-500	42-500	3-500	1.3-500

Type 5N and Type 5F Right Angle Gearmotors* | up to 121 lb-in.

Now available with SCR Rated 90V or 180VDC windings.



Motor Type	Inverter Duty AC	Fixed-Speed AC		Permanent Magnet DC				BLDC	INTEGRA BLDC				
		34R-5F (50/60Hz)	42R-5N	33A-5F (24V)	33A-5F (90/130V)	42A-5N (12/24V)	42A-5N (90/130V)	34B-5N	34B/FV-5N				
HP	3/8	1/9	1/9	1/6-1/4	1/8	1/8	1/4	3/16	7/16	3/16	1/4	1/5-3/8	1/4
Torque (lb-in.)	54-121	19-121	16-102	23-113	11-55	17-84	22-109	43-109	43-109	24-109	24-109	18.6-109	24-79
Speed (rpm)	23-340	19-280	23-340	38-340	62-500	43-345	62-500	25-200	62-500	45-360	62-500	62-500	63-500

Type 3RD Right Angle Gearmotors | up to 148 lb-in.



Motor Type	Inverter Duty AC	Fixed-Speed AC	Permanent Magnet DC	Brushless DC
	30R	30R	24A	22B
HP	1/25-1/17	1/30-1/27	1/29-1/17	1/16-1/8
Torque (lb-in.)	95-148	88-148	92-147	95-147
Speed (rpm)	0.5-8.5	0.4-7.8	0.7-12.5	0.7-12.5

Type 5H Right Angle Gearmotors* | up to 296 lb-in.



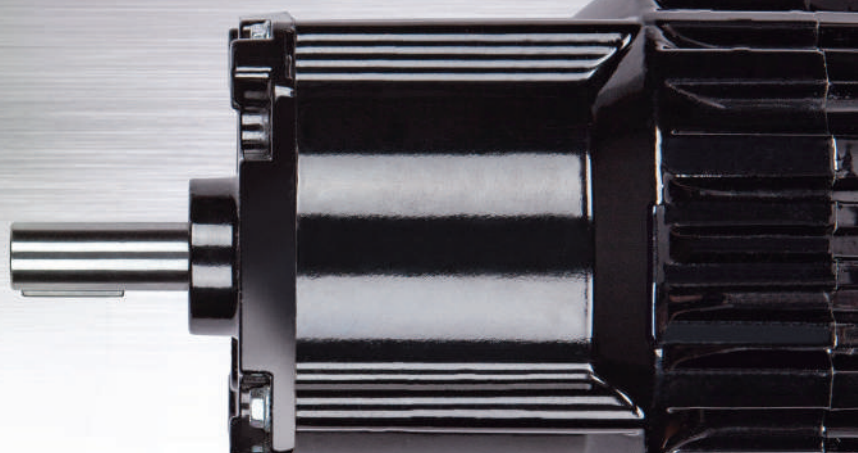
Motor Type	Inverter Duty AC	Permanent Magnet DC		
	48R	33A (90/130V)		42A
HP	3/4	1/6		1/3
Torque (lb-in.)	178-296	37-137		52-192
Speed (rpm)	35-170	36-173		52-250

Type GB Right Angle Gearmotors* | up to 380 lb-in.



Motor Type	Inverter Duty AC	Fixed-Speed AC	Permanent Magnet DC	
	42R	42R	33A (90/130V)	42A
HP	3/8	1/6-1/4	1/8	1/4
Torque (lb-in.)	230-380	209-380	151-380	200-380
Speed (rpm)	6-28	5.9-28	6.2-29	8.9-42

*Most right angle gearmotors are available as hollow shaft models.



Standard products for demanding applications



Hollow Shaft Gearmotors and Accessories

Hollow shaft gearmotors connect directly to the driven load, reducing the overall space required by the gearmotor. Get the flexibility of Bodine's hollow shaft gearmotors without expensive couplings and mounting hardware.

- Rated torques: 6.8 to 380 lb-in
- Gear ratios: 5:1 to 280:1
- Single- or double-output stainless steel shaft kits
- Face-mounting flanges
- 230VAC and 230/460VAC 3-phase models available



Speed Controls for Fractional Horsepower Gearmotors

Bodine filtered and unfiltered speed controls provide optimized performance for a wide range of gearmotors and motors. Match a Bodine gearmotor and control and get an extended two-year system warranty. Chassis and enclosed models are available.

- PMDC, brushless DC, and AC motor speed controls
- Various input and output voltages (AC or DC)



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