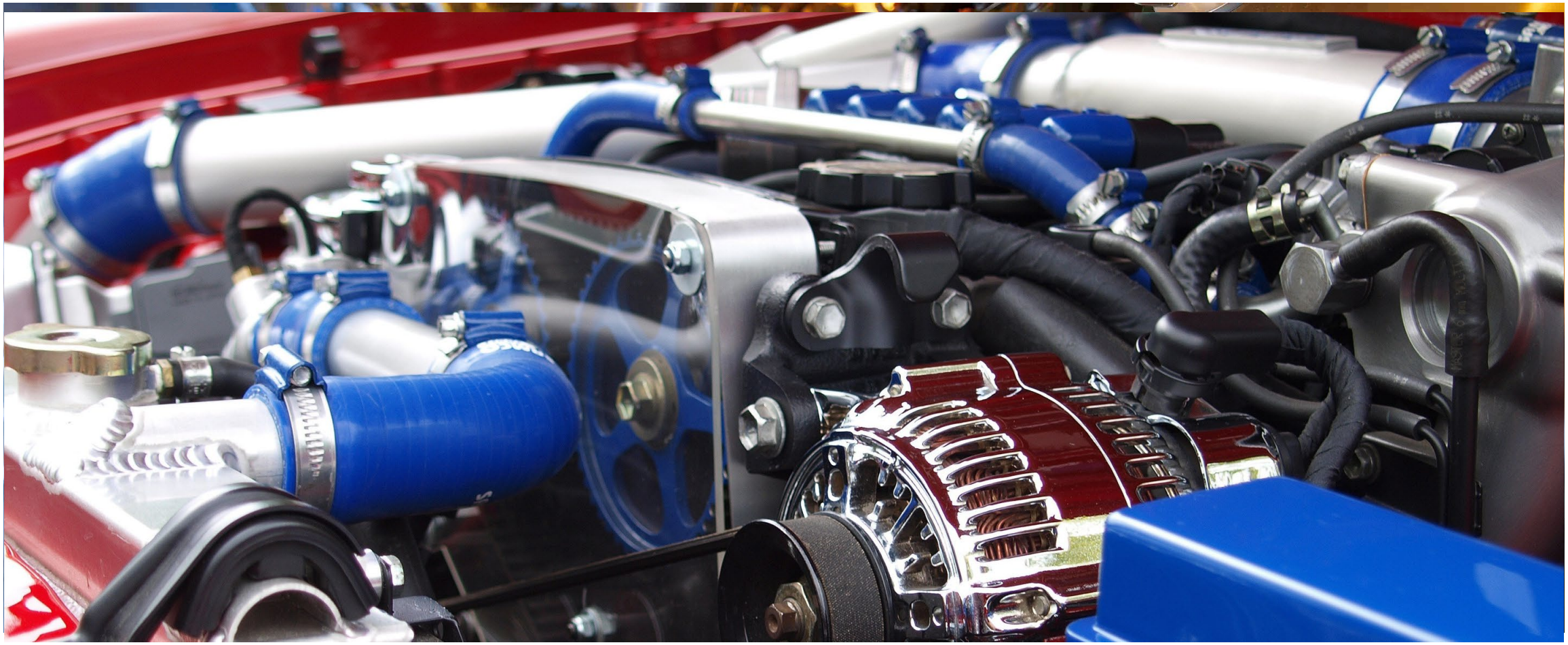


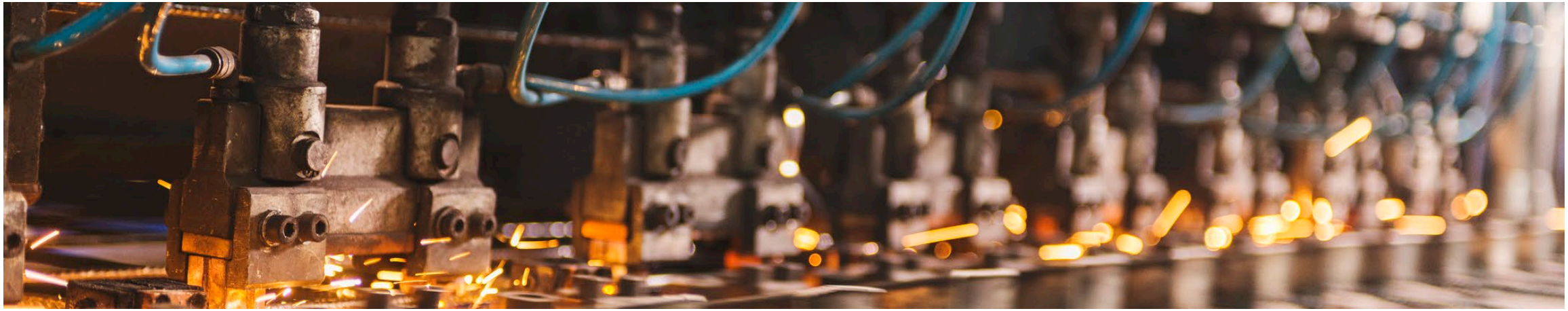
MOOG

Shaping the way our world moves™

BRUSHLESS SERVO MOTORS

Tap to conitnue

CUSTOMER NEEDS



› Increased machine productivity due to
higher performance and **faster operation**

› Improved product quality through more **accurate control**

Offer Servo Motors with highest dynamics for **higher productivity**

MOOG SOLUTION

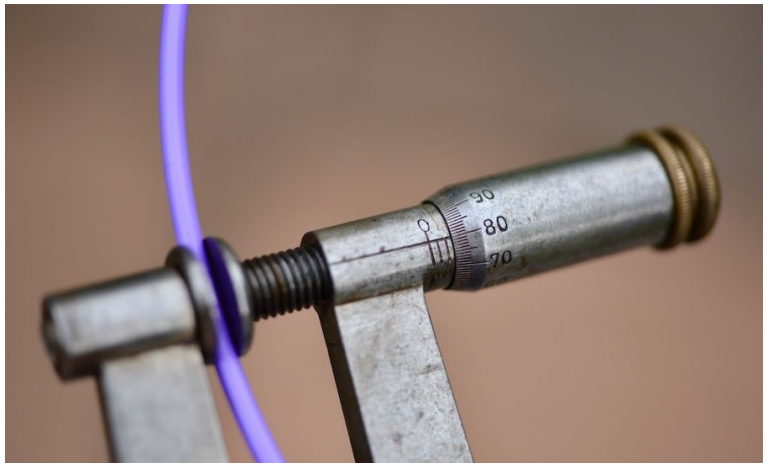
DYNAMICS

- Faster operation, higher **performance**
- Increased **productivity**
- Improved product **quality** through accurate control

RANGE

- Consistent **modular design** and features for the full range of servo motors
- Facilitation of **rapid machine design** through a wide range of available options

FLEXIBILITY



- Willingness to **customize** to meet application specific requirements.
- **Seamless integration** into existing system infrastructure (= No need for redesign)

MOOG SOLUTIONS

CORE

High Dynamic Brushless Servo Motor (HD)

SPECIAL

Explosion Proof Dynamic Brushless Servo Motor

CUSTOMIZED

Customized – Servo Motor

Compact Dynamic Brushless Servo Motor (CD)

MOOG SOLUTION

HIGH DYNAMIC BRUSHLESS SERVO MOTOR

- A permanent magnet brushless servomotor designed for extremely **high level of performance** and **acceleration**
- Reaching the **highest dynamics/power density** in the industry
- Extraordinary power/mass ratio with the **liquid-cooled version**
- **Robust & reliable** non-linear systems for transmission even for large forces & unlimited holding time.

Datasheet

MOOG SOLUTION

COMPACT DYNAMIC BRUSHLESS SERVO MOTOR

- **Compact & lightweight** construction for flexible machine design
- **Superior dynamics** for improved cycle time
- Proprietary **low-cogging** design
- Rugged and modular for **minimum maintenance**

Datasheet

MOOG SOLUTION

EXPLOSION PROOF DYNAMIC BRUSHLESS SERVO MOTOR

- Designed for operation in **flammable or explosive environments** (ATEX 94/9/CE & IECEx for gases (IIC) and dusts (IIIC)
- The flameproof housing has proven capable to **withstanding internal explosions** without bursting or allowing ignition to reach outside the motor frame
- Certified acc. to ATEX, IECEx, NEC, KOSHA, CCC Ex, and TRCU

Datasheet

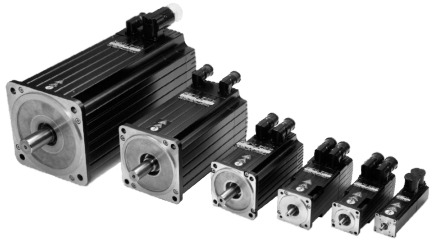
MOOG SOLUTIONS

HIGH DYNAMIC (HD)

Technical details +

- 5 motor sizes from 100 to 275 mm (3.93 to 10.82 in)
- Nominal torque from 2 to 909 Nm (25.76 to 8,815 lbf in)
- Peak torque from 11 to 2,089 Nm (97.36 to 18,489.21 lbf in)
- Rated speed from 500 to 6,000 rpm
- Natural convection, fan or liquid cooling*

COMPACT DYNAMIC (CD)



Technical details +

- 6 motor sizes from 40 to 190 mm (1.6 to 7.5 in)
- Nominal torque from 0.16 to 74.3 Nm (1.40 to 657 lbf in)
- Peak torque from 0.5 to 240 Nm (4.40 to 2,124 lbf in)
- Rated speed from 1,800 to 11,000 rpm
- Natural convection or fan cooling*

EX-PROOF DYNAMIC (EXD)

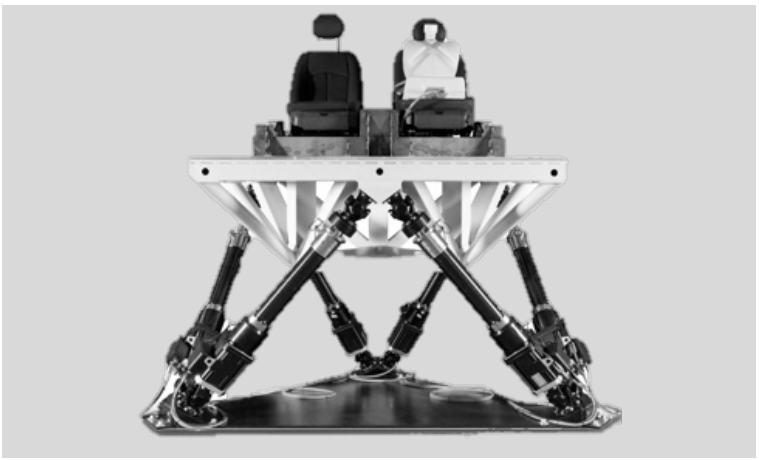
Technical details +

- 3 motor sizes from 70 to 190 mm (2.8 to 7.5 in)
- Nominal torque from 0.52 to 66.68 Nm (4.6 to 590 lbf in)
- Peak torque from 1.6 to 239.31 Nm (14.2 to 2,118 lbf in)
- Rated speed from 1,800 to 11,000 rpm

* Further design options on request (e.g. connectors, integral holding brake, thermal sensor, key and keyless shaft option or special motor windings)

TYPICAL TARGET APPLICATIONS

COMPACT AND HIGH DYNAMIC SERVO MOTORS



| Plastics machinery

- › Blow molding
- › Injection molding

| Industrial machinery

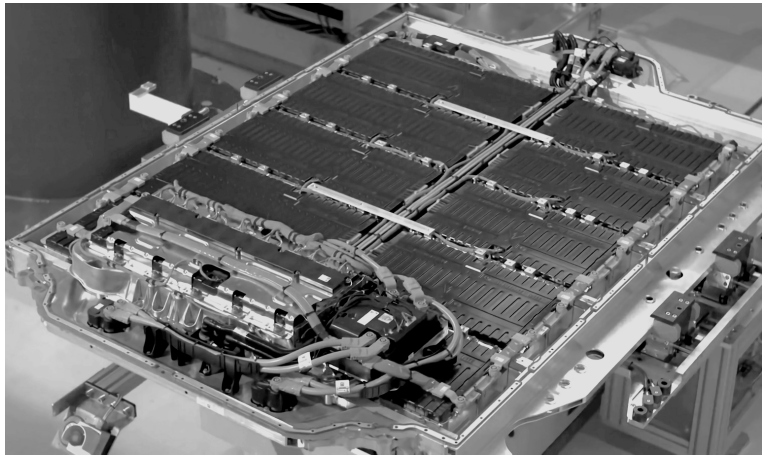
- › Metal forming and presses
- › Material handling / Robotics

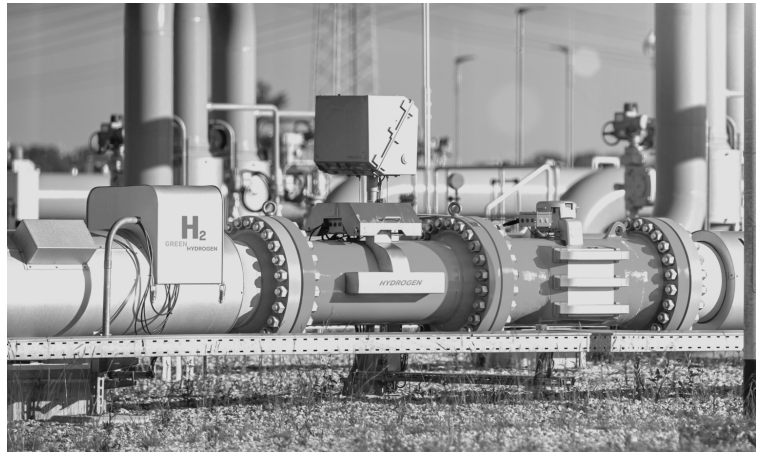
| Test and Simulation

- › Test benches / Hexapods
- › Simulation plattforms

TYPICAL TARGET APPLICATIONS

EX-PROOF DYNAMIC SERVO MOTORS





| Oil and Gas

- Drilling rigs
- Power Generation
  (Gas and Steam Turbines)

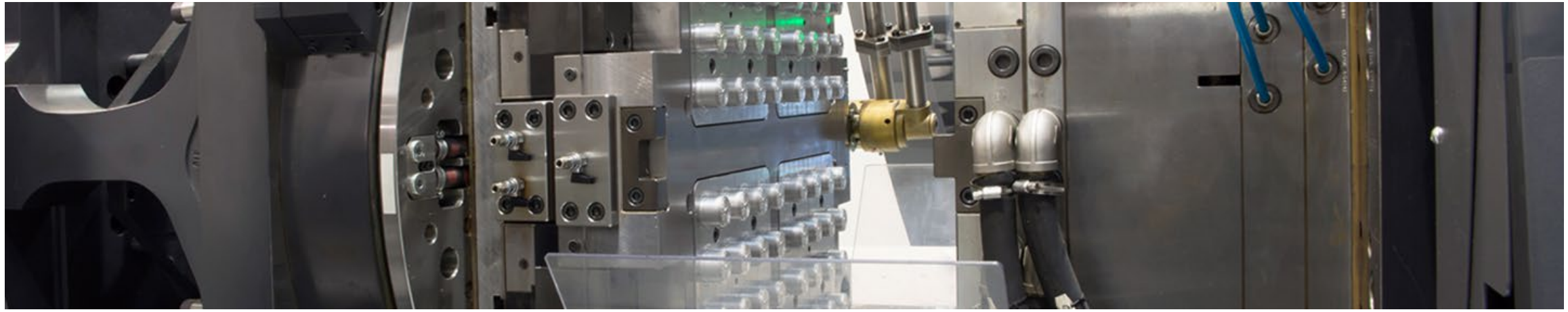
| Industrial manufacturing

- Battery manufacturing
- Semiconductor industry
- Paint equipment and systems

| Hydrogen industry

- High pressure intensifiers
- Gas / Hydrogen compression
- Electrolysis / chemical conversion

SUMMARY



- Moog provide a wide torque range of **high quality, cost-effective, high-performance** servo motors
- Combined with a willingness to customize ensures the best motor offering to our customers to achieve the **best performance at lowest system cost**

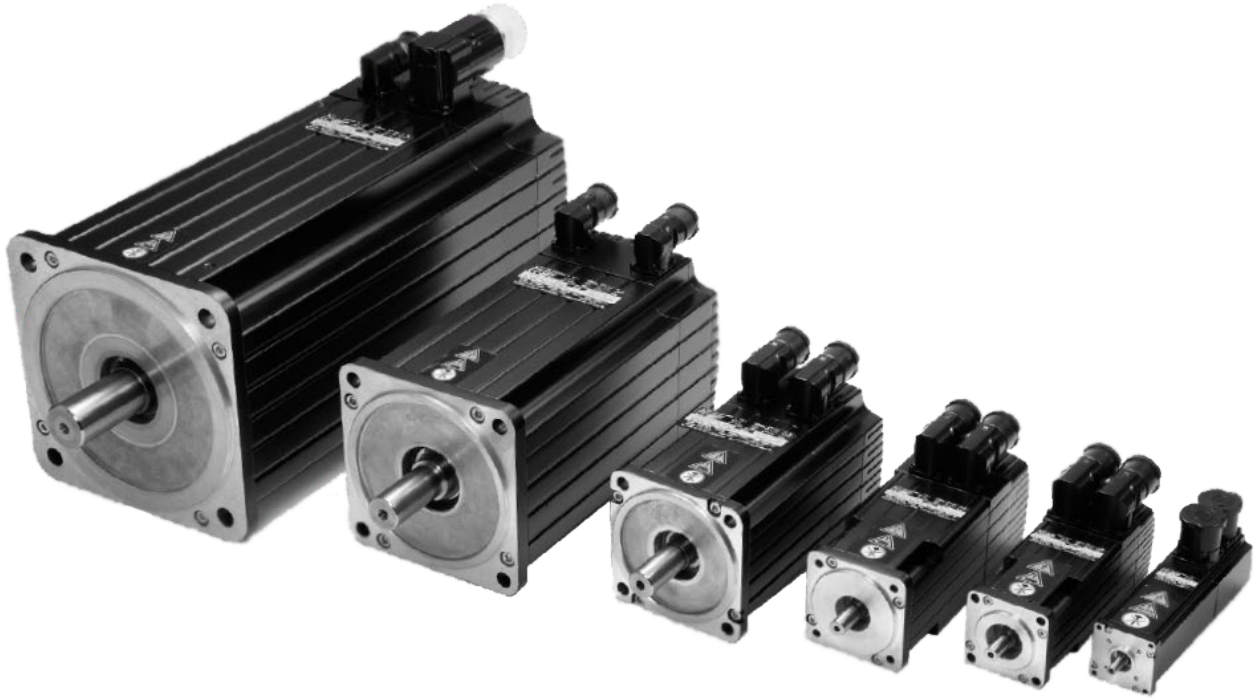
MOOG SOLUTIONS

HIGH DYNAMIC BRUSHLESS SERVO MOTOR

Tap to see less

MOOG SOLUTIONS

COMPACT DYNAMIC BRUSHLESS SERVO MOTOR



Tap to see less

MOOG SOLUTIONS

EXPLOSION PROOF DYNAMIC BRUSHLESS SERVO MOTOR

Tap to see less

MOOG SOLUTIONS

CUSTOMIZED SERVO MOTOR

Tap to see less

MOOG SOLUTIONS

HIGH DYNAMIC BRUSHLESS SERVO MOTOR (HD SERIES)

Motor size	**Square flange** mm (in)	**Maximum torque** Nm (lbf in)	**Continuous stall torque** Nm (lbf in)			**Rated speed** rpm	**Rotor inertia** kg cm² (lb in²)
			Natural cooled	**Fan Cooled**	**Liquid cooled**		
HD100	100 (3.93)	11 – 54 (97.36 – 477.94)	3 – 10 (25.76 – 92.93)	8 – 17 (72.58 – 154.00)	10 – 24 (84.97 – 216.84)	1500 – 6000	1.77 – 9 (25.17 – 128.01)
HD115	115 (4.52)	13 – 68 (118.6 – 601.85)	4 – 17 (35.40 – 154.89)	11 – 26 (101.78 – 230.12)	14 – 36 (125.68 – 321.11)	900 – 4500	3.92 – 19 (55.75 – 270.24)
HD140	140 (5.51)	45 – 273 (398.28 – 2416.25)	9 – 47 (79.66 – 420.41)	29 – 76 (254.02 – 677.08)	41 – 123 (360.23 – 1088.64)	750 – 3900	11.61 – 56.32 (165.13 – 801.05)
HD200	200 (7.87)	43 – 833 (384.12 – 7372.67)	17 – 169 (151.35 – 1495.78)	44 – 235 (385.89 – 2081.7)	50 – 399 (446.08 – 3533.22)	600 – 3500	49.90 – 455 (709.74 – 6471.62)
HD275	275 (10.83)	683 – 2092 (6045.06 – 18515.76)	166 – 417 (1469.22 – 3690.76)	204 – 514 (1802.01 – 4553.71)	347 – 996 (3071.21 – 8815.34)	500 – 1400	700 – 2038.5 (9956.31 – 28994.28)

Tap to see less

* Further design options on request (e.g. connectors, integral holding brake, thermal sensor, key and keyless shaft option or special motor windings)

MOOG SOLUTIONS

COMPACT DYNAMIC BRUSHLESS SERVO MOTOR (CD SERIES)

Type code	**Square flange** mm (in)	**Maximum torque** Nm (lbf in)	**Continuous stall torque** Nm (lbf in)	**Rated speed** rpm	**Rotor inertia** kg cm² (lb in²)
G-1	40 (1.6)	0.5 – 1.51 (4.40 – 13.4)	0.16 – 0.35 (1.40 – 3.10)	9000 – 6000	0.027 – 0.072 (0.24 – 0.64)
G-2	55 (2.2)	0.83 – 6.64 (7.31 – 58.6)	0.24 – 2.02 (2.10 – 17.9)	9000 – 5000	0.09 – 0.44 (0.80 – 3.86)
G-3	70 (2.8)	1.72 – 13.3 (15.3 – 118)	0.55 – 3.94 (4.90 – 34.9)	11000 – 3400	0.16 – 0.97 (1.40 – 8.60)
G-4	100 (3.9)	3.38 – 41.4 (29.9 – 363)	1.25 – 11.3 (11.1 – 100)	8000 – 2600	1.05 – 7.05 (9.30 – 62.5)
G-5	140 (5.5)	13.3 – 94.6 (117 – 837)	5.80 – 35.2 (51.3 – 311)	5000 – 1800	4.71 – 27.2 (41.7 – 241)
G-6	190 (7.5)	40.3 – 240 (356 – 2124)	14.0 – 74.3 (124 – 657)	4000 – 2000	27.8 – 157 (246 – 1389)

Tap to see less

* Further design options on request (e.g. connectors, integral holding brake, thermal sensor, key and keyless shaft option or special motor windings)

MOOG SOLUTIONS

EXPLOSION-PROOF DYNAMIC BRUSHLESS SERVO MOTOR (EXD SERIES)

Type code	**Square flange** mm (in)	**Maximum torque** Nm (lbf in)	**Continuous stall torque** Nm (lbf in)	**Rated speed** rpm	**Rotor inertia** kg cm² (lb in²)
G-3	70 (2.8)	1.6 – 13.2 (14.2 – 117)	0.52 – 3.26 (4.6 – 28.9)	7800 – 3800	0.16 – 0.97 (1.4 – 8.6)
G-5	140 (5.5)	12.2 – 108 (108 – 542)	5.79 – 25.4 (51.2 – 225)	4800 – 2000	4.6 – 18.4 (40.7 – 163)
G-6	190 (7.5)	40.13 – 239.31 (355 – 2118)	12.91 – 66.68 (114 – 590)	4000 – 2000	28.6 – 157 (253 – 1389)

Tap to see less

* Further design options on request (e.g. connectors, integral holding brake, thermal sensor, key and keyless shaft option or special motor windings)