

**Power
Transmission
Solutions
for the
Servo Motor
Industry**



SPRING APPLIED BRAKES FOR SERVO MOTOR APPLICATIONS

For more than 30 years, Matrix, a company of Altra Industrial Motion, has manufactured more than 1000 variants of spring-applied, electromagnetically released brakes for servo motor manufacturers in Europe, USA and Asia.

Servo-driven solutions can achieve faster speeds with more precise accuracy while providing greater flexibility and quicker changeover in various industrial applications including:

- Robotics & Industrial Automation
- Machine Tool
- Medical
- Automotive
- Printing & Paper Converting
- Assembly & Semiconductors
- Renewable Energy



SPECIFIC DESIGNS FOR CUSTOMISED APPLICATIONS

Our experienced design and development team provide solutions that meet the specific requirements of a wide range of servo motor applications. 3D CAD and mathematical modelling software, alongside computer-controlled test and data capture equipment ensure very high quality and consistency levels.

Our flexible engineering systems support design, development, manufacturing and testing of custom solutions. Working with your design team, we can engineer brakes that:

- Provide specified performance within given space restrictions
- Closely integrate the brake with the motor
- Use friction materials to meet specific torque, temperature & energy requirements

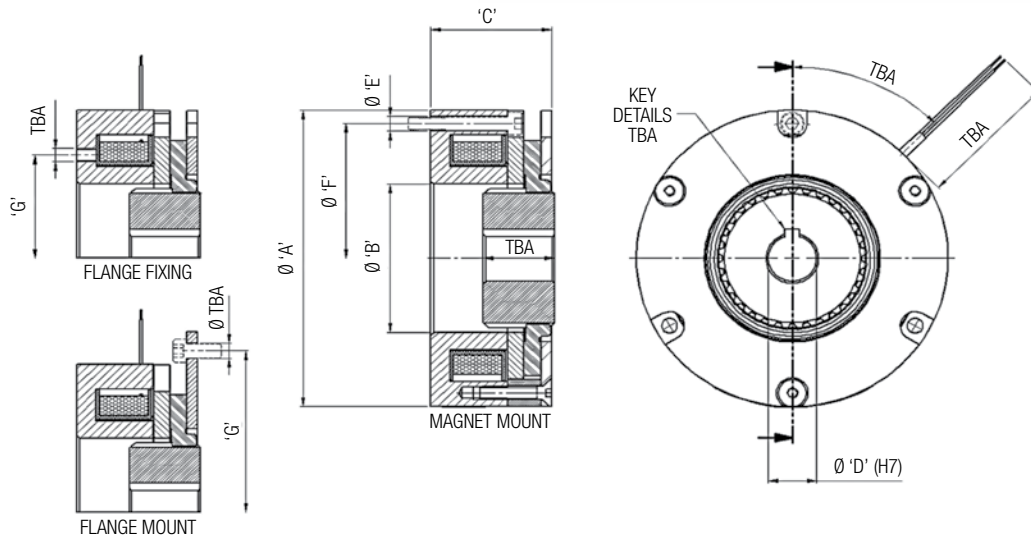


Quality

Matrix's quality system is accredited to ISO 9001 ensuring that product design and development, manufacturing and service are of the highest standard. Our refined manufacturing processes and quality supply chain partners help us provide cost effective products that meet or exceed our customer expectations.

CUSTOMISED BRAKE OPTIONS

- Toleranced recesses for bearings and encoders
- Customised geometry for space critical applications
- Adapter plates to mount on smaller PCDs & larger
- Lead length, colour, type and connectors
- Low/Zero backlash
- Operating voltage
- Reduced power consumption options
- Double disc, 2 x torque option



Ref	Dim 'A' (mm)	Dim 'B' (mm)	Dim 'C' (mm)	Dim 'D' (mm)	Dim 'E' (mm)	Dim 'F' (mm)	Dim 'G' (mm)	Holding Torque (Nm)
1EB011	40	13	30	10	Ø3.2	33.8	Information (size, quantity, position & PCD) to be provided by the customer	0.4
1EB012	46	14	31	12	Ø3.4	42.0		1.2
1EB014	50	20	35	12*	Ø3.4	45.0		2
1EB017	56	26	30	15	Ø3.4	50.0		2.5
1EB018	60	20	31	17	Ø4.5	52.0		4
1EB020	70	30	33	20*	Ø4.5	63.0		7
1EB024	77	30	35	27*	Ø4.5	70.0		12
1EB026	83	35	37	32*	Ø4.5	75.0		13.5
1EB027	85	35	40	25	Ø4.5	74.0		15
1EB028	90	35	36	32*	Ø4.5	83.0		25
1EB030	100	42	44	30*	Ø5.5	90.0		30
1EB035	110	55	44	40	Ø6.5	100.0		40
1EB037	120	55	45	40	Ø5.5	110.0		55
1EB040	128	55	46	40	Ø5.5	114.0		60
1EB045	145	55	60	40	Ø6.5	132.0		70
1EB050	160	58	70	40	Ø9.0	145.0		150
1EB060	185	66	76	40	Ø9.0	170.0		180
1EB070	212	80	94	55	Ø9.0	196.0	400	

Notes:

- The above dimensions can be customised to suit individual applications.
- Brakes can be supplied in either Magnet Mount, Flange Mount or Rear Fixing.
- Brakes can be supplied with double friction discs.
- * Hub bores without key

Belted Drives and Sheaves

TB Wood's

Belted Drives

Chambersburg, PA - USA
1-888-829-6637 – Press #5

For application assistance:
1-888-829-6637 – Press #7

Couplings

Ameridrives Couplings

*Mill Spindles, Ameriflex,
Ameridisc*

Erie, PA - USA
1-814-480-5000

Gear Couplings

San Marcos, TX - USA
1-800-458-0887

*Universal Joints, Drive Shafts,
Mill Gear Couplings*

Erie, PA - USA
1-920-593-2444

Bibby Turboflex

*Disc, Gear, Grid Couplings,
Overload Clutches*

Dewsbury, England
+44 (0) 1924 460801

Boksburg, South Africa
+27(0) 11 918 4270

Guardian Couplings

*Engineered Flywheel Couplings,
Engine Housings and Pump Mounts,
Flexible Shaft Couplings*

Michigan City, IN - USA
1-219-874-5248

Huco Dynatork

*Precision Couplings and
Air Motors*

Hertford, England
+44 (0) 1992 501900

Chambersburg, PA - USA
1-888-829-6637

Lamiflex Couplings

*Flexible Couplings, Bearing
Isolators, and Coupling Guards*

Cotia, SP - Brasil
+55 (11) 4615-6300

Couplings Cont.

TB Wood's

Elastomeric Couplings

Chambersburg, PA - USA
1-888-829-6637 – Press #5

For application assistance:
1-888-829-6637 – Press #7

General Purpose Disc Couplings

San Marcos, TX - USA
1-888-449-9439

**Electromagnetic
Clutches and Brakes**

Inertia Dynamics

*Spring Set Brakes; Power On and
Wrap Spring Clutch/Brakes*

New Hartford, CT - USA
1-800-800-6445

Matrix International

*Electromagnetic Clutches
and Brakes, Pressure Operated
Clutches and Brakes*

Brechin, Scotland
+44 (0) 1356 602000
New Hartford, CT - USA
1-800-825-6544

Warner Electric

*Electromagnetic Clutches
and Brakes*

New Hartford, CT - USA
1-800-825-6544

For application assistance:
1-800-825-9050

Saint Barthélemy d'Anjou, France
+33 (0)2 41 21 24 24

*Precision Electric Coils and
Electromagnetic Clutches and
Brakes*

Columbia City, IN - USA
1-260-244-6183

**Engineered
Bearing Assemblies**

Kilian Manufacturing

*Engineered Bearing
Assemblies*

Syracuse, NY - USA
1-315-432-0700

Gearing

Bauer Gear Motor

Geared Motors

Esslingen, Germany
+49 (711) 3518-0

Middlesex, NJ - USA
1-732-469-8770

Boston Gear

*Enclosed and Open Gearing,
Electrical and Mechanical
P.T. Components*

Charlotte, NC - USA
1-800-825-6544

For application assistance:
1-800-816-5608

**Nuttall Gear and
Delroyd Worm Gear**

*Worm Gear and
Helical Speed Reducers*

Niagara Falls, NY - USA
1-716-298-4100

**Heavy Duty
Clutches and Brakes**

Industrial Clutch

*Pneumatic and Oil Immersed
Clutches and Brakes*

Waukesha, WI - USA
1-262-547-3357

Svendborg Brakes

*Industrial Brakes and
Brake Systems*

Vejstrup, Denmark
+45 63 255 255

Twiflex Limited

Caliper Brakes and Thrusters

Wichita Falls, TX - USA
1-844-723-3483

Twickenham, England
+44 (0) 20 8894 1161

Wichita Clutch

*Pneumatic Clutches
and Brakes*

Wichita Falls, TX - USA
1-800-964-3262

Bedford, England
+44 (0) 1234 350311

Linear Products

Warner Linear

Linear Actuators

New Hartford, CT - USA
1-800-825-6544

For application assistance:
1-800-825-9050

Saint Barthélemy d'Anjou,
France
+33 (0)2 41 21 24 24

Overrunning Clutches

Formsprag Clutch

*Overrunning Clutches
and Holdbacks*

Warren, MI - USA
1-800-348-0881 – Press #1

For application assistance:
1-800-348-0881 – Press #2

Marland Clutch

*Roller Ramp and Sprag Type
Overrunning Clutches
and Backstops*

South Beloit, IL - USA
1-800-216-3515

Stieber Clutch

*Overrunning Clutches
and Holdbacks*

Heidelberg, Germany
+49 (0) 6221-30470

For information concerning our
sales offices in Asia Pacific
check our website
www.altramotion.com.cn



www.matrix-international.com

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