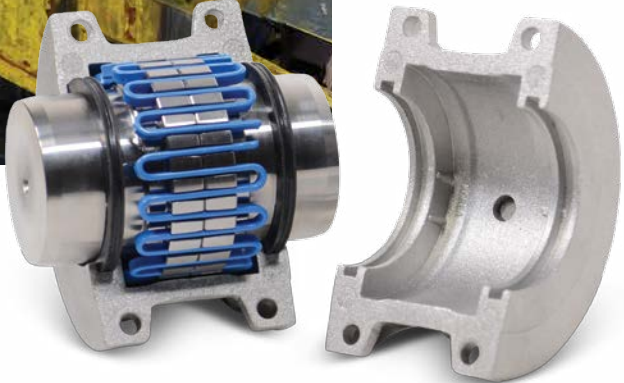




Taper Grid Couplings



 **Guardian**[®]
Couplings

An Altra Industrial Motion Company

ABOUT GUARDIAN COUPLINGS

For more than 70 years, Guardian has been designing and manufacturing world-class couplings and other power transmission components. Utilizing advanced manufacturing technologies and processes, Guardian provides highly-reliable coupling and component solutions to meet the most challenging industrial application requirements.

Guardian provides a wide range of standard and custom products including flywheel couplings, hydraulic pump mounts, bearing supported stub shafts, flexible shaft-to-shaft couplings, motion control couplings as well as compression pipe couplings.

Durable Guardian products are utilized in key industries including mobile hydraulics, farm & ag, tree care, concrete, food & beverage, material handling, automation, power generation, and oil & gas on applications such as skid steers, aerial lifts, harvesters, wood chippers, concrete pumps, dewatering pumps, baggage handlers, conveyors, robotics, compressors, and generator sets.



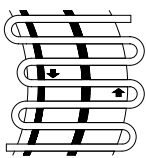
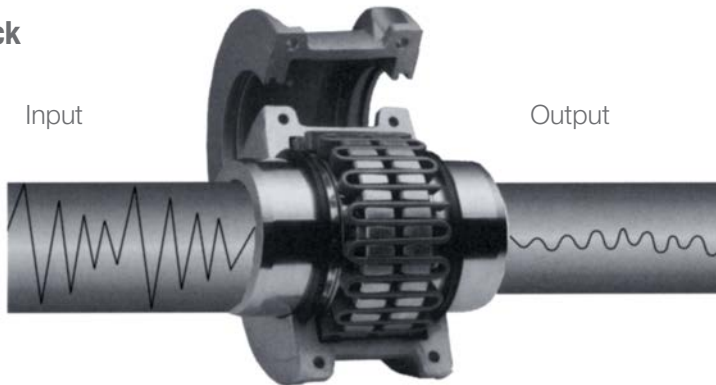
ALTRA COUPLINGS

Altra Couplings offers the largest selection of industrial couplings available from a single source... worldwide. For over 150 years, TB Wood's, Ameridrives, Bibby Turboflex, Lamiflex, Ameridrives Power Transmission, Guardian and Huco, the industry-leading brands of Altra Couplings have been providing innovative coupling solutions to meet the requirements for a broad variety of drivetrain applications spanning many industries including energy, metals, mining, oil & gas, and food processing. Highly-engineered Altra coupling products represent the latest in coupling technology, featuring superior design and exceptional quality to ensure long-lasting performance in all types of environments.

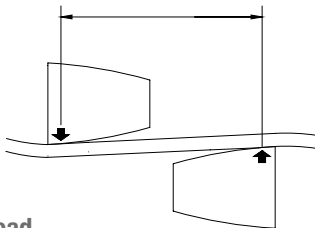
TAPER GRID COUPLINGS

The steel grid coupling is similar in nature to a steel gear coupling, except the connecting sleeve is replaced by a flexible chrome-vanadium alloy leaf spring grid. The steel hubs are cut with profiled slots, allowing the grid to engage circumferentially. The grid “springs” deflect under torque, distributing the peak torque load over a large angle of rotation. The inherent property of torsional softness allows the coupling to absorb shock loads.

Vibration & Shock



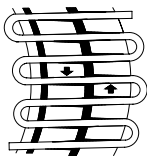
Light Load



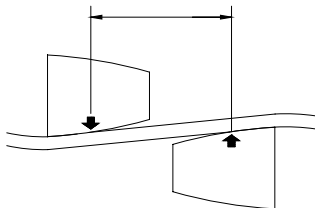
The grid contacts near the outer edges of the hub teeth. A long span between the points of contact remains free to flex under load.

Advantages

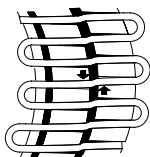
- Overload conditions cause the grid element to shear, like a mechanical fuse.
- Grid can be changed “in place”, saving time.
- Low maintenance.
- Quiet operation.
- Allows for parallel/angular misalignment and permits end float.
- Torsional flexibility.
- Competitively priced.



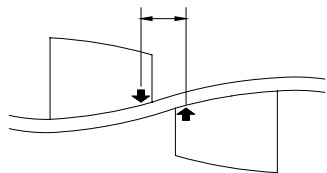
Normal Load



As the load increases, the distance between the contact points on the hub teeth is shortened, but a free span still remains to cushion the load.



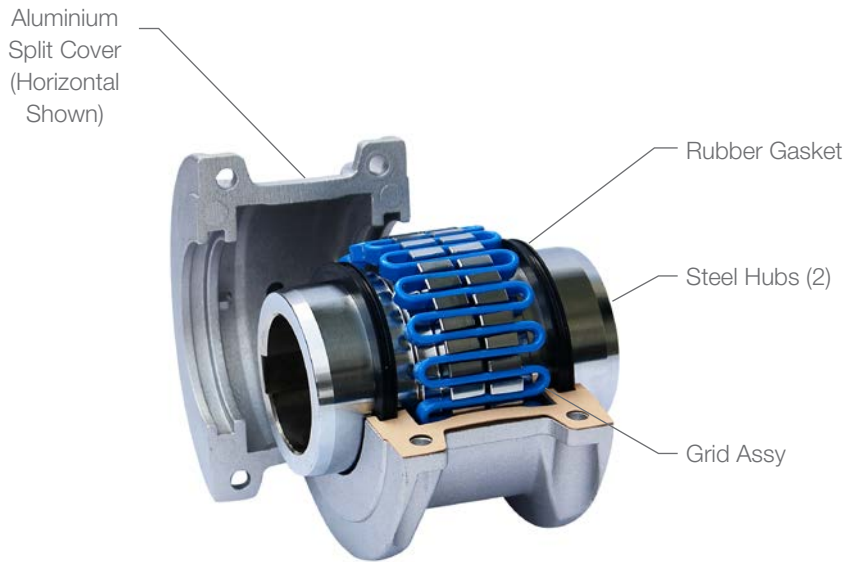
Shock Load



The coupling is flexible within its rated capacity. Under extreme overloads, the grid bears fully on the hub teeth and transmits full load directly.

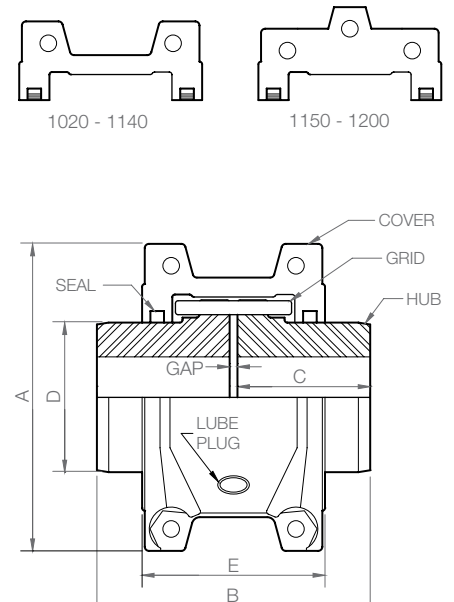
GUARDEX™ STYLE “TG” GRID COUPLING

Horizontal Split Cover



“TG” Tapered Grid

Cover Profiles

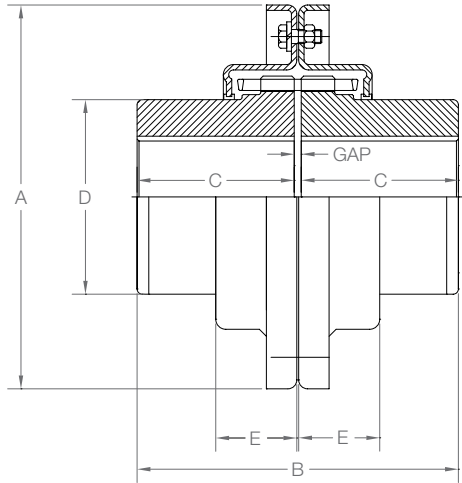
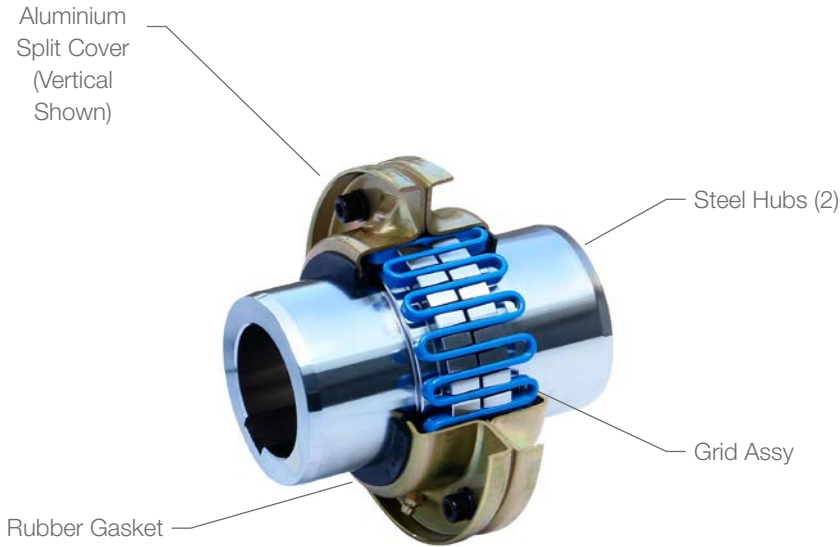


Dimensional Data

Size	HP Per 100 rpm	Max. Speed (rpm)	Nom. Torque IN #	Bore Dia. (IN)		Dimensions (IN)					Gap (IN)		Cplg. Wt #
				Max.	Min.	A	B	C	D	E	Min.	Max.	
1020	0.73	4,500	460	1.18	.47	4.00	3.86	1.87	1.56	2.62	.059	.177	4
1030	2.09	4,500	1,320	1.38	.47	4.33	3.86	1.87	1.94	2.69	.059	.177	6
1040	3.49	4,500	2,200	1.70	.47	4.63	4.12	2.00	2.25	2.75	.059	.177	8
1050	6.11	4,500	3,850	1.97	.47	5.43	4.87	2.37	2.63	3.13	.059	.177	12
1060	9.60	4,350	6,050	2.17	.75	5.93	5.12	2.50	3.00	3.62	.059	.177	16
1070	14.00	4,125	8,800	2.56	.75	6.37	6.12	3.00	3.44	3.74	.059	.177	22
1080	28.80	3,600	18,150	3.07	1.06	7.64	7.12	3.50	4.13	4.57	.059	.177	40
1090	52.40	3,600	33,000	3.75	1.06	8.39	7.87	3.87	4.87	4.80	.059	.236	55
1100	88.10	2,400	55,550	4.21	1.61	9.84	9.67	4.75	5.59	6.12	.059	.236	93
1110	131.00	2,250	82,500	4.61	1.61	10.63	10.18	5.00	6.31	3.36	.059	.375	119
1120	192.00	2,025	121,000	5.35	2.36	12.13	11.98	5.87	7.06	7.54	.059	.375	179
1130	279.00	1,800	176,000	6.50	2.64	13.62	12.98	6.37	8.56	7.68	.059	.500	267
1140	401.00	1,650	253,000	7.25	2.64	15.12	14.63	7.20	10.00	7.91	.059	.500	393
1150	559.00	1,500	352,000	8.00	4.25	17.84	14.64	7.20	10.60	10.68	.059	.500	516
1160	785.00	1,350	495,000	8.98	4.75	19.74	15.83	7.80	12.00	10.98	.059	.500	700
1170	1,047.00	1,225	660,000	10.98	5.25	22.30	17.24	8.50	14.00	11.98	.059	.500	988
1180	1,452.00	1,100	915,200	12.24	6.00	24.80	19.04	9.40	15.50	12.64	.059	.492	1,365
1190	1,920.00	1,050	1,210,000	13.35	6.00	26.60	20.64	10.20	17.20	12.80	.059	.492	1,711
1200	2,618.00	900	1,650,000	14.21	7.00	29.80	22.24	11.00	19.60	14.00	.059	.492	2,330

GUARDEX™ STYLE “TG” GRID COUPLING

Vertical Split Cover



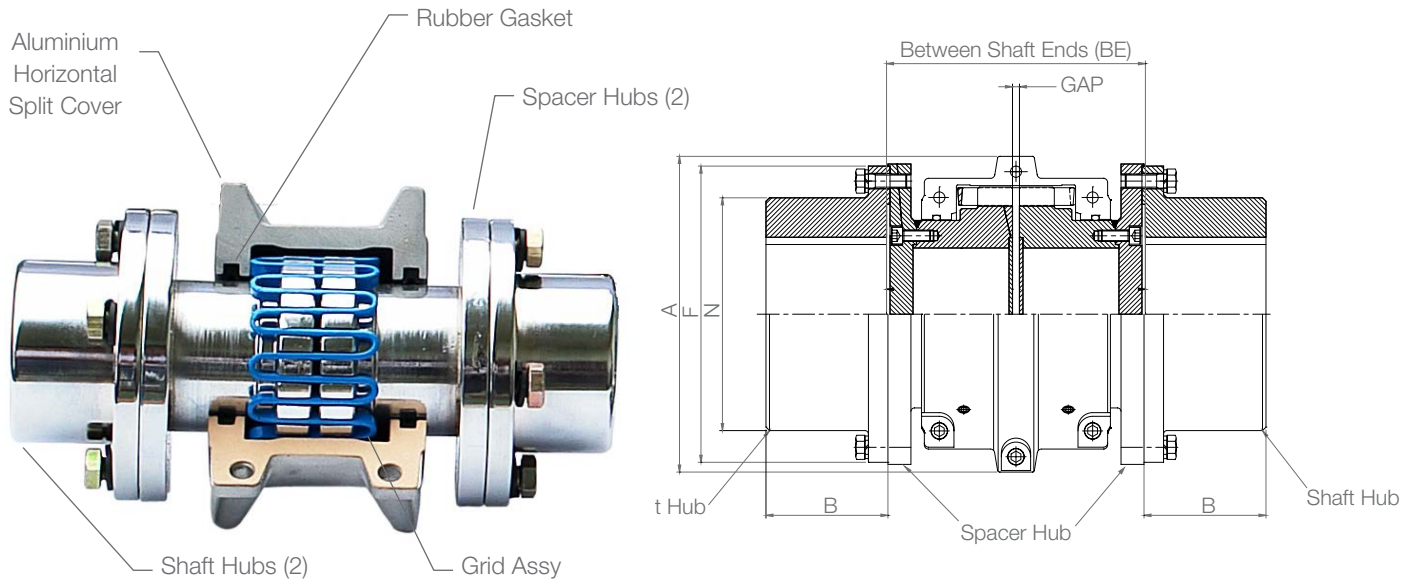
“TG” Tapered Grid

Dimensional Data

Size	HP Per 100 rpm	Max. Speed (rpm)	Nom. Torque IN #	Bore Dia. (IN)		Dimensions (IN)					Gap (IN)		Cplg. Wt #
				Max.	Min.	A	B	C	D	E	Min.	Max.	
1020	0.73	6,000	460	1.18	.50	4.37	3.86	1.87	1.56	.95	.059	.177	4
1030	2.09	6,000	1,320	1.42	.50	4.75	3.86	1.87	1.94	.98	.059	.177	6
1040	3.49	6,000	2,200	1.73	.50	5.06	4.12	2.00	2.25	1.01	.059	.177	7
1050	6.11	6,000	3,850	1.97	.50	5.81	4.87	2.37	2.63	1.23	.059	.177	12
1060	9.60	6,000	6,050	2.24	.75	6.38	5.12	2.50	3.00	1.27	.059	.177	16
1070	14.00	5,500	8,800	2.56	.75	6.81	6.12	3.00	3.44	1.33	.059	.177	23
1080	28.80	4,750	18,150	3.11	1.06	7.87	7.12	3.50	4.13	1.74	.059	.177	39
1090	52.40	4,000	33,000	3.74	1.06	9.13	7.87	3.87	4.87	1.88	.059	.236	56
1100	88.10	3,250	55,550	4.21	1.63	10.50	9.67	4.75	5.59	2.36	.059	.236	93
1110	131.00	3,000	82,500	4.61	1.63	11.25	10.18	5.00	6.31	2.53	.059	.492	120
1120	192.00	2,700	121,000	5.35	2.37	12.56	11.98	5.87	7.06	2.89	.059	.492	180
1130	279.00	2,400	176,000	6.50	2.63	14.87	12.98	6.37	8.56	2.96	.059	.492	270
1140	401.00	2,200	253,000	7.24	2.63	16.38	14.63	7.20	10.00	3.08	.059	.492	397
1150	559.00	2,000	352,000	7.99	4.25	18.75	14.64	7.20	10.60	4.21	.059	.492	507
1160	785.00	1,750	495,000	8.98	4.75	21.00	15.83	7.80	12.00	4.50	.059	.492	708
1170	1,047.00	1,600	660,000	10.98	5.25	23.00	17.24	8.50	14.00	4.70	.059	.492	988
1180	1,452.00	1,400	915,200	12.24	6.00	24.80	19.04	9.40	15.50	5.12	.059	.492	1,303
1190	1,920.00	1,300	1,210,000	13.35	6.00	26.97	20.64	10.20	17.20	5.31	.059	.492	1,678
1200	2,618.00	1,100	1,650,000	14.21	7.00	29.02	22.24	11.00	19.60	5.71	.059	.492	2,251

GUARDEX™ STYLE "TG" GRID COUPLING

Spacer



"TG" Tapered Grid

Dimensional Data

Size	HP Per 100 rpm	Max. Speed (rpm)	Nom. Torque IN #	Bore Dia. (IN)		Dimensions (IN)							Flange Bolt No.
				Max.	Min.	A	B	BE		N	F	Gap (IN)	
								Min	Max				
1020	0.73	3,600	460	1.42	.50	4.00	1.38	3.50	7.99	2.05	3.386	.177	4
1030	2.09	3,600	1,320	1.73	.50	4.37	1.61	3.50	8.50	2.32	3.701	.197	8
1040	3.49	3,600	2,200	2.24	.50	4.63	2.13	3.50	8.50	3.07	4.449	.197	8
1050	6.11	3,600	3,850	2.52	.50	5.43	2.36	4.41	8.50	3.43	4.961	.197	8
1060	9.60	3,600	6,050	3.11	.75	5.93	2.87	5.00	12.99	4.06	5.709	.197	8
1070	14.00	3,600	8,800	3.27	.75	6.37	3.11	5.00	12.99	4.29	6.024	.197	12
1080	28.80	3,600	18,150	3.74	1.06	7.64	3.50	7.24	15.98	4.80	7.008	.197	12
1090	52.40	3,600	33,000	4.25	1.06	8.39	4.02	7.24	15.98	5.59	8.268	.197	12
1100	88.10	2,400	55,550	5.00	1.50	9.84	3.54	7.99	15.98	6.73	9.882	.256	12
1110	131.00	2,250	82,500	5.87	2.00	10.63	4.09	8.27	15.98	7.72	10.906	.256	12
1120	192.00	2,025	121,000	6.05	2.50	12.13	4.69	9.69	15.98	8.86	12.559	.374	12
1130	279.00	1,800	176,000	7.01	3.00	13.62	5.31	10.12	15.98	9.37	13.622	.374	12
1140	401.00	1,650	253,000	7.99	3.50	15.12	5.98	10.51	15.98	10.47	15.197	.374	12
1150	559.00	1,500	352,000	10.00	4.00	17.84	6.81	13.58	14.61	13.15	16.732	.374	14
1160	785.00	1,350	495,000	10.98	4.50	19.74	7.32	14.02	15.98	14.41	17.992	.374	14
1170	1,047.00	1,225	660,000	12.99	5.00	22.30	8.66	15.12	17.52	16.73	20.748	.374	16
1180	1,452.00	1,100	915,200	12.99	4.00	24.80	9.80	15.75	19.29	17.76	23.268	.374	16
1190	1,920.00	1,050	1,210,000	14.25	4.50	26.60	10.98	16.18	20.87	20.00	25.984	.374	18
1200	2,618.00	900	1,650,000	15.00	5.00	29.80	12.01	17.52	22.64	20.87	27.992	.374	18

OTHER GUARDIAN PRODUCTS:



SuperFlex Coupling

- Useful for Application With Large Driven Inertias
- Super Elastic Rubber Element
- Great Misalignment in the Torsional, Axial, Radial & Angular Directions
- No Lubrication Required



Double Disc Membrane

- Torsionally Stiff Coupling
- Zero Backlash
- Permits High Speed Operation With Excellent Balance
- Available in Single and Double Disc Designs



HH Coupling

- Torsionally Soft Coupling
- Large Torque Range (up to 265,500 IN-LBS. Max)
- Rubber Elements are Corrosion and Abrasion Resistant
- -15 to 195 Degrees F



Steel Gear Assembly

- Interchangeable With Other AGMA Gear Couplings
- Torsionally Stiff Coupling
- High Torque Rating – Up To 1 Million IN-LBS.
- Easy to Assemble & Maintain
- Optional Designs Available

<p>Belted Drives and Sheaves</p> <p>TB Wood's <i>Belted Drives</i> Chambersburg, PA - USA 1-888-829-6637 – Press #5 <i>For application assistance:</i> 1-888-829-6637 – Press #7</p> <p>Couplings</p> <p>Ameridrives Couplings <i>Mill Spindles, Ameriflex, Ameridisc</i> Erie, PA - USA 1-814-480-5000 <i>Gear Couplings</i> San Marcos, TX - USA 1-800-458-0887</p> <p>Ameridrives Power Transmission <i>Universal Joints, Drive Shafts, Mill Gear Couplings</i> Green Bay, WI - USA 1-920-593-2444</p> <p>Bibby Turboflex <i>Disc, Gear, Grid Couplings, Overload Clutches</i> Dewsbury, England +44 (0) 1924 460801 Boksburg, South Africa +27(0) 11 918 4270</p> <p>Guardian Couplings <i>Engineered Flywheel Couplings, Engine Housings and Pump Mounts, Flexible Shaft Couplings</i> Michigan City, IN - USA 1-219-874-5248</p> <p>Huco Dynatork <i>Precision Couplings and Air Motors</i> Hertford, England +44 (0) 1992 501900 Chambersburg, PA - USA 1-888-829-6637</p>	<p>Couplings Cont.</p> <p>Lamiflex Couplings <i>Flexible Couplings, Bearing Isolators, and Coupling Guards</i> Cotia, SP - Brasil +55 (11) 4615-6300</p> <p>TB Wood's <i>Elastomeric Couplings</i> Chambersburg, PA - USA 1-888-829-6637 – Press #5 <i>For application assistance:</i> 1-888-829-6637 – Press #7 <i>General Purpose Disc Couplings</i> San Marcos, TX - USA 1-888-449-9439</p> <p>Electromagnetic Clutches and Brakes</p> <p>Inertia Dynamics <i>Spring Set Brakes; Power On and Wrap Spring Clutch/Brakes</i> New Hartford, CT - USA 1-800-800-6445</p> <p>Matrix International <i>Electromagnetic Clutches and Brakes, Pressure Operated Clutches and Brakes</i> Brechin, Scotland +44 (0) 1356 602000 New Hartford, CT - USA 1-800-825-6544</p> <p>Warner Electric <i>Electromagnetic Clutches and Brakes</i> New Hartford, CT - USA 1-800-825-6544 <i>For application assistance:</i> 1-800-825-9050 Saint Barthélemy d'Anjou, France +33 (0)2 41 21 24 24 <i>Precision Electric Coils and Electromagnetic Clutches and Brakes</i> Columbia City, IN - USA 1-260-244-6183</p>	<p>Engineered Bearing Assemblies</p> <p>Kilian Manufacturing <i>Engineered Bearing Assemblies</i> Syracuse, NY - USA 1-315-432-0700</p> <p>Gearing</p> <p>Bauer Gear Motor <i>Geared Motors</i> Esslingen, Germany +49 (711) 3518-0 Somerset, NJ - USA 1-732-469-8770</p> <p>Boston Gear <i>Enclosed and Open Gearing, Electrical and Mechanical P.T. Components</i> Charlotte, NC - USA 1-800-825-6544 <i>For application assistance:</i> 1-800-816-5608</p> <p>Nuttall Gear and Delroyd Worm Gear <i>Worm Gear and Helical Speed Reducers</i> Niagara Falls, NY - USA 1-716-298-4100</p> <p>Heavy Duty Clutches and Brakes</p> <p>Industrial Clutch <i>Pneumatic and Oil Immersed Clutches and Brakes</i> Waukesha, WI - USA 1-262-547-3357</p> <p>Svendborg Brakes <i>Industrial Brakes and Brake Systems</i> Vejstrup, Denmark +45 63 255 255</p> <p>Twiflex Limited <i>Caliper Brakes and Thrusters</i> Wichita Falls, TX - USA 1-844-723-3483 Twickenham, England +44 (0) 20 8894 1161</p>	<p>Heavy Duty Clutches and Brakes Cont.</p> <p>Wichita Clutch <i>Pneumatic Clutches and Brakes</i> Wichita Falls, TX - USA 1-800-964-3262 Bedford, England +44 (0) 1234 350311</p> <p>Linear Products</p> <p>Warner Linear <i>Linear Actuators</i> Belvidere, IL - USA 1-800-825-6544 <i>For application assistance:</i> 1-800-825-9050 Saint Barthélemy d'Anjou, France +33 (0)2 41 21 24 24</p> <p>Overrunning Clutches</p> <p>Formsprag Clutch <i>Overrunning Clutches and Holdbacks</i> Warren, MI - USA 1-800-348-0881 – Press #1 <i>For application assistance:</i> 1-800-348-0881 – Press #2</p> <p>Marland Clutch <i>Roller Ramp and Sprag Type Overrunning Clutches and Backstops</i> South Beloit, IL - USA 1-800-216-3515</p> <p>Stieber Clutch <i>Overrunning Clutches and Holdbacks</i> Heidelberg, Germany +49 (0) 6221-30470</p> <p><i>For information concerning our sales offices in Asia Pacific check our website www.altramotion.com.cn</i></p>
--	---	---	--

While Guardian Industries makes every effort to ensure the accuracy of the information provided, we make no warranty as to the accuracy or completeness of said information.



www.guardiancouplings.com

300 Indiana Highway 212
Michigan City, IN 46360 - USA
219-874-5248
Fax: 219-879-6643

Merchant Drive, Hertford
Hertfordshire SG13 7BL - England
+44(0)1992 501900
Fax: +44 (0)1992 509890