866-REXNORD/866-739-6673 (Within the U.S.)
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Why Choose Rexnord?

When it comes to providing highly engineered products that improve productivity and efficiency for industrial applications worldwide, Rexnord is the most reliable in the industry. Commitment to customer satisfaction and superior value extend across every business function.

Delivering Lowest Total Cost of Ownership

The highest quality products are designed to help prevent equipment downtime and increase productivity and dependable operation.

Valuable Expertise

An extensive product offering is accompanied by global sales specialists, customer service and maintenance support teams, available anytime.

Solutions to Enhance Ease of Doing Business

Commitment to operational excellence ensures the right products at the right place at the right time.

Rexnord Company Overview
Rexnord is a growth-oriented, multi-platform industrial company with leading market shares and highly trusted brands that serve a diverse array of global end markets.

Process & Motion Control
The Rexnord Process & Motion Control platform designs, manufactures, markets and services specified, highly engineered mechanical components used within complex systems where our customers' reliability requirements and the cost of failure or downtime are extremely high.

Water Management
The Rexnord Water Management platform designs, procures, manufactures and markets products that provide and enhance water quality, safety, flow control and conservation.

TQ1-002 06/15

Torque Limiter 820 Series

Torque Limiter 820 Series

For more than 80 years, Autogard® products have led the industry in overload protection with high-quality products, design innovation and production. Autogard products are manufactured to meet ISO 9001 using the latest machine tools and high-quality materials.

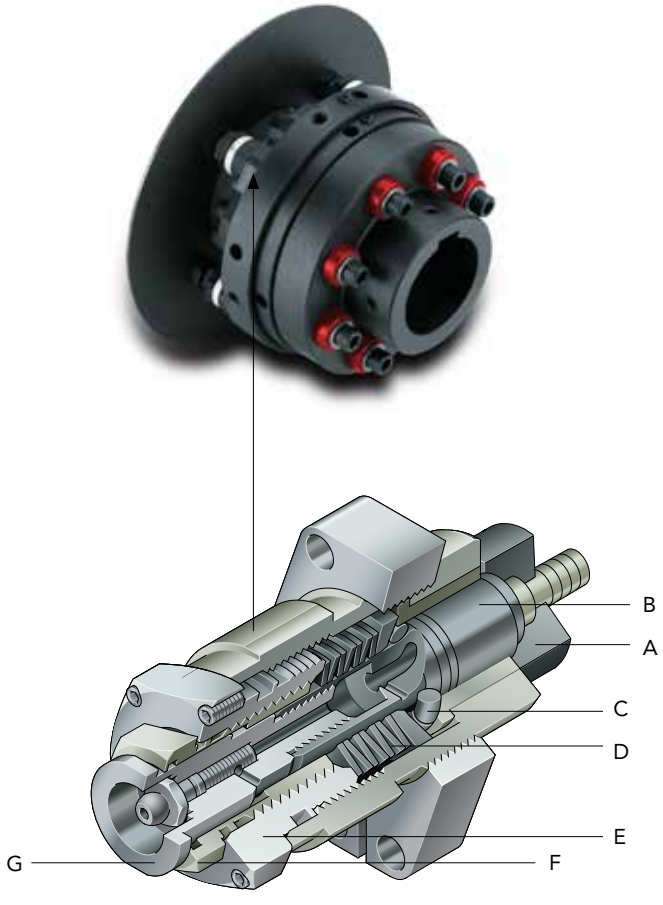
Acting like a mechanical "circuit breaker" to protect the weakest member of the drive train, the most effective location for Autogard Torque Limiters is as close as possible to the component being protected. The 820 Series has been designed using a modular principle to meet the emerging need for a high-torque, high- and low-speed torque limiter. The trip torque setting can be set to virtually any value depending upon the radius at which the modules are located, the number of modules used and module load setting.

Disengagement on overload

A hardened seat 'A' is built into one half of the torque limiter. The module unit is then located into the opposing flange in a way that the torque is transmitted between the plunger 'B' and the hardened seat. This produces an end thrust in the plunger in proportion to the applied torque. This force is resisted by a ring of segments 'C' trapped between a flat surface and a conical washer loaded by disc springs 'D.' When the axial force reaches a level greater than the reaction force through the spring mechanism, the plunger will retract forcing the segments up the plunger slope and allowing the plunger to disengage from the hardened seat. The torque limiter is now allowed to run free. The modular torque limiter may incorporate an optional limit switch plate that moves on trip and can operate a switch to stop the device.

Re-engagement

Resetting is accomplished by simply aligning the two halves, positioning the plunger over the hardened seat, and tapping the reset pin 'G' with a soft hammer. An automatic reset version is also available. If required, the trip torque is externally adjusted and is achieved by turning the adjustment nut 'E' to increase or decrease the spring pressure.



Letters above correspond to paragraphs on the left.

Features and Benefits:

- Accommodates high-torque application with high or low speeds
- Accurate and consistent torque setting ensuring reliable and repeatable torque overload protection
- Instant and complete disengagement of the driving and driven inertias ensuring optimum protection
- Trip torque can be adjusted easily without removing modules from the torque limiter
- Vernier scales are provided on each module allowing for accurate setting of the modules
- In the event of an overload, standard limit switches or proximity sensors can provide automatic motor shutdown
- Modules can be quickly and easily reset — manual or automatic resets available
- Manual disengagement allows for the unit to be disconnected for maintenance purposes
- Integral grease fitting allows for periodic lubrication of the unit without removing it from the drive line
- Wide range of mounting configurations ensures the right solution for any problem
- Drop-out center section allows the torque limiter to be removed from the drive line without moving the equipment

Selection:

Data required for torque limiter selection:

- Application details for service factors
- Kilowatt or horsepower (hp) and rpm of the driver
- Shaft details of the driving and driven equipment

(1) Calculate the nominal torque.

Torque (lb-in) = hp x 63025 / rpm

Consideration should then be given to start torque or other special circumstances depending on the position chosen in the drive system. Choose a set torque with a suitable margin over nominal. Select the torque limiter which has a higher torque rating.

(2) Check limiting conditions:

(a) Check hub bore capacity

(b) Check the torque limiter dimensions such as the overall length and outside diameter

(3) Select and specify the appropriate drive medium or coupling.

All Autogard 820 Series units may be supplied from the factory at a pre-set torque and with the required drive medium assembled to the unit.

Ordering the 820 Series Torque Limiter

When ordering, please provide the following designation:

Model & Size / Type / S1 Bore / S2 bore.

Standard bore tolerance = H8 + normal fit key

Example: 820-3L / 2 / S1-4000 / S2-5125

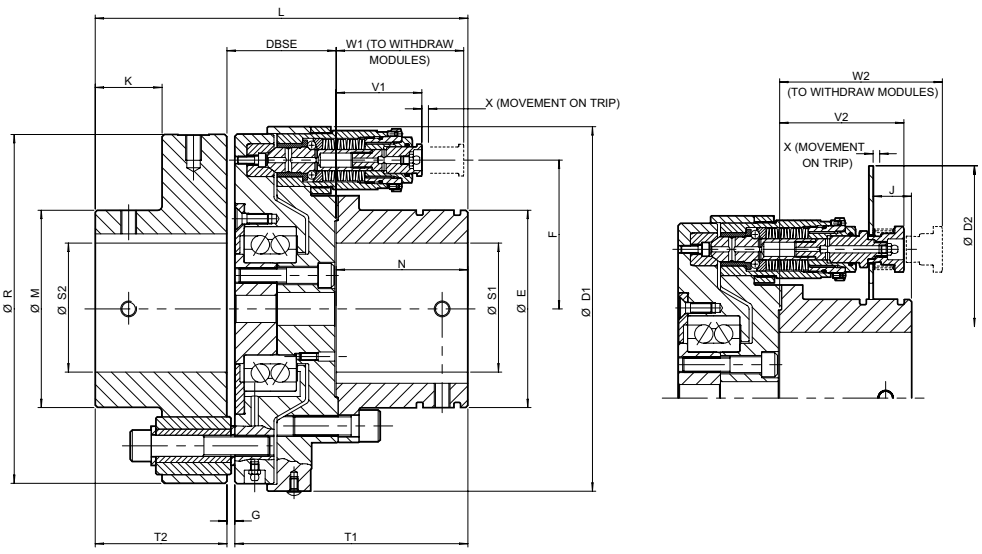
Refers to a model 820, size 3L, Type 2 torque limiter

Bore S1 = 4 in Bore S2 = 5.125 in

Also specify setting torque if required.

The specifications contained within this brochure are correct at the time of going to print. Rexnord is continually reviewing and updating the specifications on its entire Autogard product offering and therefore reserve the right to change any detail.

Type 1



Size ①②	Modules (Size-Qty)	Torque		Coupling Torque		Max Speed	Mass ④	Mass Moment of Inertia MR² ④	Max Axial Misalignment	Max Parallel Misalignment
		Min	Max	Nominal	Peak					
		lb-in	lb-in	lb-in	lb-in	rpm	lb	lb-in²	in	in
1L	1L-4	3,275	13,011	18,764	37,527	3,800	73	461	+/- .12	.005
1H	1H-4	6,505	26,021	18,764	37,527	3,800	74	465	+/- .12	.005
2L	2L-3	7,612	30,535	56,114	112,228	2,400	167	1,855	+/- .12	.005
2H	2H-3	15,268	61,070	56,114	112,228	2,400	168	1,876	+/- .12	.005
3L	2L-4	12,391	50,007	85,410	170,819	2,150	273	4,340	+/- .14	.005
3H	2H-4	25,003	100,013	85,410	170,819	2,150	276	4,374	+/- .14	.005
4L	3L-4	26,995	107,979	159,933	319,866	1,800	538	12,711	+/- .14	.005
4H	3H-4	53,990	215,958	159,933	319,866	1,800	542	12,916	+/- .14	.005
5L	4L-3	57,884	231,447	309,776	619,553	1,800 ③	1,041	43,054	+/- .14	.005
5H	4H-3	115,724	462,894	309,776	619,553	1,800 ③	1,049	43,738	+/- .14	.005
6	5-3	531,045	1,062,090	Designed to customer specification. Consult Rexnord.						

① Max angular misalignment 0.25°.
② Balancing optional.
③ Consult Rexnord if limit switch plate is required at speeds above 1,400 rpm.
④ Mass and inertia values calculated for units with solid hubs without limit switch plate.

Type 1 Design to accept a standard pin and bush elastic coupling.

Size	S1 (max)	S2 (max)	DBSE	D1	D2	E	F	G	J	K	L	M	N	R	T1	T2	V1	V2	W1	W2	X
	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in
1L	3.15	3.31	2.49	8.35	11.34	4.53	3.37	0.24	1.28	1.79	8.78	4.67	3.15	7.68	5.39	3.15	1.98	2.79	3.01	3.66	0.15
1H	3.15	3.31	2.49	8.35	11.34	4.53	3.37	0.24	0.89	1.79	8.78	4.67	3.15	7.68	5.39	3.15	2.38	3.18	3.40	4.06	0.15
2L	3.94	4.50	3.27	10.91	13.90	5.91	4.45	0.24	1.70	2.00	11.14	6.40	3.94	10.43	6.97	3.94	2.01	3.17	3.34	4.33	0.20
2H	3.94	4.50	3.27	10.91	13.90	5.91	4.45	0.24	1.15	2.00	11.14	6.40	3.94	10.43	6.97	3.94	2.56	3.72	3.89	4.88	0.20
3L	4.72	5.12	3.68	12.95	15.94	7.09	5.47	0.28	2.48	2.36	13.11	7.42	4.72	12.36	8.11	4.72	2.01	3.17	3.34	4.33	0.20
3H	4.72	5.12	3.68	12.95	15.94	7.09	5.47	0.28	1.93	2.36	13.11	7.42	4.72	12.36	8.11	4.72	2.56	3.72	3.89	4.88	0.20
4L	5.91	6.75	4.52	16.10	19.09	9.06	6.54	0.28	2.76	3.54	16.34	9.76	5.91	14.76	10.16	5.91	2.99	4.31	4.96	5.16	0.24
4H	5.91	6.75	4.52	16.10	19.09	9.06	6.54	0.28	1.81	3.54	16.34	9.76	5.91	14.76	10.16	5.91	3.94	5.25	5.91	6.10	0.24
5L	7.09	8.00	5.31	21.65	24.65	11.02	8.70	0.28	2.25	4.72	19.49	12.20	7.09	18.50	12.13	7.09	4.68	6.00	7.32	7.56	0.31
5H	7.09	8.00	5.31	21.65	24.65	11.02	8.70	0.28	0.99	4.72	19.49	12.20	7.09	18.50	12.13	7.09	5.94	7.26	8.58	8.82	0.31
6	9.00	9.00	Designed to customer specification. Consult Rexnord.																		

Model 820 Type 1 Pin Coupling Selection Method

When selecting a Model 820, Type 1, please confirm the coupling is suitable for the continuous torque, taking into account the duty in which the unit will be used.

(A) Determine the nominal torque: Torque (lb-in) = Horsepower (hp) x 63025/rpm

(B) Select the appropriate service factor f_D as shown in Table 1.

(C) From Table 2 select the factor for the frequency of starts per hour (f_S).

(D) Determine selection torque: Selection Torque (lb-in) = nominal torque x f_D x f_S

(E) Check to ensure that the coupling's nominal torque rating exceeds the selection torque. If not, select the next larger torque limiter that meets this criteria.

Table 1: Pin coupling service factor (f_D) for 820 Series Type 1 only.

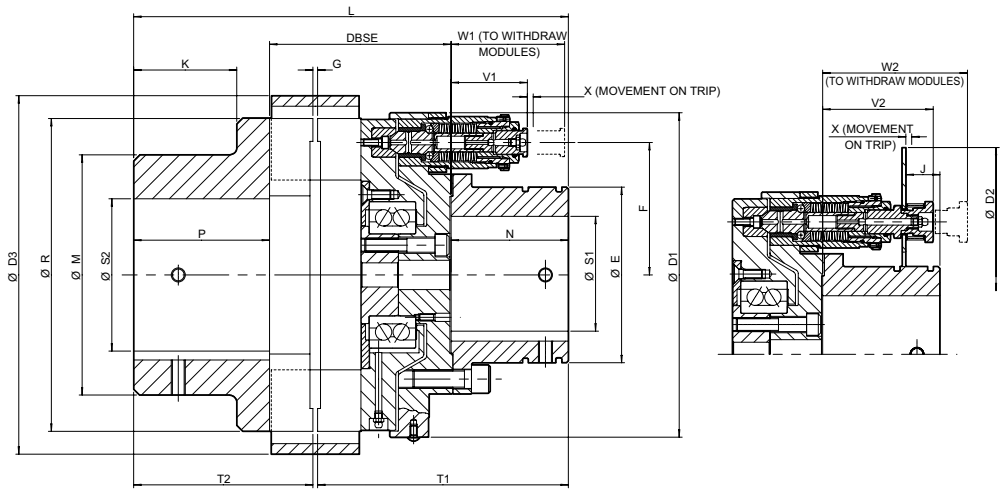
	Driven Machinery Characteristics			
Prime Mover (Drive input)	**Duration Serivce (Hours/Day)**	**Steady Load**	**Medium Impulsive**	**Highly Impulsive**
Electric Air, Hydraulic Motors, Steam Turbines (Steady Input)	Intermittent 3 hrs/day max 3-10 Over 10	0.90 1.00 1.25	1.00 1.25 1.50	1.50 1.75 2.00
Multi-cylinder I.C. Engine (Medium Impulsive Input)	Intermittent 3 hrs/day max 3-10 Over 10	1.00 1.25 1.50	1.25 1.50 1.75	1.75 2.00 2.25
Single-cylinder I.C. Engine (Highly Impulsive Input)	Intermittent 3 hrs/day max 3-10 Over 10	1.25 1.50 1.75	1.50 1.75 2.00	2.00 2.25 2.50

Table 2: Pin coupling service Factor (f_S) for 820 Series Type 1 only.

Number of Starts per Hour	0-1	1-30	30-60	60+
Factor	1.00	1.20	1.30	1.50

Notes:
Service factors are for reference only.
For applications with excessive vibration, contact Rexnord.
Rotating equipment must be provided with suitable guarding, or injury may result.

Type 2



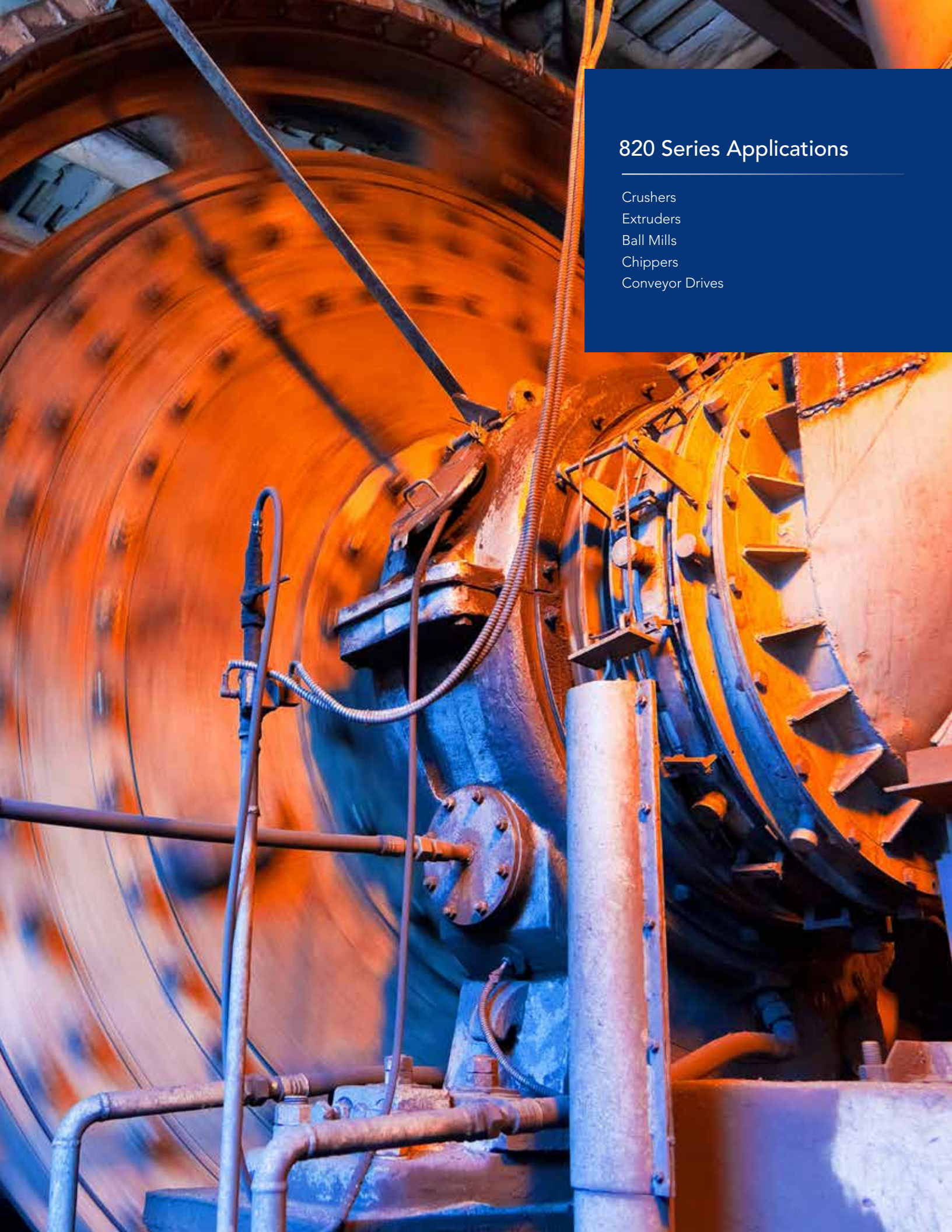
Size ①	Modules (Size-Qty)	Torque		Samiflex Coupling Size	Coupling Nominal Torque		Max speed Unbalanced	Max speed Balanced ③	Mass ④	Mass Moment of Inertia MR² ④	Max Axial Misalignment	Max Parallel Misalignment	Max Angular Misalignment (degrees)
		Min	Max		Standard Insert	HD Insert							
		lb-in	lb-in		lb-in	lb-in	rpm	rpm	lb	lb-in²	in	in	
1L	1L-4	3,275	13,011	A6	40,713	54,875	2,450	3,250	142	1,093	+.039	0.031	1.3
1H	1H-4	6,505	26,021	A6	40,713	54,875	2,450	3,250	143	1,097	+.039	0.031	1.3
2L	2L-3	7,612	30,535	A7	81,427	109,749	2,100	2,400	210	2,587	+.039	0.039	1.0
2H	2H-3	15,268	61,070	A7	81,427	109,749	2,100	2,400	211	2,611	+.039	0.039	1.0
3L	2L-4	12,391	50,007	A8	152,675	198,257	1,750	2,150	351	6,082	+.059	0.039	1.0
3H	2H-4	25,003	100,013	A8	152,675	198,257	1,750	2,150	353	6,116	+.059	0.039	1.0
4L	3L-4	26,995	107,979	A9	243,396	316,414	1,450	1,800	597	15,411	+.059	0.039	1.0
4H	3H-4	53,990	215,958	A9	243,396	316,414	1,450	1,800	604	15,650	+.059	0.039	1.0
5L	4L-3	57,884	231,447	A11	520,424	676,197	1,250	1,650 ②	1,184	51,255	+.079	0.059	1.0
5H	4H-3	115,724	462,894	A11	520,424	676,197	1,250	1,650 ②	1,195	51,938	+.079	0.059	1.0
6	5-3	531,045	1,062,090	A12	1,770,150			Designed to customer specification. Consult Rexnord.					

① Balancing optional.
② Contact Rexnord if limit switch plate is required at speeds above 1,400 rpm.
③ Steel or ductile iron Samiflex hub.
④ Mass and inertia values calculated for units with solid hubs and without limit switch plate.

Type 2 design includes the Autogard Samiflex torsionally soft coupling for parallel and angular misalignment.

Size	S1 (max)	S2 (max)	S2 Pilot	DBSE ①	D1	D2	D3	E	F	G	J	K	L	M	N	P	R	T1	T2	V1	V2	W1	W2	X
	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in
1L	3.15	4.33	1.54	5.94	8.35	11.34	10.43	4.53	3.37	0.14	1.28	2.76	12.80	7.09	3.15	3.74	9.17	7.64	5.04	1.98	2.79	3.01	3.63	0.15
1H	3.15	4.33	1.54	5.94	8.35	11.34	10.43	4.53	3.37	0.14	0.89	2.76	12.80	7.09	3.15	3.74	9.17	7.64	5.04	2.38	3.18	3.40	4.06	0.15
2L	3.94	5.12	1.89	7.13	10.91	13.90	12.05	5.91	4.45	0.16	1.70	3.46	15.63	8.07	3.94	4.57	10.51	9.45	6.02	2.01	3.17	3.34	4.33	0.20
2H	3.94	5.12	1.89	7.13	10.91	13.90	12.05	5.91	4.45	0.16	1.15	3.46	15.63	8.07	3.94	4.57	10.51	9.45	6.02	2.56	3.72	3.89	4.88	0.20
3L	4.72	5.91	2.48	8.05	12.95	15.94	14.29	7.09	5.47	0.20	2.48	4.49	18.54	9.53	4.72	5.79	12.83	10.94	7.44	2.01	3.17	3.34	4.33	0.20
3H	4.72	5.91	2.48	8.05	12.95	15.94	14.29	7.09	5.47	0.20	1.93	4.49	18.54	9.53	4.72	5.79	12.83	10.94	7.44	2.56	3.72	3.89	4.88	0.20
4L	5.91	7.09	2.87	8.02	16.10	19.09	16.73	9.06	6.54	0.20	2.76	5.08	20.31	11.02	5.91	6.38	15.16	11.93	8.19	2.99	4.31	4.92	5.16	0.24
4H	5.91	7.09	2.87	8.02	16.10	19.09	16.73	9.06	6.54	0.20	1.81	5.08	20.31	11.02	5.91	6.38	15.16	11.93	8.19	3.94	5.25	5.87	6.10	0.24
5L	7.09	8.27	3.78	10.43	21.65	24.65	19.80	11.02	8.70	0.24	2.25	5.83	25.00	13.78	7.09	7.48	18.03	14.80	9.96	4.68	6.00	7.33	7.56	0.31
5H	7.09	8.27	3.78	10.43	21.65	24.65	19.80	11.02	8.70	0.24	0.99	5.83	25.00	13.78	7.09	7.48	18.03	14.80	9.96	5.94	7.26	8.58	8.82	0.31
6	9.06	11.81												Designed to customer specification. Consult Rexnord.										

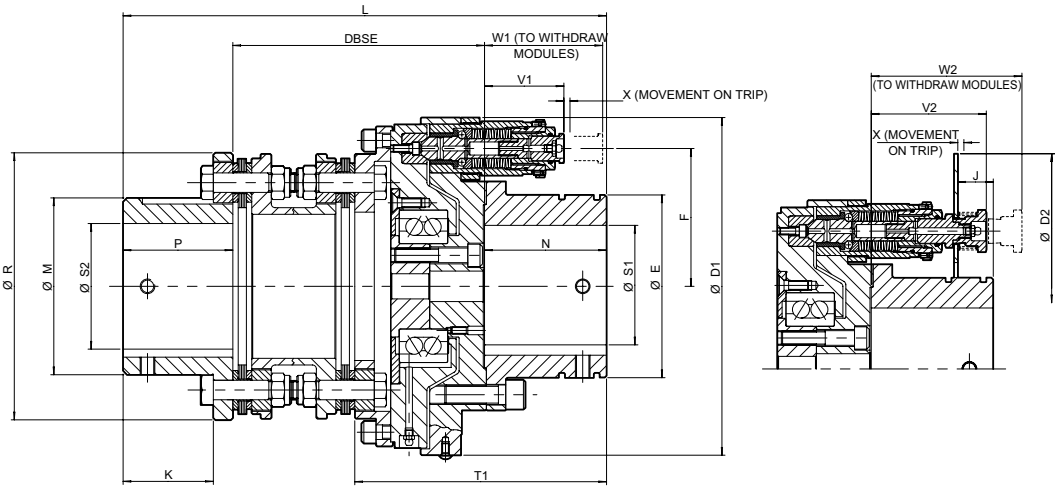
① Shorter DBSE available using Samiflex Type 'C' hub. Consult Rexnord for details.



820 Series Applications

Crushers
Extruders
Ball Mills
Chippers
Conveyor Drives

Type 3



Size ①	Modules (Size-Qty)	Torque		Autoflex Coupling Size	Coupling	Max speed	Mass ③	Mass Moment of Inertia MR² ③	Max Axial Misalignment	Max Parallel Offset
		Min	Max		Max Continuous Torque					
		lb-in	lb-in		lb-in	rpm	lb	lb-in²	in	in
1L	1L-4	3,275	13,011	HVII 330-6	29,207	3,800	104	731	0.070	0.030
1H	1H-4	6,505	26,021	HVII 330-6	29,207	3,800	105	738	0.070	0.030
2L	2L-3	7,612	30,535	HVII 700-6	61,955	2,400	202	2,313	0.090	0.035
2H	2H-3	15,268	61,070	HVII 700-6	61,955	2,400	203	2,334	0.090	0.035
3L	2L-4	12,391	50,007	HVII 1300-6	115,060	2,150	375	6,390	0.114	0.043
3H	2H-4	25,003	100,013	HVII 1300-6	115,060	2,150	377	6,424	0.114	0.043
4L	3L-4	26,995	107,979	HVII 2500-8	221,269	1,800	668	14,659	0.239	0.029
4H	3H-4	53,990	215,958	HVII 2500-8	221,269	1,800	675	14,898	0.239	0.029
5L	4L-3	57,884	231,447	HVII 4420-8	432,624	1,800 ②	1,184	47,838	0.311	0.031
5H	4H-3	115,724	462,894	HVII 4420-8	432,624	1,800 ②	1,193	48,521	0.311	0.031
6	4H-4	419,525	839,051	HVII 7240-8	640,794					
7	5-3	696,996	1,393,992	HVII 11660-8	1,031,997	Designed to customer specification. Consult Rexnord.				
8	5-3	1,062,090	2,124,179	HVII 20000-8	1,770,149					

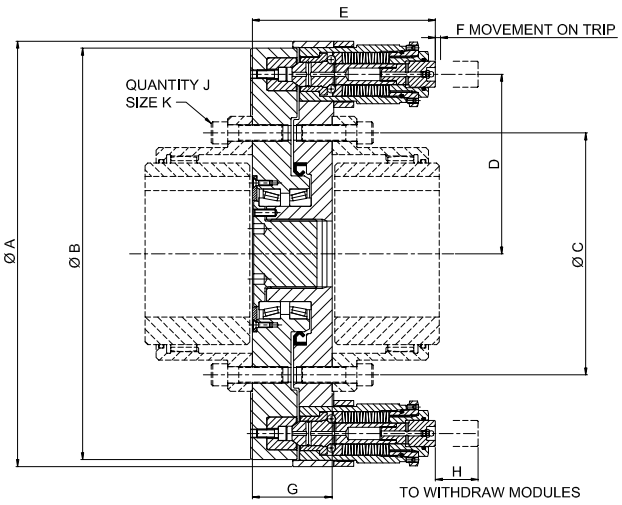
① Max angular misalignment 1/2° per flexing pack sizes 1 to 3, 1/3° per flexring pack for unit sizes 4 and 5.
② Consult Rexnord if limit switch plate is required at speeds above 1,400 rpm.
③ Mass and inertia values calculated for units with solid hubs, minimum DBSE and without limit switch plate.

Type 3 design accepts a standard Autoflex ES torsioinally rigid coupling.

Size	S1 (max)	S2 (max)	S2 Pilot	DBSE ②	D1	D2	E	F	J	K	L ②	M	N	P	R	T1	V1	V2	W1	W2	X
	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in
1L	3.15	3.86	1.00	7.06	8.35	11.34	4.53	3.37	1.28	2.83	13.75	5.28	3.15	3.54	8.07	6.30	1.98	2.79	3.01	3.63	0.15
1H	3.15	3.86	1.00	7.06	8.35	11.34	4.53	3.37	0.89	2.83	13.75	5.28	3.15	3.54	8.07	6.30	2.38	3.18	3.40	4.06	0.15
2L	3.94	4.84	1.97	8.46	10.91	13.90	5.91	4.45	1.70	3.50	16.74	6.65	3.94	4.33	10.12	7.73	2.01	3.17	3.34	4.33	0.20
2H	3.94	4.84	1.97	8.46	10.91	13.90	5.91	4.45	1.15	3.50	16.74	6.65	3.94	4.33	10.12	7.73	2.56	3.72	3.89	4.88	0.20
3L	4.72	6.30	2.00	9.92	12.95	15.94	7.09	5.47	2.48	4.09	19.76	8.58	4.72	5.12	12.80	8.95	2.01	3.17	3.34	4.33	0.20
3H	4.72	6.30	2.00	9.92	12.95	15.94	7.09	5.47	1.93	4.09	19.76	8.58	4.72	5.12	12.80	8.95	2.56	3.72	3.89	4.88	0.20
4L	5.91	5.67 ①	0.98	11.97	16.10	19.09	9.06	6.54	2.76	3.94	23.00	7.91	5.91	5.12	12.20	12.13	2.99	4.31	4.92	5.16	0.24
4H	5.91	5.67 ①	0.98	11.97	16.10	19.09	9.06	6.54	1.81	3.94	23.00	7.91	5.91	5.12	12.20	12.13	3.94	5.25	9.84	6.10	0.24
5L	7.09	7.40	1.38	14.00	21.65	24.65	11.02	8.70	2.25	5.75	27.98	10.35	7.09	6.89	15.47	14.34	4.68	6.00	7.32	7.56	0.31
5H	7.09	7.40	1.38	14.00	21.65	24.65	11.02	8.70	0.99	5.75	27.98	10.35	7.09	6.89	15.47	14.34	5.94	7.26	8.58	8.82	0.31
6	9.06	8.78																			
7	9.84	10.16									Designed to customer specification. Consult Rexnord.										
8	11.81	12.01																			

① Larger bore available, consult Rexnord.
② Values for minimum DBSE shown, longer spacers available upon request.

Type 4



Size	Modules (Size-Qty)	Torque				Mass Moment of Inertia MR² ②
		Min	Max	Max speed ①	Mass ②	
		lb-in	lb-in	rpm	lbs	lb-in²
2.5	2H-4	24,782	96,473	1,900	121	2,119
3.0	2H-4	26,552	106,209	1,700	139	2,802
3.5	2H-6	45,139	180,555	1,500	185	6,731
4.0	3H-4	65,496	260,212	1,200	337	14,386
4.5	3H-6	104,439	417,755	1,200	389	19,033
5.0	3H-8	153,118	611,587	1,200	480	27,541
5.5	4H-4	188,521	754,084	1,000	790	61,438
6.0	4H-6	299,155	1,195,736	900	904	78,625
7.0	4H-6	335,443	1,341,773	900	1,087	114,709
8.0 to 11.0	↓	↓	↓	Designed to customer specification. Consult Rexnord.		
12.0	5-10	3,319,030	6,638,060			

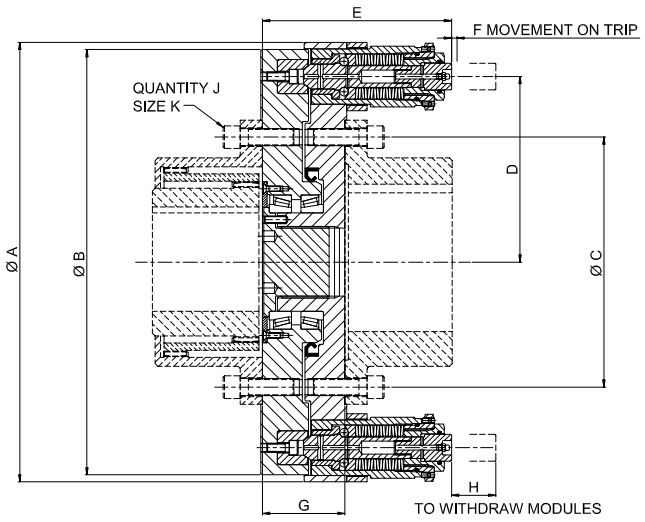
① Balancing may allow up to 50 percent increase in speeds shown. Please consult Rexnord.
② Mass and moment of inertia values excluding gear coupling.

Type 4 designed to accept standard full flex AGMA gear couplings.

Size	AGMA Gear	A	B	C	D	E	F	G	H	J	K
	Coupling Size ①	in	in	in	in	in	in	in	in	in	in
2.5	2.5	12.52	12.05	7.13	5.26	6.50	0.20	4.17	1.34	0.24	0.63
3.0	3.0	13.58	13.11	8.13	5.79	6.50	0.20	4.17	1.34	0.31	0.63
3.5	3.5	15.16	14.69	9.50	6.57	6.50	0.20	4.41	1.34	0.31	0.75
4.0	4.0	18.74	18.15	11.00	7.87	8.19	0.24	4.41	1.97	0.31	0.75
4.5	4.5	19.84	19.21	12.00	8.43	8.43	0.24	4.41	1.97	0.39	0.75
5.0	5.0	21.50	20.87	13.50	9.25	8.54	0.24	4.61	1.97	0.31	0.88
5.5	5.5	25.51	24.09	14.50	10.62	11.50	0.31	5.79	2.68	0.55	0.88
6.0	6.0	26.69	25.31	15.75	11.22	11.50	0.31	5.79	2.68	0.55	0.88
7.0	7.0	29.45	28.03	18.25	12.60	11.50	0.31	5.79	2.68	0.63	1.00
8.0 to 11.0	8.0 to 11.0	Designed to customer specification. Consult Rexnord.									
12.0	12.0										

① The 820 Type 4 Torque Limiter can be supplied with or without the gear coupling. Please advise at time of order.

Type 5



Size	Modules (Size-Qty)	Torque				Mass Moment of Inertia MR² ②
		Min	Max	Max speed ①	Mass ②	
		lb-in	lb-in	rpm	lbs	lb-in²
2.5	2H-4	24,782	96,473	3,000	121	2,119
3.0	2H-4	26,552	106,209	2,700	139	2,802
3.5	2H-6	45,139	180,555	2,400	185	6,731
4.0	3H-4	65,496	260,212	2,000	337	14,386
4.5	3H-6	104,439	417,755	1,800	390	19,033
5.0	3H-8	153,118	611,587	1,800	481	27,541
5.5	4H-4	188,521	754,084	1,500	791	61,438
6.0	4H-6	299,155	1,195,736	1,400	906	78,625
7.0	4H-6	335,443	1,341,773	1,300	1089	114,709
8.0 to 11.0	↓	↓	↓	Designed to customer specification. Consult Rexnord.		
12.0	5-10	3,319,030	6,638,060			

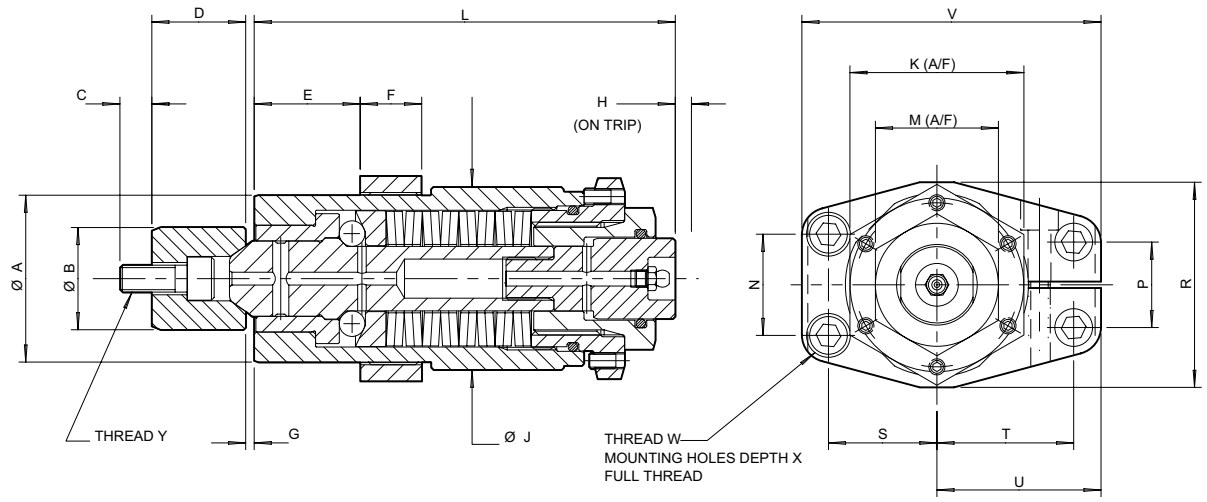
① Balancing may allow up to 50 percent increase in speeds shown. Please consult Rexnord.
② Mass and moment of inertia values excluding gear coupling.

Type 5 designed to accept standard double engagement half flex AGMA gear couplings.

Size	AGMA Gear	A	B	C	D	E	F	G	H	J	K
	Coupling Size ①	in	in	in	in	in	in	in	in	in	in
2.5	2.5	12.52	12.05	7.13	5.26	6.50	0.20	4.17	1.34	0.24	0.63
3.0	3.0	13.58	13.11	8.13	5.79	6.50	0.20	4.17	1.34	0.31	0.63
3.5	3.5	15.16	14.69	9.50	6.57	6.50	0.20	4.41	1.34	0.31	0.75
4.0	4.0	18.74	18.15	11.00	7.87	8.19	0.24	4.41	1.97	0.31	0.75
4.5	4.5	19.84	19.21	12.00	8.43	8.43	0.24	4.41	1.97	0.39	0.75
5.0	5.0	21.50	20.87	13.50	9.25	8.54	0.24	4.61	1.97	0.31	0.88
5.5	5.5	25.51	24.09	14.50	10.62	11.50	0.31	5.79	2.68	0.55	0.88
6.0	6.0	26.69	25.31	15.75	11.22	11.50	0.31	5.79	2.68	0.55	0.88
7.0	7.0	29.45	28.03	18.25	12.60	11.50	0.31	5.79	2.68	0.63	1.00
8.0 to 11.0	8.0 to 11.0	Designed to customer specification. Consult Rexnord.									
12.0	12.0										

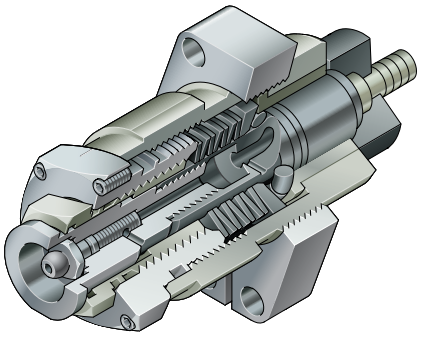
① The 820 Type 4 Torque Limiter can be supplied with or without the gear coupling. Please advise at time of order.

Module Sub Assemblies



Autogard 820 Series module sub assemblies may be designed into customer specific applications. Consult Rexnord for assistance.

Size	Tangential Force		Axial Force		Mass ①
	Min	Max	Min	Max	
	lbs	lbs	lbs	lbs	lbs
1L	242	967	121	483	1.08
1H	483	1,933	242	967	1.21
2L	573	2,293	287	1,147	2.31
2H	1,147	4,586	573	2,293	2.62
3L	1,034	4,136	517	2,068	8.32
3H	2,068	8,273	1,034	4,136	9.66
4L	2,220	8,880	1,110	4,440	20.11
4H	4,440	17,760	2,220	8,880	23.41
5	16,861	33,721	8,430	16,861	40.70

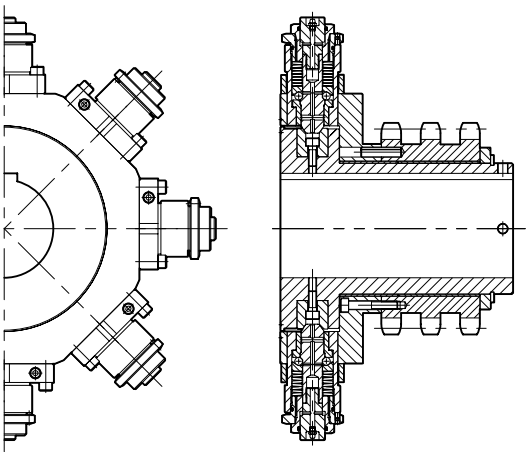


① Mass includes mounting screws and seat bush.

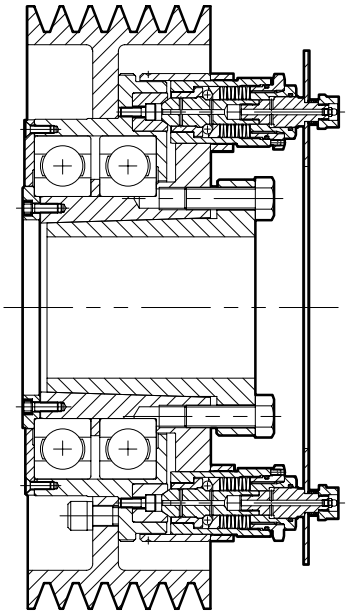
Size	A (g7/H7)	B (h7/H7)	C	D	E	F	G	H	J	K	L	M	N	P	R	S	T	U	V	W	X	Y
	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in
1L	1.1811	0.7087	0.33	0.52	0.77	0.45	0.07	0.15	1.31	1.18	3.28	0.94	0.74	0.58	1.56	0.78	1.03	1.22	2.19	M5	0.59	M4
1H	1.1811	0.7087	0.33	0.52	0.77	0.45	0.07	0.15	1.31	1.18	3.68	0.94	0.74	0.58	1.56	0.78	1.03	1.22	2.19	M5	0.59	M4
2L	1.5748	0.9843	0.43	0.67	1.01	0.60	0.09	0.20	1.75	1.61	3.78	1.18	0.95	0.65	2.00	1.02	1.27	1.50	2.75	M6	0.63	M6
2H	1.5748	0.9843	0.43	0.67	1.01	0.60	0.09	0.20	1.75	1.61	4.33	1.18	0.95	0.65	2.00	1.02	1.27	1.50	2.75	M6	0.63	M6
3L	2.4409	1.4961	0.63	1.06	1.55	0.90	0.12	0.24	2.68	2.56	5.22	1.81	1.48	1.25	3.00	1.59	2.00	2.40	4.37	M10	0.98	M10
3H	2.4409	1.4961	0.63	1.06	1.55	0.90	0.12	0.24	2.68	2.56	6.17	1.81	1.48	1.25	3.00	1.59	2.00	2.40	4.37	M10	0.98	M10
4L	3.3465	1.8898	0.78	1.30	2.13	1.00	0.15	0.31	3.62	ø 3.62 ①	7.24	2.56	2.25	1.70	4.25	1.95	2.70	3.15	5.55	M12	1.26	M12
4H	3.3465	1.8898	0.78	1.30	2.13	1.00	0.15	0.31	3.62	ø 3.62 ①	8.50	2.56	2.25	1.70	4.25	1.95	2.70	3.15	5.55	M12	1.26	M12
5	4.1339	2.7559	1.30	1.86	2.13	1.97	0.20	0.47	4.13	ø 4.13 ①	8.03	-	3.90	3.90	5.28	1.95	1.95	3.35	6.69	M16	1.69	M16

① ø Adjusting nuts are round. Dimension shown is the diameter.

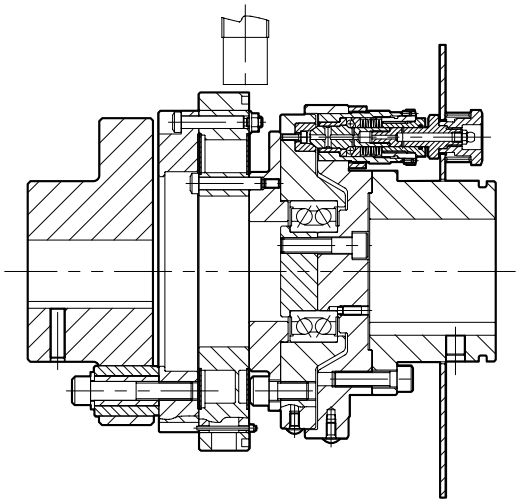
Special Designs



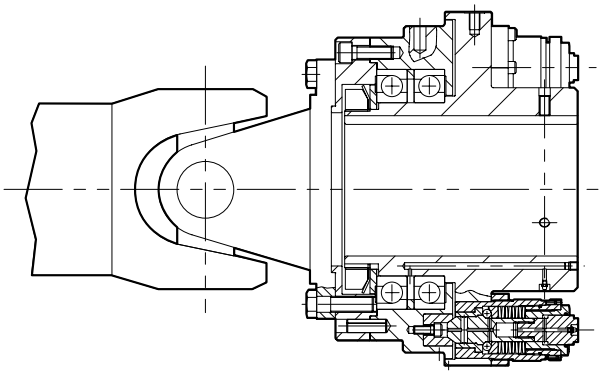
Radial Module with Triplex Sprocket
Designed for tight axial space constraints



Standard 820 Module
Designed for v-belt pulley applications



Standard 820 Module with Monitorq™ Torque Monitoring Equipment
Designed for overload protection and condition monitoring



Custom 820 Module
Designed to accept standard universal joint couplings

820 Series Industries

Mining
Energy
Steel
Paper
Extrusion

Maintenance and General Safety Information

Maintenance

The frequency of maintenance will depend on the operating environment and number of trips, but once every three months should be adequate in most applications. The amount of maintenance required is dependent upon the operating conditions and should be maintained at least as frequently as the adjacent drive components. In adverse conditions, consult Rexnord.

General Safety

Autogard Torque Limiters are reliable units, built to high standards of workmanship. Similar to all mechanical devices, each application must be considered on its own merits with reference to safety (i.e., lifting equipment, explosive conditions, etc). As rotating components, adequate guarding must be provided, in accordance with local codes. The intended use of torque limiters is for the protection of industrial machinery and should not be regarded as human safety devices. Rexnord staff is always available to discuss particular applications.

Other Autogard Products

Autogard Torque Limiter 200 Series

Autogard Torque Limiter 320 Series

Autogard Torque Limiter 400 Series

Autogard Torque Limiter 600 Series

Autogard Torque Limiter WT Series

To learn more about the Autogard Torque Limiter offering and how it can provide you with high-quality overload protection, go to **www.rexnord.com**, where you'll find:

• Product information • Brochures • Manuals

866-REXNORD (toll-free within the U.S.) or 414-643-2366 (Outside the U.S.)