

Torque Guard, Torque Guard Coupling and Axial Guard FAQ

We answer your important questions!

Tsubaki Emerson Co.



- Q1. Do the Torque Guards, Torque Guard Couplings, and Axial Guards conform to RoHS standards?**
- Q2. What is the allowable temperature range?**
- Q3. What is the life span of the Torque Guards, Torque Guard Couplings and Axial Guards?**
- Q4. Can I use the products in an environment where they may be splashed with oil and/or water?**
- Q5. I purchased the TGB30-L and when I went to verify its torque with our machine, the amount of torque was found to be insufficient. I would like to switch to the TGB30-H. What do you recommend I do?**
- Q6. I am currently using a Torque Guard but it won't trip when the machine overloads. What do you believe is the likely cause?**
- Q7. I would like to use a Torque Guard Coupling for my machine. Does it matter which direction the Torque Guard Coupling is installed on the driven or drive sides?**
- Q8. I would like to use a high precision TGX with a high-speed shaft, but it cannot stop instantaneously after trip. Is there something you can recommend?**
- Q9. I would like to install a sprocket in the TGB Series. What are the recommended sprocket machining dimensions?**

Q1. Do the Torque Guards, Torque Guard Couplings, and Axial Guards conform to RoHS standards?

A1. The TGB, TGX and TGZ Series are already compliant. We are now selling off all current TGM, and TGA Series stock, so if you require RoHS compliant products, please indicate this when ordering.

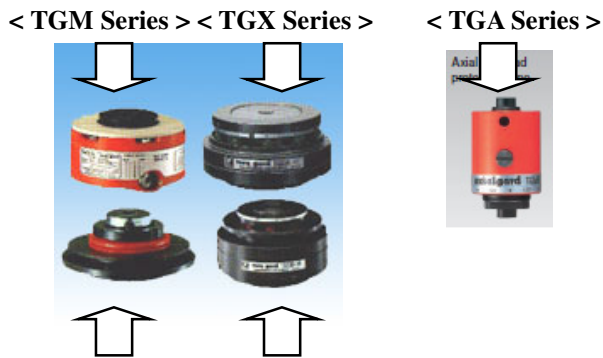
Q2. What is the allowable temperature range?

A2. -10° C --- +100° C.

If the temperature is outside this range, please consult with Tsubaki Emerson.

Q3. What is the life span of the Torque Guards, Torque Guard Couplings and Axial Guards?

A3. The TGB, TGX, TGZ and TGA Series are rated at ten thousand trips, while the TGM Series is rated at one hundred thousand trips; however, if the machine does not stop tripping then the rating is meaningless. If it trips frequently, the trip torque will gradually decrease, so tighten the adjusting nut (bolts) and set screws as necessary.



< TGB Series > < TGZ Series >

Q4. Can I use the products in an environment where they may be splashed with oil and/or water?

A4. The TGM Series is the sealed type so it excels in environments that are wet, oily or dusty. For other series, it is sometimes possible to upgrade them with these specifications. Please contact TEM for more information.

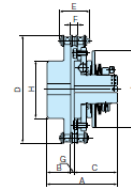
Q5. I purchased the TGB30-L and when I went to verify its torque with our machine, the amount of torque was found to be insufficient. I would like to switch to the TGB30-H. What do you recommend I do?

A5. The only difference between TGB30-L and TGB30-H are the springs used. If the spring is changed, the TGB30-L will become the TGB30-H, but the torque adjusting indicator does not correspond with the set torque that is labeled on the product. The TGX and TGZ Series' are the same. If you use the Torque Guard as is, there should be no problems, but if a torque indicator is necessary, return the Torque Guard to Tsubaki Emerson and the disk spring will be changed, the torque will be set to the minimum point and the torque indicator will be re-attached. Once this is finished, it will be re-shipped to you. Please contact your local dealer for more information.

Q6. I am currently using a Torque Guard but it won't trip when the machine overloads. What do you believe is the likely cause?

A6. There is a possibility that the adjusting nut (bolts) have been tightened too much. Excessive tightening eliminates the disk's deflection, causing the Torque Guard to be unable to trip, thus rendering it useless as an overload protection device. Refer to the catalog or manual for nut rotating angles and torque correlation diagrams. Never exceed the allowable torque limit by over-tightening the nut.

Q7. I would like to use a Torque Guard Coupling for my machine. Does it matter which direction the Torque Guard Coupling is installed on the driven or drive sides?



TGB20-C-TGB50-C

A7. It is possible to install a Torque Guard Coupling in either direction. But be aware that the maximum installable shaft diameter is different on the Torque Guard side and coupling side.

Q8. I would like to use a high precision TGX with a high-speed shaft, but it cannot stop instantaneously after trip. Is there something you can recommend?

A8. The TGXZ Series has non-backlash and complete release features. The TGXZ Series is made up of the TGX Series (non-backlash) and the TGZ Series (complete release). Though it is a special MTO, it can perform in a number of possible ways. Please contact Tsubaki Emerson for more information.

Q9. I would like to install a sprocket in the TGB Series. What are the recommended sprocket machining dimensions?

A9. Refer to the following drive member recommended machining dimensions.

Drive member recommended machining dimensions	Model	Recommended machining dimensions (mm)					
		A	B	C	D	E	F
	TGB08-L,M,H	34	3	3.4	40 _{H7}	28	3
	TGB12-L,M,H	40	3	4.5	48 _{H7}	33	3
	TGB16-L,M,H	50	3	4.5	58 _{H7}	41	3
	TGB20-H	78	4	5.5	90 _{H7}	64	3
	TGB30-L,H	100	6	6.6	113 _{H7}	84	4
	TGB50-L,M,H	142	6	9.0	160 _{H7}	124	5
	TGB70-H	200	6	11	220 _{H7}	172	5
	TGB90-L,H	265	8	13.5	295 _{H8}	240	5
	TGB110-L,H	325	6	17.5	355 _{H8}	292	5
	TGB130-L,H	360	8	17.5	400 _{H8}	325	5

For further information, please contact our Overseas Sales Department at the numbers provided below.

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