igus®

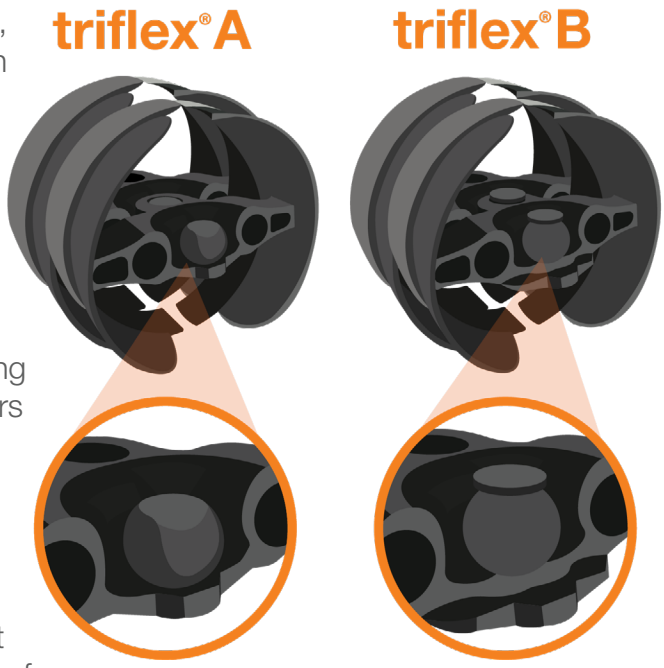
tech talk

triflex® for heavy-duty applications

optimal robotic cable protection with TRE.B

igus® offers multi-axis robotic cable protection with triflex® energy chains. triflex® TRE chains are available in an “A” version or a “B” version.

When triflex® TRE was first developed, only an “A” version, TRE.A, was offered. The design is based on a ball-and-socket principle, with a molded plastic ball on one side and a socket link on the other. This link-by-link structure allows the chain to be easily lengthened or shortened. Taking triflex® TRE.A apart is simple, as it just needs to be twisted with no special tools required.



Customers began using triflex® TRE.A in highly dynamic robotic applications. Since triflex® TRE.A chains can be twisted apart and bent over their own radius, the links would sometimes separate during operation and expose the cables. To solve this issue, igus® engineers responded with the development of a “B” version, triflex® TRE.B.

triflex® TRE.B was developed with four times higher torsion and bending radius strengths than TRE.A. The “B” version has the same ball and socket connection as the “A” version, but it has been enhanced with an additional arrester. This button-like component serves as a defined stop-dog to prevent the ball from slipping out of the socket and the chain from twisting apart.

Since triflex TRE.B is more secure, an L key wrench is required to disassemble the chain. To take the chain apart, the link is turned on one side, the tool is inserted to create a ramp-like mechanism, and the edge is rolled up to disengage the ball. To learn more about triflex® B assembly and disassembly, **watch this video**.

TRE.B is recommended for all robotic applications, including material handling, welding, vision and painting. TRE.A is recommended for static and low duty applications with little to no torsion, such as wireways, furniture and machine tools.