# Cable Carrier Weighs 37 Percent Less

igus® has redesigned its System E6 Energy Chain® cable carrier best known for its robust, low-vibration and low-noise operation. The second generation, System E6.1, is even easier to assemble and weighs up to 37 percent less than its predecessor, which makes it suitable for a wider variety of applications.

For the past ten years, System E6 has been in use all over the world in applications requiring quiet, low-vibration cable management at high speeds and accelerations. The “polygon effect” that can occur when a cable carrier is unrolled is reduced to a minimum of 37 dB (A).

In addition, System E6 is abrasion-resistant and low-wear, which makes it ideal for cleanroom applications (up to ISO Class 1 – IPA). The elastic polymer spring elements that connect the side parts of the cable carrier to one another are designed to prevent relative movements between the joints. Since the classic bolt / hole connection is no longer used, friction and abrasion are significantly reduced even after millions rolling cycles. According to an expert report presented by Cologne Technical College located near igus’ headquarters in Cologne, Germany, 3.8 billion possible cycles were confirmed, depending on the machine program.

The second generation System E6.1 is narrower and lighter weight, but has the same interior dimensions. It is also 2 dB (A) quieter (when compared to System E6-29). Thanks to its modular design and the changes made to its spring connectors, System E6.1 is easier to assemble and can be quickly lengthened and shortened.

Additional improvements were also made to the crossbars, which now swing open on both sides by 115 degrees along the inner and outer radius. The crossbars no

longer have to be removed completely for cable installation or removal; however, this is still an option depending on the application requirements.

The service life of cables and hoses increases thanks to the smooth inner contour of the System E6.1 Energy Chain.

“The newly designed inner links, which come in the most contact with the cables, are larger in size and the outer links have been rounded off cleanly. Those changes, paired with the swing-open crossbars, optimize cable protection,” says Joe Ciringione, Energy Chain Systems Sales Manager, North America.

System E6.1 offers users a range of different possibilities since the pretension of the cable carrier can now be adjusted by reversing the inner link. This is very useful for gliding applications or applications with limited installation space. If the outer link is reversed instead, System E6.1 can be used for both S-shaped and small circular movements.

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