Multi Crimp Rings 3T

Recommended for driveshaft

**Benefits**
- High sealing performance
- Highly space-efficient flat design
- Light-weight and burr-free band
- Large working range

**Full material cross-section over 360°**: constant pressure applied uniformly around the circumference

**Expanded diameter reduction**: more clearance + multiple projects can be covered with one MCR diameter at customer site

**Flexible diameter reduction**: high, adjustable surface pressure

**Low installed height**: minimum space requirement + no imbalance on rotating parts

**Burr-free strip edges**: reduced risk of damage to the parts being clamped

**Aluminum model**: reduced weight
Multi Crimp Rings 3T 150

TECHNICAL DATA OVERVIEW

Material
Aluminum, material EN AW-5754

Corrosion resistance according to DIN EN ISO 9227
PG 150 ≥ 400h

Size range
MCR 1015 AL Ø 24.5 – Ø 120.0mm
MCR 1020 AL Ø 65.0 – Ø 120.0mm

Material dimensions
10.0 × 1.5mm
10.0 × 2.0mm

Diameter reduction*
Ø 24.5 – Ø 26.5mm: max. up to Ø 21.9mm
Ø 27.0 – Ø 40.0mm: max. 5mm
Ø 40.5 – Ø 120.0mm: max. 6mm**

Puzzle design (interlock)
The interlock is a mechanical connection employing very precise mating elements. Its design creates a positive mechanical connection. It ensures secure connection of the ring ends within the permissible load range.

Field of application
The MCR with a puzzle lock is universally applicable due to its large diameter area, but is especially suitable for thermoplastics.

* The diameter reduction is dependent on the nominal diameter of the MCR.
** Bigger diameter reduction are available for >=65mm diameter. Please consult your local Oetiker Sales Representative for further details.
TECHNICAL DATA OVERVIEW

Material dimensions
Oetiker Multi Crimp Rings are available in a range of dimensions and materials. The band dimensions should be chosen to take into account the required radial force, the nature of the hose, to ensure the necessary sealing and/or retention properties under the relevant ambient conditions, and any mechanical loads on the MCR.

Diameter reduction
The maximum possible diameter reduction is dependent on the MCR’s nominal diameter. The MCR’s nominal diameter should be kept as small as possible in relation to the diameter of the parts being clamped in order to shorten shrinking times, simplify positioning, and reduce the material load on the MCR. Oetiker will be pleased to help you find the correct choice for your specific application.

A change in the material structure and the band sizes must necessarily take place during assembly. Bear in mind that the smaller the corresponding MCR diameter is, the more drastic these changes will be. The reason for this is the material quantity in relation to the diameter.

The required degree of compression, or the surface pressure exerted on the part being clamped by an MCR depends on the radial force which, in turn, determines the retention and sealing properties.

Each surface pressure must be determined according to the specific application. If the Oetiker shrinking tools specially developed for this purpose are used, an approximately 360° surface pressure of the parts being clamped is achieved without any overlap due to the inner surfaces of the MCR.

Tolerance compensation
Tolerance compensation when installing Oetiker Multi Crimp Rings depends entirely on the function sequence of the installation tool. Fundamentally, with diameter-priority installation of Oetiker Multi Crimp Rings, tolerance compensation is impossible, because the MCR is simply closed to a specified diameter. This means that the tolerances of components exert their full effect on the degree of compression or the surface pressure applied to the part being clamped. With this type of installation, everything else is subjugated to achieving a defined diameter. Thus, tolerance compensating installation of an MCR can only be achieved with force-priority regulation. Or, to put it a different way, the basic principle here is not pressing to a given diameter, but achieving an empirically determined closing force, and so the surface pressure associated with it.

With the innovative closure concept of the “Oetiker ELS 01”, high process reliability combined with the force-priority, verified installation of Oetiker Multi Crimp Rings is assured. Gauges for checking the closing force are also available.

Order information
For detailed order information, please contact your local Oetiker branch.

Recommendations for installing MCRs
Oetiker Multi Crimp Rings should be closed using the swaging tools developed for them. The Oetiker Swaging Tool ELS 01 offers many advantages for industrial use, for example, opening of the fixture for optimum accessibility and automatic locking, through to the electronic verification of process parameters for force-priority closure. Alternatively, conventional multi segment hydraulic and pneumatic swaging tools are commercially available.