



The STRECON Container Concept

Design

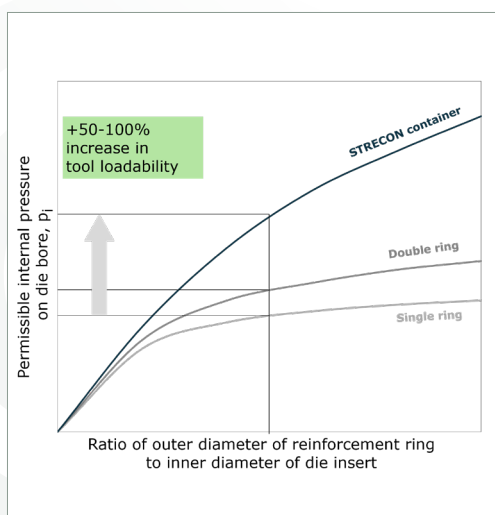
The cut model shows the basic design structure of a STRECON container. The reinforcement itself consists of a winding core (1), the strip material wound around the core by a controlled winding tension (2), and an outer steel casing mounted by heat shrinkage (3). A die insert (0) is pressed into the reinforcement container with an interference fit to create a high prestressing. See the table below for further information about the container design. The stripwound container is made in different designs: The standard [SC200/SC400](#) high-strength container, the [SC200+/SC400+ container](#) with higher stiffness (also known as E⁺), the [SC AXI-FIT](#) with both radial and axial prestressing, and the [STRECON Compact Container](#) which mainly is used in horizontal forming machines.

Superior strength

The STRECON container is the strongest reinforcement system on the market with the highest prestressing capabilities. The technological advantage is created by the stripwinding process, leading to an equal stress distribution in the container and a superior material strength (see also the tech note "[Prestressing by Stripwinding](#)"). A STRECON container is typically twice as strong as normal reinforcement systems. Depending on the tool dimensions and materials, single ring systems are usually limited to interference fits of 0.3% - 0.4%, and double ring systems to 0.6% - 0.7%. If used with higher interference fits, the rings will plastify, or even crack, and the actual prestress of the die will weaken. STRECON containers will remain fully elastic even at higher interference fits of for example 1%, and enable an optimized condition for the die performance and service life.

Superior service life

In addition to the higher die life associated with optimized prestressing, STRECON containers have proven to be much more durable and sustainable than conventional reinforcement systems. Under normal conditions, there is no plastic stress on the stripwound reinforcement, and therefore it can be reused numerous times (e.g. 25), of course depending on the actual loading and handling conditions. To maximize the container lifetime, axial strip displacement is addressed by proper fixation as well as appropriate handling shall be ensured at assembly and disassembly, particularly with carbide winding cores.



STRECON Stripwound Container	Container for Cold Forging	Container for Warm and Hot Forging
Winding Core Materials	Unimax 56 HRC WC 15% Co. / 88 HRa	Unimax 57 HRC WC 15-20% Co. / 82 HRa
Strip Material Yield Strength	Strip200 / 62-64 HRC >2000 MPa	Strip400 58-60 HRC >1900 MPa
Max. container temperature	< 200°C	< 400°C
Casing	42CrMo4 - 38 HRC Orvar - 45 HRC	
Taper Angle	Standard taper 1.0° Range 0.5° - 5.0° depending on tool solution	
Tool Assembly	Die insert assembly by press fitting Means of lubrication: Molykote MoS ₂ micro powder	
Container Size	Ø36 x H12 mm ≤ x ≤ Ø2000 x H300 mm	