

# The STRECON Container Concept

## Strength merit originates from the stripwinding

The STRECON container is a high-strength prestressing tool system, which can be twice as strong as normal prestressing tools (single and double rings). The strength of the container is a derived effect of the steel strip material, which is wound around an inner ring of either high-alloyed tool steel or tungsten carbide.

Outside the coiled strip section is mounted an outer steel ring by heat shrinkage. Each strip layer is adding to the overall strength of the STRECON container (see the figure below). The back tension of the strip material is controlled during the winding process, and the inner ring is compressed to a state of approx. -2000 MPa for tool steel and approx. -2500 MPa for carbide.

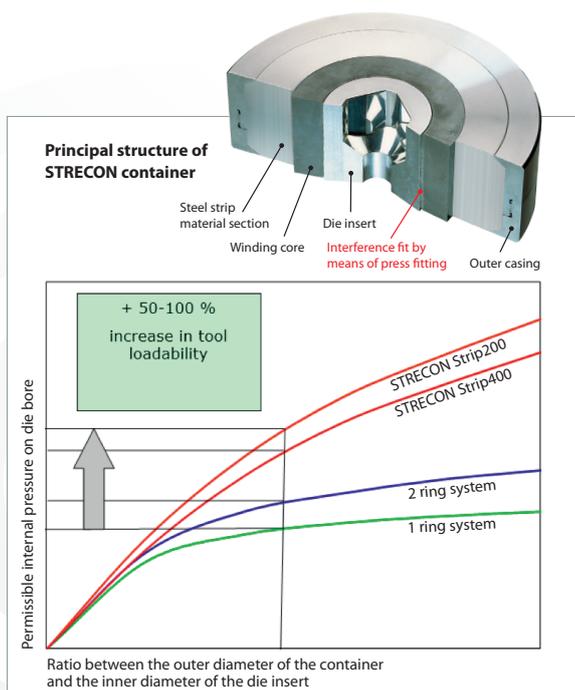
The stripwinding technique ensures that the STRECON container remains fully elastic even at maximum process pressure and no plastic expansion of the inner container diameter would happen. The STRECON container system is the strongest prestressing technology available in the market.

## Principal design structure

The cut model below shows the basic design structure of a STRECON container, namely the inner ring, the steel strip material, and the outer casing. The table below offers further information about the container design.

## Steel strip material

The steel strip is a special heat treated material and has a yield strength of more than 2000 MPa at room temperature. The strip thickness is just 0,1 mm and allows for the manufacturing of both small and large containers. The Strip 200 material is used for container applications up to 200°C, and the Strip 400 material is for applications up to 400°C.



STRECON Stripwound Container	Container for Cold Forging	Container for Warm and Hot Forging
<b>Winding Core Materials</b>	Unimax 57 HRc WC 15% Co. / 88 HRa	Unimax 57 HRc WC 15-20% Co. / 82 HRa
<b>Strip Material Yield Strength</b>	Strip200 / 62-64 HRc >2000 MPa	Strip400 58-60 HRc >1900 MPa
<b>Max. container temperature</b>	< 200°C	< 400°C
<b>Casing</b>	42CrMo4 - 38 HRc Orvar - 45 HRc	
<b>Taper Angle</b>	Standard taper 1.0° Range 0.5° - 5.0° depending on tool solution	
<b>Tool Assembly</b>	Die insert assembly by press fitting Means of lubrication: Molykote MoS <sub>2</sub> micro powder	
<b>Container Size</b>	Ø80 x H40 mm ≤ x ≤ Ø2000 x H300 mm	