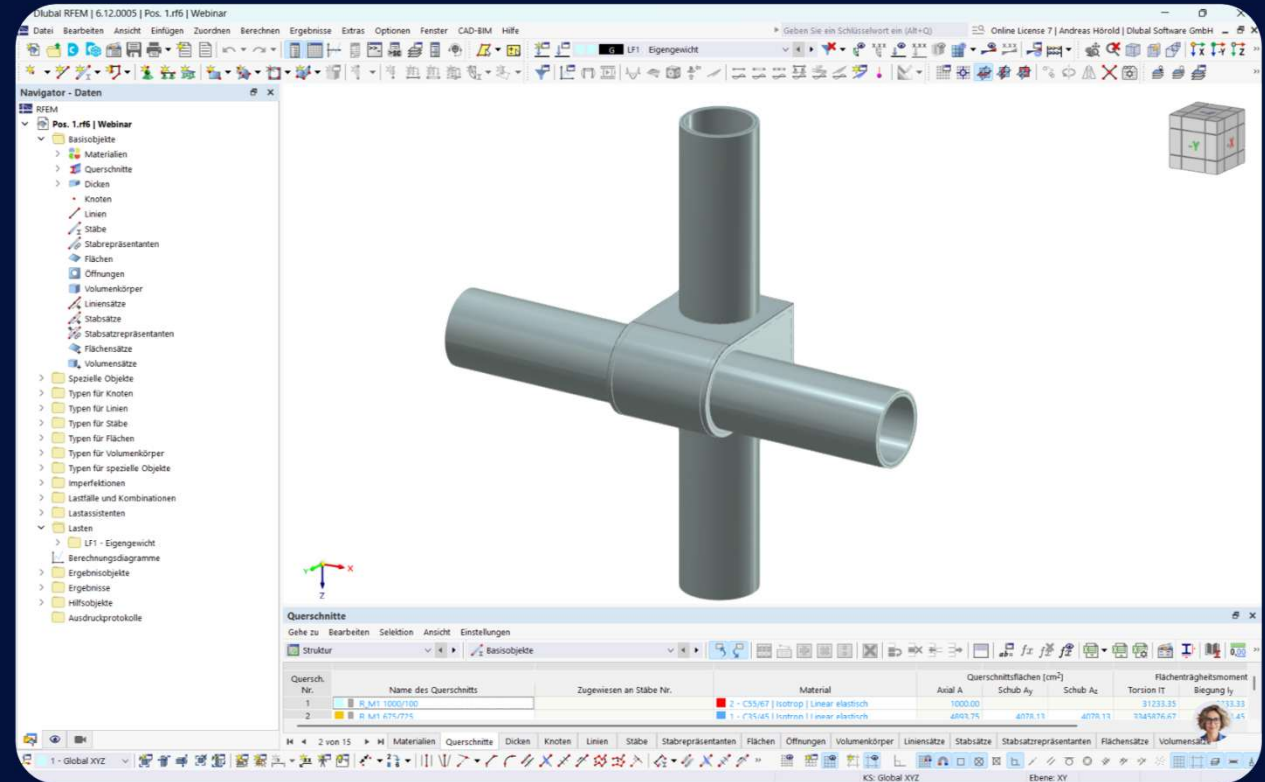


Webinar

Dlubal

Modelling and Design of Scaffold Couplers

www.dlubal.com



Today with



Dipl.-Ing. (FH)
Andreas Hörold
Organizer

Marketing & Public Relations
Dlubal Software GmbH

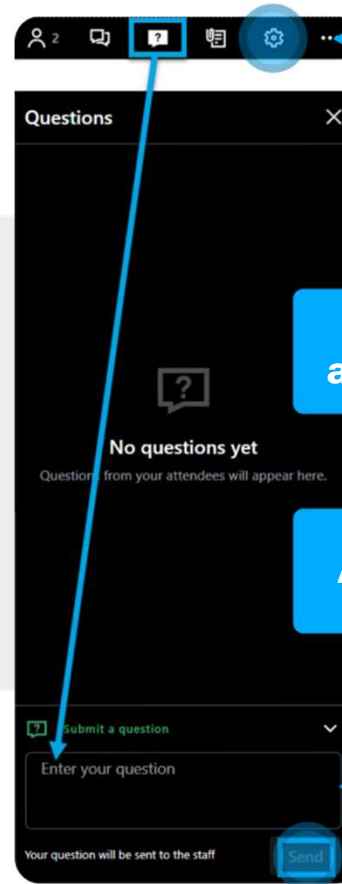


Sonja von Bloh
M.Sc.
Co-Organizer

Product Engineering & Customer Support
Dlubal Software GmbH

Questions During the Presentation

1
**Webinar Control
Panel Desktop**



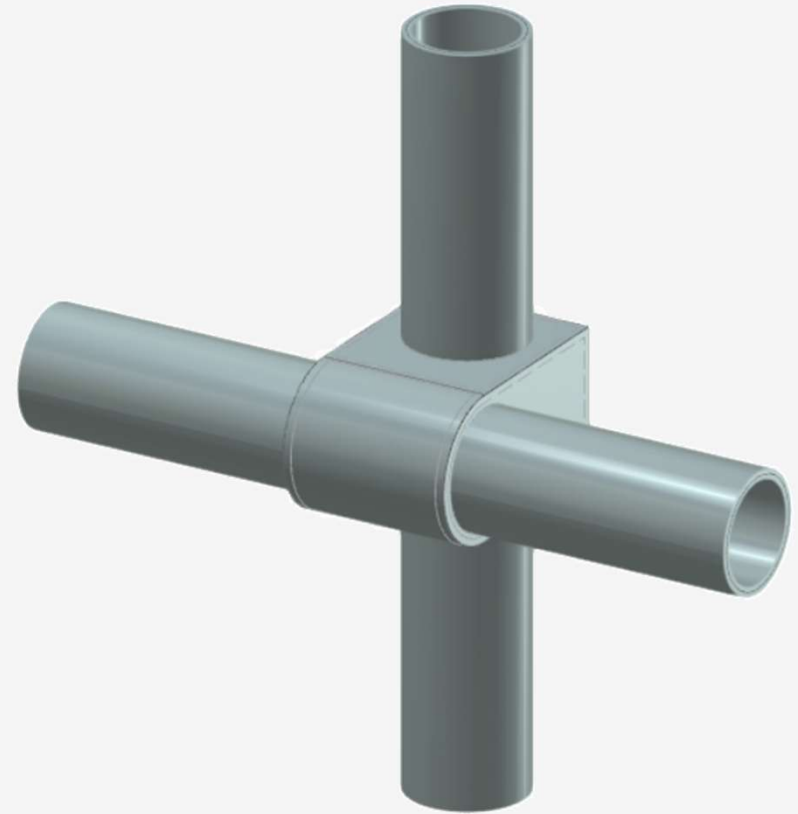
**Adjust
audio settings**

Ask question

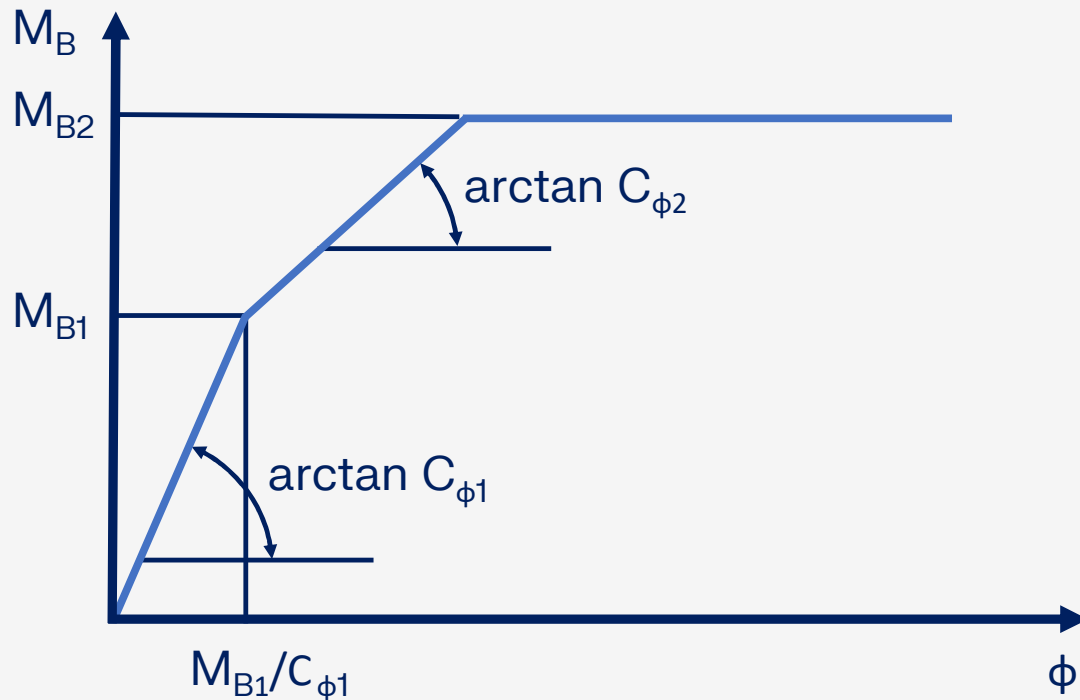
or **2**
info@dlubal.com

Content

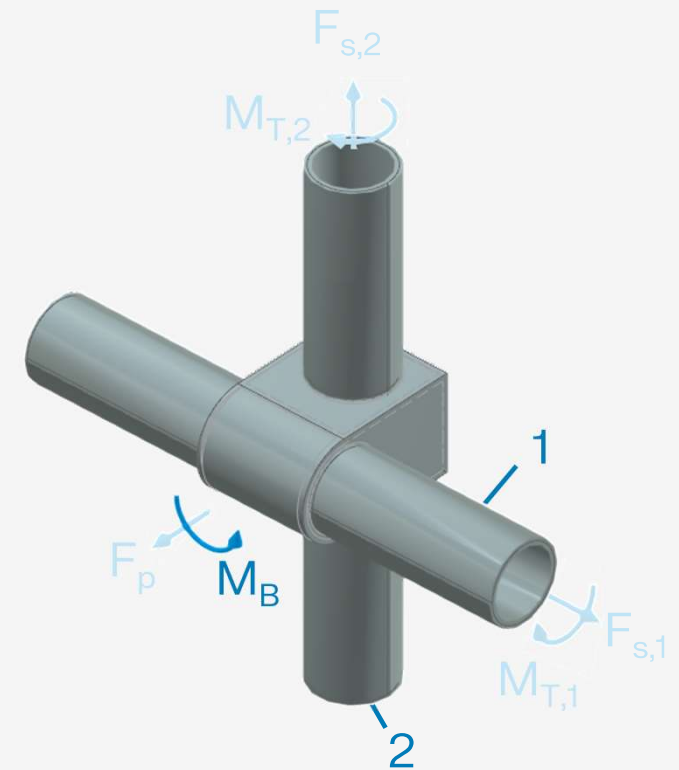
- 1 **Challenges in Scaffold Construction**
- 2 **Fundamentals of the right angle coupler**
- 3 **Creating a Custom Component in RFEM**



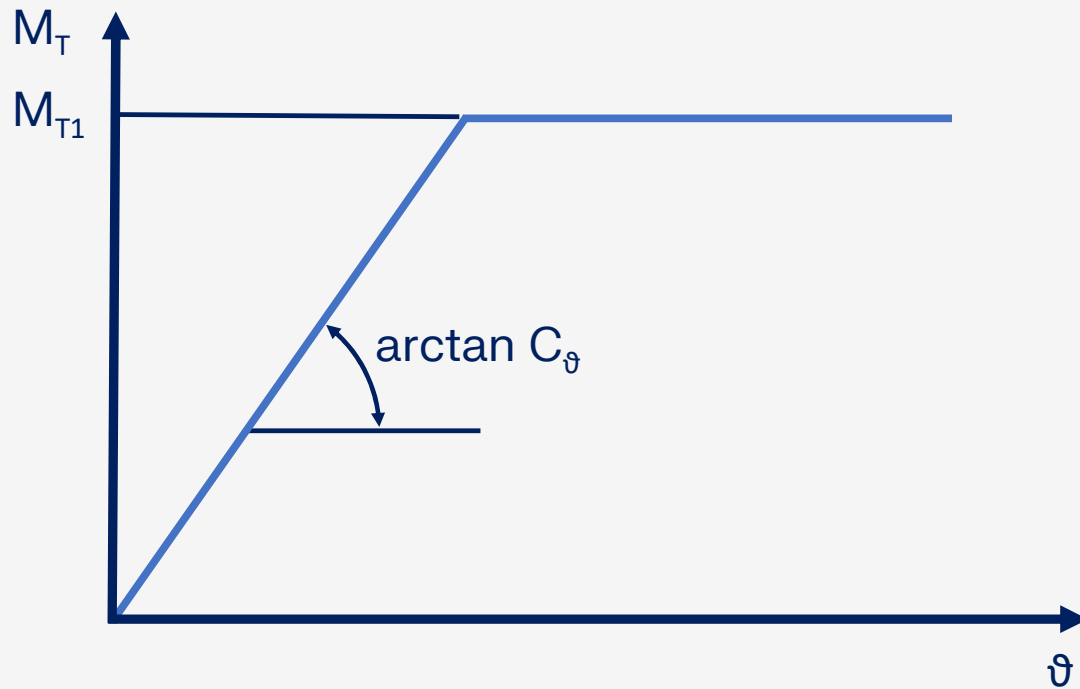
$M_B - \phi$ relationship for class B right angle couplers



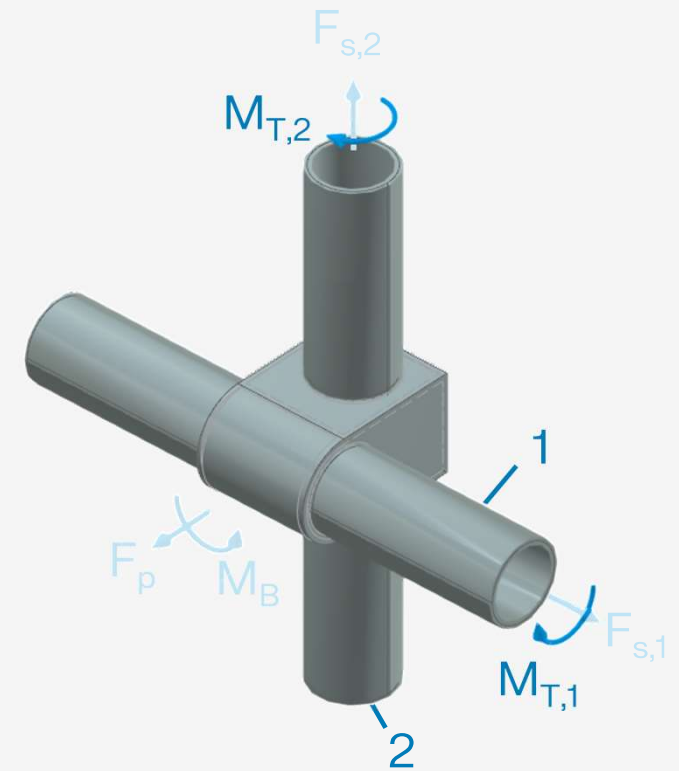
$C_{\phi 1}$ [kNm/rad]	M_{B1} [kNm]	$C_{\phi 2}$ [kNm/rad]	M_{B2} [kNm]
13,0	0,48	5,0	0,8



$M_T - \vartheta$ relationship for class B right angle couplers

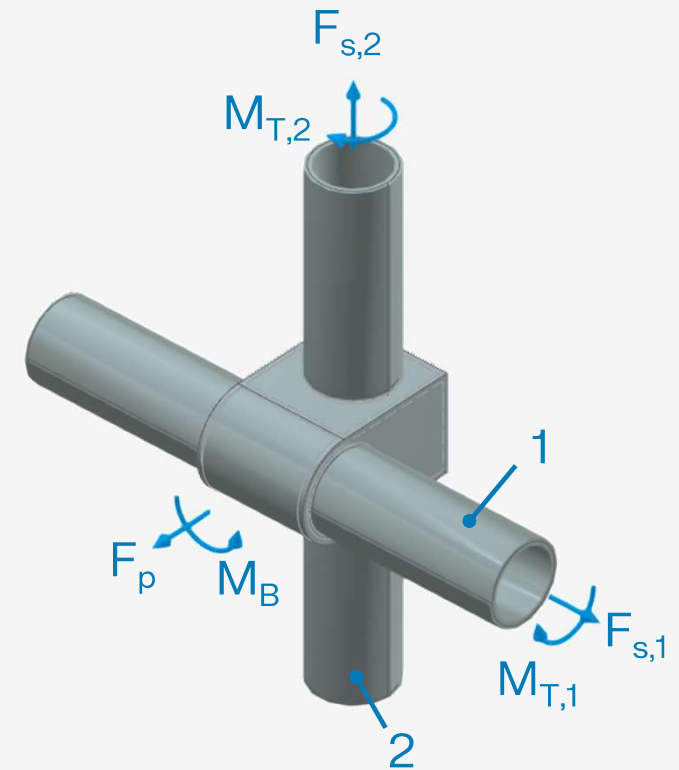


C_ϑ [kNm/rad]	M_{T1} [kNm]
7,5	0,13



Characteristic values of the resistances for couplers

Resistance	Characteristic value	
	Class A	Class B
Slipping force $F_{s,k}$ [kN]	10,0	15,0
Cruciform bending moment $M_{B,k}$ [kNm]	-	0,8
Pull-apart force $F_{p,k}$ [kN]	20,0	30,0
Rotational moment $M_{T,k}$ [kNm]	-	0,13



Design of right angle couplers

$$\frac{F_{s,1} + F_{s,2}}{2 \cdot F_{s,k} / \gamma_M} + \frac{F_p}{F_{p,k} / \gamma_M} + \frac{M_B}{2,0 \cdot M_{B,k} / \gamma_M} \leq 1,0$$

Where:

$F_{s,1}$, $F_{s,2}$, F_p , M_B

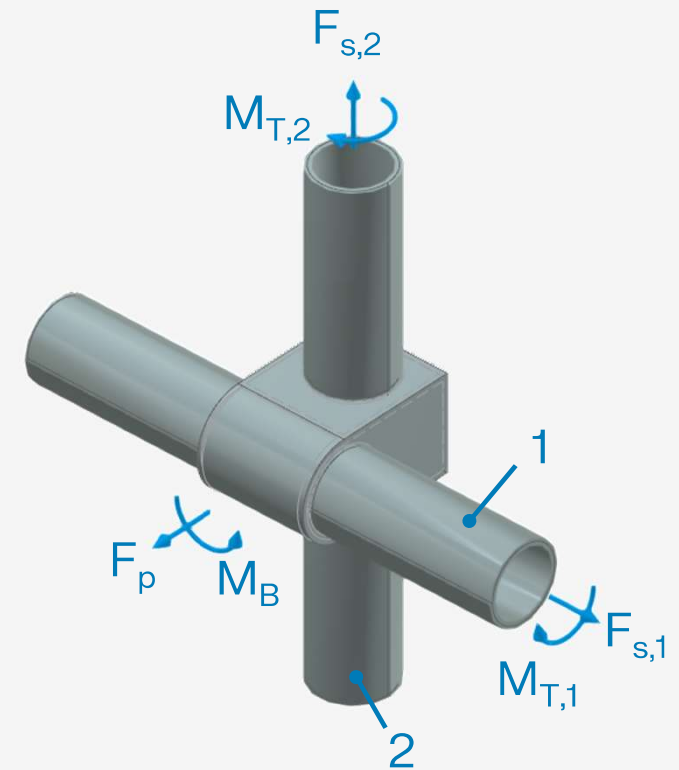
Design forces acting on the coupler

$F_{s,k}$, $F_{p,k}$, $M_{b,k}$

Characteristic resistances

γ_M

Material partial safety factor



Free Online Services

90-Day Full Trial Version Download

Experience the full power of our structural analysis and design software with a free 90-day trial. Get access to all programs and add-ons without restrictions.



DLUBAL COMMUNITY >



GEO ZONE TOOL >



CROSS-SECTION PROPERTIES >



3D MODELS TO DOWNLOAD >

Explore All Our Services >



Get Further Details About Dlubal

- Videos and recorded webinars
- Newsletters
- Events and conferences
- Knowledge Base Articles
- MIA AI Assistant
- Download 90-Day Full Trial Version

www.dlubal.com

Dlubal Software GmbH

Am Zellweg 2
93464 Tiefenbach, Germany

+49 9673 9203-0
info@dlubal.com

90-Day
Full Free
Trial



Thank You for Your Attention

