

# TYPE EXAMINATION CERTIFICATE

39 44 01

## Right angle and swivel coupler

### Holder/Manufacturer/Supplier

Mon.Zon Development AB, Box 5238, SE-402 24 Göteborg

### Product name

Monzon right angle coupler and swivel coupler.

### Product description

According to pages 2–4 in this type examination certificate. Technical documentation according to the documentation for SP, no. 4P06701.

### Requirements

The Swedish Work Environment Authority's Statute Book AFS 2013:4 Scaffolding, 10 § (SP's certification regulations SPCR 064) and SS-EN 74-1.

### Permitted Load

Class B with conditions according to the product description.

### Marking

The couplers must have stamped markings with EN 74-1, Monzon, year of manufacture (2 digits) and B (coupler class).

### Validity

This type examination certificate is valid until not later than 9<sup>th</sup> March 2027.

### Miscellaneous

SP carries out an annual verification of conformity of the couplers according to section 4 of SPCR 064.

This type examination certificate replaces the certificate of the same number dated 18<sup>th</sup> April 2013 and originally issued on 7<sup>th</sup> October 2004.

### SP Technical Research Institute of Sweden Certification

Lennart Aronsson

Kristina Follin



Type examination certificate no. 394401 issue 6, 2017-03-09

### SP Technical Research Institute of Sweden

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The type examination certificate consists of 4 pages, this being page 1.

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## Appendix

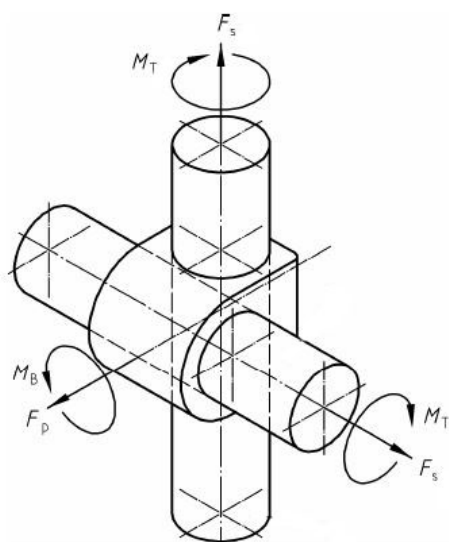
### Product description for Monzon right angle and swivel couplers

#### Design

Monzon couplers are primarily intended for securing constructions of scaffolding tubes with a diameter 48.3 mm. The values for the construction parameters according to SS-EN 74-1 and SS-EN 12810-1, appendix C and the corresponding permitted values for estimates are stated in the following tables. The permitted values are calculated using  $\gamma_F = 1.5$  and  $\gamma_m = 1,1$ .

#### Load capacity

Construction parameters	Designation		Characteristic value	Permitted value
Coupler class			B	
Right angle coupler				
Slipping resistance	$F_s$	(kN)	15.0	9.1
Bending resistance	$M_B$	(kNm)	0.8	0.48
Pull apart resistance	$F_p$	(kN)	30.0	18.2
Rotational moment, max	$M_T$	(kNm)	0.13	0.079
Swivel coupler				
Slipping resistance	$F_s$	(kN)	15.0	9.1



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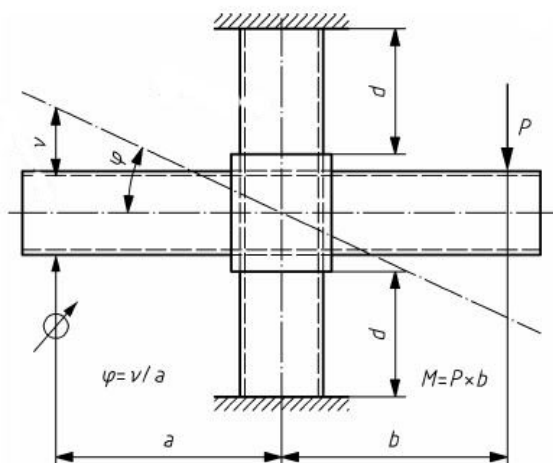


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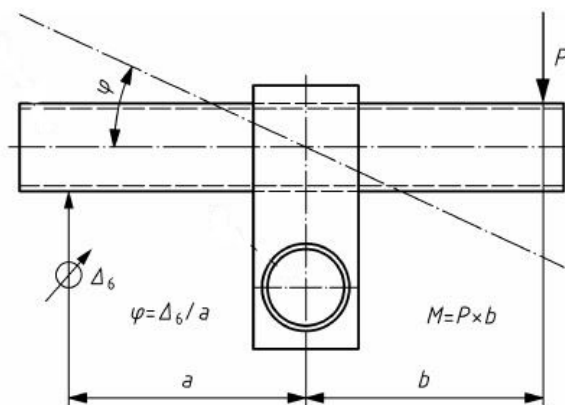
## Appendix

### Designed stiffness values for right angle coupler

Construction parameters	Cruciform bending stiffness	Bending resistance	Cruciform bending stiffness	Cruciform ultimate bending moment
<b>Designation</b>	$C_{\varphi 1}$	$M_{B1}$	$C_{\varphi 2}$	$M_{B2}$
	(kNm/rad)	(kNm)	(kNm/rad)	(kNm)
Steel tube	15.0	0.48	6.0	0.8
Aluminium tube	13.0	0.48	5.0	0.8



Construction parameters	Rotational stiffness	Rotational moment
<b>Designation</b>	$C_{\nu}$	$M_T$
	(kNm/rad)	(kNm)
	7.5	0.13



### Surface treatment

Hot zinc galvanized 75 µm.

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## Appendix

### Conditions for use

1. The couplers must be installed with a tightening torque of 50 Nm.
2. The couplers are intended for installation on steel or aluminium tubes with a diameter of 48.3 mm.

### Instruction manual

An instruction manual must be provided with the couplers when supplied to the user.

### Application

The type examination certificate is valid for couplers made and supplied by the manufacturer as stated on the certificate and of which materials, dimensions and design correspond with the type examined example.

This is a translation from the Swedish original document. In the event of any dispute as to the content of the document, the Swedish text shall take precedence.