



Recostal[®] Coupler

Threaded Splice Connection
for reinforced concrete structures



Optimal connection for
reinforcement bar in
concrete construction.



Coupler



Threaded splice connection for reinforced concrete structures

With the new recostal® rebar coupler connection, DY.CO is expanding its product portfolio in the field of recostal® reinforcement technology.

recostal® coupler threaded connections offer an optimal and secure connection in reinforced concrete construction where reinforcement steel needs to be spiced. The connection with a female thread is available in sizes 14 mm-28 mm. For this purpose, the reinforcing bars can be ordered bespoke to specification

directly via our manufacturing facilities. recostal® couplers can be used in combination with many products from the DY.CO portfolio, for example with the recostal® couplerbox giving maximum design flexibility for engineers and contractors.

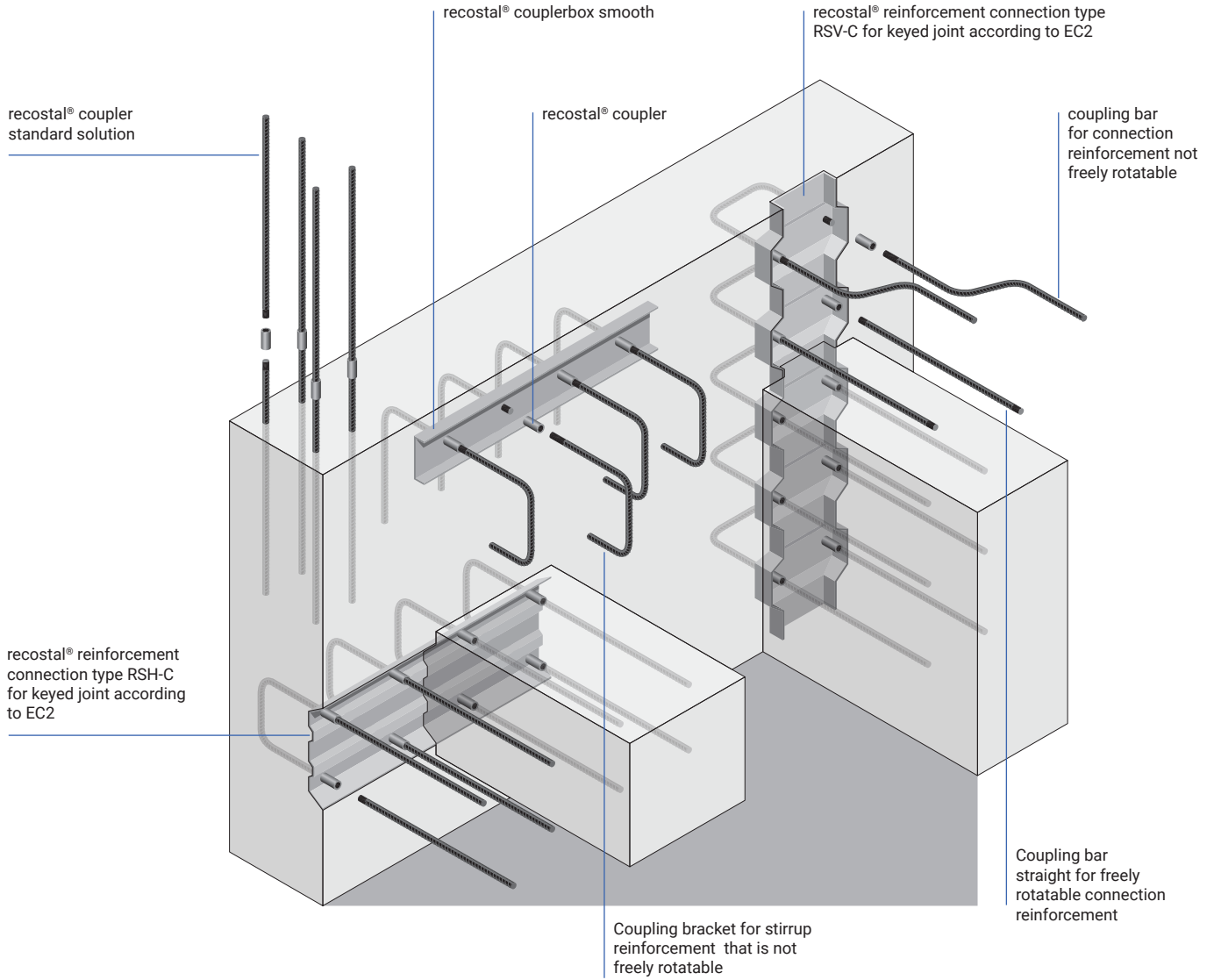
recostal® coupler connections can save time and costs, ensures a secure connection and helps conserve resources by saving reinforcement steel.

Advantages:

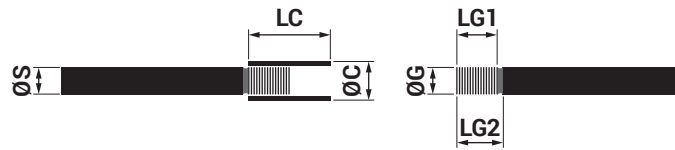
- High fatigue strengths for use in bridges, among other applications
- 100% power load transmission
- Industry technical approval
- Design flexibility
- Efficient and economical
- Full technical and design support
- Conservation of resources



Recostal® coupler connection variants



Recostal® coupler threaded connection



Product	Ø Coupling bar ØS mm	Coupler ¹⁾		Thread coupling bar		Tightening moment M Nm	
		Ø Outside ØC mm	Length coupler LC mm	Length thread LG1 mm	Shell length LG2 mm		Ø Outside ØG mm
Kürzel RC (recostal® coupler)	14	22	40	21,5	22,5	14,5	80
	16	25	45	24	25	16,5	80
	20	30	55	29	30	20,55	160
	25	38	65	34,5	35,5	25,55	230
	28	42	70	37	38	28,55	300

¹⁾ Dimensions for standard threaded connection.

Coupling bars



Bar forms

Type	Form	Explanation
SG		Straight rod
SW		Angled rod
SB		Bent rod
SK		Swan necked rod

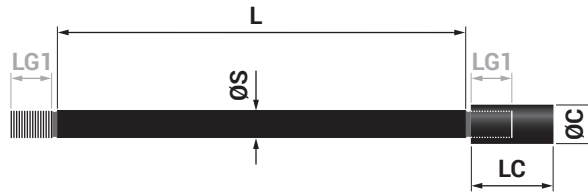
Connection variants

Abbreviations for connection variants ¹⁾ ("X" for that are not freely rotatable ²⁾)	Connection options	Explanation
M		Simple thread / bar
MM		Simple thread / simple thread
F		Single thread with coupler/ bar
FM		Simple thread with coupler/ simple thread
FF		Single thread with coupler/ single thread with coupler
FX		Double thread length with coupler/ bar
FXM		Double thread length with coupler/ single thread
FXF		Double thread length with coupler/ single thread with coupler
FFX		Double thread length with coupler/ double thread length with coupler

¹⁾ "M" = Male thread, "F" = Female thread with coupler.

²⁾ Bars that are not freely rotatable have a double thread length (2 x LG1) at the socket end.

Recostal® RC-SG coupling bar - Straight



Example here: recostal® RC...-SG...

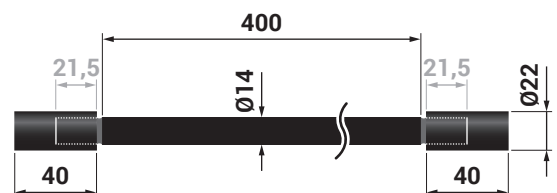
Ø Coupling bar ØS mm	Type Abbreviation	Length coupling bar ¹⁾ L mm	Connection variant bar freely rotatable		Coupler	
			Abbreviation	Length LC mm	Ø Outside ØC mm	
14	SG (Straight bar)	400	M MM F FM FF	40	22	
		600				
		730				
		960				
		1.350				
16		400	45	25		
		590				
		840				
		1.160				
20		400	55	30		
	730					
	1.040					
	1.450					
	1.890					
25	400	65	38			
	910					
	1.290					
	1.800					
	2.360					
28	400	70	42			
	1.020					
	1.450					
	2.020					
	2.640					

¹⁾ Standard lengths, other lengths on request.

Example of a complete article description

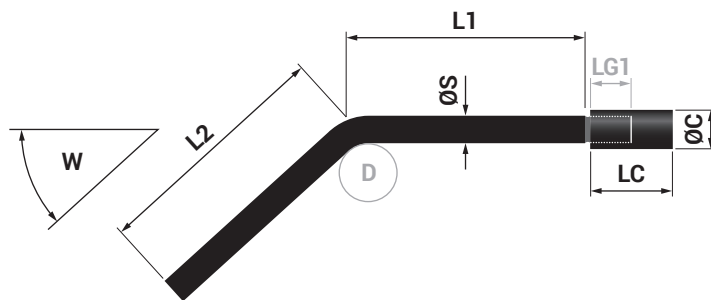
recostal® RC 14 - SG 400 FF

- recostal® coupler
- Ø Coupling bar = 14 mm
- Type Straight bar
- Length coupling bar L = 400 mm
- Connections: Female/Female, both sides single thread



freely rotatable coupling bar

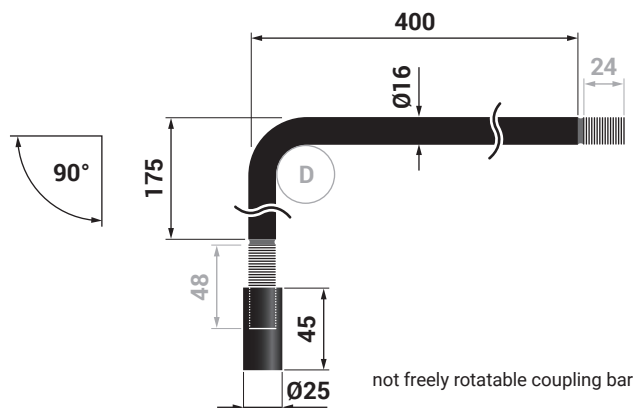
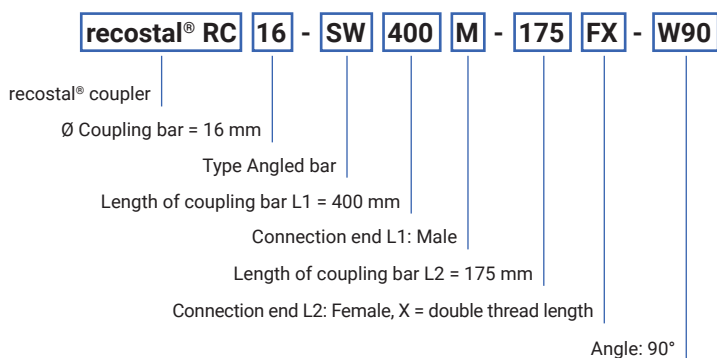
Recostal® RC-SW coupling bar - Angled



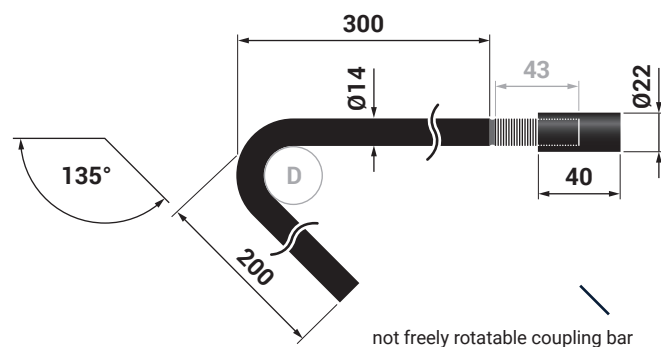
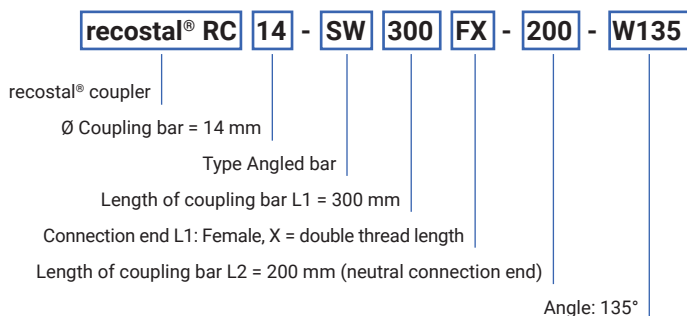
Example here: recostal® RC...-SW...F-...

Ø Coupling bar ØS	Type	Length coupling bar L1	Connection end for L1	Length coupling bar L2	Connection end for L2	Bend angle W	Coupler	
							Length LC	Ø Outside ØC
mm	Abbreviation	mm	Abbreviation	mm	Abbreviation	°	mm	mm
14	SW (Angled bar)	Freely selectable	M F FX	Freely selectable	M F FX	Freely selectable	40	22
16							45	25
20							55	30
25							65	38
28							70	42

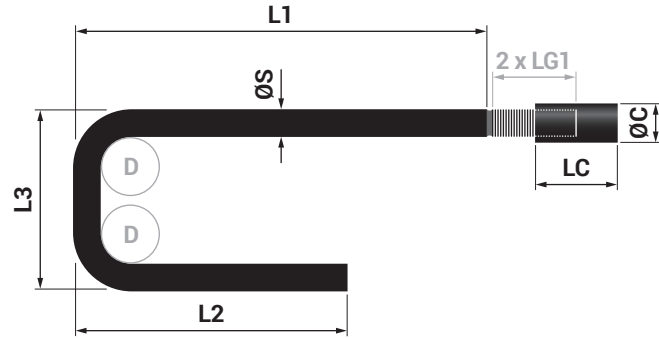
Example of a complete article description



Example of a complete article description



Recostal® RC-SB coupling bar - Bent



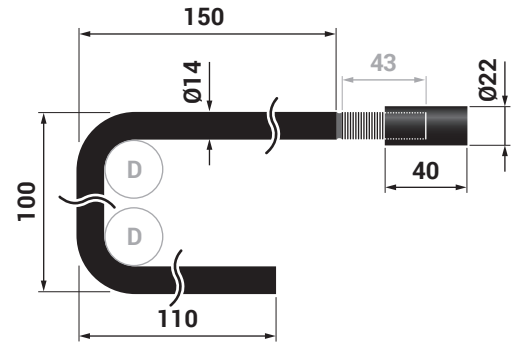
Example here: recostal® RC...SB... FX...

Ø Coupling bar ØS	Type	Length coupling bar L1	Connection end for L1	Length coupling bar L2	Connection end for L2	Bend angle W	Coupler	
							Length LC	Ø Outside ØC
mm	Abbreviation	mm	Abbreviation	mm	Abbreviation	°	mm	mm
14	SW (Bent bar)	Freely selectable	M F FX	Freely selectable	M F FX	Freely selectable	40	22
16							45	25
20							55	30
25							65	38
28							70	42

Example of a complete article description

recostal® RC 14 - SB 150 FX - 110 - 100

recostal® coupler
 Ø Coupling bar = 14 mm
 Type Bent bar
 Length of coupling bar L1 = 150 mm
 Connection end L1: Female, X = double thread length
 Length of coupling bar L2 = 110 mm (neutral connection end)
 Length coupling bar L3 = 100 mm

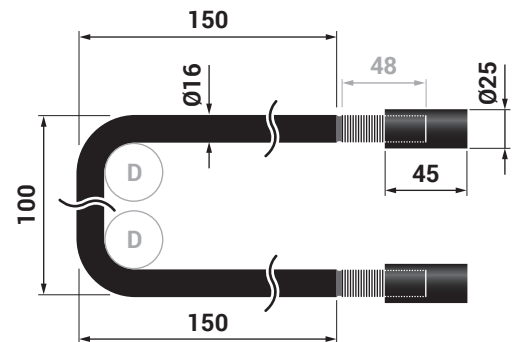


not freely rotatable coupling bar

Example of a complete article description

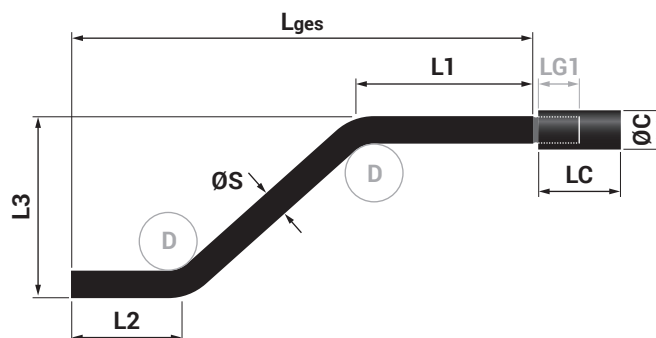
recostal® RC 16 - SB 150 FX - 150 FX - 100

recostal® coupler
 Ø Coupling bar = 16 mm
 Type Bent bar
 Length of coupling bar L1 = 150 mm
 Connection end L1: Female, X = double thread length
 Length of coupling bar L2 = 150 mm
 Connection end L2: Female, X = double thread length
 Length coupling bar L3 = 100 mm



not freely rotatable coupling bar

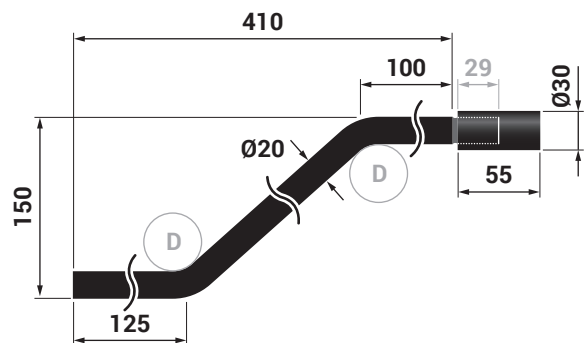
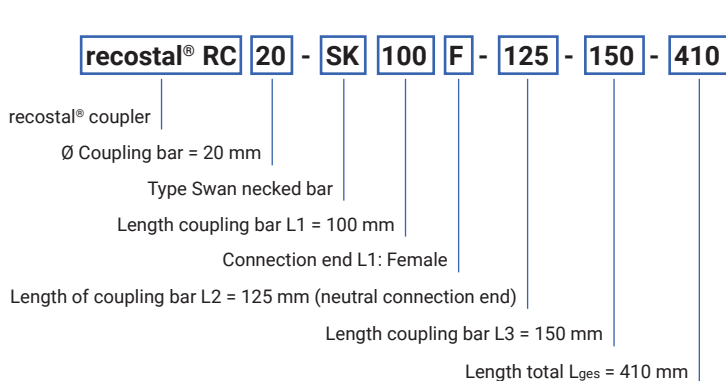
Recostal® RC-SK coupling bar - Swan necked



Example here: recostal® RC...-SW...F-...

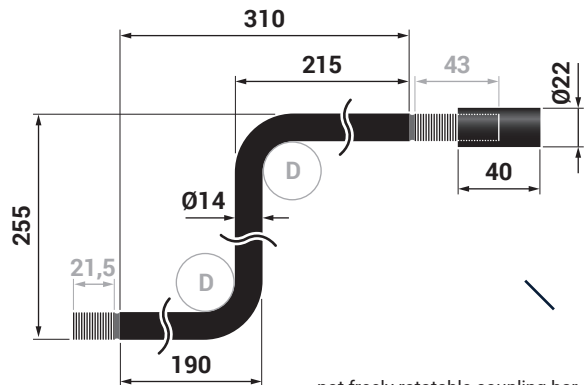
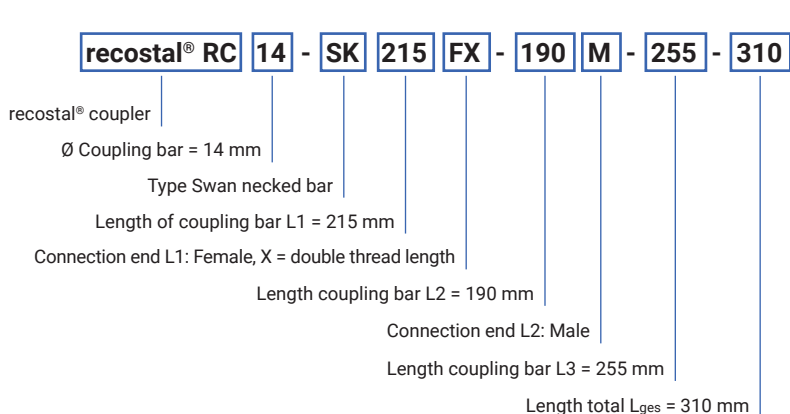
Ø Coupling bar ØS	Type	Length coupling bar L1	Connection end for L1	Length coupling bar L2	Connection end for L2	Bend angle W	Coupler	
							Length LC	Ø Outside ØC
mm	Abbreviation	mm	Abbreviation	mm	Abbreviation	°	mm	mm
14	SW (Swan necked bar)	Freely selectable	M F FX	Freely selectable	M F FX	Freely selectable	40	22
16							45	25
20							55	30
25							65	38
28							70	42

Example of a complete article description



freely rotatable coupling bar

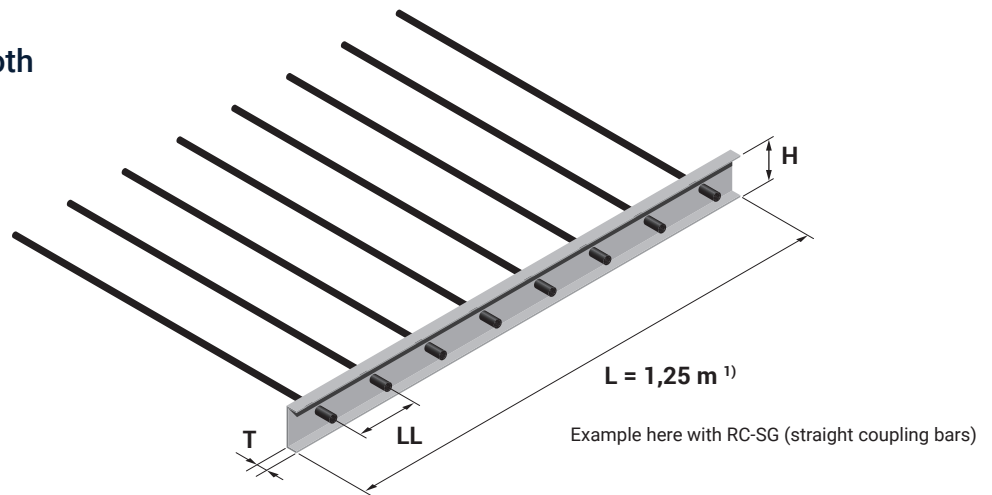
Example of a complete article description



not freely rotatable coupling bar

Coupler Boxes

Recostal® couplerbox - Smooth



Type	Box usable height ¹⁾ H mm	Box-Nutztiefe ¹⁾ T mm	Hole spacing ¹⁾ LL mm	Bar forms Abbreviation	Connection variant bar freely rotatable Abbreviation
Coupler box smooth	50 or 80	30 or 40	150 or 200	SG (Straight bar)	M MM F FM FF
				SW (Angled bar)	
				SB (Bent bar)	
				SK (Swan necked bar)	
					Connection variant bar not freely rotatable Abbreviation
					FX FXM FXF FFX

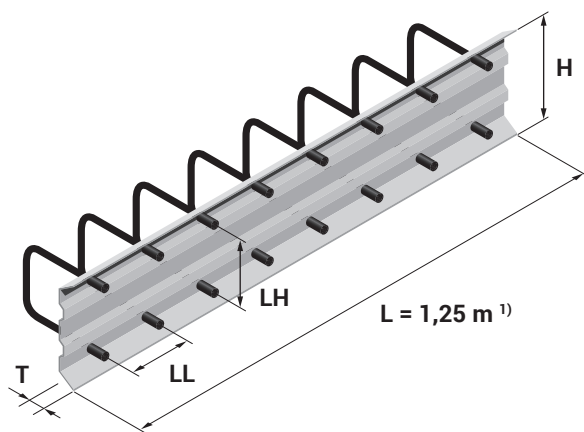
¹⁾ Standard dimensions, other dimensions on request.

Example of a complete article description

recostal® **couplerbox smooth** - **50** - **30** - **150** + Details of the bar types according to the previous article description

Product name | Type | Box usable height: H = 50 mm | Box usable depth: T = 30 mm hole | Spacing (standard spacing here): LL = 150 mm

Recostal® couplerbox RSH-C keyed profiled according to EC2



Example here with RC-SB (Bent coupling bars)

Type	Hole spacing height ¹⁾	Box usable depth ¹⁾	Hole spacing length ¹⁾	Box usable height (depending on :H)
	LH	T	LL	H
	cm	mm	mm	mm
RSH-C	10	35 oder 40	150 oder 200	130
	11			140
	12			150
	14			170
	16			190
	18			210
	20			230
	22			250

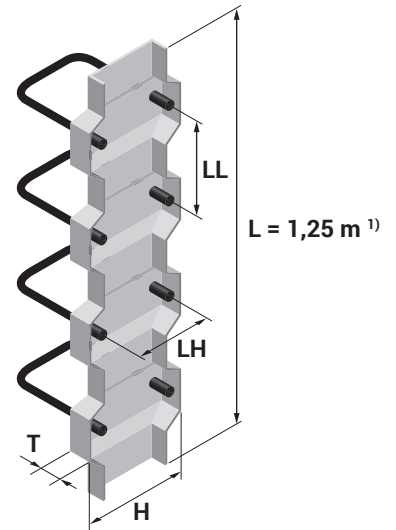
¹⁾ Standard dimensions, other dimensions on request.

Example of a complete article description

recostal®
RSH-C
-
12
-
40
-
200
+ Details of the bar types according to the previous article description

Product name | Type | Hole spacing height LH = 12 cm | Box usable depth T = 40 mm hole | Spacing length (standard spacing here): LL = 200 mm

Recostal® couplerbox RSH-C keyed profiled according to EC2



Type	Hole spacing height ¹⁾ LH cm	Box usable depth ¹⁾ T mm	Hole spacing length ¹⁾ LL mm	Box usable height (depending on LH) H mm
RSV-C	8	40	150	110
	11			140
	14			170
	18			210

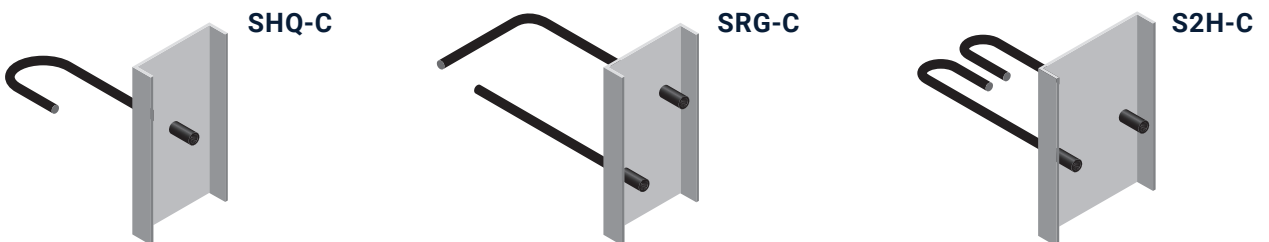
¹⁾ Standard dimensions, other dimensions on request.

Example of a complete article description

recostal®
RSV-C
-
14
-
40
-
150
+ Details of the bar types according to the previous article description

Product name | Type | Hole spacing height LH = 14 cm | Box usable depth T = 40 mm hole | Spacing length (standard spacing here): LL = 150 mm

Special solutions



Further special solutions on request.

Recostal® Shuttering elements with recostal® coupler screw connection



Conventional formation of the connection reinforcement. Fresh concrete composite waterproofing must be advanced far into the next concreting section!



Solution: recostal® shuttering elements with recostal® coupler for optimal installation on fresh concrete composite waterproofing with flow protection for safe backflow protection.

- Can be combined with all recostal® shell elements
- Prefabricated flow protection
- Optimal for use in the application of fresh concrete composite systems
- Free working space in the next concreting section
- Conservation of resources
- Ready-to-install self-supporting shuttering elements with coupling bars
- Joint category “toothed” according to EC2



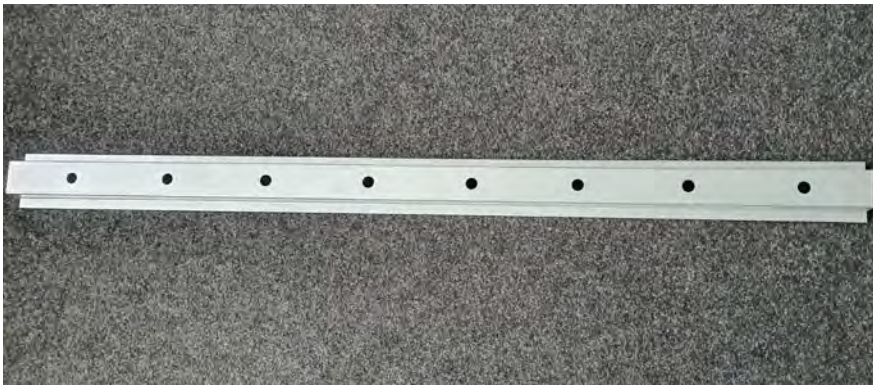
Recostal® coupler accessories



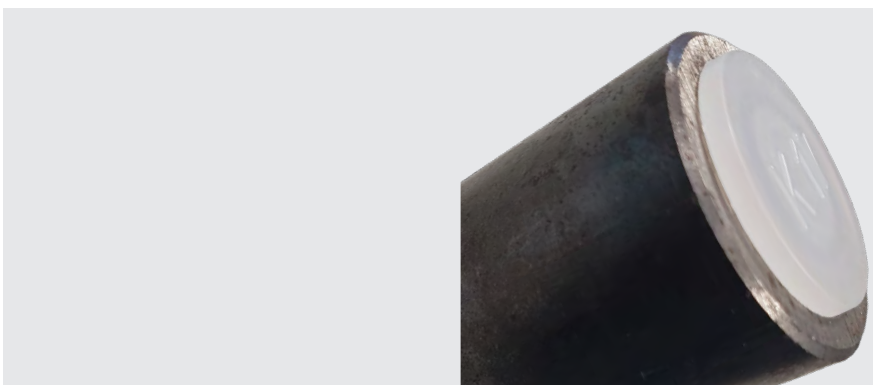
Mounting bracket for single Ws for variable fixing of recostal® couplers to the formwork using nails.



Torque wrench for diameter 10 - 40 mm. Torque up to 400 Nm.



Mounting bar for fastening several recostal® couplers to the formwork by means of nails. Hole spacing is freely selectable.



Protective caps for recostal® coupler in all diameters. Protective caps for recostal® coupler in all diameters.



**Allgemeine
bauaufsichtliche
Zulassung/
Allgemeine
Bauartgenehmigung**

Deutsches
Institut
für
Bautechnik

DIBt

**Zulassungsstelle für Bauprodukte und Bauarten
Bautechnisches Prüfamt**

Eine vom Bund und den Ländern
gemeinsam getragene Anstalt des öffentlichen Rechts
Mitglied der EOTA, der UEAtc und der WFTAO

Datum: 07.10.2019 Geschäftszeichen: I 24-1.1.5-9/18

**Nummer:
Z-1.5-287**

Geltungsdauer
vom: **7. Oktober 2019**
bis: **7. Oktober 2024**

Antragsteller:
DYWIDAG-Systems
International GmbH
Neuhofweg 5
85716 Unterschleissheim

Gegenstand dieses Bescheides:
Schraubmuffenverbindung von Betonstahl B500B
"recostal® coupler"
Nenndurchmesser: 14 bis 28 mm

Der oben genannte Regelungsgegenstand wird hiermit allgemein bauaufsichtlich
zugelassen/ genehmigt.
Dieser Bescheid umfasst sechs Seiten und eine Anlage.

DIBt

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CONTACT DATA

The Bluebay logo, consisting of a blue square with a yellow circle and a blue sphere, followed by the word "Bluebay" in a blue, italicized, sans-serif font.

www.bluebaybp.co.uk | enquiries@bluebaybp.co.uk

A row of three certification logos. From left to right: a red gear-shaped logo with "CARES" in white, "TECHNICAL APPROVAL 5088" below it; a UKAS Product Certification logo with "UKAS PRODUCT CERTIFICATION" and "0002" below it; and a QR code with "Validate with the CARES Cloud App" below it.