

RECASTAL
BY DYWIDAG



RECASTAL[®] Coupler

Screw connection for reinforced concrete structures

RECOSTAL® Coupler

Threaded splice connection for reinforced concrete structures

With the new RECOSTAL® Coupler rebar connection, DYWIDAG Concrete Technologies 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 spliced.

RECOSTAL® Coupler connection is available in sizes: 14 mm-28 mm according to DIBt approval and 12 mm-25 mm according to CARES approval (other sizes on request).

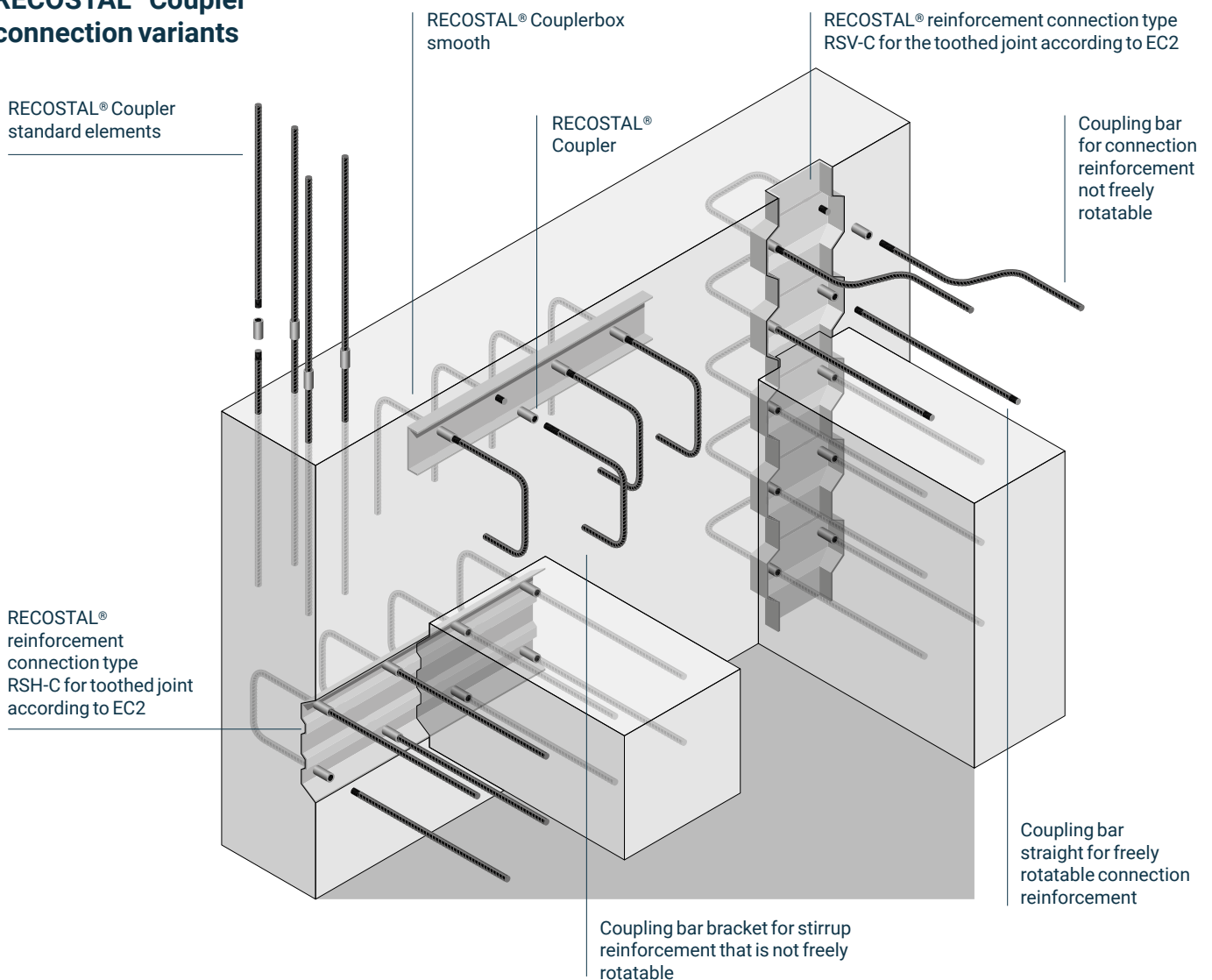
For this purpose, the reinforcing bars can be ordered bespoke to specification directly via our manufacturing facilities. RECOSTAL® Couplers can be used in combination with many products from the DYWIDAG Concrete Technologies portfolio, for example with the RECOSTAL® Coupler box giving maximum design flexibility for engineers and contractors.

RECOSTAL® Coupler connections can save time and costs, ensure a secure connection and help conserve resources by saving reinforcement steel.

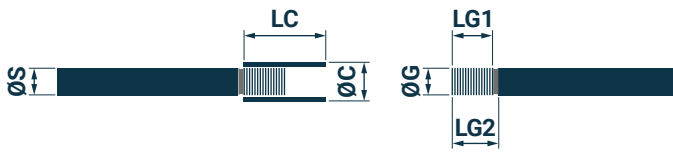
The Benefits

- High fatigue strengths for use in bridges, among other applications
- 100% power transmission
- General technical approval: DIBt, CARES
- Extensive combination possibilities with RECOSTAL® formwork systems
- Efficient and economical
- Less planning effort
- Conservation of resources
- Design flexibility

RECOSTAL® Coupler connection variants



RECOSTAL® Coupler screw connection



Product	Coupling bar ØS	Ø Coupler ¹⁾		Thread coupling bar			Tightening moment M
		Ø Outside ØC	Length coupler LC	Length thread LG1	Shell length LG2	Ø Outside ØG	
Abbreviation	mm	mm	mm	mm	mm	mm	m
RC	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 screw connection.

Coupling bars



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

Connection Variants

Abbreviation	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/ simple thread
FXF		Double thread length with coupler/ single thread with coupler
FFX		Double thread length with coupler/ double thread length with coupler

"M" = Male thread, "F" = Female thread with coupler. "X" for bars that are not freely rotatable.

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

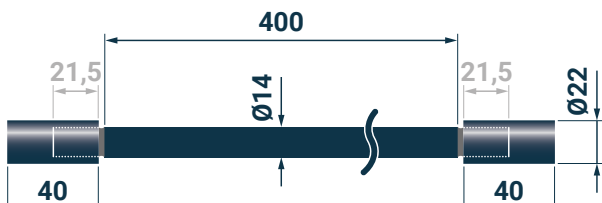
04 **RECOSTAL® RC-SG coupling bar straight**



Example here: RECOSTAL® RC...-SG...

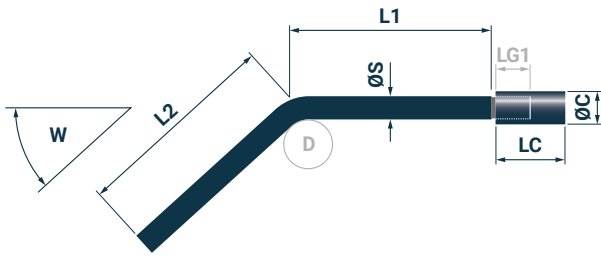
Ø Coupling bar ØS	Type	Length coupling bar ¹⁾	Connection variant bar freely rotatable		Coupler Length Ø Outside LC	
			mm	mm	mm	mm
14	SG Straight Bar	400	M	22	40	22
		600				
		730				
		960				
		1,350				
16		400	F	25	45	25
		590				
		840				
		1,160				
20		1,650	FM	30	55	30
	400					
	730					
	1,040					
	1,450					
25	1,890	FF	38	65	38	
	400					
	910					
	1,290					
	1,800					
28	2,360	FFX	42	70	42	
	400					
	1,020					
	1,450					
	2,020					
	2,640					

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

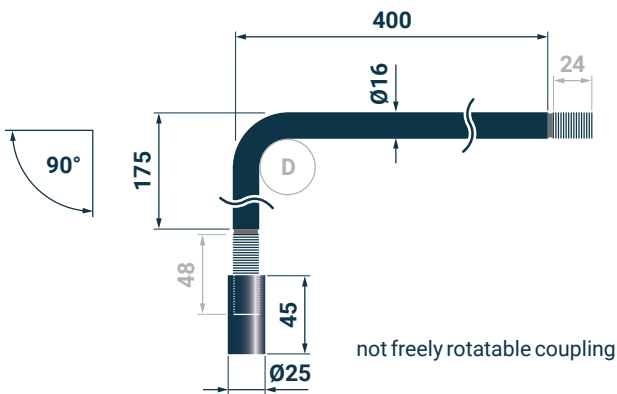
RECOSTAL® RC-SW coupling bar angled



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

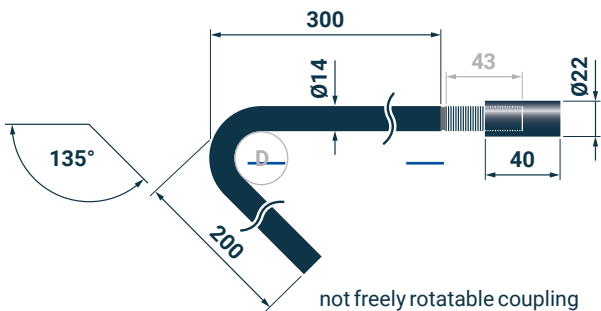
Ø Coupling bar ØS	Type	Length coupling bar L1	Connection end for L1	Length coupling bar L2	Connection end for L2	Bend angle W	Coupler Length Ø Outside LC	
							mm	mm
mm	Abbreviation	mm	Abbreviation	mm	Abbreviation	°	mm	mm
14	SW (Angled bar)	freely selectable	M F FX	freely selectable	M F FX	freely selectable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

Example of a complete article description



RECOSTAL® RC 16 SW 400 M 175 FX W90

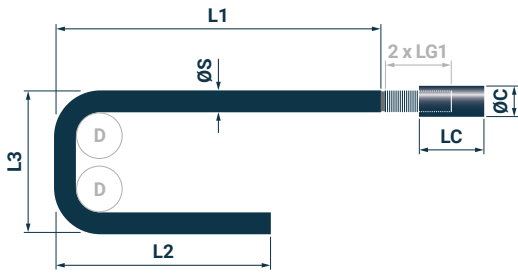
- RECOSTAL® Coupler
- Ø coupling bar = 16 mm
- Type Angled bar
- Length of coupling bar L1 = 400 mm
- Connection end L1: Male
- Length of coupling bar L2 = 175 mm
- Connection end L2: Female, X = double thread length
- Angle 90°



RECOSTAL® RC 14 SW 300 FX 200 W135

- RECOSTAL® Coupler
- Ø coupling bar = 14 mm
- Type Angled bar
- Length of coupling bar L1 = 300mm
- Connection end L1: Female, X = double thread length
- Length of coupling bar L2 = 200 mm (neutral connection end)
- Angle 135°

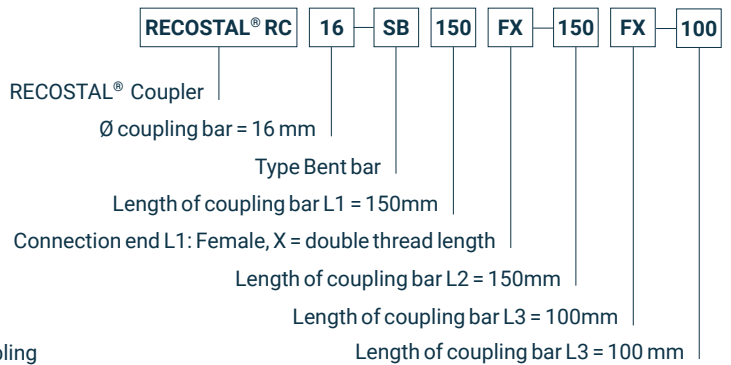
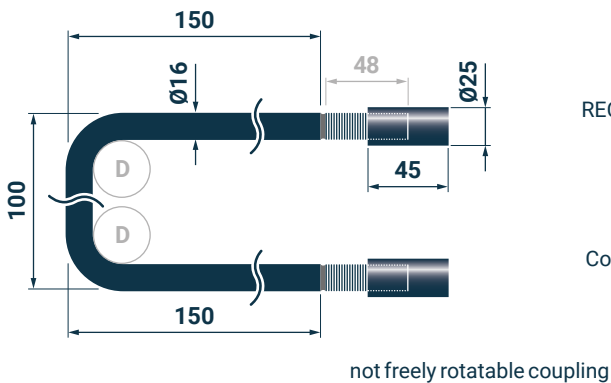
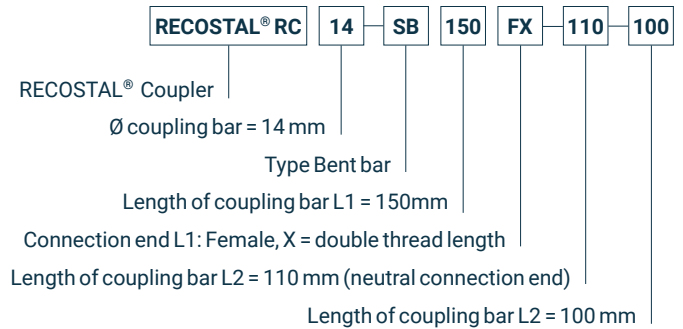
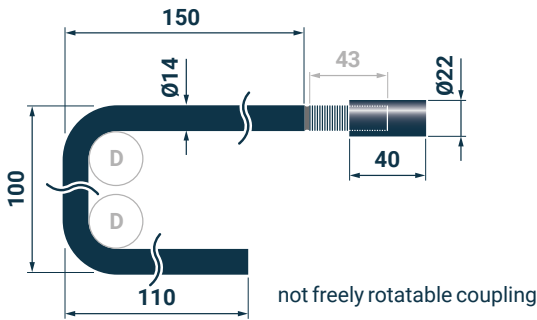
RECOSTAL® RC-SB coupling bar bent



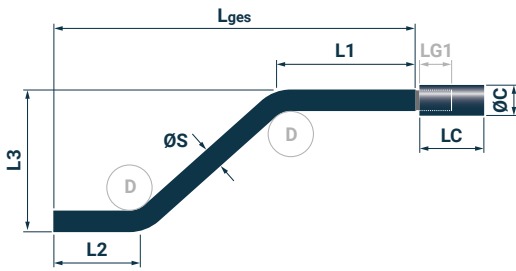
Example here: RECOSTAL® RC...-SB... FX-...

Ø Coupling bar ØS	Type	Length coupling bar L1	Connection end for L1	Length coupling bar L2	Connection end for L2	Length Coupling bar L3	Coupler Length Ø Outside LC	
							mm	mm
mm	Abbreviation	mm	Abbreviation	mm	Abbreviation	mm	mm	
14	SB (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



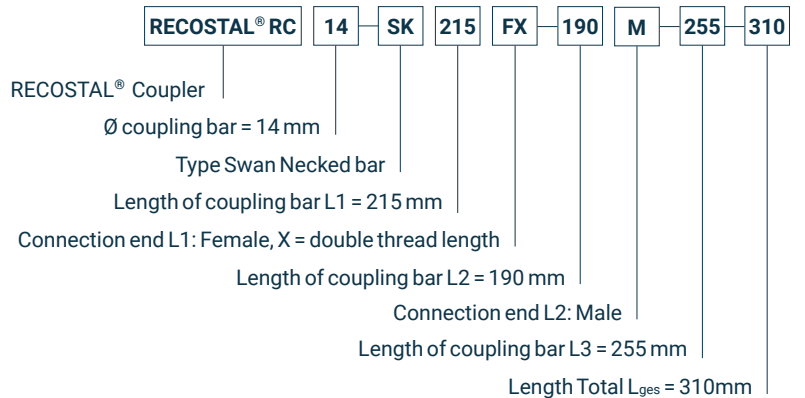
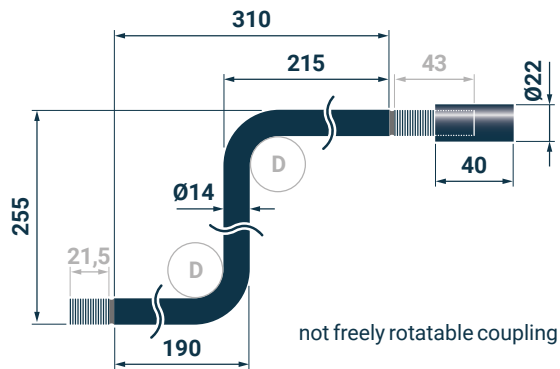
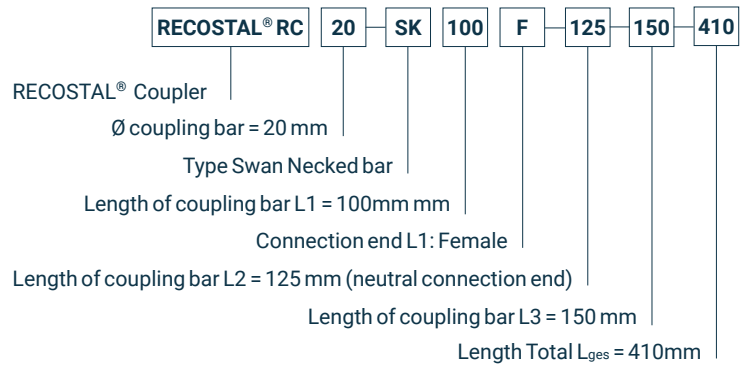
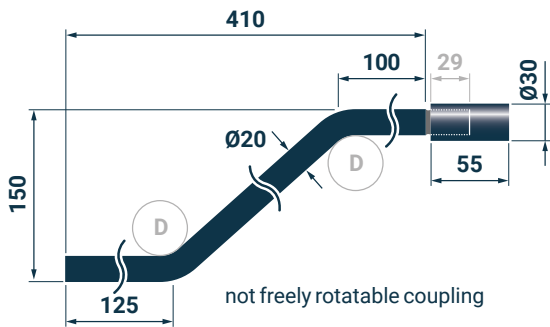
RECOSTAL® RC-SK coupling bar swan necked



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	Length Coupling bar L3	Coupler Length Ø Outside LC	
							mm	mm
mm	Abbreviation	mm	Abbreviation	mm	Abbreviation	mm	mm	
14	SK (Swan necked)	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



08 **RECOSTAL® Coupler accessories**



Mounting bracket for single bars for variable fixing of RECOSTAL® Couplers to the formwork by means of nails.



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

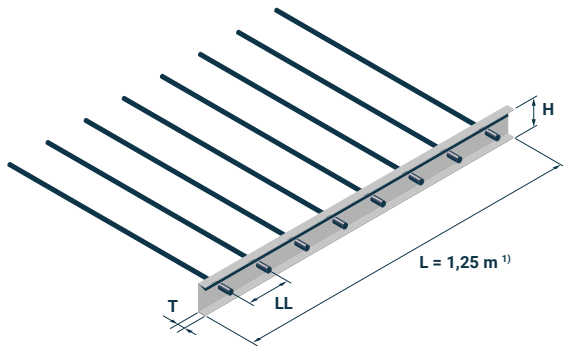


Mounting bar for fastening several RECOSTAL® Couplers to the formwork by means of nails. Hole spacing is freely selectable.

More accessories, e.g. caps, are available upon request.

RECOSTAL® Couplerboxes

RECOSTAL® Couplerbox smooth

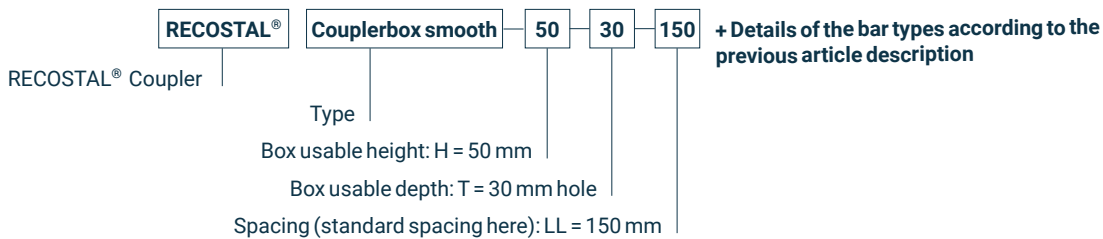


Example here with RC-SG (straight coupling bars)

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

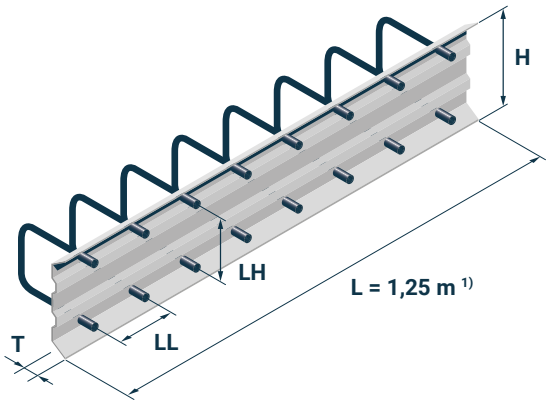
1) Standard dimensions, other dimensions on request.

Example of a complete article description



RECOSTAL® Couplerbox RSH-C toothed according to EC2

RECOSTAL® Couplerbox RSH-C toothed according to EC2

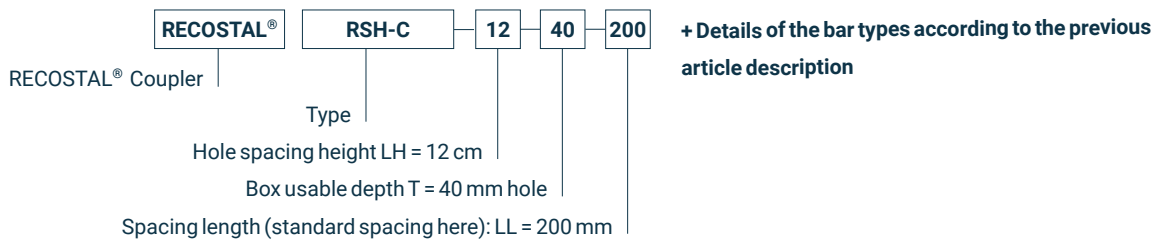


Example here with RC-SB (Bent coupling bars)

Type	Box- usable height ¹⁾ LH	Box- usable depth T	Hole Spacing ¹⁾ LL	Bar Forms
RSH-C	cm	mm	mm	mm
	10			
	11			
	12			
	14			
	16			
	18			
	20			
	22			
	35 or 40	150 or 200	130 140 150 170 190 210 230 250	

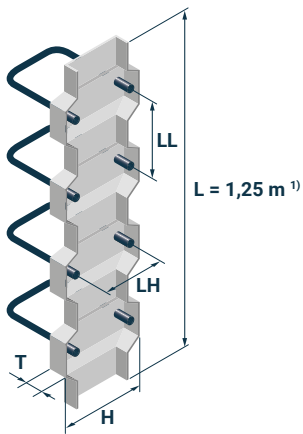
1) Standard dimensions, other dimensions on request.

Example of a complete article description



RECOSTAL® Couplerbox RSH-C toothed according to EC2

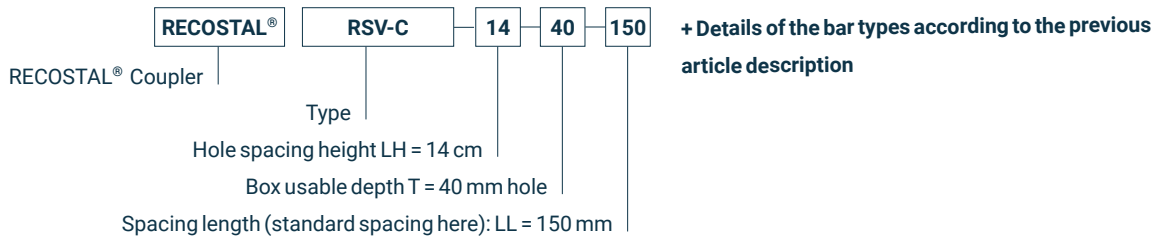
RECOSTAL® Couplerbox RSV-C toothed according to EC2



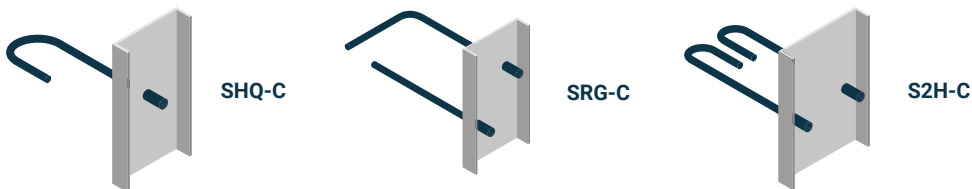
Type	Hole spacing height 1) LH	Box-usable depth T	Hole Spacing length 1) LL	Box-usable height (depending on LH) H
RSV-C	cm	mm	mm	mm
	8			110
	11			140
	14			170
	18			210

1) Standard dimensions, other dimensions on request.

Example of a complete article description



Special Solutions



Further special solutions on request.

12 **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 shell elements with coupling bars
- Joint category “toothed” according to EC2



concrete.dywidag.com

Get in touch.

For local contact details, please visit our website.



© Copyright 2023 DYWIDAG. All rights reserved.
Specifications subject to change without notice.

dywidag.com/contact