

# Connecting Systems

for Modern Wood Curtain Walls

Connecting Your Ideas ...



CE ETA

**KNAPP**®  
*connectors.com*



Friedrich Knapp  
CEO

## Welcome to the World of KNAPP®!

As a manufacturer of patented connecting systems, we develop and produce high-quality products that are distributed worldwide. Our connecting systems convince and inspire you with the wide range of applications. The comprehensive service helps find the best, most efficient and innovative solution for the realization of your projects. On the following pages, you will find our connecting systems for modern wood curtain walls. Every connector allows a high level of prefabrication and has the CE Marking in accordance with the European standard certification. Regular external inspections guarantee maximum security for contractors, architects, manufacturers and owners.

## Our Service

The KNAPP®-Team provides competent advice and excellent service for your projects.

In Germany and Austria we offer full-coverage service by representatives on-site. You will find the right contact person easily and quickly.  
[www.knapp-connectors.com/contacts](http://www.knapp-connectors.com/contacts)

We offer full coverage customer service and technical support, Monday – Thursday 8 a.m. to 4.30 p.m. and Friday 8 a.m. to 12 p.m. Central European Time. Find your nearest representative today.

You can reach our office +43 (0)7474 / 799 10 or E-Mail : [info@knapp-connectors.com](mailto:info@knapp-connectors.com)  
[www.knapp-connectors.com/contacts](http://www.knapp-connectors.com/contacts)

## Our Planner Service



Our online shop is open 24-hours a day. Here you will find comprehensive information about all of our products and services. After a one-time registration, you will also be able to download detailed information about our connecting systems.

[www.knapp-connectors.com/downloads](http://www.knapp-connectors.com/downloads)

We offer comprehensive planning and engineering services as well as statics pre-dimensioning, which allows to choose the right KNAPP product. You can use the pre-measurement tool on our website or contact us directly and work with our experienced engineers. Contact us today for your next project!

[www.knapp-connectors.com/service/plannerservice](http://www.knapp-connectors.com/service/plannerservice)



Planner service

## KNAPP® online-store | Order around the clock



Want to be flexible and order at any time? No problem! Find the most fitting connecting system for your application in our online store. After a quick registration, you can immediately start placing your orders with just one click.

[www.knapp-connectors.com/products](http://www.knapp-connectors.com/products)



24/7  
online-store

## KNAPP® offers the right connection for the areas of:

Mass Timber Construction | Wood Curtain Walls | Modular and Prefab Construction | Timber Frame Construction | Door- and Window Manufacturing | Furniture and Architectural Millwork | Structural Glazing

More information  
[www.knapp-connectors.com/downloads](http://www.knapp-connectors.com/downloads)





## RICON® | The connector for main and secondary joints up to 23 kN\*

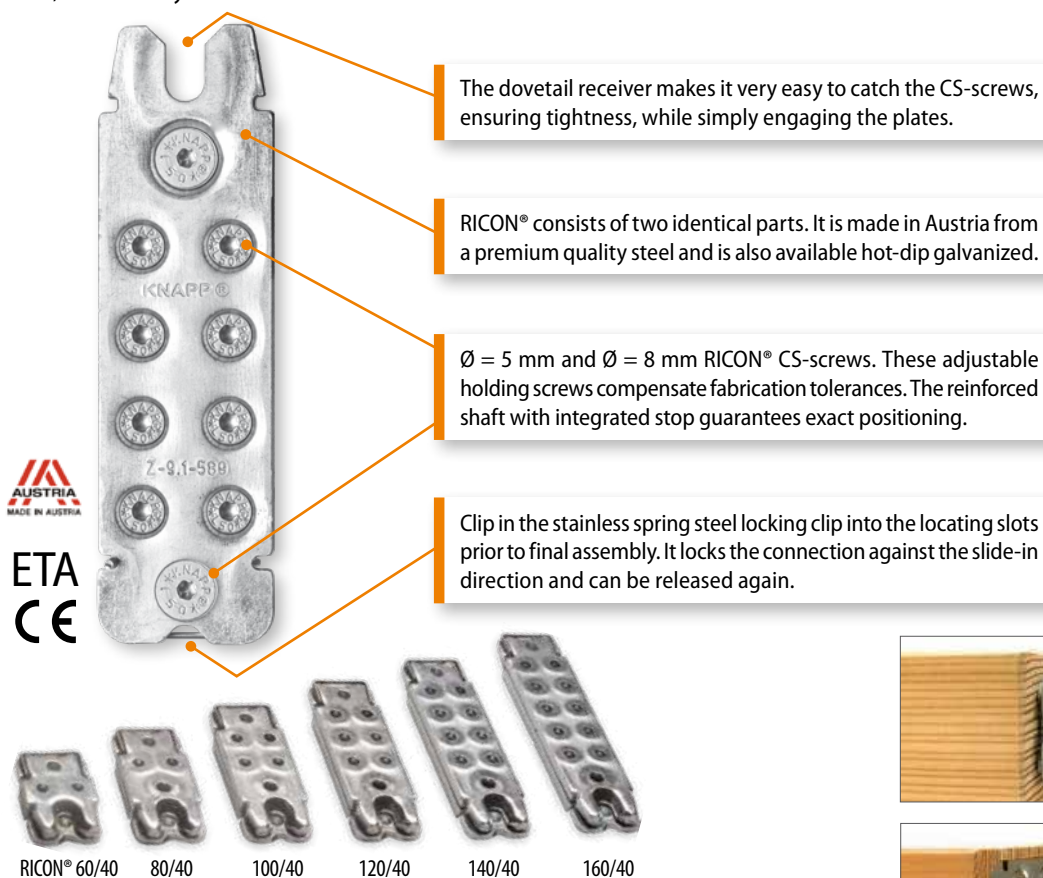
### Features and Benefits:

- | Approved to carry eccentric loads up to 860 kg
- | Narrow profile – timber width as little as 50 mm
- | Universal – used on all wood materials as well with steel and concrete
- | Unique – also for polygon facades
- | Flexible – installation from outside and inside
- | Tight joint – adjustable and can compensate tolerances
- | Versatile – can be used for single and cross joints
- | Compatible with aluminum profiles of RP, Schüco, MJB, Guttman, RAICO, Stabalux (more upon request)
- | ETA, additionally with hardwood material




### Resistance to corrosion:

RICON® is now available in stainless steel. Ideal for indoor pools, coastal areas, etc.



RICON® can be recessed in both, the post and beam.

 **More information:**  
[www.knapp-connectors.com/products](http://www.knapp-connectors.com/products)

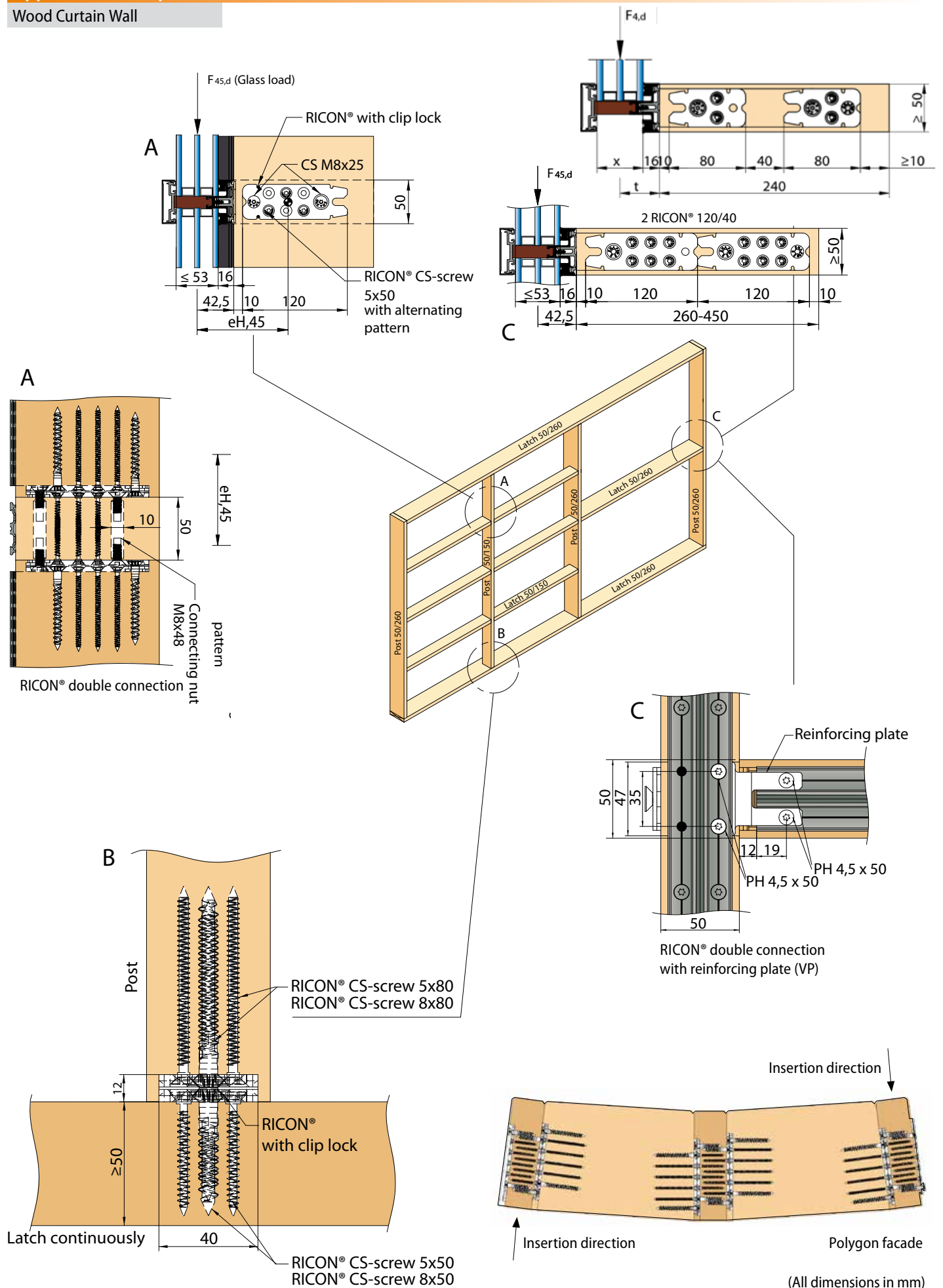
\* Charact. load carrying capacity  $F_{z,RK}$  in insertion direction applies only to the use of original KNAPP® CS-screws according to ETA-10/0189 (2019/10/11) for hardwood material D30.



RICON®

## Application examples and connection details

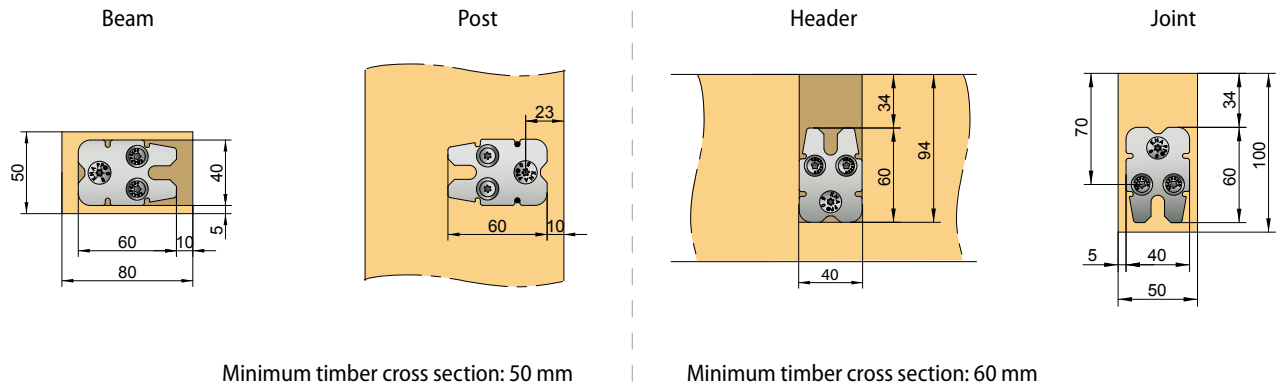
## Wood Curtain Wall



# RICON® 60/40

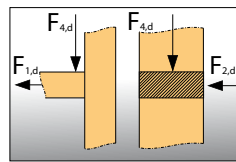
Characteristic values for dimensioning are available on the website.

## Minimum timber cross section



## Single connection (EA) with RICON® CS-screws

Art.-No. K360



Single connection for post and beam connection with a minimum timber cross section of 50 mm (stress at mid to the axis of beam)

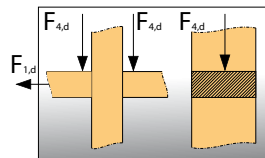
Connector	Connection	Screwing		Charact. values [GL24h]	
		Joint	Header	$F_{1,Rk}$ [kN]	$F_{2,Rk}$ [kN]
60/40	EA	2 x CS 5x80 1 x CS 8x80	2 x CS 5x50 1 x CS 8x50	5,0	5,2
		1 locking clip: $F_{3,Rk} = 2,7$ kN		2 locking clips: $F_{3,Rk} = 5,15$ kN	

Minimum timber cross section : 50 x 80 mm

## Double connection (DA) with connecting nuts and RICON® CS-screws

Art.-No. K160/48

The article number consists of the original number for the part K160 and the size of the connecting nut.



Double connection for 50/55/60/80 mm timber cross sections (stress at mid to the axis of beam)

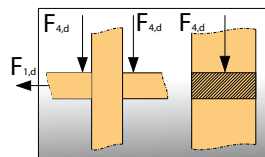
Connector	Connection	Screwing		Charact. values [GL24h]	
		Joint	Header	$F_{1,Rk}$ [kN]	$F_{2,Rk}$ [kN]
60/40	DA	4 x CS 5x80 2 x CS 8x80	-	5,0	5,2
		2 locking clips per set: $F_{3,Rk} = 2,7$ kN		4 locking clips per set: $F_{3,Rk} = 5,15$ kN	

Minimum timber cross section : 50 x 80 mm

Size (mm)	Connecting nuts				CS-screw	
	48	53	58	78	M5x20	M8x25
8/M5	2	2	2	2	4	-
10/M8	1	1	1	1	-	2

## Single or double connection with insert and RICON® CS-screws

Art.-No. K260



Single or double connection for special timber cross sections >50 mm (stress at mid to the axis of beam)

Connector	Connection	Screwing		Charact. values [GL24h]	
		Joint	Header	$F_{1,Rk}$ [kN]	$F_{2,Rk}$ [kN]
60/40	EAR	2 x CS 5x80 1 x CS 8x80	-	5,0	5,2
		1 locking clip: $F_{3,Rk} = 2,7$ kN		2 locking clips: $F_{3,Rk} = 5,15$ kN	

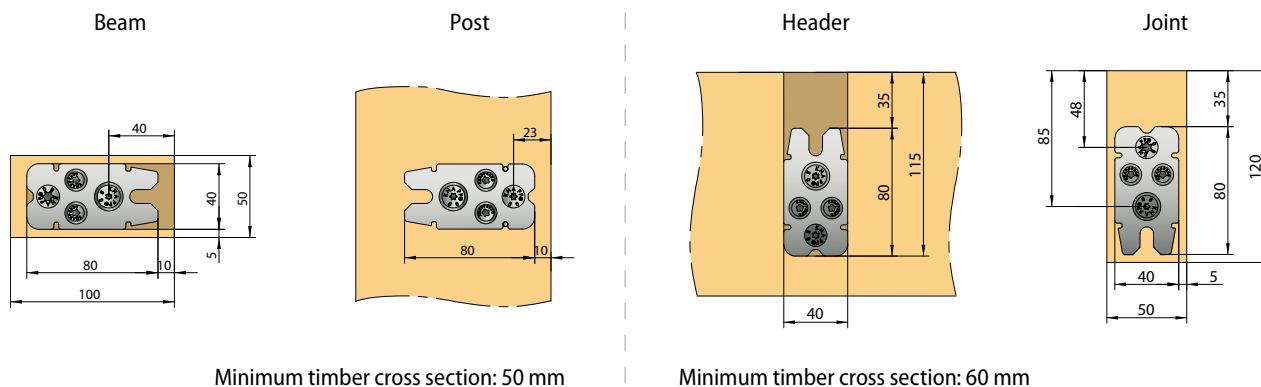
Minimum timber cross section : 50 x 80 mm

Insert		CS-screw	
M5x14	M8x18	M5x20	M8x25
2	1	2	1

## RICON® 80/40

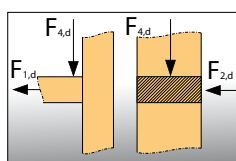
Characteristic values for dimensioning are available on the website.

## Minimum timber cross section



## Single connection (EA) with RICON® CS-screws

Art.-No. K361



Single connection for post and Beam connection with a minimum timber cross section of 50 mm (stress at mid to the axis of beam)

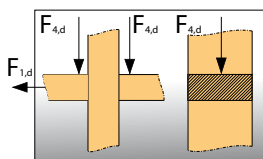
Connector	Connection	Screwing		Charact. values [GL24h]	
		Joint	Header	$F_{1,Rk}$ [kN]	$F_{2,Rk}$ [kN]
80/40	EA	2 x CS 5x80 2 x CS 8x80	2 x CS 5x50 2 x CS 8x50	7,3	8,7
		1 locking clip: $F_{3,Rk} = 2,7$ kN		2 locking clips: $F_{3,Rk} = 5,4$ kN	

Minimum timber cross section : 50 x 100 mm

## Double connection (DA) with connecting nuts and RICON® CS-screws

Art.-No. K161/48

\*The article number consists of the original number for the part K161 and the size of the connecting nut.



Double connection for 50/55/60/70/80 mm timber cross sections (stress at mid to the axis of beam)

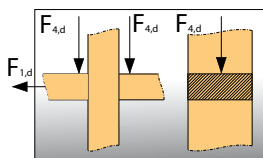
Connector	Connection	Screwing		Charact. values [GL24h]	
		Joint	Header	$F_{1,Rk}$ [kN]	$F_{2,Rk}$ [kN]
80/40	DA	4 x CS 5x80 4 x CS 8x80	2 x CS 5x50	7,3	8,7
		2 locking clips per set: $F_{3,Rk} = 2,7$ kN		4 locking clips per set: $F_{3,Rk} = 5,4$ kN	

Minimum timber cross section : 50 x 100 mm

Connecting nuts							CS-screw
Size (mm)	36	48	53	58	68	78	M8x25
10/M8	2	2	2	2	2	2	4

## Single or double connection with insert and RICON® CS-screws

Art.-No. K261



Single or double connection for special timber cross sections >50 mm (stress at mid to the axis of beam)

Connector	Connection	Screwing		Charact. values [GL24h]	
		Joint	Header	$F_{1,Rk}$ [kN]	$F_{2,Rk}$ [kN]
80/40	EAR	2 x CS 5x80 2 x CS 8x80	1 x CS 5x50	7,3	8,7
		1 locking clip: $F_{3,Rk} = 2,7$ kN		2 locking clips: $F_{3,Rk} = 5,4$ kN	

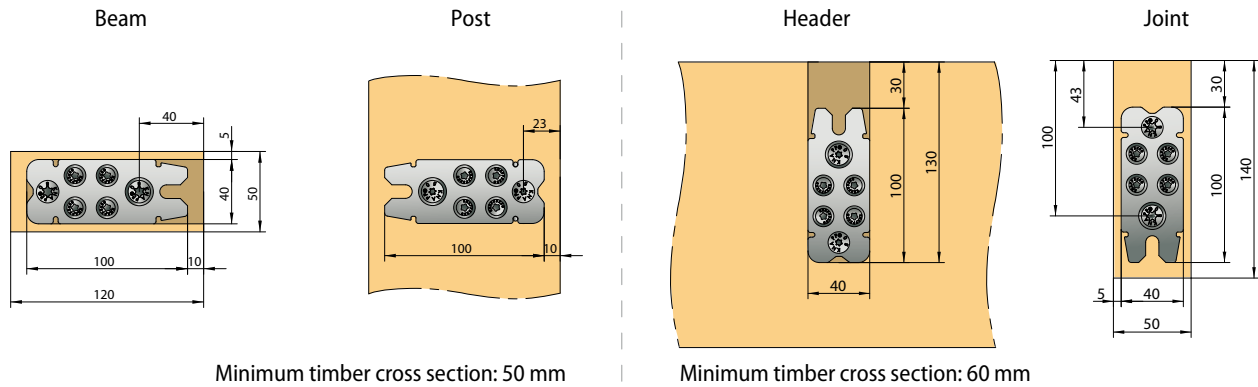
Minimum timber cross section : 50 x 100 mm

Insert		CS-screw	
M5x14	M8x18	M5x20	M8x25
-	2	-	2

# RICON® 100/40

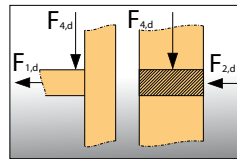
Characteristic values for dimensioning are available on the website.

## Minimum timber cross section



## Single connection (EA) with RICON® CS-screws

Art.-No. K362



Single connection for post and Beam connection with a minimum timber cross section of 50 mm (stress at mid to the axis of beam)

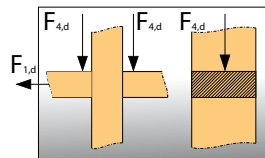
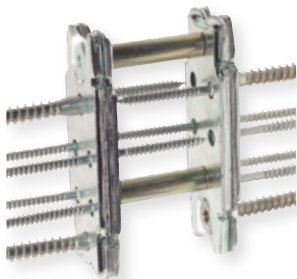
Connector	Connection	Screwing		Charact. values [GL24h]*	
		Joint	Header	F <sub>1,Rk</sub> [kN]	F <sub>2,Rk</sub> [kN]
100/40	EA	4 x CS 5x80 2 x CS 8x80	4 x CS 5x50 2 x CS 8x50	10,0	12,8
		1 locking clip: F <sub>3,Rk</sub> = 2,7 kN		2 locking clips: F <sub>3,Rk</sub> = 5,4 kN	

Minimum timber cross section : 50 x 120 mm

## Double connection (DA) with connecting nuts and RICON® CS-screws

Art.-No. K162/48

\*The article number consists of the original number for the part K162 and the size of the connecting nut.



Double connection for 50/55/60/70/80 mm timber cross sections (stress at mid to the axis of beam)

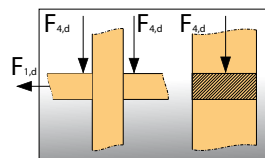
Connector	Connection	Screwing		Charact. values [GL24h]*	
		Joint	Header	F <sub>1,Rk</sub> [kN]	F <sub>2,Rk</sub> [kN]
100/40	DA	8 x CS 5x80 4 x CS 8x80	4 x CS 8x80	10,0	12,8
		2 locking clips per set: F <sub>3,Rk</sub> = 2,7 kN		4 locking clips per set: F <sub>3,Rk</sub> = 5,4 kN	

Minimum timber cross section : 50 x 120 mm

Connecting nuts							CS-screw
Size (mm)	36	48	53	58	68	78	M8x25
10/M8	2	2	2	2	2	2	4

## Single or double connection with insert and RICON® CS-screws

Art.-No. K262



Single or double connection for special timber cross sections >50 mm (stress at mid to the axis of beam)

Connector	Connection	Screwing		Charact. values [GL24h]*	
		Joint	Header	F <sub>1,Rk</sub> [kN]	F <sub>2,Rk</sub> [kN]
100/40	EAR	4 x CS 5x80 2 x CS 8x80	2 x CS 5x50	10,0	12,8
		1 locking clip: F <sub>3,Rk</sub> = 2,7 kN		2 locking clips: F <sub>3,Rk</sub> = 5,4 kN	

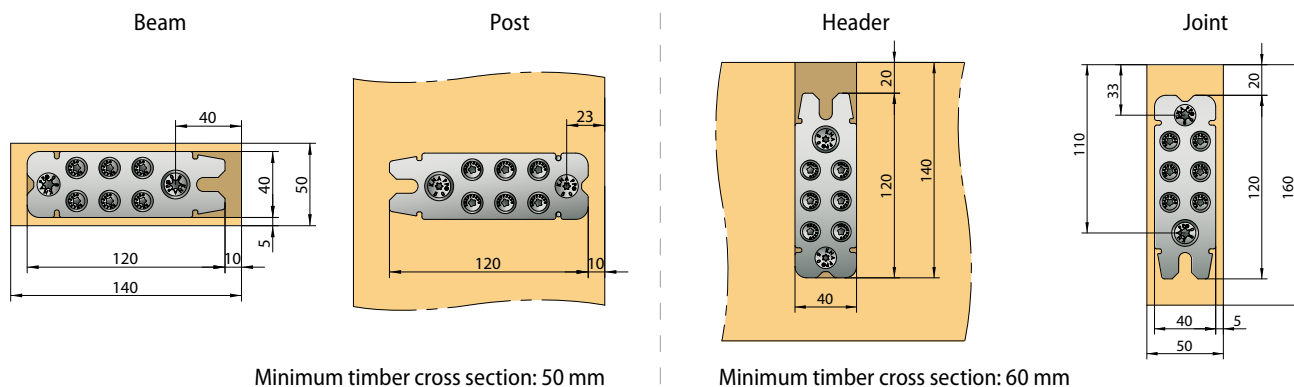
Minimum timber cross section : 50 x 120 mm

Insert		CS-screw	
M5x14	M8x18	M5x20	M8x25
-	2	-	2

## RICON® 120/40

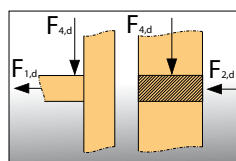
Characteristic values for dimensioning are available on the website.

## Minimum timber cross section



## Single connection (EA) with RICON® CS-screws

Art.-No. K363



Single connection for post and beam connection with a minimum timber cross section of 50 mm (stress at mid to the axis of beam)

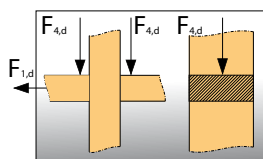
Connector	Connection	Screwing		Charact. values [GL24h]*	
		Joint	Header	F <sub>1,Rk</sub> [kN]	F <sub>2,Rk</sub> [kN]
120/40	EA	6 x CS 5x80 2 x CS 8x80	6 x CS 5x50 2 x CS 8x50	12,8	15,6
		1 locking clip: F <sub>3,Rk</sub> = 2,7 kN		2 locking clips: F <sub>3,Rk</sub> = 5,4 kN	

Minimum timber cross section : 50 x 140 mm

## Double connection (DA) with connecting nuts and RICON® CS-screws

Art.-No. K163/48

\*The article number consists of the original number for the part K163 and the size of the connecting nut.



Double connection for 50/55/60/70/80 mm timber cross sections (stress at mid to the axis of beam)

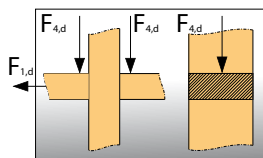
Connector	Connection	Screwing		Charact. values [GL24h]*	
		Joint	Header	F <sub>1,Rk</sub> [kN]	F <sub>2,Rk</sub> [kN]
120/40	DA	12 x CS 5x80 4 x CS 8x80	6 x CS 5x50	12,8	15,6
		2 locking clips per set: F <sub>3,Rk</sub> = 2,7 kN		4 locking clips per set: F <sub>3,Rk</sub> = 5,4 kN	

Minimum timber cross section : 50 x 140 mm

Size (mm)	Connecting nuts						CS-screw
	36	48	53	58	68	78	M8x25
10/M8	2	2	2	2	2	2	4

## Single or double connection with insert and RICON® CS-screws

Art.-No. K263



Single or double connection for special timber cross sections >50 mm (stress at mid to the axis of beam)

Connector	Connection	Screwing		Charact. values [GL24h]*	
		Joint	Header	F <sub>1,Rk</sub> [kN]	F <sub>2,Rk</sub> [kN]
120/40	EAR	6 x CS 5x80 2 x CS 8x80	3 x CS 5x50	12,8	15,6
		1 locking clip: F <sub>3,Rk</sub> = 2,7 kN		2 locking clips: F <sub>3,Rk</sub> = 5,4 kN	

Minimum timber cross section : 50 x 140 mm

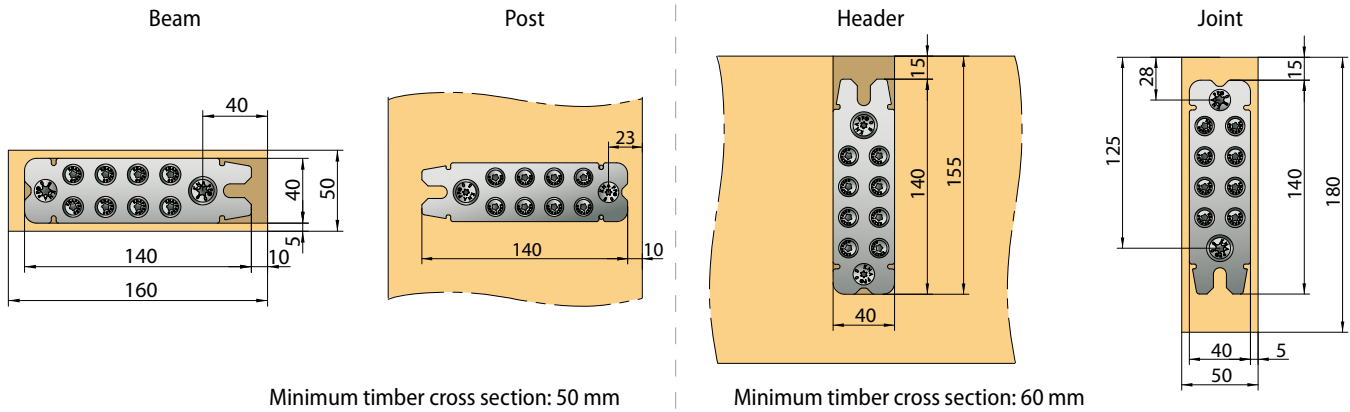
Insert		CS-screw	
M5x14	M8x18	M5x20	M8x25
-	2	-	2



# RICON® 140/40

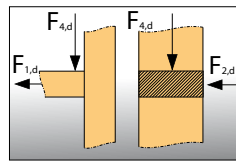
Characteristic values for dimensioning are available on the website.

## Minimum timber cross section



## Single connection (EA) with RICON® CS-screws

Art.-No. K365



Single connection for post and beam connection with a minimum timber cross section of 50 mm (stress at mid to the axis of beam)

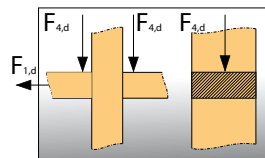
Connector	Connection	Screwing		Charact. values [GL24h]*	
		Joint	Header	F <sub>1,Rk</sub> [kN]	F <sub>2,Rk</sub> [kN]
140/40	EA	8 x CS 5x80 2 x CS 8x80	8 x CS 5x50 2 x CS 8x50	15,5	15,6
		1 locking clip: F <sub>3,Rk</sub> = 2,7 kN		2 locking clips: F <sub>3,Rk</sub> = 5,4 kN	

Minimum timber cross section : 50 x 160 mm

## Double connection (DA) with connecting nuts and RICON® CS-screws

Art.-No. K165/48

\*The article number consists of the original number for the part K165 and the size of the connecting nut.



Double connection for 50/55/60/70/80 mm timber cross sections (stress at mid to the axis of beam)

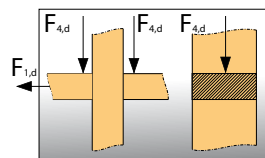
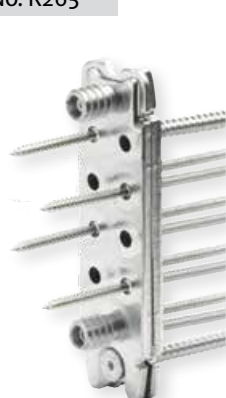
Connector	Connection	Screwing		Charact. values [GL24h]*	
		Joint	Header	F <sub>1,Rk</sub> [kN]	F <sub>2,Rk</sub> [kN]
140/40	DA	16 x CS 5x80 4 x CS 8x80	8 x CS 5x50	15,5	15,6
		2 locking clips per set: F <sub>3,Rk</sub> = 2,7 kN		4 locking clips per set: F <sub>3,Rk</sub> = 5,4 kN	

Minimum timber cross section : 50 x 160 mm

Size (mm)	Connecting nuts						CS-screw
	36	48	53	58	68	78	M8x25
10/M8	2	2	2	2	2	2	4

## Single or double connection with insert and RICON® CS-screws

Art.-No. K265



Single or double connection for special timber cross sections >50 mm (stress at mid to the axis of beam)

Connector	Connection	Screwing		Charact. values [GL24h]*	
		Joint	Header	F <sub>1,Rk</sub> [kN]	F <sub>2,Rk</sub> [kN]
140/40	EAR	8 x CS 5x80 2 x CS 8x80	4 x CS 5x50	15,5	15,6
		1 locking clip: F <sub>3,Rk</sub> = 2,7 kN		2 locking clips: F <sub>3,Rk</sub> = 5,4 kN	

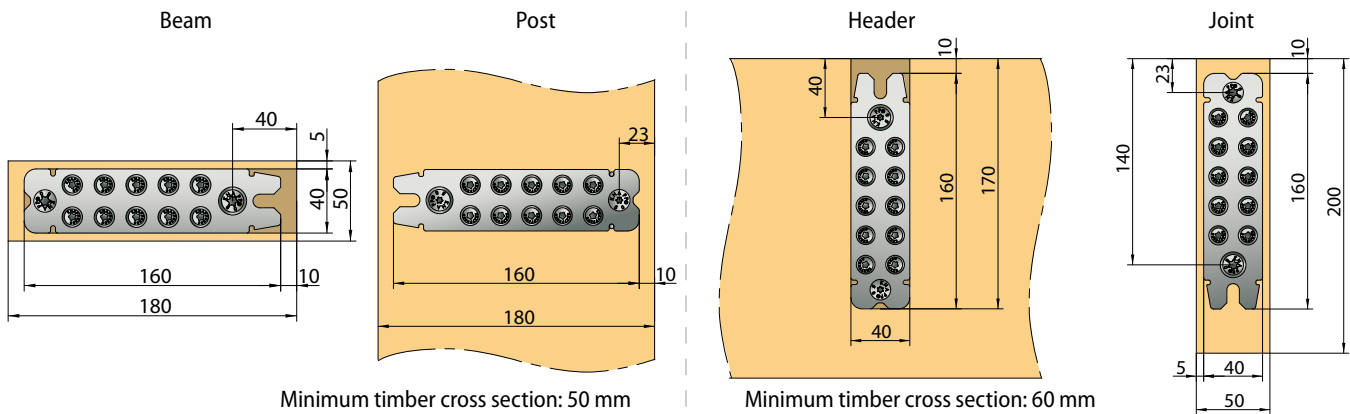
Minimum timber cross section : 50 x 160 mm

Insert		CS-screw	
M5x14	M8x18	M5x20	M8x25
-	2	-	2

## RICON® 160/40

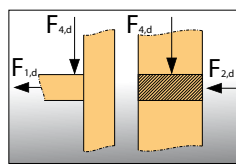
Characteristic values for dimensioning are available on the website.

## Minimum timber cross section



## Single connection (EA) with RICON® CS-screws

Art.-No. K364



Single connection for post and beam connection with a minimum timber cross section of 50 mm (stress at mid to the axis of beam)

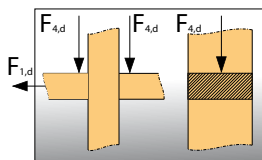
Connector	Connection	Screwing		Charact. values [GL24h]*	
		Joint	Header	$F_{1,Rk}$ [kN]	$F_{2,Rk}$ [kN]
160/40	EA	10 x CS 5x80 2 x CS 8x80	10 x CS 5x50 2 x CS 8x50	18,2	15,6
		1 locking clip: $F_{3,Rk} = 2,7$ kN		2 locking clips: $F_{3,Rk} = 5,4$ kN	

Minimum timber cross section : 50 x 180 mm

## Double connection (DA) with connecting nuts and RICON® CS-screws

Art.-No. K164/48

\*The article number consists of the original number for the part K164 and the size of the connecting nut.



Double connection for 50/55/60/70/80 mm timber cross sections (stress at mid to the axis of beam)

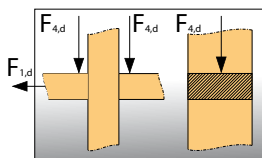
Connector	Connection	Screwing		Charact. values [GL24h]*	
		Joint	Header	$F_{1,Rk}$ [kN]	$F_{2,Rk}$ [kN]
160/40	DA	20 x CS 5x80 4 x CS 8x80	10 x CS 5x50	18,2	15,6
		2 locking clips per set: $F_{3,Rk} = 2,7$ kN		4 locking clips per set: $F_{3,Rk} = 5,4$ kN	

Minimum timber cross section : 50 x 180 mm

Connecting nuts							CS-screw
Size (mm)	36	48	53	58	68	78	M8x25
10/M8	2	2	2	2	2	2	4

## Single or double connection with insert and RICON® CS-screws

Art.-No. K264



Single or double connection for special timber cross sections >50 mm (stress at mid to the axis of beam)

Connector	Connection	Screwing		Charact. values [GL24h]*	
		Joint	Header	$F_{1,Rk}$ [kN]	$F_{2,Rk}$ [kN]
160/40	EAR	10 x CS 5x80 2 x CS 8x80	5 x CS 5x50	18,2	15,6
		1 locking clip: $F_{3,Rk} = 2,7$ kN		2 locking clips: $F_{3,Rk} = 5,4$ kN	

Minimum timber cross section : 50 x 180 mm

Insert		CS-screw	
M5x14	M8x18	M5x20	M8x25
-	2	-	2

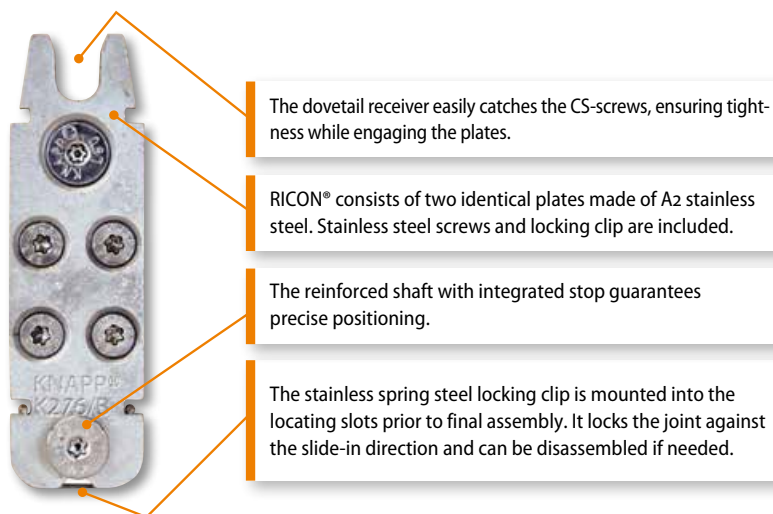
## RICON® Stainless Steel | Universal wooden connector made of A2 stainless steel up to 17,4 kN with usage classification 3

### Materials and applications

- Special types of wood, including oak, douglas fir, larch and impregnated woods, such as Accoya, etc.
- Indoor and outdoor: furniture, balcony, deck, carport, playground and sports equipment, pergola and other buildings with usage classification 3

### Features and Benefits

- Slim profile - timber width from 20 mm upwards
- Universal connection to all wood materials, indoor and outdoor, steel, concrete for sizes 100x40 and 100x30
- Versatile – can be used for single joint and double joint connection
- Flexible – assembly can be from the outside and inside
- Multiple disassembly and reassembly is possible
- Safe - can be locked in place with a locking clip
- Adjustable – by simply adjusting screw depth
- Tested, patented and registered for approval



The RICON® is available in the following sizes in our online store:

160/40, 160/30, 140/30, 120/30, 100/30, 80/40, 80/30, 70/20, 66/30, 66/16



© Photo: Jens Krümer, Solarlux (DE), Nova Techna (GB), Montafener Kristbergbahn GmbH, Silbertal (A)



Resistance to corrosion category II outdoor.  
Suitable for pergolas, balconies and specific woods.



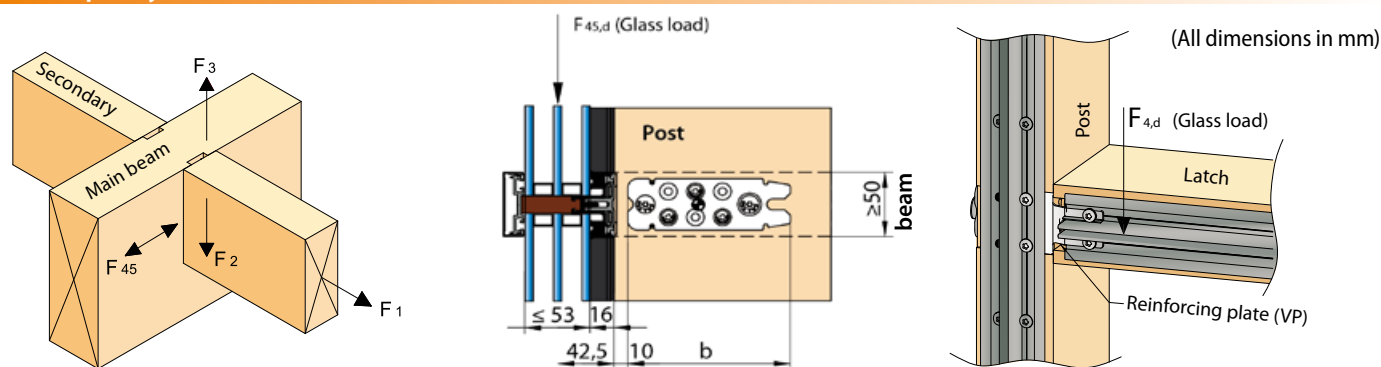
For concealed and visible connections.

\* Charact. load carrying capacity  $F_{2,Rk}$  in insertion direction applies only to the use of original KNAPP® CS-screws according to ETA-10/0189 (2019/10/11) for glulam GL24h.



## RICON®

## Load capacity



RICON®	Wood material	Charact. values			Design value [kN] $F_{3,Rk}$		Eccentric glass loads/post $R_{4Rd}$	
		$F_{1,Rk}$ [kN]	$F_{2,Rk}$ [kN]	$F_{45,Rk}$ [kN]	Locking clips		without VP [kg]	with VP [kg]
					1	2		
60/40	C24h (S10)	4,1	4,7	5,2	2,7	5,0	43	317
	GL24h (BS11)	4,4	5,0	5,2			47	320
	GL32h (BS16)	4,9	5,5	5,2			52	326
80/40	C24h (S10)	4,1	6,8	8,0	2,7	5,4	59	332
	GL24h (BS11)	4,4	7,3	8,7			64	337
	GL32h (BS16)	4,9	8,1	9,7			71	345
100/40	C24h (S10)	4,1	9,4	11,8	2,7	5,4	94	368
	GL24h (BS11)	4,4	10,0	12,8			102	376
	GL32h (BS16)	4,9	11,0	14,3			114	388
120/40	C24h (S10)	4,1	12,0	15,4	2,7	5,4	131	404
	GL24h (BS11)	4,4	12,8	15,6			142	415
	GL32h (BS16)	4,9	14,0	15,6			158	432
140/40	C24h (S10)	4,1	14,5	15,6	2,7	5,4	169	443
	GL24h (BS11)	4,4	15,5	15,6			183	457
	GL32h (BS16)	4,9	16,9	15,6			205	478
160/40	C24h (S10)	4,1	17,1	15,6	2,7	5,4	210	484
	GL24h (BS11)	4,4	18,2	15,6			227	501
	GL32h (BS16)	4,9	19,9	15,6			254	528
2 x 80/40	C24h (S10)	4,1	11,5	10,4	2,7	5,4	180	453
	GL24h (BS11)	4,4	12,3	10,4			195	468
	GL32h (BS16)	4,9	13,6	10,4			218	491
2 x 100/40	C24h (S10)	4,1	16,6	15,6	2,7	5,4	270	543
	GL24h (BS11)	4,4	17,8	15,6			292	566
	GL32h (BS16)	4,9	19,5	15,6			327	600
2 x 120/40	C24h (S10)	4,1	21,8	15,6	2,7	5,4	356	630
	GL24h (BS11)	4,4	23,2	15,6			385	659
	GL32h (BS16)	4,9	25,4	15,6			431	704

**Tested:** at the University of Karlsruhe (KIT), **Building approval:** ETA-10/0189 (2019),

**Monitored:** at the University of Karlsruhe (KIT) Research Center for Steel, Timber and Masonry, Univ.-Prof. Dr.-Ing. Blaß

$F_{1,Rk}/F_{1,Rd}$	Characteristic/Design values of load-bearing capacity in the case of single stress perpendicular to the connector plate
$F_{2,Rk}/F_{2,Rd}$	Characteristic/Design values in direction of insertion
$F_{3,Rk}/F_{3,Rd}$	Characteristic/Design values against the direction of insertion
$F_{45,Rk}/F_{45,Rd}$	Characteristic/Design values perpendicular to the direction of insertion



## RICON® screws

### RICON® Self-tapping CS-screws with reinforced shaft

(CS-screws are included with all RICON® connectors)

Art.-No. Z533	CS-screws 5x50
Art.-No. Z531	CS-screws 8x50
Art.-No. Z950	CS-screws EA 5x50 stainless steel
Art.-No. Z953	CS-screws EA 8x50 stainless steel

**Application:** CS-screws to mount RICON plate into the side grain of main beam/post.

Art.-No. Z534	CS-screws 5x80
Art.-No. Z532	CS-screws 8x80
Art.-No. Z581	CS-screws 8x160
Art.-No. Z952	CS-screws EA 5x80 stainless steel
Art.-No. Z954	CS-screws EA 8x80 stainless steel

**Application:** CS-screws to mount RICON plate into the end grain of secondary beam/latch.

### RICON DA CS-screws

Art.-No. Z545	CS-screw M5x20 (for RICON® 60/40 DA)
Art.-No. Z548	CS-screw M8x25
Art.-No. Z955	CS-screw EA M5x16 stainless steel
Art.-No. Z956	CS-screw EA M8x18 stainless steel

**Application:** Machined screws to mount RICON plate in a cross joint double connector application.

### Connecting nuts RICON® DA

(Connecting nuts are included with all RICON DA connectors)

Art.-No. K540	Connecting nut M5 8x48	50 mm post thickness
Art.-No. K541	Connecting nut M5 8x53	55 mm post thickness
Art.-No. K542	Connecting nut M5 8x58	60 mm post thickness
Art.-No. K543	Connecting nut M5 8x78	80 mm post thickness

**Utilisation :** Connecting nut to mount RICON 60/40 double connector.

Art.-No. K544	Connecting nut M8 10x36	<50 mm post thickness
Art.-No. K545	Connecting nut M8 10x48	50 mm post thickness
Art.-No. K546	Connecting nut M8 10x53	55 mm post thickness
Art.-No. K547	Connecting nut M8 10x58	60 mm post thickness
Art.-No. K548	Connecting nut M8 10x68	70 mm post thickness
Art.-No. K549	Connecting nut M8 10x78	80 mm post thickness

**Application:** Connecting nut to mount RICON 80/40 and bigger sizes double connectors.

### Inserts RICON® EAR

(Inserts are included)

Art.-No. Z540	Insert M5x14 for RICON® 60/40
Art.-No. Z541	Insert M8x18 for all other RICON® sizes

**Application:** For unique applications and post sizes.

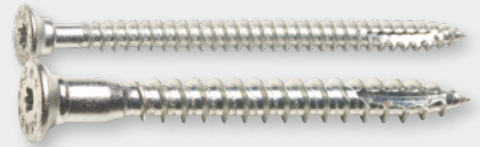
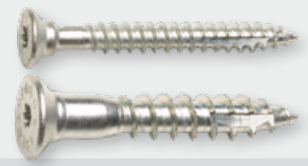
## RICON® Accessories

### Routing-jig for all RICON® sizes

Art.-No. K502	Routing-jig MULTI F40 (plywood)
---------------	---------------------------------

**Advice:** The routing-jig MULTI F is suitable for a  $\varnothing = 30$  mm bushing guide (for plunge router) and a  $\varnothing = 15$  mm TCT router cutter.

**Application:** For milling the pocket to recess connector for concealed mounting.



## RICON® Accessories

### Drilling-jig RICON® EA/DA (galvanized steel)

Art.-No.	K621	K622	K623	K624	K629	K630
	60/40	80/40	100/40	120/40	140/40	160/40

**Application:** For installation into the drilling-jig and exact pre-drilling of the positioning screws.



### HM router cutter

Art.-No. Zo66 2 Flute Straight Router Bit Ø = 15, length = 25 mm with Ø = 8 mm shank

**Application:** To recess the rebate for RICON® and GIGANT.



### Locking clip RICON® (stainless spring steel locking clip)

Art.-No. K064	RICON® Locking clip 40mm (stainless steel)
Art.-No. K064/1601	RICON® Locking clip 16mm
Art.-No. K064/2001	RICON® Locking clip 20mm (stainless steel)
Art.-No. K064/3001	RICON® Locking clip 30mm (stainless steel)



**Application:** To lock the connectors against slide-in direction. Can be disassembled if needed.

### Reinforcing plate RICON® (stainless steel)

K530	K531	K532	K533	K534	K535	K536	K537	K538	K539	K519	K523
esco RP-tec 50-1 HA 50 mm*	esco RP-tec 50-1 HA 60 mm *	esco RP-tec 55-1 HA 60 mm*	esco RP-tec 55-1 HA 80 mm*	Gutmann P GF50 50 mm*	Gutmann P GF60 60 mm*	Gutmann P GF80 80 mm*	RAICO GP 41 und 47 50 mm*	RAICO GP 41 und 47 60 mm*	RAICO GP 67 80 mm*	Schüco GP 50/50 50 mm*	Schüco GP 50/60 60 mm*

**Application:** The reinforcing plate connects the base aluminium profiles and increases the load capacity of the post and beam/latch connection. The reinforcing plate is available for different base profiles (see table). Reinforcing plates for other profiles on request. \*width of post and beam



### Drilling-jig RICON® EA/DA for post-Beam connections

Art.-No.	K634	K635	K636	K637	K638	K639
	60/40 Set	80/40	100/40	120/40	140/40	160/40

### Drilling-jig RICON® EA/DA for header-joint connections

Art.-No.	K634	K642	K643	K644	K645	K646
	60/40 Set	80/40	100/40	120/40	140/40	160/40

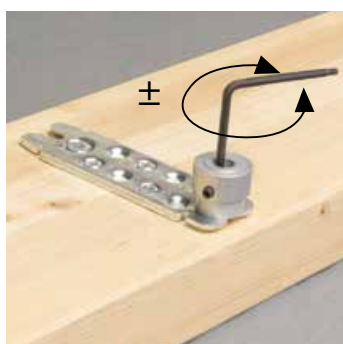
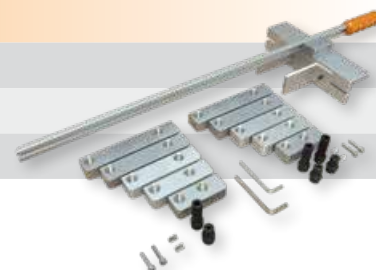
**Application:** Guide for pre-drilling holes of all RICON® connectors.



### Drilling-jig RICON® with adjustable drilling blocks

Art.-No.	-	K647	K647	K647	K647	K647
<b>Drilling blocks:</b>	-	80/40	100/40	120/40	140/40	160/40

**Application:** Guide for pre-drilling holes of all RICON® connectors



### RICON® mounting set

Art.-No. K065 Consisting of: 1 RICON®-depth gauge  
incl. 1 Torx wrench T25 combined with Allen key SW5

**Application:** For fine tuning of RICON® CS-screws



# RICON®

## Installation

- Simple and fast installation with spindle moulder or routing machine and optional KNAPP® template.
- Installation with CNC joinery machine possible – all data for the standard CNC joinery machine programs are included.



CNC joinery machine



- 1) Make the recess with routing-jig and plunge router according to installation instruction of RICON size used.



- 2) Pre-drill using the drilling jig.



- 3) Connector plates mounted with CS-screws.



- 4) The retaining screw will be screwed in, up to the built-in stop. Adjust with the depth gauge. Re-adjustment can still be done during installation and tolerances can be compensated.



- 5) Assemble is done through simple sliding together and dovetail socket engages with the screw head. The locking clip latches the joint.

**Locking clip:** Depending on load requirements, the locking clip can be inserted on one or on both sides. If the connection is accessible, it can be unlocked (6).



- 6) To unlock the connection, it is necessary to bend up the locking clip in its center e.g. with a screwdriver.

Routing dimension RICON® stainless steel		
Width	Length	Depth
40,5 mm	variable	11,5 <sup>+0,5</sup> mm
30,5 mm	variable	11,5 <sup>+0,5</sup> mm
20,0 mm	80 mm	11,0 <sup>+0,5</sup> mm
16,0 mm	66 mm	11,0 <sup>+0,5</sup> mm

Routing dimension RICON®		
Width	Length	Depth
40 mm	variable	12 mm

The recess can be routed on either side depending on the application. In this case (left picture), the connector plate is recessed into the beam/latch.



Instruction manuals, .DXF drawings for RICON®-System as well as your personal consultant in your area, please visit:  
[www.knapp-connectors.com/downloads](http://www.knapp-connectors.com/downloads)

Recommended software partners for machine processing:

CADwork

Dietrich's

Industrielle HOLZBAU PROGRAMME

SEMA  
SOFTWARE

hsbcad  
CAD/CAM für den Holzbau

WETO AG  
technologies





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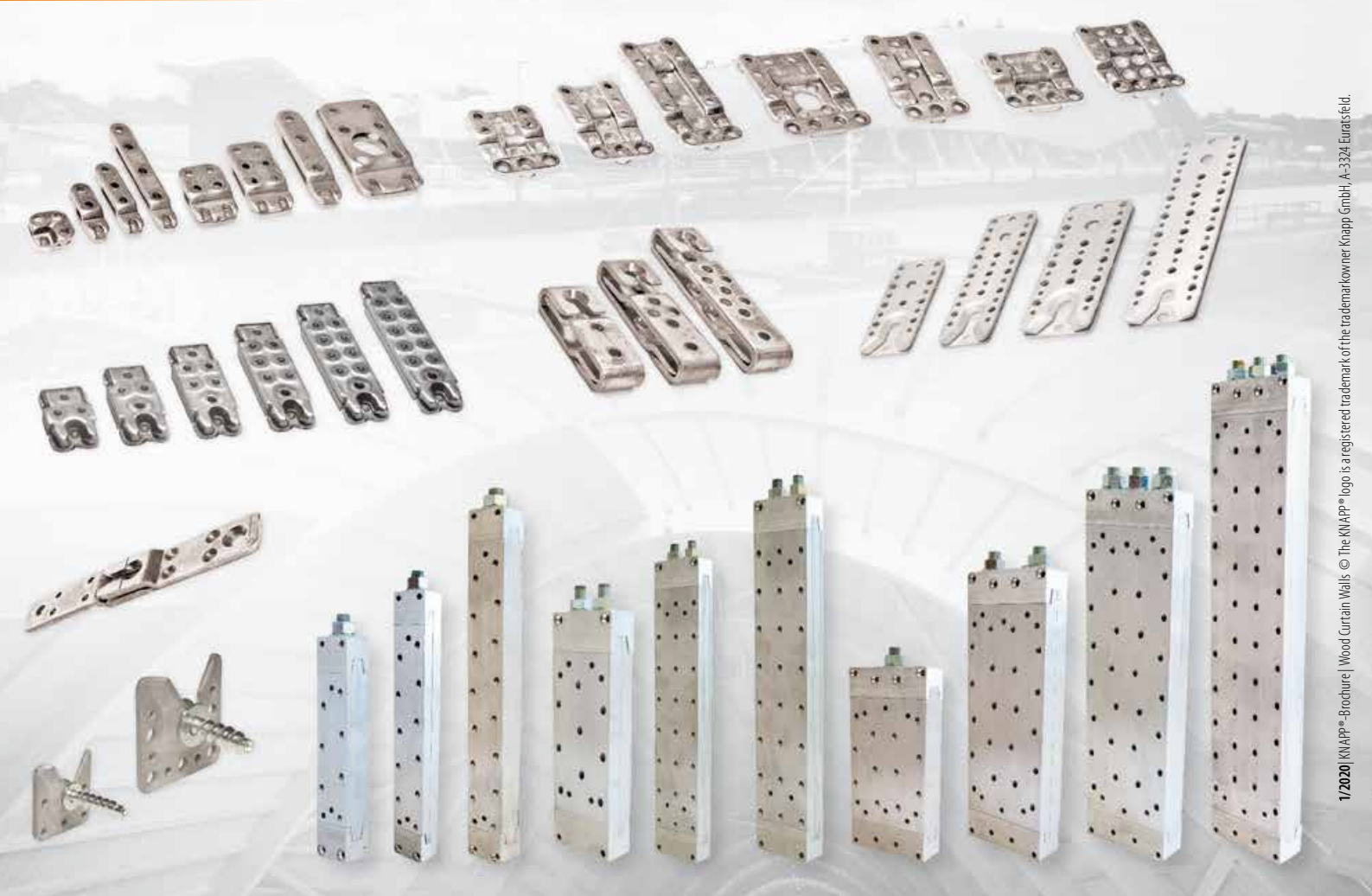
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