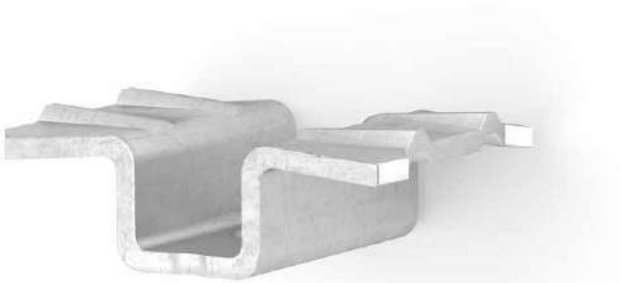
TVM

CONNECTOR FOR DECKING

FOUR VERSIONS
Different sizes for applications on boards with different thickness and gaps of varying width. Black version for complete concealment.

DURABILITY
The stainless steel ensures high corrosion-resistance. The micro-ventilation between the boards helps the durability of the wooden elements.

ASYMMETRIC GROOVING
Ideal for boards with asymmetrical "female-female" groove cuts. Ribbing on the surface of the connector ensures excellent stability.



CHARACTERISTICS

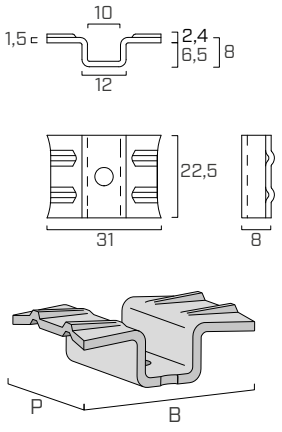
FOCUS	excellent grooving versatility
BOARDS	symmetrical grooving
JOINTS	from 7,0 to 9,0 mm
FASTENERS	KKTX520A4, KKA420, KKAN420

MATERIAL
A2 | AISI304 austenitic stainless steel and stainless steel with coloured organic coating.

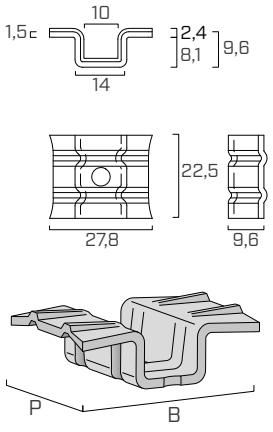
FIELDS OF USE
Use in aggressive outdoor environments. Fastening timber or WPC boards on substructures in wood, WPC or aluminium. Suitable for service classes 1-2-3.

GEOMETRY

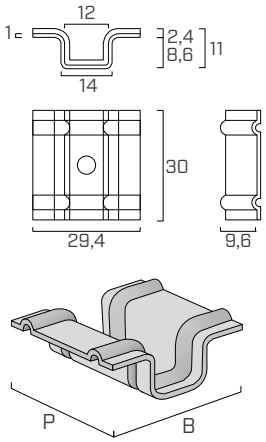
TVM1



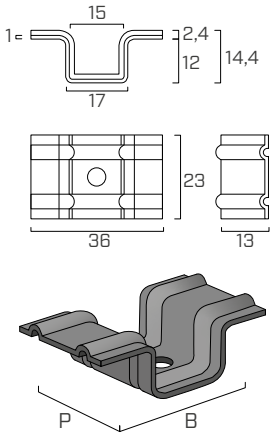
TVM2



TVM3



TVMN4



CODES AND DIMENSIONS

TVM A2 | AISI304

CODE	material	P x B x s [mm]	pcs
TVM1	A2 | AISI304	22,5 x 31 x 2,5	500
TVM2	A2 | AISI304	22,5 x 28 x 2,5	500
TVM3	A2 | AISI304	30 x 29,4 x 2,5	500

TVM COLOR

CODE	material	P x B x s [mm]	pcs
TVMN4	A2 | AISI304 with black coating	23 x 36 x 2.5	500

KKT X

fastening on timber and WPC for TVM A2 | AISI304

d_1 [mm]	CODE	L [mm]	pcs
5 TX 20	**KKTX520A4**	20	200
	KKTX525A4	25	200
	KKTX530A4	30	200
	KKTX540A4	40	200

KKT COLOR

fastening on timber and WPC for TVM COLOR

d_1 [mm]	CODE	L [mm]	pcs
5 TX 20	**KKTN540**	40	200

KKA AISI410

fastening on aluminium for TVM A2 | AISI304

d_1 [mm]	CODE	L [mm]	pcs
4 TX 20	**KKA420**	20	200

KKA COLOR

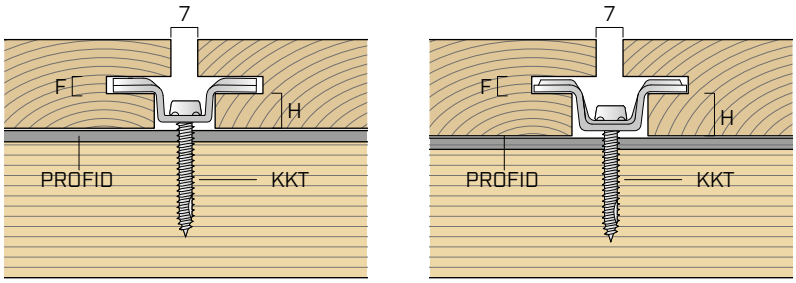
fastening on aluminium for TVM COLOR

d_1 [mm]	CODE	L [mm]	pcs
4 TX 20	**KKAN420**	20	200

KKA

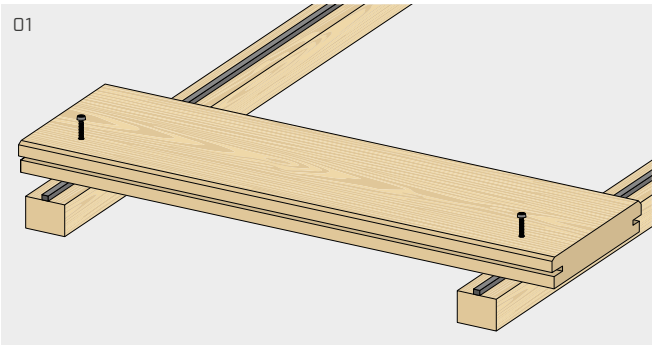
Can also be used for fastening on aluminium profiles using KKA AISI410 or KKA COLOR screws.

GROOVING GEOMETRY

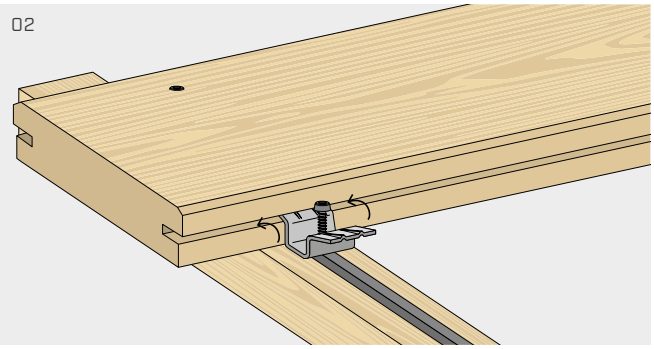


ASYMMETRICAL GROOVING		
Min. thickness	F	3 mm
Min recommended height TVM1	H	8 mm
Min recommended height TVM2	H	10 mm
Min recommended height TVM3	H	10 mm
Min recommended height TVMN	H	13 mm

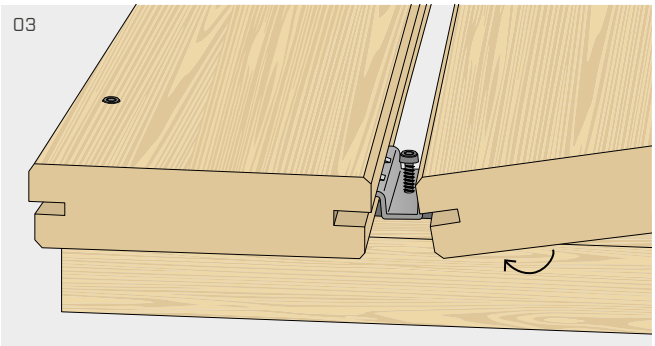
INSTALLATION



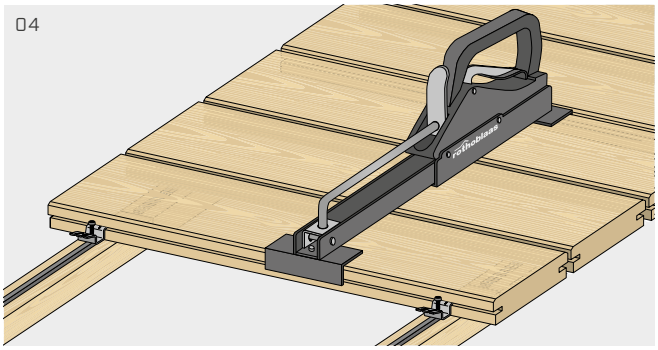
Position the PROFID spacer at the joist centerline. First board: fix with suitable screws which are left visible.



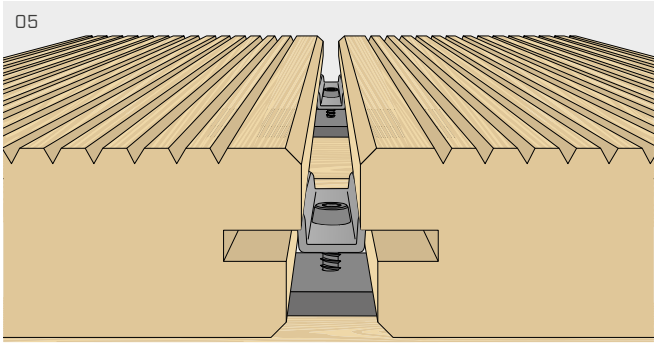
Insert the TVM fastener into the groove cut so that the side fin adheres to the groove in the board.



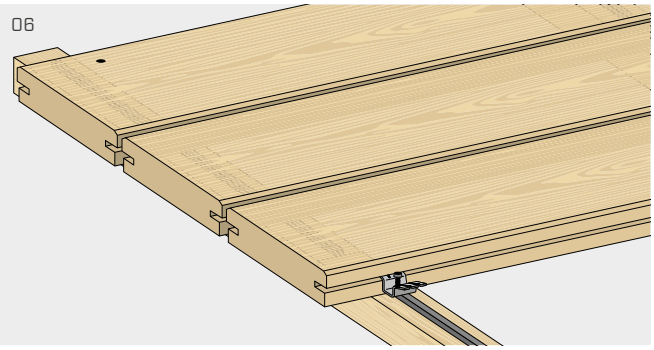
Position the next board by inserting it into the TVM fastener.



Using the CRAB MINI clamp, tighten the two boards until the gap between them is 7 mm (see product page 334).

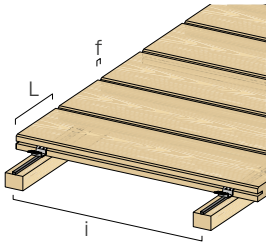


Fix the fastener to the joist underneath by using the KKTX screw.



Repeat the operations for the remaining boards.
Last board: repeat step 01.

CALCULATION EXAMPLE



INCIDENCE ESTIMATE FORMULA PER m²

1m²/i/(L + f) = pcs of TVM at m²

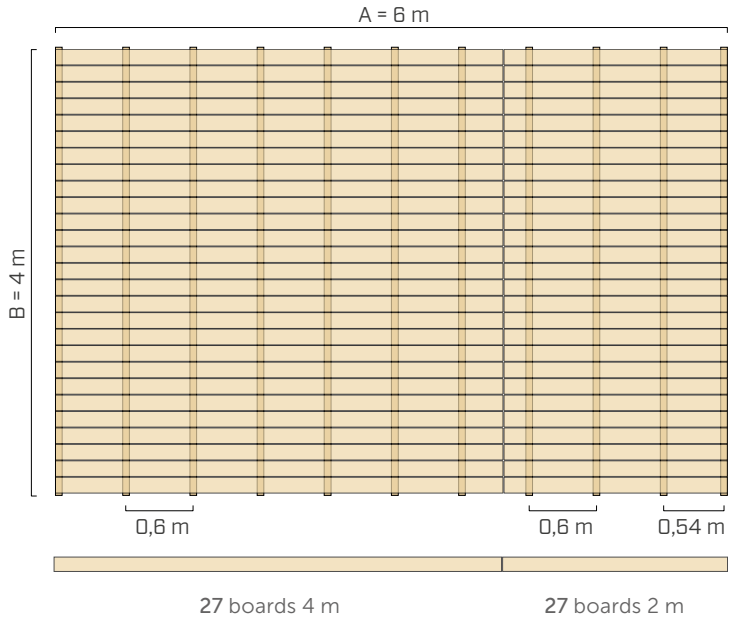
i = joists spacing

L = board width

f = gap width

PRACTICAL EXAMPLE

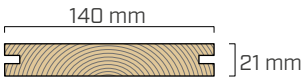
NUMBER OF BOARDS AND JOISTS



PATIO SURFACE

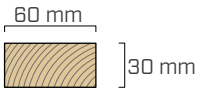
S = A · B = 6 m · 4 m = 24 m²

WOODEN PLANKING



L = 140 mm
s = 21 mm
f = 7 mm

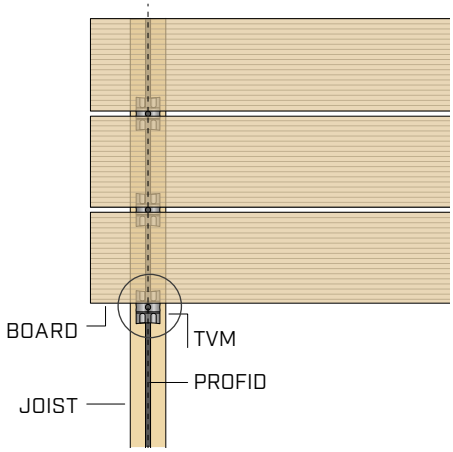
JOISTS



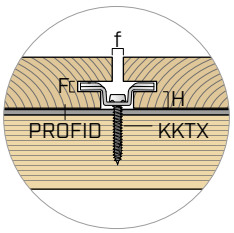
b = 60 mm
h = 30 mm
i= 0,6 m

no. boards = [B/(L+f)]
= [4/(0,14+0,007)]= **27 boards**
no. 4 m boards = **27 boards**
no. 2 m boards = **27 boards**
no. battens = [A/i] + 1 = (6/0,6) +1 = **11 battens**

SCREW SELECTION



Head thickness	$S_{screw\ head}$		2,8 mm
Grooving thickness	**F**		4 mm
Grooving dimension	**H**	**(s-F)/2**	8 mm
PROFID thickness	S_{PROFID}		8 mm
Pull-through length	L_{pen}	**4 · d**	20 mm



MINIMUM SCREW LENGTH
= $S_{screw\ head}$ + H + S_{PROFID} + L_{pen}
= 2.8 + 8 + 8 + 20 = **38.8 mm**

CHOICE OF SCREW **KKTX540A4**

TVM NUMBER CALCULATION

QUANTITY FOR INCIDENCE FORMULA

I = S/i/(L + f) = pcs of TVM
I = 24 m²/0,6 m/(0,14 m + 0,007 m) = 272 pcs TVM

waste coefficient = 1,05
I = 272 · 1,05 = 286 pcs TVM
I = 286 pcs TVM

QUANTITY FOR THE NUMBER OF INTERSECTIONS

I = no. boards with TVM no. battens = pcs. of TVM
no. boards with TVM = (number of boards - 1)
= (27 - 1) = 26 boards
no. of joists = (A/i) + 1 = (6/0.6) + 1 = 11 joists
no. intersections = I = 26 · 11 = 286 pcs TVM
I = 286 pcs TVM

TVM NUMBER = 286 pcs **SCREWS NUMBER = No. TVM = 286 pcs KKTX540A4**