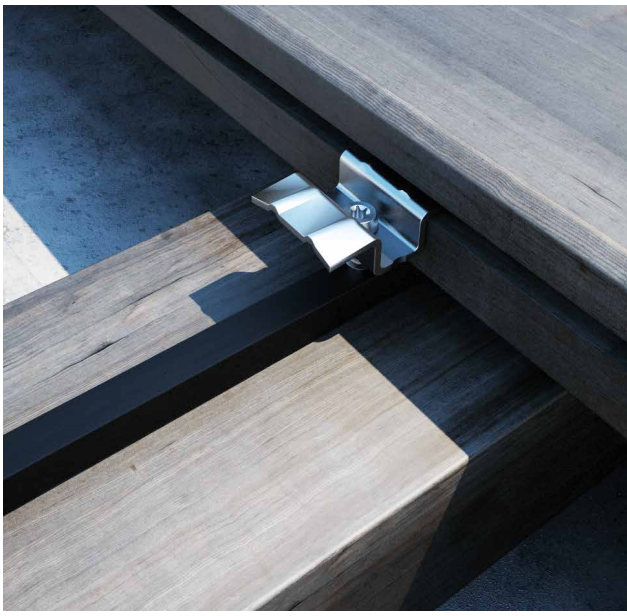
TVM

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.



TVM1

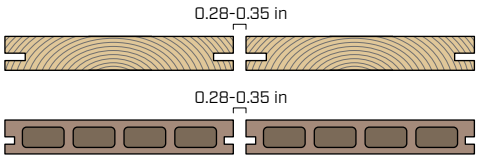
TVM2

TVM3

TVMN4

CALCULATION TOOL

BOARDS



FASTENING ON

timber | WPC | aluminium

MATERIAL

A2 AISI 304 — A2 | AISI304 austenitic stainless steel (CRC II)

A2 AISI 304 — stainless steel with colored organic coating

FIELDS OF USE

Use in aggressive outdoor environments. Fastening timber or WPC boards on substructures in wood, WPC or aluminium.

CODES AND DIMENSIONS

TVM A2 | AISI304

CODE	material	P x B x s [mm]	P x B x s [in]	pcs
TVM1	A2 | AISI304	22,5 x 31 x 2,4	0.89 x 1.22 x 0.09	500
TVM2	A2 | AISI304	22,5 x 28 x 2,4	0.89 x 1.10 x 0.09	500
TVM3	A2 | AISI304	30x 29,4 x 2,4	1.18 x 1.16 x 0.09	500

TVM COLOR

CODE	material	P x B x s [mm]	P x B x s [in]	pcs
TVMN4	A2 | AISI304 with black coating	23 x 36 x 2,4	0.87 x 1.42 x 0.09	500

KKT X

fastening on timber and WPC for TVM A2 | AISI304

d_1 [mm] [in]	CODE	L [mm]	L [in]	pcs
5 **0.20** #11 TX 20	**KKTX520A4**	20	13/16	200
	KKTX525A4	25	1	200
	KKTX530A4	30	1 3/16	200
	KKTX540A4	40	1 9/16	100

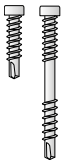
KKT COLOR

fastening on timber and WPC for TVM COLOR

d_1 [mm] [in]	CODE	L [mm]	L [in]	pcs
5 **0.20** #11 TX 20	**KKTN540**	40	1 9/16	200

KKA AISI410

fastening on aluminium for TVM A2 | AISI304



d_1 [mm] [in]	CODE	L [mm]	L [in]	pcs
4 **0.16** #7 TX 20	**KKA420**	20	13/16	200
5 **0.20** #11 TX 20	**KKA540**	40	1 9/16	100
	KKA550	50	1 15/16	100

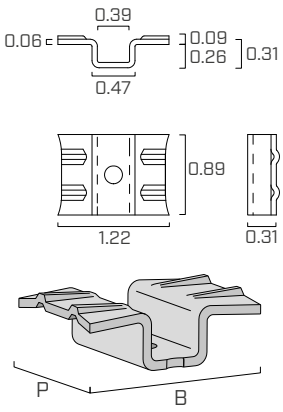
KKA COLOR

fastening on aluminium for TVM COLOR

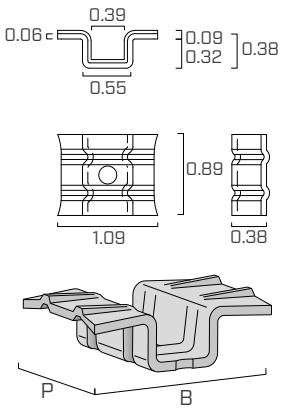
d_1 [mm] [in]	CODE	L [mm]	L [in]	pcs
4 **0.16** #7 TX 20	**KKAN420**	20	13/16	200
	KKAN430	30	1 3/16	200
	KKAN440	40	1 9/16	200

GEOMETRY

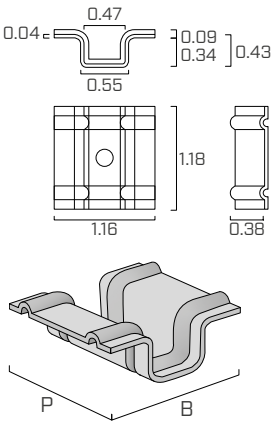
TVM1



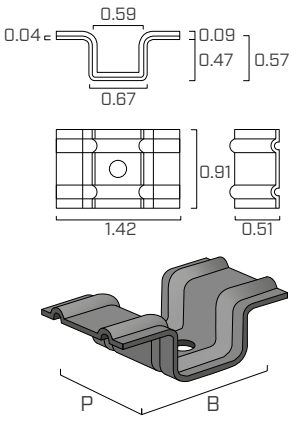
TVM2



TVM3



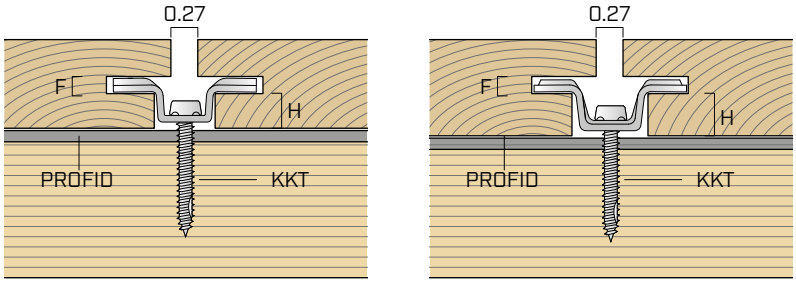
TVMN4



KKA

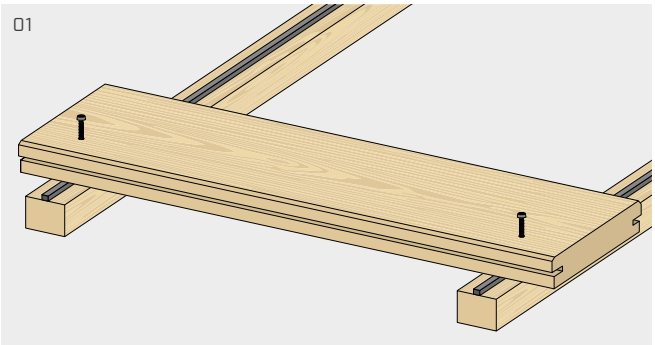
Can also be used for fastening on aluminium profiles using KKA AISI410 or KKA COLOR screws.

GROOVING GEOMETRY

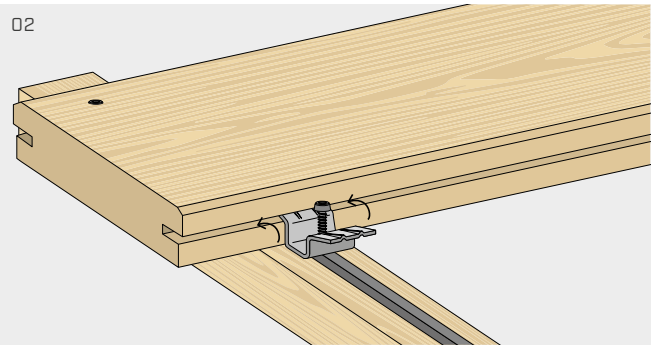


ASYMMETRICAL GROOVING		
Min. thickness	F	0.12 in
Min. recommended height TVM1	H	0.28 in
Min. recommended height TVM2	H	0.35 in
Min. recommended height TVM3	H	0.39 in
Min. recommended height TVMN	H	0.51 in

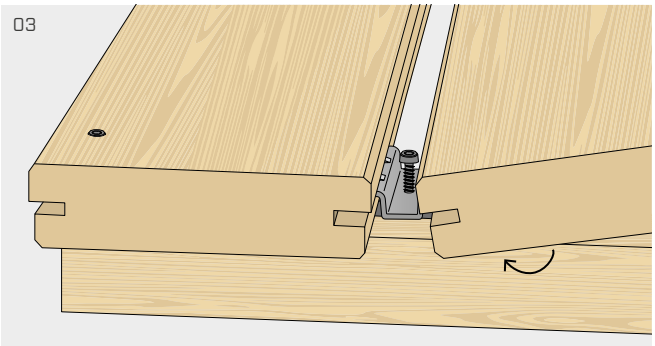
INSTALLATION



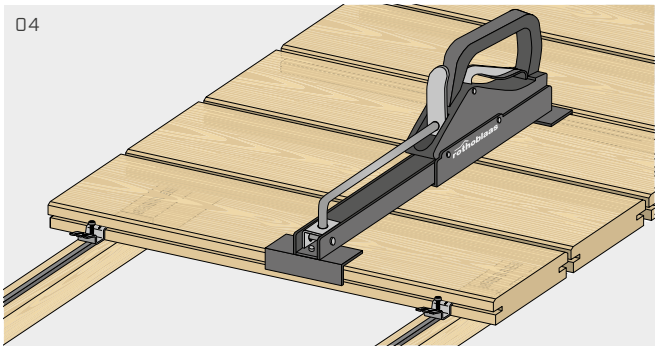
Position the PROFID spacer at the joist centerline. First board: fix with suitable screws which are left visible.



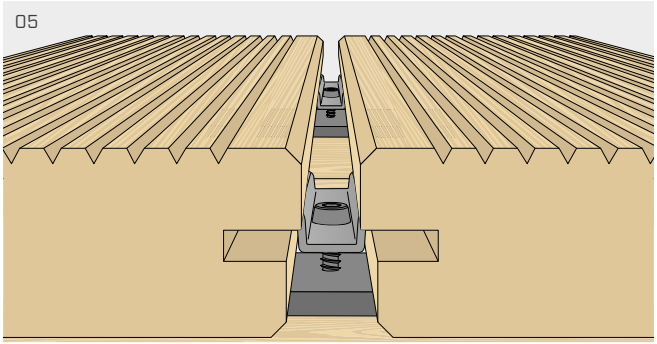
Insert the TVM fastener into the groove cut so that the side fin adheres to the groove in the board.



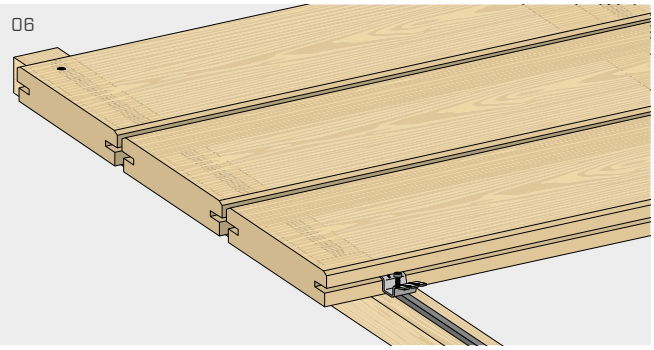
Position the next board by inserting it into the TVM fastener.



Using the CRAB MINI or CRAB MAXI clamp, tighten the two boards until the gap between them is 0.28 inch (see product page 424).

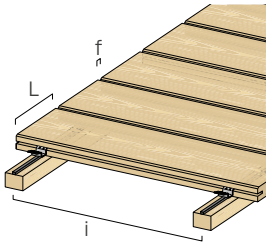


Fix the fastener to the batten underneath by using the KKT screw.



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

CALCULATION EXAMPLE



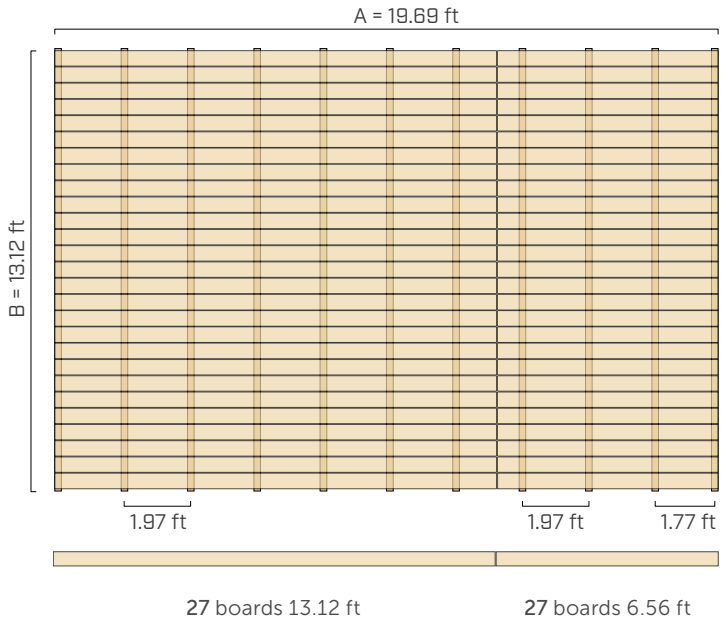
INCIDENCE ESTIMATE FORMULA PER ft²

1 ft²/i/(L + f) = pcs of TVM at ft²

i = battens spacing
L = board width
f = gap width

PRACTICAL EXAMPLE

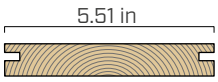
NUMBER OF BOARDS AND BATTENS



PATIO SURFACE

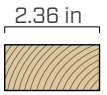
S = A · B = 16.69 ft · 13.12 ft = 258.33 ft²

WOODEN PLANKING



L = 5.51 in
s = 0.83 in
f = 0.28 in

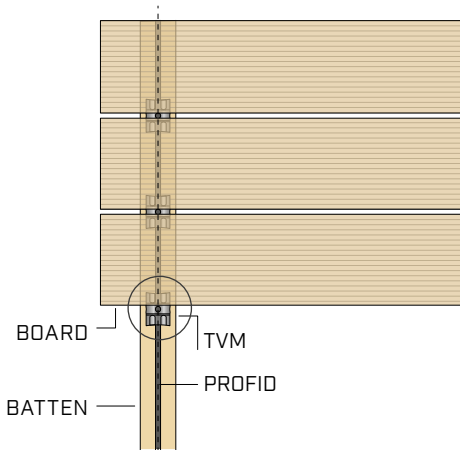
BATTENS



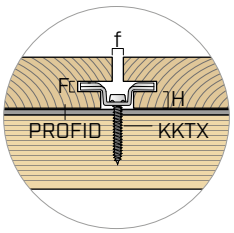
b = 2.36 in
h = 1.18 in
i = 1.97 in

no. boards = [B/(L+f)]
= [13.12 / (0.46+0.02)] = **27 boards**
no. 13.12 ft boards = **27 boards**
no. 6.56 ft boards = **27 boards**
no. battens = [A/i] + 1 = (19.69 / 1.97) + 1 = **11 battens**

SCREW SELECTION



Screw head thickness	$S_{screw\ head}$		0.11 in
Grooving thickness	**F**		0.16 in
Grooving dimension	**H**		0.39 in
PROFID thickness	S_{PROFID}		0.31 in
Pull-through length	L_{pen}	**4 · d**	0.80 in



MINIMUM SCREW LENGTH
= $S_{screw\ head}$ + H + S_{PROFID} + L_{pen}
= 0.11 + 0.39 + 0.31 + 0.8 = **1.61 in**

CHOICE OF SCREW **KKTX540A4**

TVM NUMBER CALCULATION

QUANTITY FOR INCIDENCE FORMULA

I = S/i/(L + f) = pcs of TVM
I = 258.33 ft²/1.97 ft/(0.46 ft + 0.02 ft) = 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 battens = (A/i) + 1 = (19.69 / 1.97) + 1 = 11 battens

no. intersections = I = 26 · 11 = 286 pcs TVM
I = 286 pcs TVM

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