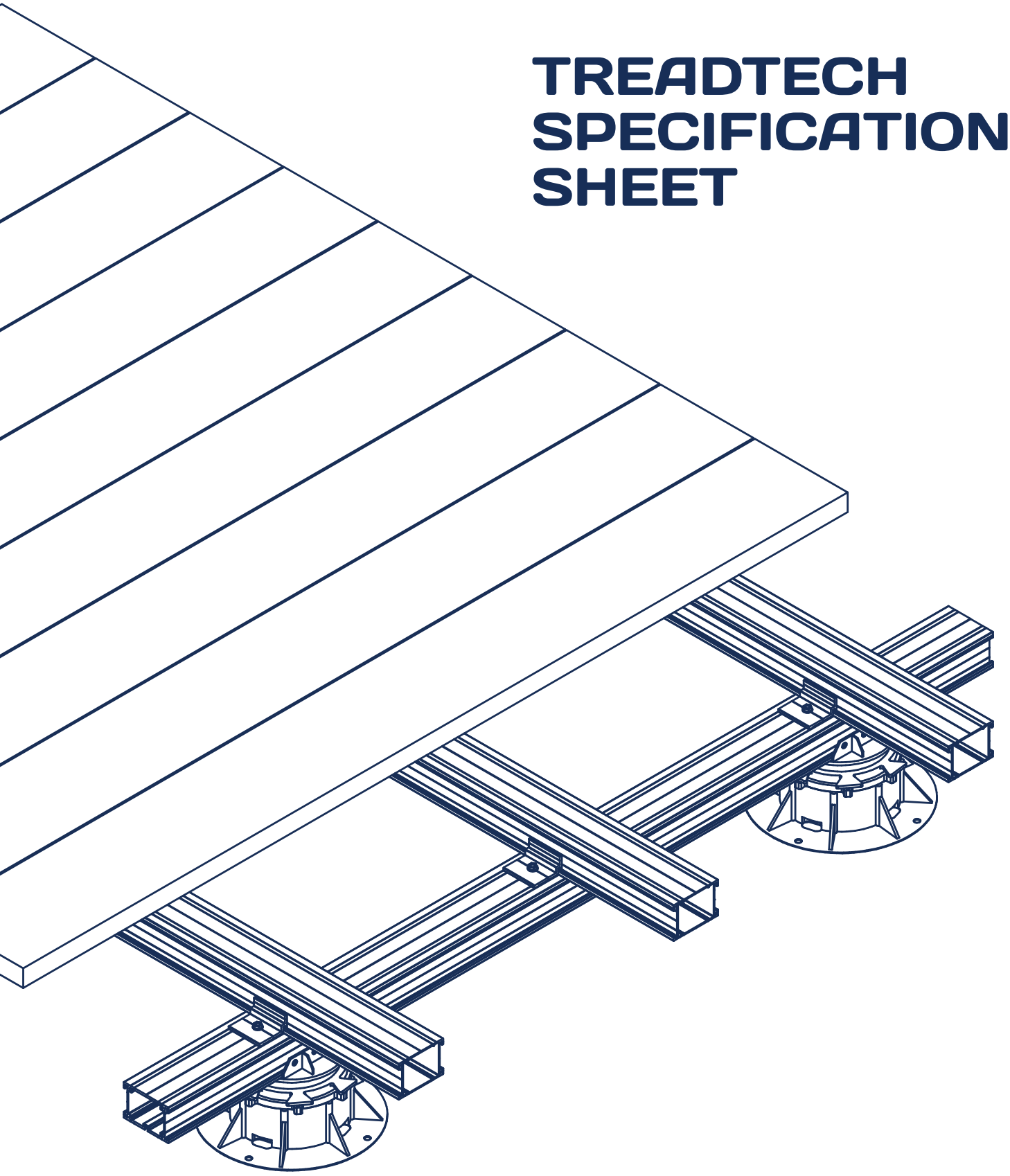
TREADTECH SPECIFICATION SHEET



treadtech.nz

TREADTECH

ALUMINIUM DECK SUBFRAME. A PRODUCT BY UNEX.

GENERAL NOTES & DISCLAIMERS

1. The TreadTech framing system in this specification shall be manufactured and installed in accordance with this specification holistically, including all drawings and notes.
2. The TreadTech framing system in this specification complies for Liveloads in accordance B1/VM1 with reference to AS/NZS 1170.1:2002, for occupancy type: Domestic & Residential activities, Self-contained dwellings, Balconies and roofs used for floor type activities, with no restriction on height above ground level, but excludes stairs and landings.
3. The deck boards and their connections to the framing (by others), in in-service conditions, shall not exceed more than 45 kg per square-metre in weight.
4. The TreadTech framing system in this specification, is not suitable for attaching balustrades and/or any form of screen or barrier to.
5. The decking boards and their fasteners must be suitable and compatible to be used in conjunction with this TreadTech framing system. Holes in the frame for fasteners shall not exceed 5 mm diameter, and/or be less than 50 mm centres apart.
6. The supporting structure including any water-proofing membranes must be suitable and compatible to be used in conjunction with this TreadTech framing system.
7. TreadTech framing system is a proprietary product supplied Unex Systems (NZ) Limited and or it's subsidiary companies. Substitution of materials from other suppliers will invalidate this specification and any associated Producer Statements.
8. The design of the supporting structure below the TreadTech framing system, is outside the scope of this specification, and should be engineered by others.
9. Deck boards and their connections to the framing (by others) used in conjunction with TreadTech Framing system, are outside the scope of this Specification. The deck boards shall be structurally adequate to span in between the upper frame members, and the ends protrude beyond the frame by up to 70 mm, on the outside edges of the deck.

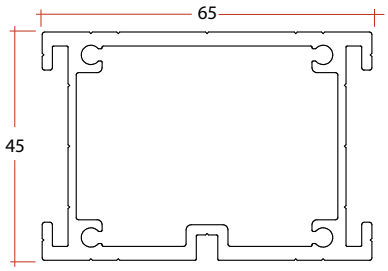
SNOW LOADING

1. This specification should not be relied on for locations 500 metres or more above sea level - e.g. Mt Cook Village or Castle Hill.

WIND LOADING

1. Decking in exposed locations should have a parapet (or something similar) to prevent wind blowing under the deck and prevent uplift of the decking.

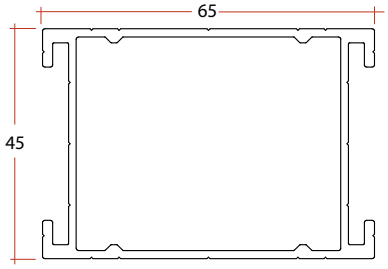
EXTRUSIONS



KEFH-60

TREADTECH BEARER 65X45 MM

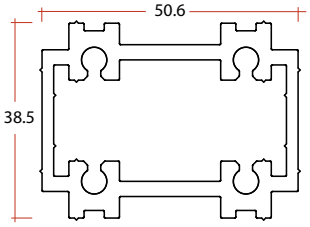
6.0 m lengths.
Available in Matt Black or Mill Finish.



KEFS-60

TREADTECH JOIST 65X45 MM

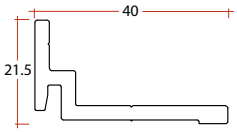
6.0 m lengths.
Available in Matt Black or Mill Finish.



KEJH-60

JOINTER FOR KEFH & KEFS

6.0 m lengths.
Available in Mill Finish.

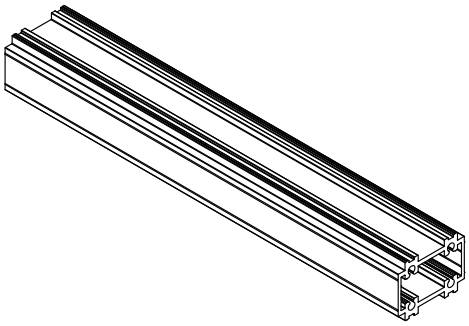


KENT-15

JOIST TO BEARER TAB CONNECTOR

1.5 m lengths.
Available in Matt Black.

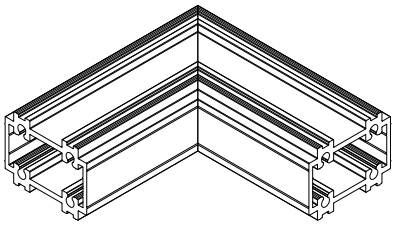
JOINTERS



KEJH-0300

STRAIGHT JOINTER

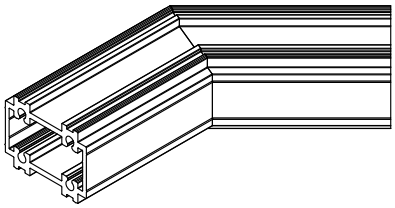
300 mm Straight Jointer for KEFH & KEFS.



KEJH-H90

HORIZONTAL JOINTER 90 DEGREE

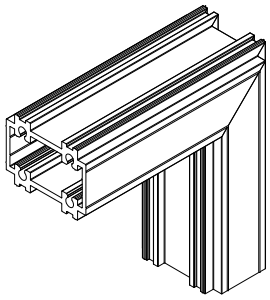
90 Deg Horizontal Mitre Jointer for KEFH & KEFS.



KEJH-HXX

HORIZONTAL JOINTER CUSTOM ANGLE

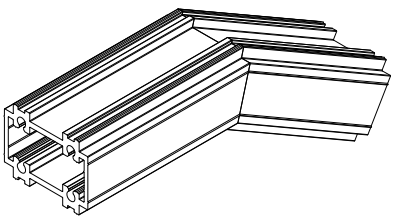
Custom Angle Horizontal Mitre Jointer for KEFH & KEFS.



KEJH-V90

VERTICAL JOINTER 90 DEGREE

90 Deg Vertical Mitre Jointer for KEFH & KEFS.

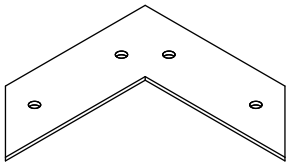


KEJH-VXX

VERTICAL JOINTER CUSTOM ANGLE

Custom Angle Vertical Mitre Jointer for KEFH & KEFS.

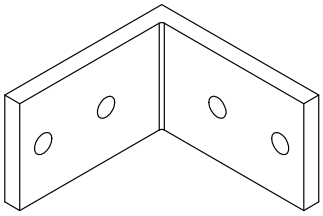
COMPONENTS



KEGS90V

GUSSET CONNECTOR

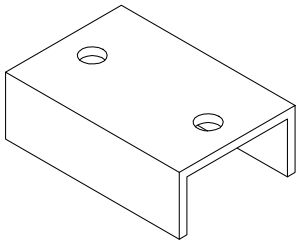
Gusset Connector Vertical for KEFH & KEFS.



KENA30

GUSSET CONNECTOR

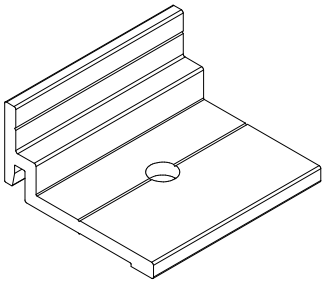
90 Deg Corner Bracket for KEFH & KEFS, 30 mm Length.



KENB45

BORDER CONNECTOR

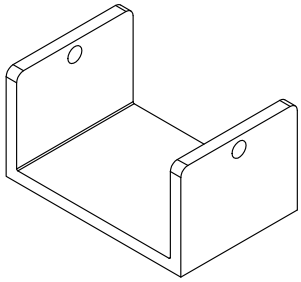
45 mm Border Tab for attaching double KEFS joists to KEFH.



KENT30

JOIST TO BEARER TAB CONNECTOR

30 mm Connector Tab for attaching KEFS to KEFH.

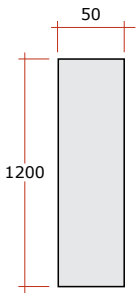


KESC-025

SUPPORT CHANNEL FOR KEFH & KEFS, 5-25MM

75 mm x 50 mm Aluminium support channel for KEFH & KEFS. SG50-12 Neoprene strip gasket to be placed behind the KESC-025 when sitting on a membrane.

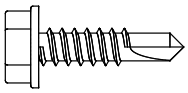
FASTENERS & GASKETS



SG50-12

NEOPRENE STRIP GASKET

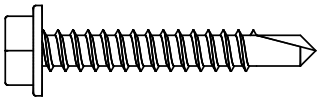
Neoprene strip gasket to be used behind the KESC-024 Support Channel when sitting on a membrane. 50 mm x 1200 mm



FTK12G-25

SS TEK SCREW 12G X 25 MM

S/S Self Drilling Tek Screw, 12 gauge x 25 mm length.

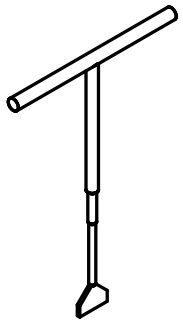


FTK12G-38

SS TEK SCREW 12G X 38 MM

S/S Self Drilling Tek Screw, 12 gauge x 38 mm length.

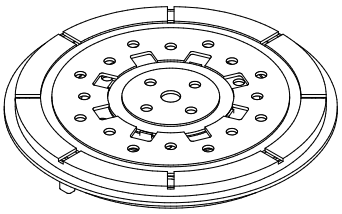
PEDESTAL COMPONENTS



KJD2-AK

PEDESTAL ADJUSTMENT KEY

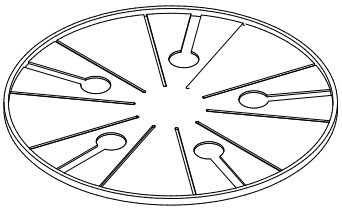
Adjustment Key for adjusting KJD2 Pedestals with Tiles and KJT2-XX8 Tile Cradle.



KJD2-SC

ADJUSTABLE SLOPE CORRECTOR

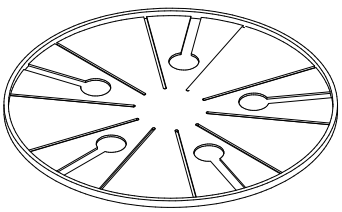
Adjustable Slope Corrector for KJD2 Range of Pedestals.



KJH2-0210

210 MM RUBBER BASE PAD

210 mm Rubber Base Pad for KJD2 Pedestals (Optional).

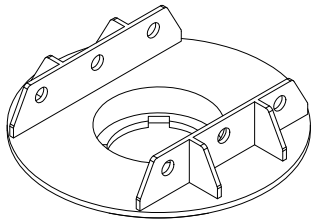


KJH2-0230

230 MM RUBBER BASE PAD

230mm Rubber Base Pad for KJD2-SC Slope Corrector (Optional).

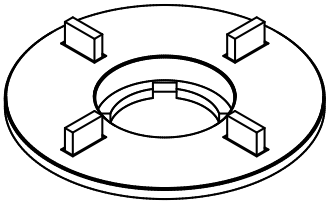
PEDESTAL COMPONENTS (CONT.)



KJD2-CR065

65 MM JOIST CRADLE

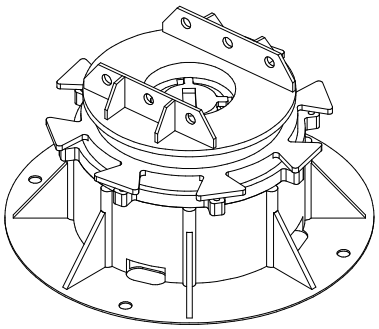
Self-Levelling Joist Cradle 65 mm.
To suit KEFS-60 TreadTech Joist.



KJT2-CT04

TILE CRADLE 4 MM SPACE

Self-Levelling Tile Cradle with 4 mm Space between Tiles.



KJD2-*XXX*

DECKING PEDESTAL

Adjustable Decking Pedestal. Excludes Cradle.

2nd Number indicates Height Range:

033	= 23 to 33 mm
068	= 33 to 68 mm
157	= 67 to 157 mm
405	= 154 to 405 mm
595	= 325 to 595 mm
785	= 392 to 785 mm

DECK PEDESTALS

Note: The design of the supporting structure below the TreadTech framing system, is outside the scope of this specification, and should be engineered by others.

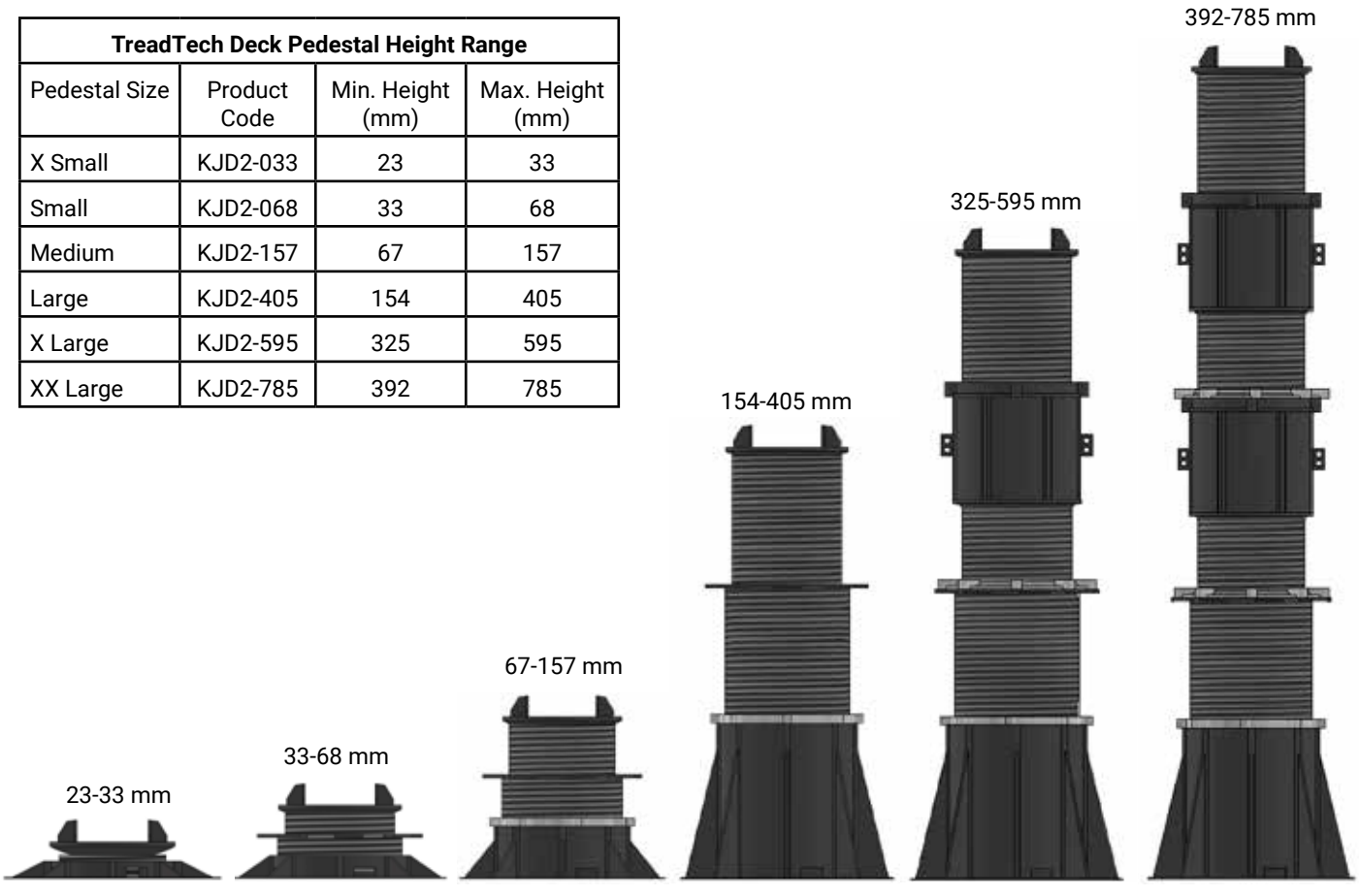
CUT THE BASE OF PEDESTAL TO INSTALL ON A CORNER.

ONE SIDE

TWO SIDES

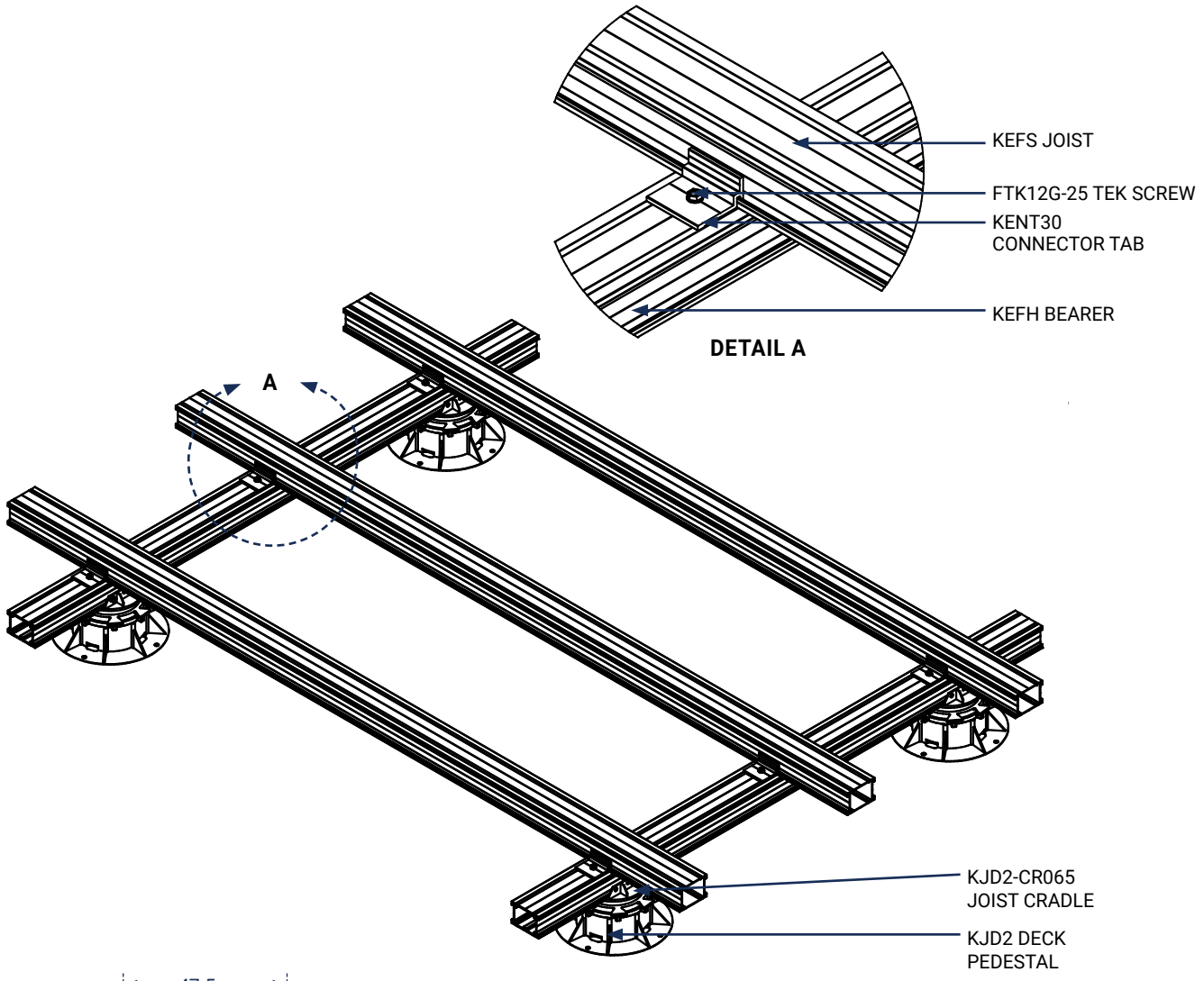
Featuring a self-leveling head with a diameter of 115 mm, equipped with an optional anti-noise and anti-slip rubber, our system ensures a perfectly flat surface on uneven terrain.

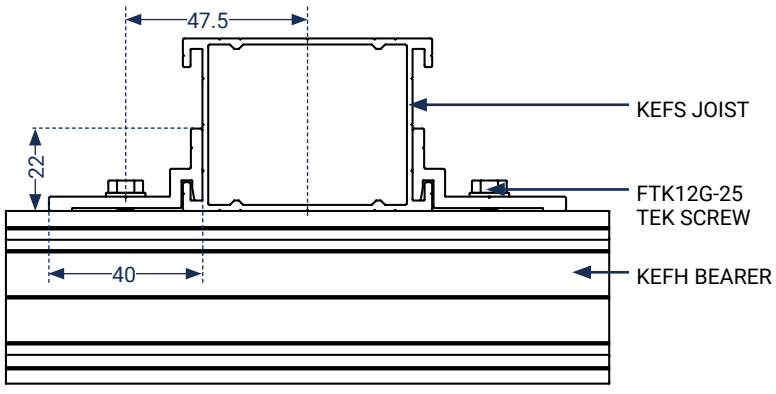
TreadTech Deck Pedestal Height Range			
Pedestal Size	Product Code	Min. Height (mm)	Max. Height (mm)
X Small	KJD2-033	23	33
Small	KJD2-068	33	68
Medium	KJD2-157	67	157
Large	KJD2-405	154	405
X Large	KJD2-595	325	595
XX Large	KJD2-785	392	785



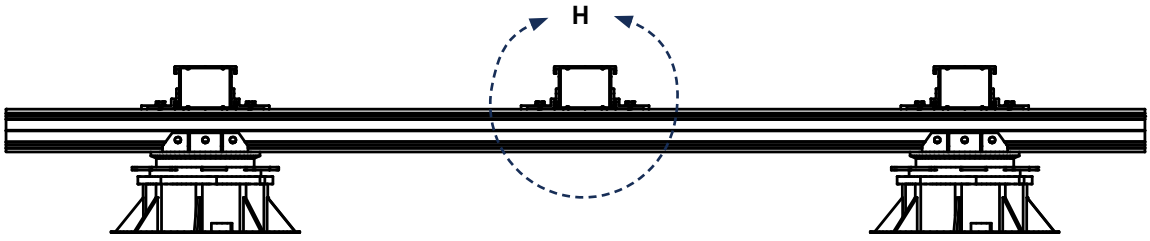
PARTS, DIMENSIONS & GENERAL CONFIGURATION

Note: Whilst a limited section of deck framing is illustrated, the deck framing may be continuous in all directions.

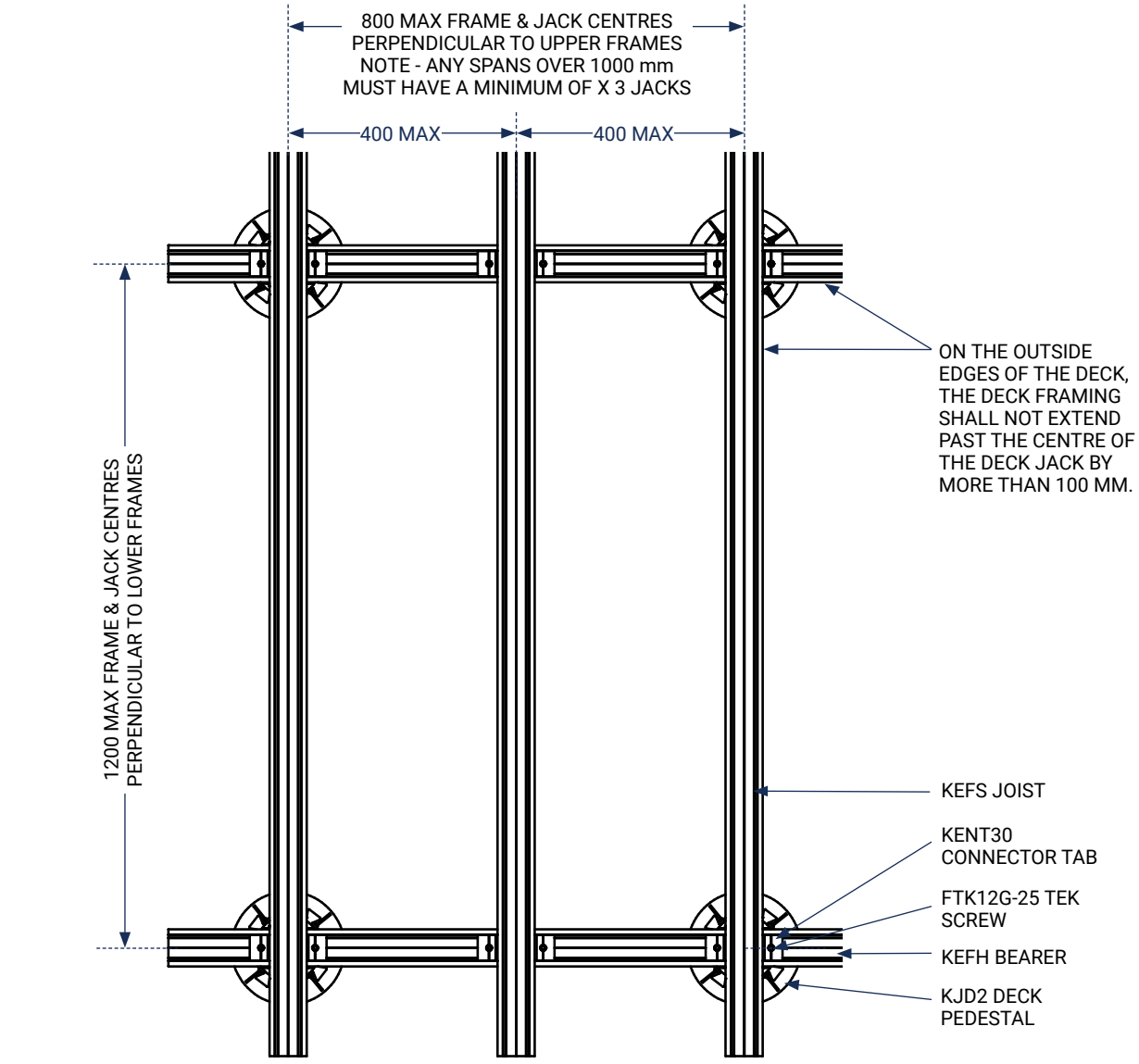


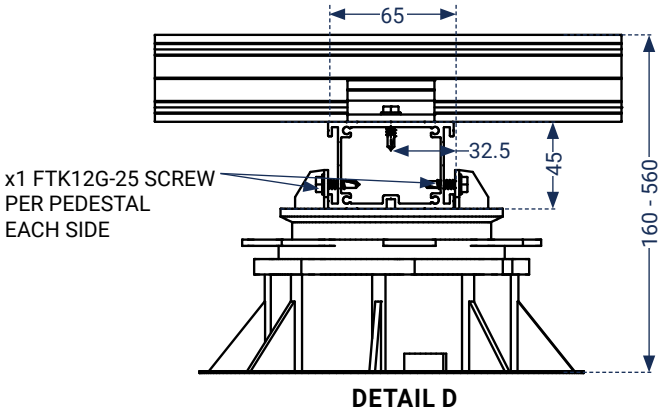


DETAIL H



PARTS, DIMENSIONS & GENERAL CONFIGURATION

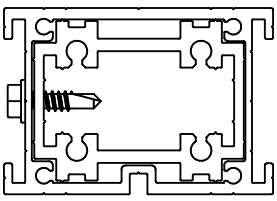




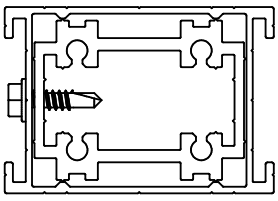
DETAIL D

FRAME BUTT-JOINS WITH INTERNAL JOINTERS

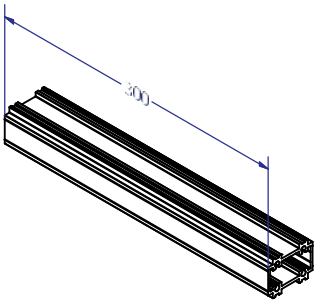
Note: The design of the supporting structure below the TreadTech framing system, is outside the scope of this specification, and should be engineered by others.



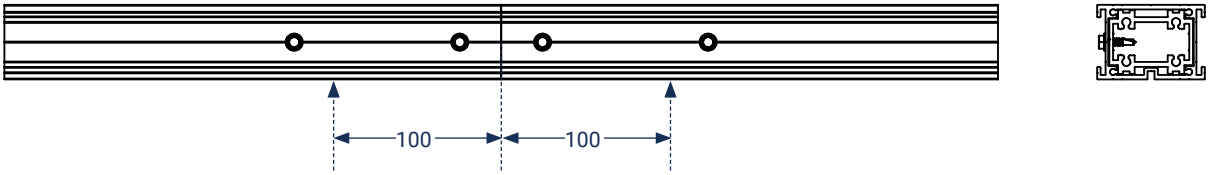
KEFH FRAME PROFILE WITH KEJH JOINTER WITHIN



KEFS FRAME PROFILE WITH KEJH JOINTER WITHIN



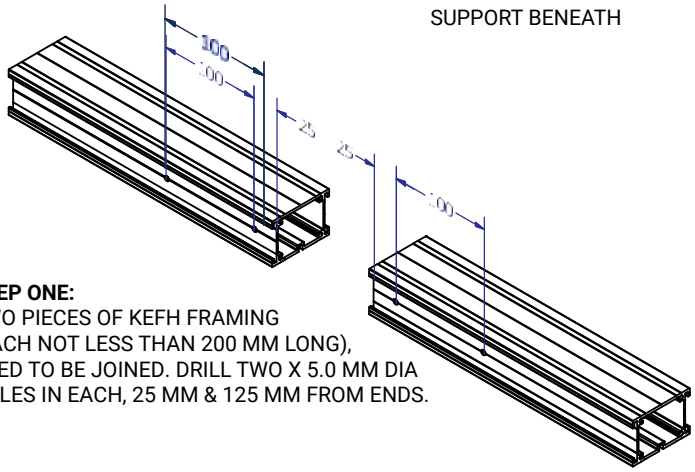
KEJH-300 JOINTER PROFILE



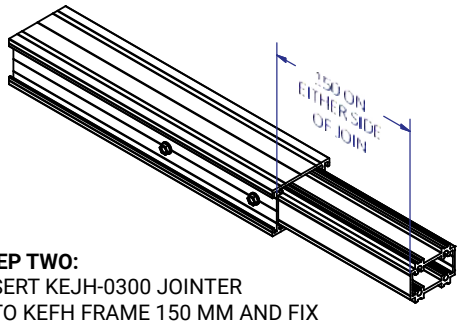
CENTRE OF SUPPORT

CENTRE OF SUPPORT

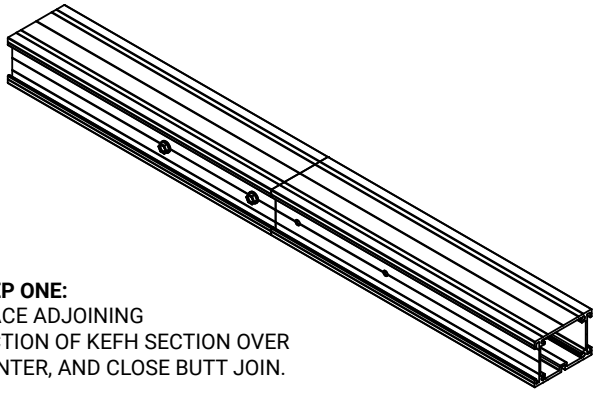
JOIN MUST BE WITHIN 100 MM OF CENTRE OF BEARER OR PEDESTAL SUPPORT BENEATH



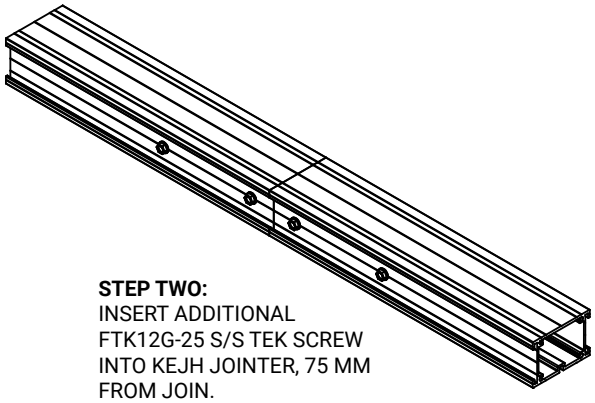
STEP ONE:
TWO PIECES OF KEFH FRAMING (EACH NOT LESS THAN 200 MM LONG), NEED TO BE JOINED. DRILL TWO X 5.0 MM DIA HOLES IN EACH, 25 MM & 125 MM FROM ENDS.



STEP TWO:
INSERT KEJH-0300 JOINTER INTO KEFH FRAME 150 MM AND FIX WITH TWO X FTK12G-25 FIXING SCREWS 25 MM & 125 MM FROM JOIN. THE JOINTER SHALL PROTRUDE FROM THE FRAME 150 MM.



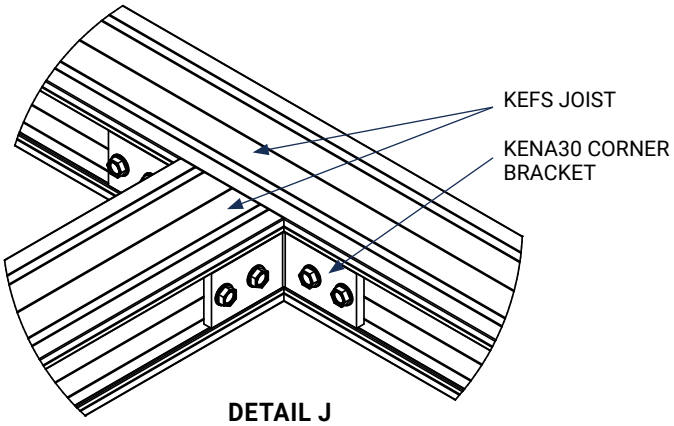
STEP ONE:
PLACE ADJOINING SECTION OF KEFH SECTION OVER JOINTER, AND CLOSE BUTT JOIN.



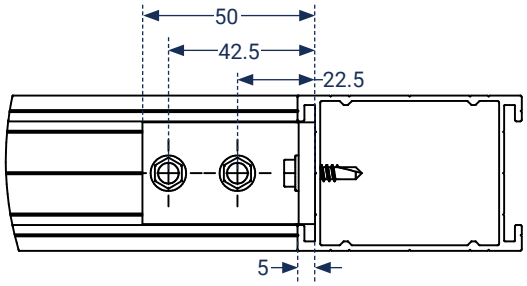
STEP TWO:
INSERT ADDITIONAL FTK12G-25 S/S TEK SCREW INTO KEJH JOINTER, 75 MM FROM JOIN.

EDGE-TRIM FRAME, WHERE REQUIRED

* Note: An edge-trim frame is not mandatory on all edges. It may be required for aesthetic purposes, or in other situations, e.g. where the distance to the supporting deck structure is too shallow for two layers of deck frames at the edge.

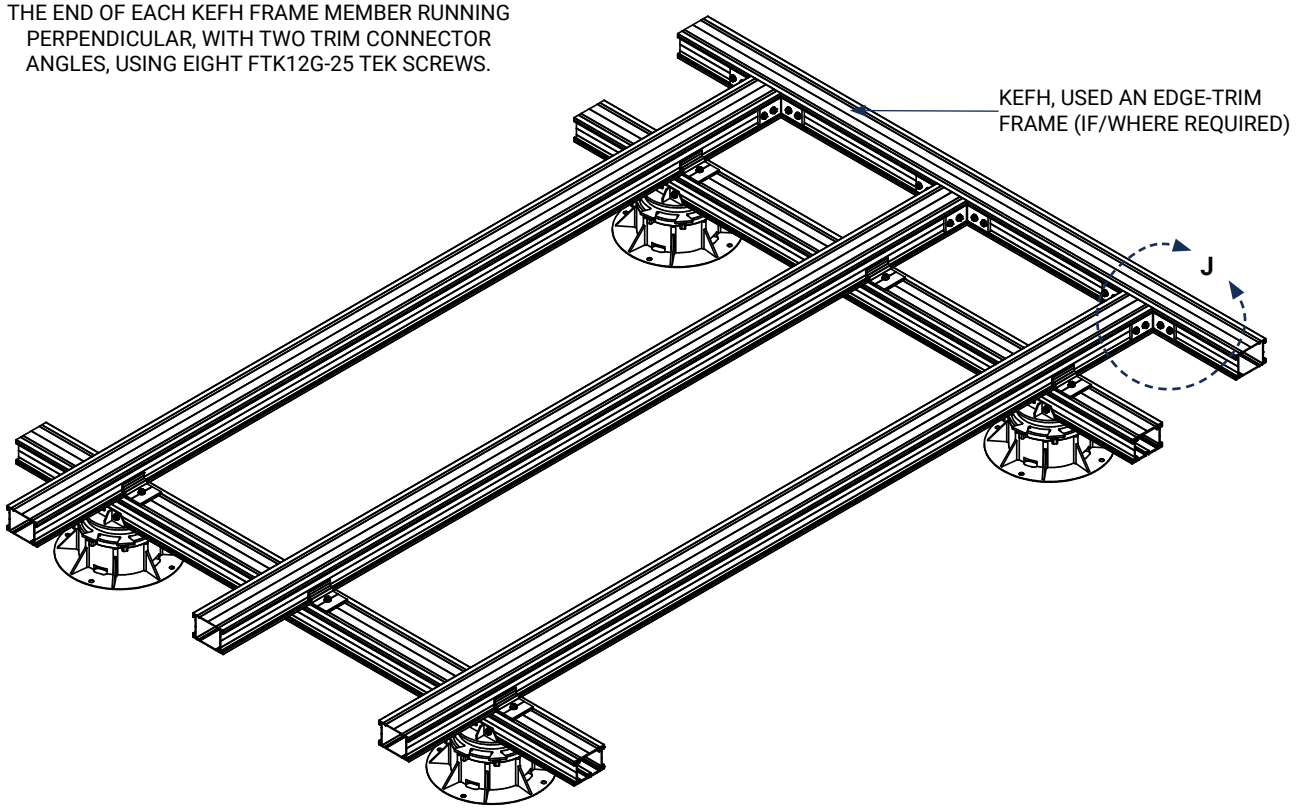


DETAIL J



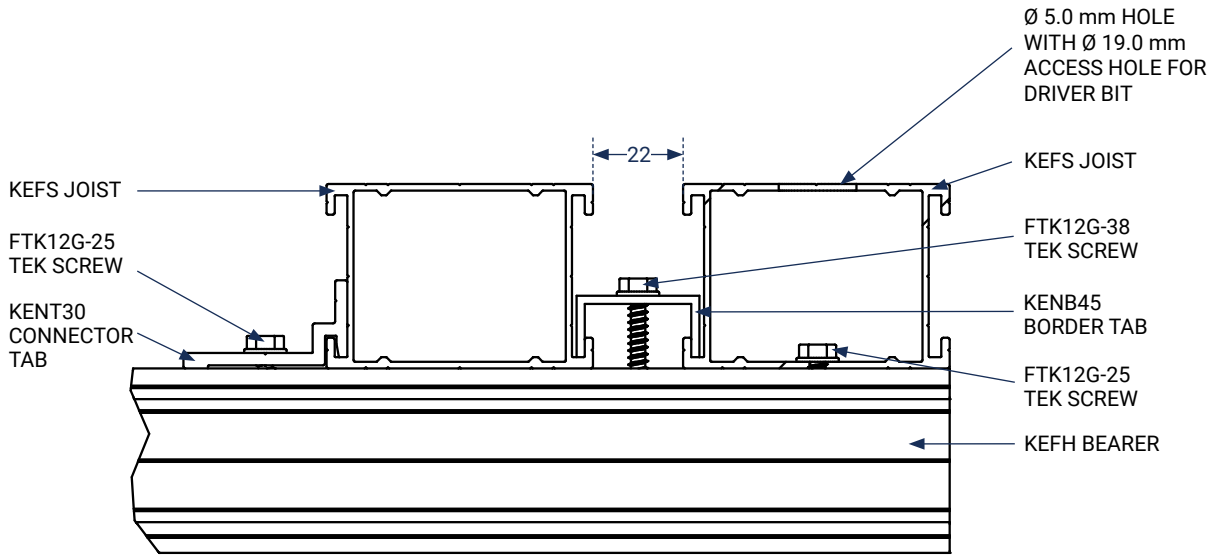
DETAIL K

THE KEFS EDGE-TRIM FRAME, SHALL CONNECT TO THE END OF EACH KEFH FRAME MEMBER RUNNING PERPENDICULAR, WITH TWO TRIM CONNECTOR ANGLES, USING EIGHT FTK12G-25 TEK SCREWS.

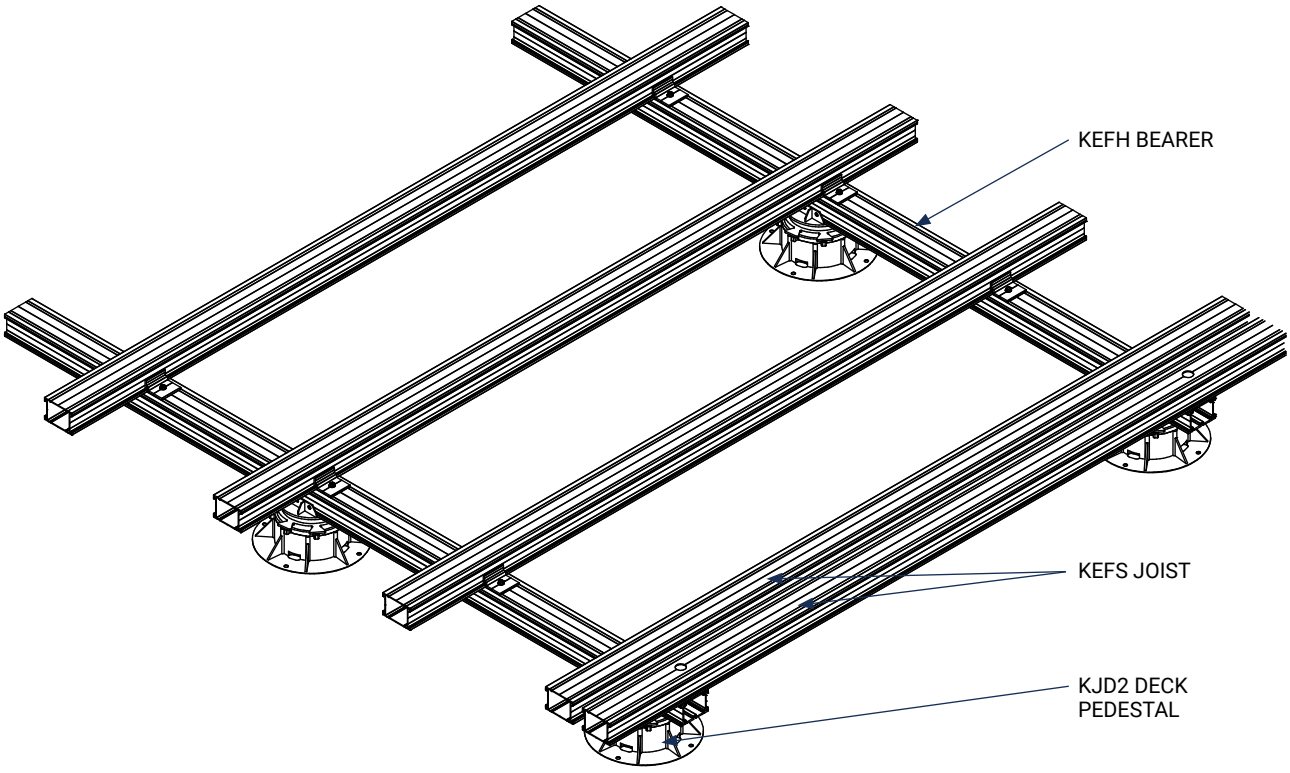


EDGE-TRIM FRAME, WHERE REQUIRED

* Note: An edge-trim frame is not mandatory on all edges. It may be required for aesthetic purposes, Or in other situations. The design of the supporting structure below the TreadTech framing system, is outside the scope of this specification, and should be engineered by others.



END VIEW SECTION OF DOUBLE EDGE TRIM

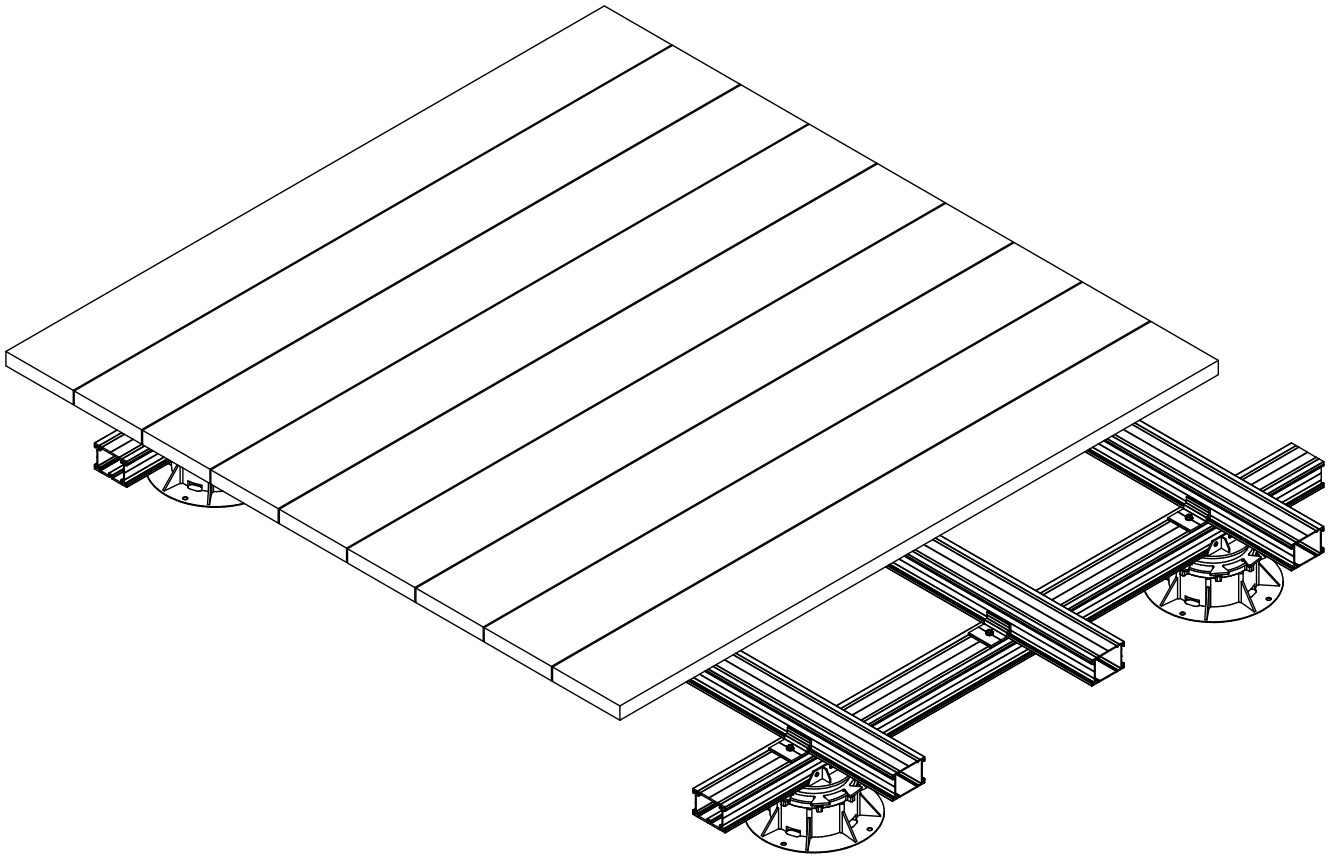


DECKING BOARDS BY OTHERS

Deck boards and their connections to the framing (by others) used with the TreadTech framing system are not covered in this specification. Deck boards must be structurally adequate to span between upper frame members, with ends protruding 70 mm beyond the frame on outer edges of the deck.

Gaps must be present between boards as per decking manufacturer's specifications, with a minimum gap of 3.0 mm required.

Deck boards (installed by others) must run parallel to the KEFH bearer, and perpendicular to the KEFS joists.



SEISMIC LOADING

1. Some decks will require lateral support from adjacent Parapet, Wall or other such structure, depending on a) their Zone and location, b) the height of the pedestals, and c) the height of the deck above adjacent ground level. To determine if lateral support is required, refer to Table 1 of this specification below.
2. Seismic actions have been calculated using AS/NZS1170.5. To obtain the applicable zone, see below;
   Zone 1 - Maximum hazard factor = 0.20
   Zone 2 - Maximum hazard factor = 0.30
   Zone 3 - Maximum hazard factor = 0.42
   Zone 4 - Maximum hazard factor = 0.60
   The zones above coincide with those given by BRANZ and NZS3604
3. Two examples of Lateral Support methods are illustrated in Figure 1 and Figure 2 below.

Figure 1. Illustration of Lateral Support

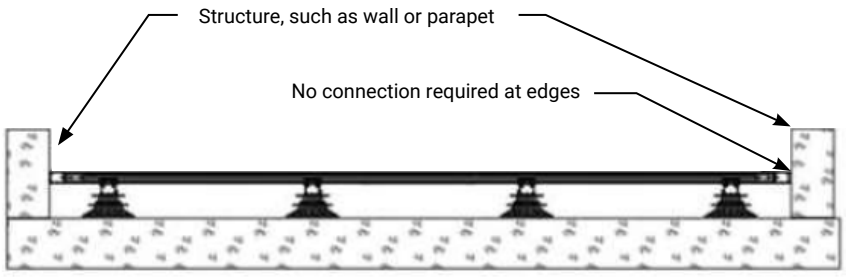


Figure 2. Illustration of Lateral Support

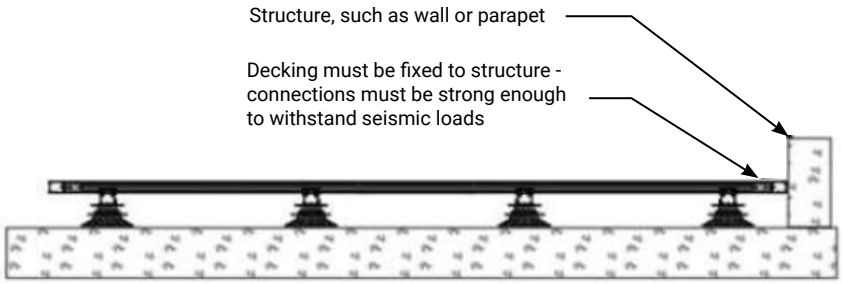


Table 1. Lateral Support Requirements

Zone	Location	Pedestal Height Less Than 170 mm		Pedestal Height 170 mm or Greater	
		0 m - 6 m Height Above Ground	>6 m Height Above Ground	0 m - 6 m Height Above Ground	>6 m Height Above Ground
Zone 1	Dunedin, Coromandal, Auckland & North	Not Required	Not Required	Lateral Support Required	Lateral Support Required
Zone 2	All other locations	Not Required	Not Required	Lateral Support Required	Lateral Support Required
Zone 3	All Locations	Not Required	Not Required	Lateral Support Required	Lateral Support Required
Zone 4	All Locations	Not Required	Not Required	Lateral Support Required	Lateral Support Required
Zone 5	All Locations	Not Required	Lateral Support Required	Lateral Support Required	Lateral Support Required