

TRITON – STRAIGHT Steel Armoured Contraction Joint

PRODUCT DESCRIPTION

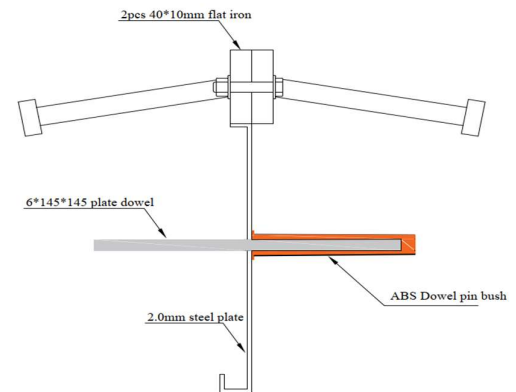
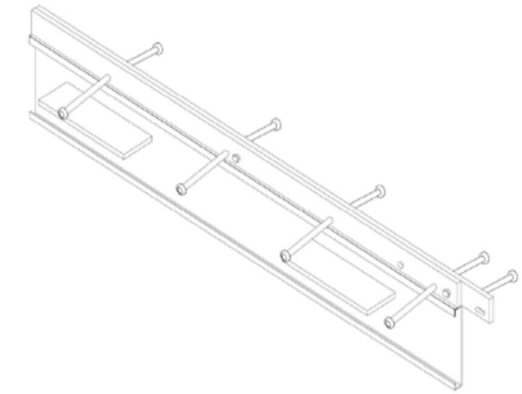
The TRITON – STRAIGHT is a permanently embedded, height-adjustable, steel-reinforced expansion joint system designed to enable efficient structural load transfer between adjacent concrete slabs while protecting slab edges from mechanical damage and long-term deterioration.

KEY FEATURES

- Multiple heights and an adjustable system to suit varying slab thicknesses
- Robust edge protection of the concrete against impact and wear
- Efficient load transfer between adjacent concrete slabs
- Fast and simple installation
- Available in black, galvanised or stainless steel
- Suitable for internal and external

APPLICATIONS

- Industrial floor slabs
- Warehouses and logistics centres
- Multi-level mezzanines
- Exposed concrete slab edges
- Heavy-duty commercial areas



TECHNICAL DATA

Profile Height	125-295mm	Dowel	5/6 pcs.
Profile Length	3,000mm (± 2mm)	Dowel Size	145 x 145 x 6mm 145 x 145 x 8mm 145 x 145 x 10mm
Weight (Per Length)	30.59 - 37.64kg	Dowel Spacing	600mm/500mm
Steel Grade	Joint : Q235 or Galvanised Dowels : Q355 Studs : Q195	Dowel Sleeve	Highly resistant ABS
Top Strip	H: 40mm D: 10mm (x2)	Frangible Fastener	Nylon bolt with steel nut
Shear Studs	28 pcs. (on both sides)		
Footer	H: variable D: 2mm		

SPECIFICATIONS

The structural load capacity of the expansion joint, expressed in kilonewtons per linear meter (kN/m), depends on dowel density along the joint. Upon request, Triton can supply ultimate load values for specific failure modes, For information, this exercise is calculated with C25/30, S355 dowels 145 x 145 x 6mm with spacing of 600mm or 500mm and considering plate dowel depth at mid-depth.

Joint Opening	0	5	10	15	20	25
145mm x 145mm x 6 600cc	149	93	63	46	36	29
145mm x 145mm x 8 600cc	199	139	101	77	62	51
145mm x 145mm x 10 600cc	249	187	143	113	92	77

The first number is Joint strength in KN/m without considering the concrete breaking. The second number is smaller, as it is driven by concrete strength and also assuming plate dowel at mid-depth.

INSTALLATION

- **Reference Line:** Stretch a string along the planned installation path to set a reference. Place the first joint profile parallel to this line.
- **Levelling:** Raise the profile to the final floor height using wedges or approved levelling systems.
- **Anchoring:** Drive or drill two vertical pins into the ground next to each anchor end. Add more pins along the length if needed for added stability.
- **Alignment Check:** Use a laser level to ensure accurate height and alignment. Inspect flatness across both width and length.
- **Fixing:** Weld the anchor pins to the profile. Where welding is not permitted, use adjustable feet.
- **Connection:** Insert the next profile into the connection point. Its height will align automatically; adjust the opposite end using wedges.
- **Repeat:** Continue the process until reaching a termination point (e.g., wall, column, or joint intersection).

HEALTH AND SAFETY INFORMATION

All welding personnel must wear certified PPE, including:

- Eye and hearing protection
- Flame-resistant gloves
- Safety helmet and steel-toe boots
- Full-body protective clothing

These precautions meet safety standards and protect against thermal hazards, arc flash, airborne particles, and mechanical impact during installation.

Disclaimer:

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