E CONECTO expansion joints

Technical data sheet Conecto dowel profiles



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Conecto Dowel system

Conecto Dowel expansion joints ensure an even distribution of the loads between floor plates by preventing excessive local tensions. Expansion joints help to eliminate the main reason behind uncontrolled floor cracking, they make the floor last longer and improve use comfort.

The number of expansion joints should allow to divide the floor into regular fields, with a shape similar to a square of up to 1000m2, which constitutes a daily flooring efficiency. Joints should be spaced at a distance not greater than 45m.

The system is complete, easy to install and ready for application, all you should do is place the joints at the installation site and join them without wrenches, using screws with wing nuts provided in the package





08NA40-5D

Conecto Dowel joints guarantee proper resistance in case of permanent high traffic loads.

Materials

Profile lenght 3.000 mm Flatbar 40 mm high, 8 mm thick* Steel grade: S355*2 Frangible Fastener Nylon bold with steel nut Pulling rods 26 pieces on both sides ø10 length 100 mm Steel grade: S235 Footer 2 mm thick Steel grade: S235 variable heights (see table page 3 Dowel 5 pieces*3 180x120x8 mm*4 Steel grade: S355 Plastic cover Highly resistant ABS

- \ast also available in 10 mm and 6 mm thickness
- *² also possible in galvanized and Stainless
- *³ also avalable in 6 and 7 pieces
- *4 also available in 180x140x10 mm



140x180x6 or 140x180x10

08NA40-5D

Floor height [mm]	Profile height [mm]	Dowel size [mm]	Dowel spacing [mm]	One piece weight [kg]	Max pieces on palett [pcs]	Palett weight [kg]
100-110	90			27.80	88	2446.4
110-130	100			28.26	88	2486.9
135-155	125	180x120x6 180x120x8 180x140x8	600	29.46	80	2651.4
160-185	155			30.90	80	2472
185-205	175			31.86	75	2389.5
210-230	200			33.06	60	1983.6
235-255	225			34.26	60	2055.6
260-280	250			35.46	50	1773
285-305	275			36.66	50	1833

• ability to perform a profile in any height of 5 mm.

possibility to preparing profiles of height 50mm, 60mm, 70mm, 80mm

standard lenght 3 meters









Expansion strips are mounted in concrete floor plates to compensate movements in plate sections. Concrete plates are exposed to internal and external pressures. Damage occurs mainly at the edges of plates near to connections. Connection of floor plates should compensate their mutual horizontal movements (perpendicular and parallel to the expansion joint) which are usually caused by thermal expansion and shrinkage of concrete. At the same time the connection must also block vertical movements and mutual curving of floor elements which is a consequence of traffic, heavy loads and uneven passive earth pressure.

onecto expansion joints

Conecto Dowel system are designed to create expansion joints for industrial. Steel armoured joints with their unique construction constitute a stay-in-place formwork and additionally secure concrete floor edges. Conecto Dowel system is a floor expansion joint solution, where an anchoring element is a steel dowel placed in a specifically designed plastic sleeve, which permits free horizontal movement (along and across expansion joints) and prevents vertical movements between expanded floor plates. Plastic elements are provided with proper reinforcements, which protect them against the deformation caused by the concrete pressure (even when the floor is thick).

The standard we use 5 dowels (5D) on each 3.000 mm profile lenght. When more load capacity is needed, we can also produce profiles with 6 dowels (6D) or 7 dowels (7D).

Standard dowel T8



Dowel T10 for more load capacity



Dowel T6 for less load capacity



Dowel 115x115x8 for special needs





Conecto Dowel expansion joints allow for a movement between floor plates:

Load capacity about expansion joints depending on amount of dowels in one joint [kN /lm] steel S355MC, floor concrete C25/30

• dowel size 180x120x8 mm

Amount of dowels	opening dilatation						
(at 3 meter)	0	5	10	15	20	25	cm
5D	248	174	126	96	77	64	kN/lm
6D	297	208	151	116	92	76	kN/lm
7D	346	243	176	135	108	89	kN/lm

• dowel size 180x140x10 mm

Amount of dowels	opening dilatation						
(at 3 meter)	0	5	10	15	20	25	cm
5D	310	232	178	141	115	96	kN/lm
6D	372	279	214	169	138	115	kN/lm
7D	433	325	249	197	161	135	kN/lm

• dowel size 180x120x6 mm

opening dilatation							
0	5	10	15	20	25	cm	
186	116	76	58	45	37	kN/lm	
223	140	95	69	54	44	kN/lm	
260	163	110	81	63	52	kN/lm	
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• dowel size 115x115x8 mm

Amount of dowels							
(at 3 meter)	0	5	10	15	20	25	cm
5D	224	147	100	71	52	40	kN/lm
6D	269	177	120	85	63	48	kN/lm
7D	313	206	140	99	73	56	kN/lm
8D	358	235	160	114	84	64	kN/lm

This table shows the load at failure in bursting (failure of the concrete) and bending (failure of the dowel) for a joint opening of 25mm. The ultimate load has been calculated in accord ance with TR34 (4th edition).



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Drawings

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Conecto Dowel 08NA40-5D-T8 h=130 stainless steel version Section



Conecto Dowel 08NA40-5D-T8 h=155 galvanized steel version Section



Conecto Dowel 08NA40-5D-T8 h=155 Section

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