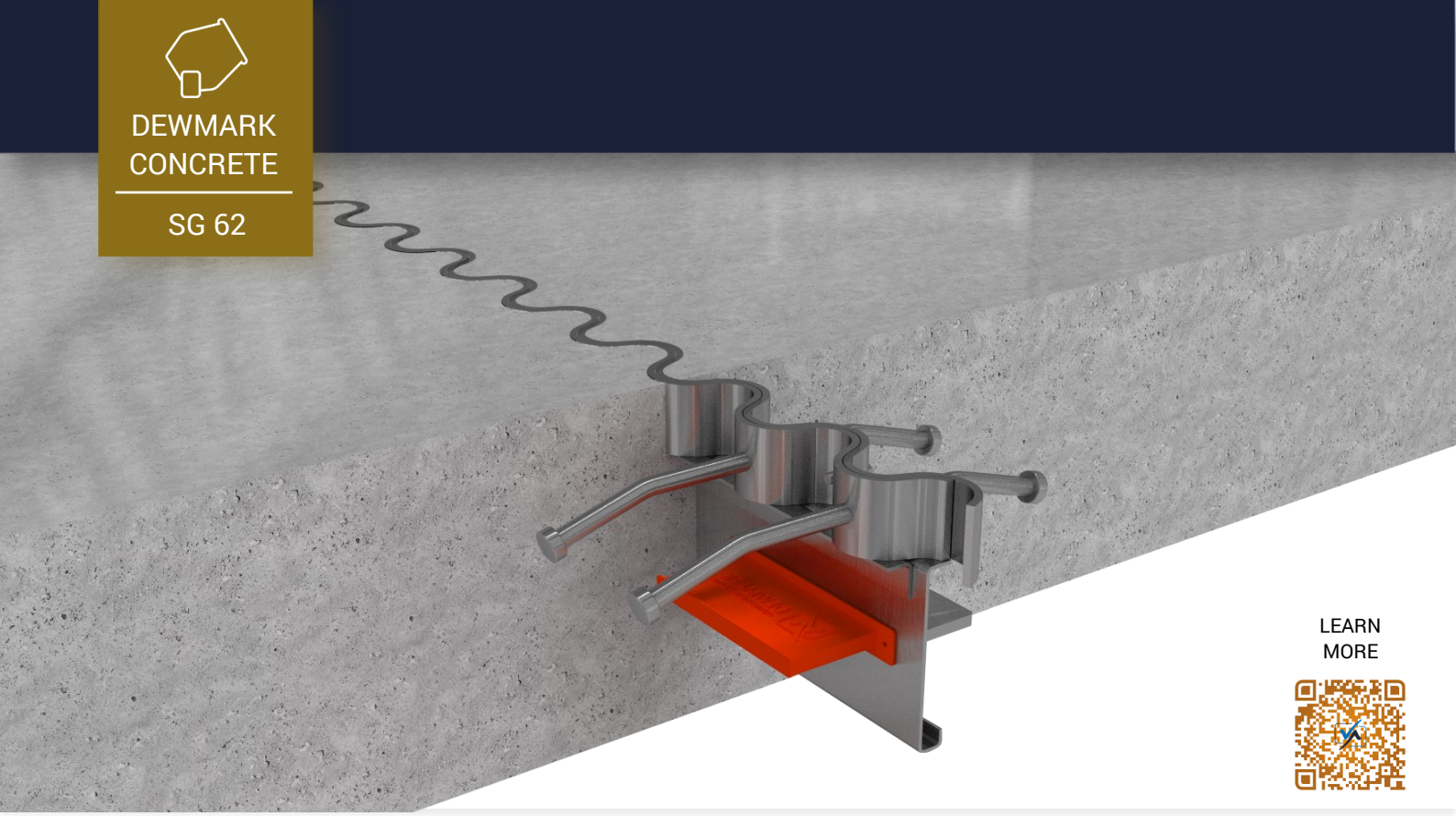
DEWMARK
CONCRETE

SG 62



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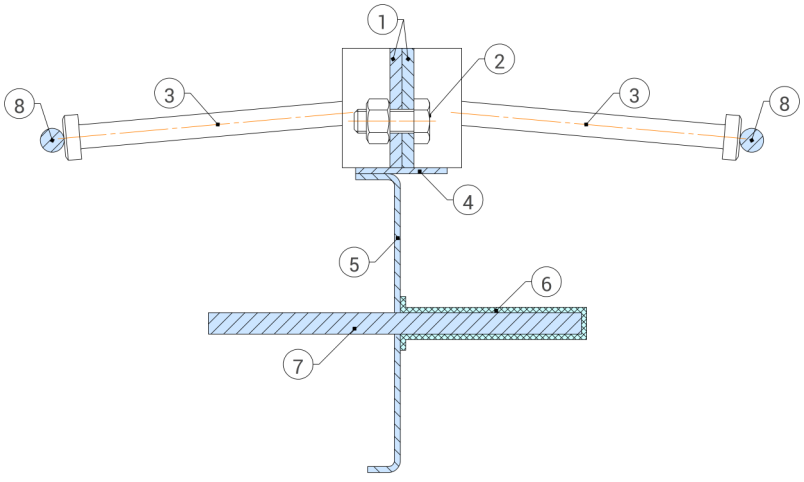
Description

Profile for concrete joints with unique cosinusoidal upper strips. Due to its geometry, it allows to achieve shock-free passage of the expansion joint even of steel wheels, increasing the performance of the concrete floor several times, while reducing vibration and noise arising during the passage of the expansion joint many times over.

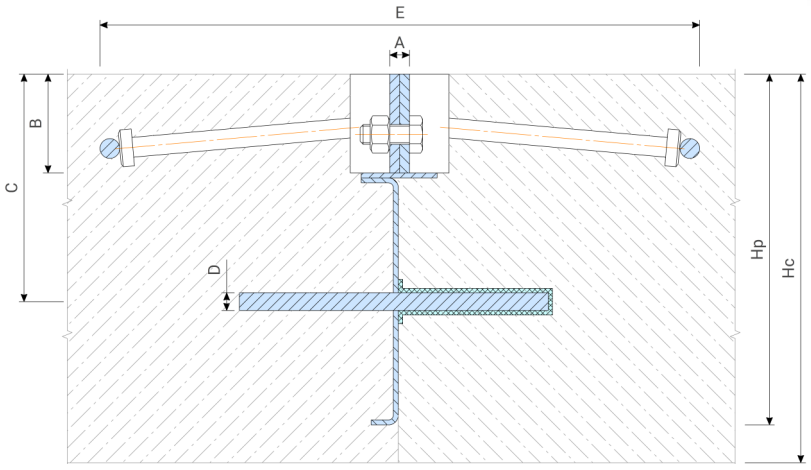
Benefits

- The unique cosinusoidal shape of the profile provides shock-free movement of the seam, which avoids the costly repair of both the flooring and the wheels of the machines during operation.
- Protection of the edges of the joint against chipping under loads
- It prevents vertical shifts of adjacent concrete slabs due to the use of support plates, which provide an efficient transfer of load between them, ensuring a flat floor surface.
- A unique corrugated profile guide allows for stunning straightness.
- Allows you to control the horizontal movement of the concrete slab and prevent the occurrence of accidental cracks.
- Allows to achieve the divergence of adjacent plates at a distance of up to 20 mm.



Accessories	
1	Steel cosinusoidal strips 5x50
2	Polyamide Bolts and steel nuts
3	Anchor stops 10x100
4	Supporting plate (thickness 3 mm)
5	Steel rail 2 mm: - straight for a profile height of 90-130 mm - omega for heights from 150 mm and above
6	Plastic quick-release cover
7	Dowel 160x160 мм: - 60/OP-5 - 5 mm, steel S355 ($\sigma_т$=355 MPa) - 60/OP-8 - 8 mm, steel S355 ($\sigma_т$=355 MPa) - 60/OP-8XL - 8 mm, steel S700 ($\sigma_т$=850 MPa)
8	Reinforcement cage

Dimensions



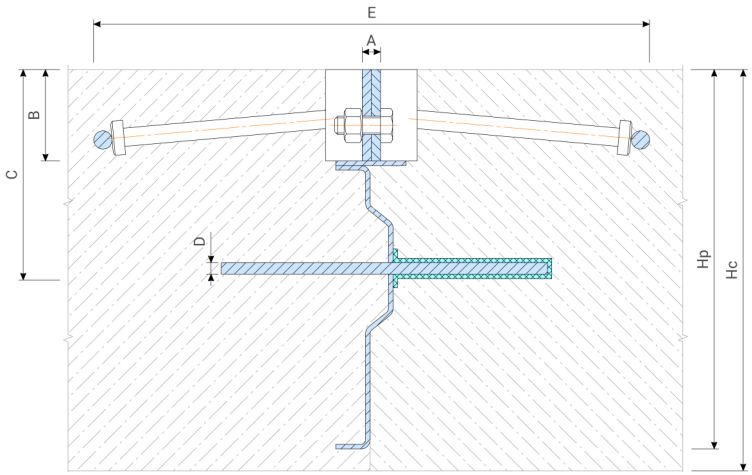
Decoding the name by example SG 62 / 150-8

- SG 62 - profile article,
- 150 - profile height, mm,
- 8 - Type of base plate, in this case 60 / OP-8 (see "Allowable loads").

Profile	Hp (mm)	Hc (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	u/c[2] (mm)	c/c[3] (mm)	L (mm)
SG 62/90-5 (8; 8XL)	90	100-120	10 (5x2)	50	60	5 | 8[1]	220	240	600	2900
SG 62/110-5 (8; 8XL)	110	125-140	10 (5x2)	50	60	5 | 8[1]	220	240	600	2900
SG 62/130-5 (8; 8XL)	130	145-160	10 (5x2)	50	70	5 | 8[1]	220	240	600	2900

[1] Data are indicated for all types of dowel that can be used. Select the dowel based on the specified loads (see Calculation of base plates for bearing loads)
[2] u/c — maximum distance between anchor stops.
[3] c/c — distance between dowels.
[4] Shown is the minimum length of structural steel profiles taken as a standard. The upper cosine stripes are produced by volumetric rolling. Due to the inhomogeneity of the material of the steel strips and their thickness, in the production process, an error accumulates, due to which the length of the obtained profiles varies within the range of 2900-2950 mm.

! For a height of 150 mm and more, the profile is made with an Omega guide to increase the rigidity of the structure and exclude possible profile deflections during concrete pouring.



Profile	Hp (mm)	Hc (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	u/c[2] (mm)	c/c[3] (mm)	L (mm)
SG 62/150-5 (8; 8XL)	150	165-180	10 (5x2)	50	80	220	5 | 8[1]	240	600	2900
SG 62/180-5 (8; 8XL)	180	185-210	10 (5x2)	50	90	220	5 | 8[1]	240	600	2900
SG 62/210-5 (8; 8XL)	210	215-240	10 (5x2)	50	100	220	5 | 8[1]	240	600	2900
SG 62/240-5 (8; 8XL)	240	245-270	10 (5x2)	50	120	220	5 | 8[1]	240	600	2900
SG 62/270-5 (8; 8XL)	270	275-300	10 (5x2)	50	140	220	5 | 8[1]	240	600	2900

[1] Data are indicated for all types of dowel that can be used. Select the dowel based on the specified loads (see Calculation of base plates for bearing loads)
[2] u/c — maximum distance between anchor stops.
[3] c/c — distance between dowels.
[4] Shown is the minimum length of structural steel profiles taken as a standard. The upper cosine stripes are produced by volumetric rolling. Due to the inhomogeneity of the material of the steel strips and their thickness, in the production process, an error accumulates, due to which the length of the obtained profiles varies within the range of 2900-2950 mm.

Materials and method of production of components

Accessories	Material	Method of production	On request
Косинусоидальные	S235	Laser cutting Steel straightening	HDG or AISI 304 (1.4301)
Направляющая	S235	Laser cutting, bending	
Опорная пластина	S355	Laser cutting	HDG or AISI 304 (1.4301)
Кожух	ABS	Injection molding	
Анкерные упоры	S235	Cold heading	HDG or AISI 304 (1.4301)

Manufacturing Tolerances

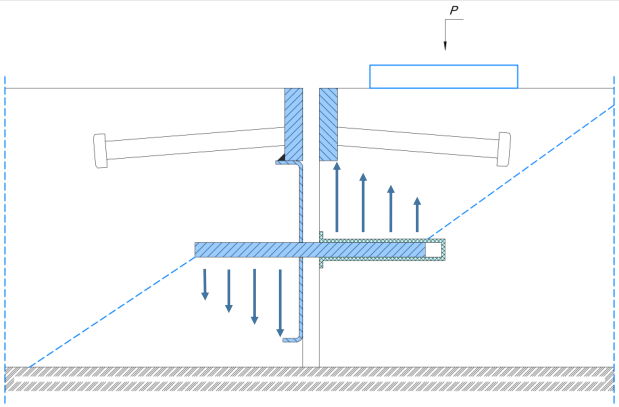
Characteristic	Value
Прямолинейность*	±5 мм/м
Кривизна верхней грани	±1 мм/м
Скручиваемость косинусоидальных полос	1^0/м
Расстояние между собранными полосами	+0...3 мм
Шероховатость верхней грани, не более	Rz20
Длина	+50 мм
Высота	±1 мм/м
Анкерные упоры	±1 мм

⇒ After assembly, the upper edges of the cosine plates are milled to eliminate the drop points caused by the rolling technology.

⇒ * Permissible deviation from straightness up to 5 mm. When installing a profile, this negative effect is easily eliminated.

Permissible loads

The load transfer between adjacent slabs is carried out by the Dowel. The maximum load that a plate can withstand is calculated according to the methodological guide of the British concrete community TR 34 version 4 and depends on the thickness of the metal, the dimensions of the dowel, the strength of its material, the size of the structural joint, the concrete grade and the thickness of the concrete.
(For more information on load calculations based on the size of the dowel and concrete, please refer to the section “Calculation of base plates for bearing loads” or visit the Dewmark Concrete Information Center website).



Permissible loads when opening the joint by 15 mm for concrete C20 / 25

Type of dowel	Material	Thick, mm	Dimensoins, mm	Axle load (loader type according to DIN 1055-3)	Carrying capacity loader according to DIN 1055-3
60/OP-5	09Г2С	5	160x160	63 kN (G3)[1]	25 kN
60/OP-8	09Г2С	8	160x160	140 kN (G5)[1]	60 kN
60/OP-8XL	35ХГСА	8	160x160	170 kN (G6)[1]	80 kN

[1] The specified maximum load capacity for reinforced concrete. Punching concrete possible at low slab thicknesses – ask for more information.

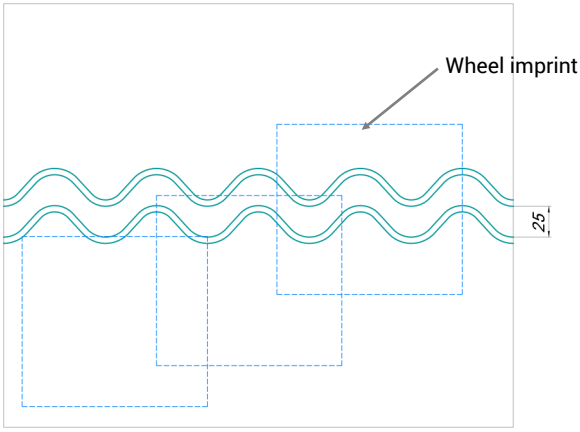
For other values

See calculator for dowel type selection

Distinctive features

⇒ **Cosinusoidal upper stripes**

Due to the wavy geometry of the profile, the wheel of the loader is constantly in contact with the concrete floor, excluding impacts and other mechanical and dynamic effects, both on the profile and on the wheels of the loader.



Application

- Suitable for solving a wide range of tasks inside the building for any load. It can be used outside the building provided that it is made of stainless steel or when protective coatings are used.
- Suitable for working with all types of vehicles.
- Suitable for joints up to 20 mm wide.