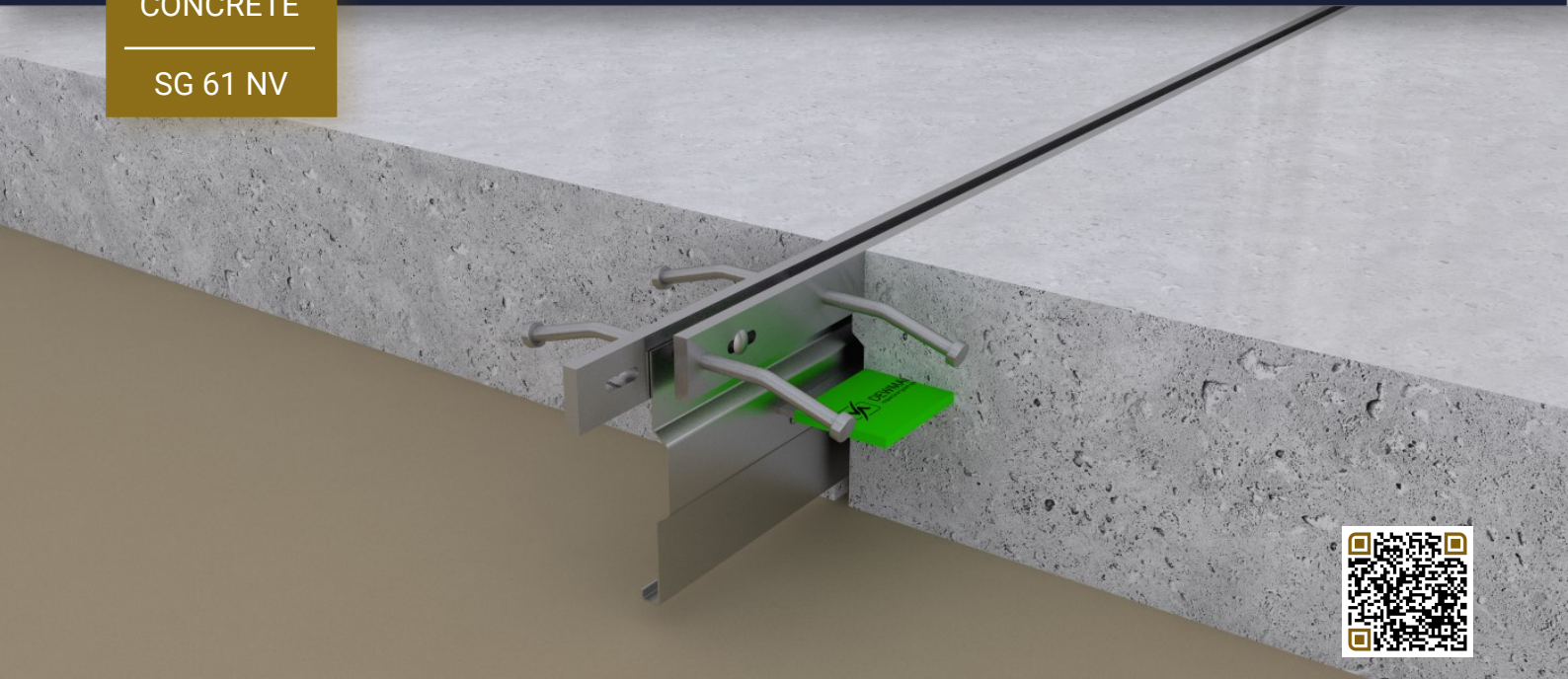




DEWMARK
CONCRETE

SG 61 NV



Description

The modernized classic straight profile for concreting work joints sets as a permanent formwork and limiting concrete pouring maps.

The new design without welds (except for anchors) provides unsurpassed accuracy by eliminating the negative effects of high temperatures at the welds and the possible violation of the profile geometry.

Perfectly reinforces the edges of concrete on both sides of the shrink joint, as well as serves as a reliable system for transferring loads during storage and when equipment passes through the joint.

The unique centering system of the upper strips, along with the load transfer system, allows two adjacent slabs to be in the same plane with a shrink joint opening up to 30 mm.

The profiles are designed for loads according to TR 34 4th edition and Eurocode 2: EN 1992-1-1.

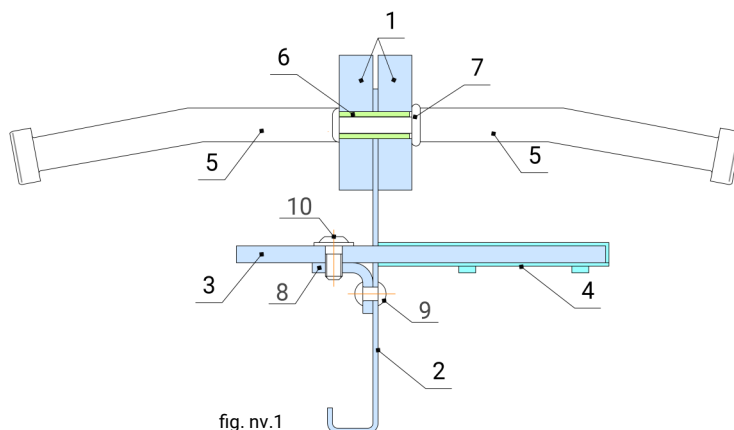


fig. nv.1

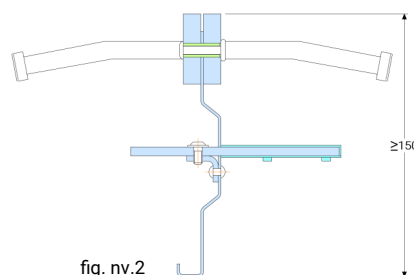


fig. nv.2

Accessories (specification)

Tab. nv.1

- | | |
|----|--|
| 1 | Cold rolled steel strips 10x40 mm ¹ |
| 2 | Profile body (2 types) ² |
| 3 | Load transfer dowel (3 types) ³ |
| 4 | Dowel steel casing |
| 5 | Anchor stud SD (Nelson) |
| 6 | Steel pin |
| 7 | Rivet fasteners |
| 8 | Dowel mounting bracket |
| 9 | Steel rivet |
| 10 | Fixing screw |

¹ On request, hot-dip galvanized strips and strips made of AISI 304 stainless steel.

² The profile with a height from 150 mm has an corrugated body for structural rigidity when pouring concrete (see fig.nv.2).

³ The thickness of the dowels, depending on the loads, 5 or 8 mm (see Calculation of loads).

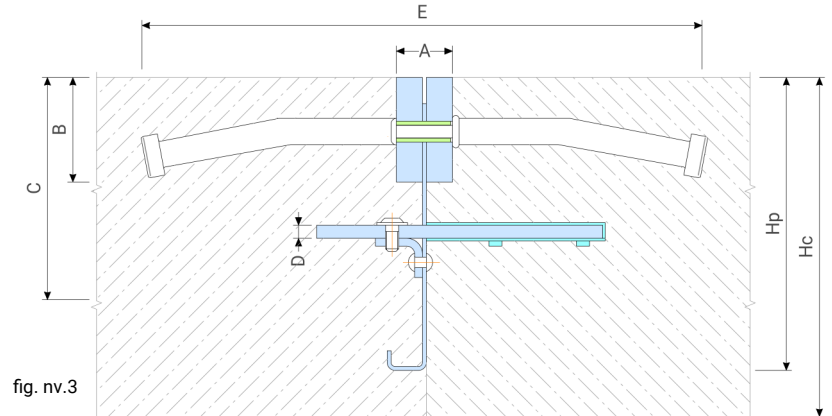
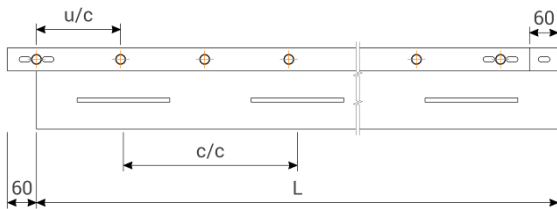


fig. nv.3

Dimensions (for profiles from 90 to 130 mm)

Tab. nv.2

Profile	H _p (mm)	H _c (mm)	A (mm)	B (mm)	C (mm)	D ¹ (mm)	E (mm)	u/c ² (mm)	c/c ³ (mm)	L (mm)
SG 61-20/90-... ¹ /NV	90	100-110	21,5	40	60	5 / 8 / 8XL	220	230	600 / 500	3000
SG 61-20/110-... ¹ /NV	110	115-125	21,5	40	60	5 / 8 / 8XL	220	230	600 / 500	3000
SG 61-20/130-... ¹ /NV	130	135-150	21,5	40	70	5 / 8 / 8XL	220	230	600 / 500	3000

¹ ... – Dowel thickness and type. Selected depending on the loads (see Calculation of loads).

² u/c – Distance between anchor studs.

³ c/c – Distance between dowel centers (600 mm for 60/OP-5 and 60/OP8, 500 mm for 60/OP8XL – see Calculation of loads).

! For heights from 150 mm, the profile body is made with a corrugated ledge, which ensures the rigidity of the structure along its length.

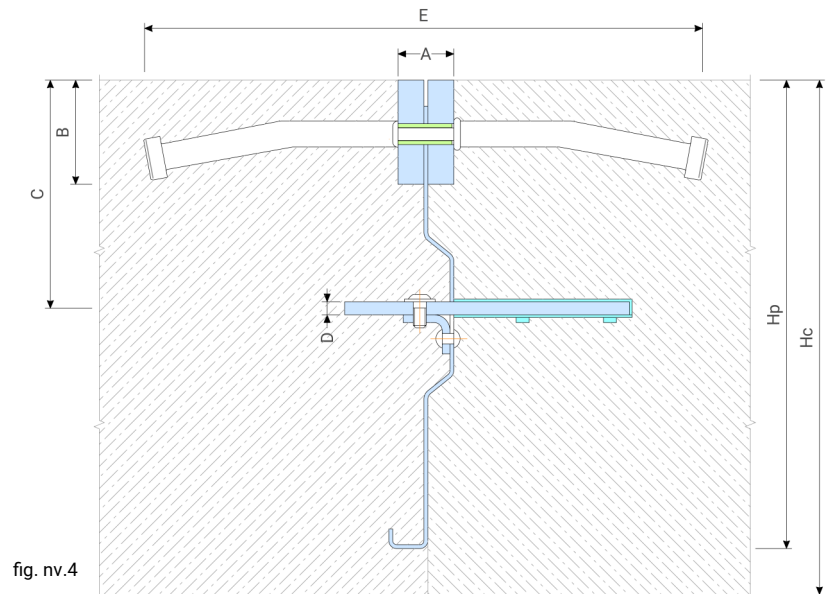
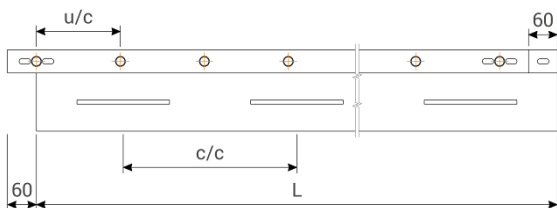


fig. nv.4

Dimensions (for profiles from 150 to 280 mm⁴)

Tab. nv.3

Profile	H _p (mm)	H _c (mm)	A (mm)	B (mm)	C (mm)	D ¹ (mm)	E (mm)	u/c ² (mm)	c/c ³ (mm)	L (mm)
SG 61-20/150-... ¹ /NV	150	155-180	21,5	40	80	5 / 8 / 8XL	220	230	600 / 500	3000
SG 61-20/180-... ¹ /NV	180	185-210	21,5	40	90	5 / 8 / 8XL	220	230	600 / 500	3000
SG 61-20/210-... ¹ /NV	210	215-240	21,5	40	100	5 / 8 / 8XL	220	230	600 / 500	3000
SG 61-20/240-... ¹ /NV	240	245-275	21,5	40	120	5 / 8 / 8XL	220	230	600 / 500	3000
SG 61-20/280-... ¹ /NV	280	285-300	21,5	40	140	5 / 8 / 8XL	220	230	600 / 500	3000

¹ ... – Dowel thickness 5 or 8 mm. Selected depending on the loads (see Calculation of loads).

² u/c – Distance between anchor studs.

³ c/c – Distance between dowel centers (600 mm for 60/OP-5 and 60/OP8, 500 mm for 60/OP8XL – see Calculation of loads).

⁴ – Profiles can be produced to any height on request.

PARTS MATERIALS AND MANUFACTURING METHODS (as per specification)

Tab. nv.4

Profile	Nº	Component	Steel grade	EN	Manufacturing method
 <p>fig. nv.5</p>		Steel strips 10x40	S235J0	10051	Laser cutting, rolling
	1	+ hot-dip galvanized HDG* + steel strips AISI 304*	S235J0 1.4016	10051 10088-2	+ galvanized according EN 1461
	2	Anchor studs SD	S235J0	13918:2017	Cold heading
	3	Profile body	DC01	10130:2006	Stamping, bending
	4	Dowel + hot-dip galvanized HDG* + steel strips AISI 304*	S355J0 S355J0 1.4016	10025-2 10025-2 10088-2	Laser cutting + galvanized according EN 1461 Laser cutting
5	Dowel casing	DC01	10130:2006	Stamping, bending	

* – On request, the profiles can be fully or partially produced from corrosion-resistant steels: hot-dip galvanized (HDG) structural steels or stainless (AISI 304) steels. In this case, special designations are added to the profiles:

For HDG

HDG – the upper strips with anchors are galvanized;
 HHDG – the upper strips with anchors + dowels are galvanized;
 FHDG – the profile is fully galvanized.

For AISI 304

SS – upper strips made of AISI 304 steel;
 HSS – upper strips + dowels made of AISI 304 steel;
 FSS – profile made entirely of AISI 304 steel (including anchors).

MANUFACTURING TOLERANCES

Tab. nv.5

Length	±0,1 mm	Height	±1 mm	Straightness	±1 mm/m	Curl	<0,5°/m
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ADDITIONAL

Foam material

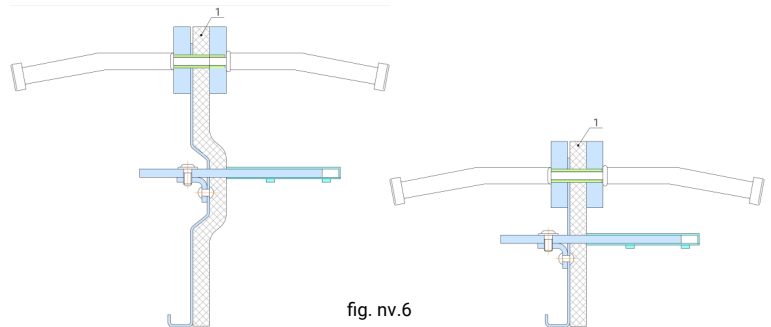
The profile can be supplied with foam (closed-cell polyethylene foam) (1).

This material is preferred when floor slabs are poured in cold weather or used in cold stores where significant temperature movements are possible.

Thickness 5 / 10 / 15 mm.

The profile has the designation: +Foam-10 (where the last digit indicates the thickness of the foam material).

Example: Dewmark Concrete SG 61-20/180-5/NV+Foam-10



Connectors

For ease of installation and installation, special connectors are produced for the intersection of profiles²:

L- connector (SG 61-L/h¹)

T- connector (SG 61-T/h¹)

X- connector (SG 61-X/h¹)

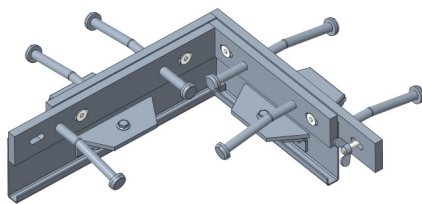


fig. nv.7

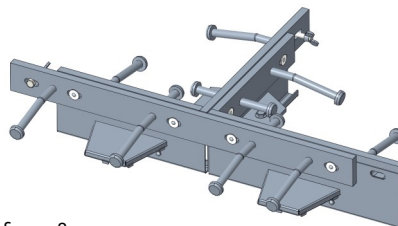


fig. nv.8

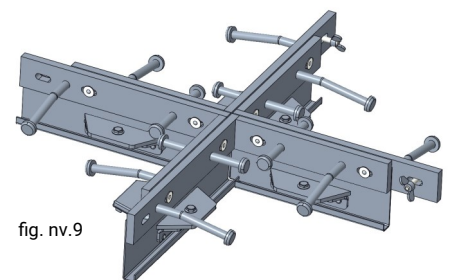


fig. nv.9

¹ – h – height of profile.

² – There are also connectors for intersections between profiles SG 61 and SG 62 (ask for details).

BENEFITS

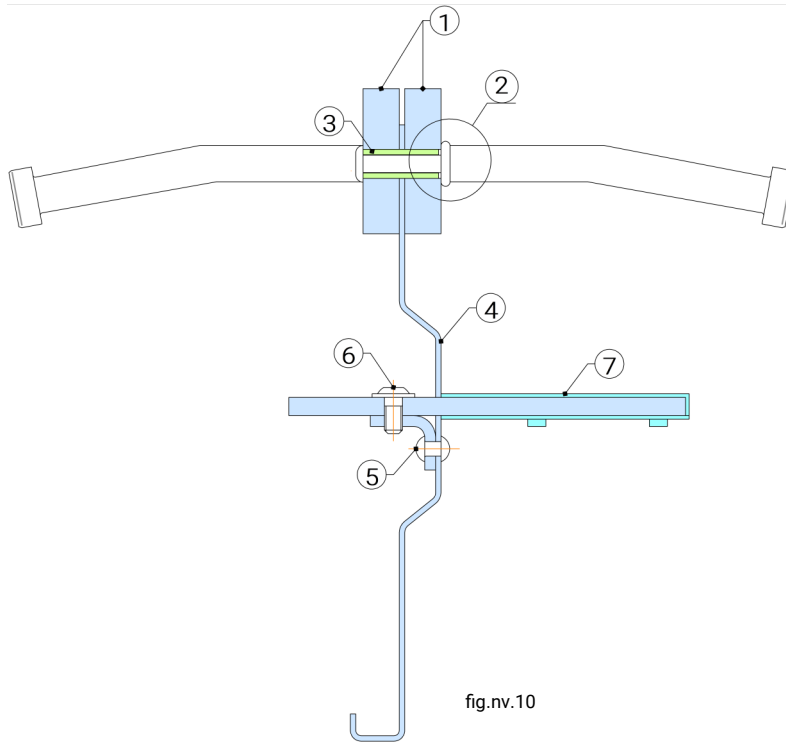


fig.nv.10

1. Protection of concrete edges against chipping under loads due to the use of cold-rolled steel strips 10 mm thick.
2. Welding of SD anchor studs using Arc Drawn technology (EN ISO 4063 process 783).

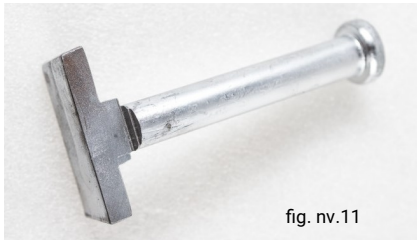


fig. nv.11

3. The unique system of aligning the top strips by means of spacer steel sleeves allows for differences between them not exceeding 0.1 mm.
4. For heights from 150 mm, the profile body is made with a corrugated ledge, which ensures the rigidity of the structure along its length.
5. Assembling the base of the profile without using welding allows you to exclude the smallest deformations affecting the geometry of the profile and its individual parts.
 - The body of the profile is always parallel to the upper stripes;
 - The dowel is strictly perpendicular to the body of the profile (90°).
6. The profile can be supplied half-assembled, without screwed on base plates, which allows to reduce the weight of the profile during installation and simplify installation. In this case, the fastening of the base plates with covers to the brackets occurs in one operation of mounting the fixing screw.

7. The use of stamped steel casing increases the rigidity of the load transfer system by using the dowel and casing materials:
 - Uniformity of materials and precision of manufacture eliminates backlash between parts.
 - The modulus of elasticity of steel is 210 N/mm², which excludes any possible punching of the casing body.



fig. nv.12

8. As a standard, the dowel allows to achieve the divergence of adjacent slabs (joint opening) at a distance of up to 25 mm. By using an increase in the thickness of the dowel and a decrease in the pitch of the dowels, it is possible to achieve a change in the value of the joint opening up to 40 mm without loss of bearing capacity.