

NVS Connecting loop

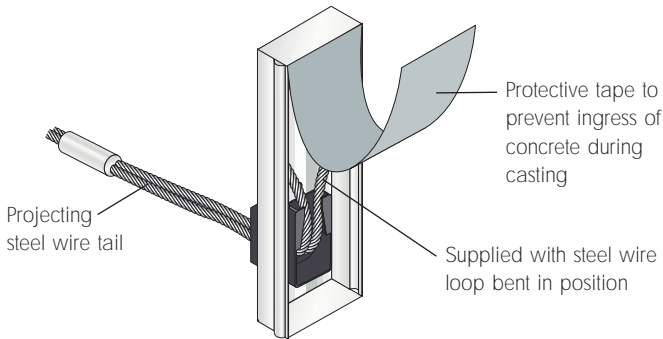
Introduction

The Halfen NVS Connecting loop system consists of a steel case acting as a void former or casing and holding a steel wire loop.

The system is designed to form connections between precast panels with recesses, as shown. It is used in conjunction with stitching reinforcing rods and insitu concrete. For drained joints please consult Halfen Ltd.

The use of a flexible wire means that the dimensions of the insitu stitch can be kept to a minimum.

These pages describe independent loops in short casings. For continuous casings with a number of loops please call Halfen Ltd.



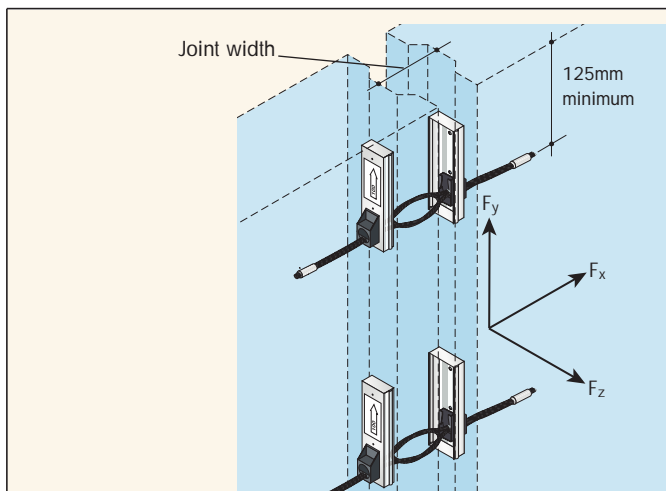
Description

The galvanised steel wire rope is supplied pre-bent in the steel void former, which is sealed with a protective tape to prevent it filling with concrete during casting. The casing of the void former is constructed of pre-galvanised steel sheet and is punched with two nail holes for fixing it to the formwork.

The projecting wire tail provides anchorage when cast into the precast unit. The wire tails are available in a range of projections – see table for details.

Fire

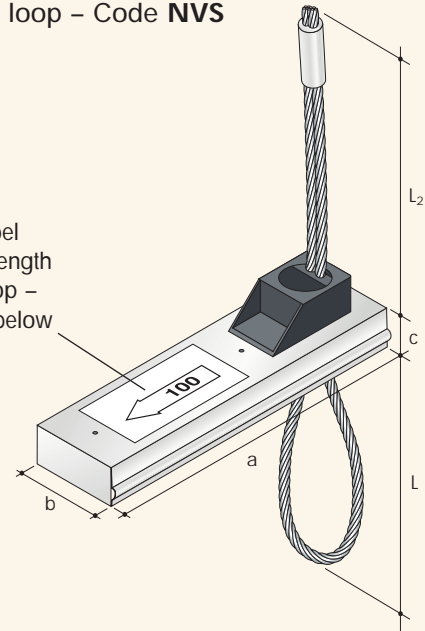
Cover to the reinforcement and wire loop can be selected by the designer for suitable levels of fire resistance. This dictates panel thickness.



Size and availability

Connecting loop – Code NVS

Colour label indicates length of wire loop – see table below



Size	Order code	Dimensions					Colour code
		L	a	b	c	L_2	
80	NVS080	70	160	50	20	210	Yellow
100	NVS100	90	160	50	20	210	White
120	NVS120	110	160	50	20	210	Orange
140	NVS140	130	190	50	20	210	Blue

Selection

The number of loops per joint depends on the loadings below.

Allowable loads F_x or F_z after applying a safety factor on test of approx 1.8 (combined loads should not exceed the figure in the chart)

Number of loops per joint	kN	Loop spacing	
		mm	kN/m
1	14	1000	14
2	28	500	28
3	42	330	42
4	56	250	56
5	70	200	70

Permissible lateral force F_y

Joint width mm	kN					kN/m			
	Number of loops					Loop spacing (mm)			
	1	2	3	4	5	200	250	500	1000
80	19.6	39.2	58.8	78.4	98.0	98.0	78.4	39.2	19.6
100	18.3	36.6	54.9	73.2	91.5	91.5	73.2	36.5	18.3
120	17.0	34.0	51.0	68.0	85.0	85.0	68.0	34.0	17.0
140	15.0	30.0	45.0	60.0	75.0	75.0	60.0	30.0	15.0