Swiftrack® channel support system

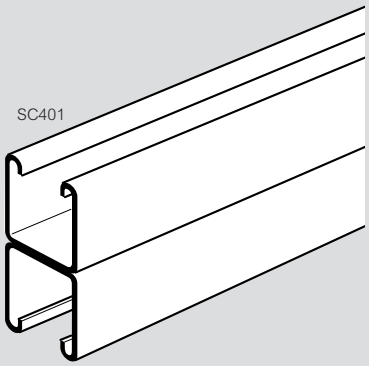
back-to-back channels, section properties and assembly

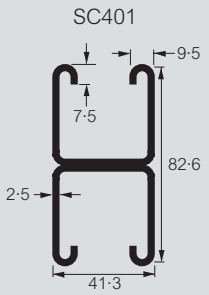
Back-to-back channels

Back to back channels are available in 3 and 6 m lengths, supplied singly

Back-to-back channels are formed by spot welding together two finished single channels at 150 mm centres under controlled conditions to BS EN 1993-1-3 : 2006. All welds and spot welds are suitably protected

Dimensions and weights





	Cat. Nos. 3 m long	6 m long	Weight (kg) per m
Back-to-back channel	SC401 3M	SC401 6M	5·3

Cat. Nos. given are for standard finish back-to-back channel
For alternative finishes see below

Weights

All weights given are in kilograms (kg) based on nominal thickness and are for pre-galvanised finish

For weights in alternative finishes contact us on +44 (0) 345 605 4333

Finishes and standards

Standard finish :

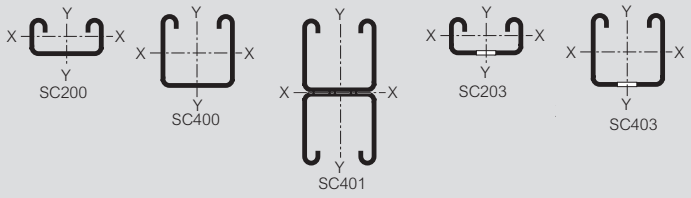
Pre-galvanised mild steel to BS EN 10346 : 2009 Grade S250GD + Z275 finish (structural grade)

Alternative finishes :

G Hot dip galvanised after manufacture to BS EN ISO 1461

S Stainless steel to BS EN 10088 : Grade 1.4404 (equivalent to S316L31)

Section properties



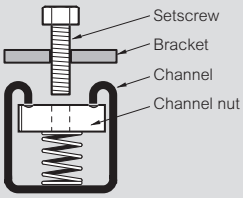
Cat. Nos.	Wt (kg/m)	A (mm^2)	I^{xx} (mm^4)	Z^{top} (min mm^3)	Z^{bottom} (max mm^3)	r^{xx} (mm)	I^{yy} (mm^4)	r^{yy} (mm)
SC200	1·8	219	10 779	862	1 330	7·1	49 776	15·1
SC203	1·6	219	8 960	794	961	6·4	49 318	15·0
SC400	2·6	322	67 157	2 857	3 772	14·5	88 783	16·6
SC401	5·3	645	339 300	8 215	8 215	23·0	177 566	16·6
SC403	2·4	322	57 221	2 645	2 909	13·3	88 325	16·5

Wt = weight of section (kg/m)
A = cross-sectional area (mm^2)
I^{xx} = moment of inertia = second moment of area (mm^4)
Z^{top} = section modulus about xx axis (mm^3)
Z^{bottom} = section modulus about xx axis (mm^3)
r^{xx} = radius of gyration (mm)
I^{yy} = moment of inertia = second moment of area (mm^4)
r^{yy} = radius of gyration (mm)
xx = about xx axis
yy = about yy axis

Assembly

Fasteners for single (plain and slotted) and back-to-back channel supplied separately

Fixing brackets to Swiftrack channel



Standard fasteners for Swiftrack are high tensile hexagon head setscrews to BS 3692-8.8, these being zinc plated to BS 3382 : Part 2

Most standard Swiftrack brackets are made from 5 or 6 mm gauge steel

The use of too long a fastener will prevent proper tightening because the bolt end will foul the bottom of the channel before the head tightens down on the fitting

When fastening brackets other than Swiftrack, longer bolts may be required if the bracket thickness is greater than 8 mm

Fixing tray to Swiftrack channel

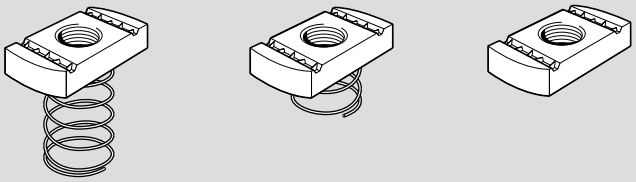
Use M10 x 16 mm high tensile hexagon head setscrews

Channel nuts

Channel nuts are for use with all channels and are supplied in packs of 100. For maximum load capacity M12 channel nuts should always be used

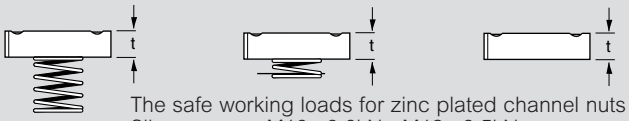
Channel nuts conform to BS 6946

Long spring | Short spring | No spring



Dimensions and weights

Long spring | Short spring | No spring



The safe working loads for zinc plated channel nuts only

Slip	M10 : 3·0kN	M12 : 3·5kN
Pullout	M10 : 6·0kN	M12 : 8·0kN
Safety Factor	3 when tested to BS 6946	
Torque	Tightened to M10 : 5·5 kgf.m (40ftlb)	
		M12 : 7·0 kgf.m (50ftlb)

	Cat. Nos.	Thread size	Depth of channel	t	Weight (kg) per 100
Long spring	PN061	M6	41	6·0	3·0
	PN081	M8	41	6·0	3·0
	PN101	M10	41	8·0	3·7
	PN121	M12	41	10·0	4·5
Short spring	PN062	M6	21	6·0	2·9
	PN082	M8	21	6·0	2·9
	PN102	M10	21	8·0	3·6
	PN122	M12	21	8·0	4·4
No spring	PN060	M6	ALL	6·0	2·8
	PN080	M8	ALL	6·0	2·8
	PN100	M10	ALL	8·0	3·5
	PN120	M12	ALL	10·0	4·3

Weights

All weights given are in kilograms (kg) based on nominal thickness, and are for zinc plated finish. For weights in stainless steel finish contact us on +44 (0) 345 605 4333

Note

Cat. Nos. given are for standard finish channel nuts, for alternative finish, see below

Finishes and standards

Standard finish

Zinc plated to BS 3382

G Hot dip galvanised after manufacture to BS EN ISO 1461

Alternative finish

S Stainless steel to BS EN 10088 : Grade 1.4404 (equivalent to S316L31)

All dimensions (mm) are nominal