

Metsec SFS relies on high quality, purpose designed components. The design of sections draws on Metsec's extensive cold rolling knowledge to maximise strength to weight ratios. Stud/joist sections and channel runners are manufactured from pre-hot dipped galvanised steel G275 coating, guaranteed yield strength 390 N/mm² and Quality Assured to BS EN ISO 9002:1994. Sections can be supplied in lengths up to 16m to minimise the need for cutting and splicing on site. In practice, maximum lengths will be dictated by transportation and site handling considerations.

Joist/stud sections

These form the main support of the structure and are used primarily as wall studs and floor joists. Joist/stud sections are also used in combination with channel runners to create lintels and cills at door and window openings.

Channel runners

Runners are used to form the horizontal base, intermediate and capping sections of the stud walls. The depth of runner used will depend on its function.

Bracing

Flat strap section is used as lateral and diagonal bracing to resist racking forces.

METSEC SFS SECTION DIMENSIONS	SECTION REF	WEIGHT Kg/m	D mm	B mm	L mm	T mm	Diagram	
							STUD JOIST SECTION	CHANNEL RUNNER
JOIST/STUD SECTION	70M15 ¹	1.83	70	35	10	1.5		
	100M12	2.14	100	54	15	1.2		
	100M15	2.67	100	55	15	1.5		
	100M20	3.56	100	56	15	2.0		
	150M12	2.64	150	57	13	1.2		
	150M15	3.37	150	60	13	1.5		
	150M20	4.47	150	60	13	2.0		
	200M12	3.13	200	57	13	1.2		
	200M15	4.18	200	69	14	1.5		
	200M20	5.56	200	69	14	2.0		
	250M16	5.11	250	68	14	1.6		
	250M20	6.38	250	68	14	2.0		
	300M20	6.97	300	60	15	2.0		
	300M29	10.1	300	62	15	2.9		
	CHANNEL RUNNER	74M12	1.47	74	40	0		
74M20		3.26	74	65	0	2.0		
104M12		2.14	104	62	0	1.2		
104M15		2.67	104	63	0	1.5		
104M20		3.56	104	63	0	2.0		
154M12		2.64	154	63	0	1.2		
154M20		4.47	154	66	0	2.0		
204M12		3.13	204	63	0	1.2		
204M20		5.56	204	75	0	2.0		
254M12		3.13	254	38	0	1.2		
254M20		6.38	254	75	0	2.0		
304M16		5.11	304	50	0	1.6		
304M20		6.97	304	68	0	2.0		
306M29		10.1	306	68	0	2.9		

¹ Stud section only

METSEC SFS SECTION PROPERTIES	SECTION REF	Area cm ²	WEIGHT Kg/m	Cy cm	Ixx cm ⁴	Iyy cm ⁴	Zxx cm ³	Zxc cm ³	rxx cm	ryy cm	Po N/mm ²	Q	es cm
JOIST/STUD SECTION	70M15 ¹	2.31	1.83	1.21	18.3	3.92	5.22	5.21	2.81	1.30	390	0.932	0.08
	100M12	2.80	2.14	1.91	46.8	11.86	9.36	8.29	4.09	2.06	369	0.665	0.42
	100M15	3.51	2.67	1.95	58.5	15.21	11.71	11.16	4.08	2.08	383	0.786	0.34
	100M20	4.68	3.56	1.99	77.5	20.57	15.50	15.41	4.07	2.10	390	0.909	0.17
	150M12	3.42	2.64	1.64	121.0	14.65	16.13	14.39	5.94	2.07	332	0.544	0.75
	150M15	4.35	3.37	1.75	154.8	20.40	20.64	19.37	5.97	2.17	354	0.638	0.67
	150M20	5.76	4.47	1.75	203.3	26.45	27.11	26.80	5.94	2.14	376	0.757	0.49
	200M12	4.02	3.13	1.40	236.8	15.92	23.68	21.83	7.67	1.99	296	0.468	0.96
	200M15	5.40	4.18	1.84	331.4	32.09	33.14	30.20	7.83	2.44	325	0.530	0.97
	200M20	7.16	5.56	1.84	436.6	41.75	43.66	42.58	7.81	2.41	354	0.650	0.80
	250M16	6.52	5.11	1.59	590.6	34.95	47.25	44.90	9.52	2.31	305	0.496	1.12
	250M20	8.12	6.38	1.60	732.0	42.82	58.56	57.61	9.49	2.30	332	0.575	0.99
	300M20	8.84	6.97	1.23	1069.1	33.60	71.28	71.02	11.00	1.95	310	0.513	1.03
	300M29	12.83	10.1	1.30	1548.3	50.35	103.22	103.21	10.99	1.98	351	0.603	0.76
	CHANNEL RUNNER	74M12	1.82	1.47	1.08	16.4	2.99	4.43	3.15	3.00	1.28	388	0.533
74M20		4.00	3.26	2.15	39.4	18.18	10.65	7.39	3.14	2.13	390	0.682	-1.11
104M12		2.71	2.14	1.73	49.8	10.96	9.58	5.82	4.29	2.01	366	0.387	-1.06
104M15		3.41	2.67	1.78	62.5	14.20	12.02	7.76	4.28	2.04	381	0.464	-1.01
104M20		4.52	3.56	1.80	82.2	18.70	15.81	11.40	4.26	2.03	390	0.600	-0.87
154M12		3.33	2.64	1.46	123.1	12.88	15.99	10.47	6.08	1.97	329	0.305	-0.88
154M20		5.64	4.47	1.60	208.7	23.96	27.10	19.89	6.08	2.06	374	0.460	-0.78
204M12		3.93	3.13	1.25	237.4	13.88	23.27	16.20	7.77	1.88	293	0.253	-0.73
204M20		7.00	5.56	1.66	439.3	36.89	43.07	31.10	7.92	2.30	352	0.369	-0.87
254M12		3.93	3.13	0.49	305.0	3.47	24.01	20.30	8.81	0.94	256	0.243	-0.10
254M20		8.00	6.38	1.47	736.6	39.04	58.00	43.33	9.60	2.21	331	0.322	-0.74
304M16		6.41	5.11	0.68	728.6	10.36	47.94	40.14	10.66	1.27	275	0.263	-0.17
304M20		8.72	6.97	1.13	1070.1	30.86	70.40	55.90	11.08	1.88	309	0.299	-0.45
306M29		12.65	10.1	1.16	1559.5	43.94	101.93	87.97	11.10	1.86	349	0.409	-0.28

Notes to tables:

- Properties are for single 'C' studs and track sections
- All dimensions are in mm. The first 2/3 digits indicate the depth of the section
- Service slots measuring 100mm x 40mm, (60mm x 30mm in the 70mm stud), can be provided on the centre line of the web, 600mm from the end of each stud if required.
- es = Shift in neutral axis due to axial load. Positive value means axis shifts away from web.