

SMART LINTELS™ & SMART T-BARS™

SPECIFICATIONS & LOAD TABLES



NETWORK
STEEL

Smart Angle™

Australian designed light weight lintels used for supporting brickwork over openings.

Features are:

- Hot Dip Galvanised to AS/NZ 4680:2006
- R3 Durability Rating in accordance with AS/NZS 2699:2002
- Load Tested in accordance with AS/NZS 1170.1:2002
- Light Weight in comparison to traditional lintels.



Smart T-Bar™

Australian designed T-Bars used for supporting brickwork over openings.

Features are:

- Hot Dip Galvanised to AS/NZ 4680:2006
- R3 Durability Rating in accordance with AS/NZS 2699:2002
- Load Tested in accordance with AS/NZS 1170.1:2002
- Fully welded and not reliant upon composite action.



Smart Flat Bar™

Flat bars are used for supporting brickwork over openings.

Features are:

- Hot Dip Galvanised to AS/NZ 4680:2006
- R3 Durability Rating in accordance with AS/NZS 2699:2002
- Available in a range of sizes.



Smart Angle™

At Network Steel, we can supply you a range of shelf angles to suite your project requirements.

- Large range of sizes – i.e. 150x100x10, 150x150x10, 125x125x10 etc.
- Hot Dip Galvanised
- Variable hole sizes and positions available
- Mitre cuts and welding available





SMART LINTELS™

DIMENSIONS			SECTION PROPERTIES					
Designation	Mass per metre	Gross Section Area	About X-axis		About Y-axis		About N-axis	About P-axis
		Ag	Ix	Zx	Iy	Zy	In	Ip
	kg/m	mm ²	10 ⁶ mm ⁴	10 ³ mm ³	10 ⁶ mm ⁴	10 ³ mm ³	10 ⁶ mm ⁴	10 ⁶ mm ⁴
100 x 100 x 6.0	8.19	1164	1.83	25.84	0.46	11.97	1.14	1.14
150 x 100 x 6.0	10.53	1464	4.05	39.4	0.72	13.39	3.49	1.29

SMART LINTELS™ - SAFE LOAD TABLES

Angle 100x100x6.0 9.42kg/m	Span(mm)	900	1200	1500	1800	2100	2400	2700
	Bar Length (mm)	1200	1500	1800	2100	2400	2700	3000
	UDL (kg/m)	2550	1520	995	601	390	260	182
	Point Load (kg)	1350	1035	805	655	535	415	325

Angle 150x100x6.0 11.78kg/m	Span(mm)	1800	2100	2400	2700	3000	3300	3600	4000
	Bar Length (mm)	2100	2400	2700	3000	3300	3600	3900	4300
	UDL (kg/m)	1320	945	705	525	375	275	210	155
	Point Load (kg)	1301	1050	875	758	645	555	495	415

Note:

1. a minimum of three courses of bricks must be laid above the lintel beam.
2. Load limited by deflection of 1/600 span.
3. Yielding stress $f_y=235$ Mpa, tensile strength $f_u=375$ Mpa for both legs.
4. Calculate bar length is span + 150mm each end



SMART T-BARS™

DIMENSIONS			SECTION PROPERTIES		
Designation Flange=Horizontal (H) mm Web=Vertical (V) mm	Mass per metre	Gross Section Area	About X-axis		About Y-axis
		Ag	Ix	Zx	Iy
	kg/m	mm ²	10 ⁶ mm ⁴	10 ³ mm ³	10 ⁶ mm ⁴
200x6(H) + 200x6(V)	18.84	2400	10.4	32	4.003
200x6(H) + 200x8(V)	21.98	2800	12.6	72	4.009
200x6(H) + 200x10(V)	25.12	3200	14.6	115	4.017
200x10(H) + 200x10(V)	31.4	4000	17.7	127	6.69

SMART T-BARS™ - SAFE LOAD TABLES

200x6 flange 200x6 web 18.84kg/m	Span(mm)	1800	2100	2400	2700	3000	3300
	Bar Length (mm)	2100	2400	2700	3000	3300	3600
	UDL (kg/m)	1015	750	585	468	375	310
	Point Load (kg)	995	843	745	668	600	535

200x6 flange 200x8 web 21.98kg/m	Span(mm)	2400	2700	3000	3300	3600	3900
	Bar Length (mm)	2700	3000	3300	3600	3900	4200
	UDL (kg/m)	1350	1065	870	725	605	515
	Point Load (kg)	1715	1525	1375	1255	1135	1050

200x6 flange 200x10 web 25.12kg/m	Span(mm)	3600	3900	4200	4500	4800	5100	5400	5700
	Bar Length (mm)	3900	4200	4500	4800	5100	5400	5700	6000
	UDL (kg/m)	825	650	515	410	345	280	230	195
	Point Load (kg)	1825	1635	1415	1210	1065	915	805	715

CONTINUE OVER PAGE FOR 200X10 + 200X10 LOAD TABLES





200x10 flange 200x10 web 31.4kg/m	Span(mm)	3600	3900	4200	4500	4800	5100	5400
	Bar Length (mm)	3900	4200	4500	4800	5100	5400	5700
	UDL (kg/m)	980	828	703	580	480	385	320
	Point Load (kg)	2015	1865	1685	1475	1280	1125	1075
	Span(mm)	5700	6000	6300	6600	6900	7200	
	Bar Length (mm)	6000	6300	6600	6900	7200	7500	
	UDL (kg/m)	265	228	190	165	140	116	
	Point Load (kg)	990	865	775	685	620	550	

Notes on Safe Load Tables for Smart T-Bar™

- The Smart T-Bar™ is imported from China, material used is Q235B, Q235 material is in accordance with PRC standard GB 700(previous version GB700-79 part A3 & C3), and here Q stands for yielding. According to PRC National Standard GB700-88, the minimum yielding point is 235Mpa for thicknesses less than 17mm, tensile strength is between 375-400MPa, E=200~210 GPa
- The Smart T-Bar™ is simply supported at both ends.
- The Smart T-Bar™ is loaded such that the load acts vertically and equally on both sides of the web.
- The Smart T-Bar™ is considered as being laterally unrestrained for the full span length.
- UDL loads are constant along the length of the bar.
- Point loads act at mid-span.
- 150mm minimum bearing support on to brickwork.
- Hot-dip galvanising to AS / NZS 4680:2006.
- Loads are in accordance with AS / NZS 1170.1:2002.

Notes on Safe Load Tables for Smart Lintels™

- The Smart Lintels™ are imported from China, material used is Q235B, and here Q stands for yielding. According to PRC National Standard GB700-88(previous version GB700-79 part A3 & C3), the minimum yielding point is 235Mpa for thicknesses less than 17mm, tensile strength is between 375-400MPa.
- The Smart Lintels™ are simply supported at both ends.
- The Smart Lintels™ loaded such that the load acts vertically and equally on both sides of the web.
- Loads given are total (allowable) loads including lintel and brickwork.
- UDL loads are constant along the length of the bar.
- Point loads act at mid-span.
- 150mm minimum bearing support on to brickwork.
- Hot-dip galvanising to AS / NZS 4680:2006.
- Loads are in accordance with AS / NZS 1170.1:2002.

FOR MORE INFORMATION PLEASE CONTACT OUR OFFICE OR VISIT OUR WEBSITE

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