

Reinforcing steel products and installation

TECHNICAL DATA

Reinforcing & Mesh Solutions (RMS) supplies, cuts and bends reinforcing to the latest standards and adheres to regular and consistent quality checks to meet customer requirements

Standard Specifications

Bars are supplied in the following standard diameters, lengths and grades of steel:

- **High tensile steel (SANS 920:2011 - 450MPa)** denoted by the letter "Y", deformed bar in diameters: 8, 10, 12, 16, 20, 25, 32 and 40mm
- **Mild steel (SANS 920:2011 - 250MPa)** denoted by the letter "R", smooth bar in diameters: 8, 10, 12, 16, 20, 25, 32 and 40mm
- **Standard Lengths** available for both grades: 12m and 13m

Note: Special diameters, lengths and grades are available on request.



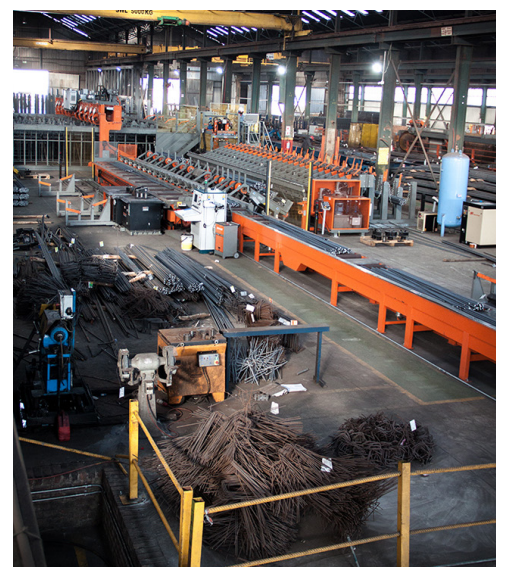
Design & Detailing Criteria

Bar spacing, Sectional areas per metre

Diam	Each	Spacing of bars (mm)											
mm	mm ²	50	75	80	100	125	150	175	200	225	250	275	300
8	50.3	1010	671	628	503	402	335	287	252	223	201	183	167
10	78.5	1570	1046	982	785	628	523	448	393	349	314	285	261
12	113	2260	1506	1414	1130	904	753	645	565	502	452	410	376
16	201	4020	2679	2512	2010	1608	1339	1148	1005	892	804	730	669
20	314	6280	4186	3927	3140	2512	2091	1793	1570	1394	1256	1140	1046
25	491	9820	6454	6136	4910	3928	3270	2804	2455	2180	1964	1782	1635
32	804	16100	10717	10050	8040	6432	5355	4591	4020	3570	3216	2919	2677
40	1260	25100	16796	15700	12600	10080	8392	7195	6300	5594	5040	4574	4198

Mass per square metre for bars in one direction at various spacings (kg/m²)

Diam	Area	Mass per metre (kg)	Bar Spacing (mm)									
mm	mm ²	kg/m	75	100	125	150	175	200	225	250	275	300
8	50.3	0.395	5.261	3.946	3.157	2.631	2.255	1.973	1.754	1.578	1.435	1.315
10	78.5	0.617	8.220	6.165	4.932	4.110	3.523	3.083	2.740	2.466	2.242	2.055
12	113	0.888	11.840	8.878	7.103	5.919	5.073	4.439	3.946	3.551	3.228	2.959
16	201	1.58	21.04	15.78	12.63	10.52	9.02	7.89	7.02	6.31	5.74	5.26
20	314	2.47	32.88	24.66	19.73	16.44	14.09	12.33	10.96	9.87	8.97	8.22
25	491	3.85	51.38	38.53	30.83	25.69	22.02	19.27	17.13	15.14	14.01	12.84
32	804	6.31	84.18	63.13	50.51	42.09	36.08	31.57	28.06	25.25	22.96	21.04
40	1260	9.86	131.50	98.65	78.92	65.76	56.37	49.32	43.84	39.46	35.87	32.88



Transportation

For transportation purposes bars should not exceed the following:



Bending Schedules

RMS will cut and bend the bar according to the bending schedules supplied by the customer. All bending schedules should refer to the standard Shape Codes as per the table shown:

SANS 282: Edition 6

NOTE 1 Use shape code 99 for all other shapes. A dimensioned sketch of the shape shall be given in the bending schedule.

NOTE 2 Radii of all bends are standard unless r is given in the bending schedule.

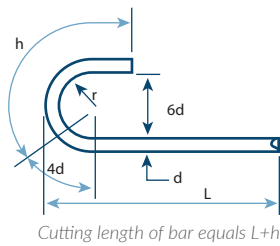
NOTE 3 All dimensions are external (outside) dimensions.

Cutting & Bending Tolerances

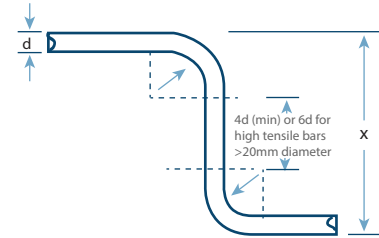
Critical Radii

Nominal size of bar (mm)	Critical radius (m)
8	2.5
10	3
12	3.5
16	5
20	7
25	17
32	43

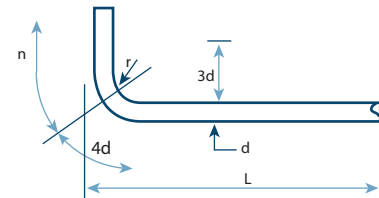
Hook Allowance



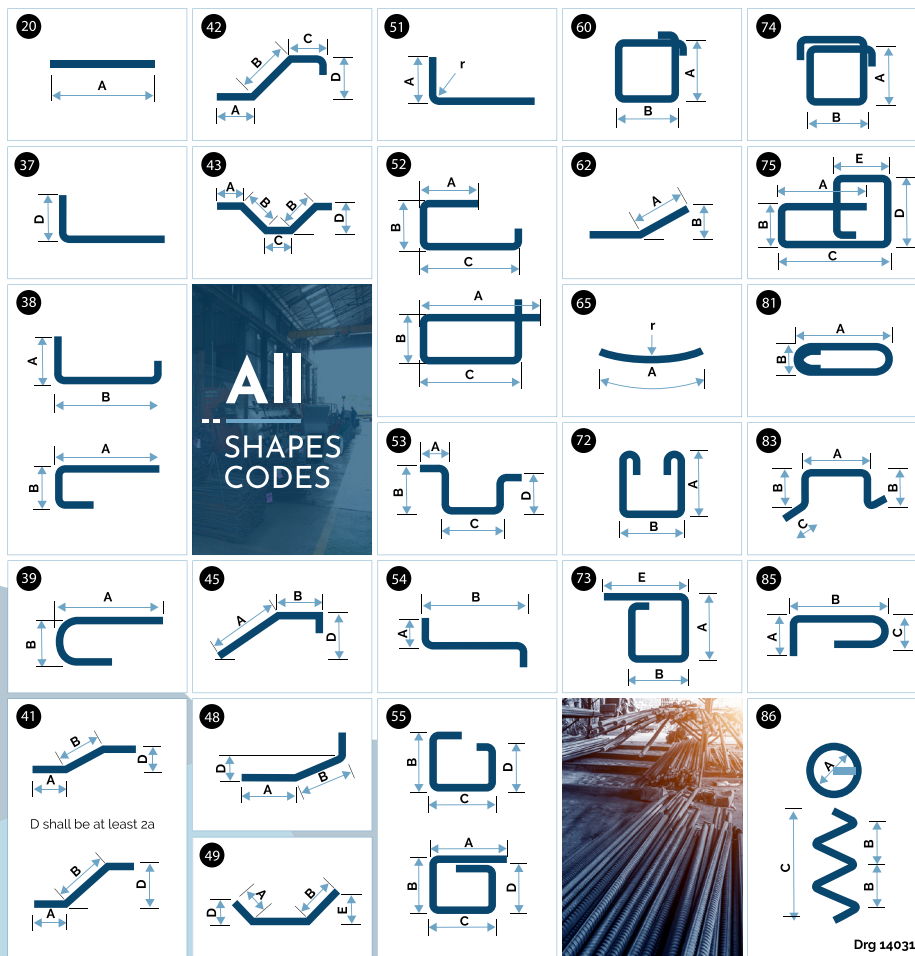
Example of bar with more than one bend



Bend Allowance



Nominal size of bar	d	6	8	10	12	16	20	25	32	40
Hook allowance	h	100	100	120	160	200	240	300	400	480
Bend allowance	n	100	100	100	100	120	140	180	220	260
Radius	r	18	24	30	36	48	60	75	96	120

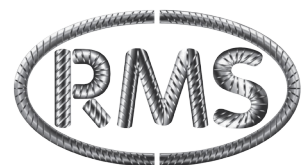


Shapes codes

Shape codes 32, 33, 34 and 35 have been removed as they are adequately covered by other shape codes. This brings SA codes in line with British standards.

Installation/Steel Fixing

Co-ordination of deliveries in conjunction with an agreed programme is undertaken by RMS competent team of contract management and fixing services to meet customer installation requirements.



Reinforcing & Mesh Solutions

For further information, please contact RMS Head Office

+27 11 878 6820

sales@rms-sa.co.za or visit www.rms-sa.co.za for branch details in your area

rms-sa

/company/rms-sa/