

ECONOMICAL REINFORCED CONCRETE CONSTRUCTION

SUGGESTION #2: REPEAT BAR SIZES AND LENGTHS

In many instances of reinforced concrete construction repetition can have far-reaching advantages and savings. Many bars can be a few centimetres longer or shorter while still meeting design requirements.

BENEFITS:

- **FABRICATION** – Fewer lengths of bars are fabricated, decreasing set-up time for shearing and bending operations. Bundling operations are also reduced and shipments are loaded with greater capacity.
- **PLACING** – Most repetition in the field reduces the learning curve and improves placing efficiency. Fewer bundles improve field sorting and storage.
- **RESULT** – In addition to a much more economical structure, repetition enhances a familiarity that discourages costly mistakes.

WATCH FOR!

The next in the series of **RSIO Case History Reports**. This one will feature CBC's Broadcast Centre Development Project.

Read how reinforced concrete plays an important role in vibration isolation.

RSIO PUBLICATIONS AND DESIGN AIDS

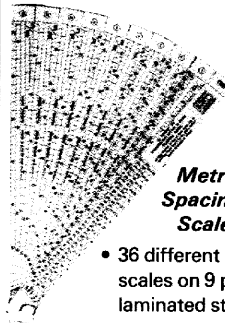
REINFORCING STEEL



MANUAL OF STANDARD PRACTICE

Manual of Standard Practice

- Industry Practices for Estimating Fabricating Detailing Placing
- Nationally accepted standard



Metric Spacing Scales

- 36 different scales on 9 plastic laminated strips

Bar Size	Bar Weight (kg/m)	Bar Weight (lb/ft)	Bar Area (mm ²)	Bar Area (in ²)
10	0.617	0.429	78.5	1.21
12	0.888	0.617	110	1.70
14	1.21	0.833	154	2.37
16	1.57	1.09	201	3.11
18	2.07	1.45	254	3.94
20	2.62	1.81	314	4.87
22	3.22	2.22	380	5.91
24	3.85	2.67	452	7.06
26	4.52	3.16	530	8.23
28	5.23	3.67	615	9.51
30	6.0	4.21	707	10.9
32	6.81	4.78	806	12.4
34	7.66	5.37	913	14.0
36	8.54	5.98	1027	15.7
38	9.46	6.61	1149	17.5
40	10.4	7.26	1279	19.4
42	11.4	7.93	1417	21.4
44	12.4	8.62	1563	23.5
46	13.5	9.33	1717	25.7
48	14.7	10.06	1879	28.0
50	16.0	10.81	2049	30.5
52	17.3	11.58	2227	33.1
54	18.7	12.37	2413	35.8
56	20.1	13.18	2607	38.6
58	21.6	14.01	2809	41.5
60	23.1	14.86	3019	44.5
62	24.7	15.73	3237	47.6
64	26.3	16.62	3463	50.8
66	28.0	17.53	3697	54.1
68	29.7	18.46	3939	57.5
70	31.5	19.41	4189	61.0
72	33.4	20.38	4447	64.6
74	35.3	21.37	4713	68.3
76	37.3	22.38	4987	72.1
78	39.3	23.41	5269	76.0
80	41.4	24.46	5559	80.0
82	43.5	25.53	5857	84.1
84	45.7	26.62	6163	88.3
86	47.9	27.73	6477	92.6
88	50.2	28.86	6799	97.0
90	52.6	30.01	7129	101.5
92	55.0	31.18	7467	106.1
94	57.5	32.37	7813	110.8
96	60.0	33.58	8167	115.6
98	62.6	34.81	8529	120.5
100	65.3	36.06	8899	125.5

Pocket Cards

- PC 2 - Rebar Identification - Mill Markings
- PC 3 - Bar information standard hooks and laps



Case History Reports

- Shopping Mall
- Parking Structure
- Office Tower
- Office Buildings
- SkyDome

• For ordering and costs contact the Institute."



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