

Pre-dimensioning **C140-Diamond**

Spun concrete columns

Inherent R90 fire resistance

N_{Rd} [kN] = 60% permanent load + 40% imposed load

Square section Other lengths and sections available upon request.

Length [m]	Column diameter [mm]					
	□ 300	□ 400	□ 450	□ 500	□ 600	□ 800
2.5	7,403	13,607	17,061	20,868	31,091	53,251
3.0	7,050	13,255	16,709	20,586	30,668	52,805
3.5	6,698	12,902	16,356	20,304	30,245	52,358
4.0	6,345	12,620	16,074	20,022	29,963	52,241
4.5	5,993	12,338	15,792	19,740	29,681	52,123
5.0	5,605	11,915	15,440	19,388	29,363	51,747
5.5	5,217	11,492	15,087	19,035	29,046	51,371
6.5	3,525	9,870	13,395	17,625	27,072	49,867
7.0	2,679	9,059	12,549	16,920	26,085	49,115

Circular section Lengths of up to 30 meter in one piece are possible.

Length [m]	Column diameter [mm]												
	∅ 200	∅ 250	∅ 300	∅ 350	∅ 400	∅ 450	∅ 500	∅ 550	∅ 600	∅ 700	∅ 800	∅ 950	∅ 1100
2.5	1,730	3,314	5,429	7,403	10,646	13,607	17,061	20,868	26,508	35,673	46,671	66,411	88,548
3.5	1,180	2,679	4,653	6,698	9,870	12,902	16,356	20,304	25,662	34,827	45,825	65,424	87,561
4.5	790	1,974	3,878	5,993	9,095	12,338	15,792	19,740	25,098	34,263	45,684	65,001	86,997
5.5	510	1,481	3,102	5,217	8,178	11,492	15,087	19,035	24,393	33,699	44,838	64,437	86,433
6.5	382	832	1,847	3,525	6,345	9,870	13,395	17,625	22,278	31,866	43,287	63,027	84,882
8.0	320	522	1,184	2,270	6,063	7,755	11,280	15,228	19,458	29,328	41,172	61,053	82,485
10.0	180	437	973	1,861	3,229	5,541	9,095	13,395	17,907	27,777	39,621	59,784	81,498
12.0	160	353	818	1,565	3,102	4,653	7,826	11,985	16,074	24,111	37,929	58,515	79,665
15.0	110	268	663	1,269	2,468	2,820	6,768	10,152	15,863	20,240	35,250	56,964	78,114

These results constitute only indicative information in order to pre-dimension the elements. They cannot be used as the definitive structural design. The definitive structural design is to be carried out by spannverbund. Without a previous contractual arrangement with spannverbund, we assume no liability derived from the misuse of these indications.

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