MACCHINE SPECIALI SRL

Via Remo Brambilla n. 2
20863 Concorezzo (MB)
Milano - Italy
Tel. ++ 39 039 6040490
Fax ++ 39 039 6049961
E-mail: macchinespeciali@macchinespeciali.it
Internet: http:/www.macchinespeciali.it

rif. 7-0000-2

Distribution of "N" equal elementary wires on concentric strands . Multiplying coefficient K of the diameter of the elementary wire to determine the final diameter.

Total number of cores N	Multiplying coefficient K	Number of cores for strands		
		Central	First	Second
2	2,00	2		
3	2,15	3		
4	2,41	4		
5	2,70	5		
6	3,00	6		
7	3,00	1	6	
8	3,31	1 + r	7	
9	3,62	1 + r	8	
10	4,00	2	8	
11	4,00	2 + r	9	
12	4,15	3	9	
13	4,41	3 + r	10	
14	4,41	4	10	
15	4,70	4 + r	11	
16	4,70	5	11	
17	5,00	5 + r	12	
18	5,00	6	12	
19	5,00	1	6	12

Empirical calculation of diameter of flexible copper strands

$$\text{ø flex. strand} = \sqrt{\text{n° wires} \times \text{ø single wire} \times K}$$

(Coefficient K = 1,15)

Calculation contained in Km of cable

$$\text{Content in Km} = \frac{\text{volume (dm}^3\text{)}}{\text{Ø cable}^2}$$

Parameters of calculation Compacting strands

1) $$\text{\% compacting} = \frac{\text{Section die}}{\text{Section gross strand}} = 0.72\%$$

2) $$\text{\% compacting} = \frac{\text{Section die}}{\text{Section net strand}} = 0.99\%$$

3) $$\text{\% compacting} = \frac{\text{Diameter die}}{\text{Diameter strand that result from the weight}} = 0.87\%$$