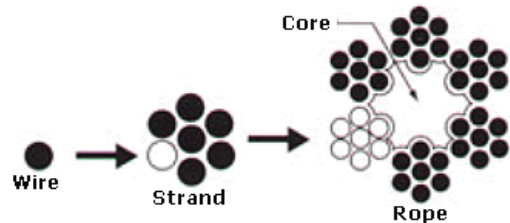


## Introduction to Wire Rope Slings

### 1.1 - Construction and specification

#### General information on wire ropes

In the above example, each individual wire is arranged around a central wire to form a 7-wire strand. Six of these strands are formed around a central core to make a wire rope. The rope is specified as 6x7 (6/1) – i.e. six strands each of seven wires.





The specification of a wire rope type – including the number of wires per strand, the number of strands, and the lay of the rope – is documented using a commonly accepted coding system, consisting of a number of abbreviations. This is easily demonstrated with a simple example. The rope shown in the figure "Wire rope construction" is designated thus: 6x19 FC RH OL FSWR.

- 6 - Number of strands that make up the rope
- 19 - Number of wires that make up each strand
- FC - Fibre core
- RH - Right hand lay
- OL - Ordinary lay
- FSWR - Flexible steel wire rope

Each of the sections of the wire rope designation described above is variable. There are therefore a large number of combinations of wire rope that can be specified in this manner.

### 1.2 - Endless Sling (Grommet)

Angle top vertical	0°	0°
	direct	choke hitch
Nominal rope diameter		
mm	t	t
24	9.00	7.00
27	11.5	9.00
30	14.0	11.0
33	17.0	13.5
36	20.0	16.0
39	23.5	19.0
42	27.0	21.5
48	35.5	28.5
54	45.0	36.0
60	55.5	44.5
66	69.0	55.0
72	84.0	68.0
78	102	81.0
84	121	97.0
90	144	115
96	168	135
102	196	157
108	227	182
114	262	210
Calculation factors	2	1.6



- Cable laid wire rope sling as endless grommet according to BS EN 13414-3.

