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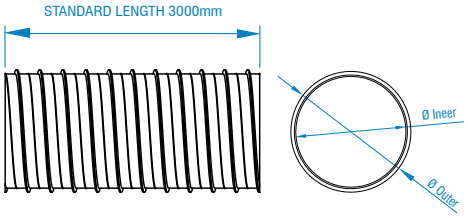
global bulding solutions

SLEEVE

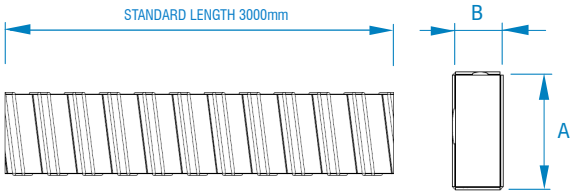
Metal ribbed tube used in concrete connections.

SLEEVE

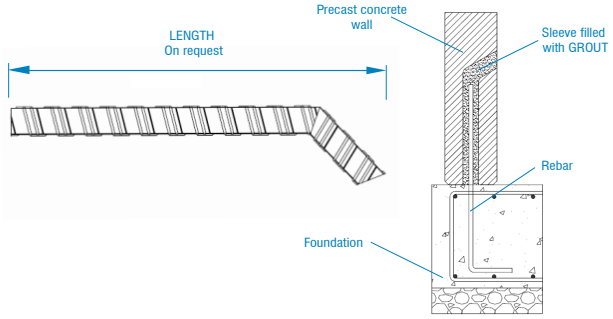


Code		Diameter Inner/Outer
BEINA51	Steel sleeve	51/57
BEINA63	Steel sleeve	63/69
BEINA75	Steel sleeve	75/81
BEINA81	Steel sleeve	81/87
BEINA90	Steel sleeve	90/99
BEINA100	Steel sleeve	100/109
BEINA120	Steel sleeve	120/129
BEINA130	Steel sleeve	130/139
BEINA140	Steel sleeve	140/149
BEINA160	Steel sleeve	140/149

* Possibility of manufacturing in different lengths on request



Código		Side A/B
BEINA60-40	Rectangular steel sleeve	60/40
BEINA80-40	Rectangular steel sleeve	80/40
BEINA80-50	Rectangular steel sleeve	80/50
BEINA90-40	Rectangular steel sleeve	90/40
BEINA100-60	Rectangular steel sleeve	100/60
BEINA120-80	Rectangular steel sleeve	120/80
BEINA140-70	Rectangular steel sleeve	140/70
BEINA130-80	Rectangular steel sleeve	130/80
BEINA140-90	Rectangular steel sleeve	140/90
BEINA150-80	Rectangular steel sleeve	150/80
BEINA160-100	Rectangular steel sleeve	160/100
BEINA170-100	Rectangular steel sleeve	170/100



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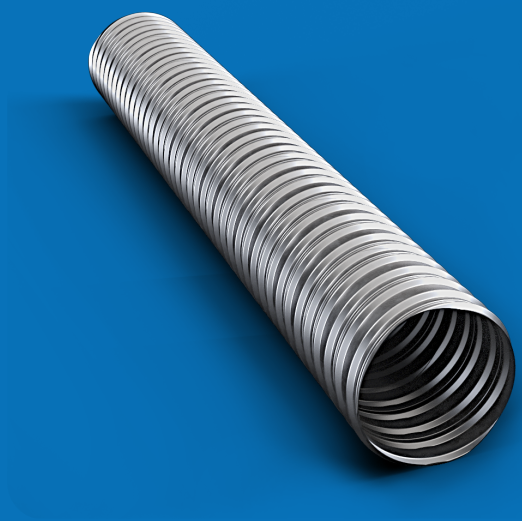

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SLEEVE

INSTRUCTIONS FOR USE

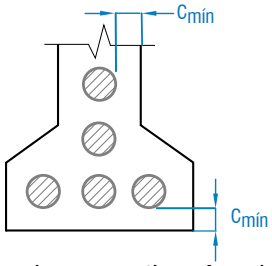
1. Selecting the diameter anf length of the sleeve on their use:

1.1.Placement in concrete element for prestressing steel housing (mainly post-tensioning).

1.1.1. Length of the sleeve according to the desing development of post -tensioned reinforcement in the concrete member, be concreted on site or prefabricated.

1.1.2. Diameter of the sleeve depending on the equivalent diameter of the post-tensioned reinforcement assembly.

1.1.3. Coverings for post-tensioned active reinforcements. According to Article 4.4.1 of the standard EN1992-1-1.



Value of minimum cover $C_{mín.}$:
minimum 40 mm and maximum 80 mm..

1.2. Placement structural connections, as they can be connections foundation columns, columns splicing,rigid joints column / girder, ...

1.2.1. Calculation of the **anchor length** of the ribbed bar (or groups of bars) should / must be anchored within the sleeve. To define the length of the anchor must follow the requirements of section 8.4 of the standard EN1992-1-1. **It is recommended that the length of the sleeve is longer than a length of 100mm anchor calculated.**

1.2.2. Selecting the diameter of the sleeve depending on the diameter of the ribbed bar or group of bars which will be housed within the sleeve. If groups of bars, the equivalent diameter is defined by Article 8.9.1 of the standard EN1992-1-1.

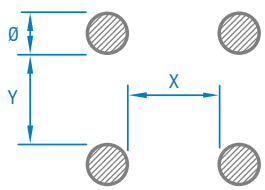
1.2.2.1. According criteria, it is recommended that a minimum coating over filling mortar,as well as defining a tolerance of execution on site. In general cases can be considered a **sleeve diameter 50/60 mm more than the bar diameter or equivalent diameter of the group of bars**

($Ø_{sleeve\ mín.} = Ø_{bar} + 50mm$; $Ø_{sleeve\ mín.} = Ø_{equivalent\ bars} + 50mm$).

As a first estimate, it is considered the direct relation relevant subsequent verification must be performed.The length and actual diameter of the sleeve should be checked according to each case loads, it involves determining the adhesion tension between corrugated sleeve and outer concrete surrounding it (inside is supposed with high strength mortar).

2. 2.1. Separation between sleeves:

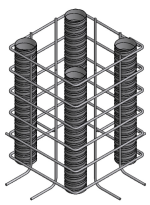
2.1.1 As defined in Article 70.2.2.3 and 70.2.2.4 of the EHE-08 standard must comply with specific minimum distances between the sleeves (or between adjacent sleeve and armor) for proper placement and compaction of the concrete.



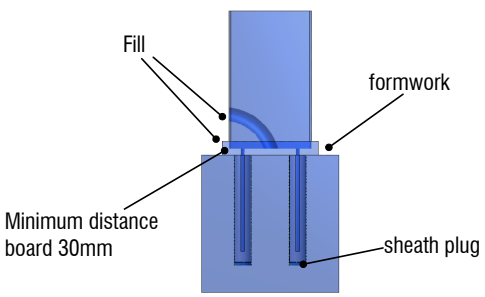
Separation X and Y:
If sleeve diameter is less than 60 mm, the distance minimum therebetween will be 60mm, in other cases, the distance between sleeves will be equal to or greater than the diameter of the largest of them.

3. 3.1. Execution in site (or factory):

Placing sleeves by placing templates.



Setting the sleeves by spacers and / or reinforcement / (stirrups, bars, ...) to prevent movement during concreting.



Is recommended filling the sleeves mortar without retraction GROUT

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