

10.0 – "ME, ME_{ep} and MEX" ACTIVE ANCHORAGES



27 MEep 15 anchorage

"ME, ME_{ep} and MEX " active anchorages are designed for external post-tensioning and may be supplied with several applications. They are made of a "M, M_{EP} or MX[®]" casting and properly connected to a sheath in H.D.P.E. with a special transition cone. The cone allows to contain the grouting inside it, so preventing it from bonding to the internal wall of the casting and guaranteeing the cable disassembling over time as well as a perfect tightness. The heads grouting by external precompression may be carried out with cement mix, grease or wax.

The strands may be bare or protected with grease and H.D.P.E. and guarantee the possibility to replace the cable over time. The use of bare strands must also include in some cases the localized protection of wedges with grease according to the type of application.

Internal connection and connection to the polyethylene tube



The internal connection is made of steel and provided with a deviator. By threading, the polyethylene tube is connected to it to contain the strands.

Insertion of the internal connection into the ME anchorage



The connection entered into the anchorage is provided with a stop, which will be blocked between the plate and the casting, thus allowing to restrain the grouting.

Positioning of the internal connection into the ME anchorage



The insertion of the connection will allow the polyethylene tube to stick out from the transition tube. The sheath of the whole cable will be welded on this protrusion.

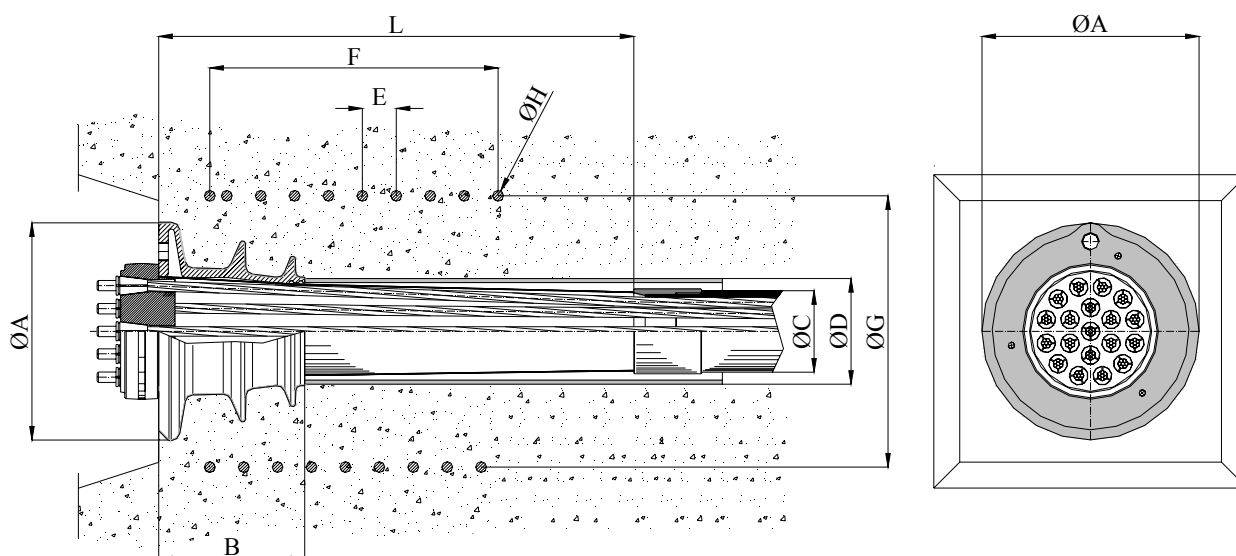
10.1 - ME anchorage

The **ME** version may be installed bonded or unbonded based on the project requirements and guarantees the possibility to replace the cable over time. A proper tube allows to cross the concrete diaphragm and guarantees the continuity of the polyethylene tube that contains the cable.

Application of the anchorage ME e ME_{ep} with 35MPa concrete



27 MEep 15 anchorage



Type	Ultimate load			A	B	C	D	E	F	G	H	L
	T15 259 per cable (KN)	T15S 279 per cable (KN)	T15C 307 per cable (KN)									
4ME15 4MEep15	1036	1116	1228	160	103	63/3.6	135	45	205	180	12	310
7ME15 7MEep15	1813	1953	2149	200	133	75/4.3	160	45	270	240	12	360
9ME15 9MEep15	2331	2511	2763	235	163	90/5.1	177	45	270	300	14	430
12ME15 12MEep15	3108	3348	3684	265	180	110/6.3	195	50	350	350	16	450
15ME15 15MEep15	3885	4185	4605	290	197	110/6.3	210	50	400	410	16	520
19ME15 19MEep15	4921	5301	5833	320	215	110/6.3	245	50	450	440	16	600
22ME15 22MEep15	5698	6138	6754	355	260	125/7.1	265	50	450	480	18	660
27ME15 27MEep15	6993	7533	8289	380	277	140/8.0	295	60	480	530	18	700

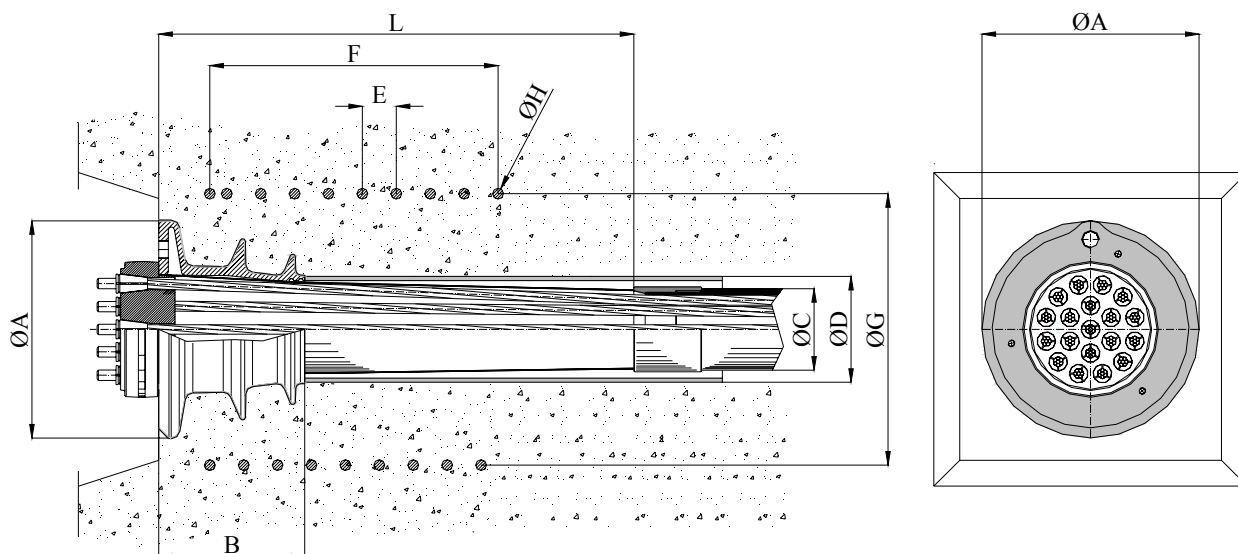
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(Measures in mm.)

Application of the ME e ME_{ep} anchorage with 45MPa concrete



27 ME_{EP} 15 anchorage



Type	Ultimate load			A	B	C	D	E	F	G	H	L
	T15 259 per cable (KN)	T15S 279 per cable (KN)	T15C 307 per cable (KN)									
4ME15 4ME _{ep} 15	1036	1116	1228	160	103	63/3.6	135	45	180	170	12	310
7ME15 7ME _{ep} 15	1813	1953	2149	200	133	75/4.3	160	45	250	220	12	360
9ME15 9ME _{ep} 15	2331	2511	2763	235	163	90/5.1	177	45	250	250	14	430
12ME15 12ME _{ep} 15	3108	3348	3684	265	180	110/6.3	195	50	300	300	16	450
15ME15 15ME _{ep} 15	3885	4185	4605	290	197	110/6.3	210	50	350	355	16	520
19ME15 19ME _{ep} 15	4921	5301	5833	320	215	110/6.3	245	50	425	400	16	600
22ME15 22ME _{ep} 15	5698	6138	6754	355	260	125/7.1	265	50	425	420	18	660
27ME15 27ME _{ep} 15	6993	7533	8289	380	277	140/8.0	295	50	400	460	18	700

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(Measures in mm.)

10.2 - Application of "ME" anchorages



27 ME15 anchorage

ME^L anchorage in L protection

(External bonded post-tensioning, bare strands with cement grouting)



ME^L anchorage in L protection from external bonded post-tensioning, made of casting submerged into concrete, anchorage with wedges, painted steel connection, cement-grouted protection cap, wedges and use of bare strands. The protection cap allows to protect the anchorage with a cement filling. This application is the simplest among those which can be replaced over time.

ME^M anchorage in M protection

(External unbonded post-tensioning, cement grouting covered and greased strand)



ME^M anchorage in M protection from external unbonded post-tensioning, made of casting submerged into concrete, anchor plate with wedges, painted steel connection, cement-grouted protection cap, wedges and use of bare strands. The protection cap allows to protect the anchorage with a cement filling. The anchorage can be replaced over time if required.



10.3 - Application of "ME_{ep}[®]" anchorages



27 ME_{ep} 15 anchorage

ME_{ep}^{N®} anchorage in N protection

(External bonded post-tensioning, bare strands with cement grouting)



ME_{EP}^{N®} anchorage in N protection from external bonded post-tensioning, made of casting protected with epoxy coating submerged into concrete, anchor plate with wedges, steel connection protected with epoxy coating, cement grouted protection cap, wedges and the use of bare strands. The protection cap allows to protect the anchorage with a cement filling. The anchorage can be replaced over time if required.

ME_{ep}^{O®} anchorage in O protection

(External unbonded post-tensioning, cement grouting covered and greased strand)



ME_{EP}^{O®} anchorage in O protection from external unbonded post-tensioning, made of casting protected with epoxy coating submerged into concrete, anchor plate with wedges, steel connection protected with epoxy coating, grease grouted protection cap, wedges and use of a coated strand. The protection cap allows to protect the anchorage by filling it with grease as a further protective barrier. The grouting of the sheath is limited. The recess on the anchorage is therefore also full of grease, the cap protects the external part and the wedges. The anchorage is protected against corrosion with O level. It may be replaced over time if required.

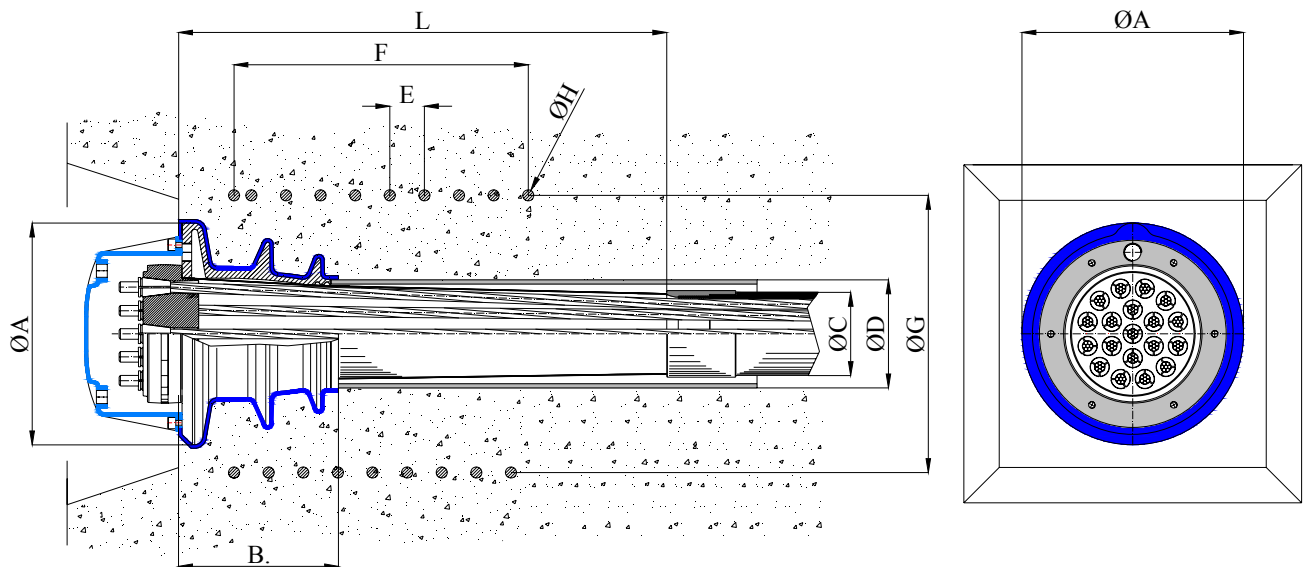
10.4 - MEX[®] anchorage



27 MEX 15 anchorage

MEX[®] anchorage designed for applications of **external bonded and unbonded post-tensioning, completely encapsulated in polyethylene**, the anchorage is made of: casting externally protected with polyethylene, anchor plate with wedges, connection, grease-grouted protection cap, wedges and use of bare strands with grease grouting on the whole length of the cable. The protection cap allows to protect the anchorage with grease or cement filling, which is a further protective barrier besides the polyethylene used as first protection element. The anchorage can be replaced over time if required.

Application of the MEX anchorage with 35MPa concrete



Type	Ultimate load			A	B	C	D	E	F	G	H	L
	T15 259 per cable (KN)	T15S 279 per cable (KN)	T15C 307 per cable (KN)									
4MEX15	1036	1116	1228	168	113	63/3.6	135	45	205	180	12	310
7MEX15	1813	1953	2149	208	143	75/4.3	160	45	270	240	12	360
9MEX15	2331	2511	2763	243	173	90/5.1	177	45	270	300	14	430
12MEX15	3108	3348	3684	273	191	110/6.3	195	50	350	350	16	450
15MEX15	3885	4185	4605	298	209	110/6.3	210	50	400	410	16	520
19MEX15	4921	5301	5833	328	227	110/6.3	245	50	450	440	16	600
22MEX15	5698	6138	6754	363	274	125/7.1	265	50	450	480	18	660
27MEX15	6993	7533	8289	388	291	140/8.0	295	60	480	530	18	700

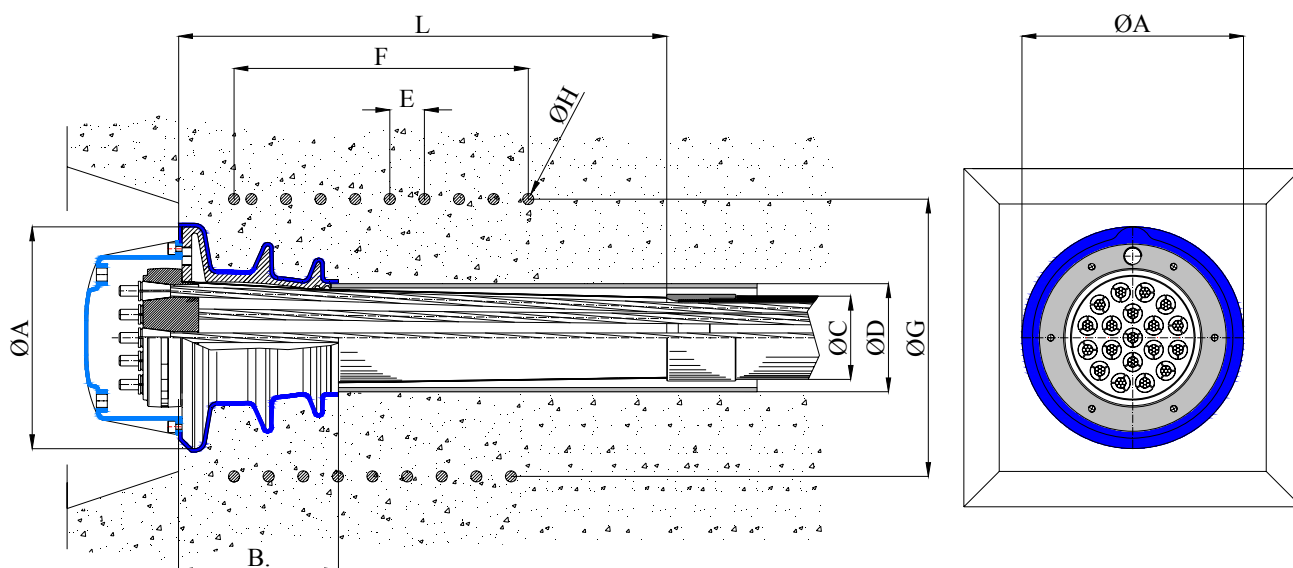
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(Measures in mm.)

Application of the MEX anchorage with 45MPa concrete



27 MEX 15 anchorage



Type	Ultimate load			A	B	C	D	E	F	G	H	L
	T15 259 per cable (KN)	T15S 279 per cable (KN)	T15C 307 per cable (KN)									
4MEX15	1036	1116	1228	168	113	63/3.6	135	45	205	180	12	310
7MEX15	1813	1953	2149	208	143	75/4.3	160	45	270	240	12	360
9MEX15	2331	2511	2763	243	173	90/5.1	177	45	270	300	14	430
12MEX15	3108	3348	3684	273	191	110/6.3	195	50	350	350	16	450
15MEX15	3885	4185	4605	298	209	110/6.3	210	50	400	410	16	520
19MEX15	4921	5301	5833	328	227	110/6.3	245	50	450	440	16	600
22MEX15	5698	6138	6754	363	274	125/7.1	265	50	450	480	18	660
27MEX15	6993	7533	8289	388	291	140/8.0	295	60	480	530	18	700

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(Measures in mm.)

10.5 - Application of "MEX^H[®]" anchorages



27 MEX 15 anchorage

MEX^H[®] anchorage in H protection

(External unbonded post-tensioning, bare strands with grease grouting)



MEX^H[®] anchorage in H protection from external unbonded post-tensioning, completely encapsulated in polyethylene, made of: casting externally protected with polyethylene, anchor plate with wedges, polyethylene connection, grease-grouted protection cap, wedges and use of bare strands with grease grouting on the whole length of the cable. The protection cap allows to protect the anchorage with grease filling, which is a further protective barrier besides the polyethylene used as first protection element. The grouting of the sheath is limited. The recess on the anchorage is therefore also full of grease and the anchorage is protected against corrosion with H level. The anchorage can be replaced over time if required.

MEX^I[®] anchorage in I protection

(External unbonded post-tensioning, cement grouting covered and greased strand)



MEX^I[®] anchorage in I protection from external unbonded post-tensioning, completely encapsulated in polyethylene, made of casting externally protected with polyethylene, anchor plate with wedges, polyethylene connection, grease-grouted protection cap, wedges and use of coated strands. The protection cap allows to protect the anchorage by filling it with grease as a further protective barrier. The grouting of the sheath is limited. The recess on the anchorage is therefore also full of grease, the cap protects the external part and the wedges. The anchorage is protected against corrosion with I level. It may be replaced over time if required.