

20.6 - "D" SERIES PASSIVE ANCHORAGES

"E" series 1E15-D1 single strand anchorages (Unbonded post-tensioning)



Passive 1E15-D1 assembled anchorage

The anchorage: **passive, unbonded, "1E15-D1" type**. It is supplied with a connection with the greased strand covered in polyethylene. This application is typical of industrial floors, diaphragms and slabs. The **"1E15-D1"** anchorage is unbonded, it is supplied passive, factory prelocked or to lock on site by using a **B300KN** jack. It is directly covered while grouting and its corrosion protection is obtained by means of passivation while grouting.

"EX" series 1EX15-D2 single strand anchorages (Unbonded encapsulated post-tensioning)



1EX15-D2 passive assembled anchorage

The anchorage: **passive, unbonded and encapsulated, "1EX15-D2" type**. It is made with the total encapsulation of the polyethylene covered anchorage, with the greased strand covered in polyethylene. The **"1EX15-D2"** anchorage is unbonded, it is supplied passive, factory prelocked or to lock on site by using a **B300KN** jack. This application is typical of industrial floors, foundation piles, diaphragms and slabs in a highly corrosive environment for the whole system.

"EXD" series 1EXD15-D3 single strand anchorages (Unbonded encapsulated post-tensioning)



1EXD15-A3 passive assembled anchorage

The anchorage: **passive, unbonded and encapsulated, "1EX15-D3" type**. It is made with the total encapsulation of the polyethylene covered anchorage, with the greased strand covered in polyethylene. The **"1EXD15-D3"** anchorage is passive unbonded. This application is typical of industrial floors, foundation piles, diaphragms and slabs in a highly corrosive environment for the whole system. The anchorage is provided with a threaded closing tip in order to guarantee a stronger closure, it is provided pre-assembled and- greased, it is provided with spring locking and can be installed on site by qualified technicians directly on the cut-to-measure strands. This solution allows to dramatically reduce the installation time of passive anchorages.

"ED" series 1ED15-D4 single strand anchorages
(Unbonded post-tensioning)



1ED15 passive assembled anchorage

Anchoring: **passive, non-adherent**, such as "1ED15-A4" is provided with the connecting strand greased and covered with polyethylene. The typical application is for flooring, partitions and floors, where the anchor is required simply protecting passivation obtained by the jet. The anchor has a threaded cap that ensures a more forceful closure. It comes pre-assembled and pre-lubricated and has a locking spring. It can be installed on site by qualified technicians directly on the strands cut to size. This solution drastically reduces the installation time of passive anchors.

"E" series 1E15-D5 single strand anchorages
(Bonded post-tensioning)



Passive 1E15-D6 assembled anchorage

The anchorage: **passive and bonded "1E15-A5"**. Its application allows to install bonded single strand anchorages with the strand entered into a metallic sheath, for an environment which requires a simple protection for the anchorage and the whole cable by means of passivation while grouting. The "1E15-D5" anchorage is bonded, it is supplied factory prelocked or to lock on site by using a **B300KN** jack. The application is typical of industrial floors, diaphragms or slabs in a normal environment. The cable is provided with a steel protection sheath, which must be provided with proper grouting and vent points.

"EX" series 1EX15-D6 single strand anchorages
(Bonded post-tensioning)



1EX15-D6 passive bonded anchorage

The **passive, bonded and encapsulated "1EX15-D6"** anchorage is made with the total encapsulation of the anchorage and of the cable, protected with a polyethylene corrugated sheath. The "1EX15-D6" anchorage is bonded and grouted, it is supplied factory prelocked or to lock on site by using a **B300KN** jack. This application is typical of industrial floors, diaphragms, foundation piles or slabs in a highly aggressive environment for the whole system. The anchorage is provided with a pressure cap that may be installed after the strand, which is filled with grease, is cut. The cable must be provided with proper grouting and vent points.

"E" series 1E15-D7 single strand anchorages
(Bonded post-tensioning)



1E15-D7 bonded assembled passive anchorage

The anchorage: **passive and bonded "1E15-D7"**. Its application allows to install single strand bonded anchorages with the strand entered into a polyethylene sheath. It is supplied factory prelocked or to lock on site by using a **B300KN** jack. This application is used in an environment that requires a simple protection of the "1E15-D7" anchorage by means of passivation while grouting and of the whole cable with a polyethylene sheath. The application is typical of industrial floors, diaphragms or slabs in a normal environment. The cable is provided with a polyethylene protection sheath, which must be provided with proper grouting and vent points.

"EX" series 1EX15-D8 single strand anchorages
(Unbonded encapsulated post-tensioning)



1EX15-D8 passive unbonded assembled anchorage

The anchorage: **passive, unbonded and encapsulated, "1EX15-D8" type**. It is made with the total encapsulation of the polyethylene covered anchorage, with the greased strand covered in polyethylene. The "1EX15-D8" anchorage is unbonded, it is supplied factory prelocked or to lock on site by using a **B300KN** jack. It is provided with a medium cap that may be installed after the strand, which is filled with grease, is cut. This application is typical of industrial floors, diaphragms or slabs in a highly aggressive environment for the whole system.

"EX" series 1EX15-D9 single strand anchorages
(Unbonded encapsulated post-tensioning)



1EX15-D9 passive unbonded anchorage

The anchorage: **passive, unbonded and encapsulated, "1EX15-D9" type**. It is made with the total encapsulation of the polyethylene covered anchorage, with the greased strand covered in polyethylene. The "1EX15-D9" anchorage is unbonded, it is supplied factory prelocked or to lock on site by using a **B300KN** jack. It is provided with a short cap that may be installed after the strand, which is filled with grease, is cut. This application is typical of industrial floors, diaphragms or slabs in a highly aggressive environment for the whole system.

"EX" series 1EX15-D10 single strand anchorages
(Encapsulated bonded post-tensioning)



1EX15-D10 passive bonded assembled anchorage

The **passive, unbonded and encapsulated "1EX15-A10"** anchorage is made with the total encapsulation of the anchorage and of the cable, protected with a polyethylene corrugated sheath. The **"1EX15-D10"** anchorage is bonded and grouted, it is supplied factory prelocked or to lock on site by using a **B300KN** jack. This application is typical of industrial floors, diaphragms or slabs in a highly aggressive environment for the whole system. The anchorage is provided with a medium cap that may be installed under pressure after the strand, which is filled with grease, is cut. The cable must be provided with proper grouting and vent points.

"EX" series 1EX15-D11 single strand anchorages
(Encapsulated bonded post-tensioning)



1EX15-D11 passive bonded anchorage

The **passive, unbonded and encapsulated "1EX15-D11"** anchorage is made with the total encapsulation of the anchorage and of the cable, protected with a polyethylene corrugated sheath. The **"1EX15-D11"** anchorage is bonded and grouted, it is supplied factory prelocked or to lock on site by using a **B300KN** jack. This application is typical of industrial floors, diaphragms or slabs in a highly aggressive environment for the whole system. The anchorage is provided with a short cap that may be installed under pressure after the strand, which is filled with grease, is cut. The cable must be provided with proper grouting and vent points.

"EX" series 1EX15-D12 single strand anchorages
(Encapsulated bonded post-tensioning)



1EX15-D12 passive bonded assembled anchorage

Anchoring: passive and compliant, like **"1EXD15-D12"**, is made of polyethylene coated with the anchor strand and inserted into a metal sheath, application environments where high protection is required, the anchor and cable protection the passivation obtained by the casting anchor has a threaded cap that ensures a more forceful closure. It comes pre-assembled and pre-lubricated and has a locking spring. It 'can be installed on site by qualified technicians directly on the strands cut to size. This solution drastically reduces the installation time of passive anchors.

"EX" series 1EX15-D13 single strand anchorages
(Bonded post-tensioning with encapsulated anchorage)



1EX15-D13 passive bonded assembled anchorage

The anchorage: **passive and bonded, "1EXD15-D13" type**. It is made with the anchorage covered in polyethylene and the strand entered into a metallic sheath. It is applied in an environment where a high anchorage protection is required, and where the cable protection is obtained by means of passivation while grouting. The **"1EX15-D13"** anchorage is bonded, it is supplied factory prelocked or to lock on site by using a **B300KN** jack. The application is typical of industrial floors, diaphragms or slabs. The anchorage is provided with a pressure closing tip in order to guarantee a stronger closure to contain grease, it can be installed on site by qualified technicians.

"ED" series 1ED15-D14 single strand anchorages
(Bonded post-tensioning)



1EX15-D14 assembled bonded passive anchorage

Anchoring: passive and compliant, like **"1ED15-D14"**, is made of strands inserted into a metal sheath, the application is required for environments where protection of the complex obtained by passivation in the cast. The anchor **"1ED15-D14"** is adherent, is supplied pre-assembled, is manually applied on the cables pre-cut to size on site. The anchor has a threaded cap that ensures a more forceful closure. It comes pre-assembled and pre-lubricated and has a locking spring. It can be installed on site by qualified technicians directly on the strands cut to size. This solution drastically reduces the installation time of passive anchors.

"EX" series 1EX15-D15 single strand anchorages
(Bonded post-tensioning)



1EX15-D15 passive assembled anchorage

The anchorage: **passive and bonded, "1EX15-D15" type**. It is made with the anchorage covered in polyethylene and the strand entered into a metallic sheath. It is applied in an environment where a high anchorage protection is required, and where the cable protection is obtained by means of passivation while grouting. The **"1EX15-D15"** anchorage is bonded, it is supplied factory prelocked or to lock on site by using a **B300KN** jack. The application is typical of industrial floors, diaphragms or slabs. The anchorage is provided with a medium cap that may be installed under pressure after the strand, which is filled with grease, is cut. The cable must be provided with proper grouting and vent points.

"EX" series 1EX15-D16 single strand anchorages
(Bonded post-tensioning)



1EX15-A16 passive assembled anchorage

The anchorage: **passive and bonded, "1EX15-D16" type**. It is made with the anchorage covered in polyethylene and the strand entered into a metallic sheath. It is applied in an environment where a high anchorage protection is required, and where the cable protection is obtained by means of passivation while grouting. The **"1EX15-D16"** anchorage is bonded, it is supplied factory prelocked or to lock on site by using a **B300KN** jack. The application is typical of industrial floors, diaphragms or slabs. The anchorage is provided with a short cap that may be installed under pressure after the strand, which is filled with grease, is cut. The cable must be provided with proper grouting and vent points.

"EXD" series 1EXD15-D17 single strand anchorages
(Post tensione aderente incapsulata)



Ancoraggio attivo 1EXD15 assemblato

Anchoring: passive and compliant, like **"1EXD15-D17"**, is made of polyethylene coated with the anchor strand and inserted in a polyethylene conduit, application environments where high security is required of the anchorage and protection passivation of the cable obtained by the jet. The anchor **"1EXD15-D17"** is adherent is applicable on the cables manually pre-cut to size on site. The application is typical of industrial flooring, partitions or floors. The anchor has a threaded cap that ensures a more forceful closure. It comes pre-assembled and pre-lubricated and has a locking spring. It 'can be installed on site by qualified technicians directly on the strands cut to size. This solution drastically reduces the installation time of passive anchors.

"ED" series 1ED15-D18 single strand anchorages
(Post tensione aderente)



Ancoraggio attivo 1ED15-A18 assemblato

Anchoring: passive and compliant, like **"1ED15-D18"**, is made of strands inserted in a polyethylene conduit, the application is required for environments where protection of the complex obtained by passivation in the cast. The anchor **"1ED15-D18"** is adherent, is manually applied on the cables pre-cut to size on site. The application is typical of industrial flooring, partitions or floors. The anchor has a threaded cap that ensures a more forceful closure. It comes pre-assembled and pre-lubricated and has a locking spring. It 'can be installed on site by qualified technicians directly on the strands cut to size. This solution drastically reduces the installation time of passive anchors.

Corrosion protection levels on "D" series anchorages:

Protection level	Anchorage type	Anchorage 1E15	Anchorage 1ED15	Anchorage 1EX15	Anchorage 1EXD15	Metallic sheath	Polyethylene sheath	Bonded strand	Unbonded strand
1	1E15-D5	X				X		X	
1	1ED15-D4		X						X
2	1ED15-D14		X			X		X	
2	1ED15-D18		X				X	X	
3	1E15-D1	X							X
4	1E15-D7	X					X	X	
5	1EXD15-D12				X	X		X	
5	1EXD15-D17				X		X	X	
5	1EX15-D13			X		X		X	
5	1EX15-D15			X		X		X	
5	1EX15-D16			X		X		X	
5	1EX16-D6			X			X	X	
5	1EX15-D10			X			X	X	
5	1EX15-D11			X			X	X	
6	1EXD15-D3				X				X
6	1EX15-D2			X					X
6	1EX15-D8			X					X
6	1EX15-D9			X					X

Level 5 and 6: totally encapsulated cables, anchorage 1EX15 or 1EXD15 and greased cable covered in polyethylene represent the maximum protection level



20.7 - "G" CONNECTIONS

The connection on single strand cables is carried out by using a sleeve that allows to guarantee their connection. It can be bonded "G" and unbonded "GX". Both applications can be used with all the versions of an active anchorage.

"G" series single strand connection (Bonded unbonded encapsulated post-tensioning)



Mobile "G" coupler for single strand



Mobile "GX" coupler for single strand

The "G" connection anchorage is carried out with the total encapsulation of the device. The polyethylene covering is guaranteed on its whole length allowing the connection to slide due to the elongation.