

# Freyssi500-E



**FREYSSINET**  
SUSTAINABLE TECHNOLOGY

- Continuous thread
- Rugged
- Weldable

## Anchors, reinforcement, fixing

Technical data sheet reference n°: FT En C IX 2 1

### The system

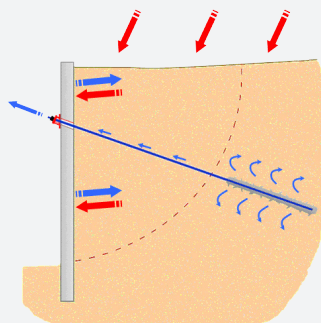
The Freyssi500-E system consists of a range of bars and adapted accessories, allowing its use in several areas of activity.

The combination of mechanical accessories enables many solutions like anchorages (nut + plate) or coupling (coupler with or without lock nut).

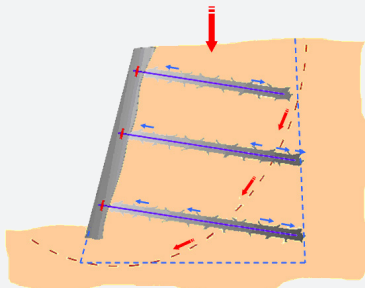
Other accessories facilitating the installation, like spring baskets, sheathing, injection systems are also available.

### Applications: Geotechnics

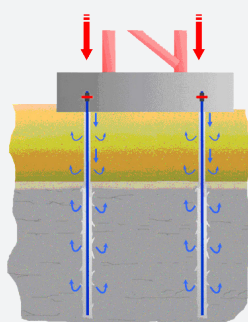
Installed in a bore hole, the Freyssi500-E system is perfectly suited to creating anchoring solutions in natural soils, like ground anchors, nails, anchor tie rods and micropiles. Spring baskets and injection pipes are generally used for this application.



Ground anchors



Soil nails



Micropiles

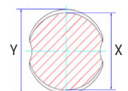
### Reinforcement

The bar Freyssi500-E is a hot laminated bar. It includes ribs forming a thread on the whole length, which enables the screwability of the accessories at any point. The bar Freyssi500-E is weldable like reinforcement bars.

The left hand thread is characteristic of the bar Freyssi500-E.



Freyssi500-E



Cross section of the Freyssi500-E

Nominal diameter (mm)	Grade (MPa/MPa) (grade 75)	Weight (kg/m)	Cross section (mm <sup>2</sup> )	Nominal X (mm)	Nominal Y (mm)	Yield load (kN)	Ultimate load (kN)	Min Agt elongation (%)	Min A10d elongation (%)
16	St 500/550 (grade 75)	1.58	201	15.6	17.7	101	111	5	10
20	St 500/550 (grade 75)	2.47	314	19.3	22.1	157	173	5	10
25	St 500/550 (grade 75)	3.85	491	24.2	27.6	246	270	5	10
28	St 500/550 (grade 75)	4.83	616	27.1	30.9	308	339	5	10
32	St 500/550 (grade 75)	6.31	804	31.0	35.4	402	442	5	10
40	St 500/550 (grade 75)	9.87	1,257	38.9	43.9	629	691	5	10
50	St 500/550 (grade 75)	15.40	1,963	48.7	54.3	982	1,078	5	10
63.5	St 550/700 (grade 80)	24.86	3,167	62.2	67.9	1,758	2,217	5	10

#### Technical characteristics of the Freyssi500-E

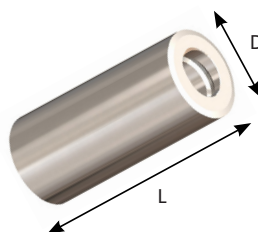
The bars of the Freyssi500-E system are manufactured in 12, 15 and 18 meters long. They can be cut at any required length. They are delivered in bundles of approximately 2.5 tons weight.



Stock of bars

### Couplers

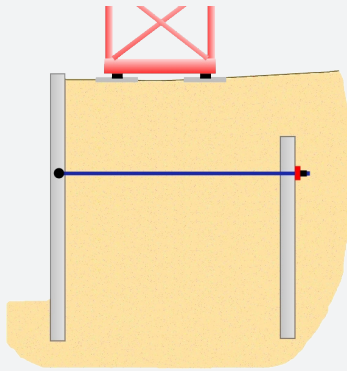
The couplers enable an easy and safe connection of the bars together.



	Nominal diameter (mm)							
	16	20	25	28	32	40	50	63.5
L (mm)	90	105	115	125	140	160	200	260
D (mm)	32	36	40	45	52	65	80	102
Weight (kg)	0.39	0.52	0.60	0.84	1.32	2.34	4.49	9.43

## Applications: quay walls

The Freyssi500-E system can also be used as tie rods for building quay walls and sheet pile walls.



Tie rods

## Applications: fixing

The Freyssi500-E system can be used to connect together two elements (formworks, pylons...).

## Corrosion protection

On demand, the bars and the accessories can be covered with a corrosion protection system (galvanization, paint, double corrosion protection with cement grout and sheath).

## Quality management

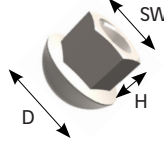
A mill certificate 3.1 can be delivered upon request.



Drilling works

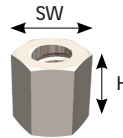
## Anchoring accessories

Spherical nut



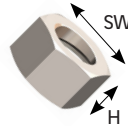
	Nominal diameter (mm)							
	16	20	25	28	32	40	50	63.5
H (mm)	33	41	45	54	57	70	100	120
D (mm)	42	49	55	62	70	80	100	120
SW (mm)	30	35	41	43	46	65	80	100
Weight (kg)	0.20	0.30	0.35	0.40	0.70	1.20	2.25	4.80

Hexagonal nut



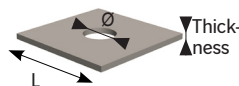
	Nominal diameter (mm)							
	16	20	25	28	32	40	50	63.5
H (mm)	40	45	50	55	60	70	90	115
SW (mm)	32	36	41	46	55	65	80	100
Weight (kg)	0.20	0.30	0.35	0.40	0.70	1.20	2.25	4.80

Lock nut



	Nominal diameter (mm)							
	16	20	25	28	32	40	50	63.5
H (mm)	15	20	20	25	30	35	50	75
SW (mm)	32	32	41	41	50	60	80	90
Weight (kg)	0.20	0.30	0.35	0.40	0.70	1.20	2.25	4.80

Flat plate

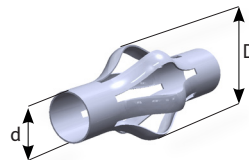


	Nominal diameter (mm)							
	16	20	25	28	32	40	50	63.5
LxL (mm)	120	150	200	200	200	200	250	300
Thickness (mm)	8	10	10	10	10	20	30	40
Ø (mm)	34 or 24	41 or 24	46 or 34	52 or 34	58 or 41	70 or 46	87 or 58	110 or 87
Weight (kg)	0.85	1.80	3.10	3.10	3.10	6.20	13.80	25.80

On demand, other accessories are available or can be developed for special applications.

## Other standard accessories

Spring basket



	Nominal diameter (mm)							
	16	20	25	28	32	40	50	63.5
d (mm)	16	21	26	34	34	44	57	69
D (mm)	70	90	100	125	125	125	125	125
Weight (kg)	0.10	0.10	0.15	0.15	0.15	0.15	0.20	0.25

Injection pipe



d x D (mm)	12 x 16	16 x 20	16.5 x 19
Packaging	500 m roll	500 m roll	500 m roll
Weight (kg/m)	0.08	0.09	0.06