

IT500 Solid Bar **from**

**ISCHEBECK**<sup>®</sup>

**TITAN**



- Soil nails
- Ground anchors
- Micropiles
- Rock bolts

## Mechanical properties

Bar diameters	Minimum ultimate tensile strength	Characteristic minimum yield strength	Minimum elongation	Youngs modulus
mm	N/mm <sup>2</sup>	N/mm <sup>2</sup>	%	kN/mm <sup>2</sup>
20-50	550	500	12	205
63	710	565	10	205
75	700	500	10	205

### Properties

The IT500 bar is a high yield reinforcing steel, with hot rolled deformations specially designed to form a thread along the entire length of the bar. All bars up to 50mm are CARES approved to the IT500 specification. Bar diameters up to 40mm are also approved by CARES to the performance requirements of BS 4449.

IT500 has been developed to offer a competitive, economical alternative to standard rebar in any application where threaded joints with couples or nuts are required. For example:

- Reinforced concrete
- Ground engineering

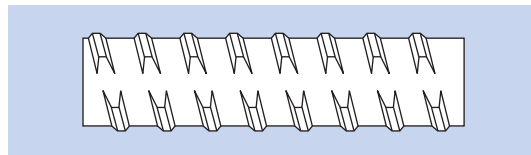
### Bar lengths

The IT500 bar is available in standard lengths of 12m. Longer lengths are available as a special order. For more information contact our sales department.

### Quality assurance

The bar and fittings are manufactured under a quality assurance system complying with BS EN ISO 9001: 2000.

### Threads



**No additional threading operations are required.**

IT500 bar is threaded along its entire length and can be trimmed on site as necessary. The thread form is a hot rolled intermittent thread of coarse pitch, except 63mm and 75mm, which is a continuous cold rolled thread.

This gives a threaded bar which is:

- Robust
- Self-cleaning
- Easily assembled on site

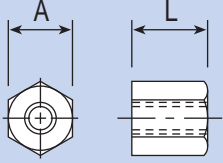
### Welding of IT500

IT500 can be welded using techniques appropriate to steel having a carbon equivalent of 0.51% maximum for diameters 20-50mm and 0.69% maximum for 63mm and 75mm diameter bars.

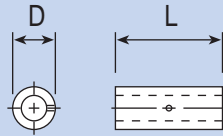
Nominal diameter	Maximum major diameter	Cross sectional area	Mass per metre	Thread pitch	Minimum failing load	Characteristic yield load
mm	mm	mm <sup>2</sup>	kg/m	mm	kN	kN
20	21.7	314	2.47	8	173	157
25	27	491	3.85	10	270	246
28	30.1	616	4.83	11	339	308
32	34.6	804	6.31	12.5	442	402
40	42.9	1256	9.87	16	691	628
50	53.1	1963	15.4	20	1080	981
63	67.4	3117	24.5	8	2217	1758
75	78.8	4417	34.7	8	3000	2130

## IT500 accessories

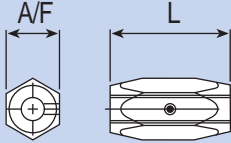
### Flat nut

	<b>Diameter</b>	<b>20</b>	<b>25</b>	<b>28</b>	<b>32</b>	<b>40</b>	<b>50</b>	<b>63</b>	<b>75</b>
	Length (L) mm	40	50	55	63	80	100	70	90
	Across flats (A) mm	36	41	46	50	60	80	105	125

### Machined round coupler

	<b>Diameter</b>	<b>20</b>	<b>25</b>	<b>28</b>	<b>32</b>	<b>40</b>	<b>50</b>	<b>63</b>	<b>75</b>
	Length (L) mm	80	100	110	125	160	200	145	175
	Outside diameter (D) mm	34	45	45	52	63	83	105	102

### Hexagon couplers

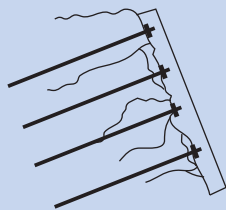
	<b>Diameter</b>	<b>20</b>	<b>25</b>	<b>28</b>	<b>32</b>	<b>40</b>	<b>50</b>
	Length (L) mm	85	106	110	112	144	180
	Across flats (A/F) mm	34	40	45	53	64	80

All couplers are available with and without central pinstops.

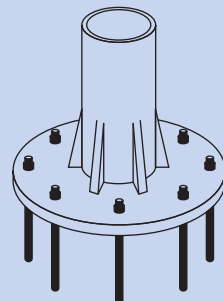
**Coupled joints:** All bar diameters can be coupled to produce a full strength joint. The permanent elongation requirements over a mechanically coupled joint as specified in BS 8110 can be achieved through application of torque, to either the bars directly or the nuts. In such cases a machined coupler should be used.

Further information can be obtained from the Ischebeck Titan technical department.

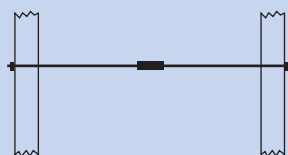
## Possible applications of IT500



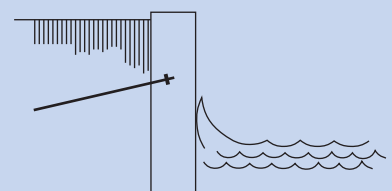
Soil nails and rock bolts for slope stabilisation



Tension/compression piles.



Tie bars.



Ground anchors for retaining structures.

# ISCHEBECK TITAN



## Ischebeck Titan Group

Founded in Germany over 120 years ago Ischebeck is renowned internationally for its aluminium formwork and false work systems, trench support systems and ground engineering products.

## Ischebeck Titan Ltd

The company operates from headquarters centrally located in the heart of the UK.



## Product Availability

Substantial stocks of equipment are available ex-stock from the company's strategically located 4-acre distribution site, with most items available nationwide on a 48-hour delivery. Products are available for both hire and outright purchase.

## Technical Support

We will participate in concept stage development. Providing input on applications, production rates, budget design and costings. Active for on site support, particularly for new users. We can provide guidance on industry special european and national standards.



### HEAD OFFICE

John Dean House  
Wellington Road  
Burton upon Trent  
Staffordshire DE14 2TG  
Tel: 01283 515677 Fax: 01283 516126  
[www.ischebeck-titan.co.uk](http://www.ischebeck-titan.co.uk)  
E-mail: [sales@ischebeck-titan.co.uk](mailto:sales@ischebeck-titan.co.uk)

### NORTHERN REGIONAL OFFICE & DESIGN OFFICE

Hollinwood Business Centre  
Albert Mills Albert Street  
Hollinwood Oldham OL8 3QP  
Tel: 0161 682 4732 Fax: 0161 684 3603  
E-mail: [technical@ischebeck-titan.co.uk](mailto:technical@ischebeck-titan.co.uk)

Since our policy is one of continuous improvement we reserve the right to change without prior notice the specifications and methods of construction mentioned in this document. No responsibility whatsoever can be accepted for any errors or omissions in, or misinterpretation of the contents. Products must be used in conformity with safe practices and applicable codes and regulations. Photos and details shown are for general guidance only and may vary according to circumstances. For specific information refer to Ischebeck Titan Limited. Copyright reserved.