

Form Tie Bars



LIBERTY Ostrava
www.libertysteelgroup.com



MEMBER OF



LIBERTY Ostrava is an integrated steel business with an annual production capacity of approximately 3.6 million tonnes serving construction, machinery and oil & gas industries.

The company is a domestic leader in the manufacturing of road barriers and tubes. In addition to the Czech market, it supplies its products to more than 40 countries around the world. Together with its subsidiaries in Ostrava, the company has 6,000 employees. The company

manufactures its products with a minimum possible environmental footprint. It is part of LIBERTY Steel Group, which is part of GFG Alliance, a collection of global businesses and investments owned by Sanjeev Gupta and his family. The Alliance is structured into three core industrial pillars: LIBERTY Steel Group, ALVANCE Aluminium Group and SIMEC Energy Group. Headquartered in London, GFG Alliance employs 35,000 people, across 10 countries and has revenues of USD \$20bn.

Liberty Ostrava Facilities

- 3 coke oven batteries
- 5 sinter belts
- 3 blast furnaces
- 4 tandem furnaces
- 3 continuous casting machines
- 6 rolling mills (incl. hot-strip mill, big and small Stiefel pipe mills, wire rod mill, heavy section mill, fine & medium section mill)
- Mine support and road barrier lines

Main Products

Hot rolled coils, sheets and strips, road barriers, merchant bars and sections, wire rods, tubular steels, mine supports, engineering products, transformer cores, thread bars, rebars

Key Markets

Construction, machinery and automotive

Certification

ISO 9001

ISO 14001

OHSAS 18001

ISO 50001



Form Tie Bars

Technical Characteristics of the System

- Easy length adjustment, due to the entire coarse thread over the whole length of the bar
- Shortening by cutting and extension by accessories also possible on the construction site
- Easier to screw compared to standard threads
- The coarse thread is resistant to rough handling and dirt, because the coarse thread cleans itself during assembling

Service

- Worldwide shipments including all administrative formalities
- Fast communication, flexibility & reliability
- On time delivery
- Quick and accurate document handling

On Request

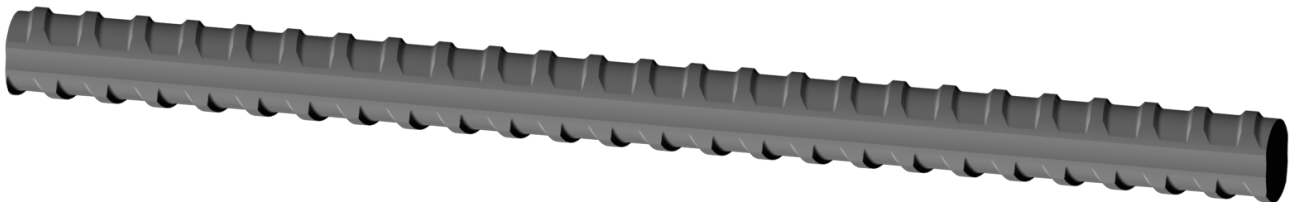
- Special lengths & bundling
- Charpy test-Value: 28 J at -20 °C for diameter 15 and 20 mm

Technical Specification

Grade 160, St 900/1100

Liberty Offers

- Ø 15 mm in length of 6000 mm or 12000 mm [bundles of 100 bars]
- Ø 20 mm in length of 6000 mm or 12000 mm [bundles of 75 bars]
- Ø 26,5 mm in length of 6000 mm or 12000 mm [bundles of 50 bars]
- Certifications in different markets
- Marking of the bar and traceability of the product



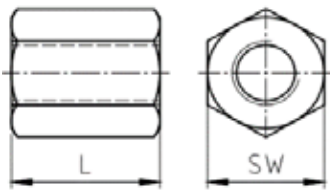
FTB Grade 160, St 900/1100

Nominal Diameter d [mm]	Working Load F_{WL} [kN]	Yield Load $F_{e, nom}$ [kN]	Ultimate Load $F_{m, nom}$ [kN]	Elongation A_{gt} [%]	Elongation A_{10} (min) [%]	Weight [kg/m]	Nominal Cross section A [mm ²]
15	90	155	190	4	7	1.41	172
20	160	279	340	4	7	2.51	309
26.5	280	495	606	4	7	4.48	551

By using of the Liberty Form Tie Bars you are assured that all above criteria are satisfied, which will be specified in a 3.1 certificate issued of each delivery.

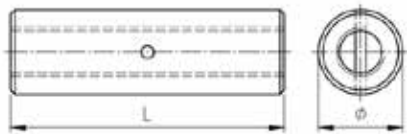
Accessories

Hex Nut



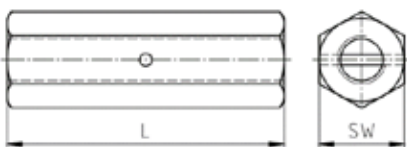
Article No.	Working Load F_{wl} [kN]	SW [mm]	L [mm]	Weight [kg]
15 FT 2102/50	90	30	50	0.22
15 FT 2102/70	90	30	70	0.30
20 FT 2102/70	160	36	70	0.40
26 FT 2102/60	200	46	60	0.54
26 FT 2102/80	250	46	80	0.74

Coupler with Pin



Article No.	Working Load F_{wl} [kN]	Ø [mm]	L [mm]	Weight [kg]
15 FT 3197/105	90	30	105	0.40
20 FT 3197/130	160	40	130	0.85

Hex Coupler with Pin



Article No.	Working Load F_{wl} [kN]	SW [mm]	L [mm]	Weight [kg]
15 FT 3198/90	80	30	90	0.40
15 FT 3198/105	90	30	105	0.45
20 FT 3198/130	160	36	130	0.74
26 FT 3198/120	200	46	120	1.09
26 FT 3198/150	250	46	150	1.36

Contact with the mill

Czech Republic and Other Countries

Liberty Commercial Czech Republic k.s.

Vratimovská 689/117, 719 00 Ostrava (CZ)

ID: 05433266

VAT: CZ05433266

E: sales.ostrava@libertysteelgroup.com

T: +420 595 687 787

www.libertyostrava.cz

Germany

Liberty Commercial Germany GmbH

Am Brüll 17, 40878 Ratingen (DE)

E: matthias.scheibe@libertysteelgroup.com

T: +49 162 42 78 799

Poland

Liberty Commercial PL Sp. z o. o.

Francuska 36, 3rd floor, 40-506 Katowice (PL)

E: lcpl.biuro@libertysteelgroup.com

T: +48 32 661 98 90

For further information visit www.libertysteelgroup.com

