

ISD HUTA CZĘSTOCHOWA



PRODUCT CATALOGUE

STEEL CONSTRUCTION CENTRE



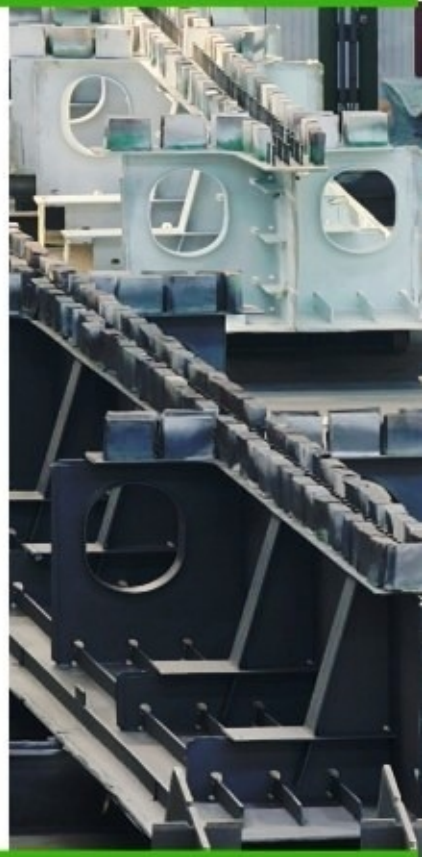


ABOUT COMPANY

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STEEL CONSTRUCTION CENTRE
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Steel Construction Centre of ISD Huta Częstochowa Sp. z o.o. is one of the first and the biggest steel service centre in Poland. The beginnings of its activity date back to the middle nineties of 20th century when Huta Częstochowa, then the state-owned company, bought several machines for plate cutting as well as other devices for the production of steel constructions from heavy plates produced by our Plate Mill. Automatic line for the production of welded sections, modern welding machines, shot blasting and painting line as well as many other devices allowed to achieve the major position on the steel constructions market. Continuous technical improvements of the centre, stable investments in modern devices, active and well-qualified staff guarantee the production of many complex steel constructions realizing customers' projects and expectations.





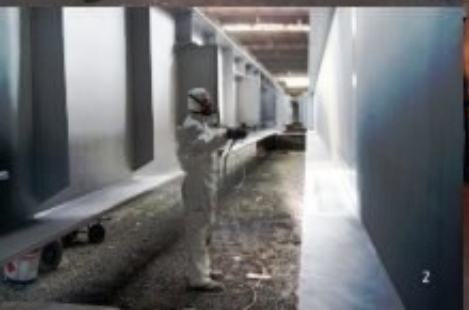
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STEEL CONSTRUCTION CENTRE CONSISTS OF:









- BRIDGE CONSTRUCTION DEPARTMENT
- METAL CONSTRUCTION DEPARTMENT
- PREFABRICATED PRODUCTS DEPARTMENT
- ANTICORROSION PROTECTION DEPARTMENT

STEEL CONSTRUCTION CENTRE produces approximately 80 000 tons of steel goods annually including bridge constructions and welded sections, crane constructions, elements of large size tanks, other steel constructions and flat prefabricated units for different customers.
The sale of goods overdrew 100 000 tons in 2008.
The Centre employs over 600 workers, including 70 engineers.









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STEEL CONSTRUCTION CENTRE OFFER







- Bridge and building constructions, chimney stacks, viaducts, welded profiles and sections
- Steel hall constructions, steel constructions for tanks and machines
- Machine elements production, assembly and repairs, crane constructions
- Prefabricated assembly elements for earth moving, road and building machines
- Prefabricated elements for wind power plants building
- Prefabricated elements of ship units
- Prefabricated elements of wagon and other means of wheeled transport
- Precisely cut stripes, plates also with bevelled edges
- Anticorrosion services - plates shot blasting (Sa 2 1/2 , Sa 3), Zn metallization, specialized coating
- Regeneration of machine elements (rebuilding, welding, annealing)





BRIDGE CONSTRUCTION DEPARTMENT







BRIDGE AND BUILDING CONSTRUCTIONS

ASSORTMENT

- Steel constructions of bridges and viaducts
- Building constructions
  - production halls, warehouses, market halls,
  - support constructions, pillars, traction rods, purlins
- Welded sections and profiles
  - with variable web width - convergence up to 10%
  - with stripes of different width
  - with arc web - radius: min. 8000 mm
  - web height – 300 ÷ 3000 mm
  - ledges width – 100 ÷ 1000 mm
  - ledges thickness – 6 ÷ 50 mm

Welded sections and profiles are produced by the automatic welding line SCI 3000/L type, with large dimensions (up to 3 m height).

Maximum weight and length of bridge elements:

- weight - 80 Mg
- length - 45 m

Bridge Construction Department is located in the Plate Mill.
The plant has large production area and heavy overhead cranes, what enables the production of large objects and its trial assembly.
The technological equipment and well-qualified workers caused that our department becomes the manufacturer of the biggest steel bridges in Poland.



REFERENCE







The Steel Construction Centre has recently produced or are currently accomplished constructions of the biggest bridges in Poland, i.a.:

- The bridge over the Soła in Żywiec [3500 Mg] - 1999
- The bridge over the Vistula River in Wyszogród [3000 Mg] - 1999
- Most Świętokrzyski in Warsaw [2500 Mg] - 2000
- Most Siekierkowski in Warsaw [600 Mg] - 2002
- The bridge over the Vistula River in Płock [1700 Mg] – 2004
- The bridge over the Obra River in Międzyrzecze [893 Mg] - 2005
- The bridge – Gorzów Wielkopolski ring road [967 Mg] – 2005
- The bridge over the Warta River in Śrem [756 Mg] – 2005
- The bridge over the Vistula River in Puławy [2400 Mg] - 2006
- Stopień Wodny Kościuszko – Balice-Opatowice A4 Motorway [800 Mg] – 2007
- The WD-30 viaduct - Poleczki Street in Warsaw [1266 Mg] – 2007
- Mosty Warszawskie in Wrocław [2066 Mg] - 2007
- Viaduct on the A1 Motorway – section: Sośnica Interchange – Bełk Interchange [11000 Mg] - 2007 ÷ 2009
- The railway viaduct in Legionowo [694 Mg] - 2008
- Most Północny in Warsaw [1500 Mg] - 2009/2010
- Viaducts of Warsaw south ring road [1000 Mg] - 2010











METAL CONSTRUCTION DEPARTMENT





ASSORTMENT

We offer the production of the following types of steel, tanks, cylindrical and conical constructions:

- chutes and siloses,
- pressure vessels,
- large size tanks, pipelines,
- wind towers,
- chimney stacks and gas ducts,
- generator casings,
- toothed gear transmission casings,
- constructions for the metallurgical industry,

We produce ready-to-use or ready-for-shipment container constructions (segments, shell plates) after the trial assembly. Containers are produced in accordance with the polish standards or customer's requests, according to DIN, EN.

We also apply anticorrosion protection on special customer's wishes.

REFERENCE LIST

- Wind towers, up to 70 m height: Belgium, Netherlands
- Large-sized liquid fuel tanks: Germany, Belgium, Sweden, Netherlands, Poland
- Welded constructions: Sweden
- Crane jibs, installed on vessels: Austria, Germany, Netherlands







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ASSEMBLY ELEMENTS MADE OF HEAVY PLATES, SEAMLESS PIPES AND TUBES







Elements made of heavy plates are prepared as follows:
- oxygen burning using CNC MESSER devices,
- plate edges bevelling before welding (V, K, X, Y):
  - by oxygen cutting,
  - mechanically for heavy plates with the length up to 12000 mm.

Elements made of seamless pipes and tubes are prepared as follows:
- mechanical cutting using bandsawing machines (straight and angular),
- bevelling (mechanically or by oxygen burning).

The minimum diameter of rolled tubes from heavy plates with its thicknesses 6 ÷ 12 mm for S235, S355, P265 grades etc. is Φ 508 mm, maximum diameter, in turn, up to Φ 5000 mm.

The maximum thickness of rolled plate is 70 mm - with diameters over Φ 1100 mm.

The maximum width of rolled plate is 3100 mm, for the maximum thickness 30 mm, and for the thickness over 30 mm, the maximum plate width is 3000 mm.

The tank diameter, sent in shell plates - without limitations.

DIMENSIONAL TOLERANCES

- tubes diameters acc. to customer's wishes: min. tolerance ± 2 mm
- tank elements: width ± 1,5 mm, length ± 2 mm
- diagonal differences: max 3 mm
- other welded constructions in accordance with customer's order, particularly acc. to DIN EN ISO 13920 or DIN 7168









PREFABRICATED PRODUCTS DEPARTMENT









ASSORTMENT

- assembly elements of wind towers
- shell plates for large diameter non-pressure tanks
- elements of large diameter tubes
- assembly elements of earth moving, road and building machines
- assembly elements of bridges, building and industrial constructions
- assembly elements of wheeled transport

BEVELLING TYPES



Bevel angles $\alpha, \beta = 15° \div 60°$ g = from 8 mm $s \geq 1$ mm

REFERENCE LIST

Wind towers producers:

- NORDEX Germany; DynaWind Sweden; WinWind Finland; Vestas Denmark; SIAG Germany

Engineering industry:

- Alfa Laval Sweden; Caterpillar Poland; Dynapac Sweden; Konepajat Poland; APV Denmark; Ruukki Poland; Stemcor Germany

Shipbuilding industry:

- Ship Repair Yard GRYFIA; Northern Shipyard; Malbo Poland; REMONTOWA Gdańsk Shipyard; GDAŃSK Shipyard









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PREFABRICATED PRODUCTS ASSORTMENT







For prefabricated elements production we mainly use heavy plates with thickness 6 ÷ 70 mm (up to 150 mm after agreement) produced by our Plate Mill.

A. Shaped plates:

Dimensions and dimensional tolerances

Plate dimensions [mm]	Cutting method			Dimensional tolerances
	laser	plasma	gas	Dimensional tolerances of plates acc. to standards: PN-H-92200, EN 10029, DIN 1543
Thickness	up to 20	6 ÷ 50	6 ÷ 200	
Width	max 2000	max 3100	max 3100	Dimensional tolerances of the cutting element and the quality of cutting surface acc. to PN EN ISO 9013 standard or accordance to agreement between the buyer and the seller.
Length	max 6000	max 12800	max 16000	

Precisely cut plates (with bevelled edges on request)

Dimension	Thickness	Width	Length		Plate diagonals length difference	Edges straightness	Bevel angle		Threshold height	Bevelled edges type
			up to 10000 mm	over 10000 mm			gas bevelling	mechanical bevelling		
Tolerance	acc. to standards: PN-H-92200, EN 10029, DIN 1543	± 1,5 mm	± 2,0 mm	± 0,02 %	max 4,0 mm	±1,0 mm/10 m	± 3,0°	± 1,5°	± 1,5 mm	X, Y, V

B. Gas cut stripes, also with bevelled edges

Stripe dimensions [mm]		Dimensional tolerances
Thickness	6 ÷ 100	PN-H-92200, EN 10029, DIN 1543
Width	min. 100	± 1,5 mm
Length	max 16000	± 3,0 mm











TECHNICAL AND TECHNOLOGICAL BASE





Technical and technological base consists of 18 machines for plates cutting, including:

- Messer Griesheim and ESAB Hancock automatic machines for plates gas-cutting, multi-torches (4-8 torches)
- ESAB Numorex NXB 8500 device with two heads, each equipped with three torches, the bevel angle is mechanically adjusted
- Messer Corta PD 5000 underwater plasma-arc cutting device, equipped with one gas torch and one plasma torch
- Messer OmniMat L 5000 GLOBAL CONTROL for plasma-arc cutting with bevelling posibility up to 45° for top edge; up to 40° for the bottom edge

Cutting thickness range for low-alloyed steel - perpendicular cutting:
recommended: 1,5 ÷ 32 mm; minimum: 0,5 mm; maximum: 50 mm

Cutting thickness range for low-alloyed steel - bevel cutting:
recommended: 1,5 ÷ 32 mm; minimum: 1,2 mm; maximum: 38 mm

- Messer device for dry plasma cutting
- TRUMPF laser cutting device - TruLaser 5060 which enables to keep the length and width tolerances ± 0,5 mm
- Additionally bending press 600 tons and other devices for machining concerning drilling, milling, threading, bending, holes boring, turning

Machining is done through CNC devices:

Chiron - Sinumerik FZ 12S: drilling, threading, milling, milling with circular interpolation.

CMA TRD 40CN 4500: drilling and threading.

TAE 45N turning lathe: turning drilling, threading of rollers flanges.

TruBend 8600 bending press:
- bending length: up to 5000 mm,
- pressure: 600 Mg.

Bending of shapes and channel sections in thickness 3 ÷ 10 mm and other shaped elements











ANTICORROSION PROTECTION DEPARTMENT









Anticorrosion Protection Department has long-term experience in protecting steel constructions against the corrosion. This department has recently protected many objects from bridge and building branch, i.a.: The WA-470 Bridge construction Sośnica-Bełk Interchange on the A1 Motorway, The WD-30 viaduct along Poleczki St. in Warsaw, The Vistula Stadium construction in Kraków, the construction of Most Świętokrzyski in Warsaw, the railway station construction in Częstochowa and many others. We work acc. to technologies recommended by designers or our specialists. Technological operations take place in cabins sized: 32 x 8 x 6 m, equipped with filter-ventilation devices. We protect elements with max. weight 80 Mg. Production capacity: up to 1000 Mg per month.

Technical abilities:

- Flat prefabricated elements:
  from 6 mm do 50 mm thickness; length: min. 2 m, max 16 m
- Profiles: web height up to 1100 mm, ledge width up to 420 mm

ASSORTMENT

Plates covering using specialist paintings (shop primers), which:

- permit to put diffrent types of paint sets,
- permit weiding of these plates and sections,
- provide temporary protection against the corrosion; it lasts for six-month period, after that period the next coat must be applied.

Cleaning by shot blasting, which:

- causes plates cleaning from rolling scale and rust,
- provide surface cleanness Sa 2½ in acc. to ISO 8501 – 1 and roughness about 40 μm,
- enables precise inspection of shot blasted surface, which allows to eliminate all material or rolling flaws, hidden under scale.

Paints which are usually used on line:

- SIGMAWELD 199 - produced by SIGMA, Netherlands
- HEMPEL'S SHOPPRIMER ZS 15890 - produced by HEMPEL, Denmark

Coating thickness: 15÷25 μm, the measurement based on BN-80/3702-07.

Type of paint is agreed with customers.





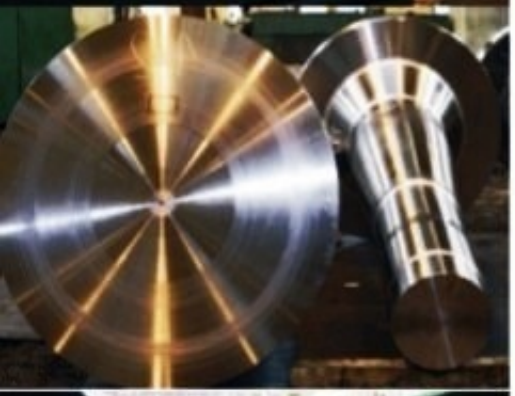






NON-DESTRUCTIVE TESTING







There are the following non-destructive tests that are made in the Steel Construction Centre:

- visual testings
- penetrant testings
- magnetic-particle inspections made by magnetic defectoscope
- ultrasonic testings using defectoscopes and ultrasonic thickness gauges
- radiographic testings using RTG apparatus

The Plate Mill Quality Control issues certificates acc. to its owned authorizations:
- Second level acceptance certificate N° LB-154/04, issued by Urząd Dozoru Technicznego,
- Bureau Veritas Certificate of Testing Laboratory N° 1072PLO08-02.

All above-mentioned certificates qualify for testing acc. to PN-EN ISO/IEC 17025:2001 standard in the range of:
- non-destructive testings: ultrasonic testings, magnetic-particle inspections, penetrant, visual and radiografphic testings,
- strength tests.









CERTIFICATES





















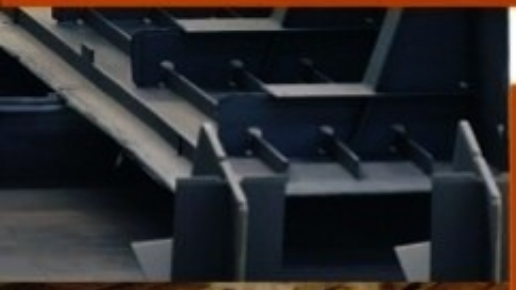
CERTIFICATES





















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WELCOME TO PARTNERSHIP



