









# -SERVICES-





#### Vanstar company

Vanstar was established in 1993. During its first years of operations, the company was engaged in the manufacture of exhaust systems and these components were designed for commercial trucks which were manufactured by Polish companies. Responding to the client's demands, we then extended our offer to include complete exhaust systems for all leading makes of commercial vehicles.



#### Vanstar offer

Throughout all the years of Vanstar's operations we have constantly been building up our prominent positions in the European markets by improving the production quality and technology. The crucial events in the history of Vanstar took place in the years 2005, 2008, 2010 and 2017, when new production facilities started to be operational, and the ISO-TS 16949, ISO 9001 and ISO 14001 standards were implemented. This allowed us to increase the volume and efficiency of the production, and added to still better quality.









Our production plant consists of much numerically controlled (CNC) machinery. We take advantage of the latest solutions at all stages of the production process, including the fabrication of instruments and tools needed for new products. The company's tool-maker's shop substantially facilitates speedy implementation of products, no matter how technologically sophisticated they might be. Our CNC machines can be found at each stage of the production of exhaust system components, starting from the laser cutting of metal sheet, through the bending of pipes, metal working and fitting, to the manufacturing of end products. The products are inspected at many points of the process, including its final quality control carried out by our specialist division equipped, among others, with a CIMCORE laser measuring arm and scanner.





We use advanced 3D design programs, such as: Solid Edge, Delcam PowerINSPECT. All data are transmitted direct to the machinery computers which further production processes. As a consequence, we avoid human errors.



Production techniques and the latest instruments allow the manufacture of exhaust system components practically with minimum welding. Due to this the durability of our products is higher than the ones made by our competitors. We take every measure to achieve the standard identical to that demonstrated by the original products.







#### Vanstar offer - SERVICES

Includes advanced solutions for production industry. Most of our

machines are computer-controlled CNC. Design of production elements is done on a computer in CAD programs. Data is sent directly to machines. We avoid mistakes caused by human factors as well as we get high performance and precision.



# Our technological capabilities include:

- production of exhaust pipes, intake and cooling systems,
- profile bending,
- laser cutting of flat and three-dimensional elements (including embossed elements, bent tubes and profiles),
- turning and milling,
- emboss elements on hydraulic presses,
- Vibro-processing
- performing quality tests,
- carrying out pressure tests,
- CAD-CAM design services.



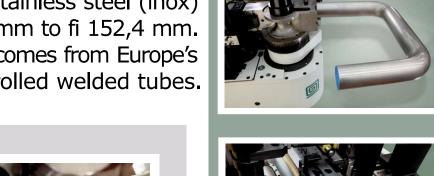






# Pipe bending

We produce pipes made from both side's aluminized steel and stainless steel (inox) from diameter fi 12,0 mm to fi 152,4 mm. All of the raw material comes from Europe's top suppliers of cold rolled welded tubes.









We manufacture our pipes with the use of numerically controlled bending machines as well as a number of other CNC machines

which have been especially designed for the working of pipe ends. Where possible, our pipe is made of one piece of material to avoid welding. As a consequence, durability of the pipes is exceptionally high.











# **Profile bending**

Regardless of the shape of the profile (square, rectangular, etc.), the bent elements will be perfect and always the same.

We provide maximum repeatability and geometric precision, also on complex details. The folded matrix maintains a constant cross-section across the folded section.



With to high-strength materials or high -strength stainless steel, our benders prevent the formation of badly looking marks due to slippage at the end of the deflection, and premature wear of the tooling.







#### Laser cutting

Our wide range of services also includes a 2D and 3D laser cutting service. Laser technology ensures high cutting precision and speed with smooth edges, doing away with the requirement for further machining. With laser cutting, the deformation of the workpiece is avoided, the cutting is better, and the results are accurate and constant: they are ideal for robotic welding during assembly.

# 3D laser cutting

Our 5-axis 3D laser cutting machine allows us to laser -cut all three-dimensional details, such as bent pipes, hydroformed pipes, pre-formed pipes, pre-welded pipes, flat and / or extruded surfaces, etc.



It is possible to cut every metal with a laser, such as: copper, aluminum, brass, stainless steel, galvanized steel, aluminised steel, iron, etc. The system is equipped with an optical fiber laser source, which cuts every metal with maximum performance and excellent quality. The laser is also ideal for thin tubes that are easier to deform if they are treated with traditional technology. Cutting, drilling, punching, milling, deburring, etc. - these operations are traditionally performed one by one. The laser performs them all together in one operation, in one cycle. 3D laser cutting is a repeatability guarantee, the ability to process high reflective materials and also zero defects.









# 2D laser cutting

We have a Trumpf TruLaser 3040 laser cutter.

#### Maximum steel thickness:

- constructional steel: 20mm,

stainless steel: 15mm,aluminium alloy: 10mm.

Maximum dimensions of machined sheet metal: 4000mm x 2000mm.











#### **Bending services**

The laser cutting service is complemented with a bending service of cutted parts from metal. We have a 160 ton CNC bending brake allowing for comprehensive handling of cutting and bending services of sheet metal parts.





#### **Embossed elements**

We have a number of computer-controlled hydraulic presses with pressures ranging from 200 to 650 tonnes with the largest working table measuring 1300 mm x 1300 mm. Combined with 3D laser cutting, they ensure fast, accurate and extremely repeatable plastic sheet metal processing.











#### **Turning**

Vanstar company offers its customers turning services on a horizontal turning center, CNC – OKUMA Genos L300E-MY

# Basic device specifications:

- maximal diameter of turning: Φ 340mm,
- maximal length of turning: 1020mm,
- spindle rotation: 25 3800RPM.





#### **Milling**

Milling service which is offered by Vanstar company is processing on vertical milling center CNC – OKUMA Genos M560-V.

#### Basic device specification:

- spindle speed range 50 12000RPM,
- work table size: 1300mm x 560mm,
- pallet carrying capacity 900kg,
- acceleration 0,7G.









# **Tumble finishing**

We have the possibility of large scale: degreasing, deburring and grinding (from coarse to small up to finishing) products of various shapes, especially long elements and flat elements that tend to stick together (so called packing) or adhering to the walls of the work container. Our machines are perfect for abrasive grinding, where the surface roughness is critical. The result is a homogeneous structure, free of sharp edges and corners. Machines successfully remove burrs, blunt and round sharp edges, eliminate surface layers - oxides formed after laser cutting or fat deposited on the surface of the material.







#### **Quality Control**

Vanstar company has the highest level of quality management, what is ensured by certificates implemented in accordance with ISO-TS16949, ISO9001: 2008 and ISO14001: 2000. By using the latest, constantly improved technology and obtained certificates, all production processes in Vanstar are constantly monitored and controlled. The Quality Controll Department is equipped with laser measuring arms and a scanner that allow you to make very precise checks on your products







#### **Pressure Control**

We also have the ability to perform pressure controls including on pipes and profiles. Our leak detector performs overpressure tests with automatic adjustment of 1 to 10 bar. Range of pressure drop measurement:  $\pm$  500 Pa (differential - max resolution 0.1 Pa).









#### **Powder painting**

We offer definitely the most effective from all modern metal painting methods. Unlike of traditional varnishes (paints), powder coatings provide smooth coatings, without cracks, streaks, bubbles and wrinkles. They are used for protective, anticorrosive and decorative painting of metal objects. The thermal resistance of the coating is about 100°C. The coatings are characterized by very good mechanical properties and high resistance to chemicals.

The special advantage of powder coatings is their versatility of usage (thanks to the possibility of obtaining coatings of different gloss levels in a wide range of textures and structures in full RAL colors). Powder paints are fully safe for people and the environment.



The painting takes place in a chamber of dimensions

4300x1600x1200 mm











#### **Sandblasting**

Sandblasting is a technological process that purge any surface from impurities (rust, old paint coatings) with use of abrasives in a stream of conjugated air. This type of processing allows for cleaning of complex shapes such as: wheel rims, frames etc.

As a result of the sandblasting, the cleaned surface becomes more equal and the resulting "surface roughness" has a significant effect on the adhesion of the coating. This increases the durability and viability of the preserved components.



We do sandblasting of:

- all kinds of steel components,
- frames of: motorcycles, cars, bicycles,
- car bodies,
- gates, fences, balustrades,
- alloy wheels and steel wheels,
- bodies of machines, machine guards,
- old cars.

















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