



**Aleea 3 Drumul Apelor nr. 11
200453 Craiova Romania**



History

30 years ago, in 1991, established in a small workshop with just 3 employees and a few refurbished machines, company began its activity by repairing automotive parts and subassemblies.

The repairing activity consisted of:

- rectifying crankshafts;
- reconditioning cylinder heads;
- engineblock tree line corrections;
- also weldings for aluminum, stainless steel or cast iron parts.



Foundry activity, started in 2002, and it have been developed from simple gray iron castings to complex nodular iron and alloyed-steel castings.



In 2005 company's system is authorized ISO9001, quality accreditation that it is maintained and updated continuously.



In 2006, the activity of mechanical processing is developed; there are brought the first CNC machines



TWO TURNING CENTERS
AND ONE MILLING UNIT



Castings and machined parts production increased by making spare parts for agricultural equipment



From 2008 production was diversified to superior sectors, like manufacturing of castings and machined parts for:

1- the industry of electric generators

2- hydraulic equipments industry

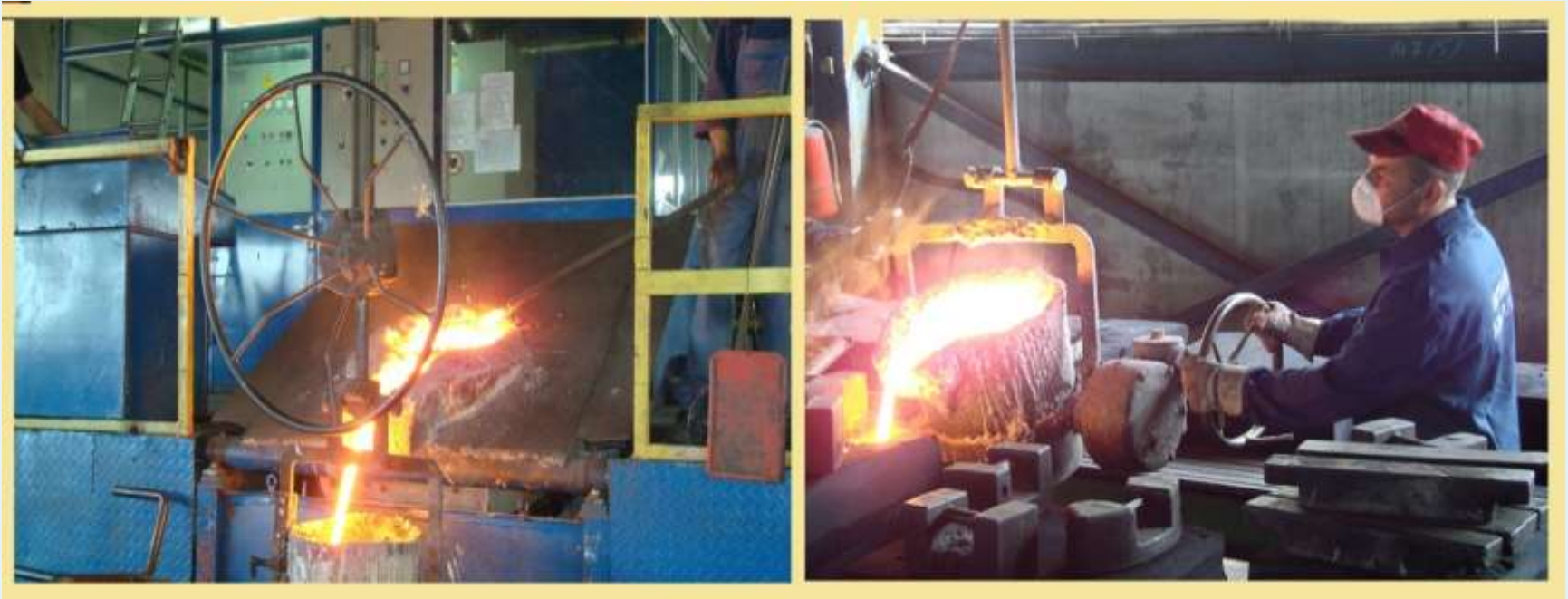
3- electric motors and machines industry

4- the water valve industry



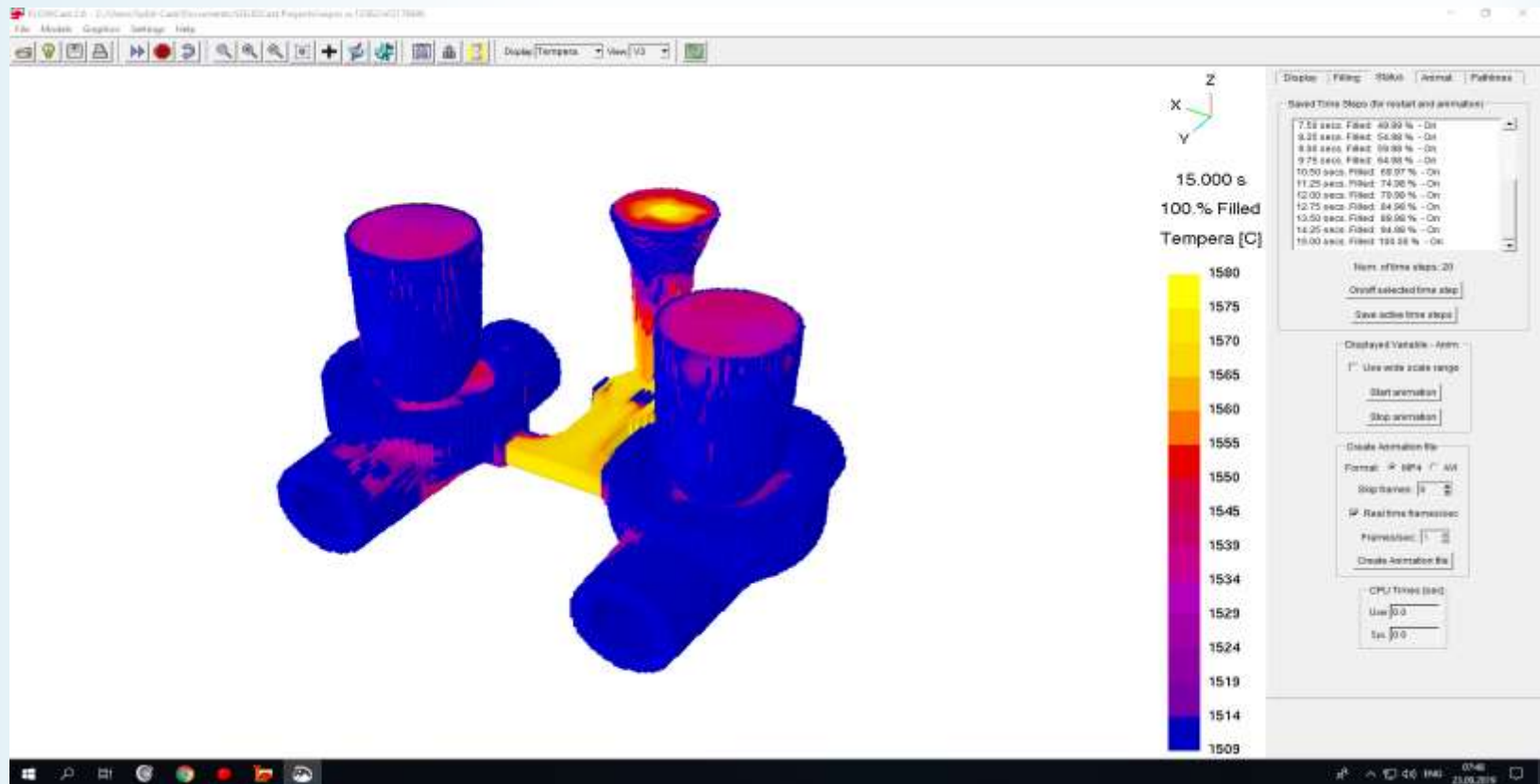
Current Foundry Capabilities

1. FURNACES



- ▶ Casting capacities of 600 tons of parts / year
- ▶ Two induction furnaces of 0.5 tons each

2. DESIGNING THE CASTING TECHNOLOGY (network, feeds, raisers, etc) with **SOLID** **CAST** software



3. MOLDING

NO-BAKE technology
chemical hardening
based furanic resin

Capabilities up to:
- 850 mm diameter
- weight of 250 kg

Molding furan-based resins provides superior quality of the surfaces of the mold and the regeneration of this mixture allows the sand to be reused, providing a cleaner working environment.





Mold assembly line



Pouring from furnace

4. QUALITY ASSURANCE traceability of the castings

- 1 parts are identified according to the batches they have been poured from;
- 2 determining chemical composition – spectrometer;
- 3 registering the melting, nodularizing and casting temperatures;
- 4 analysis of the metallographic structure;
- 5 determining mechanical characteristics (resistance to breakage, flow and elongation, charpy test, hardness etc.);



MECHANICAL TESTING LABORATORY

Tensile test

Hardness check

Charpy test



5. TWO SHOTBLASTING INSTALLATIONS (with rotary hook)

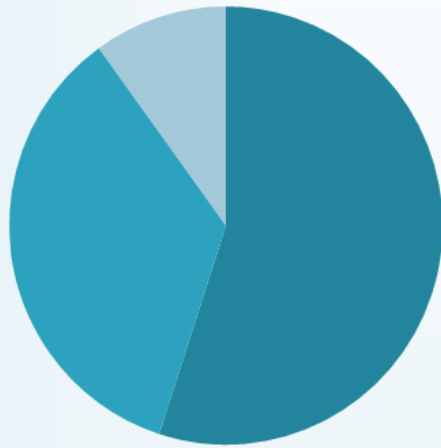


6. THREE HEAT TREATMENT FURNACES



- ▶ Normalization
- ▶ Stress relieving
- ▶ Ferritizing

Machining department



- Iron
- Steel
- Other



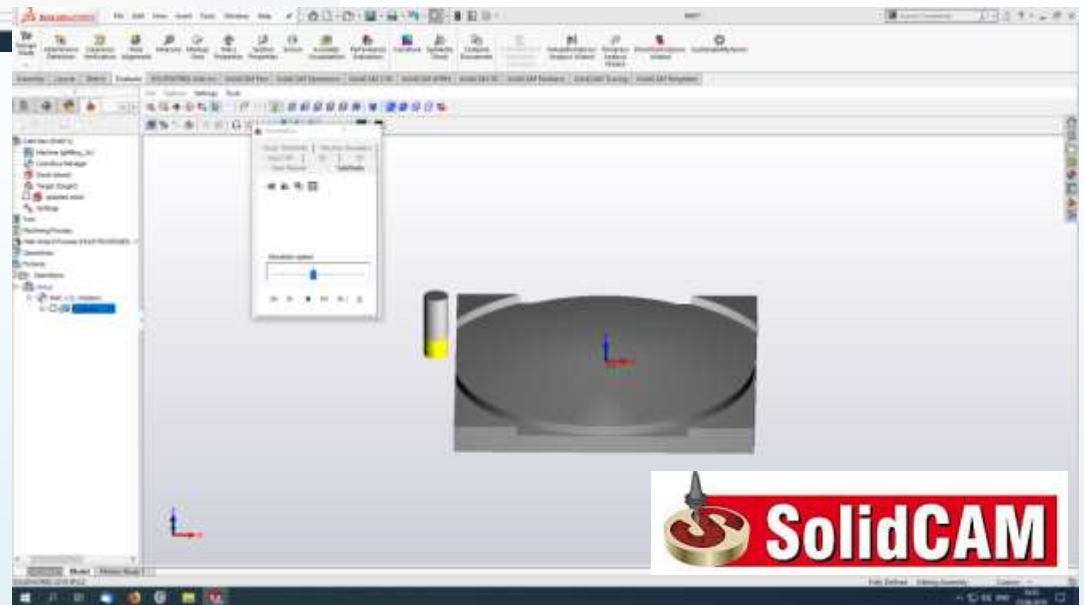
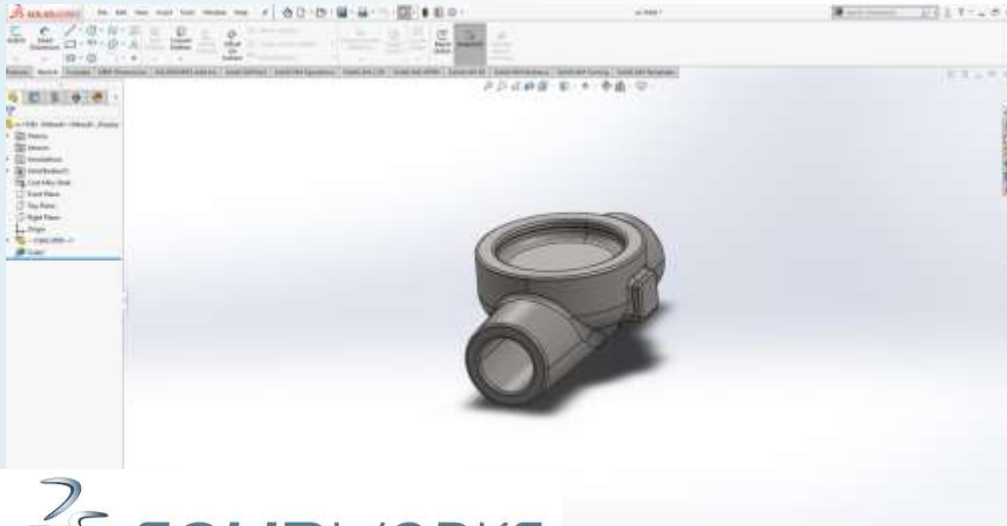
- ▶ Finished products out of castings or laminated semi-products are done on machines with numerical control and CNC centers;
- ▶ The technological preparation of the semi-products is performed on universal machine tools;
- ▶ Machining department also performs operations of flat and round grinding, boring, honing on specialized machines.

CNC plasma /oxygen cutting machine



- the size of the cutting board : 2500 X 6000mm
- cutting depth : oxi: 200mm; plasma: 40mm

DESIGNING THE MACHINING TECHNOLOGY



Milling



Turning



Drilling



Four Horizontal Turning Centers Doosan Puma 400



- ▶ Turning possibilities:
- ▶ $L_{\max} = 950 \text{ mm}$
- ▶ $\varnothing_{\max} = 680 \text{ mm}$



Three Vertical Milling Centers Hwacheon Vesta 1050 B



- ▶ Working length :
Axa X: 1050 mm
Axa Y: 610 mm
Axa Z: 610 mm



Two Vertical Turninig Centers Hwacheon VT650R



- ▶ Turning up to a maximum diameter of 850 mm, with the possibility of drilling and threading (axis C)





YOU-JI Vertical Turning

milling / drilling
possibilities (axis C)

dimensions between
(800 – 1200) mm diameter



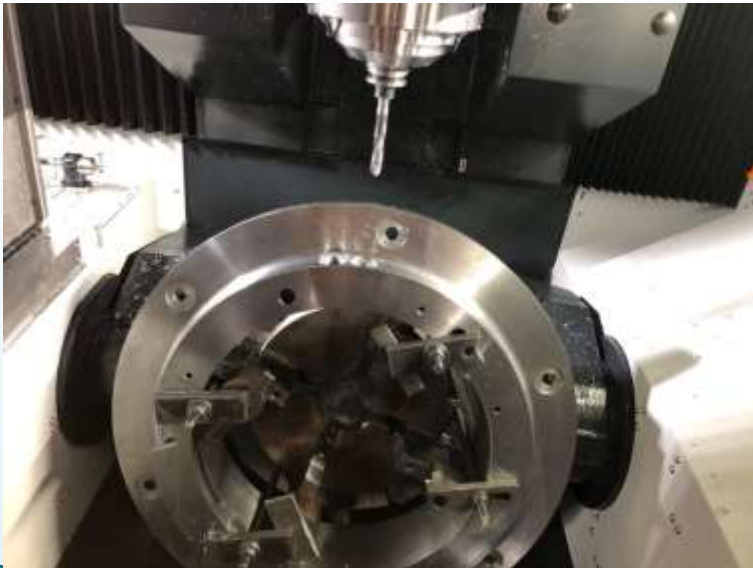
CNC Vertical Center with 5 axes

DOOSAN VC630/5AX

stroke dimensions

X=650; Y=765; Z=520;

A=1500; C=3600



Technical Quality Control



- ▶ The dimensional control of the parts is done both using conventional measuring and control devices, as well as with the 600 mm electronic TESA altimeter, two FARO measuring arms in 3D coordinates up to 650 mm.



Automatic measuring machine in 3D coordinates



WENZEL®

field of measurement:
1000 x 1600 x 800 mm

*micron precision



We are permanently concerned with diversification and development...

Year by year new investments are made in human resources, machineries, installations and production areas.

Lately, in 2020, the company was authorized as feroviar supplier with



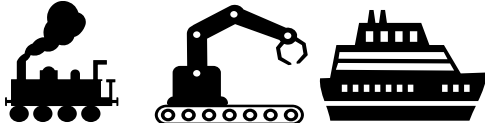
New investments



Current parts developed by our company:



Supported industries



Our company seeks to improve its base production, devolping a high level of quality in order to satisfy our customer requests from European Union and beyond...

