

METALLUR

P*PPT Engineering* company has been designing and developing the program of electro-hydraulic systems in metallurgy ever since 1976, practically since its founding. Since then, until the present day, the company has been constantly improving its design solutions in order to bring them into line with the latest requirements of technology, quality and reliability.

Manufacturing of electro-hydraulic systems for process equipment for production of coke in metallurgical plants is the most important segment of *PPT Engineering's* presence in metallurgy.

Electro-hydraulic systems for coke machines are designed to provide sequential movement of mechanisms on pertaining machines during one work cycle on a coke battery. The task is accurate positioning of cylinders as actuation elements of mechanisms, which are designed for large external loads.

The specific feature of electro-hydraulic systems for coke equipment is 20 to 25 individual actuation systems on one machine with central hydraulic supply, whereby the desired flow and pressure, being the basic parameters of actuation systems, are provided for each mechanism.

Electro-hydraulic systems are installed in the following plants:

- In cold and hot rolling mills for production and transport of sheet metal, profiles, wire, rods, beams, pipes, elbows etc. (furnaces, traction benches for pipes, winders, shears, presses...)
- For blast furnace serving (drilling machine, manipulator and hydrostatic clay gun)
- For serving in coke ovens (dosing coaches, coke pusher cars, door extractors, coke guide cars and coke quenching cars and locomotive for hauling wagons for coke quenching)

Some of the most important references are:

- Manufacturing of hydraulic blocks for Dave McKoy company, for the requirements of Železara (Ironworks) Smederevo
- Manufacturing of complete hydraulic system for roll stand no. 6 of Železara Smederevo, according to the documentation of the SMS company from Germany and under its supervision.

The latest reference of *PPT Engineering* in the field of metallurgy is for the buyer in Germany, DHMS from Dortmund, where *PPT Engineering* designed and manufactured electro-hydraulic drive and control systems for the drilling machine, hydrostatic clay gun and manipulator, the end user of the equipment is the Ironworks Ilva in Taranto, Italy. The equipment was designed and manufactured in the period 2015–2016.



*Mining-metallurgical plant Arcelor Mittal, Krivi rog, Ukraine
Coke transportation locomotive*

ERGY



MP Zapsib, Novokuznjevsk, Russia

Metallurgical plant (MP) Zapsib

Buyer: Goša FOM, Serbia

Commissioned:

1998 – 2 pusher cars and a door extractor

2000 – Hydraulic systems for
handling mechanisms on Coke Pusher Car, Coke
Transfer Car and - 2 machine sets and 2 locomotives
with hydrostatic drive



Coke Pusher Car hydraulic system



MMP Arcelor Mittal, Krivi rog, Ukraine



Mining-metallurgical plant (MMP) *Arcelor Mittal*

Buyer: *Goša FOM*, Serbia

Commissioned: 2009

Hydraulic systems for handling mechanisms on Coke Pusher Car, Coke Transfer Car and Coke Charging Car, locomotive with hydrostatic drive - 3 machine sets and locomotive

Locomotive hydrostatic drive

Mining-metallurgical plant Arcelor Mittal



Hydraulic equipment cabin

Ilva Ironworks, Taranto, Italy

Buyer: *DHMS*, Dortmund, Germany

Delivered: 2017

Electro-hydraulic drive and control systems
for drilling machine, hydrostatic clay gun and
manipulator



Hydraulic reservoir of furnace serving hydraulic system



Valve table

MP Izdemir, Iskanderun, Turkey

Metallurgical plant *Izdemir*

Buyer: *Concord*, Ukraine

Commissioned: 2010

Hydraulic systems for handling mechanisms
on Coke Pusher Car, Coke Transfer Car and Coke
Charging Car



Door extractor

MP Severstalj, Cherepovec, Russia



Metallurgical plant *Severstalj*

Buyer: *Goša FOM*, Serbia

Commissioned: 2007 – 2 machine sets, 2010 – 1 machine set

Delivered: 2016 – one machine set, capacity 21.6 tons and a guide car capacity 30.3 tons

Hydraulic systems for handling mechanisms on Coke Pusher Car, Coke Transfer Car and Coke Charging Car(machine set)

Hydraulic equipment cabin

NLMK, Novolipeck, Russia



Buyer: *Goša FOM*, Serbia

Commissioned: 2000 – 2 machine sets and a coke quenching car

2010 – 1 machine set

2016 - tilter

Hydraulic systems for handling mechanisms on Coke Pusher Car, Coke Transfer Car and Coke Charging Car

Coke pusher car