

DIRECT CURRENT ARC FURNACES (0.5 TO 1 TON)

manufactured by COMTERM Scientific Production Company LLC

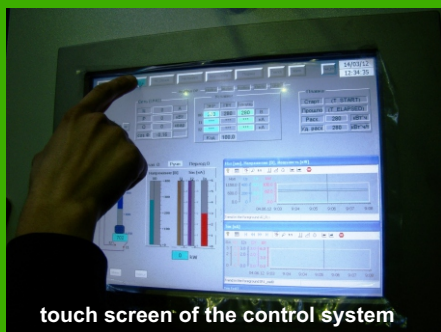
As a result of a detailed engineering study using 3D design system, we ensure the following:

- Interaction with allied equipment;
- Convenience and simplicity of operation by personnel;
- Solution of issues connected with transportation of metal and slag;
- Prevention of errors in shop design.



Package supply:

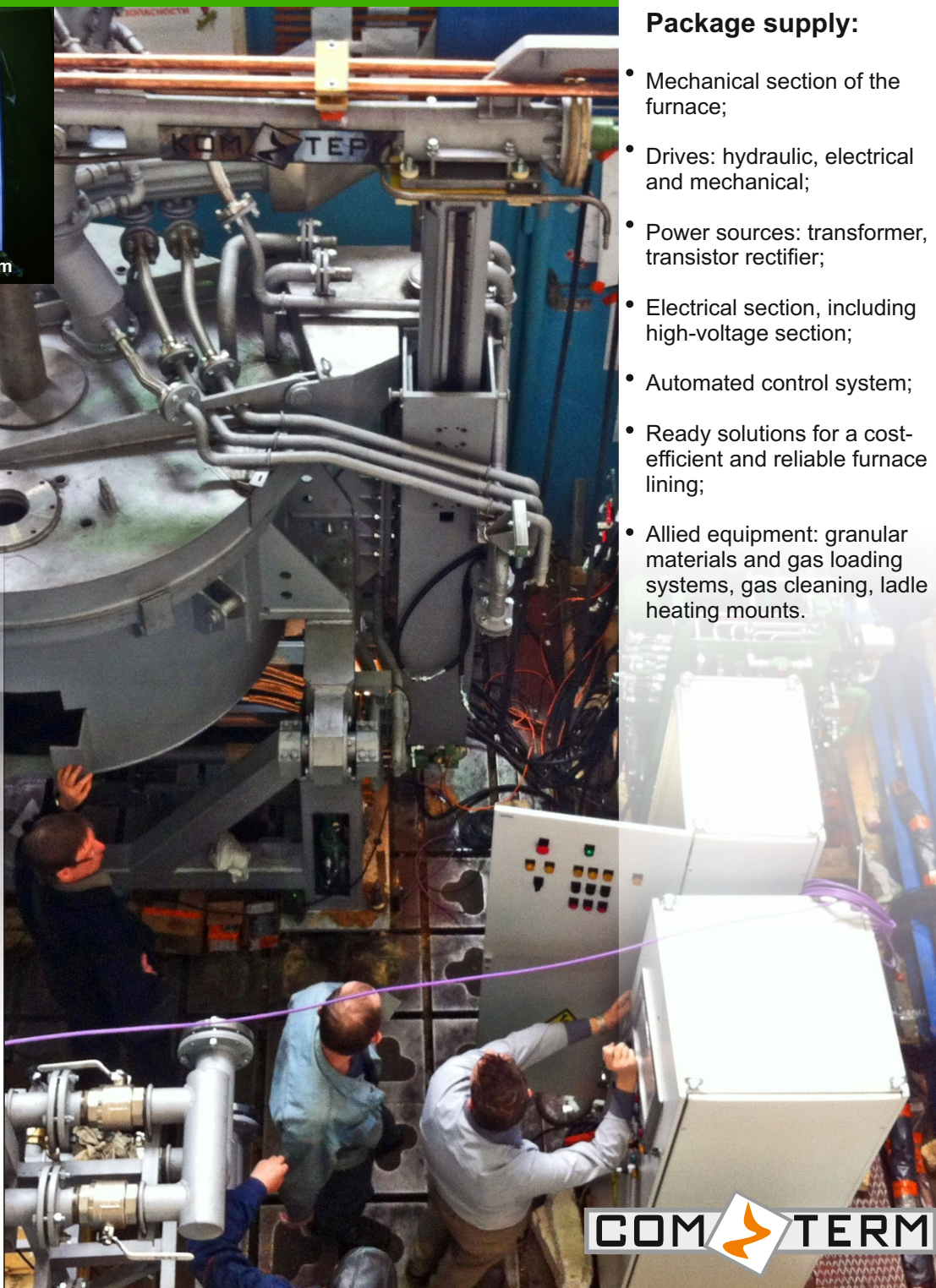
- Mechanical section of the furnace;
- Drives: hydraulic, electrical and mechanical;
- Power sources: transformer, transistor rectifier;
- Electrical section, including high-voltage section;
- Automated control system;
- Ready solutions for a cost-efficient and reliable furnace lining;
- Allied equipment: granular materials and gas loading systems, gas cleaning, ladle heating mounts.



touch screen of the control system

Comprehensive approach Delivery of ready furnace: bolt up, turn on, melt!

- Precise design tools;
- Selection of the best proven components manufactured in Russia and abroad;
- Control of the manufactured components;
- Delivery of allied equipment;
- Delivery and implementation of melting technologies.



testing of the DP-0.5 furnace before delivery to Germany

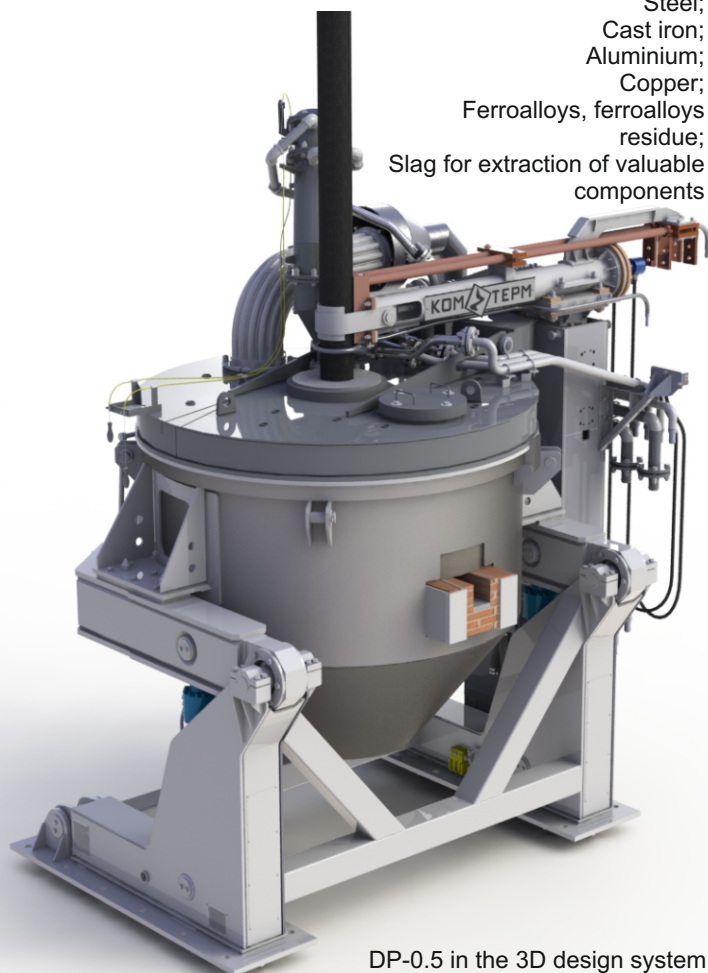


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Melted and remelted materials:

- Steel;
- Cast iron;
- Aluminium;
- Copper;
- Ferroalloys, ferroalloys residue;
- Slag for extraction of valuable components



DP-0.5 in the 3D design system



fragment of the water-cooling wall

Furnace type	DP-0,5	DP-0,5	DP-1
Power source capacity, kVA	630	1000	1000
Supply network voltage, kV	0,4;6;10	0,4;6;10	0,4;6;10

parameters of furnaces when melting steel and cast iron

Nomical capacity of furnace, tons	0,5	0,5	1,0
Specific electric energy consumption, kW*h/t, with overheating up to 1,550°C	560	575	577
Meltdown period, min, with overheating up to 1,550°C	32	21	41

parameters of furnaces when melting aluminium and its alloys

Nomical capacity of furnace, tons	0,5	0,5	1,0
Specific electric energy consumption, kW*h/t	450	425	442
Meltdown period, min	26	17	31

Technological features of direct current furnaces (0.5 to 1 ton)

- High productivity thanks to high thermal and electrical efficiency factor;
- Retention of alloying components when remelting alloyed batch;
- Possibility to use reductive and oxidative modes;
- Possibility to remelt all kinds of batch, including chips;
- The furnaces' short downshutes eliminate the possibility of additional pollution of the melted metal by gases, non-metallic inclusions in the spout;
- Tank switching strictly around the downchute provides for a short flow and the possibility to place the ladle directly under the spout;
- The furnaces are equipped with a separate door for deslagging, which prevents pollution of ready metal with slag residue. When the furnace is tilted, the foreplate remains at the same convenient level;
- The use of changeable tanks allows to perform different processes in one and the same furnace by simply changing the tank - no time-consuming and expensive reconfiguration is required;
- Coordinated operation of the rectifier and control system allows the founder not to worry about modes: the optimal mode is selected automatically.



Fragment of the oil pressure installation