

### **Products**

Forging and Handling Technology

- Forging Manipulators
- Transport Manipulators
- Tool Manipulators
- Ingot Transport Cars
- Turntables
- Tool Changing Devices
- Handling Machines
- Heavy-Load Robots

Technology for Ferro-Alloy Plants

- Charging Machines
- Stoking and Distributing Machines
- Measuring Technology

#### Skimming Technology

- Skimming Machines
- Ladle Tilters

#### Filter Technology

- Filter Automats
- Combi Filters
- Multicartridge Filters
- Separators

#### Manufacturing Technology

- TMT Tapping Machinery
- TMT Measuring Equipment
- Other Special Equipment



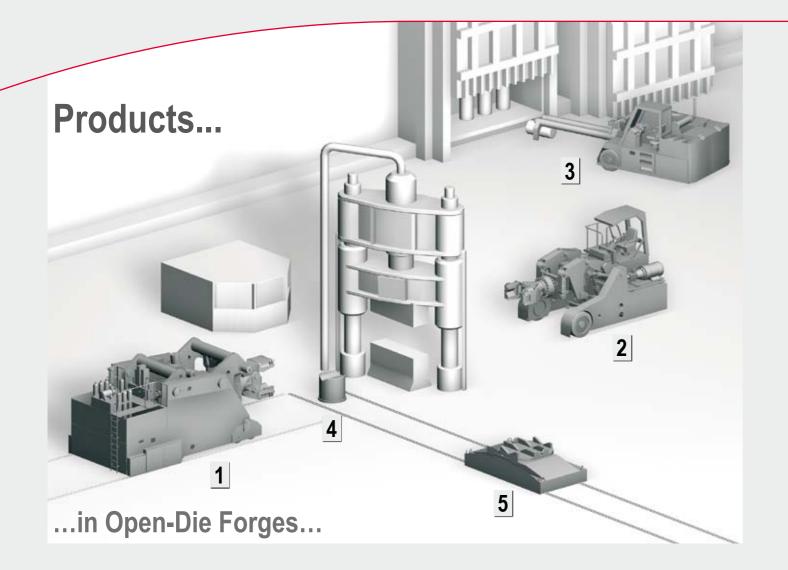


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Technology Open-Die Forging

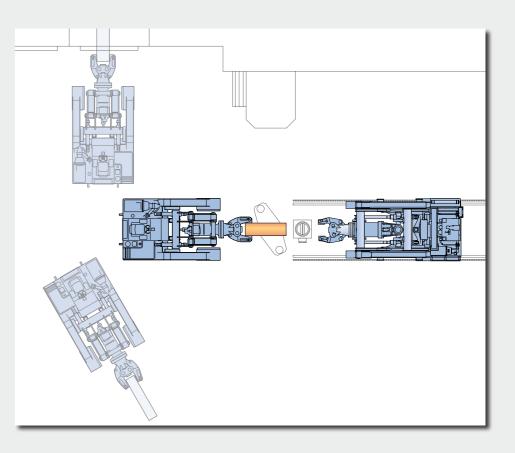
# **Forging and Handling**





## ...as flexible solution

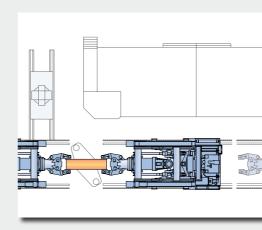
Mobile forging manipulators are suitable for the precise handling of small to very large ingots while forging. In addition, they can be used for transporting the ingots between furnaces and forging presses or hammers.



- **1** Rail-bound Forging Manipulator
- 2 Mobile Forging Manipulator
- 3 Transport Manipulator
- 4 Stationary Turntable
- 5 Mobile Turntable

For decades now DANGO & DIENENTHAL has been the market leader in the area of forging and handling technology for opendie forges. A great number of challenging reference units worldwide underlines this prominent position. The experts of DANGO & DIENENTHAL are glad to review the needs and requirements of customers to provide a recommendation of the best possible machine type and size to meet their needs and expectations.

## ...as integrated solution



In most cases, rail-bound forging manipulators are solely controlled by the press operator. The manipulator control system is responsible for the entire integration in order to forge always in a reproducible and consistent manner with highest possible precision and efficiency. When two forging manipulators are in use at an open-die forging press, productivity increases depending on the products forged are achieved.



## Rail-bound **Forging Manipulators**











Rail-bound forging manipulators by DANGO & DIENENTHAL are equipped with high-dynamic drive systems. The machines are designed for use at high performance forging presses.

Reliability of the equipment and reproducibility of the forming process are ensured. Even when upgrading older forging presses with these modern machines, optimal forming performance and high productivity can be obtained.

Consequent application of the POSISTABIL-Principle allows for an accurately shaped and precise forging process. Thus very high quality is assured in the shortest possible time. This cuts energy and production cost even in the subsequent process steps. All subassemblies and components are arranged easily accessible which facilitates maintenance.

The utmost productivity is obtained by using DANGO & DIENENTHAL rail-bound forging manipulators that work completely integrated with the open-die press.



two













# Mobile **Forging Manipulators**















mobile forging manipulators.

work pieces evenin confined areas.



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Mobile forging manipulators have been designed and built by DANGO & DIENENTHAL since 1936. Over 70 years of experience are backing up every new machine, resulting in many distinguishing merit points.

The greatest possible flexibility regarding work piece transport as well as work piece handling during forging can be obtained by using

high mobility of A very compact design and DANGO & DIENENTHAL manipulators allow transporting

Besides standard sizes DANGO & DIENENTHAL also supplies special machines up to very high carrying capacities and load moments. Particular emphasis is placed on reliability and flexibility of the equipment. Accuracy, acceleration, and good accessibility are additional merit points of these manipulators. Customized and ergonomically arranged controlelements allow for a comfortable and easy operation of the machines.



# Mobile **Transport Manipulators**













When cold or hot ingots are to be transported inside an open-die forge, mobile transport manipulators by DANGO & DIENENTHAL are very useful and powerful.

Custom made machines, such as turntables or tool manipulators at large presses, can be supplied as well. All machines are equipped either with diesel or electro-hydraulic drive systems.

Accuracy, acceleration, and good accessibility are, of course, main features of these series as well.







