

## 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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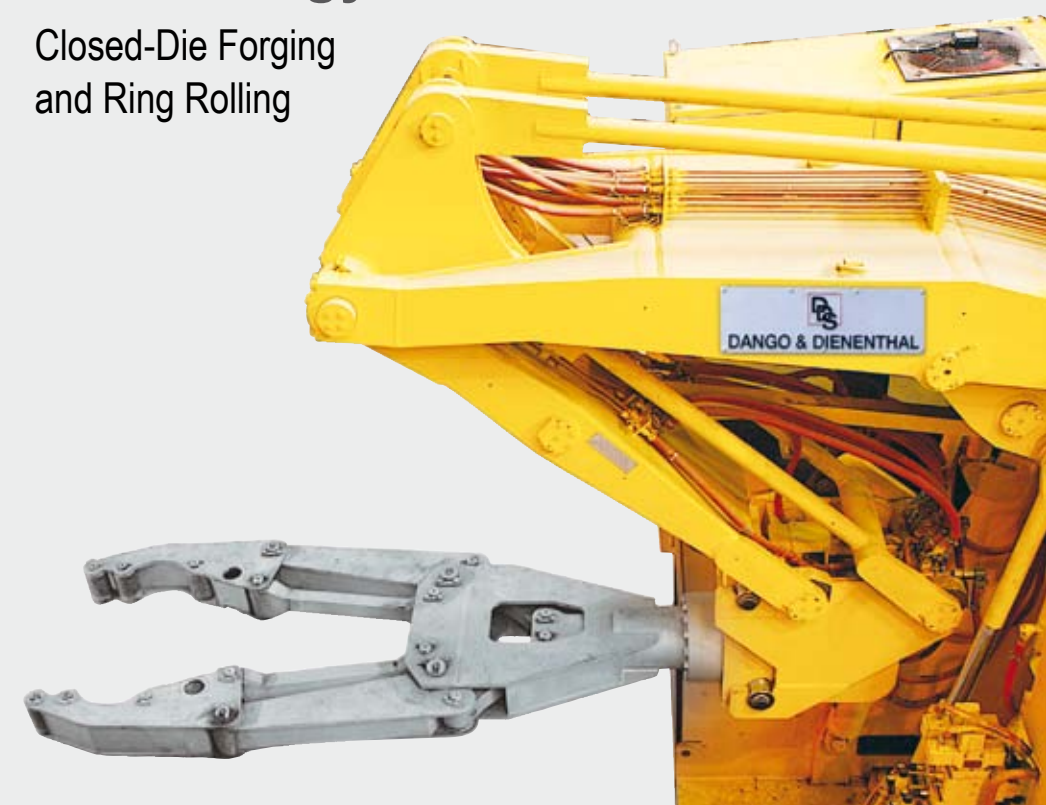
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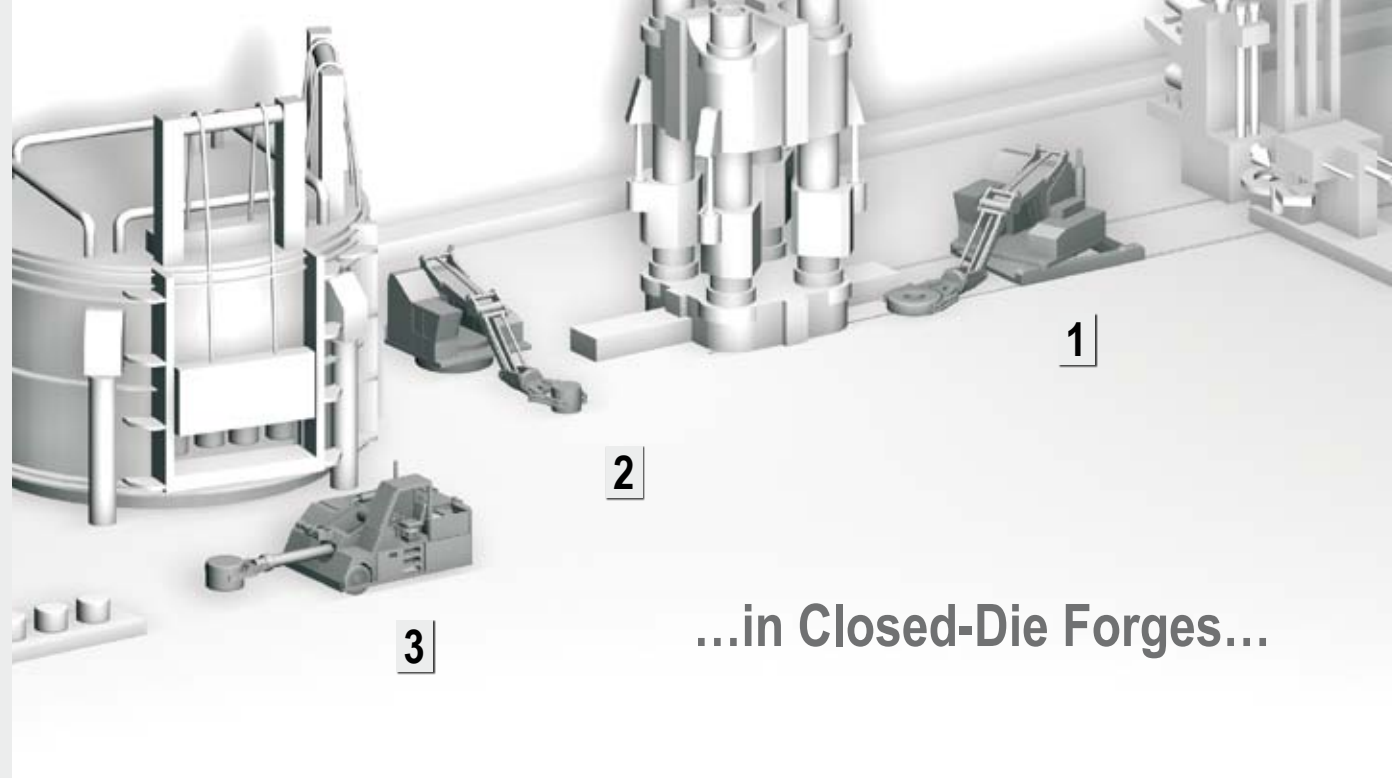
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## Forging and Handling Technology

Closed-Die Forging  
and Ring Rolling



## Products...



- 1** Rail-bound Transport Manipulator
- 2** Stationary Transport Manipulator
- 3** Mobile Transport Manipulator

## ...in Closed-Die Forges...

For decades now DANGO & DIENENTHAL has been one of the market leaders for heavy-duty robots and transport manipulators for closed-die forges and ring rolling mills.

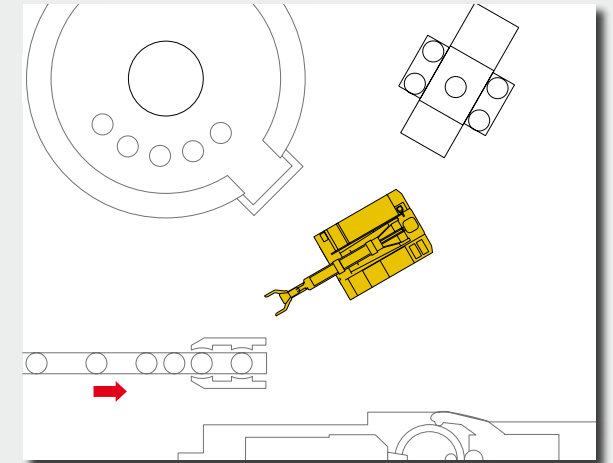
A great number of challenging reference units worldwide underlines this prominent position.

The experts of DANGO & DIENENTHAL gladly advise all users regarding choice of machine type and size.

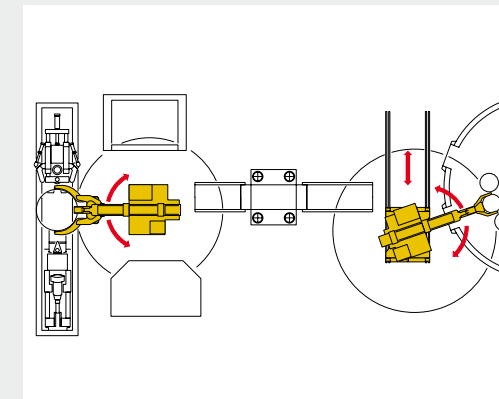
## ...as flexible solution

Mobile transport manipulators are suitable for the precise handling of small to very large or heavy ingots, rings, and disks while forging. Also they can be used for transporting the work pieces between furnaces and forming units.

In most cases the machines are equipped with a diesel drive, but alternatively they can also be supplied with electro-hydraulic drive systems. Due to the very compact design, transport manipulators made by DANGO & DIENENTHAL may be used even in confined areas.



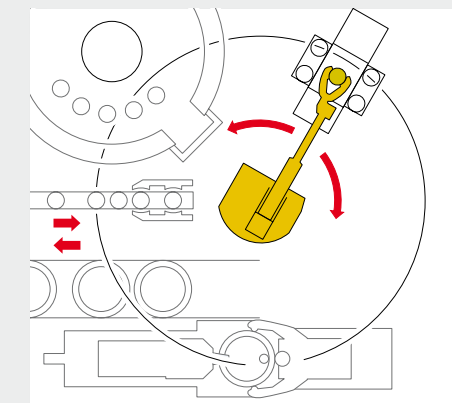
## ...as integrated solution



Rail-bound transport manipulators can be solely controlled by the press or ring mill operator, but they can also be equipped with an operator's cabin on the machine. The manipulator's control system is responsible for the integration with the other units of the plant thus providing short transportation times combined with utmost handling precision.

## ...as automatic solution

This is the 'Art of Integration': Once set, process- and manufacturing sequences can proceed fully automatically considering individually programmed safety features and locking devices as well as an adequate infrastructure.





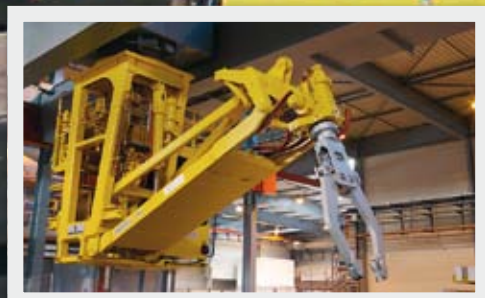
# Rail-bound Transport Manipulators *Heavy-Load Robots*



As a rail-bound solution, heavy-load robots by DANGO & DIENENTHAL may be installed upon rails on the floor or crane-like on overhead rails.

Based on customer-specific requirements the experts of DANGO & DIENENTHAL propose the best arrangement of the equipment for the work flow. In addition, recommendations are given on the configuration of the machine, e.g. lever system, tongs, or operator's cabin.

A favourable price-performance ratio as well as shortest possible transport times will be achieved. The basis for an efficient and reliable application of the machines is the operator- and maintenance-friendly arrangement of all components.





# Stationary Transport Manipulators *Heavy-Load Robots*



Stationary heavy-load robots by DANGO & DIENENTHAL are used when all positions within a given working area can be reached from one point without moving the entire machine.

A range of additional features, such as air-conditioned operator's cabin, remote control, or integration in a host control system, is available and allows custom-made equipment. DANGO & DIENENTHAL experts with their longstanding experience assist plant personnel in choosing the suitable transport concept and planning the workflow within the plant.



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# Mobile Transport Manipulators



Mobile transport manipulators by DANGO & DIENENTHAL are distinguished by a very compact design, a high load capacity, as well as speed and mobility.

Depending on the application, the customer can choose between a range of lever systems and tong designs for handling the work pieces.

These machines are mostly equipped with diesel drives, but they can also be supplied with electro-hydraulic drive systems. All drives comply with the current standards regarding emission of contaminants and noise.

In any case DANGO & DIENENTHAL focuses on a sturdy design and a high quality level.

Thus, high performance is guaranteed.



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