Forming Technology

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

Forming and Bending Technology
- Heavy Duty Plate Forming Machines
- Induction Pipe Bending Machines
- Hydraulic Press Control Change - Retrofitting
- Special Presses – Metal Forming Machines
DANGO & DIENENTHAL Siegen (DDS) has founded a new division company, DANGO & DIENENTHAL Umformtechnik (DDU). The target being to extend the group’s existing range of machine building capabilities with engineering and manufacturing of machines for cold and hot forming of metal plates, warm forming of pipe (Induction Pipe Bending), as well as other special forming machines, retrofit, modification and service of hydraulic and IHU presses (Hydroforming).

Our range of services:
- Individual consultancy
- Engineering and planning of complete machines and plants
- Manufacturing and erection
- Commissioning
- After sales service

Our range of services:
- Individual consultancy
- Engineering and planning of complete machines and plants
  - for pipe diameter up to 1626 mm
  - wall thickness up to 120 mm
  - small radius bending
- Manufacturing and erection
- Commissioning
- After sales service

Bends can be manufactured with high precision and minimal tolerances.
Heavy Duty Plate Roll Bending Machines type DDU 4RBM/DDU 3RBM

Engineering and planning of complete machines and plants. The bearings of our Heavy Duty Four Roll Plate Bending Machines, due to the exceptional loads exerted on the rolls, have been specially simulated and designed by the world renowned bearing manufacturer SKF. The top roll is designed to absorb forces of up to 4000 t. With maximum plate width of 4000 mm, a thickness of 145 mm, with an ID of 1500 mm can be rolled with yield of 360 N/mm². 3-Roll versions are also available.
Inductive Pipe Bending Machines

The induction bending of pipe is a method of forming pipe using mostly automated machines, a continuous progressive forming process, where by a pipe is form bent in a narrow heated zone. The leading end of the pipe is clamped in the pipe locking device, fitted to the bending arm. The pipe temperature is increased to a predetermined value by an inductor ring. The axial bending force is applied to the pipe by the hydro-mechanically driven clamping stock. During the bending operation the bending arm rotates around its fulcrum to a preset bending radius. The force created makes the pipe follow the predetermined radii.

Inductive Bending Machine for pipe-diameters to 1,626 mm, thickness to 120 mm.

The Inductive Pipe Bending Machines of Dango & Dienenthal are designed to automatically bend ferrite as well as austenitic pipe. They are capable of producing single bends, 2 dimensional ‘S’ and 3-dimensional bends. The advancing clamping stock can be equipped with a pipe clamp which can be used on a range of pipe diameters without the need for time consuming tool changes. The machine can also be equipped with a rear end automated loading system.
Hydraulic Press Retrofitting Modernisation and Control Change

Disassembly and complete re-installation of presses at new locations can be carried out as a turn-key operation.

- Hydraulic blocks and control systems as well as piping and old cable systems can be, if necessary, completely replaced.
- Overhauling of old, building and installation of new intensifiers.
- Modernising oil and water systems, is also in our scope of supply.
- Also included in Dango & Dienenthal modernisation scope is the replacement of the complete press control cabinets.

The retrofitting process of Dango & Dienenthal can encompass from as little as changing cylinder and intensifier seals to the replacement of the existing "Control" axis by a newly developed HydAx16 control and regulation software. This universal software package is used for the simultaneous control and regulation of up to 16 hydraulic, electric or pneumatic axes. For process control, there is provided a clear display of all axes with actual position, pressure and force values. All process data can be displayed in X Y diagram form, thus enabling fast, accurate and detailed process analysis. This makes it possible to carry out production steps with across the axes conditions. Work processes can be stored and called up. Step chains can be provided with different monitoring and abort criteria. As such, process safety is warranted with the risk of damage prevented.
Clad Pipe and Clad Tee Technology

Our pipe calibration machines are designed to mechanically clad two pipes of different materials, i.e. one ferritic outer pipe and one austenitic inner pipe, with or without a two-piece closed tool, by means of high internal fluid pressure. The pipes thus produced meet the required diameter, roundness and straightness tolerances.

This production method has a considerable cost advantage over metallurgical clad pipe. Depending on the pipe diameter, multiples pipes can be calibrated simultaneously in one tool. For the calibration of non-round hollow components our high pressure forming machines can also be used.

Dango & Dienenthal Umformtechnik develops and builds machines for the production of T-fittings and elbows. In our T-fittings machines the pipe to be formed is pressed in a tool by means of a cold forming method with high internal fluid pressure, into the desired fitting shape.

The requirements of a costly pre-heating, as required by other production methods, is thus deleted.

We offer overhauling and retrofitting of fitting machines (including those from other makers) to improve the efficiency. We are in addition in a position to design and supply tools for the production of fittings / clad pipe fittings and other hollow components.