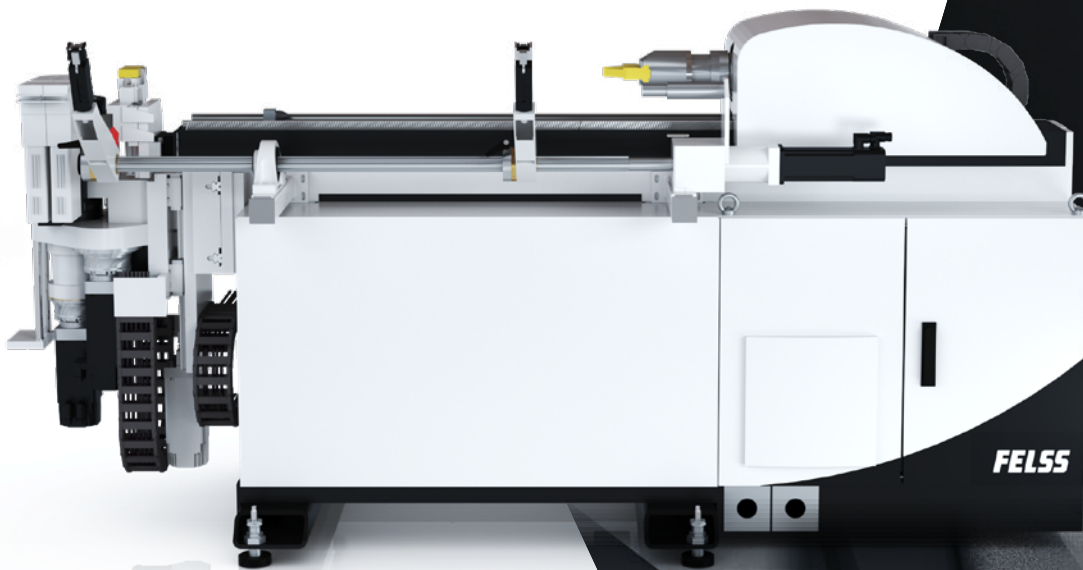


FELSS

The smarter way of forming.

PIPE BENDING

THE FELSS CBC MACHINES



www.felss.com

HIGHEST BENDING QUALITY

The Felss bending machines enable flexible processing of tubes using different bending processes, which can also be combined

THE CBC TUBE BENDING MACHINES

ABOUT THE MACHINES

The **Combined Bending Center CBC** enables the flexible realisation of complex tube geometries through the use of various bending processes. The versatile system concept can be linked with upstream or downstream processes and offers the greatest possible design freedom through double-sided rotary-draw, roll, push-roll or collet bending. With the CBC bending machines, customers benefit from the high flexibility offered by the combination of different bending processes.

Center ist in zwei Ausführungen erhältlich. Die CBC Compact ermöglicht eine schnelle Inbetriebnahme und einen geringen Platzbedarf durch den integrierten Schaltschrank. Die CBC Classic eignet sich zur Umsetzung umfangreicherer Lastenhefte und ermöglicht komplexe Verkettungsaufgaben mit weiteren Anlagen wie Endenbearbeitung, Waschen und anderen Prozessen. Des Weiteren sind die Maschinen mit einer Ferndiagnose und optional Maschinendatenerfassung ausgestattet.

PROFILE

Possible component sizes

- Tube diameter: 3.2 x 0.7 to 12 x 1.5 mm
- Free tube length: approx. 90-1,200 mm (optionally up to 1,500 mm)

Areas of application

- Petrol and diesel injection lines
- Brake and clutch lines
- Pipe-hose combinations
- Hollow profiles with circular cross-section

Advantages

- Highest bending quality thanks to maximum tube circumference
- Minimised tube collapse thanks to special tool geometry
- Small radius-to-diameter ratios without the use of a bending mandrel
- Complex pipe geometries with short straight lengths between the bends
- Bending possible on both sides
- Roll, draw, push-roll and collet bending possible
- Left and right-hand bending, multiple bending planes and bending radii in one tool
- Visual support during retooling
- Operation via graphical user interface including 3D visualisation of the bending process

GET TO KNOW SOME OF THE ADDED VALUES OF OUR BENDING MACHINES:



EASIER

Simple set-up and management of component programmes.



MORE PRECISE

Automatic calculation of sequences with the Felss Systems programme assistant.



FASTER

Minimised downtimes thanks to short changeover times.



LOADABLE

Additional processes such as clamp assembly, marking or length measurement possible.

MACHINE TYPES OF THE CBC FAMILY

CBC CLASSIC

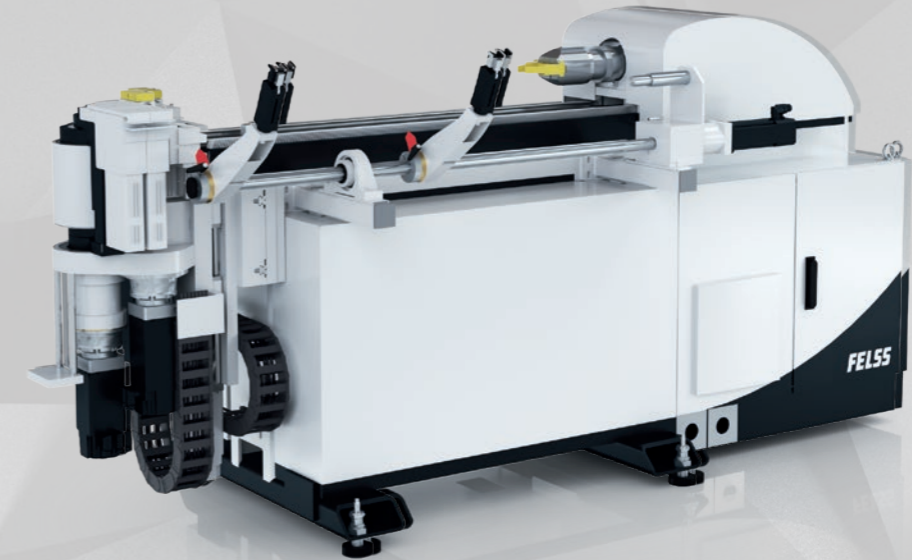
Customised. Sophisticated.

- Consideration of extensive specifications
- Complex interlinking tasks
- Integration of measuring tasks
- Compilation according to modular principle

CBC COMPACT

Small. Powerful. Everything inside.

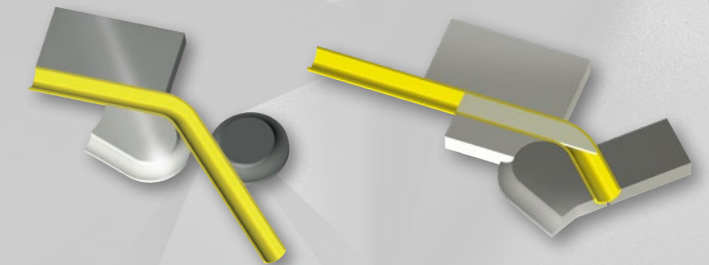
- Fast commissioning
- Low space requirement thanks to integrated control cabinet
- Compilation according to modular principle with standard assemblies
- Integration of measuring tasks



THE PROCESS: TUBE BENDING

The bending processes from Felss enable flexible solutions: perfectly adapted to production volumes, component geometry and the desired degree of automation.

With Felss tube bending processes, the tube sections are automatically fed into a CNC-controlled bending machine and then bent. The bending head can reproduce the various bending processes of rotary-draw, roll, push-roll or collet bending. This allows a wide variety of produce pipe geometries on one machine. The areas of application for bending solutions from Felss are diverse and range from fuel lines to heat exchanger pipes, from stand-alone machines to complete production cells.



Roll bending

Rotary draw bending

FELSS

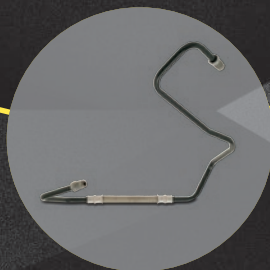
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EXCERPT OF POSSIBLE PRODUCTS



Common rail line (diesel)

Brake line



Fuel line (petrol)

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