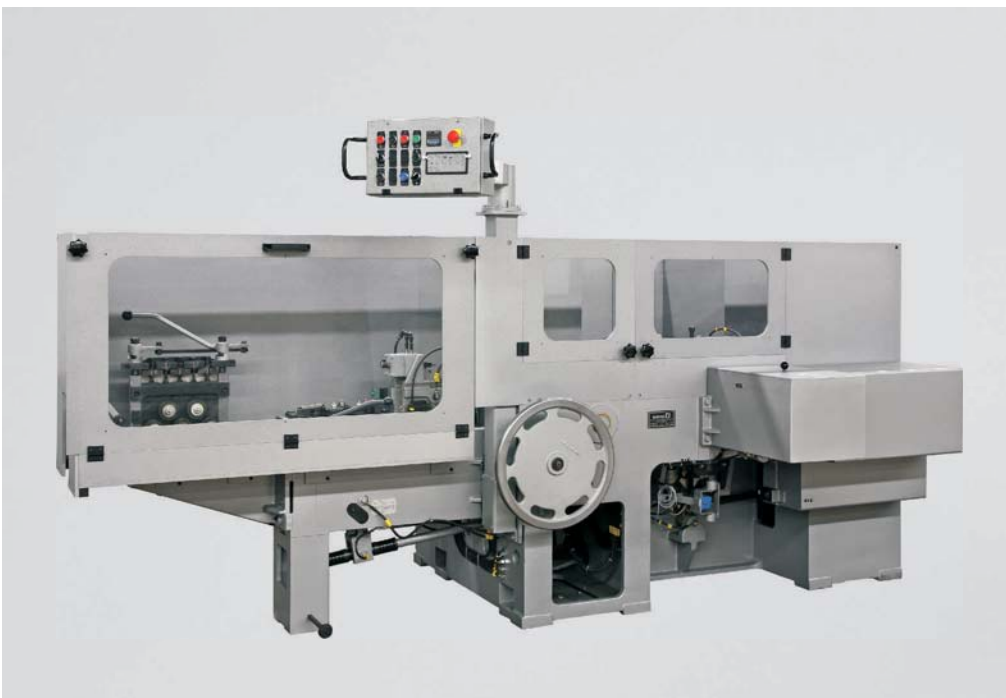


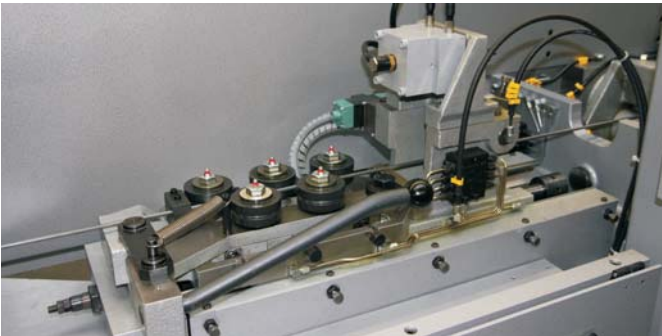
## Chain Bending Machines for Cold Bending of Round Steel Chains



KEB.1  
Series

# KEB.1 Series

▼ KEB 4.1 feed unit



▼ KEB 3.1 bending tools



## Our Accomplishments for your Benefit

- Dimensionally accurate and evenly bent chain in continuous operation
- Robust machine design for the production of high-strength chains over a long period of time
- Safety devices for protecting machine parts and tools

## Mode of Operation

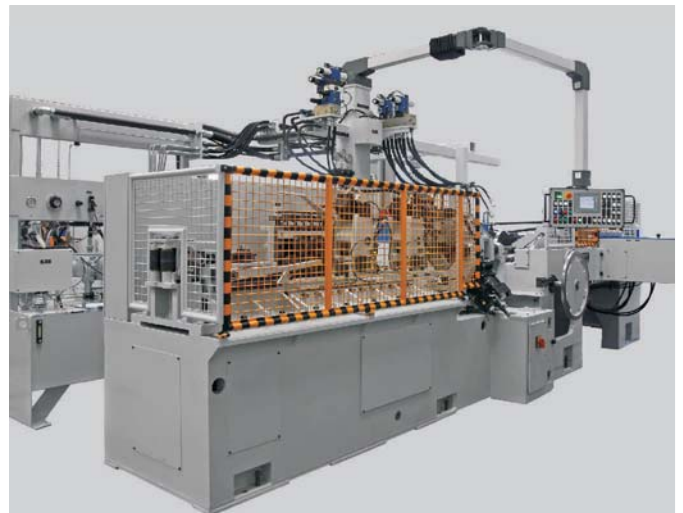
The wire is drawn in from the wire coil. It is then straightened in two levels, notched and cut at intervals according to the blank length. In the first bending station, the blank is prebent around the two-part bending mandrel.

The prebent chain link is transported to the second bending station where it is finish-bent into the chain. In a third station, the chain link is calibrated to the correct width.

## Design Features

- 3-shaft system
- Smooth machine running
- Operations (forward and backward stroke) positively controlled via curves.
- Safety devices for wire infeed, blank stop, clamping on the bending mandrel.
- Clutch-brake combination with fast reactions
- Wire infeed gripping tools are pneumatically actuated. (KEB 3.1 - KEB 7.1) All other motion sequences are mechanically controlled.
- Wire infeed and gripping, notching, and closing the turning tongs occurs hydraulically. (KEB 8.1) All other motion sequences are mechanically controlled.

▼ KEB 8.1

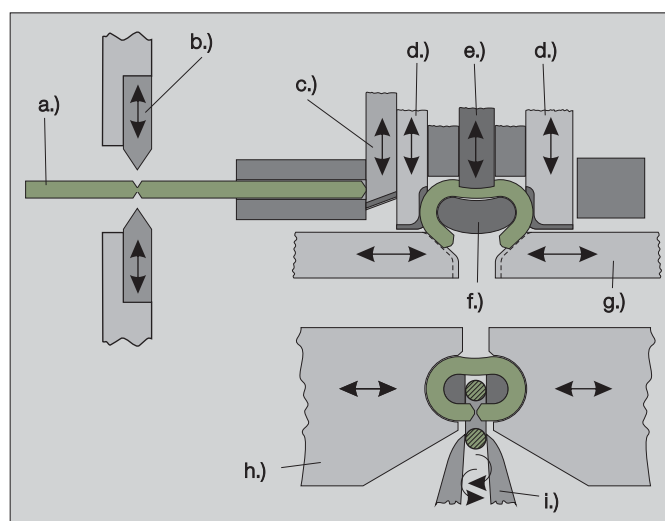


# Quality, Reliability, and Efficiency

## WAFIOS KEB.1 – Chain Bending Machines

### Application

KEB.1-series chain bending machines are used for the cold bending of round steel chains. Wire material discharge from the wire coil. The bent chain can then immediately be electrically welded on a separate machine.



▲ Tool structure of the KEB.1 double bending procedure

- |                    |                     |                          |
|--------------------|---------------------|--------------------------|
| a.) Chain material | d.) Bending tools   | g.) Prebending tools     |
| b.) Notching tools | e.) Clamping tool   | h.) Finish-bending tools |
| c.) Cutting tool   | f.) Bending mandrel | i.) Turning tongs        |

### Quality

For more than 100 years, the name of WAFIOS has been synonymous with highest quality, safety standards, and technical innovations in the German machine manufacturing industry.

### Reliability

Strict quality controls, state-of-the-art production systems, and many years of experience guarantee that your investment is safe in our hands. Our global service network ensures high availability of WAFIOS machinery.

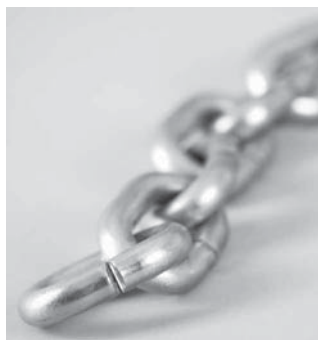
### Efficiency

High production output and a long service life will save money and shorten the amortization time of your investment.



▲ KEB.1 tools

Technical data	KEB 3.1	KEB 4.1	KEB 5.1	KEB 7.1	KEB 8.1
Wire dia., mm, up to 750 N/mm <sup>2</sup>	2.0 – 6.5	4.0 – 10.0	6.0 – 13.0	10.0 – 16.0	12.0 – 20.0
Wire dia., mm, up to 500 N/mm <sup>2</sup>	2.0 – 6.5	4.0 – 11.0	6.0 – 14.0	10.0 – 20.0	12.0 – 23.0
Wire feed length, mm	35 – 120	50 – 200	65 – 240	100 – 300	125 – 340
Pitch / inside link length mm of bent link	12 - 42	16 - 66	19 - 82	30 - 100	36 - 100
Outside chain link width, mm of bent link	7 - 24	13 - 40	20.5 - 50	31 - 70	40 - 80
Output (links/min) up to 750 N/mm <sup>2</sup> up to 500 N/mm <sup>2</sup>	140 - 120 150 - 130	80 - 65 90 - 65	75 - 55 80 - 55	45 - 35 50 - 35	25 - 15 25 - 15
Power installed (KW)	3.0	5.5	7.5	15	44
Compressed air requirement (6 bar)	140 l/min.	260 l/min.	260 l/min.	140 l/min.	10 l/link
Cooling water consumption at 15°C (at 3 bar)	---	---	---	---	20 l/min.
Hydraulic system tank contents l	---	---	---	---	630
Space required L x W (mm)	abt. 5,500x3,000	abt. 6,000x3,000	abt. 6,500x3,500	abt. 8,000x4,500	abt. 9,500x5,000
Net weight in kg	abt. 1,800	abt. 4,800	abt. 7,000	abt. 11,800	abt. 23,000



Our product range includes a wide variety of high-quality chain machines.

- Chain bending machines, KER series
- KBA 601 chain bending machine with WED 601 conductive blank heating or with IEW 601 inductive blank heating
- Chain welding machines, KEH series
- Chain welding machines, KSH series
- Chain calibrating machines, KPH series
- KBS 4.1 combined chain bending and welding machine

## WAFIOS AG

Silberburgstraße 5  
72764 Reutlingen, Germany  
Phone +49 (0) 7121 1460  
Fax +49 (0) 7121 491209  
sales@wafios.de  
www.wafios.com

Precision Machinery for Wire and Tube