

Chain Bending Machines for Cold Bending Round Steel Link Chains



KEB x.1
Series

KEB x.1 Series

▼ KEB 4.1 feed unit



▼ KEB 3.1 bending tools



Our Expertise 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

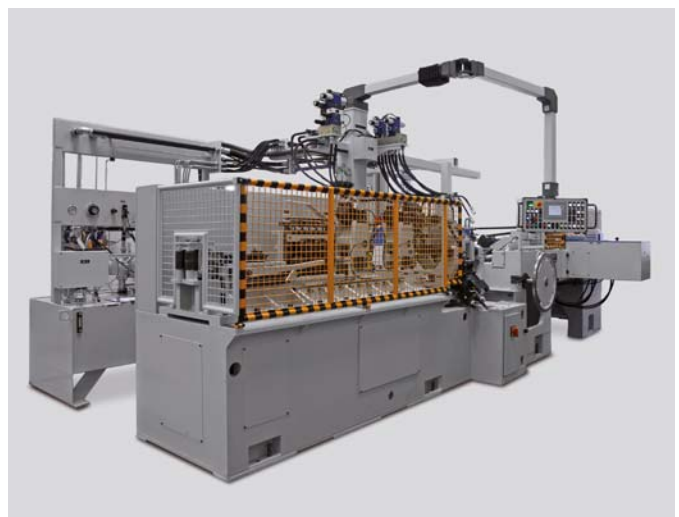
Design Features

- 3-spindle system
- Smooth machine running
- Operations (forward and backward stroke) are positively controlled via cams.
- Safety devices for wire feed, chain link blank stop, gripping on the bending mandrel
- Quickly responding clutch and brake combination
- The clamping tools of the wire feed are pneumatically actuated. (KEB 3.1 - KEB 5.1) All other motion sequences are mechanically controlled.
- Wire feed and gripping, notching, and closing the tilting tongs occurs hydraulically. (KEB 8.1) All other motion sequences are mechanically controlled.

Mode of Operation

The wire is drawn off the wire coil. It is then straightened in two planes. Then it is notched and cut at intervals according to the chain link blank length. In the first bending station, the chain link blank is pre-bent around the two-part bending mandrel. The pre-bent chain link is transported to the second bending station where it is finish-bent into the chain strand. In a third station, the chain link is calibrated to the correct width.

▼ KEB 8.1

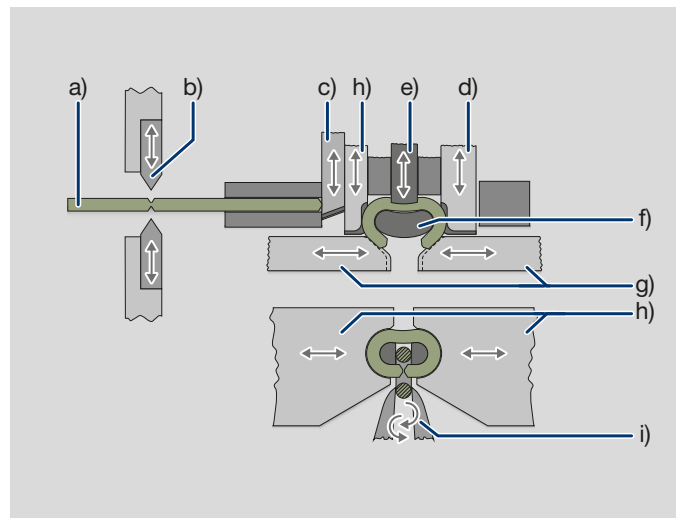


Quality, Reliability, and Efficiency

WAFIOS Chain Bending Machines – KEB x.1 Series

Application

Chain bending machines from the KEB x.1 series are used for cold bending round steel link chains. Wire material is fed in from the wire coil. The bent chain can then immediately be electrically welded on a separate machine.



▲ Tool structure of the KEB x.2 double bending procedure

- | | | |
|-------------------|--------------------|-------------------------|
| a) Chain material | d) Bending tools | g) Pre-bending tools |
| b) Notching tools | e) Holding tool | h) Finish-bending tools |
| c) Cutting tool | f) Bending mandrel | i) Tilting tongs |

Quality

For more than 125 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.

Cost efficiency

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



▲ KEB 8.1

Technical Data	KEB 3.1	KEB 4.1	KEB 5.1	KEB 8.1
Nominal wire Ø: Adm. tolerances in accordance with DIN EN 818-2 Up to 750 N/mm ² Up to 500 N/mm ²	2.0 – 6.5 mm 2.0 – 6.5 mm	4.0 – 10.0 mm 4.0 – 11.0 mm	6.0 – 13.0 mm 6.0 – 14.0 mm	12.0 – 20.0 mm 12.0 – 23.0 mm
Wire infeed length:	35 – 120 mm	50 – 200 mm	65 – 240 mm	125 – 340 mm
Bent chain link: Pitch / inside length of chain link Outer chain link width	12 – 42 mm 7 – 24 mm	16 – 66 mm 13 – 40 mm	12 – 82 mm 20.5 – 50 mm	36 – 100 mm 40 – 80 mm
Output: Up to 500 N/mm ² [links/min] Up to 750 N/mm ² [links/min]	150 – 130 140 – 120	90 – 65 80 – 65	80 – 55 75 – 50	30 – 16 24 – 16
Power required:	3.0 kW	5.5 kW	7.5 kW	44 kW
Compressed air consumption: (at 6 bar)	ca. 140 Sl/min	ca. 260 Sl/min	ca. 260 Sl/min	ca. 10 l/link
Cooling water consumption at 15°C (at 3 bar)	–	–	–	20 l/min
Hydraulic system tank contents:	–	–	–	630 l
Dimensions: (l × w)	ca. 5,500 × 3,000 mm	ca. 6,000 × 3,000 mm	ca. 6,500 × 3,000 mm	ca. 9,500 × 5,000 mm
Net weight: (with switch cabinet)	ca. 1,800 kg	ca. 4,800 kg	ca. 7,000 kg	ca. 23,000 kg



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

- Chain bending machines, KEB x.1 and KEB x.2 series
- Chain bending machines, KER x.2 and KER 8 series
- KBA 601 chain bending machine with conduction heating (WED 601) or with induction heating (IEW 601) of chain link blanks
- Chain bending machine KBF 60 with induction heating (IEW 60) of chain link blanks
- Chain (resistance butt) welding machines, KEH x.2 and KEH 8 series
- Chain (flash butt) welding machines, KSH and KSF 60 series
- Chain calibrating machines, KPH series
- Combined chain bending and chain welding machine KBS 4.1

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Precision Machinery for Wire and Tube