



# **LINSINGER**

*Austria*

**SAWING** TECHNOLOGY

**MILLING** TECHNOLOGY

**RAIL** TECHNOLOGY

**TOOL** TECHNOLOGY



[www.linsinger.com](http://www.linsinger.com)

**LINSINGER** Milling, Sawing and Rail Technology divisions have advanced to become world leaders in their fields. **LINSINGER** exports worldwide from Austria in Europe, where over 300 staff are based at the head office and factory. Deliveries to the American continent are growing, alongside the well established markets in Asia and Europe.

**LINSINGER**'s world leading role is founded on more than 6 decades of technical expertise, and based on research and development partnerships with a wide range of leading customers. These partnerships have enabled **LINSINGER** to further assert a leading position in the face of global challenges.



**Hans Knoll**  
CEO

**„Always on Top...“.** **LINSINGER**'s company motto provides a vision to channel the company's 3 aspirations:

**1. LINSINGER focuses on its customers.**

Total satisfaction of customer requirements is the winning formula. **LINSINGER** specialists offer long term cooperation with customers to develop leading edge technologies for significant improvements and a competitive advantage. **LINSINGER** service engineers and tooling specialists are available for on-site application consultation throughout the life of a machine.

**2. LINSINGER employees are the power of the company.**

**LINSINGER** offer their dedicated employees a rich framework for personal growth and fulfillment to master today's ever more demanding challenges. The company supports long term development of both professional and personal skills for creative freedom to discover innovative solutions.

**3. LINSINGER relies on local sourcing.**

Thanks to consistent "in-sourcing" in local and in-house manufacturing, **LINSINGER** is able to pass on the benefits of local quality, reliability and flexibility at competitive prices to customers.

A handwritten signature in blue ink, which appears to read "Hans Knoll".



## Sawing technology

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## Milling technology

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## Rail technology

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### CARBIDE CIRCULAR SAWING MACHINES FOR STEEL PROCESSING

- **Vertical circular sawing machines KSA**
  - Steel billets
  - Tubes
  - Profiles
- **Inclined bed circular sawing machines KSS**
  - Steel billets
  - Tubes
- **Circular sawing machines KSA D for double cut**
  - Steel billets in double cut
- **Circular sawing machines KSA L for billets in layers**
  - Billets in layer

### CARBIDE CIRCULAR SAWING MACHINES FOR NON-FERROUS METAL PROCESSING

- **Non-ferrous carbide circular sawing machines KSA, KSS, PSA NA**
  - Slabs
  - Billets

### TUBE PROCESSING

- **Carbide circular sawing machines for tube layers KSA L**
  - Tube layers
- **Tube cut-off machines RTM**
  - Tubes
- **Travelling and stationary tube cut-off machines Multi-Cut MC**
  - Tubes

### STRIP EDGE MILLING MACHINES BFMK

- Longitudinal tube mills ERW
- Spiral tubes
- Copper strips

### PLATE EDGE MILLING MACHINES PFM

- Shipbuilding
- Tank and wind tower construction
- Tube mills

### PIPE BEVELLING MACHINES RFM

- Pipe mills

### SPECIAL PURPOSE MILLING MACHINES FOR TUBE MILLS

- **Strip cross cutting machines SCCM**
  - Coil ends
- **Plate edge milling machines PCCM**
  - Plate ends

### SPECIAL PURPOSE MILLING MACHINES FOR SHIPYARDS

- **Ball tank segment milling machines**
  - LNG-tanks
- **Submarine hatch milling machines**
  - Submarine

### STATIONARY RAIL TECHNOLOGY

- **Rail sawing and drilling machines LSB**
- **Rail head milling machines SKF**

### MOBILE RAIL TECHNOLOGY

- **Rail-milling train SF03-FFS, SF06-FFS Plus**
  - High speed lines
- **Rail-milling train SF02T-FS**
  - Metro
- **Rail-road-truck SF02-FS**
  - Flexibility
- **Rail service**

## Tool technology

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Carbide-saw blades, LINCUT® disc miller, tube cutter head, cutter heads, sandwich miller, bevelling tools, grinding wheels, special drillers



Tube mills



Forging mills



Railway



Automobile industry



Ship building industry



Non-ferrous steel mills



**Strip edge milling machines BFMK  
for longitudinal tube mills**

**Applications:**

Longitudinal tube mills ERW

**Advantages:**

- Welding edge preparation with highest accuracy
- Vertical & horizontal strip waviness tracking function ensuring consistent bevel profile
- High output performance with low tool costs
- N and V bevel or special bevel profiles
- No de-burring required

**Applications:**

Strip width: up to 2200 mm  
 Strip thickness: up to 25 mm  
 Line speed: e.g. 45 m/min  
 Material: X52, N80, P110 and high tensile strength



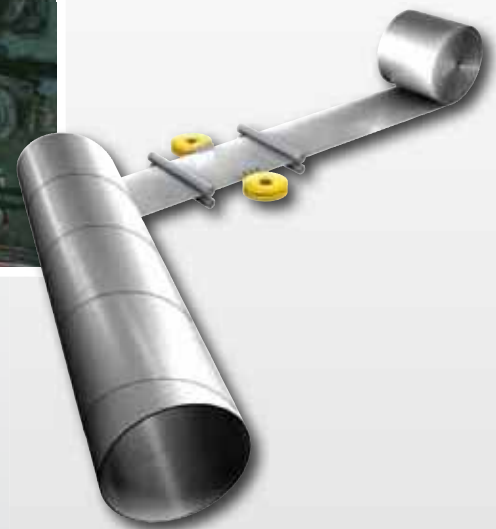
**BFMK 160/1100**



**BFMK 160/1100**



**BFMK 160/1100**



## Strip edge milling machines BFMK for spiral tubes

### Applications:

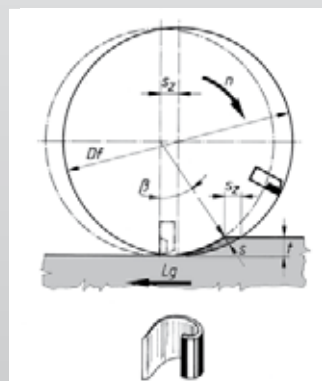
Spiral tube mills with and without tack weld

### Advantages:

- Milling unit suitable for profile bevel (V, X, J etc)
- Vertical & horizontal strip waviness tracking function ensuring consistent bevel profile
- Minimal oversize concept for material saving
- Twin stage milling units for high speed lines
- Small chip size, easy handling

### Applications:

Strip width: up to 2800 mm  
 Strip thickness: up to 28 mm  
 Line speed: e.g. 12 m/min  
 Material: X52, N80, P110 and high tensile strength



### The Technology:

Peripheral milling of the strip edge for welding seam preparation.



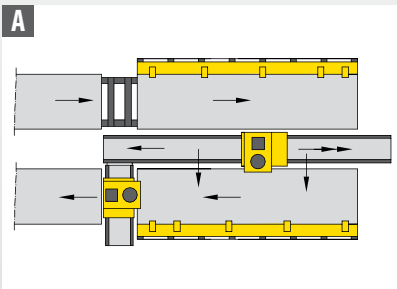
BFMK 90/800 D



BFMK 110/800 D



BFMK 22/400 Cu



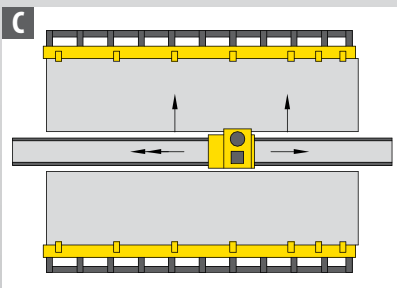
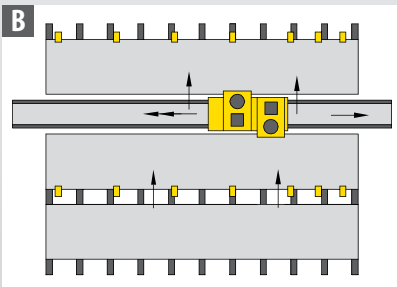
**Plate edge milling machines PFM  
for shipbuilding**

**Applications:**  
Shipyards, plate mills

**Advantages:**

- Welding edge preparation with highest accuracy
- Milling unit suitable for profile bevel (V, X, J etc)
- Plate waviness tracking function ensuring consistent bevel profile
- Cross transportation between two clamping tables enables bevelling of both plate sides without crane handling

**Quality improvement**  
through high precision plate tolerances



**A** - PFM DT 45/600 CNC



**B** - PFM DT 1360 CNC



**C** - PFM DT 45/600 CNC



## Plate edge milling machines PFM for tank and wind tower construction

### Applications:

Tank fabrication, wind tower construction

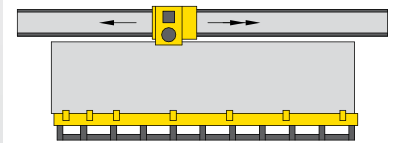
### Advantages:

- Short processing times through special milling concepts
- No clamping portal, free crane access
- Wide variety of solutions for every application

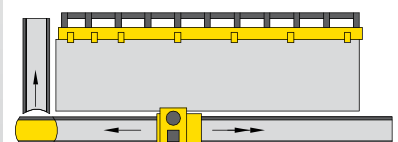
**Also suitable for conical and trapezoidal plates**



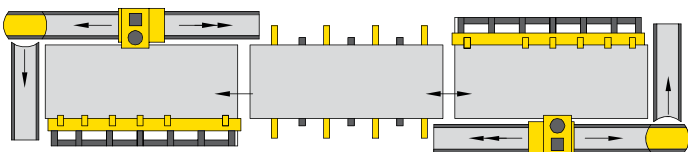
Basic model



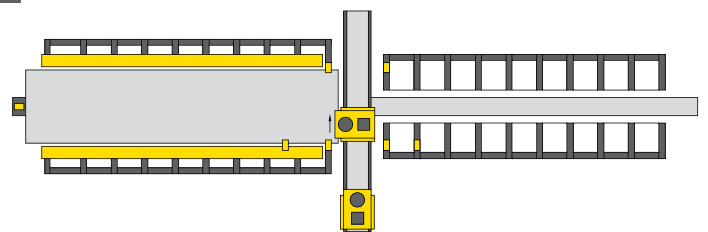
D



E



F



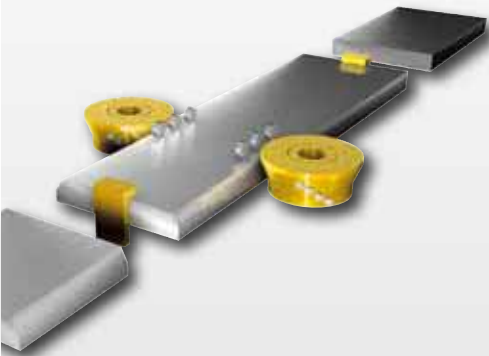
D – PFM 45/500 CNC



E – PFM 450 CNC



F – PFM 90/600 CNC



**Plate edge milling machines PFM**

for tube industry – welding edge profiles on both longitudinal sides

**Applications:**

Large tube mills

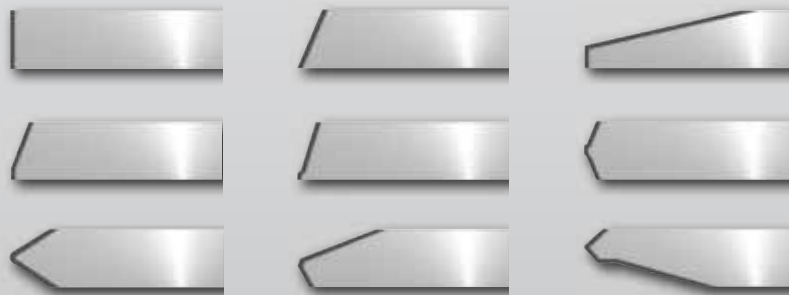
**Advantages:**

- High output rate by simultaneously milling both longitudinal sides of the plate
- Highly accurate welding edge preparation
- Milling unit suitable for profile bevel (V, X, J etc)
- Vertical plate waviness tracking function ensuring consistent bevel profile



**Increased production**  
through simultaneous welding edge preparation

**Bevel profiles:**



**PFM 900 CNC**

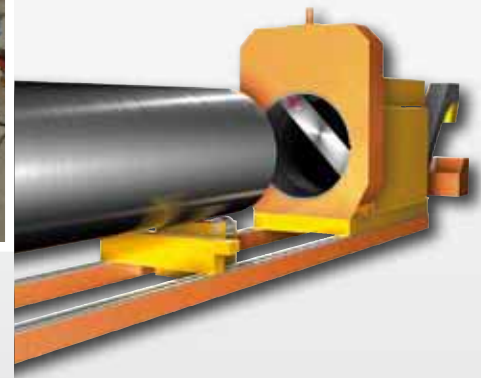


**PFM 110/250 D (1000 kW milling power)**



**PFM 3200 CNC**





## Pipe beveling machines RFM for tube – API weld chamfer on both pipe ends

### Applications:

Large tube mills, spiral tube mills

### Advantages:

- High output rate by simultaneously beveling both pipe ends
- Single operator controlled
- Long life tooling
- Radial waviness tracking function ensuring consistent bevel profile
- No de-burring required

### Applications:

Tube: Ø 16"– 120" (406 – 3048)  
 Wall thickness: 6,4 – 50,8 mm  
 Tube length: 6 – 24 m  
 Material: API-quality 5L B, X80 grade, ...



**Short proces-  
sing times**

by simultaneously  
beveling on both  
pipe ends



RFM 60/13000



RFM 60/24200



RFM 60/13000



### Strip cross cutting machines SCCM

for leading and trailing coil ends  
Cross seam welding edge preparation



**Applications:**  
Tube mills

**Advantages:**

- More cost effective than shearing
- No shearing nose
- Accurate, clean, burr-free cut
- Cold cut with unaltered grain structure (no surface hardening or heat affected zone)
- N, Y and X bevel profiles

Cutting and welding  
edge preparation  
in a  
**single working  
cycle**

### Plate cross cutting machines PCCM

for leading and trailing plate ends



**Applications:**  
Tube mills, steel mills

**Suitable for use with LINCUT® disc miller**

- Longer tool life due to coated carbide tips
- Single tips can be replaced easily and quickly
- Fewer production stoppages

**LINCUT**

Perfect cuts  
with proven tool  
technology



SCCM 75/1000



PCCM 55/1000



PCCM 55/1000



## Ball tank segment milling machines for processing of ball tanks on LNG carriers

**Applications:** Shipyards

**Advantages:**

- Rotating clamping table enables simple yet highly accurate alignment and clamping of the ball tank segment
- 3 dimensional tracking function ensuring consistent bevel profile
- Milling unit with profile milling tool applicable

**Welding edge  
preparation  
with highest  
accuracy**



## Submarine hatch milling machines

**Applications:** Naval shipyards

**Advantages:**

- Transportable: Operates in manufacturing hall or attached directly to submarine hull
- Exchangeable tool heads enable a variety of processes (facing, milling, drilling, flame cutting, measuring)
- Quick change mechanism for tool head

**5 axis  
processing**



Transport carriage



Hatch milling machine



Hatch milling machine