

UKB-SPECIAL TOOLS

www.ukb-gmbh.com

UKB-SPECIAL TOOLS

For more than 25 Years the company UKB - Uwe Krumm GmbH stands for its precision, high quality, modern technology and first-class know-how.

We produce individual special tools, press brake tools and offer CNC-milling and CNC-grinding.

In close cooperation with you, we produce high-quality special tools for a fast and economical work process.

We want you to be fascinated, not just satisfied!

In this catalogue you find a summary of our special tool-portfolio.



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VIDEO

Image

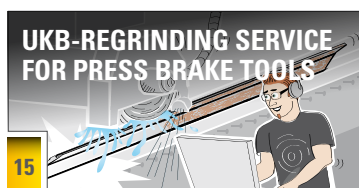
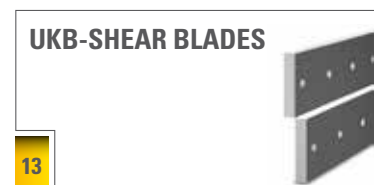
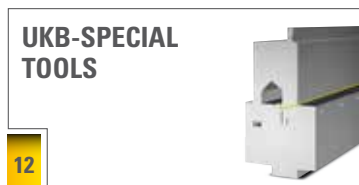
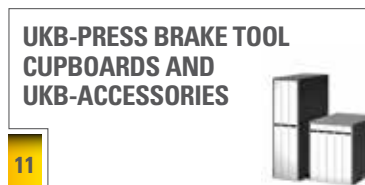
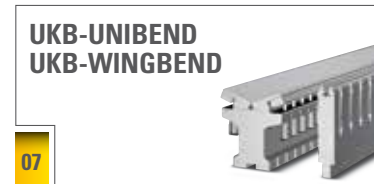
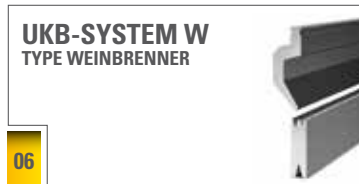
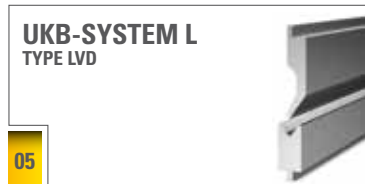
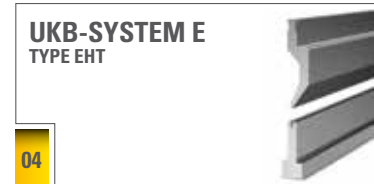


UKB-range of services at a glance



You can find our products and services in 16 chapters, on 278 pages.

Please do not hesitate to contact us for a free **UKB-CATALOGUE: PHONE +49 (0) 27 36 / 44 42 - 0**



WWW.UKB-GMBH.COM

Onlineshop > Current prices and special offers

Innovations > Always the latest news

Product information > All UKB-products at a glance

Downloads > Information for you

Video Channel > A closer look into the company,
the UKB- systems and products

Cloud > Easy and safe data transfer with our customers

UKB-APP

Press capacity calculation > Automatic calculation of your data

Product information > All UKB-products at a glance



UKB-Teamplyer

Experts for special tools and press brake tools



Your UKB-advantages at a glance:

- Well-trained experts for special tools and press brake tools
- Full service: Construction, development, production
- Individual test bending
- Absolutely customer focused
- Committed field service
- Innovative presence on exhibitions

Expect the best!

Individual customer care is the center point of all projects at UKB, from consultation and technical design, through construction and production until delivery. With know-how and longtime experience we actively assist you as a competent partner.

With over 5,000 m² and the very latest generations of CNC-machinery, combined with our highly qualified workforce, we provide solutions to exceed the latest market expectations at all times.

Come and see for yourself, we welcome your visit at any time!

VIDEO

Image



UKB-AVAILABILITY

Monday to Friday from 7:30am to 6:00pm

Phone +49 (0) 27 36 / 44 42 - 0

Fax +49 (0) 27 36 / 44 42 - 22

E-Mail post@ukb-gmbh.com

Web www.ukb-gmbh.com

CNC-milling

With state-of-the-art machinery for the best results!



TECHNICAL INFORMATION:

- 15 CNC-milling machines
- Traverse path:
X = 6.000 mm
Y = 1.250 mm
Z = 1.600 mm
- Simultaneous 5-axis processing
- Fully programmable b-axis +/- 100°
- Rotary table \varnothing 1050 mm

CNC-grinding

For precise tasks we are well prepared!



TECHNICAL INFORMATION:

- 5 CNC-profile grinding machines
- 2 CNC-flat grinding machines
- Traverse path:
X = 5.000 mm
Y = 800 mm
Z = 700 mm

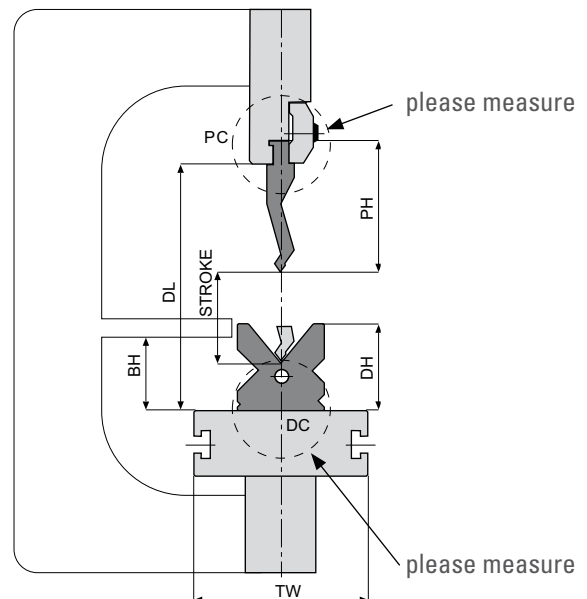
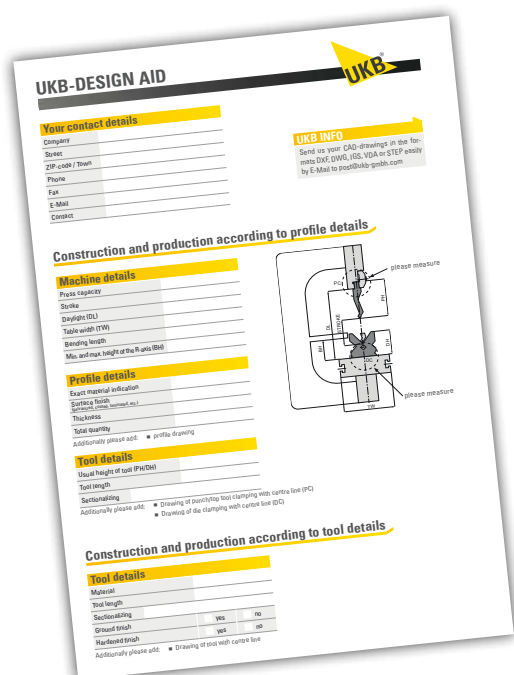
Challenge us – we realize your ideas

ADVANTAGES:

- Well-trained experts for special tools
- Full service: construction, development, production
- Manufacturer of special tools up to 6.000mm workpiece length
- Use of the latest manufacturing technology and modern CAD technology
- Simulation of bending processes
- Use of optimum materials, hardened according to the operation purpose, polished and coated
- Surfaces ground or fine milled
- Possible use of pneumatic and electronic components
- Functional test and adjustment through test bends with your sample sheets
- Extensive quality tests and allocation of a unique tool number for registration of all special tools

Design aid

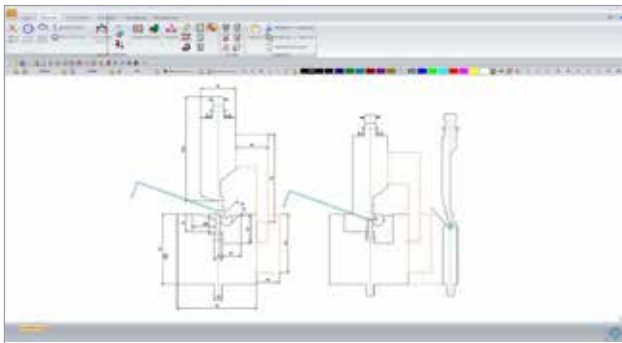
Download design aid as PDF at www.ukb-gmbh.com.



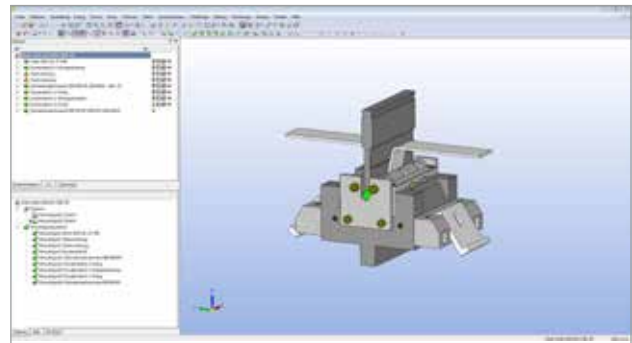
Send us your sample sheets, drawings, CAD data... we design your special tool.

Our service guarantees „made-to-measure“ solutions!

Technical equipment



Software MEGACAD 2D/3D



Software CIMATRON E CAD/CAM 3D



Press brake for test bending
L = 4050 mm, press capacity: 3200 kN



3D-index arm with CAM 2
measure 10.1

VIDEO

Special
tools

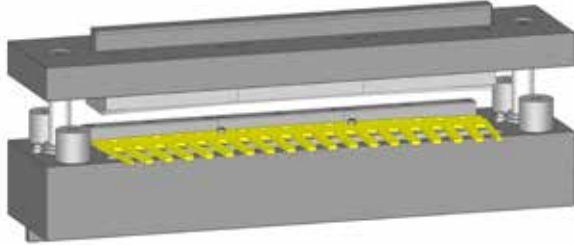


THE FUTURE IS HERE AT UKB ...

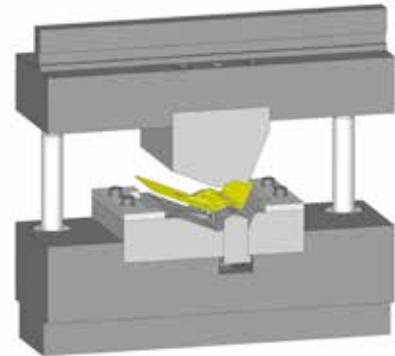
Always rely on state of the art!

UKB-Machinery	X (mm)	Y (mm)	Z (mm)
CNC-milling machines	6.000	1.250	1.600
CNC-profile grinding machines	5.000	800	700
Flat grinding machines	5.000	800	700
Laser hardening machine	5.000	450	400
Wire eroding machine	500 U/V ±75 mm	350 U/V ±75 mm	300 U/V ±75 mm

3D-model special tools



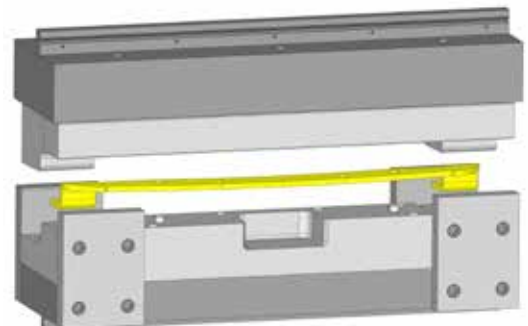
Pillar guided embossing-tool for embossing a 6°-bending, with large 3D-radius contour



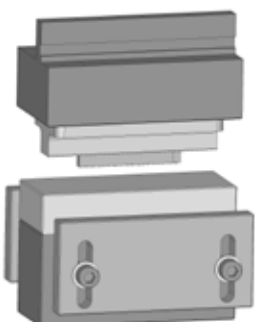
Pillar guided bending tool for three beads with spring loaded ejector



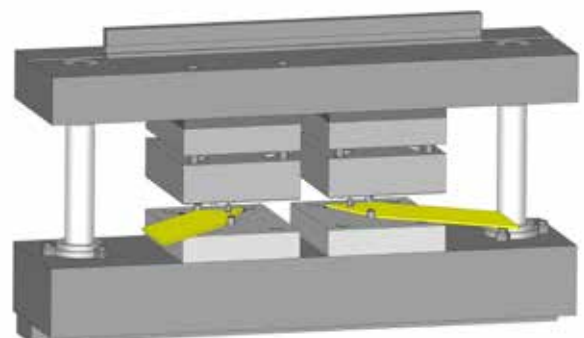
Radius embossing-tool for embossing two lateral straps at the same time



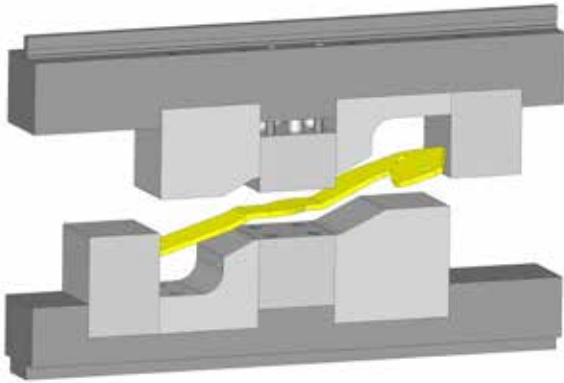
Embossing-tool for displaced joggle (Z)-bending with spring loaded hold-down devices, guide and locating bolt



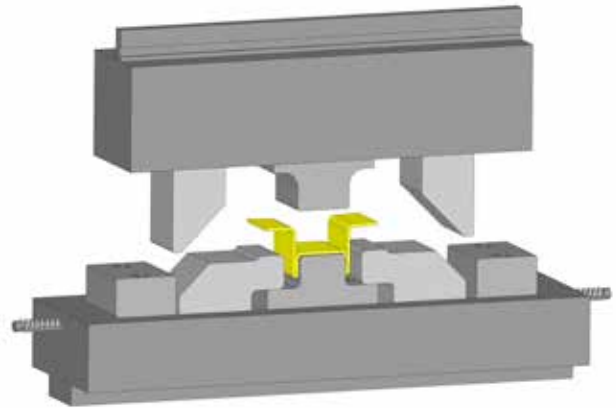
Letter- and number embossing-tool with exchangeable stamps, height adjustable for coordination of other tool stations



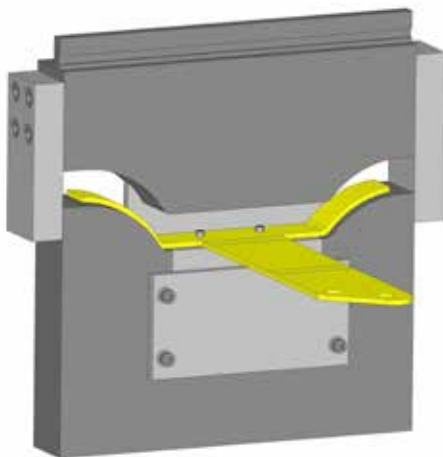
Pillar guided nibble embossing-tool with spring loaded hold-down devices, cutting punches and cut-off bushings



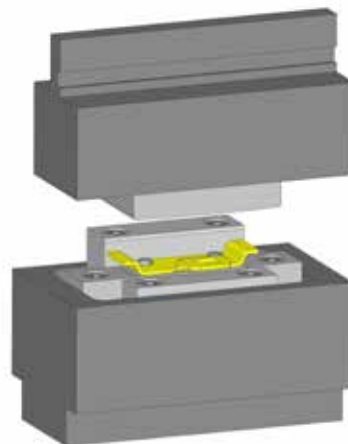
Special tool for large joggle (Z)-bending with spring loaded hold-down device



Special tool for flattening of prefolded flanges by gate valves technology



Double radii embossing-tool with spring loaded ejector, lateral guided and mounting bold



Embossing-tool for three joggle (Z)-bending in one stroke with spring loaded ejector and mounting bold

INNOVATIVE TOOLS REQUIRE KNOW-HOW

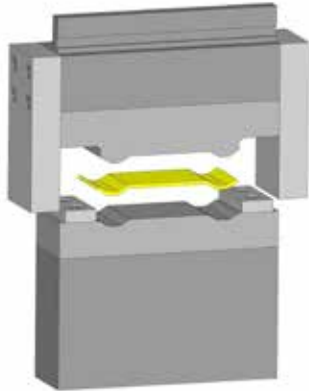
From construction to production - everything is done in-house.
More examples see: www.ukb-gmbh.com

VIDEO

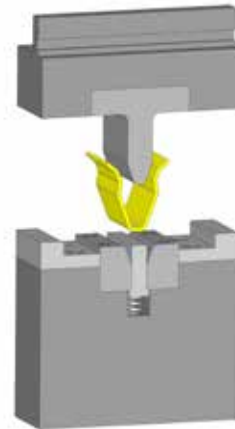
Special tools/
multiple
embossing-tool



Two-station tool for V-profile production

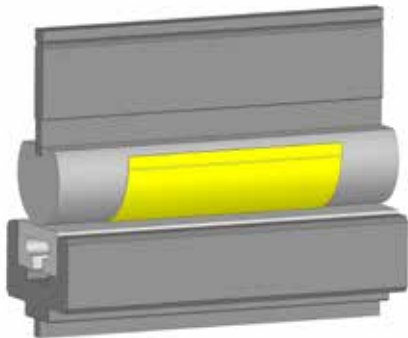


Station 1: Embossing-tool with lateral guide

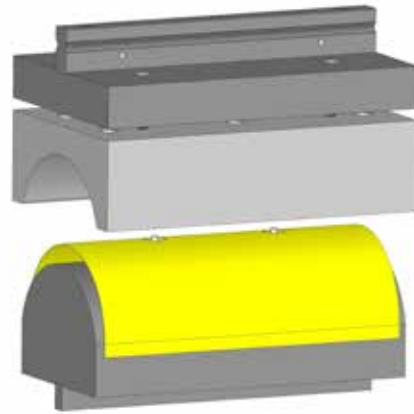


Station 2: U-bending tool with spring loaded ejector

Two-station tool for case cover production

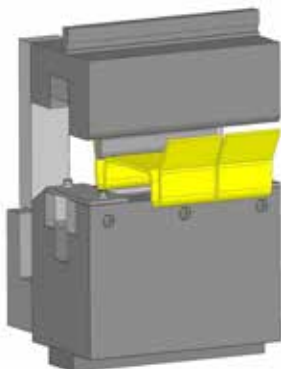


Station 1: Radius tool with PU-insert for mark free bending of a 180° radius

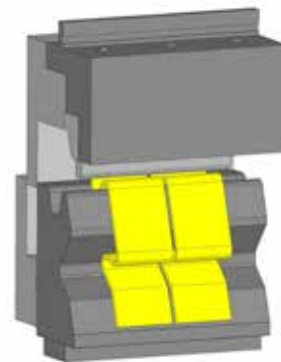


Station 2: Calibration tool with inserted embossing-stamps for embossing two depressions in the radius at the same time

Two-station tool for holder production

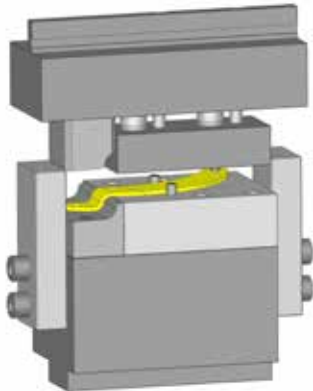


Station 1: U-bending tool with back guide and spring loaded ejector

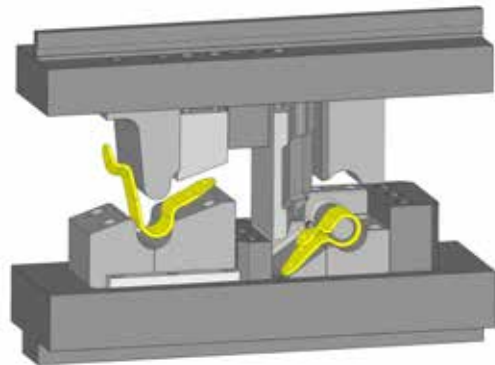


Station 2: V-embossing-tool with back guide, adjusted to the prior U-bending

Two-station tool for clamp production

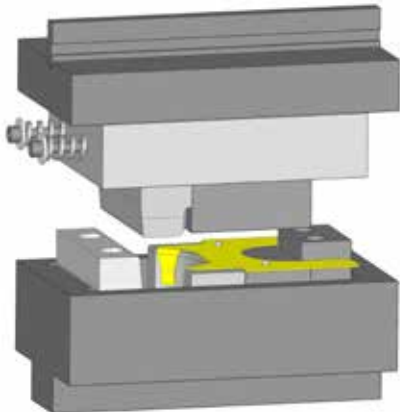


Station 1: Joggle (Z) embossing-tool for clamp shaping with spring loaded hold-down device and lateral support

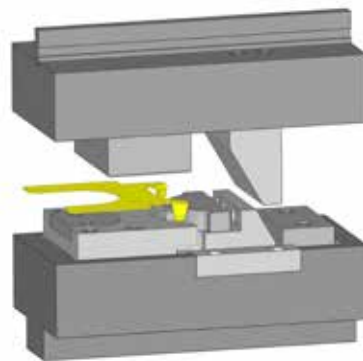


Station 2: Tool for embossing a radius (left) and roll into a clamp shape (right), with spring loaded hold-down devices and integrated supports

Two-station tool for production of a holding plate



Station 1: Embossing-tool for two 90° flanges with 3D-contour



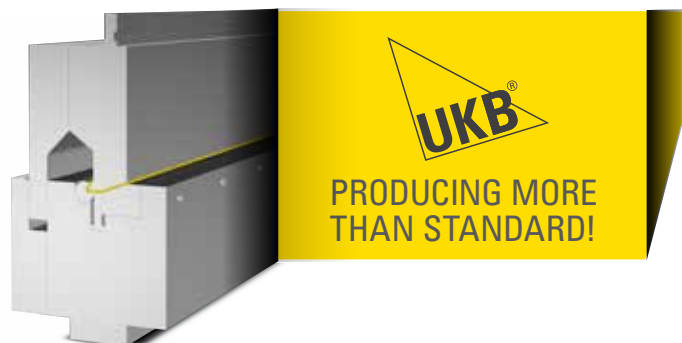
Station 2: Bending tool for folding of two short straps at the already bended flanges with the help from movable gate valves

UKB-REPAIR AND REGRINDING SERVICE

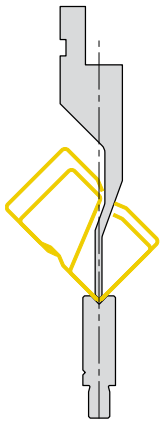
Benefit from our repair- and regrinding service for damaged press brake tools and shear blades.

Please contact us:

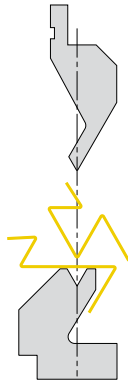
Phone + 49 (0) 27 36 / 44 42 - 0



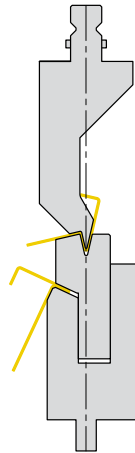
Examples for special tools



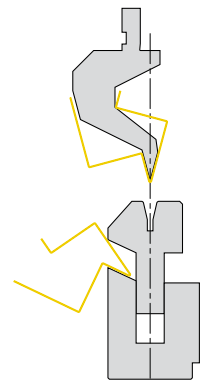
1. Punch/top tool and die for an almost closed profile



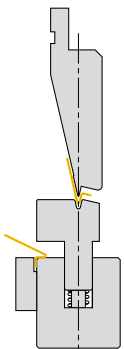
2. Punch/top tool and die with cut-out



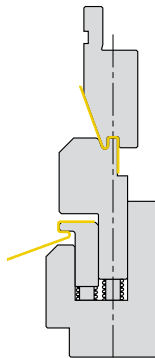
3. Flattening tool with spring loaded die



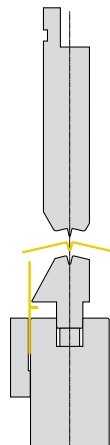
4. Flattening tool with spring loaded die



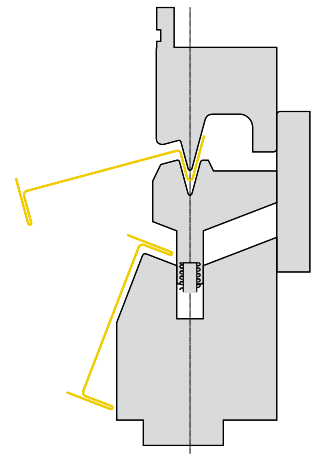
5. Flattening tool with spring loaded die and retaining ledge



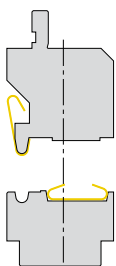
6. Flattening tool with spring loaded embossing-die and distance hemming unit



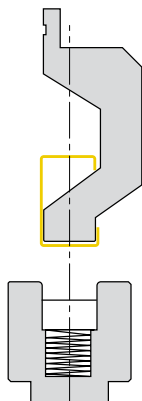
7. Flattening tool with spring loaded die and holding rail



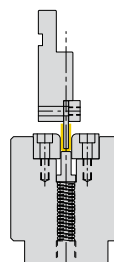
8. Flattening tool with spring loaded die and back guide



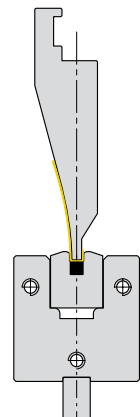
9. Pre-bending and flattening tool for C-profile in 3 strokes



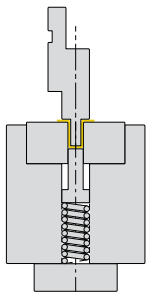
10. U-bending tool for C-profile in 2 strokes with spring loaded ejector



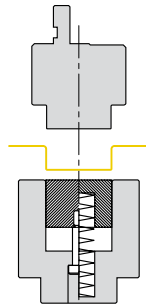
11. U-bending tool with bending strips and spring loaded ejector in the die and changeable blades at the punch/top tool (working parts are exchangeable)



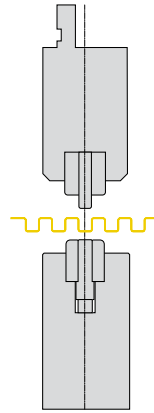
12. U-bending tools with PU-insert and counter pressure ledge and form punch/top tool



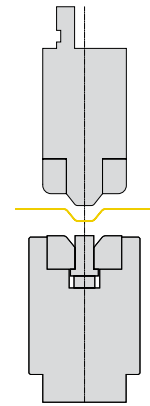
13. Top-hat bending tool with bending strips and spring loaded ejector



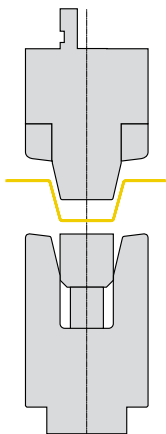
14. Top-hat bending tool with spring loaded ejector



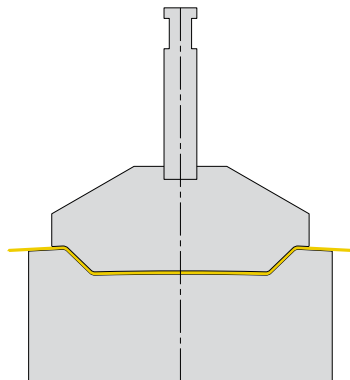
15. Trapezoidal bending tool for direct located bends next to each other



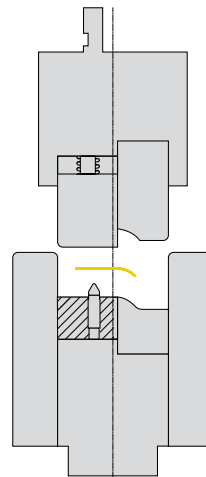
16. Top-hat bending tool with spring loaded ejector



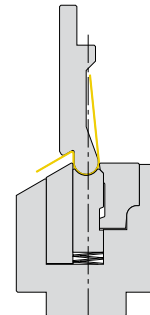
17. Large trapezoidal bending tool with spring loaded ejector



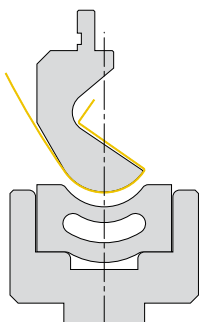
18. Large trapezoidal embossing-tool with anti curvature



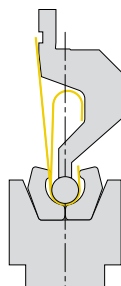
19. Special tool for radius bending at a very short flange



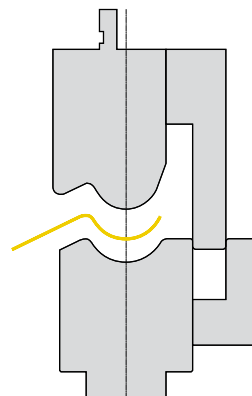
20. Radius tool with wings for overbending and spring loaded ejector



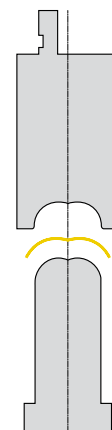
21. Radius tool for bending in PU-insert



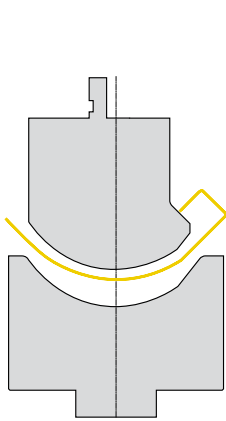
22. Radius embossing-tool with wings for overbending



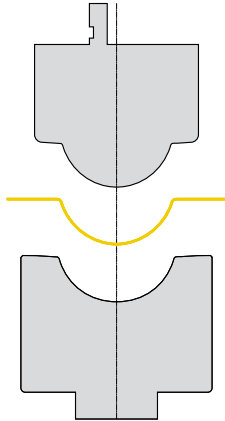
23. Radius embossing-tool with additional bending and back guide



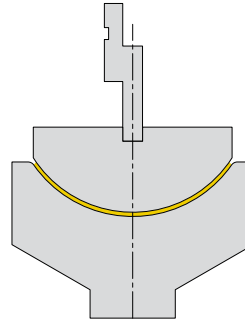
24. Double radii embossing-tool



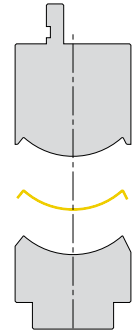
25. Large radius embossing-tool with straight run-out piece and cut-out



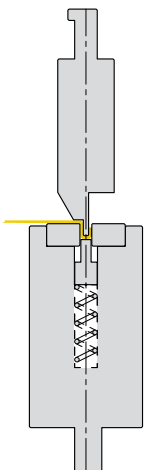
26. Large radius embossing-tool with extended flanges



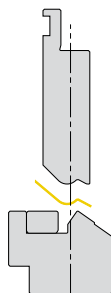
27. Radius embossing-tool



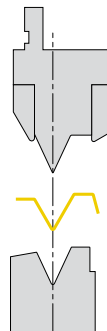
28. Embossing-tool for a large radius with short straps



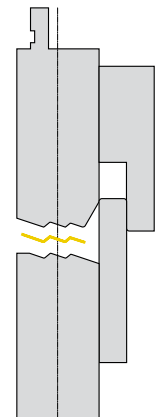
29. Embossing-tool with bending strips and spring loaded ejector



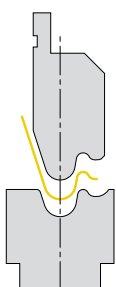
30. Joggle (Z)-tool with adjustable bending strips in the die



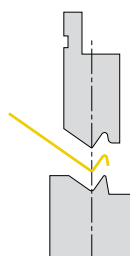
31. Embossing-tool with adjustable strips at the punch/top tool



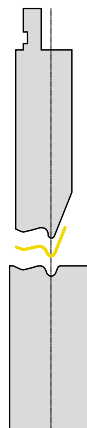
32. Embossing-tool for double joggle (Z)-steps with back guide



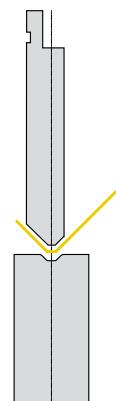
33. Embossing tool for joggle (Z)-bending with different radii



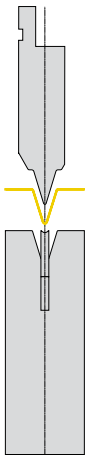
34. Embossing-tool for multiple bending in one stroke



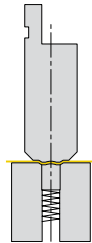
35. Embossing-tool



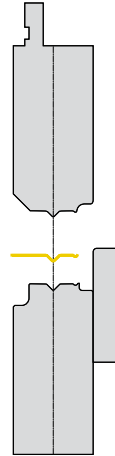
36. Embossing-tool



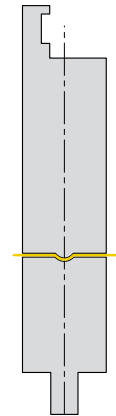
37. V-beading tool with spring loaded ejector



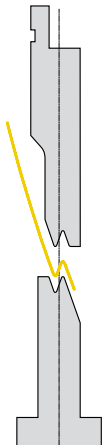
38. Beading tool with spring loaded ejector for contour bead



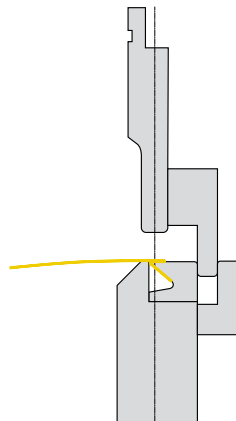
39. V-beading tool with a small radius embossing and back guide



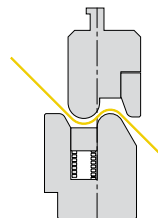
40. Beading tool for round bead



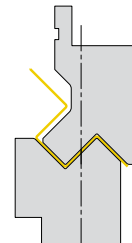
41a. Tool 1/2: Special joggle (Z)-tool with cut-out for flanges



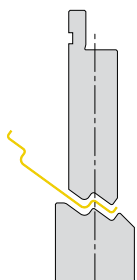
41b. Tool 2/2: Flattening tool with back guide



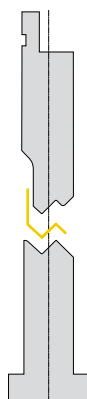
42. Adjustable joggle (Z)-tool with spring loaded ejector



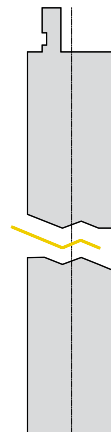
43. Joggle (Z)-tool for multiple bending



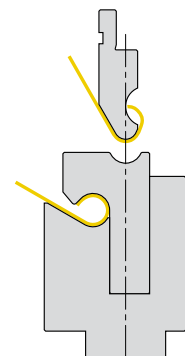
44. Joggle (Z)-tool with additional flange bending



45. Special Joggle (Z)-tool



46. Special joggle (Z)-tool

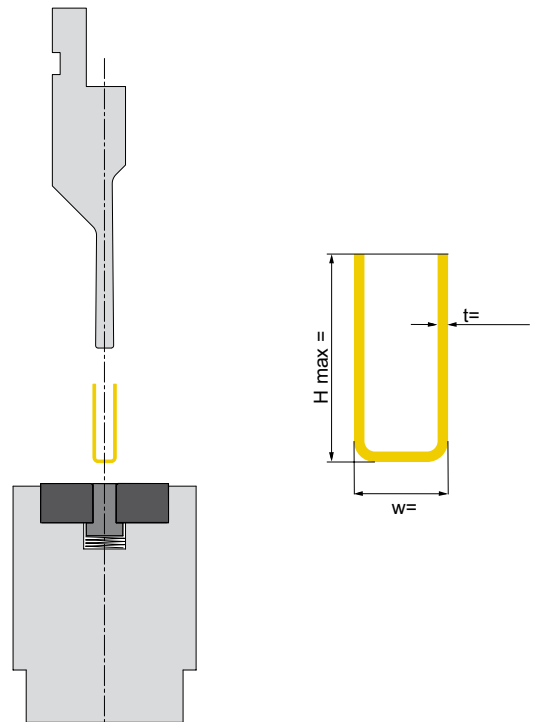


47. Hinge tool

U-bending tools

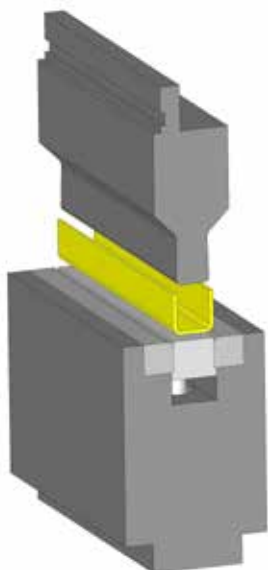
ADVANTAGES

- Customized U-bending tools
- Production in one step
- Small inside measurements with high flanges of the profiles
- Increased process stability
- Only minimum deformation of the sheet through spring loaded ejector
- Active components are hardened
- Functional test and adjustment through test bends with your sample sheets



Examples for U-bending tools

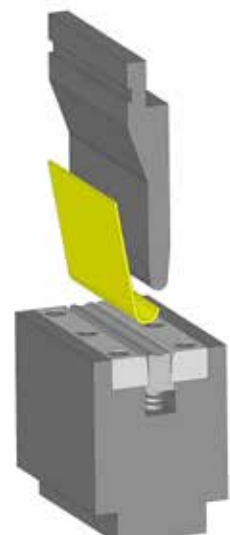
- Other shapes and layouts to match your specifications



U-bending tool with wide inner dimensions



U-bending tool with small inner dimension and cut-out for 90° bend

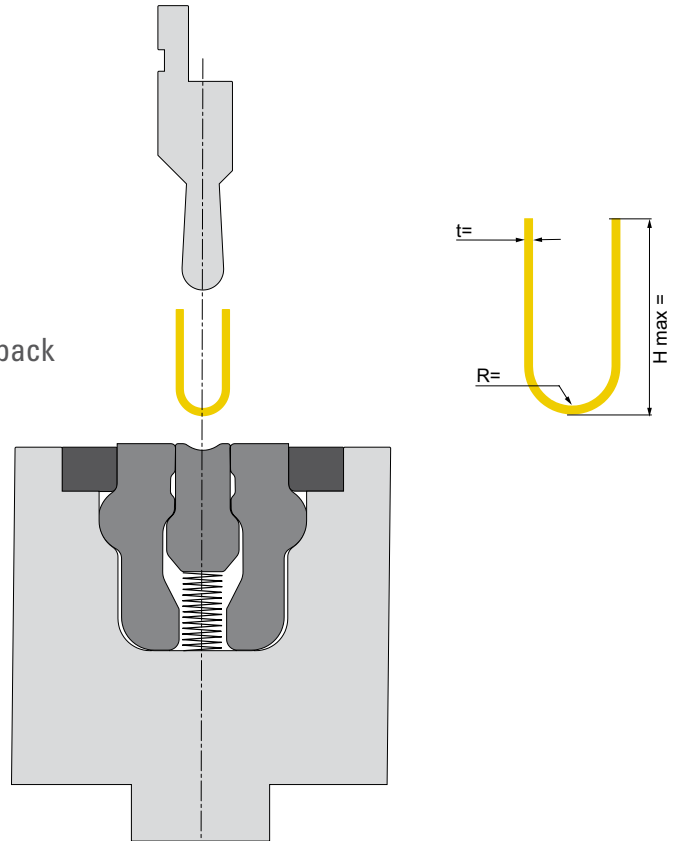


U-bending tool for radius bend

U-bending tools with movable bending strips

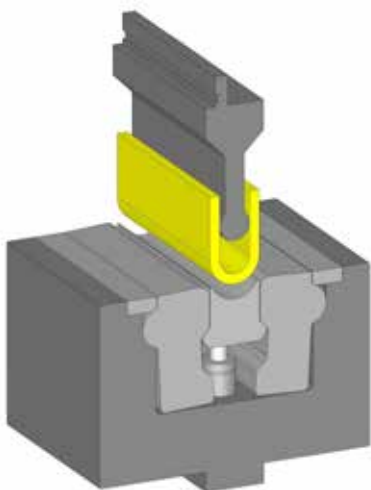
ADVANTAGES

- Customized U-bending tools with movable bending strips
- Production in one step
- Small inside measurements with high flanges of the profiles
- Increased process stability
- Movable bending strips to compensate the spring back
- Only minimum deformation of the sheet through spring loaded ejector
- Active components are hardened
- Functional test and adjustment through test bends with your sample sheets

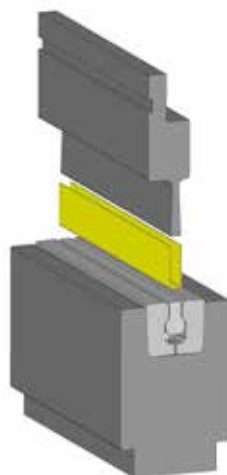


Examples for U-bending tools with movable bending strips

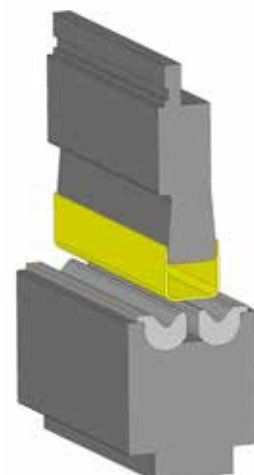
- Other shapes and layouts to match your specifications



U-bending tool with movable bending strips for thick material



U-bending tool with movable bending strips for narrow profile



U-bending tool with movable rollers, V-type

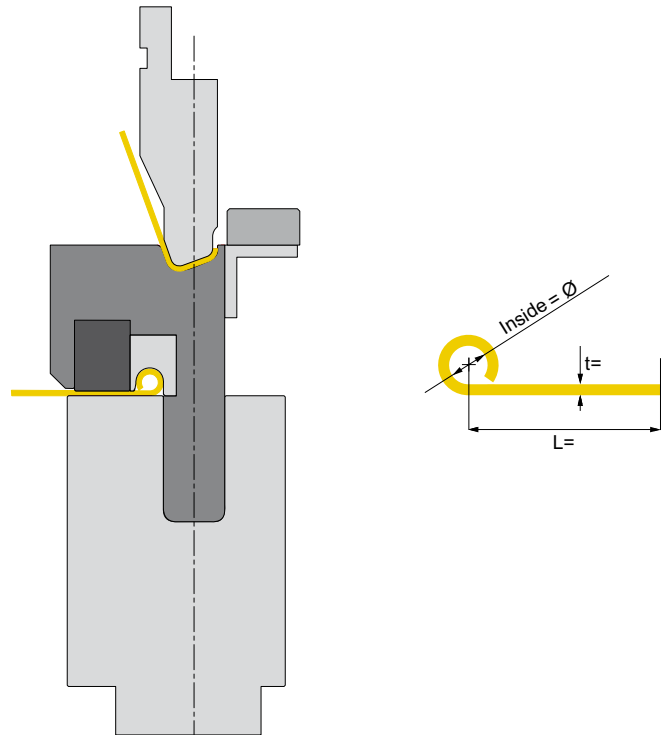
Hinge tools

ADVANTAGES

- Customized hinge tools
- Production in two or three steps
- Only minimum deformation of the sheet through spring loaded hold-down device
- Active components are hardened
- High repeatability through integrated backgauge
- Functional test and adjustment through test bends with your sample sheets

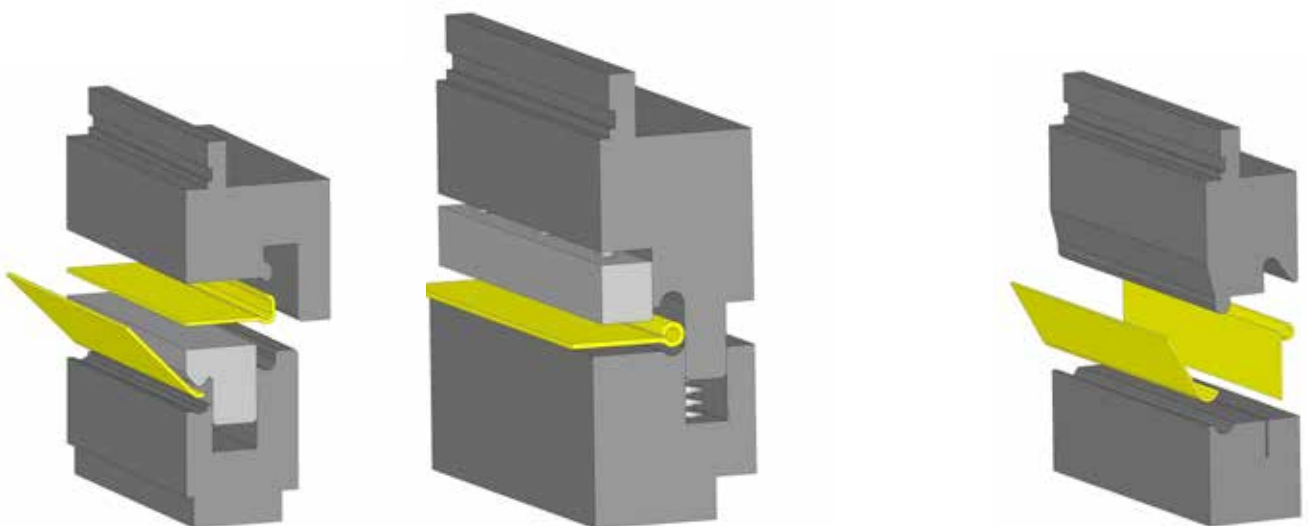
SUITABLE FOR

- Material thickness up to 4,0 mm
- Minimal inside \varnothing :
2,5 x material thickness for steel and aluminium
3 x material thickness for stainless steel



Examples for hinge tools

- Other shapes and layouts to match your specifications



Two-station hinge tools

Station 1:

Pre-bending of the profile in two strokes

Station 2:

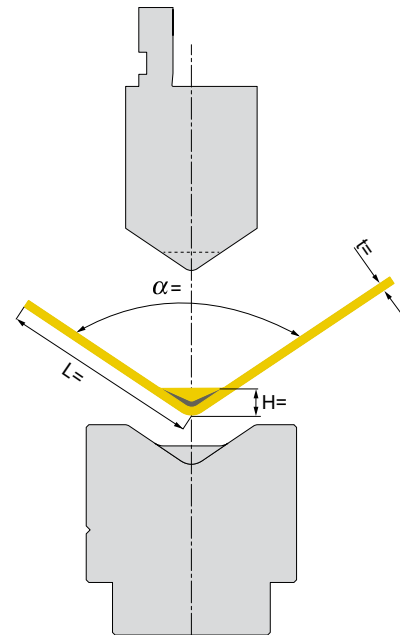
Rolling of the profile in one stroke

Hinge tool for production in one station, with 2 bends

Beading tools

ADVANTAGES

- Customized beading tools
- Production in one step
- All our constructions consider your materials resistance and yield stresses
- Transfer of freeform surfaces or 3D contours 1:1 from customer drawings or data sets
- Realization of the tools with integrated beadings adjusted to the sheet quality and thickness
- Design of angles, form and design of the beadings after customer specification
- Active components are hardened
- Functional test and adjustment through test bends with your sample sheets
- Testing the risk of cracking and deformation around the beading area

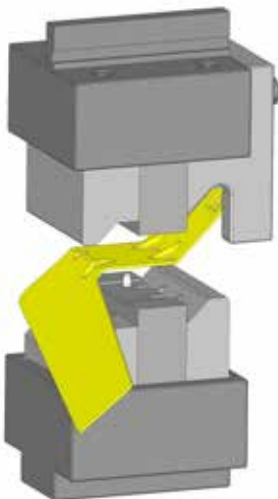


SUITABLE FOR

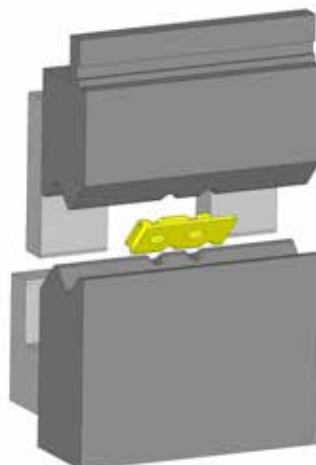
- Material thickness up to 5,0 mm
- All forms of beading independent of the bending angle

Examples for beading tools

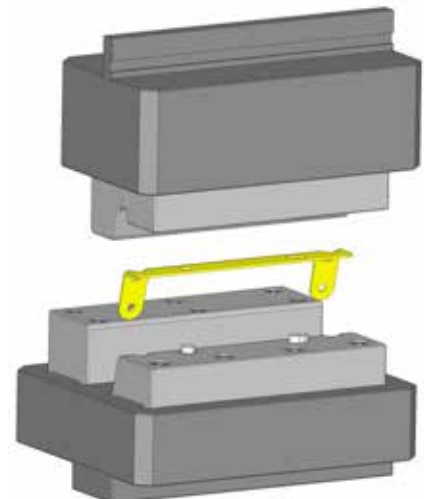
- Other shapes and layouts to match your specifications



Bead embossing-tool for four „bird´s-beak“ forms in one joggle (Z)-bending, in one stroke with spring loaded hold-down device



Bead embossing-tool for four „bird´s-beak“ forms in one joggle (Z)-bending with back guide



Bead embossing-tool for two „bird´s-beak“ forms, close to the bending line with hold-down device and supports

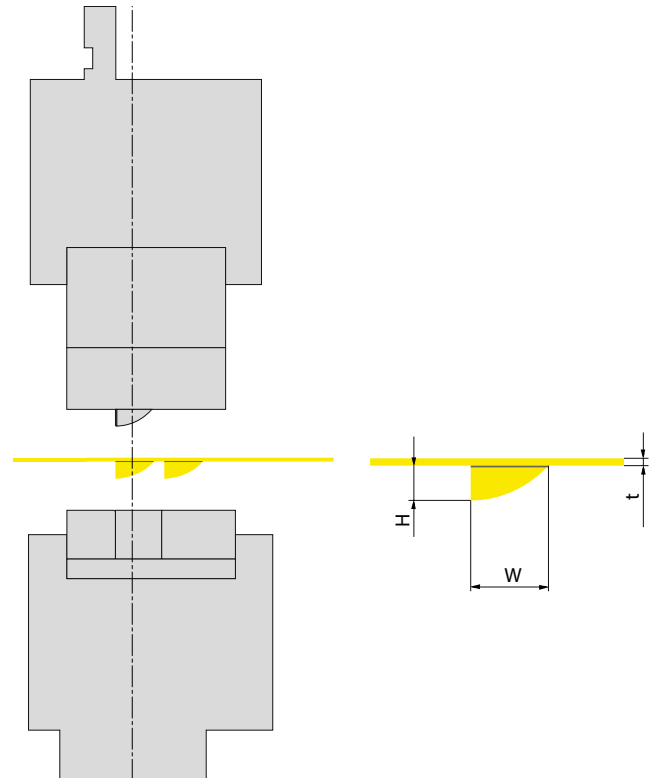
Louvre Tools

ADVANTAGES

- Customized louvre tools
- Production in one step
- One tool suitable for different sheet thickness and materials
- Only minimum deformation of the sheet through spring loaded hold-down device
- Active components are hardened
- Functional test and coordination through test bends with your sample sheets

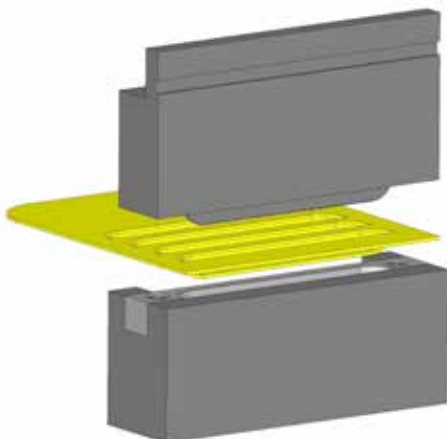
SUITABLE FOR

- Material thickness up to 4,0 mm
- Close-pitch adjacent air-slots

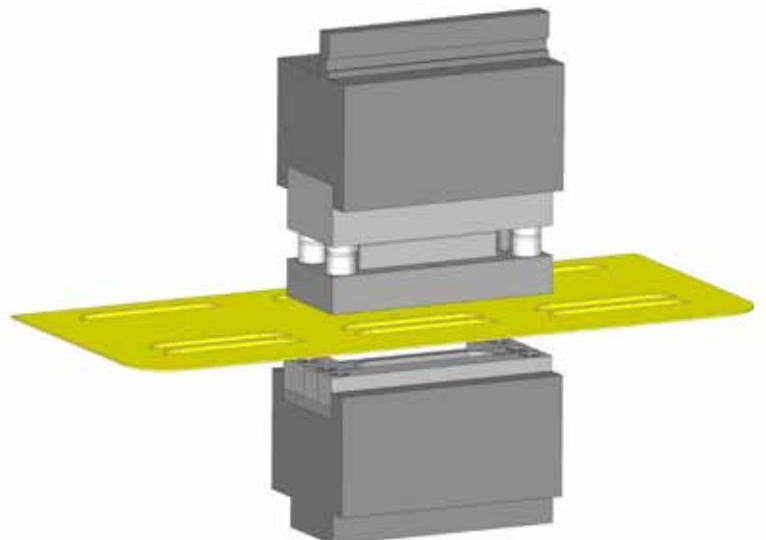


Examples for louvre tools

- Other shapes and layouts to match your specifications



Louvre tool in simple design, without hold-down device



Louvre tool with spring loaded hold-down device, for minimum deformation of the sheet

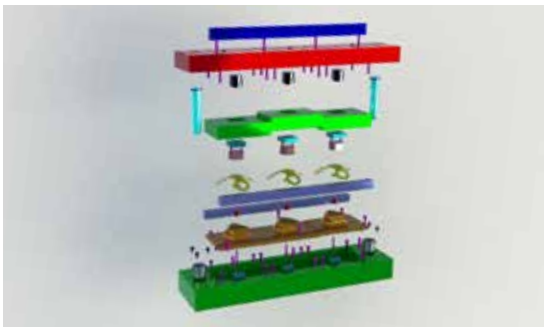
Multiple embossing-tool

Production of 3 items in one step at the same time

Construction and production of the special tool



Customer supplied full component drawing and relevant data for their requirements. The component consist of three separate parts, including three bends on the main part and a two-piece captive inner ring that had to be pressed in at the same operation.



3D-construction as exploded drawing



Final assembly of the upper part of the tool



Final assembly of the lower part of the tool

Functional test and coordination of the special tool



1. step of production: Lay-up of the lower parts of the inner rings in all three stations



2. and 3. step of production: Lay-up of the plate and the upper part of the inner rings in all three stations



Result in the lower part of the tool - after bending



Finished products, in correspondence with the drawing and the 3D-models

VIDEO

Special tools/
multiple
embossing-tools



Special tool for „spray arm“

Different working stations at one press brake

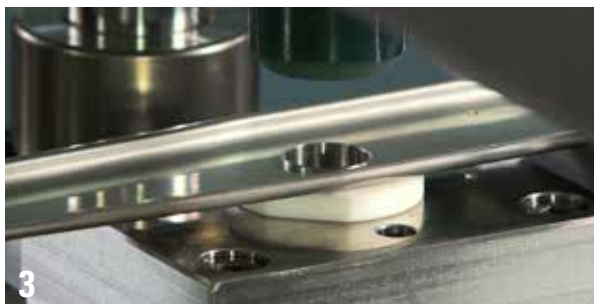
Manufacturing of the large „spray arm“



Manufactured item according to customer data: Two different sized „spray arms“ made out of stainless steel with different add-on components (for the use in dishwashers)



Embossing of both half shells (produced in one station)



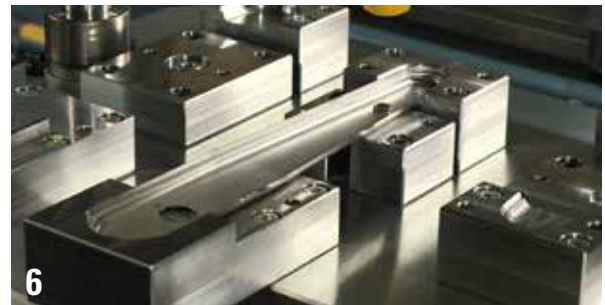
Impressing of the add-on components with the half shell (inner part)



Impressed inner part and add-on components



Embossing of the 45° drive nozzles



Impressing of the drive nozzle with the half shell (outer part)



Connection of both half shells (inner and outer part) through framed folding



Complete mounted large „spray arm“ and drive nozzle

Manufacturing of the small „spray arm“



9
Embossing of both half shells
(produced in one station)



13
Connection of both half shells (inner and outer part)
through framed folding



10
Manufacturing a shape in one of the half shells

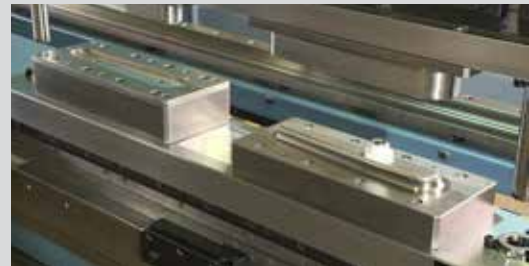


11
Impressing of add-on components with the
half shell (inner part)

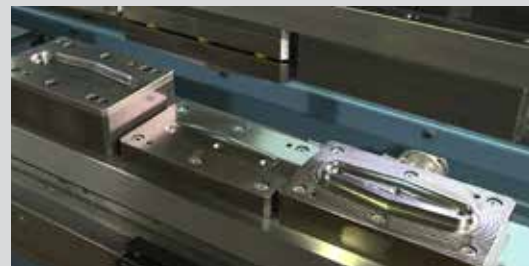


12
Impressed inner part and add-on components

Complete view of the special tools



Complete view of pillar-guided special tools
for embossing the large „spray arm“

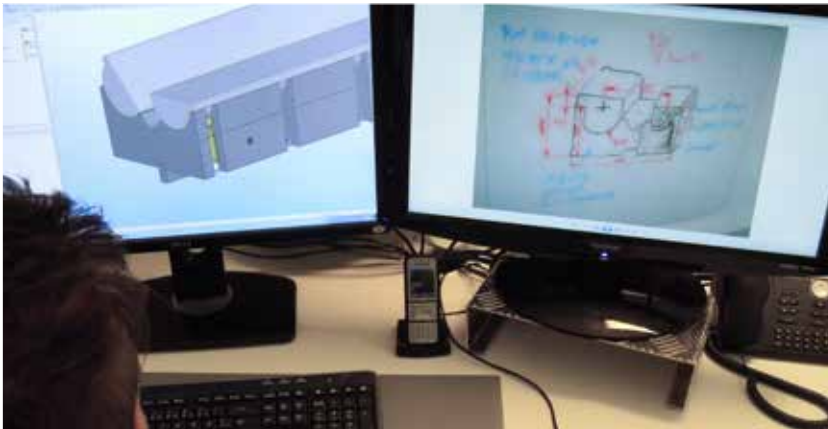


Complete view of pillar-guided special tools
for embossing the small „spray arm“



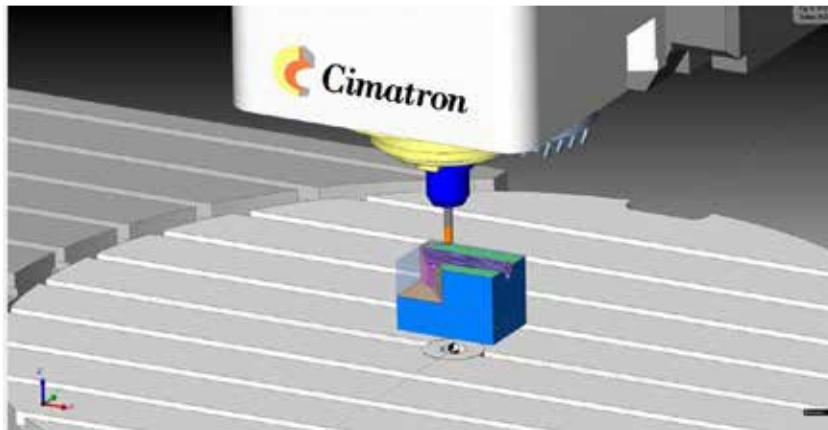
Complete view of pillar-guided special tools
for connecting the parts with the individual add-on
components

UKB-full service for special tools



→ Construction and development

After receipt of your order, our designers finalize the proposed concept in detail and create a 3D-model of the tool.



→ Work preparation

After verifying the model, the production drawings will be derived. If necessary a 3D-NC program will be created.



→ Construction of prototype

To determine the optimal bending contour, a sample tool will be produced. After sampling, the contour will be transferred to the serial tool.



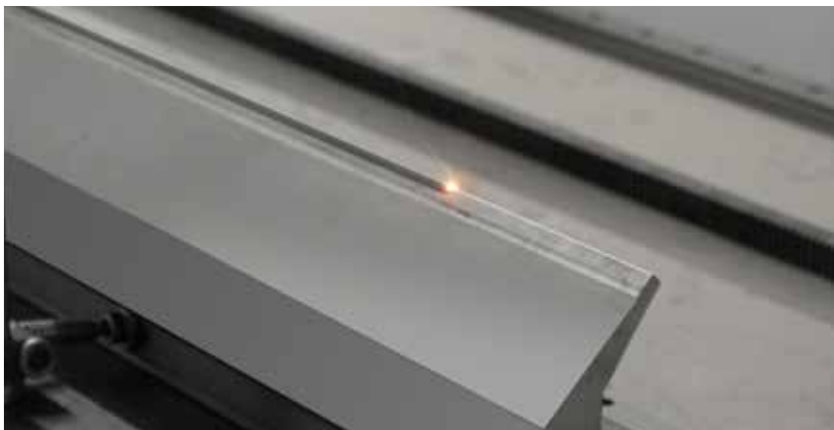
→ CNC-milling

In accordance with the production drawings the parts will be created using our CNC-milling machines. Using 5-axis processing even complex tool contours can be produced.



→ CNC-grinding

The bending contour and active surface of the special tools will be ground precisely.



→ Heat treatment

According to the operating conditions our special tools will be stress-relieved, laser hardened, through hardened or nitrided.



→ Laser marking

Customized markings, for example a in-house tool number, can easily be realized.



→ Assembly of special tools

The single components will be assembled and aligned to each other.



→ Test bending

At last, there will be a functional check with your sample sheets to make sure that you receive a perfect tool.



→ Quality check

The whole process is continuously accompanied by quality checks, for example by 3D-measuring.



→ Field service

Our field staff will be happy to advise you in special press brake tasks and also do test bends at your company.

Production of shear blades

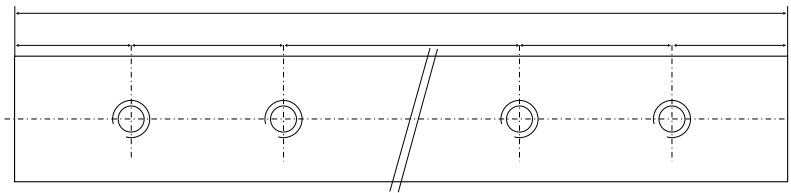
ADVANTAGES

For your shear we produce shear blades according to your specifications. The raw material of the blades is selected especially for the use and the material that has to be cut.

- Up to 4.100 mm in one piece
- 4-, 2- or 1-cutting edge
- With threaded hole or double sided countersink
- Use of alloyed and high-alloyed materials

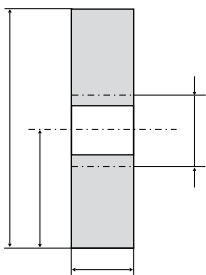
UKB-INFO

Download data-sheet for your request at www.ukb-gmbh.com/Shear-blades as PDF. Just fill out and send it back!

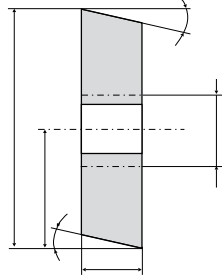


Examples:

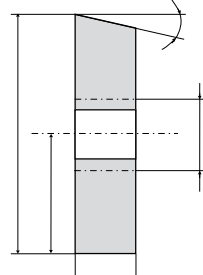
4 - cutting edges with threaded hole



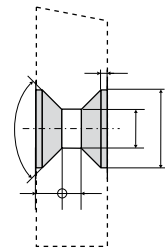
2 - cutting edges with threaded hole



1 - cutting edge with threaded hole



Double sided countersink



Regrinding of shear blades

- Delivery time: 1 working day (according agreement)
- Up to 5.000 mm in one piece
- 4-, 2- or 1-cutting edge

Contact us!



Guiding price for regrinding

Lenght (mm)	Price per piece	Price per piece if minimum 2 blades have the same height and thickness
till 1.200	70,- €	50,- €
till 1.700	80,- €	60,- €
till 2.200	90,- €	70,- €
till 2.700	110,- €	85,- €
till 3.200	130,- €	105,- €
till 3.700	160,- €	130,- €
till 4.200	180,- €	150,- €
till 5.000	200,- €	170,- €

Guiding prices are valid for shear blades with general wear



before



after



PRODUCTS:

Press brake tools
Special tools
Shear blades

JOB ORDER PRODUCTION:

CNC-milling
CNC-grinding
Laser hardening

TOOL SERVICE:

Repairing
Regrinding
Modification

FULL SERVICE:

Production
Construction/development
Test bending
Field service
Headquarter Burbach/Germany
Open from 7:30 am to 6:00 pm