



**PBT**  
**Profilbiegetechnik AG**



**Professional  
Bending!**

®



# Professional Bending!



In the year 1991 Beat Strupler set up his own business – the company **Profilbiegetechnik AG**.

Thanks to revolutionary developments in new profile bending machines, the company soon became market leader.

Due to our high commitment and immediate support of our customers, the machines are being used successfully in every day operation in over 60 countries world wide.

The company philosophy is clear-cut: close team-work with the customer, solving his individual bending problems. Working out such high-quality concepts for our customers is part of our philosophy.

Significant investments in time and money are continually being put into research and development of new machines and better control systems in order to guarantee excellent quality work for our customers.

With many years of experience in manufacturing profile bending and rolling machines with efficient control systems, we are in position to convert or adapt machines to the individual requirements of our customers.

## **Don't copy – Improve it!**

That is our rule. We become familiar with the needs of the customers and it is our goal to fulfil the customers wishes and requirements. Therefore we do not have to adapt to current competition on the bending market.

We continuously advance into new dimensions and therefore actively influence the market. We consequently help to attain results that for some time have been thought of not been attainable.

Take advantage of our experience and our know-how! Your personal bending problems can be solved with one of our powerful control systems. Furthermore, we manufacture any special tools for your machine. Our standard- and special tools are hardened and long lasting.

If you are attempting to buy a profile bending and rolling machine, we will take the time it needs to show you our machines and to help you make a good choice. The advice and assistance comes from qualified and competent engineers in our company. We trust that a first-hand view of our machines will strengthen your faith in our products.

A first-class after sales support is guaranteed. With expert advice we are in the position to help you to solve even very complex bending problems. Our team of skilled and experienced engineers is there for you at any time.

Being pioneers in the bending field, we introduce machines that are successfully operated in many trades. Our machines are well-known for their precision and reliability. The training and commissioning in our works is included in the price.

We wish you a successful future in the world of bending techniques!



# ARKUS12®



## Compact and precise

The compact high-performance ARKUS12 profile bending machine is distinguished by its flexibility, which permits it to bend highest quality steel and aluminum profiles even with extremely small radii.

## Technical data

Power	12 t
All 3 rollers driven individually	
Continuous	1 – 30 rpm
Max. torque per roller	500 Nm
Front roller adjustable	256 – 518 mm
Tool holding spindle Ø	40 mm
Travel x-axis	200 mm
Accuracy x-axis	1/100 mm
Hydraulic drive	0.75 kW
Roller driver	3 x 0.37 kW
Power supply	400 V, 16 A
Length	905 mm
Width	950 mm
Height	1'125 mm
Weight	440 kg

## Control systems

Manual setting continuous / PC50 / PC250 / PC300

## Features

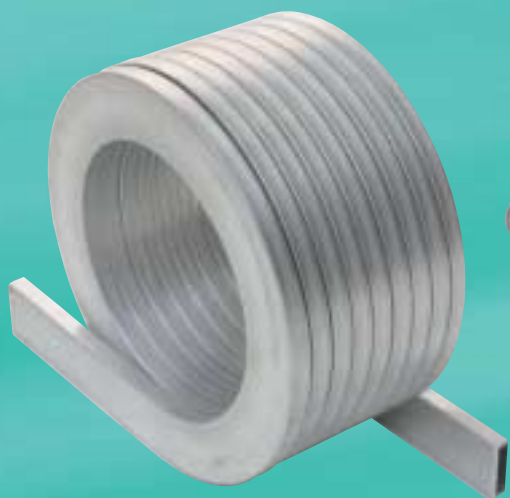
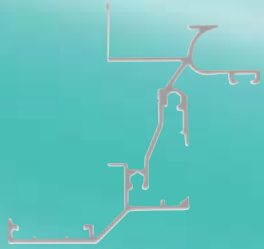
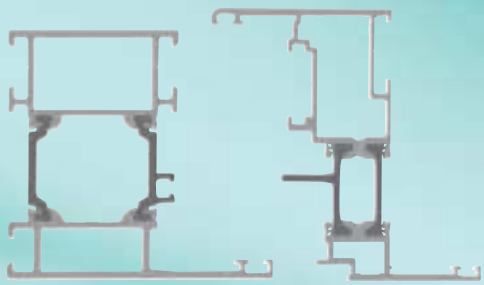
- Modern design
- Ergonomic working
- Front roller distance continuously adjustable
- Machine movable with drawbar
- Minimal oil quantity 7 Litres
- Powerful control system
- Consultant, training and commissioning in our works included in the price
- Swiss quality

## Trades & Industries

Filigree aluminum and steel profiles: automobile industry, metalwork, shop window construction, shower cabinet manufacturer, etc.

Profile cross section  
Scale 1:2





# PBT25®



## Efficient and proved

The PBT25 profile bending machine is designed to achieve the highest quality and cost efficiency and was developed on the basis of practical experience. Thanks to the modular construction, it can quickly be converted for new processes. As all three rollers are driven, even very large cross sections can be bent. Thanks to the very high drive rolls, profiles up to 300 mm in height can be bent with highest quality.

## Technical data

Power	27 t
All 3 rollers driven individually	
Continuous	1 - 22 rpm
Max. torque per roller	1'600 Nm
Front roller adjustable	200 - 1'000 mm
Tool holding spindle Ø	105 mm
Travel x-axis	265 mm
Accuracy x-axis	1/100 mm
Hydraulic drive	3 kW
Roller driver	3 x 1.1 kW
Power supply	400 V, 16 A
Length	1'680 mm
Width	1'250 mm
Height	1'390 mm
Weight	1'150 kg

## Control systems

PC50 / PC250 / PC300

## Features

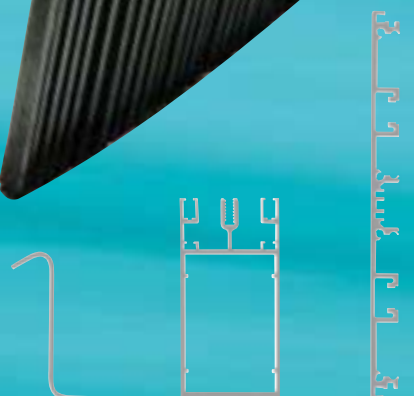
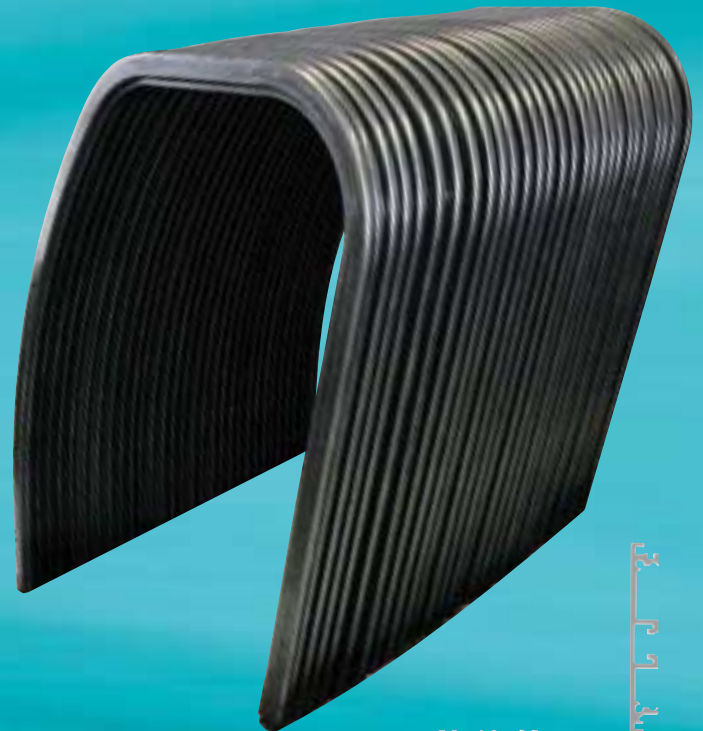
- Modern design
- Ergonomic working
- Front roller distance continuously adjustable
- Height of rollers 300 mm
- Machine movable with hitch
- Working on both sides possible: front: rolling – back: folding
- Powerful control system
- Consultant, training and commissioning in our works included in the price
- Swiss quality

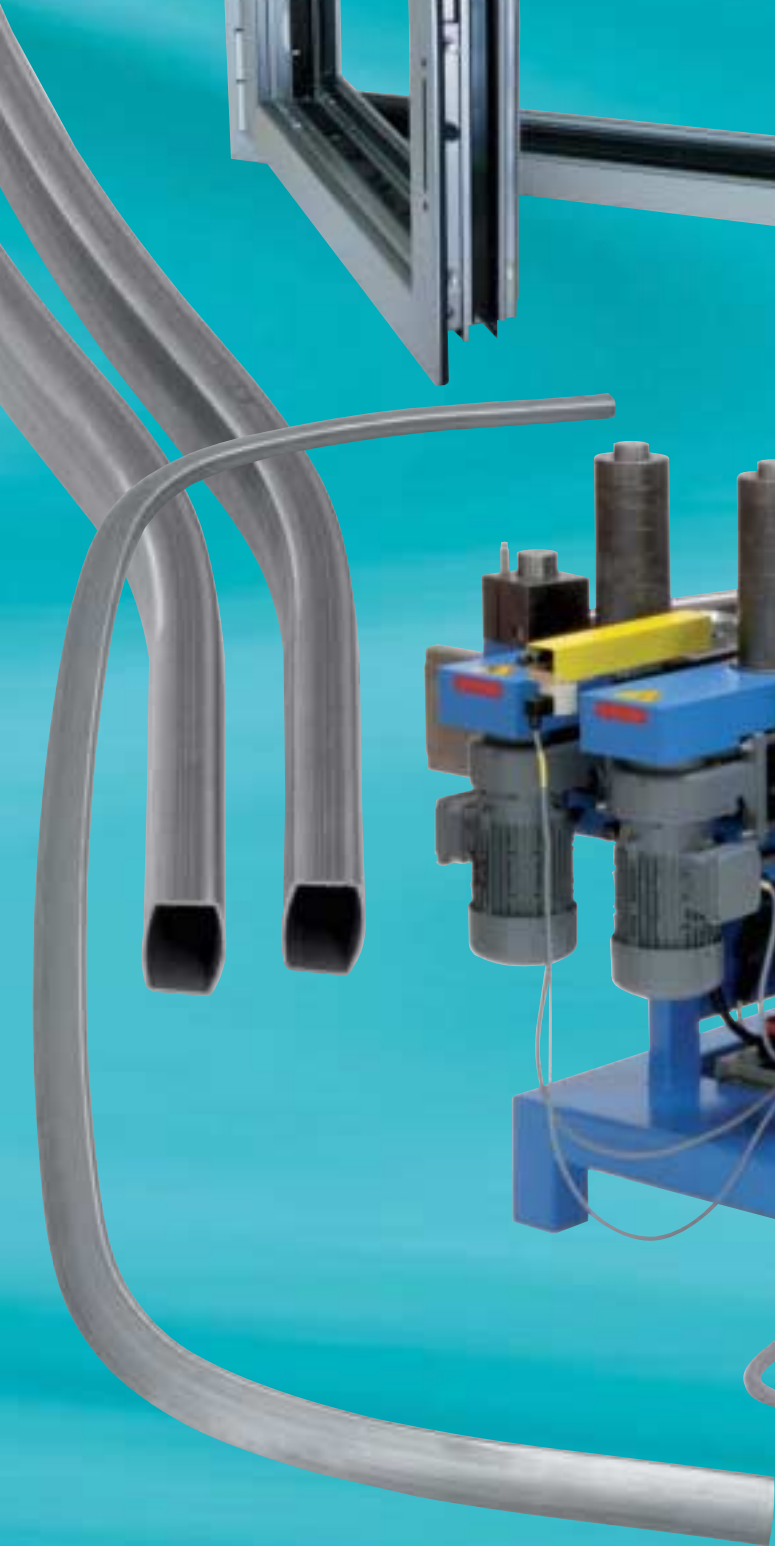
## Trades & Industries

Automobile, aerospace engineering, materials-handling technology, metalwork, shop window construction, structural steel engineering, etc.



Profile cross section  
Scale 1:4





# PBT35<sup>®</sup>



## First-class and uncompromising

This is the millennium machine! It is uncompromising in performance and quality. Like the PBT25, this machine is designed to achieve the highest quality and cost efficiency. However with expanded power reserve and more technical possibilities, this machine has much to offer.

## Technical data

Power	35 t
All 3 rollers driven individually	
Continuous	3 - 16 rpm
Max. torque per roller	3'000 Nm
Front roller adjustable	360 – 1'100 mm
Tool holding spindle Ø	105 mm
Travel x-axis	390 mm
Accuracy x-axis	1/100 mm
Hydraulic drive	12 kW
Roller driver	hydraulic
Power supply	400 V, 32 A
Length	2'050 mm
Width	1'600 mm
Height	1'400 mm
Weight	2'500 kg

## Control systems

PC50 / PC250 / PC300

## Features

- Modern design
- Ergonomic working
- Front roller distance continuously adjustable
- Height of rollers 300 mm
- Tool holding fixture same as with PBT25
- Powerful control system
- Consultant, training and commissioning in our works included in the price
- Swiss quality

## Trades & Industries

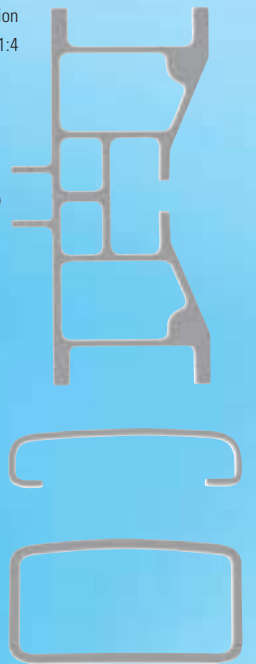
Automobile, transport industry, materials-handling technology, shop window construction, etc.







Profile cross section  
Scale 1:4



# HELIX®

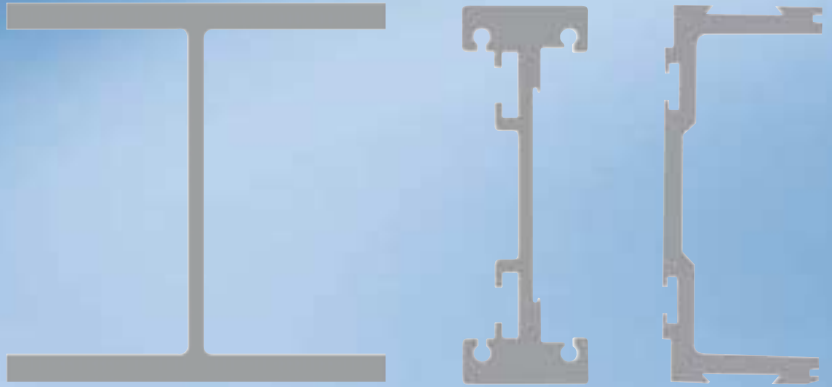


## The star

Helix is the source of super power. Ease of operation for the most challenging requirements. Principally used for massive profiles.

## Technical data

Power	65 t
All 3 rollers driven individually	
Continuous	1 - 8 rpm
Max. torque per roller	9'000 Nm
Front roller adjustable	630 – 1'330 mm
Tool holding spindle Ø	130 mm
Travel x-axis	445 mm
Accuracy x-axis	1/100 mm
Hydraulic drive	22 kW
Roller driver	hydraulic
Power supply	400 V, 63 A
Length	2'415 mm
Width	2'163 mm
Height	1'590 mm
Weight	5'800 kg



Profile cross section  
Scale 1:4

## Control systems

PC300

## Features

- Modern design
- Ergonomic working
- Front roller distance continuously adjustable
- Digital display x-axis - accuracy 1/100 mm: controlled & regulated
- Workstation and control panel movable
- Powerful control system
- Consultant, training and commissioning in our works included in the price
- Swiss quality

## Trades & Industries

Helix is used wherever top-dimension profiles require bending into the requisite shape (load bearing beams, aluminium and steel).





# PBT control system

## PC300

The PC300 control system has numerous advantages. By using Microsoft WindowsXP, the control system can be integrated in a company network. Both the industrial PC with its 15" display and the most important control keys are housed in a mobile control panel. The PC has a very robust screen display using infrared touch technology. Nevertheless, the tried and tested control keys are still available for manual operation.

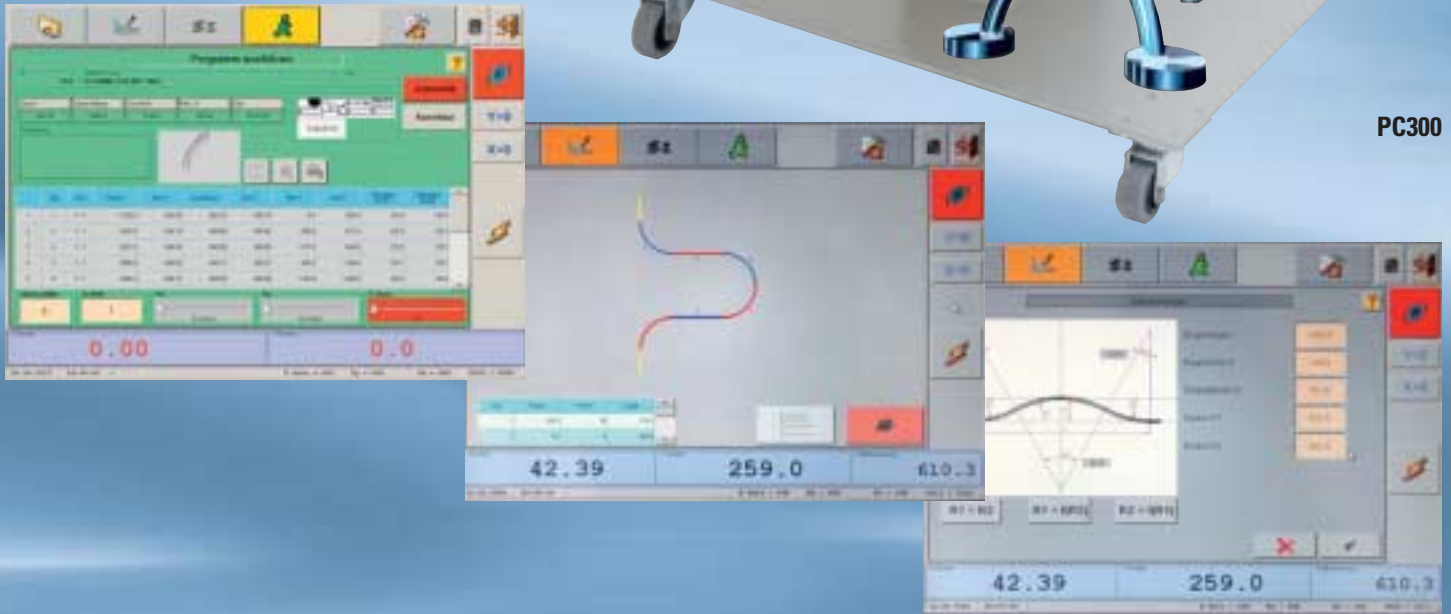
The choice of WindowsXP as the operating system allowed for the construction of a flexible system that is open to enhancement and can be adapted to suit particular customer requirements. Operation is easy and programming uncomplicated.

Use of a database means that both the number and length of programs are only limited by the size of the memory. Included as standard are wizards such as Coil, Ellipse and S-bends, which are able to generate an entire program from a mere handful of details. When creating a program directly, the system checks each entry to see whether a calculation is possible, indicating errors where appropriate. The graphical display is also constantly updated, allowing direct monitoring. Using the details entered, the program calculates the entire program sequence with the relevant adjustments, transitions, etc. Where variances arise during bending, the effective bend radius can be specified for the program, and a correction value is automatically calculated from this, the operation being adjusted as appropriate. To avoid scrapping workpieces, these can be rebent where needed. To help the operator, a wizard is included for this.

The mobile PC300 WindowsXP control system meets every requirement in terms of ease of operation, functionality and configuration levels. So efficiency is guaranteed! Remote diagnostics via Internet modem.



PC300



## PC250



## PC250

The PC250 control system with 10" infrared touch panel has been specially designed to render operation as easy as possible by means of clear symbols.

For this, the range of functions has been reduced to the most essential bending operations. Simple programming of the radii and program calculation have been assigned to the PC300 control system. Windows CE has been chosen as operating system. This compact form of Windows has a short start-up time and does not need to be shut down.

Coil bending for pipes is included as a special function. Data backup can be easily performed via a USB port that can be accessed on the control panel from outside.

## PC50 Teach-in

Siemens 5.7" control panel with resistive touch panel. It allows short and long production runs to be performed automatically. Programming is performed in teach-in mode. Existing data can be called via the program directory. This means that programs that have already been created can be modified or adapted at any time. The X-axis has a positional accuracy of 1/100 mm. The Y-axis is also infinitely adjustable. Can be retrofitted to PC250.

## Manual setting

The work is performed on the mobile operating terminal. Bending of profiles is straightforward and easy to follow. Manual operation is suited for bending operations that involve a single radius without straight ends. The manual control system is mainly suited for individual jobs done to specification. The X-axis has a positional accuracy of 1/100 mm. The Y-axis is also infinitely adjustable. It can be retrofitted at any time to PC50 or PC250.

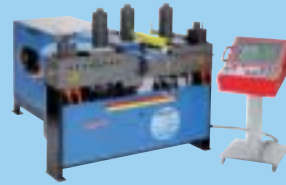
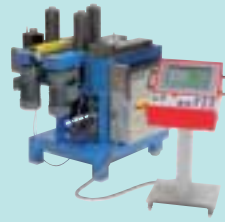


PC50 Teach-in



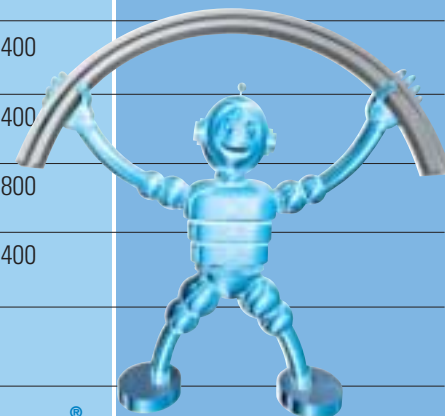
Manual setting

# Production examples (inside Ø)



Profile	ARKUS12 mm	min. Ø mm	PBT25 mm	min. Ø mm	PBT35 mm	min. Ø mm	HELIX mm	min. Ø mm
	30/10 45/20 70/12	130 250 600	50/10 60/30 120/15	300 1200 2000	120/15	1200	120/15 100/30 200/30	800 1400 4000
	25/10 45/20 100/10	130 180 300	60/30 150/12 300/15	500 300 600	260/20	700	260/30	900
	25/25 30/30	120 300	60/60	1000	80/80	1400	80/80 100/100	1000 2000
	30	300	60	1000	80	1400	80	1000
	20/20/3 40/40/4 50/50/5	200 400 600	25/25/3 60/60/6 80/80/8	350 600 1200	80/80/8 100/100/10	1000 1600	100/100/10 120/120/12	1400 2000
	20/20/3 40/40/4 50/50/5	200 500 800	25/25/3 60/60/6 80/80/8	350 1000 3000	80/80/8 100/100/10	1400 2000	100/100/10 120/120/12	2000 3000
	60/60/7	800	80/80/8	1000	100/100/10	1200	130/130/14	1500
	60/60/7	800	80/80/8	1000	100/100/10	1800	130/130/14	2000
	60/60/7	800	80/80/8	1000	100/100/10	1500	130/130/14	1500
	UNP 80	800	UNP 180	1200	UNP 200	1200	UNP 260	2000
	UNP 80	800	UNP 180	1200	UNP 200	1200	UNP 260	2000
			I-PE 120	1800	I-PE 160	3000	I-PE 200 HEB 180 HEA 200	5000 7000 6000
	I-PE 80	1000	I-PE 160	1000 1200	I-PE 180	1000	I-PE 200 HEB 180	7000 4000
	1/2" (21) 1 1/4" (43) 2" (60)	160 250 600	1" (34) 3" (89) 4" (114)	350 1200 2000	3" (89) 4" (114) Ø 180	1000 1200 2000	4" (114) Ø 180 Ø 219	300 1100 4000
	80/20/4 50/50/3	500 600	160/60/4	2000	100/100/10	1200	120/120/10 150/80/10	1500 1500
	80/30/4	1500	80/80/6 160/60/4	1500 3000	100/100/6 160/60/4	1500 2000	100/100/10 180/80/6	1400 3500
*			Steel	600	Steel	600		
*			Steel	600	Steel	600		
*			Steel	600	Steel	600		
*	Aluminium	400	Aluminium	400	Aluminium	400		
*	Aluminium	400	Aluminium	400	Aluminium	400		
*			Aluminium	800	Aluminium	800		
*	Aluminium	400	Aluminium	400	Aluminium	400		

\* special tools needed



# Examples



# PBT worldwide

**Around the globe more than 1,400 machines are in operation, in over 60 countries! Wherever bent profiles are a requirement, you will find our profile bending and rolling machines to be indispensable.**

Hardly any limits are set to the fields of application! Our machines are in operation in the following trades and industries: building and construction, machinery engineering, as well as transport industries. As you can see from the pictures illustrated on this page, we serve a diverse range of industries. Whether on land, on water, in the air, or even in space, you will find bent profiles. Our machines contribute to the success of these high quality products! Many companies of significant prominence are counted amongst our highly esteemed clientele. With our machines we can contribute to their accomplishments and success!





### Your advantages

- Bending of all profiles quick and economically maintaining high precision and repeatability
- Short production time
- Powerful machines
- Quick programming, extraordinary productivity, flexibility and easy to operate
- Programming skills not necessary
- Rapid tool change
- Lightweight design with no reduction in performance
- Data backup via USB
- Remote diagnostics via Internet modem
- Lots of additional equipment



### Our services

- Competent advice
- Customized solutions
- Manufacture of standard or special tooling according to customer requirements
- Training and commissioning included in the price
- Demonstration in our works possible (also on Saturdays, with previous notice only)
- Individualistic machines according to customer outline





### Professional Bending!

We are convinced that this brochure has given you some insight into the vast world of bending techniques and possibilities. We look forward to meeting you in person to demonstrate what the machine can do – you'll soon be convinced!

We therefore extend an invitation to you to contact us.



# Trades & industries

**Our machines are successful in operation primarily in the following trades and industries:**

- Aerospace
- Automotive
- Building
- Furniture industry
- Luminous advertising
- Machinery manufacture
- Materials-handling technology
- Metalwork
- Shop window construction
- Shower cabinet manufacturer
- Structural steel engineering
- Transport industry





## **PBT Profilbiegetechnik AG**

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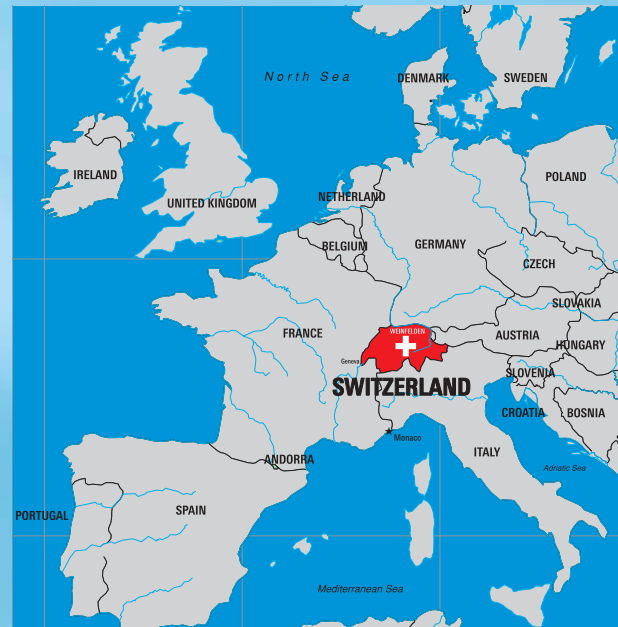
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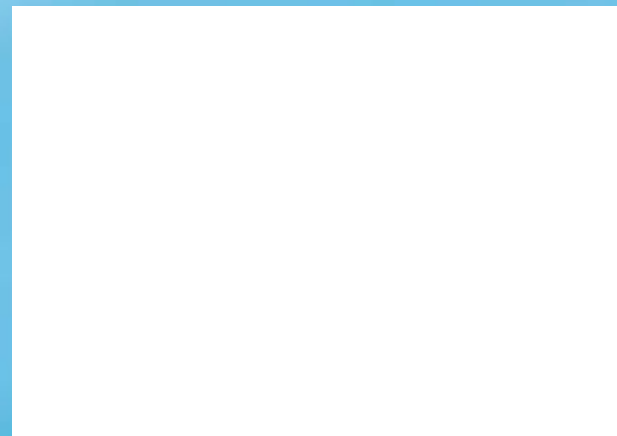
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