FÖRSTER welding systems

QUICKER - BETTER - MORE ERGONOMIC WELDING

Welding tables Fixtures Automation

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Innovation and quality Made in Germany since 1987

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FÖRSTER welding systems GmbH

For more than 35 years FÖRSTER stands for innovative and durable

Welding tables and fixtures.

The history of FÖRSTER welding systems goes back to 1987. Founded as a trade company for welding technology and automatic machines, the company strategy was constantly adapted to market requirements. Through the development and patenting of our own products, we can look back on a constant growth in the approximately 35 years of our existence. The company comprises the business areas of production and sales of welding tables and welding fixtures, machinery and plant construction with welding robot automation as well as trading in welding technology.

We currently employ 30 people at our site in Hohenstein-Ernstthal.

Our company is divided into the following departments:

- construction department
- electrical planning
- Software development and commissioning for logic controllers and robots
- Mechanical production of components with conventional and CNC-controlled processing machines
- Fixture and plant assembly
- Welding technology testing and consulting
- Training and service

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Technologies

Gray cast iron (GCI)

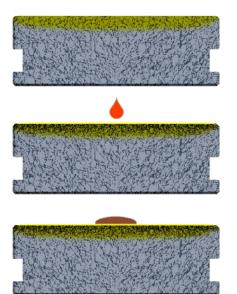
Table top for machining steel and aluminum

The safest protection against welding spatter!

The high graphite content in our special grey cast iron rails does not cause a firm connection of welding spatter on the table surface. In the same way that graphite in foundry technology protects plants from metal buildup, it protects your welding table from splashes.

Even larger droplets become so brittle in the transition zone that they can be easily pushed away and do not affect the flatness of the table surface.

The open-pored surface creates an immediate interaction of the embedded graphite particles in the porous cast structure with the applied and penetrating protective agent. Thus, an oil-graphite mixture develops in the upper area of the table surface, which forms an almost perfect protection against welding spatter adhesion.



Gray cast iron ages and, with this aging, graphite fractions diffuse over the surface, which results in an increasingly gray coloring, thus offering basic protection against adhesions to welding spatter.

The applied separating oil easily penetrates the coarse structures of the gray cast iron and the milled surface with open pores, thus preventing the increasing adhesion of welding spatter.

Evaporation of the separating oil when weld spatter hits the surface creates a gas bubble and allows the weld spatter, which cools down immediately, to roll off.

By using solid material, our splints retain their properties for a lifetime.

Additional advantages:

- The lower coefficient of expansion compared to steel and the possibility of free expansion and contraction of the rails under the influence of heat (without plastic deformation).
- The sound-insulating properties of gray cast iron reduce production noise.
- Rails made of solid material with properties that will last a lifetime.
- Flatness and angularity H/fine according to ISO 2768T2 (+/- 0.05 mm) / grid spacing 100 mm

Gray cast iron - the most proven basis for rough welding operations



Technologies

Aluminum Copper Alloy (Al/Cu)

Table surface for processing Stainless steel

The professional processing of stainless steel requires a consistent separation of ferritic materials and thus also a corresponding welding workbench, since even the finest adhesions and scratches on the surface can cause further corrosion.

Due to the relatively high tensile strength (= F37, similar to construction steel) with lower surface hardness, no damage is caused to polished stainless steel surfaces.

The high thermal conductivity of the Al/Cu alloy at normal temperature almost completely rules out the adhesion of any weld spatter.

However, the application of release agents is recommended for continuous use.

- Enables consistent separation of ferritic and non-ferritic materials to avoid ferritic Scratches in the stainless steel processing.
- Extremely high thermal conductivity compared to steel to minimize warping.
- Adapted, universal accessories for stainless steel processing available.
- Splints made of solid material with properties that will last a lifetime.
- Flatness and angularity H/fine according to ISO 2768T2 (+/- 0.05 mm) / grid spacing 100 mm

X-Pro profile

max point load single rail.

6

Lightweight anodized aluminum table top

Our X-Pro profile as a table surface enables lightweight construction for mobile solutions. In the area of clamping and slinging equipment, it provides flexibility and at the same time, like our double T-slot profile (page 5), serves as a link when combining different clamping and slinging equipment.

7.57.51

Technologies

T-slot system

Continuous positioning without grid restrictions

20

T-slot in the table surface (GCI/AlCu/X-Pro):

With our T-slot system, you can position all clamping elements and stops at any point on the table. You can use it to weld and assemble frames, tubes, housings and more, in any position you want.



Standard sliding block







Double sliding block

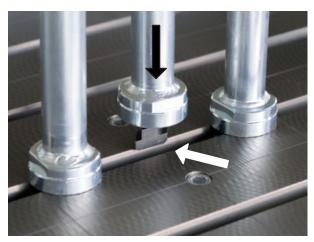


Sliding block between 2 GCI Rails

Defined engravings in the rails make it easy to count larger distances.

Rhombic sliding block

The rhombus sliding block can also be used later, in a free space of an already partially occupied T-slot. This increases your flexibility when clamping and thus reduces your non-productive times.



Simply insert...

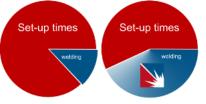


...and tighten by hand ..

Technologies For profile Test in clamping and stop elements Profiles Methods Profiles Profi

- As a groove attachment for stop brackets or for setting up stop walls for 3-D constructions the profiles can be moved and locked in two axes.
- Connectors for simple and two-axis moving are available as accessories.

3D modular system



Due to modern manufacturing processes, the pure welding working time can hardly be reduced nowadays. The majority of the working time is required for arranging the individual parts with exact dimensions and angles as well as for measuring, straightening and correcting.

FÖRSTER welding tables consist of individually exchangeable and removable rails for variable surface design. They can be modularly expanded and are ideal for all types of assembly and welding work.

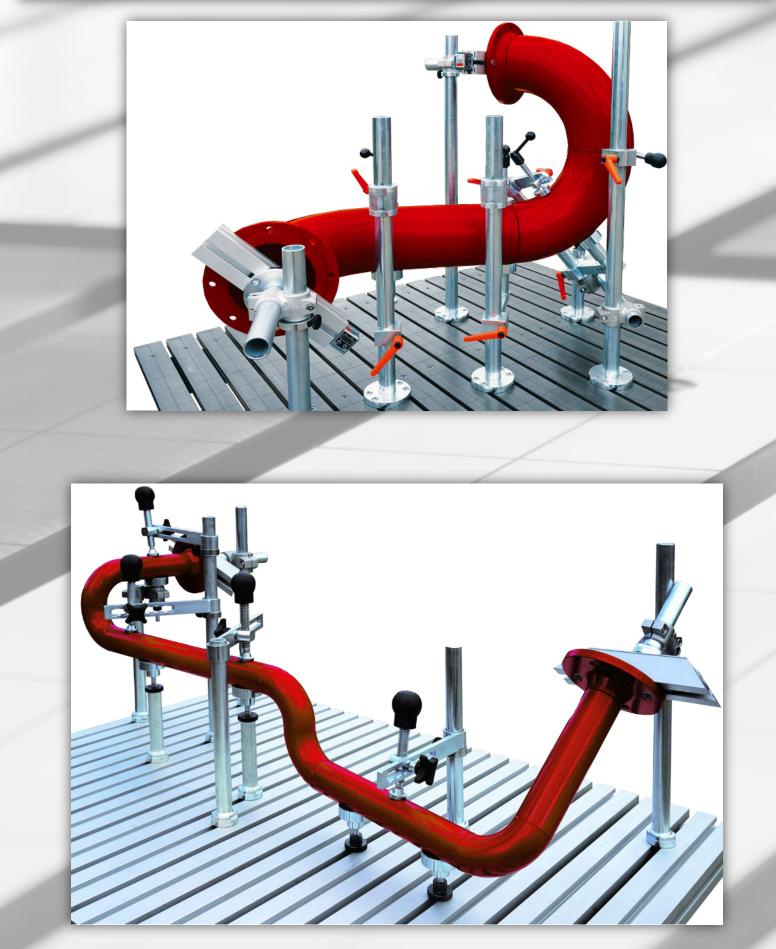
The modular system consists of:

- Cast iron rails with T-slot
- Al/Cu rails with T-slot
- X-Pro profiles with T-slot
- double slot profiles with T-slot
- Stop and clamping elements with grooves

Standard tables with extensions and accessories

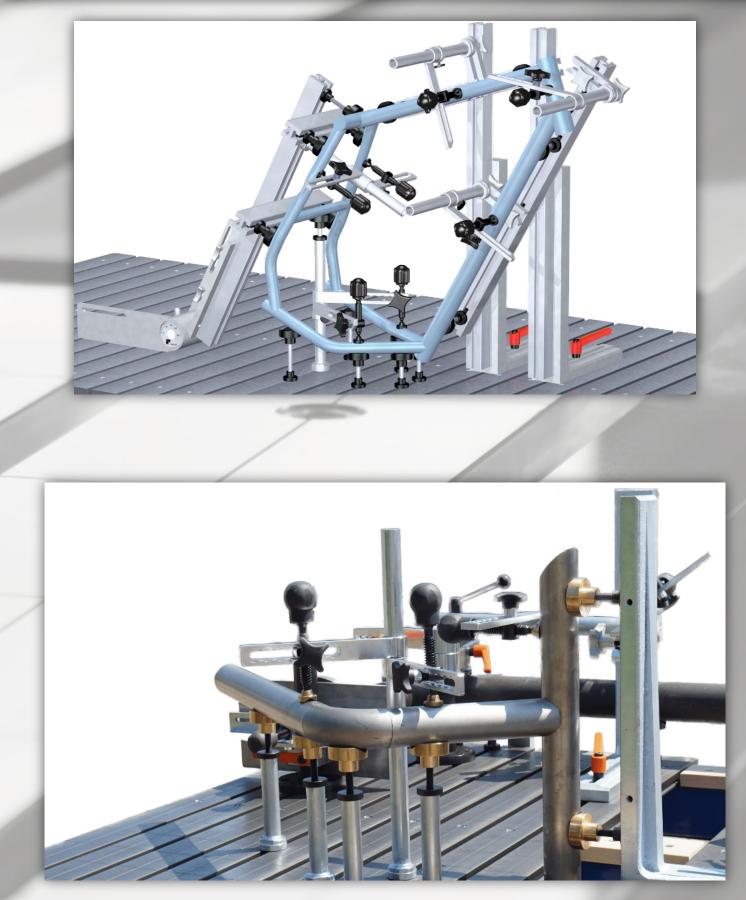


Clamping examples - pipe construction





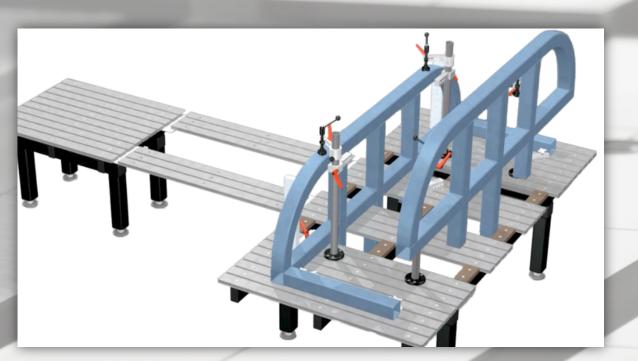
Clamping examples - pipe construction

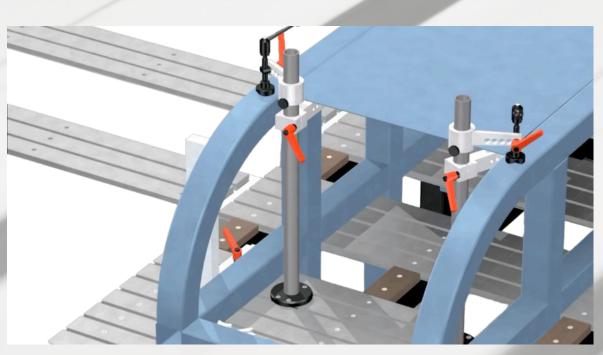




Clamping examples - frame construction

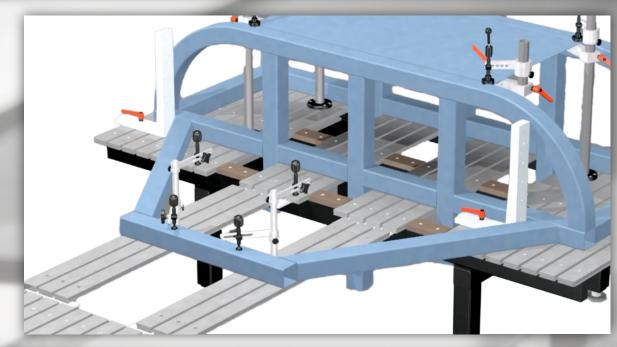


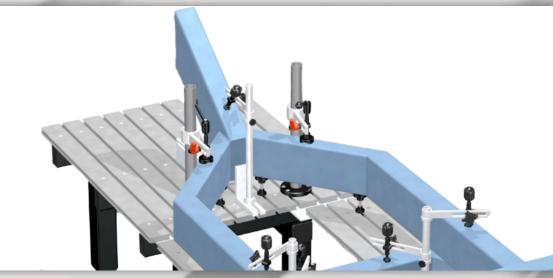


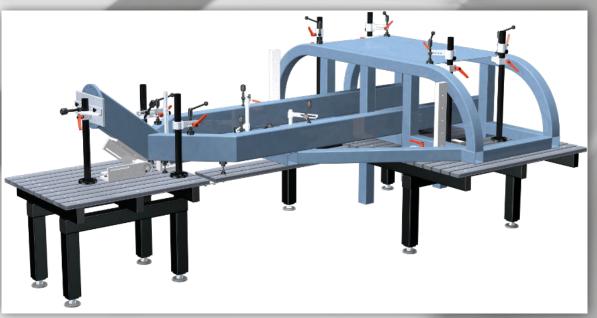




Clamping examples - frame construction









Standard- Welding tables

FÖRSTER welding tables have been proving their robustness and durability for more than 35 years.

By combining the well-established concept of the T-slot from machine tools with the special gray cast iron and Al/Cu rails as the surface, we manufacture a unique welding table in-house.

Thanks to variability and robustness, our welding tables provide the perfect basis for any of your future welding tasks.

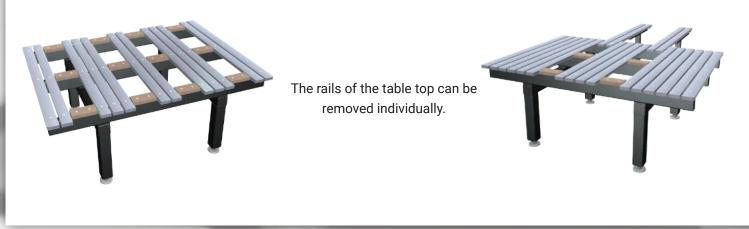




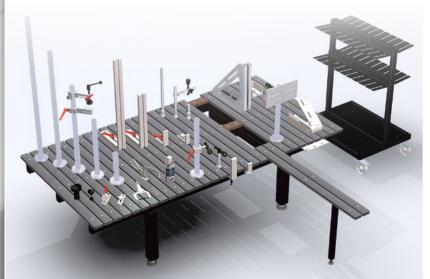


Standard- Welding tables

A FÖRSTER welding table adapts to your tasks.



Modular design – The table surface can be opened for vertical work and the table can be extended as desired.



With our self-developed clamping system and stop elements, you can work precisely, true to size and angle.

Due to the multifunctionality of our building blocks, you have the opportunity to achieve a lot with few accessories and to use unlimited thirdparty tools.

Stationary and mobile available - other variants on request • Point loads up to 1.5 t • Distributed loads up to 3.0 t • Rail surface evenness +/- 0.05 mm



Welding table with rotating function

A 360° rotation function with easy handling makes it possible to comfortably change the workpiece position and not the working position.

The table top can be adjusted by hand without tools.



(height adjustable from 835 mm - 945 mm)

Point loads up to 1.5 t • Distributed loads up to 2 t • Rail surface evenness +/- 0.05 mm • Other variants on request

Lift welding table

FÖRSTER lift welding tables are equipped with an electrohydraulic scissor lift substructure.

An optional undercarriage frame with wheels for easy transport or the variant with height-adjustable feet to compensate for uneven floors also offers maximum flexibility.

> (Possible working height Depending on model: 400 mm - 1340 mm)

stationary or mobile available

Point loads up to 1.5 t • Distributed loads up to 3,5 t • Rail surface evenness +/- 0.05 mm • Other variants on request



Lift and turn welding tables

A combination of turntable and lifting table for maximum flexibility.

Height adjustability using a hydraulic scissor lift substructure. A manual rotation function of the table surface and an optional undercarriage frame offer maximum ergonomics when welding.

stationary or mobile available

Properties

Description

(Possible working height Depending on model: 470 mm - 1510 mm)



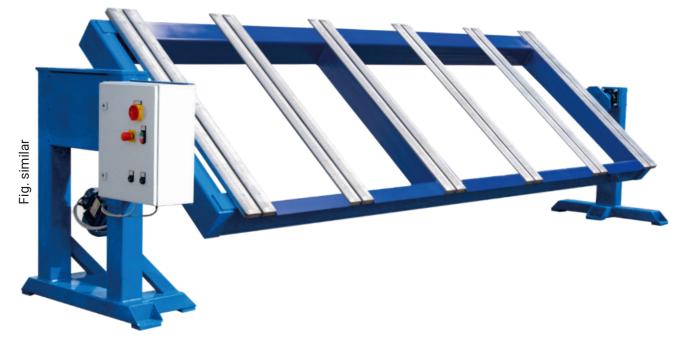
• Point loads up to 1.5 t • Distributed loads up to 3,2 t • Rail surface evenness +/- 0.05 mm • Other variants on request





• Point loads up to 1.5 t • Distributed loads up to 2,0 t • Rail surface evenness +/- 0.05 mm • Other variants on request

Welding table with swivel function



FÖRSTER reversible welding tables are equipped with an electromotive rotary drive, which allows stepless 360° positioning of the table surface.

All models are designed as standard for workpieces up to 3000 mm wide and are partially covered with 12 rails to allow access to the weld seam from all sides.

• Point loads up to 1.5 t • Distributed loads up to 1,5 t • Rail surface evenness +/- 0.05 mm • Other variants on request



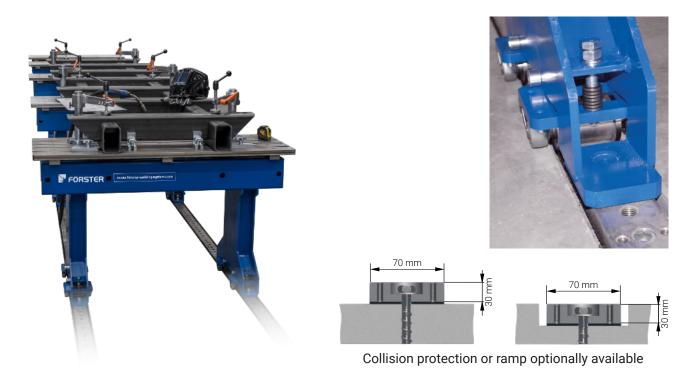
Table bridges

The perfect solution for the production of length-variable welded constructions.

The table bridges can be moved on a rail system and can be fixed in a grid of 100 mm.



Our rail system is designed for installation in or on concrete and can be made in any length and width.



Point loads up to 1.5 t
Distributed loads up to 5 t per bridge
Feet with spring-loaded and guided rollers
Can be fixed securely against lifting



FÖRSTER welding fixtures and jigs significantly reduce the idle times of the welding process.

All-round accessibility without having to re-clamp the component, thanks to the turning function.

Repeatable clamping with variable adjustments of the device to different

component dimensions.

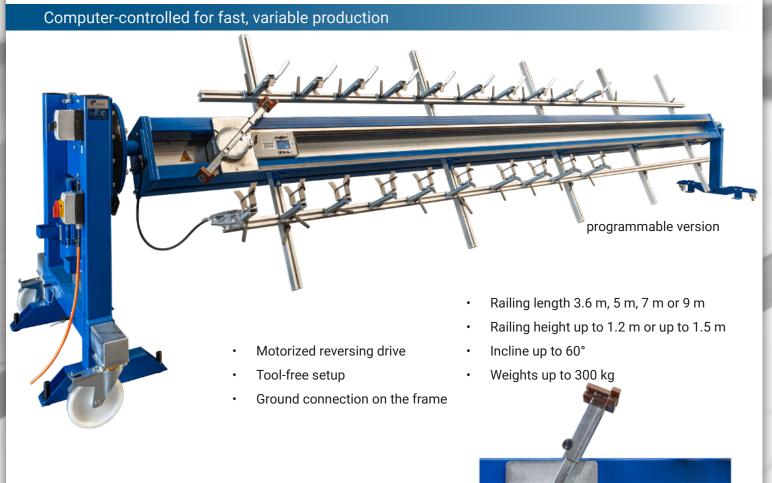
Railing welding devices

THE

Program-controlled, motorized counter

Set-up times

Set-up times



- Defined parameterization by entering the number of bars and distances or
- Automatic calculation of the number of bars and distances
- Configuration on the PC or on the device
- Data import and data export via USB
- Program memory

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After selecting the railing to be manufactured, the carriage moves to the next position at the push of a button - insert crossbar or support bar - tack weld - done.

www.welding



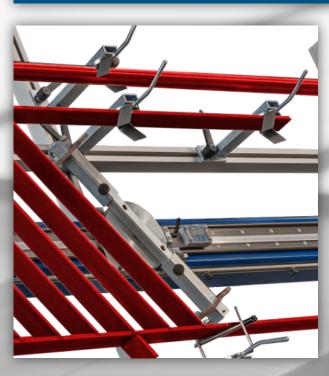


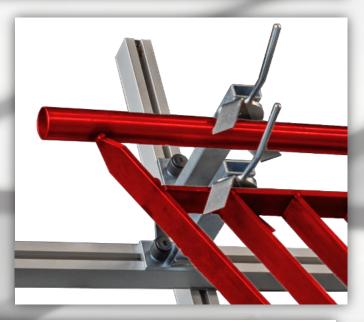
Railing welding devices





Manual railing welding device





Centric fixation of all straps and the handrail by manual rotation of the tensioner. Designed for round or square profiles.



insert crossbar or support bar - tack weld - done



Program controlled railing welding device



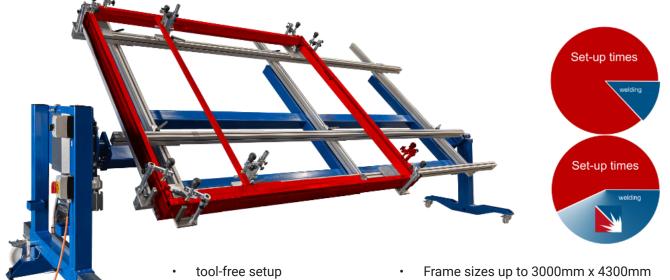
Railing welding device with optional clamping corners for frame production



Frame welding device

Welding in one clamping: ergonomic, precise and fast

With our unique FÖRSTER frame welding device, you can weld frames of different sizes and designs without timeconsuming measuring in an exact right-angled arrangement.



- Ground connection on the frame
- mobile

- Component weight up to 300 kg
- motorized reversing drive 360°



further reduce non-productive times when manufacturing different

Application example balcony frame

frame dimensions.



Frame welding device

Electric motorized frame welding device for heavy assemblies.

Through expansion options with modules from our construction kit or customer-specific adjustments, nested frames can also be manufactured efficiently, ergonomically and precisely.

Exposed corners and the motorized reversing drive offer access to all welds.

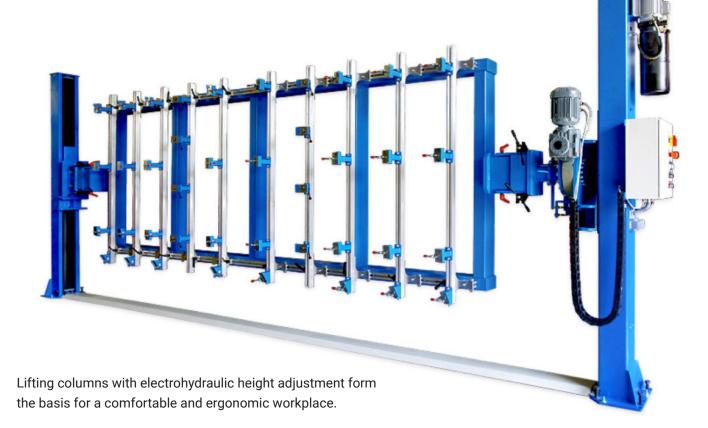
All in one clamp!





Lifting and turning device for frames

Maximum work simplification for the all-round welding of very large or complex assemblies



Different frame sizes or loads, equipment or special functions can be realized on requex

By using our moveable X-Pro or double slot profiles, the support elements and clamping elements can be individually positioned at any time. As a result, the device remains flexible and can be adapted to changing assemblies.

We adapt the frame construction to the workpiece to be clamped. Loads of up to several tons and the picking up of very long and wide components are possible.



- Standard component size up to 3 x 5 m
- Standard component weight up to 2.5 t
- Lifting height up to 2 m
- 360° rotation function
- exposed corners



Custom fixtures

Tailor-made devices to cope with your tasks



With our many years of know-how in fixture construction for a wide variety of welded assemblies and the knowledge from automation, we can also equip fixtures fully automatically.

- Safe positioning of components
- Accessibility to the welding seam in an ergonomic position
- Consideration of arising welding distortion

Multi-axis positioner - payload 20t



Manipulators and Positioners

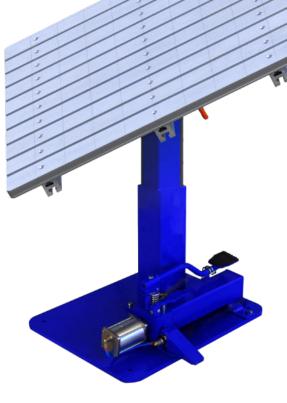
FÖRSTER manipulators and positioners are available in a variety of designs and ensure synchronization even with asymmetrical clamping.

ERGOFIX

With our own development, the Ergofix Manipulator, work steps are made considerably easier. The manipulator is a height-adjustable table with a hydraulic stroke of 690 mm to 990 mm, it can be manually or electrohydraulically tilted up to 45° and rotated 360° in any position.

This means: Working in an ergonomically favorable position and the best possible seam position for very good welding results.





Manual version: with foot pump and manual turn and tilt function

- Payload up to 150 kg
- Rotate 360° endless (locking with clamping lever)
- Table top height hydraulically adjustable from 690 mm – 990 mm
- Continuous tilting angle from 0° to 45° (locking with clamping lever)
- Table surface available in Al/Cu alloy / cast iron / X-PRO profile



Manipulators and Positioners

For manual welding

For light or heavy components with many different welding positions, manipulators are the solution for quality and high quality welds made in an ergonomic position.

Stepless workpiece positioning via three independently controllable axes. A handy remote control enables all movements to be controlled and the component rotation can be operated via a foot pedal.



For robot use

The positioner is directly or indirectly integrated into the robot controller and enables synchronized movement with the robot for perfect machining quality.

Primarily, component weight and center of gravity are decisive. In addition, we incorporate other customerspecific requirements into the design.

For your robotic welding solutions we manufacture:

- single-axis positioner
- single-axis positioner with counter bearing
- two-axis positioner
 - multi-axis positioner





Clamping devices and stop elements

Well thought out and easy to use.

Our range of accessories is characterized by multifunctional applicability. The modular principle also ensures that all clamping and stop elements can be used on all of our products.

Even without tools, our clamping devices become sufficiently firm in no time at all!



FÖRSTER clamping and lifting gear for welding tables as well as our railing and frame welding devices can be tightened or operated almost entirely without tools.

Except for an Allen key and, if necessary, an open-end wrench, you do not need any other tools for FÖRSTER clamping and lifting gear.



Lock with sliding block



Universal angle with lever lock



Lever lock with sliding block

forster-welding-systems.com/accesoires Accessoires overviews at page 38f.



FÖRSTER clamping devices are available in two versions:

Clamping and stop elements in grey cast iron and steel **for steel processing.**

Clamping and stop elements in aluminum and bronze for stainless steel processing.





Accessories and spare parts for welding tables

Our welding table accessories and spare parts offer maximum welding modularity and a long service life.



Support for table extension



Accessories and extensions for frame welding devices

For our frame welding devices, we offer you an extensive range of additional clamping devices and stop elements as well as extensions and measuring systems.



An overview of all extensions for frame welding devices can be found on page 42

Maintenance products and spare parts





Automation

We plan and manufacture your very special robot welding system completely in-house, support you with the installation and commissioning and train you in the confident handling of your new system.

The aim of our "all-round carefree package" is your independence when operating your robotic welding system.

Plant concept – Engineering – Production and assembly – Commissioning – Technology Optimization – Service

An ideal solution for realizing your task cannot be taken off the shelf.

Each welded assembly has specific processing characteristics, requires customized fixtures and ideally can be manufactured even more efficiently. In our considerations for the realization of your requirements, the aspects of ergonomics, flexibility and simple operation play an important role in addition to the factors of quality and quantity.

Based on the respective customer and component-specific requirements, we develop proposed solutions for efficient component production even during the concept phase.

With customer components, sample welding can be carried out on an available robot system in order to define the ideal automated welding process in advance.

Our automaters not only consider the control programming of the pure welding task, but also any requirements of e.g. data storage or order management systems.

Through experience in classic special machine construction and knowledge of their control algorithms, we can create a digital system for you that meets the requirements of "Industry 4.0".

Depending on the requirements, we use logic controls from Siemens or Beckhoff to control supporting systems such as marking stations, handling portals or for data management.

In addition to classic seam tracking, we can also integrate laser scanning systems, camera systems or simple optical sensors into your welding robot system.





We primarily rely on robot technology from Fanuc and KUKA.

In addition to range simulations and load calculations, realistic considerations of necessary reserves also come into play when selecting suitable robot types.

What works on paper can fail in reality.



Our more than 30 years of experience in the construction of welding jigs forms the basis for our designers to construct the actual heart of a customer-specific welding robot system, the welding jig, in the highest quality.

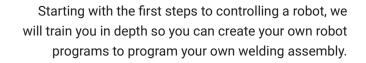
In addition to the exact positioning and clamping of the individual parts, the central points are the all-round accessibility to all weld seams and the protection of the device from welding spatter, counteracting any welding distortion and the comfort of operation.

In addition to the exact positioning and clamping of the individual parts, the accessibility of all weld seams and the protection of the fixture and the welding assembly from weld spatter, the central points are the counteracting of welding distortion as well as the comfort of operation.

Our task is not yet fulfilled with the production of a welding robot system and completed technological commissioning.

Our claim is to teach you the routine handling of your equipment.





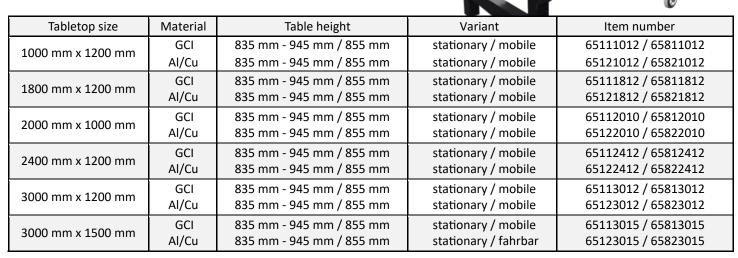
During the start-up phase, we are of course available to you with telephone support, use remote maintenance systems or come to you.





Model overviews

Standard welding table





Rotary welding table

Tabletop size	Material	Height adjustability	max load	rotatable	item number
1000 mm x 1200 mm	GCI	835 mm - 945 mm	2000 kg	360°	65611012
1000 mm x 1200 mm	Al/Cu	835 mm - 945 mm	2000 kg	360°	65621012
1900 mm v 1200 mm	GCI	835 mm - 945 mm	2000 kg	360°	65611812
1800 mm x 1200 mm	Al/Cu	835 mm - 945 mm	2000 kg	360°	65621812
2400 mm x 1200 mm	GCI	835 mm - 945 mm	2000 kg	360°	65612412
2400 mm x 1200 mm	Al/Cu	835 mm - 945 mm	2000 kg	360°	65622412
3000 mm x 1500 mm	GCI	835 mm - 945 mm	2000 kg	360°	65613015
	Al/Cu	835 mm - 945 mm	2000 kg	360°	65623015

Welding table with lift function



Tabletop size	Material	height adjustability	max load	item number
1000	GCI	400 mm - 1150 mm	1400 kg	66611812
1800 mm x 1200 mm	Al/Cu		1600 kg	66621812
1985 mm x 1100 mm	X-Pro	570 mm - 1340 mm	1500 kg	66632011
2400 mm x 1200 mm	GCI	400 mm - 1250 mm	3200 kg	66612412
	Al/Cu		3500 kg	66622412
3000 mm x 1500 mm	GCI	400 mm - 1250 mm	2900 kg	66613015
3000 mm x 1500 mm	Al/Cu	400 mm - 1230 mm	3300 kg	66623015

You have special requests? No problem - Contact us!



Model overviews



Lift-turn welding table

Tabletop size	Material	height adjustability	max load	rotatable	item number
	GCI	470 mm - 1250 mm	1300 kg	360°	66111512
1500 mm x 1200 mm	Al/Cu	470 mm - 1250 mm	1300 kg	360°	66121512
	X-Pro	495 mm – 1275 mm	1300 kg	360°	66131512
2400 mm x 1200 mm	GCI	480 mm – 1300 mm	2800 kg	360°	66112412
2400 mm x 1200 mm	Al/Cu	480 mm – 1300 mm	2800 kg	360°	66122412
3000 mm x 1500 mm	GCI	480 mm – 1200 mm	2000 kg	360°	66113015
2000 IIIII X 1200 IIIII	Al/Cu	470 mm – 1200 mm	2000 kg	360°	66123015
Undercarriage frame and adjustable feet for scissor lift table (additional height 80 mm)					6600002
Undercarriage frame and adjustable feet for scissor lift table >2t (additional height 210 mm)				66000003	

Lift-tilt welding table

Tabletop size	Material	lifting height	item number
3000 mm x 1500 mm	GCI	550 mm - 1050 mm	64713015
3000 mm x 1500 mm	Al/Cu	550 mm - 1050 mm	64723015

Welding table with swivel function

Tabletop size	Material	Rotation	max load	item number
3000 mm x 1500 mm	GCI	360° electromotive	1500 kg	64513015
3000 mm x 1500 mm	Al/Cu	360° electromotive	1500 kg	64523015

Table bridges

Tabletop size	Material	table height	item number
1500	661	470 mm	65440515
1500 mm x 500 mm	GCI	870 mm	65480515
2050 mm v 500 mm	GCI	470 mm	65440520
2050 mm x 500 mm	GCI	870 mm	65480520
2450 mm x 500 mm	GCI	470 mm	65440524
2450 mm x 500 mm		870 mm	65480524
3050 mm x 500 mm	GCI	470 mm	65440530
	GCI	870 mm	65480530



You have special requests? No problem - Contact us!



Model overviews

Railing Welding Device

U				
Railing length	Railing height	rotatable 360°	max load	item number
5.000 mm	600 mm - 1.200 mm	electromotive	150 kg 300 kg	64125012 64225012
7.000 mm	600 mm - 1.200 mm	electromotive	150 kg 300 kg 150 kg	64127012 64227012 64127015
	600 mm - 1.500 mm		300 kg	64227015
9.000 mm	600 mm - 1200 mm 600 mm - 1500 mm	electromotive	300 kg 300 kg	64229012 64229015

PROGRAMMABLE VERSIONS

MANUAL VERSIONS

Railing length	Railing height	rotatable 360°	max load	item number
3.600 mm	600 mm - 1200 mm	manually	50 kg	64313612
5.000 mm	600 mm - 1.200 mm	electromotive	150 kg	64115012
7.000 mm	600 mm - 1.200 mm	electromotive	150 kg 300 kg	64117012 64217012
9.000 mm	600 mm - 1200 mm	electromotive	300 kg	64219012

Frame Welding Device

	1		
Frame size	rotatable 360°	max load	item number
3000 mm x 1500 mm	manually	50 Kg	64103015
3000 mm x 1500 mm	electromotive	200 Kg	64203015
3000 mm x 2000 mm	electromotive	200 Kg	64103020
3000 mm x 2500 mm	electromotive	200 Kg	64103025
4300 mm x 2000 mm	electromotive	200 Kg	64304320
4300 mm x 2500 mm	electromotive	200 Kg	64304325
4300 mm x 3000 mm	electromotive	300 Kg	64504330

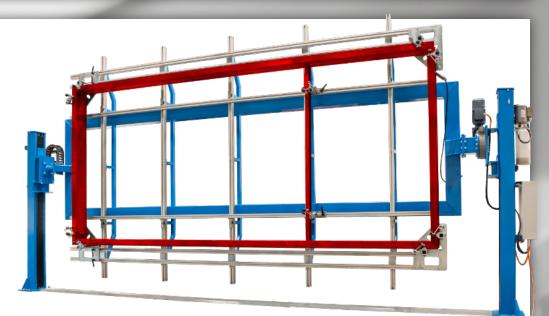
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Model overviews

Lift and turn columns Lift-turn device



Model	max load	lifting height	Rotation	item number
Lift-turn columns	2,5 t +	ca. 500 mm- 2000 mm	360° electromotive	64890000
lifting and turning device	2,0 t +	ca. 500 mm- 2000 mm	360° electromotive	64884010

ERGOFIX

Tabletop size	Material	lifting function	Tilt function 45°	max. Load	item number
785 mm x 800 mm	X-Pro	foot pump 715 mm - 1015 mm	manually	50 kg	67030808
1000 mm x 1000 mm	GCI Al/Cu X-Pro	foot pump 690 mm - 990 mm	manually	100 kg	67011010 67021010 67031010
1200 mm x 1200 mm	GCI Al/Cu X-Pro	electrohydraulic 690 mm - 990 mm	electrohydraulic	150 kg	67011212 67021212 67031212

You have special requests? No problem - Contact us!

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Model overviews

Positioners

Model	Load	torque	tilting moment	height
800	8000 N	800 Nm	1700 Nm	693 mm - 1351 mm
1200	12000 N	1200 Nm	3300 Nm	711 mm - 1060 mm
2500	25000 N	2500 Nm	6500 Nm	905 mm - 1604 mm
2500-low	25000 N	2500 Nm	6500 Nm	644 mm - 1652 mm
4000-low	40000 N	4000 Nm	14000 Nm	725 mm - 1749 mm
8000	80000 N	8000 Nm	26000 Nm	1213 mm - 2078 mm
8000-low	80000 N	8000 Nm	26000 Nm	877 mm - 2150 mm
12000-low	120000 N	12000 Nm	44000 Nm	983 mm - 2534 mm
20000-low	200000 N	20000 Nm	140000 Nm	1124 mm - 2552 mm

8000	height[mm]	693 - 1351
800	length[mm]	1920
1700	width [mm]	820
0.07 - 1.6	Weight[Kg]	520
135	plate Ø [mm]	650
	800 1700 0.07 - 1.6	800 length[mm] 1700 width [mm] 0.07 - 1.6 Weight[Kg]

Model 1200

Model 800

Load [N]	12000	height[mm]	711 - 1060
torque [Nm]	1200	length[mm]	1500
tilting moment [Nm]	3300	width [mm]	772
rotation speed [r/min]	0.07 - 1.6	Weight[Kg]	670
tilt angle [°]	135	plate Ø [mm]	650

Load [N]	25000	height[mm]	905 - 1604
torque [Nm]	2500	length[mm]	2280
tilting moment [Nm]	6500	width [mm]	1080
rotation speed [r/min]	0.05 - 1.6	Weight[Kg]	1200
tilt angle [°]	135	plate Ø [mm]	800

Model 2500

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Model overviews

Model 2500-low

Load [N]	25000	height[mm]	644 - 1652
torque [Nm]	2500	length[mm]	2400
tilting moment [Nm]	6500	width [mm]	1200
rotation speed [r/min]	0.05 - 1.6	Weight[Kg]	1250
tilt angle [°]	155	plate Ø [mm]	800

Model 8000

Load [N]	40000	height[mm]	725 - 1749
torque [Nm]	4000	length[mm]	2770
tilting moment [Nm]	14000	width [mm]	1430
rotation speed [r/min]	0.05 - 1.6	Weight[Kg]	1970
tilt angle [°]	135	plate Ø [mm]	1000

98 - .0	Load [N]	80000	height[mm]	1213 - 2078
	torque [Nm]	8000	length[mm]	2900
	tilting moment [Nm]	26000	width [mm]	1770
	rotation speed [r/min]	0.04 - 1.2	Weight[Kg]	3300
	tilt angle [°]	135	plate Ø [mm]	1200

	Load [N]	80000	height[mm]	877 - 2150
	torque [Nm]	8000	length[mm]	3080
Model 8000-low	tilting moment [Nm]	26000	width [mm]	1880
	rotation speed [r/min]	0.04 - 1.2	Weight[Kg]	3450
	tilt angle [°]	145	plate Ø [mm]	1200

	Load [N]	120000	height[mm]	983 - 2534
1	torque [Nm]	12000	length[mm]	2985
	tilting moment [Nm]	44000	width [mm]	2132
	rotation speed [r/min]	0.05 - 0.7	Weight[Kg]	5500
	tilt angle [°]	155	plate Ø [mm]	1450

Load [N]	200000	height[mm]	1124 - 2552
torque [Nm]	que [Nm] 20000 length[mm]		3776
tilting moment [Nm]	140000	width [mm]	2380
rotation speed [r/min]	0.03 - 0.7	Weight[Kg]	7880
tilt angle [°]	130	plate Ø [mm]	1600

Model 20000-low

Model 12000-low

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Clamping devices and stop elements for steel processing





Clamping devices and stop elements for **stainless steel processing**

clamping arm ø 30 mm with clamping element with bronze pressure piece #65022010	clamping column, ø 30 mm x 150 mm #65012020	clamping column, ø 30 mm x 350 mm #65012021	clamping column, ø 30 mm x 550 mm #65012022	flat clamp w. stainless steel disc, max. clamp. height 90 mm #65022040
Collet #65012041	quick release Alu with flat stop #65022042	horizontal clamp ø 30 mm, without a column with bronze pressure piece #65022043	horizontal clamp with bronze pressure piece with clamping tower ø 50 mm x 600 mm #65022044	horizontal clamp with bronze pressure piece without clamping tower #65022044
clamping arm ø 50 mm with clamping element with bronze pressure piece #65022050	support arm ø 50 mm with bronze #65022051	clamping tower ø 50 mm x 300 mm #65012052	clamping tower ø 50 mm x 600 mm #65012053	clamping tower ø 50 mm x 900 mm #65012054
clamping tower ø 50 mm x 1.200 mm #65012055	clamping tower ø 50 mm x 1.500 mm #65012056	edge stop in Alu height 70 mm #65023010	edge stop in Alu height 200 mm #65023011	flat stop in Alu #65023012
try square in Alu 100 mm x 170 mm #65023013	try square in Alu 170 mm x 170 mm #65023014	universal angle Al 600 mm x 350 mm #65023015	universal angle Al 1000 mm x 350 mm #65023016	universal angle Al 350 mm x 350 mm #65023029
four-sided angle height 100 mm #65013017	Angle, infinitely adjustable #65013019	prism support bronze ø 60 mm ø 100 mm #65013020 #65013021	Flange clamp w. digital display and clamping tower ø 50 mm x 600 mm #65023030	Flange clamp with column and double angle adjustment #65023031

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Accessory sets

Set 1 – Frame construction



Set 2 – Pipe construction



Set 1 – steel processing

#65013101

#65023101

#65013102

#65023102

- 4 x clamping arm with clamping element Ø 30 mm 4 x clamping column Ø 30mm x 350 mm
- 6 x flat clamp
- 5 x edge stop height 70 mm in GCI
- 12 x flat stop (steel)
- 6 x quick release with flat stop
- 4 x try square 100 mm x 170 mm in GCI
- 2 x universal angle 350 mm x 350 mm

Set 1 – stainless steel processing

- 4 x clamping arm with clamping element with bronze pressure piece
- 4 x clamping column ø 30 mm x 350 mm
- 6 x flat clamp with stainless steel disc
- 5 x edge stop in Alu height 70 mm
- 12 x flat stop in Alu
- 6 x quick release with flat stop
- 4 x try square in Alu 100 mm x 170 mm
- 2 x universal angle 350 mm x 350 mm

Set 2 – steel processing

6 x clamping arm with clamping element ø 30 mm

- 6 x clamping column ø 30 mm x 350 mm
- 4 x clamping tower ø 50 mm x 900 mm
- 4 x clamping arm with clamping element ø 50 mm
- 4 x edge stop height 200 mm in GCI
- 4 x support arm ø 50 mm
- 2 x flange clamp m. clamping tower ø 50 mm x 600 mm
- 6 x prism support ø 60 mm
- 4 x prism support ø 100 mm
- 4 x try square100 mm x 170 mm in GCI
- 2 x try square 170 mm x 170 mm in GCI
- 2 x universal angle 600 mm x 350 mm in Alu

Set 2 – stainless steel processing

- 6 x clamping arm + clamping element + bronze pressure piece
- 6 x clamping column ø 30 mm x 350 mm
- 4 x clamping tower ø 50 mm x 900 mm
- 4 x clamping arm + clamping element + bronze pressure piece
- 4 x edge stop in Alu height 200 mm
- 4 x support arm ø 50 mm with with bronze press piece
- 2 x flange clamp with clamping tower ø 50 mm x 600 mm
- 6 x prism support Bronze ø 60 mm
- 4 x prism support Bronze ø 100 mm
- 4 x try square in Alu 100 mm x 170 mm
- 2 x try square in Alu 170 mm x 170 mm
- 2 x universal angle in Alu 600 mm x 350 mm



Accessory sets

Set 3 – Rack and case construction

Set 4 – Universal construction

Set 3 – steel processing

#65013103

#65023103

- 6 x clamping arm with clamping element ø 30 mm 6 x clamping column ø 30 mm x 350 mm
- 4 x flat clamp
- 4 x clamping arm with clamping element ø 50 mm
- 4 x support arm ø 50 mm

- 4 x clamping tower Ø 50 mm x 900 mm 5 x edge stop height 70 mm in GCI 2 x double slot profile 1.200 mm for mounting on stop bracket

- 6 x flat stop (steel) 4 x try square 100 mm x 170 mm in GCI 2 x try square 170 mm x 170 mm in GCI 2 x universal angle 600 mm x 350 mm in Alu
- 1 x Angle, infinitely adjustable in GCI 2 x universal angle 350 mm x 350 mm

Set 3 – stainless steel processing

- 6 x clamping arm with clamping element with bronze pressure piece 6 x clamping column ø 30 mm x 350 mm

- 6 x clamping column Ø 30 mm x 350 mm
 4 x flat clamp with stainless steel disc
 4 x clamping arm with clamping element with bronze pressure piece
 4 x support arm Ø 50 mm with with bronze press piece
 4 x clamping tower Ø 50 mm x 900 mm
 5 x edge stop in Alu height 70 mm
 2 x double slot profile 1.200 mm for mounting on stop bracket
 6 x flat stop in Alu
 4 x try square in Alu 100 mm x 170 mm
- 4 x try square in Alu 100 mm x 170 mm 2 x try square in Alu 170 mm x 170 mm 2 x universal angle in Alu 600 mm x 350 mm 1 x Angle, infinitely adjustable in Alu 2 x universal angle 350 mm x 350 mm

#65013104

- 6 x clamping arm with clamping element ø 30 mm
- 6 x clamping column ø 30 mm x 350 mm

Set 4 – steel processing

- 4 x flat clamp
- 4 x clamping arm with clamping element ø 50 mm 4 x support arm ø 50 mm

- 4 x clamping tower Ø 50 mm x 900 mm 5 x edge stop height 70 mm in GCl 2 x double slot profile 1.200 mm for mounting on stop bracket
- 6 x flat stop (steel) 4 x try square 100 mm x 170 mm in GCI 2 x try square 170 mm x 170 mm in GCI
- 2 x uńiversal angle 600 mm x 350 mm in Alu
- 1 x Angle, infinitely adjustable in GCI 2 x universal angle 350 mm x 350 mm

Set 4 – stainless steel processing

#65023104

- 6 x clamping arm with clamping element with bronze pressure piece
- 6 x clamping column Ø 30 mm x 350 mm 4 x flat clamp with stainless steel disc

- 4 x flat clamp with stainless steel disc
 2 x clamping arm with clamping element with bronze pressure piece
 2 x support arm ø 50 mm with with bronze press piece
 2 x clamping tower ø 50 mm x 900 mm
 3 x edge stop in Alu height 70 mm
 2 x edge stop in Alu height 200 mm
 2 x double slot profile 1.200 mm for mounting on stop bracket
 6 x flat stop in Alu
 4 x try square in Alu 100 mm x 170 mm

- 4 x try square in Alu 100 mm x 170 mm 2 x try square in Alu 170 mm x 170 mm 2 x universal angle in Alu 600 mm x 350 mm
- 1 x Angle, infinitely adjustable in Alu 4 x prism support Bronze ø 60 mm







for frame welding device			
Clamping corner aluminium left		 with 2 clamping columns and clamping elements with 2 stop bolt with fasteners 	#64014414
Clamping corner aluminium leftmirrored		 with 2 clamping columns and clamping elements with 2 stop bolt with fasteners 	#64014415
Clamping corner aluminium right		 with 2 clamping columns and clamping elements with 2 stop bolt with Ball bearing guide and clamping lever 	#64014411
Clamping corner aluminium rightmirrored		 with 2 clamping columns and clamping elements with 2 stop bolt with Ball bearing guide and clamping lever 	#64014412
Clamping corner aluminium for additional longitudinal or transverse rungs	e li -la	 with 2 stop bolt with Ball bearing guide, base plate and pointer 	#64014420
Clamping corner aluminium for additional longitudinal or transverse rungs		 with 2 stop bolt with 2 clamping arms und clamping columns with Ball bearing guide, base plate and pointer 	#64014421
Additional -stop pad		 with 1 stop bolt 2 Guide bolts, base plate, rhombic sliding block, 2 pointer 	#64014418
Additional -clamping pad	h	 with clamping column Ø 30 x 150 clamping arm Ø 30 kurz with clamping element 2 Guide bolts, base plate, rhombic sliding block, 2 pointer 	#64014417
Additional adjustable longitudinal beam		 with guide elements, locks and measuring tape for 64103015, 64203015, 64103020, 64013025 length:: 3.200 mm 	#64014431
Additional adjustable longitudinal beam		 with guide elements, locks and measuring tape for 64104320, 64104325, 64104330 length:: 4.480 mm 	#64014432
Digital measuring system (for ArtNr. 64103015, 64203015, 64103020)		 Digitales Messsystem for Longitudinal and lateral adjustment for 3 Clamping corners (for ArtNr. 64103015, 64203015, 64103020) 	#64014401
Digital measuring system (for ArtNr. 64103025, 64304320, 64304325)		 for Longitudinal and lateral adjustment for 3 Clamping corners (for ArtNr. 64103025, 64304320, 64304325) 	#64014402
Digital measuring system (for ArtNr. 64304330)		 for Longitudinal and lateral adjustment for 3 Clamping corners (for ArtNr. 64304330) 	#64014403
Clamping corner for T- joints	A.17	 with 3 clamping columns and clamping elements with Ball bearing guide and clamping lever 	#64014419



Accessories and extensions for welding tables

Description	item number	
inner rail in GCI, 800 mm	65010008	
inner rail in GCI, 1.000 mm	65010010	
inner rail in GCI, 1.200 mm	65010012	
inner rail in GCI, 1.500 mm	65010015	
outer rail in GCI, 800 mm	65019908	
outer rail in GCI, 1.000 mm	65019910	
outer rail in GCI, 1.200 mm	65019912	
outer rail in GCI, 1.500 mm	65019915	

inner rail in AlCu, 800 mm	65020008
inner rail in AlCu, 1.000 mm	65020010
inner rail in AlCu, 1.200 mm	65020012
inner rail in AlCu, 1.500 mm	65020015
outer rail in AlCu, 800 mm	65029908
outer rail in AlCu, 1.000 mm	65029910
outer rail in AlCu, 1.200 mm	65029912
outer rail in AlCu, 1.500 mm	65029915



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Cover plate 200 mm x 100 mm x 30 mm	65011601	6))	
Table expansion plate 300 mm x 120 mm x 10 mm	65011602			0
Support leg for extending the table – to accommodate 2 T-slot rails	65011604			
Accessory trolley 1000 mm x 800 mm x 1480 mm, not mounted	65012090		•	-
Protection and care products 10 I canister with spray bottle Protection and care product in 1 I spray bottle	65012094 65012097	-		Ansik Scius



References (selection)













HYDRAULIC SYSTEMS





Awards

URKUNDE

IN ANERKENNUNG BESONDERER TECHNISCHER LEISTUNG IM HANDWERK VERLEIHE ICH AN

FÖRSTER SCHWEISSTECHNIK FÜR DIE ARBEIT

SCHWEISSTISCH MIT VARIABLEM FIXIER-UND SPANNSYSTEM AUSGESTELLT AUF DER INTERNATIONALEN HANDWERKSMESSE MÜNCHEN 1997 DEN STAATSPREIS

STAATSPREIS DER BAYERISCHEN STAATSREGIERUNG IN FORM EINER GOLDMEDAILLE



DER BAYERISCHE MINISTERPRÄSIDENT

John /1

CERTIFICATE

IN ACKNOWLEDGMENT OF SPECIAL TECHNICAL ACHIEVEMENT IN TRADE I AWARD TO FORESTER WELDING TECHNOLOGY FOR THE WORK WELDING TABLE WITH VARIABLE FIXING AND CLAMPING SYSTEM EXHIBITED AT THE INTERNATIONAL TRADE FAIR MUNICH 1997 THE STATE AWARD THE BAVARIAN STATE GOVERNMENT IN THE FORM OF A GOLD MEDAL

MUNICH, MARCH 14, 1997 THE BAVARIAN PRIME MINISTER Edmund Stoiber



DEN "BUNDESPREIS FÜR HERVORRAGENDE INNOVATORISCHE LEISTUNGEN FÜR DAS HANDWERK"

Raine Brody Der Bundesminister für Wirtschaft und Technologie IN RECOGNITION THE INNOVATIVE ACHIEVEMENT FOR THE CRAFT OF YOUR 2011 AT THE INTERNATIONAL CRAFT FAIR IN MUNICH EXHIBITED WORK UNIVERSAL RAILING WELDING GAUGE EASY TO PROGRAM + EXACT I HEREBY AWARD TO THE

FÖRSTER GBMH

THE FEDERAL AWARD FOR OUTSTANDING INNOVATIVE ACHIEVEMENTS FOR THE CRAFT MUNICH 20 MARCH 2011

Rainer Brüderle THE FEDERAL MINISTER OF ECONOMICS AND TECHNOLOGY

R



Urkunde

In Wordigung onderer technischer Leistung im Handwerk verleihe ich

Förster GmbH für Ergonomik-Schweissund Montagetisch mit Dreh-Hub-Kipp-Funktion

präsentiert auf der 54. Internationalen Handwerksmesse Müncher die Ausseichnung

Bayerischer Staatspreis 2002

München, 20. März 2002

Der Bayerische Ministerpräsident



CERTIFICATE

In appreciation of

special technical achievement in the craft I award Förster GmbH for ergonomic welding and assembly table with turn-lift-tilt function

presented at the 54th International Trade Fair Munich the award

> Bavarian State Award 2002

Munich, March 20, 2002

The Bavarian Minister President Edmund Stoiber



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