



TruArc Weld 1000

TRUMPF



TruArc Weld 1000

Get started
with automated
welding



Easy automation of manual welding

Do you manually weld standard sheet metal components using electric arc? Then you'll be familiar with the following scenario: It's hard to find welding experts and programming is not usually worthwhile for small quantities and short seams. The specialist knowledge required for setting up a welding robot is also often lacking. All this can be remedied by the TruArc Weld 1000. It is profitable even for small lot sizes, is easy to program, and can afterwards be operated by non-expert workers. This frees up your welding specialists' time for more complex tasks.

Fully inclusive

The welding cell is a fully equipped machine tool, TÜV-approved and CE-compliant. It includes an exhaust system, housing with anti-glare protection and TRUMPF standard safety equipment.

Fully intuitive

No training is required to start, program or operate the welding cell – e-learnings are sufficient.

Fully flexible

Use as a one- or two-station operation according to requirements. You can then work on one larger component or smaller components in large series parallel to production.





- Radically easy programming
- Automated welding – profitable from the first part
- Productive in two-station operation

The welding-cell practice test

Use easy automation instead of manual welding workstations – it pays off because the TruArc Weld 1000 is suitable for many components you currently weld manually, especially those that can be welded using simple fixtures. Programming is so quick that it is profitable even for small quantities.

TruArc Weld 1000's major advantage is that even without welding expertise you get:

- reproducible straight and uniform seams.
- seams with no weld spatter or beads.

"A huge advantage is its extreme ease of operation. Automating manual welding workstations would otherwise require very complex programming. But with the TruArc Weld, you can manage very well with little training. The switch to automated welding is therefore really quick."

Josef Vacík, Project Manager for Steel Construction,
ENGEL STROJÍRENSKÁ SPOL. S.R.O., Czech Republic

"Finding welding experts is becoming increasingly difficult. The welding cell provides all the planning security we need. What's more, we can also produce small lot sizes with a wide variety of parts."

Pavel Hamberger, Project Manager for Steel Construction,
ENGEL STROJÍRENSKÁ SPOL. S.R.O., Czech Republic

"The TruArc Weld 1000 provides optimum quality with a noticeable reduction in processing time."

Erik Westphal, Production Manager,
Pfannenberg GmbH, Germany

"With TruArc Weld, TRUMPF has hit the nail on the head! Creating and running in of a program is extremely fast. This allows us to use the robot economically even for small batch sizes starting at 3 parts. Installation and commissioning were also very easy. The system was ready for operation 3 hours after delivery."

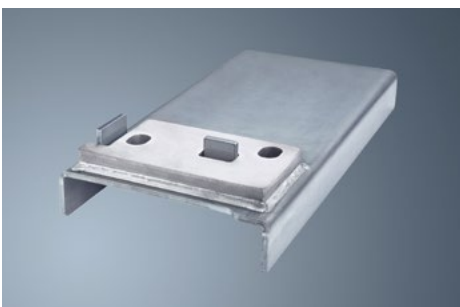
Marcel Wendt, Managing Director,
ABP – Innovative Blechbearbeitung GmbH, Germany

"It is so easy to operate the system, you don't even need any CNC expertise to weld complex parts. I could start as soon as I had downloaded the virtual training onto my cell phone."

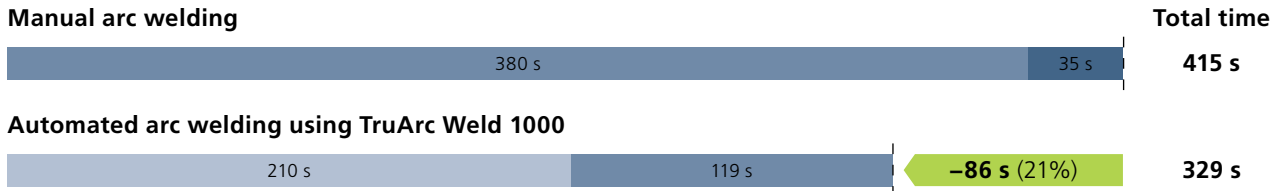
David Falkner, welding technician,
SANO Transportgeräte GmbH, Austria

Profitable already from lot size 1

Time savings in welding and reworking can be achieved with the TruArc Weld 1000 for single parts as well as for small series. Simple weld seams can be programmed and welded in less than a minute.



Support bracket, single part with 5 weld seams.



Shipping brace, 8 items with 10 weld seams.



TruArc Weld 1000

Fast programming, reliable welding: the complete package for getting started with automated arc welding.

01

Easy

operation and programming

02

Flexible

working and positioning

03

Fast

setup
and start



05

Secure and networked

according to TRUMPF standards

04

Productive

welding

01

Easy

operation and programming

The welding cell's wild card is its extremely easy programming. The welding start and end points are input via buttons on the welding torch. The robotic arm is then manually moved from point to point. Pendulum movements can also be easily adjusted. Welding parameters and templates for welding programs are included.



03

Fast

setup and start

Plug in and start welding. Your machine comes with everything you need – from wire coils to welding parameters. You can set it up wherever it's needed and put it into operation by yourself within hours. No training is required – e-learnings are sufficient to program and operate the machine. If your hall plan changes, simply reposition the machine.

05

Secure and networked

according to TRUMPF standards

Play it safe with the CE-compliant and TÜV-approved welding cell. The safety cabin comes with safety control, automatically opening anti-glare protection, a self-cleaning exhaust system and LED lighting. The collaborative robot has collision protection. The working area is easily accessible from all sides via doors. With the Extension Cube Weld, you can also integrate the machine into your networked production.

02

Flexible

working and positioning

Depending on the component and lot size, the welding cell can be operated using one- or two-station operation. Thanks to the "loading by crane" option, even large and heavy components up to approx. 2000 × 600 × 600 mm can be processed. Components can be placed flexibly and precisely on the 3D welding table. Components can be precisely aligned with the optional rotary axis.



04

Productive

welding

In two-station operation, you can set up parallel to production and carry out highly productive processing for small to large batches. In this process, it does not matter whether you weld the same component on both sides or different ones. Speed is ensured by high-performance equipment from Fronius. For thin materials, the CMT welding technology package ensures higher process reliability, less weld spatter and distortion.



More information on the TruArc Weld 1000 is available here: www.trumpf.info/2stm8z



Attention to every detail



01 Programming, operation and networking

Programming times are minimized by an intuitive operating unit on the welding torch combined with simple programming directly in the robot control. The machine's main operating unit has a simple and clear layout. The Extension Cube Weld is an easy-to-install hardware extension that enables integration into networked production.



02 Welding equipment and CMT

High-performance welding equipment from Fronius: TPS 320i C PULSE welding source including Welding Package PMC, water-cooled 350 A torch and external wire feed system. Technology package CMT welding for low-heat and particularly high-quality welding of thin sheets.

03 Rotary axis

Extended positioning options with the additional programmable rotary axis including work table extension.



04 Work table

3D welding table with hole pattern D16 in a 50 × 50 mm grid and hardened surface. Dimensions: 2000 × 1000 × 100 mm.

05 Safety cabin, robot and linear axis

Housing with integrated exhaust system, automatically opening anti-glare protection and lighting. A telescopic center separation divides the working area when required for two-station operation. Collaborative robot with force torque sensor and six axes. The linear axis positions the robot on the left or right.



Axis data		
Model	Collaborative industrial robotic arm	
Number of axes	6	
Range	mm	1300
Repeatability	mm	±0.05
Welding source		
Model	Fronius TPS 320i C PULSE	
MIG/MAG welding current range	A	3–320
Dimensions and weights		
Cabin dimensions	mm	3605 × 2454 × 2818
Weight	kg	2940
Work area		
Typical max. component size (with closed telescopic center separation)	mm	600 × 600 × 600
Typical max. component size (with open telescopic center separation)	mm	2000 × 600 × 600

The next step: Laser welding

Do you weld a lot and for long periods of time? Do your parts need to look good? Then laser welding is for you. The following rule of thumb applies to getting started: The longer the welding time or reworking, the more worthwhile laser welding is. Depending on your requirements, you can select the smaller TruLaser Weld 1000 or the more flexible TruLaser Weld 5000.

TruLaser Weld 5000

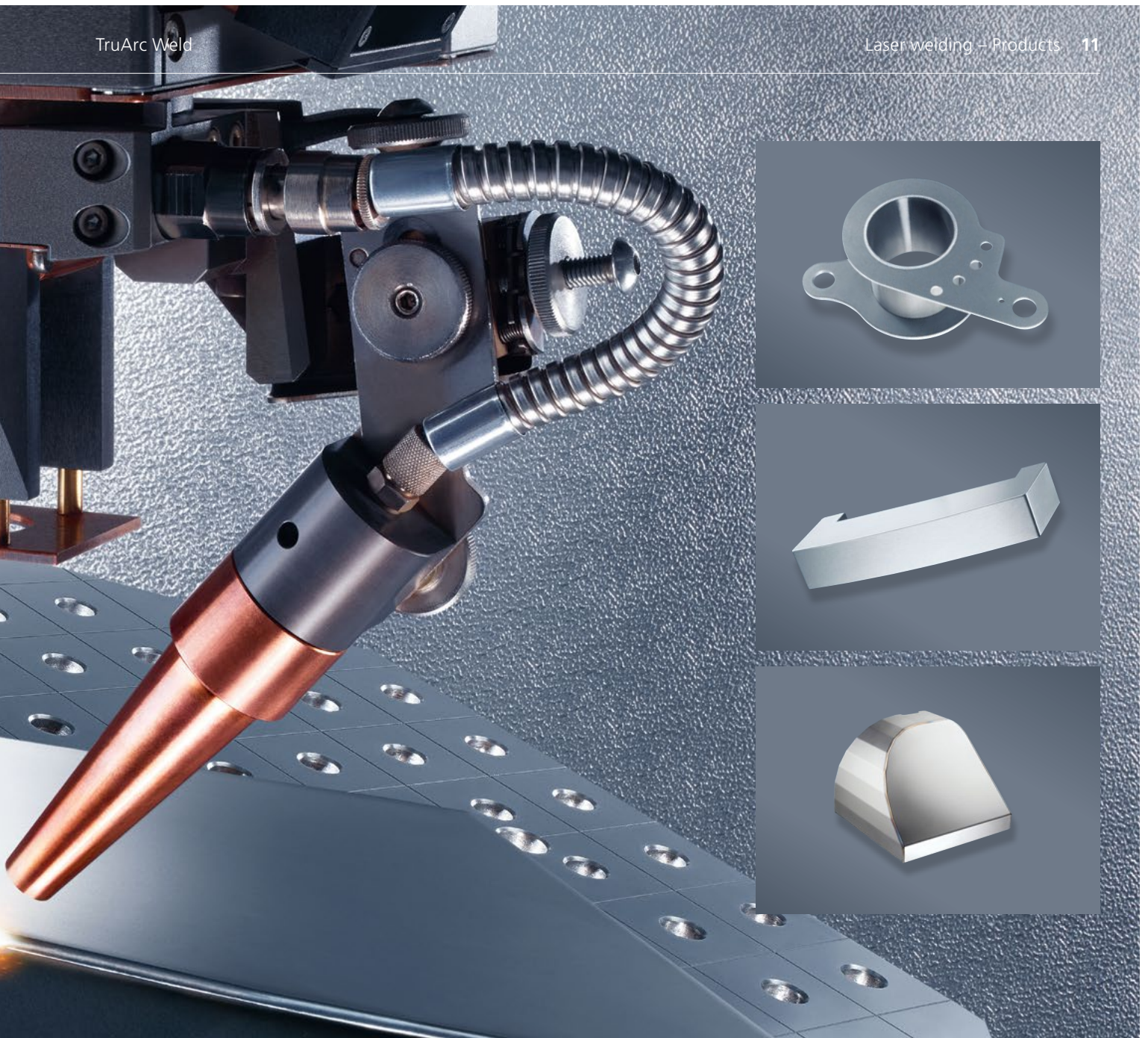
Automated laser welding:
Productive and flexible



TruLaser Weld 1000

Automated laser welding:
Simply successful





Deliver top quality

- Visually high-quality and extremely stable seams
- Low distortion
- Reproducible results

Save on time and costs

- Hardly any rework required
- Less consumables
- Enormous time advantage

Benefit from years of experience!

You will find exclusive tips on laser welding and numerous practical examples in the **WeldGuide**:

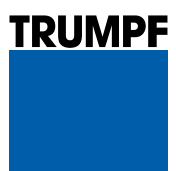
weldguide.trumpf.com



More information on laser welding
is available under: www.trumpf.info/5f1col



TRUMPF is certified to ISO 9001
(Find out more: www.trumpf.com/s/quality)



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