



TruArc Weld 1000



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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. Your welding experts then have 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 – video tutorials 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**
- **No welding expertise necessary for 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.

**"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."**

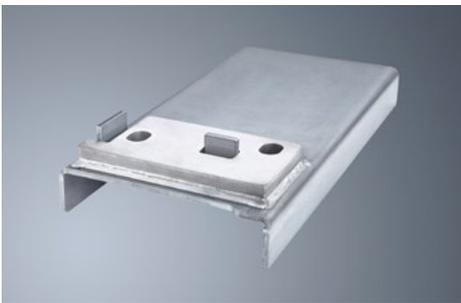
Pavel Hamberger, Project Manager for Steel Construction,  
ENGEL STROJÍRENSKÁ SPOL. S.R.O., Czech Republic

**"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."**

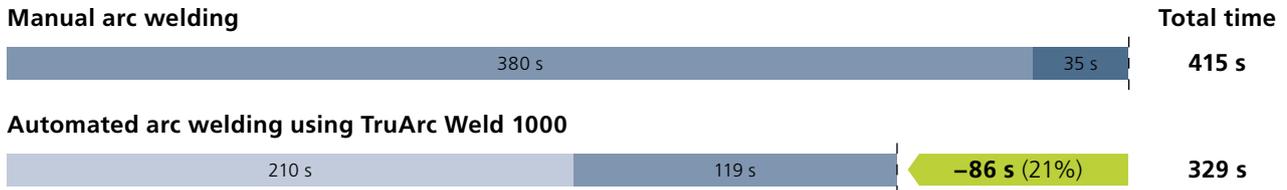
Josef Vacík, Project Manager for Steel Construction,  
ENGEL STROJÍRENSKÁ SPOL. S.R.O., Czech Republic

# Profitable already from lot size one

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

## Safe

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. 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 – video tutorials are sufficient to program and operate the machine.

05

## Safe

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.

02

## Flexible

working and positioning

Depending on the component and lot size, the welding cell can be operated using one- or two-station operation. Components can be placed flexibly and precisely on the Demmeler table. When the production hall layout changes, it's easy to reposition the machine.



04

## Productive

welding

In two-station operation, setup takes place parallel to production. Each component requires programming only once. The machine will automatically transmit the program to the second station. Speed is ensured by high-performance equipment from Fronius.



More information on the TruArc Weld 1000 is available here:  
[www.trumpf.com/s/truarc-weld-1000](http://www.trumpf.com/s/truarc-weld-1000)

# Attention to every detail



## 01 Programming and operation

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.



## 02 Robot

UR10e collaborative robot with six axes and force torque sensor. The linear axis positions the robot to the left or right.



**03 Fronius equipment**

High-performance welding equipment from Fronius: TPS 320i C PULSE welding source including PMC Welding Package, water-cooled 350-A welding torch and external wire feeder.



**04 Demmeler table**

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



**05 Safety cabin**

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.

Axis data	
Model	Collaborative industrial robotic arm
Number of axes	6
Range	1300 mm
Repeatability	±0.05 mm
Welding source	
Model	Fronius TPS 320i C PULSE
MIG/MAG welding current range	3–320 A
Dimensions and weights	
Cabin dimensions	3600 x 2200 x 2800 mm
Weight	2540 kg
Work area	
Typical max. component size (with closed telescopic center separation)	600 x 600 x 600 mm
Typical max. component size (with open telescopic center separation)	2000 x 600 x 600 mm

# The next step: Laser welding

Do you have many and long welding tasks? Do the parts need to look good, e.g. because they are visible? Or do you require especially precise welding seams? Then laser welding is for you. The rule of thumb is: The longer the welding time or reworking, the more worthwhile laser welding is. Laser welding enables you to achieve precise, high-quality and stable seams. You'll save yourself regrinding and other time-consuming corrections such as flattening. The ideal machine to achieve this is our TruLaser Weld 5000.



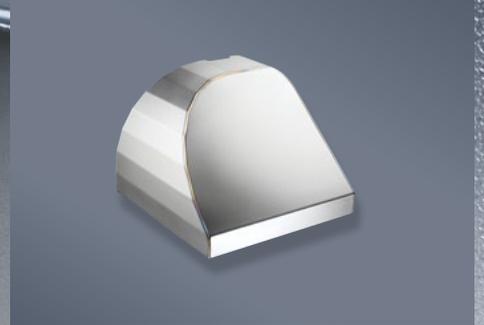
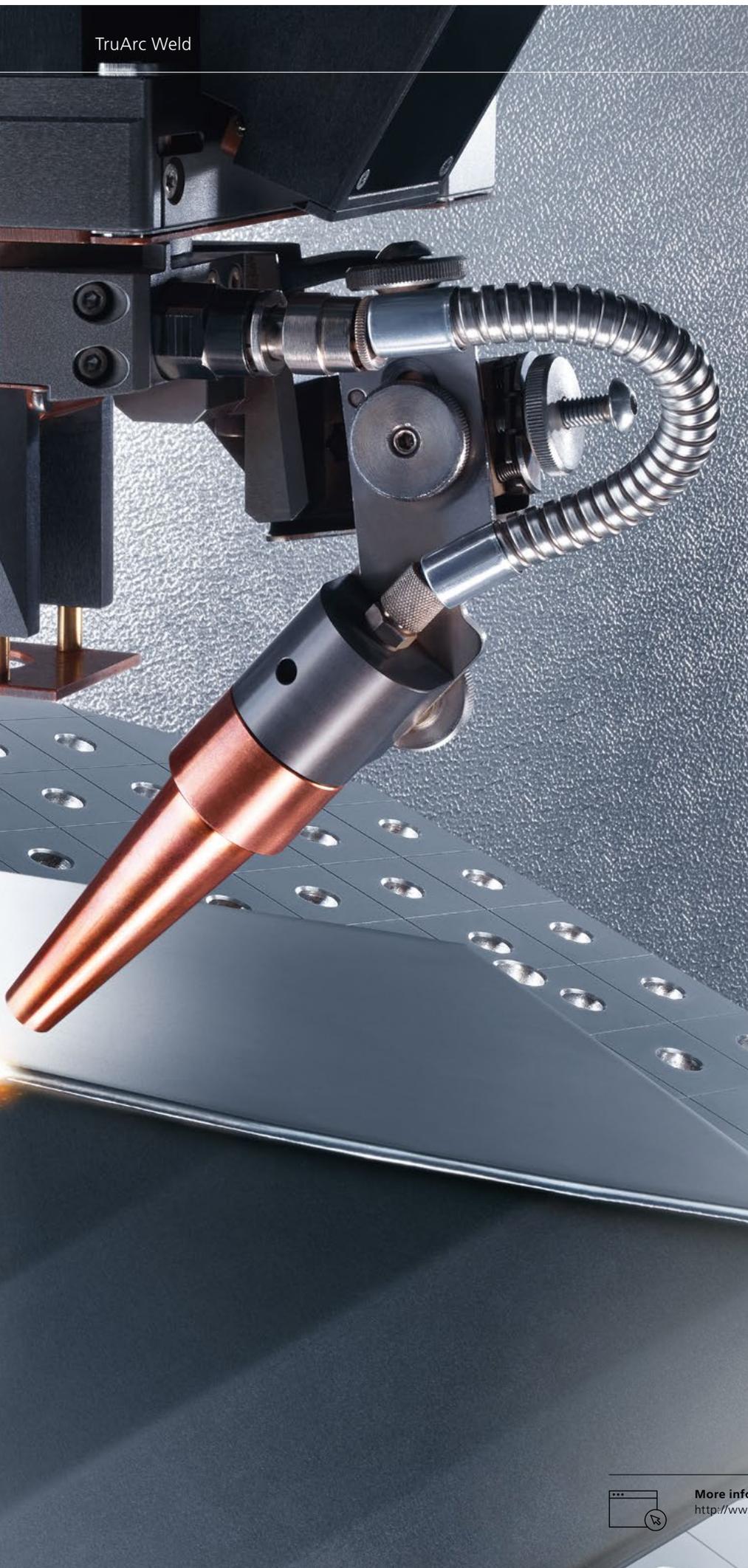
Deliver top quality

- High-quality appearance and extremely stable seams
- Minimal distortion
- Reproducible results

Save on time and costs

- Minimal reworking
- Reduced consumables
- Huge time benefits

**A system that does everything: the TruLaser Weld 5000 is a turnkey system for automated laser welding in sheet metal processing.**



More information on laser welding is available here:  
<http://www.trumpf.com/s/m4l5sk>

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



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