THE PROFESSIONAL
COBOT WELDING
AUTOMATION SOLUTION

OUR PERFORMANCE
makes THE DIFFERENCE

DEMMELER® COBOT WeldSpace 4.0® LINEAR F

Automated cobot welding for long components up to 30 metres

DEMMELER SYSTEM COMPATIBILITY



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DEMMELER® COBOT WeldSpace 4.0® LINEAR

A game-changer for COBOT welding: highly efficient welding of components up to 30 metres in length

Clamping and welding components up to 30 metres in length. What was previously only possible using industrial robot solutions is now achieved by DEMMELER's new COBOT WeldSpace 4.0® LINEAR with reliable repeatability and consistent precision. The result is precise weld seams and increased productivity during welding. The fully equipped welding cells, featuring welding robots and welding technology, offer a wide range of optional configuration options, providing scope for unique modularity and flexibility.

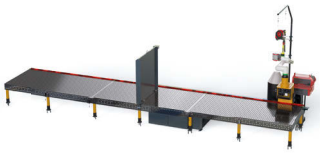
TECHNICAL SPECIFICATIONS	LINEAR 30/15 F	LINEAR 90/15 F	LINEAR 300/15 F
External dimensions of the cell	4378 x 3048 x 3025 mm	10378 x 3048 x 3025 mm	30910 x 3048 x 3025 mm
Dimensions of the working area	3000 x 1500 x 450 mm	9000 x 1500 x 450 mm	30000 x 1500 x 450 mm
Max. load	4000 kg/m²	4000 kg/m²	4000 kg/m²
Travel of the linear axis	3000 mm	9000 mm	30000 mm

Also available in the following dimensions: 6000 / 12000 / 15000 / 18000 / 21000 / 24000 / 27000 x 1500 x 900 mm. Alternatively, other sizes can be produced in increments of one metre.

Possible areas of work



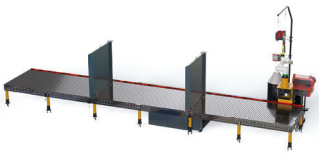
A large workspace without a partition



Two work areas of equal size



Two distinct work areas in a 2:3 to 1:3 ratio



Three areas of work

Product highlights

1 Integrated **DEMMELER® 3D welding table D28 PP DemontXBlack 760**, dimensions 3000 x 1500 x 450 mm.
The entire range of the DEMMELER® 3D clamping system is available for the precise clamping of workpieces.

2 The **Fanuc CRX-10iA/L collaborative welding robot** moves along a dynamic linear axis.
Mathematically linked for synchronised movement with the robot. Multiple axes can be integrated.

3 In addition to the robot, the **power source**, the **wire feeder**, the **welding fume extraction system** and the **torch cleaning station** also move along with it.

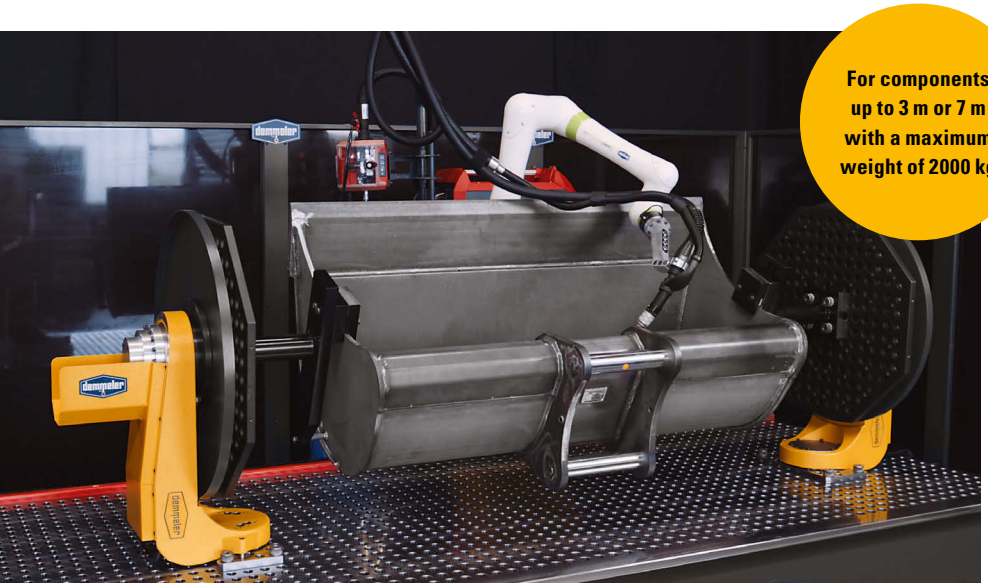


Maximum productivity

4 Full access: a telescopic and swivelling welding protection door at the front, including a safety switch.
The system is open at the top and can be loaded using a crane or forklift.

5 Dividing the workspace into SPACE A1 and A2 using a partition creates an additional workstation and enables highly efficient operation in a **two-station setup**. In principle, depending on the size of the system, multiple partitions are possible. For systems 9 m or larger, **up to two partition walls are possible to create three separate workstations, which can be configured in up to four different layouts**.

6 The **integrated single-axis manipulator with a counter-bearing** positions workpieces weighing up to 2,000 kg in the optimal welding position, eliminating the need for time-consuming re-clamping of workpieces. It also allows for the seamless welding of uniform circumferential seams.



DEMMELER® single-axis manipulator with counter bearing

The manipulator's rotary axis is fully integrated into the robot controller. The manipulator and robot axes move simultaneously, which ensures greater efficiency and speed during welding.



Equipment that is perfectly tailored to your specific tasks.

Welding processes perfectly coordinated

- Welding systems designed for the COBOT WeldSpace 4.0®
- Fronius robotic welding equipment
- Extensive job libraries
- Integration and software extension: DEMMELER® WeldSoft F 1.2 software
- Welding jobs are fed in from the power source and can be easily selected from a list on the control panel



High-quality welding robot

FANUC CRX Cobot:
A user-friendly collaborative robot designed for users with little or no experience of robots.



Simple and intuitive programming

Professional welding software with a wide range of features for industrial welding, such as an arc sensor, Touch Sense, etc. Programming and teaching of points using the teach pendant user interface for continuous teaching and simple drag-and-drop programming.



Maximum security

The COBOT WeldSpace 4.0® ensures personal safety in both setup mode and automatic mode:

- Telescopic and swivelling welder's safety door with integrated safety switch
- Secure work areas and laser scanners



On-board high-vacuum extraction system combined with a high-performance extraction welding torch

Removes more than 99.9% of the welding fume particles captured

Maximum flexibility and efficiency

- The cell can be easily integrated and adapted to changing requirements
- When setting up your clamping devices, you can also draw on the extensive range of accessories available from DEMMELER.



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DEMMELER® WeldSoft F 1.2

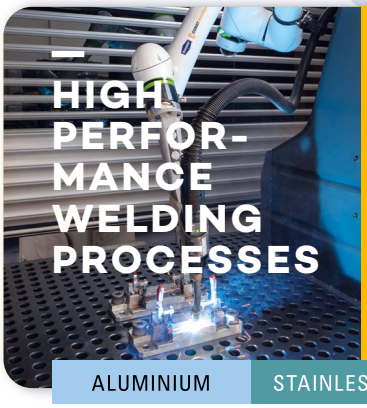
Simple programming via drag-and-drop

Whether you are an experienced programmer or a beginner – the professional welding software DEMMELER® WeldSoft F 1.2 offers numerous features for industrial welding, such as an arc sensor, Touch Sense, etc. Programming and teaching points using the teach pendant user interface for continuous teaching. Together with the 4-button handle, creating complex welding programmes becomes much easier. The programming interface on a touchscreen pendant with simple drag-and-drop technology requires no prior robot experience.



Easy programming with the Tablet Teach Pendant

Clear programme management with display of various parameters
- Current runtime component
- Job runtime
- Arc time



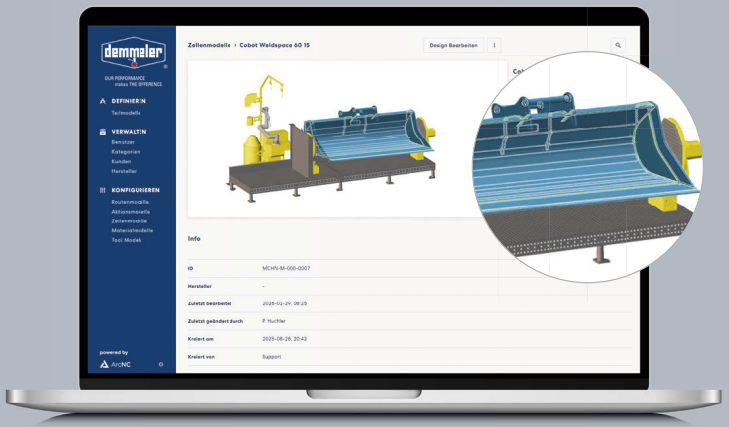
Extensive protected DEMMELER® job library

Over 100 pre-programmed welding jobs, with all key parameters tailored to the material, power source, welding process and torch.

ALUMINIUM | STAINLESS STEEL | STEEL

NEW

DEMMELER® WeldSoft AI cloud programming: Automated programming for welding cobots



Automatic weld seam generation

DEMMELER® WeldSoft AI cloud programming identifies potential weld seams and automatically generates them in the assemblies.

Automatic generation of robot movements

- Collision-free robot movements are calculated fully automatically. For precise weld seams, efficient search patterns and seamless intermediate movements.
- Positioners and additional robot axes work in perfect synchronisation to ensure maximum flexibility and productivity.
- Intelligent control automatically avoids singularities, hose bundle limits and collisions – ensuring maximum process reliability and system availability.

Automatic generation of TouchSenses

TouchSenses are automatically generated to compensate for discrepancies between the CAD model and the actual component.

OUR PERFORMANCE
makes THE DIFFERENCE

HIGH PERFORMANCE+



3D CLAMPING SYSTEMS
MANIPULATORS
COBOT WELDSPACE 4.0®
NC ROTARY TABLES
TOOL ARENAS
CONTRACT MANUFACTURING






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Service expertise at DEMMELER:
Thanks to their reliable design and construction, our products require only minimal service and after-sales support. Nevertheless, a service hotline, worldwide spare parts delivery and direct on-site assembly at the customer's premises are part of our range of services.

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