

THE PROFESSIONAL
COBOT WELDING
AUTOMATION SOLUTION



OUR PERFORMANCE
makes THE DIFFERENCE

DEMMELE[®] COBOT WeldSpace 4.0[®] TABLE 24/12

Automated welding in shuttle operation

EQUIPPED WITH



UNIVERSAL ROBOTS



EN
—

Are you in need of welding capacity
but finding it increasingly difficult to get welders?

The solution: The DEMMELE® welding table with digital welder.



– I enjoy working with people and I'm good at it, I'm easy to manage and a very fast learner. I'm robust yet careful enough for delicate tasks.

– I don't get any back pain from bending over.



– I pay for myself very quickly.
I'm also very economical to run, my energy costs are incredibly low at less than 1 €/h.



– My teachers are pleased with me because I have a lot to offer, I'm easy to teach and extremely hard-working. I'm happy to take on physically demanding work

– I don't need any extra protective equipment and I'm not bothered by heat, particulate matter or radiation.

– I don't have any impact on my surroundings. I don't pose any risk when welding because I work in enclosed spaces.



– In future, you will be able to observe and assess me at any time on request.



LET ME INTRODUCE MYSELF – I'M YOUR DIGITAL WELDER:

MY SURNAME:

DEMMELE® COBOT WELDSPACE 4.0®

MY PREFERRED NAME:

TABLE AA1A2B

PLACE OF BIRTH:

HEIMERTINGEN / GERMANY



– I achieve successful results **from a single unit up to large quantities**, without tiring and while remaining very consistent.

– I'm always learning and improving thanks to updates.

– If I nevertheless reach my limits despite my high performance, you can purchase digital twins of me at any time.

– I'm very flexible and work at up to **four stations**.

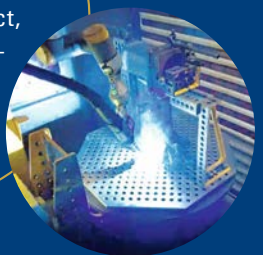
– I devote complete concentration to my work and ensure precision down to **0.1 mm**.

– I guarantee **at least 95%** performance and availability!

– I'm the best at producing joins, whether in aluminium, steel or stainless steel.

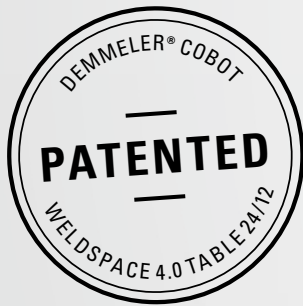
– I don't need to take any breaks and can work unlimited shifts. I don't cost extra for overtime or additional shifts. In fact, the opposite is true – **the more hours I work, the cheaper I become**.

– I enjoy welding small workpieces just as much as parts that are 2000 mm long and, once I've been given a job, I move to the **ideal position**.



The COBOT WeldSpace 4.0[®] welding cell from DEMMELE[®] comes with everything you need.

The complete package for a quick and professional introduction to automated welding



BASIC Series equipment
OPTION Special equipment



BASIC DEMMELE COBOT WeldSpace 4.0[®]

The most versatile welding automation solution with maximum efficiency and extremely simple operation as well as maximum environmental and operator protection.

BASIC Flexibility and efficiency

Up to four workspaces Space A (optional A1-A2) + Space B with perfect accessibility from all sides and crane loading for set-up and workpiece change.

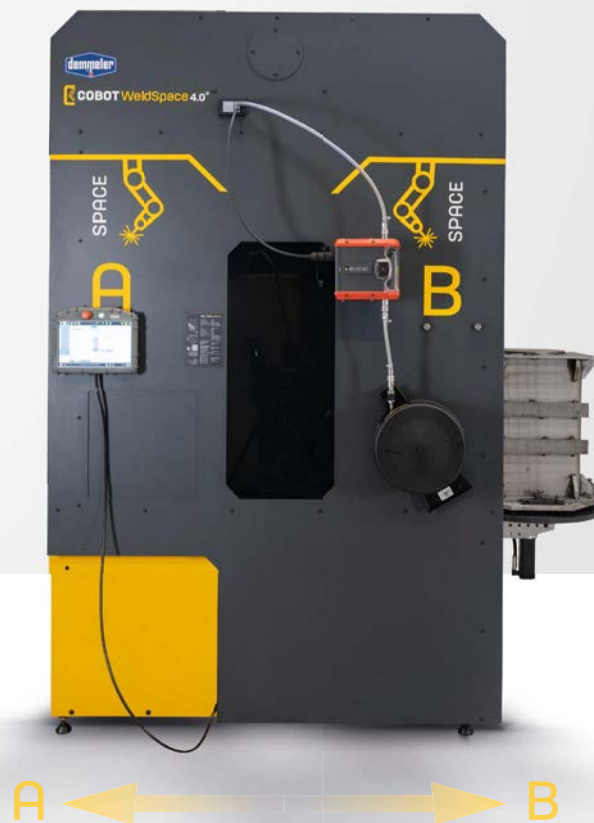
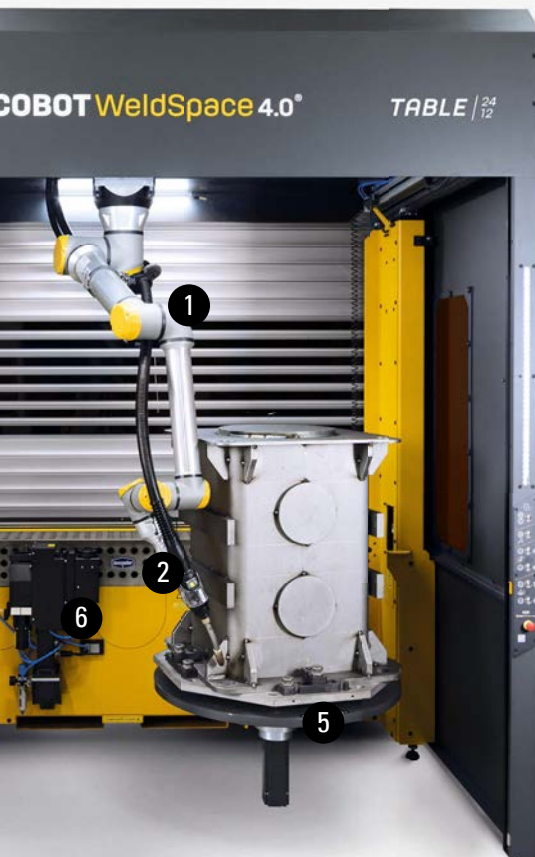
BASIC Unique programming and operating concept

With the DEMMELE WeldSpace 4.0[®] Software, you can create complex welding programs intuitively without explicit programming knowledge.

BASIC Standard main time parallel shuttle operation

Standard main time parallel shuttle operation between two 3 m² work areas Space A and Space B.

- 1 **BASIC Universal Robots UR e-Serie**
Latest collaborative robot UR10e with six axes and force-torque sensor mounted overhead on gantry
- 2 **BASIC DEMMELER WeldSpace programming and operating concept**
With just three buttons on the multi-function handle almost everything can be programmed
- 3 **BASIC DEMMELER welding table**
Equipped with a DEMMELER® 3D welding table 2400 x 1200 mm in system size D28
- 4 **OPTION Integrated and professional high-performance welding system**
FRONIUS Robot welding equipment
- 5 **OPTION Two-axis manipulator**
Modular two-axis manipulator up to 500 kg payload for professional workpiece handling and circumferential seam welding with the rotary axis
- 6 **OPTION Torch cleaning station**
Optimised and reliable cleaning of the gas nozzle ensures a reliable welding process and increases system availability



BASIC Central control unit

The DEMMELER WeldSpace 4.0® user interface guides you step by step to perfect welding results.

BASIC Crane loading possible due to movable gantry

Simple loading of the workpieces for setup and reclamping also by crane.



DEMMELE WeldSpace 4.0® Software

The best settings for the power source, welding process and torch with simple and fast operability.

Standard shuttle operation

Four workspaces with perfect accessibility from all sides

The standard shuttle operation between the SPACE A and SPACE B workspaces with optional subdivision of the SPACE A workspace into A1 and A2 enables set-up, reclamping and welding in parallel time.

SPACE A1

SPACE B

SPACE A2

Standard main time parallel shuttle operation

WELD SPACES

SPACE A



SPACE A



SPACE A1 / A2

Equipped with a DEMMELER® 3D welding table 2400 x 1200 mm in system size D28.

The SPACE A workspace can optionally be divided into SPACE A1 and SPACE A2 by a partition wall.

LOADING
BY CRANE



SPACE A2

SPACE A1

SPACE B

500
kg

Two large
working areas:

A = 2 m²
B = 3,4 m²

between SPACE A and SPACE B

SPACE B



SPACE B

Depending on requirements, the SPACE B workspace can be optionally equipped with another DEMMELER 3D welding table with a maximum size of 2,000 x 1,000 mm or with a two-axis manipulator with a payload of up to 500 kg. This enables highly productive welding in the flat position.

The cabins of the respective workspaces are closed during welding.

Intuitive programming and operating concept

DEMMELER® WeldSpace 4.0® Software guides you step by step to the perfect welding result

The heart of the COBOT WeldSpace 4.0 is its ease of use. Developed by our welding experts the software is perfectly adapted to the robot and welding process. The new way to programming: by activating the Free-Drive function, the COBOT can be moved by hand to the place where welding is to be started and stopped. Waypoints and welds can be programmed by simply pressing a button. This allows you to create professional welding programs simply at the touch of a button. The welder has full access to all relevant functions of the welding system with only one control panel and can select, set and save parameters in the robot control.



All COBOT and welding parameters in one place






The intuitive user interface of the DEMMELER WeldSpace 4.0® Software for operating the COBOTS makes it easy to get started. Even employees without programming knowledge can easily learn to control the robot. All parameters relevant to welding must be selected, set and saved in the robot control.

The best settings for the power source, welding process and torch are always available. On the user interface of the DWSP, the operator has the option to access welding characteristics and parameters in the job library.

The multi-function handle: Settings at the touch of a button

The multi-function handle is the interface between the robot and operator. Using the buttons on the handle, you move the robot and select certain actions. At the same time, you are supported by the DEMMELER assistance system.

-  **Red button:** Selection function button between movement and assistance modes. Display the Welding or Waypoint function.
-  **Blue button:** Saving of waypoints as well as start and end points of welds.
-  **Green button:** Free-drive button for guiding the robot.



OUR PERFORMANCE
makes THE DIFFERENCE

DEMMELE® COBOT WeldSpace 4.0®
DEMMELE® WeldSpace 4.0® Software



Welding at the highest level with ultimate flexibility



Schulz Fördersysteme GmbH specialises in metalworking. In addition to sheet metal parts, edge parts and welded assemblies, the company also produces conveyor systems. Around 100 members of staff work for the brands Schulz Fördersysteme and Blechbearbeitung Thüringen at the Geratal site in Thüringen. As a certified specialist business in accordance with DIN EN 15085-2 CL1, Schulz Fördersysteme has a special responsibility for producing highly safety-relevant components for rail vehicles. The fact that the company sees itself as a system supplier with a high vertical range of manufacture is also evident from its state-of-the-art production processes.

A few months ago, the company also started to use a COBOT WeldSpace 4.0 from DEMMELER alongside a DEMMELER manipulator and rail system. With the new COBOT system, Schulz Fördersysteme can quickly and easily adapt to varying component geometries or sizes in production. In addition to being easy to program, the COBOT WeldSpace 4.0 is designed to reduce the physical exertion of welders. Welders are often forced to work in uncomfortable positions as the weld seams are frequently hard to reach. This is why the SPACE B workspace of the COBOT system was equipped with a two-axis manipulator: Workpieces up to 500 kg can be easily clamped in the ideal flat position. There is no longer a need for time-consuming reclamping of workpieces and, thanks to the manipulator's rotary axis, even circumferential seams can be welded without any problems.

"We are a contract manufacturer specialising in sheet metal machining for a range of different industries: Automotive, rail, machinery and plant construction, conveyor technology, furniture and metal construction. Our flexibility has always been one of our greatest strengths compared to our competitors," states Carsten Stein, Managing Director at Schulz Fördersysteme. DEMMELER assists us with its large variety of products, which can be used to produce small and medium batch sizes. We appreciate the excellent quality of DEMMELER products – and the outstanding service!"



SCHULZ FÖRDERSYSTEME GMBH
AN DER GLASHÜTTE 10
99330 GERATAL – OT GRÄFENRODA · GERMANY



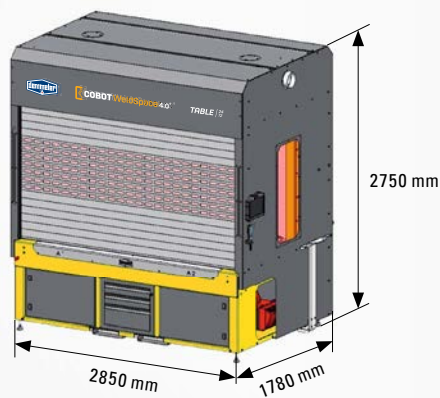
Multiple parts, including different ones, can be welded simultaneously using the COBOT WeldSpace 4.0. The automatic enclosure movement makes it possible to work in multi-station mode. While the robot is welding on one side, the operator – protected by retractable roller doors with aluminium cladding and integrated welding protection glass – can set up and reclamp on the other side in parallel (two-station operation).

Dimensions of base cell / workspaces

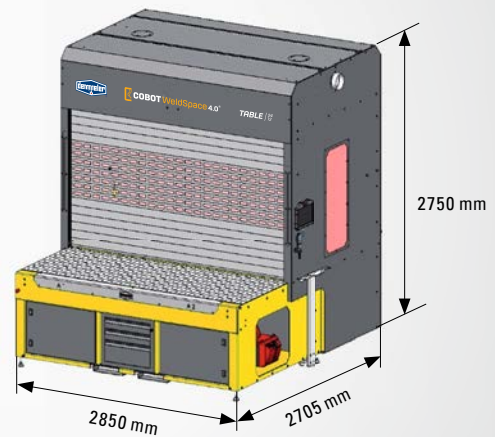
Maximum accessibility and compact design

Dimensions of base cell

Enclosure closed state:
2850 × 1780 × 2750 mm



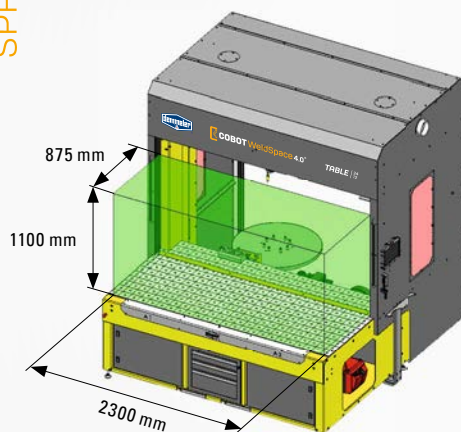
Enclosure movement:
2850 × 2705 × 2750 mm



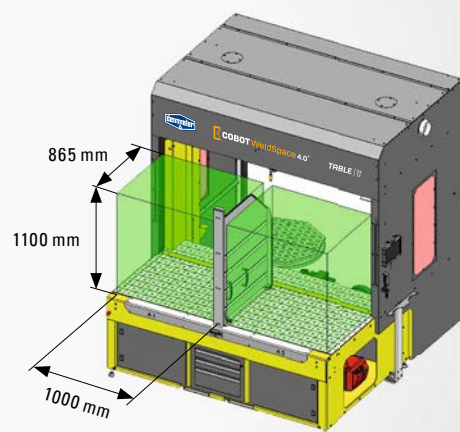
Dimensions of workspaces A / A1-A2

SPACE A

Size of workspace SPACE A:
2300 × 875 × 1100 mm

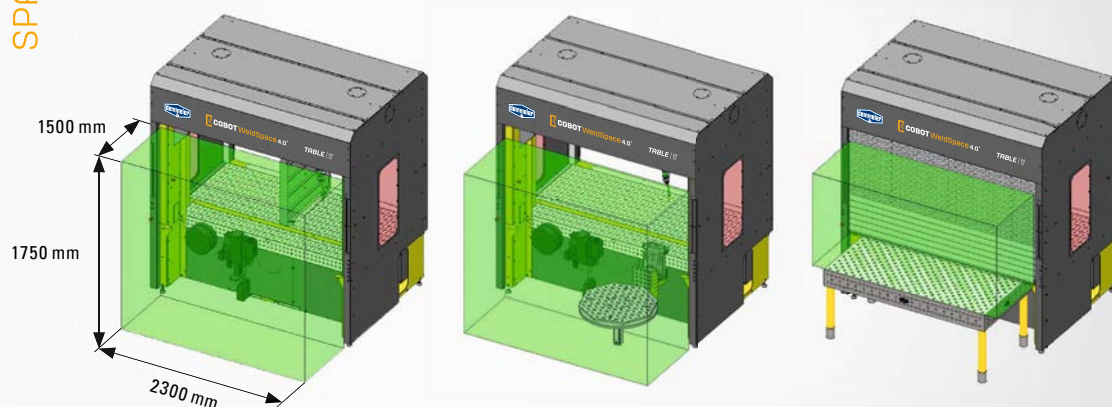


Workspace SPACE A1-A2:
1000 × 865 × 1100 mm



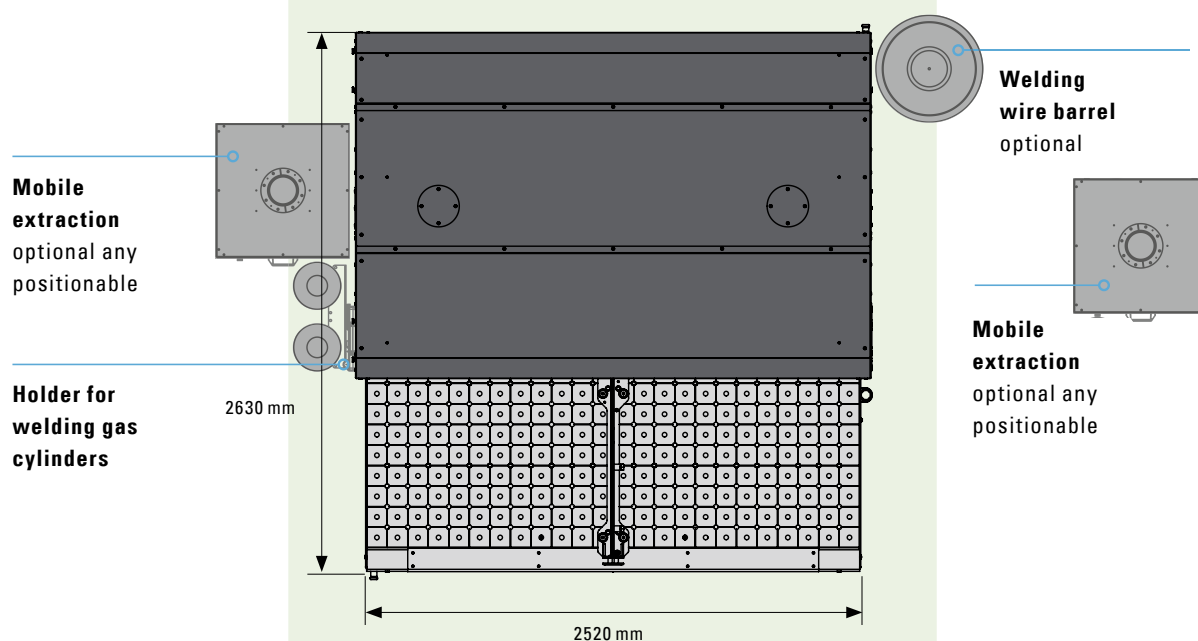
SPACE B

Size of workspace SPACE B depending on equipment:
max. 2300 × 1500 × 1750 mm



Dimensions of workspaces B

Access area SPACE B



Dimensions of footprint

Maximum flexibility with the equipment

Depending on your requirements, choose from the extensive equipment options of the COBOT WeldSpace 4.0®.

COBOT UR10e

Three-button handle

DEMMELER®
Two-Axis Manipulator

DEMMELER®
3D Welding Table

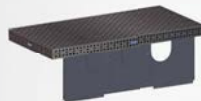
Equipment of the COBOT WeldSpace 4.0® TABLE 24/12

**Fronius
TPS400i
Push
Push Pull
CMT**



**COBOT WeldSpace 4.0® TABLE 24/12
Basic cell**
from page 16

Basic configuration



**Work tables
for basic cell**
page 19

Optional equipment options



**Equipment in
SPACE A1/A2**
page 21



**Equipment in
SPACE B**
from page 23



**Welding current sources
for robotics applications**
page 25



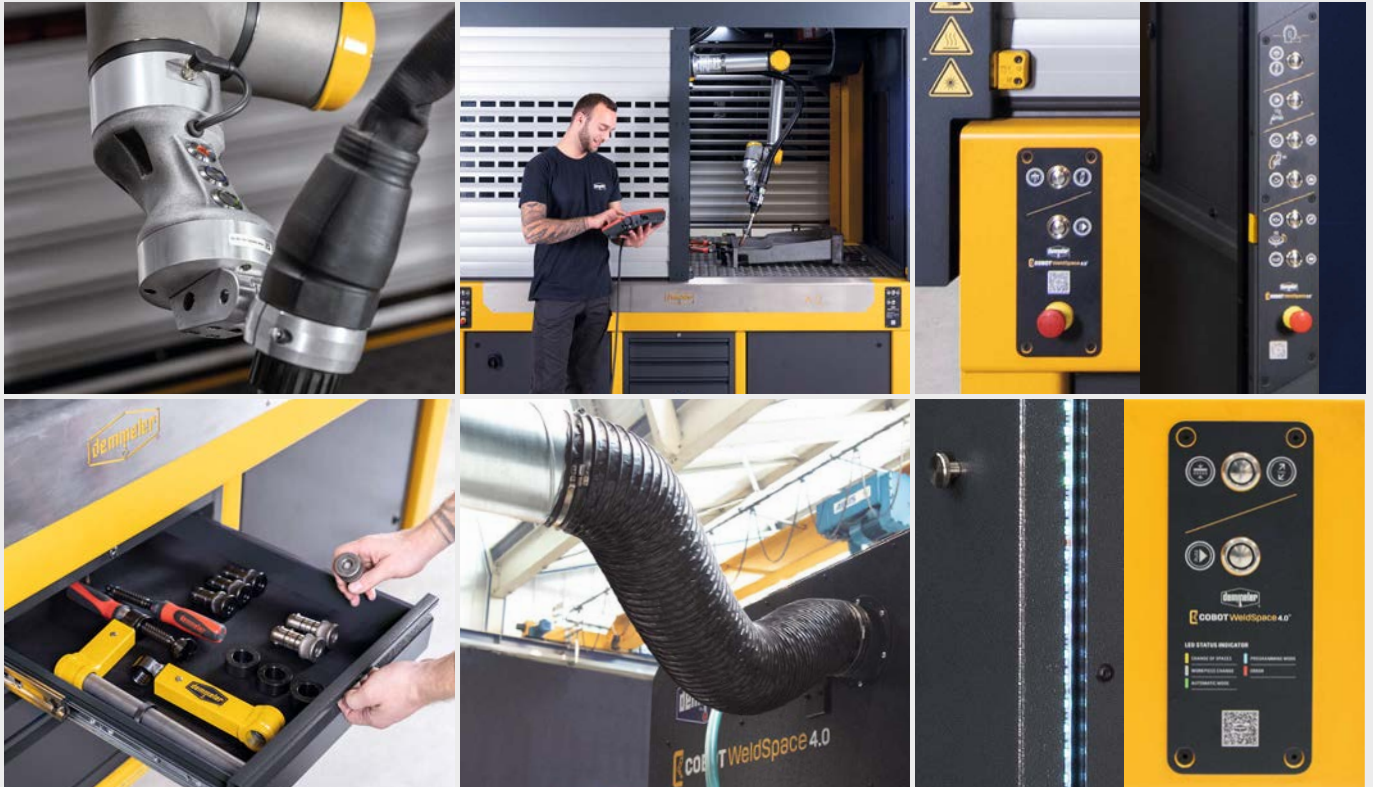
**Optional
accessories**
from page 26



**WeldSpace 4.0®
software options**
page 29

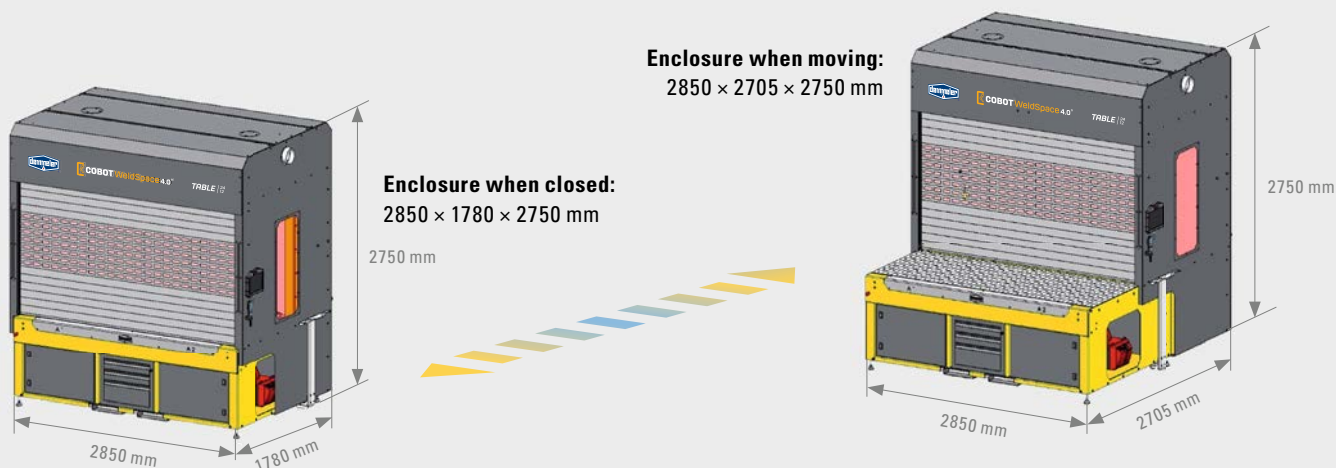
For a quick commissioning

The basic equipment of the DEMMELER® COBOT WeldSpace 4.0® TABLE 24/12



DEMMELER® COBOT WeldSpace 4.0® – basic equipment

- Ready-to-operate cell with two large workspaces – SPACE A and SPACE B
- Automatically moving protective enclosure with two roller shutter doors (aluminium cladding with viewing elements made of protective welding glass)
- UR10e collaborative welding robot (mounted overhead). Not to be confused with the approx. € 6000 cheaper UR10 (old model). The UR10e offers the highest accuracy and reliability with maximum sensitivity. Eliminate the need for your staff to perform dirty, dangerous and monotonous work and increase productivity by saving time.
- UR control panel
- DEMMELER® WeldSpace 4.0® software. Specially developed software with many functions which – together with the innovative three-button handle – takes the hassle out of creating complex welding programs. The software guides the operator intuitively through the menu and with the three-button handle, waypoints and spot welds can be transferred directly into the program. Planes can also be selected on the three-button handle to facilitate precise positioning at the selected point. Other functions such as FREEDRIVE (free movement of all axes), LIN (movement in one plane) and ROT (rotate around the ToolCenterPoint TCP) are a matter of course. An extensive job library that can be expanded at any time, in which parameters and characteristic curves for typical welding applications are stored, leads to the perfect welding result.
- Enabling button
- Smart toolbox with three lockable drawers
- Forklift pockets for easy transport
- Gas cylinder holder for up to two gas cylinders
- Connection options for a central production facility exhaust system on the left or right side and two at the top of the system
- LED strips on all side corners signify processes and machine statuses
- Equipped with a DEMMELER® 3D welding table 2400 x 1200 mm in system size D28



DEMMELE[®] COBOT WeldSpace 4.0[®] TABLE 24/12 basic cell



Dimensions	2850 × 1780 (2705 mm) × 2750 mm
Weight	Approx. 2325 kg
Electrical data	
Feed-in	3x 400 V/N/PE
Frequency	50 Hz
Operating voltage	400 V
Control voltage	24 V DC
External fuse	Max. 32 A slow-blow (up to 400 A welding current)
Rated current	30 A
Workspace SPACE A	
Dimensions	2300 x 875 x 1100 mm
Typical workpiece size	Workpiece size depends on workpiece geometry and welding torch accessibility
Max. load	3000 kg
COBOT UR10e Series	
Type	Collaborative industrial robot arm
Number of axes	6
Load capacity	12.5 kg
Weight	33.5 kg
Working radius (ceiling mounting)	1300 mm
Repeatability	± 0.05 mm
Workspace SPACE B	
Dimensions	2300 x 1500 x 1750 mm
Typical workpiece size	Workpiece size depends on workpiece geometry and welding torch accessibility
Max. load	Floor load
Item no.	00203831



BASIC

Configuration options for SPACE A

Your work table in SPACE A



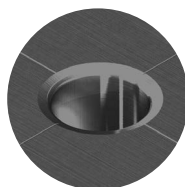
SYSTEM D28

Equipped with
a DEMMELE®
3D welding table
2400 x 1200 mm in
system size D28



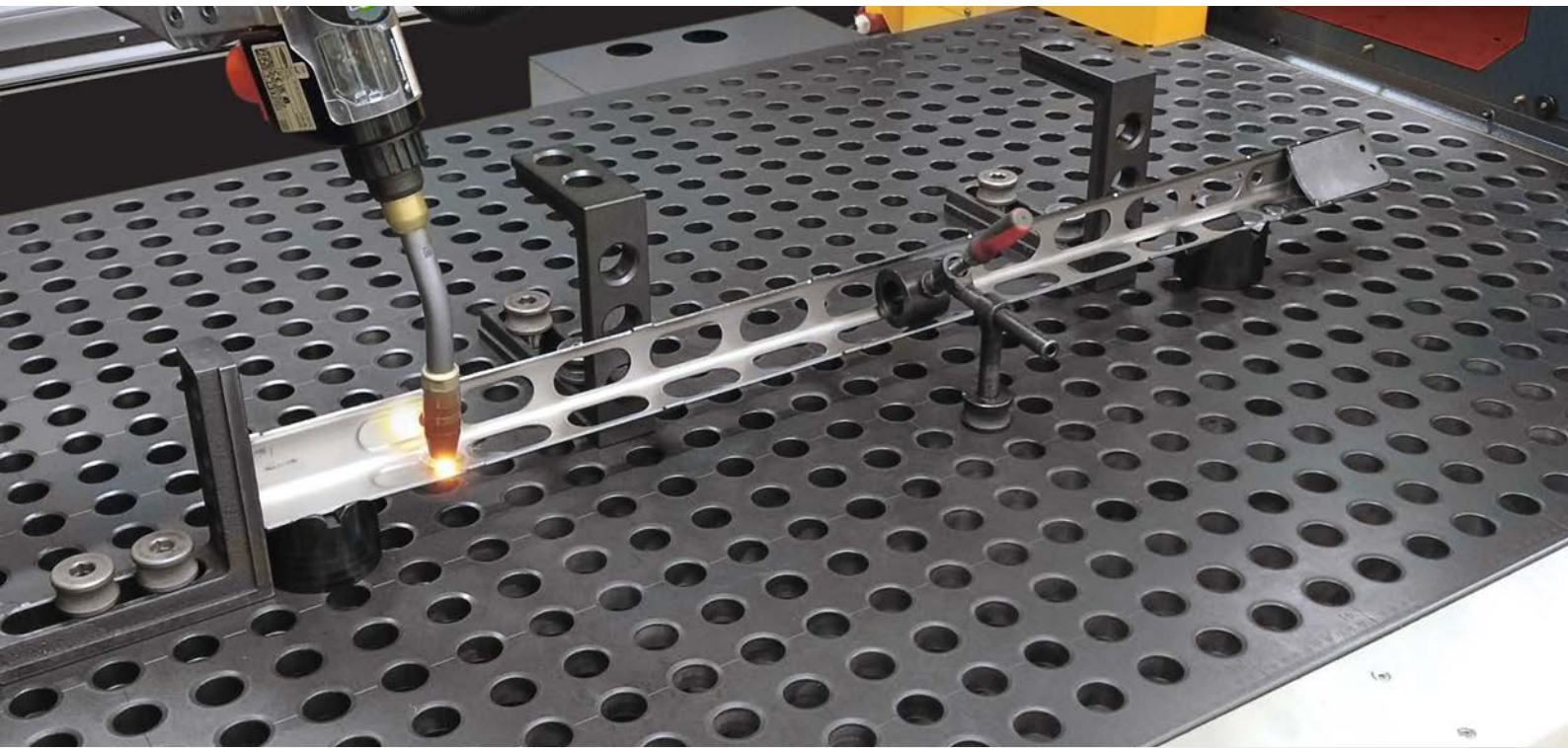
Precision scaling

Axis designation in
x and y-direction.
Standard version
includes precision
scaling.



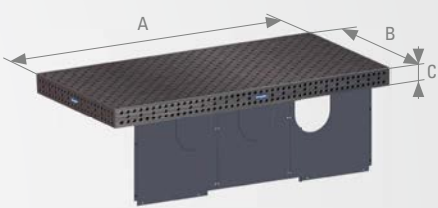
Protective countersink

Optimum bolt and clamp insertion with simultaneous
protection of the tabletop against damage from
materials, even in case of extreme strain on the
system bore or when used with aluminium.



DEMMELER® 3D welding table

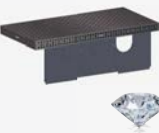
- Only in conjunction with the 00203831 basic cell
- Hardened version DEMONT 760 M
- All system bores with protective countersink and ultimate functionality
- Precision scaling with millimetre graduation
- Coordinate marking of the bores in the X and Y directions
- Including mounting kit for COBOT WeldSpace 4.0® basic cell and sheet metal cladding



D28
SPACE A

COBOT WeldSpace 4.0® 3D welding table D28 PROFIPremiumLINE (PP)

D28



- Worktop with D28 system bores in a 50 x 50 mm grid
- Grid lines in X and Y alignment, 100 mm spacing throughout

A in mm	B in mm	C in mm	Approx. weight in kg	Description	Item no.
2400	1200	200	824	50 x 50 mm grid	00162637

Highest flexibility and efficiency
You can also draw from the extensive range
of DEMMELER accessories when setting
up your clamping fixtures.

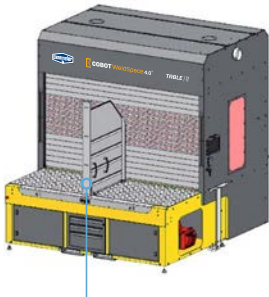




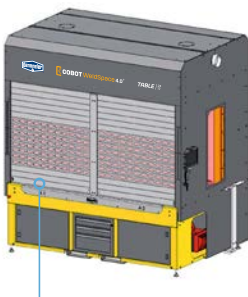
OPTION Equipment options for SPACE A

Equipment options to extend SPACE A into SPACE A1/A2

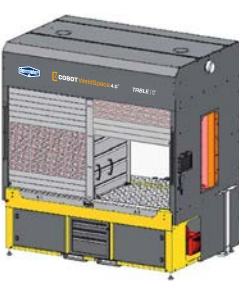
With this extension set, the SPACE A workspace can optionally be divided in the centre into two workspaces – SPACE A1 and SPACE A2. This makes it possible to operate the welding cell in three-station mode. When the partition is removed, the full width of the SPACE A workspace can be used again.



Partition wall



Additional roller shutter doors 3 and 4 with viewing elements



Workspace A1 / A2

- Two additional roller shutter doors (aluminium cladding with viewing elements made of welding protection glass) for workspaces A1 and A2
- Fast and easy-to-install partition wall (dimensions: A 935 x B 150 x C 1300 mm, weight: 18.5 kg)
- Automatic detection of the partition wall by the control system
- Dimensions per Workspace 1000 x 865 x 1100 mm
- Max. load per Workspace 1500 kg



D28

COBOT WeldSpace 4.0® extension set for Workspace A1/A2



Set components:

1x set of roller shutter doors 3 and 4, 1x partition wall, 4x PPC bolts

Item no.

00201313

D28

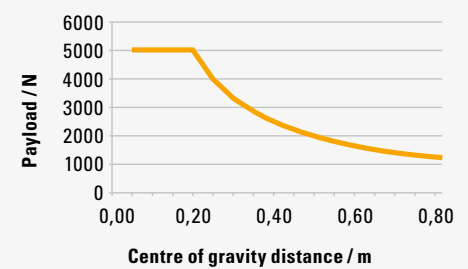
OPTION

Equipment options for SPACE B

Optimally position workpieces weighing up to 500 kg in the flat position with the two-axis manipulator



Manipulator torque (A2): 1000 Nm



With the new two-axis manipulator, it is possible to position workpieces weighing up to 500 kg in an optimal flat position. This eliminates the time-consuming reclamping of workpieces and, thanks to the rotary axis (axis 2) of the manipulator, uniform circumferential seams can also be welded without any problems. The manipulator is fully integrated into the Demmeler® WeldSpace 4.0® Software. Simultaneous movement of the manipulator and robot axes is not possible with the COBOT. Programming is carried out in the simplest way by teaching the waypoints or by entering them in the graphic user interface of the teach panel.

Max. workpiece size



Max. workpiece size
Axis of rotation:
Diameter: 850 mm
Length: 1500 mm



Max. workpiece size
Pivot axis:
Diameter: 850 mm
Length: 1.500 mm

The actual available working range depends on factors such as accessibility of the workpiece, torch length, etc. and can therefore be considerably less.

D28

SPACE B

Two-axis manipulator

- Powerful and fast two-axis manipulator with excellent repeatability for ideal positioning of the workpieces
- Galvanically isolated clamping plate
- Extensive range of DEMMELE[®] accessories
- Earthing via double sliding contacts up to 500 A

DEMMELE[®] COBOT WeldSpace 4.0[®] two-axis manipulator

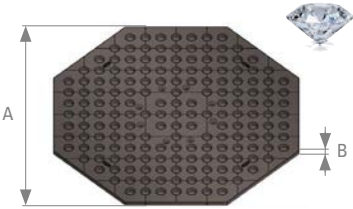
	Speed of manipulator axis 1/axis 2	0.01–7 rpm (in 0.02 rpm increments)
	Axis 1 (swivel axis)	±190°
	Axis 2 (axis of rotation)	±360°
	Max. load capacity	500 kg
	Weight	255 kg
	Max. workpiece diameter	850 mm (with 360° rotation)
	Max. workpiece length	1.500 mm
	Max. torque	1.000 Nm
	Item no.	00215187

Clamping plate D28 for the two-axis manipulator



Clamping plates

- M8 tapped holes on the side
- Grid lines in X and Y alignment, 50 mm spacing throughout
- Hardened version DEMONT 760 M
- Tailored to the two-axis manipulator
- Tapped holes in addition to system holes



D28

Clamping and adapter plate D28



A in mm	B in mm	Approx. weight in kg	Description	Item no.
WAF800	25	95	50 x 50 mm grid	00162810



SPACE B

Optional equipment for SPACE B

The SPACE B workspace offers room for larger components and fixtures, which can also be placed directly on the floor of the production facility. SPACE B can optionally be equipped with an additional 3D welding table (max. dimensions 2000 x 1000 mm). You can choose from the entire range of the DEMMELER® 3D welding table and clamping system.

Perfectly coordinated welding processes

Welding systems

- Welding systems designed for the COBOT WeldSpace 4.0®
- Robot welding equipment from the Fronius brand
- The welding device is integrated in the table base unit to save space
- Only one main switch and power connection for the cell with welding system
- Extensive job libraries
- EMC emission class: A



Welding systems from the Fronius TPS400i series



Technical device data:

- Mains voltage: 3x 400 V/mains voltage tolerance: $\pm 15\%$
- Mains fuse: 32 A slow-blow
- Mains frequency: 50/60 Hz
- Cos phi: 0,99
- MIG/MAG welding current range: 3–400 A
- Welding current at 10 min/40 °C: 40% 400 A/60% 360 A/100% 320 A
- MIG/MAG output voltage: 14.2–34.0 V
- Open-circuit voltage: 73 V
- Protection class: IP23
- Power source of the TPS 400i: Current range 400 A



Optionally available:

Fronius RC Panel Pro
control panel (with 5 m cable)
Item no. 00203955

	Fronius TPS400i 400 A Push water-cooled	Fronius TPS400i 400 A Push Pull water-cooled	Fronius TPS400i 400 A CMT water-cooled
Integration and software extension of the DEMMELE WeldSpace 4.0® software	•	•	•
Input of the welding jobs from the power source and simple selection using a list on the control panel	•	•	•
Welding packages: Standard welding package, Pulse welding package	•	•	•
CMT welding package	-	-	•
Interface for COBOT WeldSpace 4.0®	•	•	•
CU 1100i recirculating cooler	•	•	-
CU 1400i recirculating cooler	-	-	•
Intermediate tube assembly	•	•	•
W25i wire feed unit	•	•	•
SB SplitBox	-	•	•
Tube assembly	•	•	-
CMT tube assembly	-	-	•
Torch body MTB 400i R / 22° / L241 / H50	•	-	-
Torch body MTB 400i W R / 22° / L241 / H50 with additional drive for wire feed unit in the torch	-	•	-
Robacta Drive/CMT push/pull torch / 22° / L241 / H50	-	-	•
Torch holder for COBOT UR10e	•	•	•
Range of application	Steel, stainless steel	Steel, stainless steel, Aluminium	Steel, stainless steel, Aluminium, Thin sheet metal < 4 mm
Item no.	00200728	00203951	00201304

Optional software extensions welding unit

Item no.: Cycle Step (Software extension for CMT)	00200728
Item no.: Puls Multi Control	00213088
Item no.: Low Splatter Control	00213089



Torch cleaning station

Torch cleaning

- Cutter, specially adapted to the welding torch (item no. 00203883)
- Clamping V-blocks with diameter of 25 mm (item no. 00203884, others available on request)
- Powerful, high-quality air motor for powerful cleaning

Spraying unit

- Activated by the robot movement – no output necessary
- Highly efficient spray function, minimal consumption
- Excess anti-splash agent is collected in a container
- Fully protected for a clean environment and safe work areas

DAV wire cutter

- Powerful, reliable cutting device with sharp cutting action for starting an arc safely
- Hardened cutting blade for a long service life



COBOT WeldSpace 4.0® torch cleaning station



Air consumption	Approx. 400 l/min
Rated pressure	6 bar
Operating pressure	6 – 8 bar
Max. wire diameter at 6 bar	1.6 mm solid wire
Control voltage	24 V DC
Power consumption	2,8 W
Operating voltage	10 – 30 V DC
Continuous current	max. 100 mA
Power consumption	Approx. 14 mA (4 V)
Item no.	00201320

MobiAirClean D1 welding fume extraction system

- The automatic cleaning system makes the mobile filter system ideal for welding work which involves non-alloy and alloyed steels, galvanised materials and aluminium and produces a high volume of fumes
- MobiAirClean D1 meets the safety requirements for devices from welding fume class "W3" (high-alloy steels that contain > 30% nickel)
- The specially developed cleaning system for any type of dirt gives the filter cartridge good cleaning characteristics, ensuring optimum extraction performance during the entire operation
- Including spiral tube and connecting tube
- Length (A)/width (B)/height (C): 665/1100/1495 mm



COBOT WeldSpace 4.0® MobiAirClean D1 welding fume extraction system



Fan output	1860 m³/h
Stress	2900 Pa
Operating point	1100 m³/h at 1900 Pa
Pre-filter	Baffle plate
Filter area	10 m²
Filter cartridge	Dust class M
Motor power	1.1 kW
Input voltage	400 V/50 Hz
Power consumption	2.5 A
Noise level	Approx. 72 dB (A)
Current type	3Ph+N+PE
Weight	180 kg
Item no.	00204525

Network camera

- Check and document welding results by means of live transmission and videos
- Digital zoom
- With autofocus and wide dynamic range, ideal for difficult lighting conditions (welding light)

COBOT WeldSpace 4.0® network camera



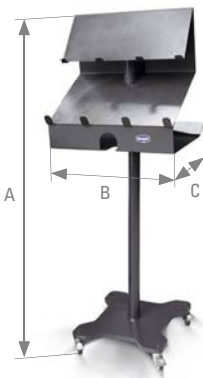
Item no.	00208481
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COBOT WeldSpace 4.0® control panel terminal

- Perfect storage option for the UR control panel, enabling button, Fronius panel and industrial tablet
- Holder for UR control panel and enabling button
- Extra heavy design prevents tipping over and, with the brakes on each castor, the terminal stays where you need it
- Four swivel castors with brakes



COBOT WeldSpace 4.0® control panel terminal



A in mm	B in mm	C in mm	Approx. weight in kg	Item no.
1382	520	403	38	00162810

WeldSpace 4.0® software options

**These tools simplify the work steps
and guide you to perfect welding results**



WELDSPACE 4.0®
SOFTWARE

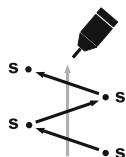
COBOT WeldSpace 4.0® "line seam" software option



- With this tool, you can create line seams or tack seams by entering the weld seam length and the gap, also circularly, without much programming effort
- With the COBOT, you only have to calibrate the start and end points of the weld seam; the tool takes care of the division of the line seams or tacking points

Item no. 00201676

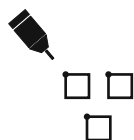
COBOT WeldSpace 4.0® "weave" software option



- With this tool, you can create perfect weave seams for linear as well as circular weld seams
- Simply calibrate the start and end points with the COBOT and enter the weave length and width, as well as the delay time, to define the weave seam
- This function can be used, for example, to create larger weld seams in one layer or to bridge gap seams

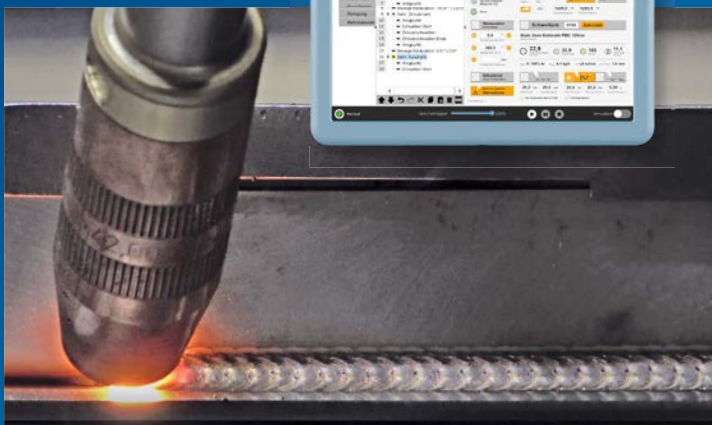
Item no. 00201677

COBOT WeldSpace 4.0® "several identical workpieces" software option



- This function is used to move and rotate individual seams and to have these programs executed in a different location
- This function can be used to program workpieces once and execute them several times (weld several identical workpieces). Please note that the seam and programming shift depends on the kinematics and tube guidance of the robot.

Item no. 00201674



High-performance welding jobs developed in DEMMELE®'s welding laboratory

Extensive protected DEMMELE® job library

The job library in the DEMMELE® WeldSpace 4.0® software currently offers access to 100 protected welding jobs including all important parameters tailored to the material, power source, welding process and torch. These jobs can be assigned by simply selecting the seams – whether you're welding in the thin aluminium sheet sector or in steel construction. This leads to improved weld quality and consequently also to a significant efficiency increase in production.

Registered users have access to all jobs in the DEMMELE® WeldSpace 4.0® software. You can also view the videos on the welding processes via QR codes on the stored data sheets.

DEMMELE® COBOT WeldSpace 4.0® TABLE 24/12
Schweißjob // Welding job 0200

0200 CrNi 1mm Kehlnaht CMT 220cm

Sehen Sie sich auch das Video des Schweißjobs online an // Watch the video of the welding job online

Übersicht // Overview

220 cm/min Geschwindigkeit Speed
185 A Current
Geringer Schweißstrom Low electricity
8,0 m/min Drahtvorschub Wire feed speed
14,4 V Spannung Voltage
1,0 mm α-Maß Belegblech thickness

Kennzahlen // Operating figures

Material // Material	Edelstahl SUS304/18/10/1,0 mm
Nahtart // Seam type	Kehlnaht // Fillet weld
Draht // Wire	EN ISO 15614-A G50 12 31 61 / 1,0 mm
Nahtschmelze // Melting zone	Edelstahl SUS304/18/10/1,0 mm
Gas // Gas	Ar-98% / CO ₂ -2%
Position // Position	PG
Prozess // Process	CMT
Abschmelzleistung // Dissipation rate	2,96 kg/h
Energieverbräuch // Energy per unit length	16,12 kWh/m

Voraussetzungen // Requirements

Schweißmaschine // Welding system	Freemove TFS 400i CMT
Softwareanforderungen // Software extensions	CMT

DEMMELE® COBOT WeldSpace 4.0® TABLE 24/12
Schweißjob // Welding job 0201

0201 CrNi 3mm Kehlnaht CMT 140cm

Sehen Sie sich auch das Video des Schweißjobs online an // Watch the video of the welding job online

Übersicht // Overview

140 cm/min Geschwindigkeit Speed
185 A Current
Geringer Schweißstrom Low electricity
12,0 m/min Drahtvorschub Wire feed speed
16,1 V Spannung Voltage
2,0 mm α-Maß Belegblech thickness

Kennzahlen // Operating figures

Material // Material	Edelstahl SUS304/18/10/3,0 mm
Nahtart // Seam type	Kehlnaht // Fillet weld
Draht // Wire	EN ISO 15614-A G50 12 31 61 / 1,0 mm
Nahtschmelze // Melting zone	Edelstahl SUS304/18/10/3,0 mm
Gas // Gas	Ar-98% / CO ₂ -2%
Position // Position	PG
Prozess // Process	CMT
Abschmelzleistung // Dissipation rate	4,46 kg/h
Energieverbräuch // Energy per unit length	16,12 kWh/m

Voraussetzungen // Requirements

Schweißmaschine // Welding system	Freemove TFS 400i CMT
Softwareanforderungen // Software extensions	CMT

DEMMELE® COBOT WeldSpace 4.0® TABLE 24/12
Schweißjob // Welding job 0438

0438 Stahl 1,5mm Ecknaht CMT 120cm

Sehen Sie sich auch das Video des Schweißjobs online an // Watch the video of the welding job online

Übersicht // Overview

120 cm/min Geschwindigkeit Speed
98 A Current
Geringer Schweißstrom Low electricity
6,0 m/min Drahtvorschub Wire feed speed
11,5 V Spannung Voltage

Kennzahlen // Operating figures

Material // Material	Stahl S235JR / 1,5 mm
Nahtart // Seam type	Ecknaht // Corner weld
Draht // Wire	EN ISO 15614-A G40 6 M21 451 / 1,0 mm
Nahtschmelze // Melting zone	Stahl S235JR / 1,5 mm
Gas // Gas	Ar-92% / CO ₂ -8%
Position // Position	PG
Prozess // Process	CMT
Abschmelzleistung // Dissipation rate	2,22 kg/h
Energieverbräuch // Energy per unit length	16,12 kWh/m

Voraussetzungen // Requirements

Schweißmaschine // Welding system	Freemove TFS 400i CMT
Softwareanforderungen // Software extensions	CMT

DEMMELE® COBOT WeldSpace 4.0® TABLE 24/12
Schweißjob // Welding job 0439

0439 Stahl 3mm Cycle PG

Sehen Sie sich auch das Video des Schweißjobs online an // Watch the video of the welding job online

Übersicht // Overview

90 cm/min Geschwindigkeit Speed
260 A Current
Geringer Schweißstrom Low electricity
7,8 m/min Drahtvorschub Wire feed speed
16,9 V Spannung Voltage

Kennzahlen // Operating figures

Material // Material	Stahl S235JR / 3,0 mm
Nahtart // Seam type	Schweiß // Cycle weld
Draht // Wire	EN ISO 15614-A G40 6 M21 451 / 1,0 mm
Nahtschmelze // Melting zone	Stahl S235JR / 3,0 mm
Gas // Gas	Ar-92% / CO ₂ -8%
Position // Position	PG
Prozess // Process	CMT
Abschmelzleistung // Dissipation rate	4,25 kg/h
Energieverbräuch // Energy per unit length	224,38 kWh/m

Voraussetzungen // Requirements

Schweißmaschine // Welding system	Freemove TFS 400i CMT
Softwareanforderungen // Software extensions	CMT, Cycle Stop



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Unbeatably versatile.

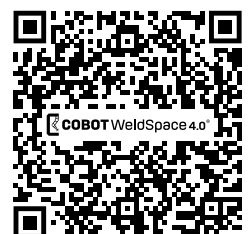
Highly efficient and flexible welding production all along the line.

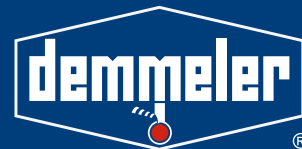


BATCH SIZE 1
— SERIES PRODUCTION

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Find out more at www.demmeler.com.





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HIGH PERFORMANCE+



3D CLAMPING SYSTEMS
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NC ROTARY TABLES
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**Further welding
automation
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COBOT WeldSpace 4.0®
House 40/20



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