



The arc series: 3D Metal Printers for Industrial Manufacturing

The **arc series** combines the technically mature and proven arc-welding method with the CAD drawings of the product designers and engineers in a completely new production system. Either 3 or 5 motion axes offer maximum flexibility in terms of the component volume and enable the additive production of high-quality metal parts.

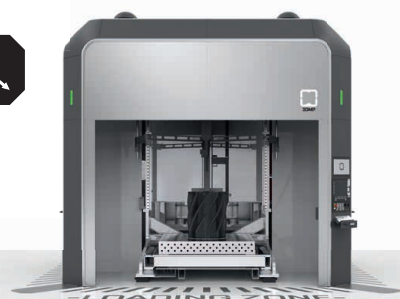
Innovative features that inspire

- Process monitoring via camera
- Machine access at ground level with a sliding working table for easy loading and unloading by crane
- Actively cooled base plate
- Soundproof housing
- Integrated case ventilation and welding fume extraction
- User-friendly control unit
- High-end components of well-known manufacturers

Optional equipment

The **arc series** offers even more performance for your needs thanks to a range of optional equipment.

- Temperature tracking by integrated Sensortherm pyrometer
- **arc** cooling system for local cooling by cooling gas
- Automatic welding torch cleaning system
- Water-cooled inert gas cover for oxygen-sensitive materials



Working space

Travel path (x-y-z) in mm	1 100 - 1 400 - 1 720
Max. size of machined parts (x-y-z) in mm	1 100 - 1 400 - 1 720

Linear axes

Linear speed (x-y-z) in m/min	25 - 25 - 25
Unloading Travel System (y) in mm	1 450

Components

Power source	Fronius TPS 4000 CMT with wire feed unit VR1550 and Robacta-torch with Fronius Explorer for complete process data acquisition
Control	SIEMENS 840DsI
Interface	HMI via control panel and machine operating panel with additional industrial keyboard and monitor for process observation
Data acquisition	Process data acquisition via an integrated Beckhoff-Industry-PC and graphical user interface for parameter selection and adjustment
Electrical cabinet	2 control cabinet units for measuring and power electronics
Cooling	4 kW cooling capacity

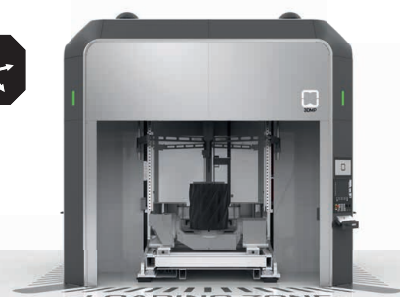
Welding table

Title	arc603-welding table with integrated cooling system
Max. dimension cooling plate (ø) in mm	1 500 x 1 500
Max. table payload in kg	3 000

Additional information/Local requirements

Outer machine dimensions (depthxwidthxheight) in mm	4 500 x 4 500 x 4 500
Power connection in A	1 x 63
Compressed air in bar	1 x 6
Weight in kg	16 000 (mass with max. part weight)





Working space

Travel path (x-y-z) in mm	1 100 - 1 400 - 1720
Max. size of producible parts (ø-z) in mm	900 - 700

Linear axes

Linear speed (x-y-z) in m/min	25 - 25 - 25
Unloading Travel System (y) in mm	1 450

Components

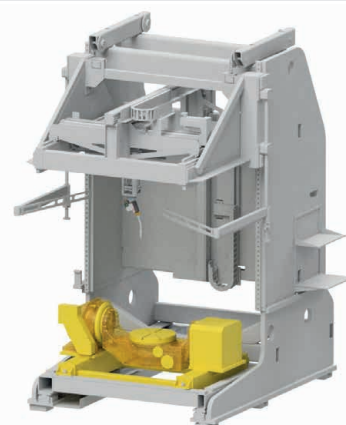
Power source	Fronius TPS 4000 CMT with wire feed unit VR1550 and Robacta-torch with Fronius Explorer for complete process data acquisition
Control	SIEMENS 840Dsl
Interface	HMI via control panel and machine operating panel with additional industrial keyboard and monitor for process observation
Data acquisition	Process data acquisition via an integrated Beckhoff-Industry-PC and graphical user interface for parameter selection and adjustment
Electrical cabinet	2 control cabinet units for measuring and power electronics
Cooling	4 kW cooling capacity

Welding table

Title	arc605-welding table with integrated cooling system
Max. dimension cooling plate (ø) in mm	800
Max. table payload in kg	420
Swiveling range in ° (degree)	-100/10
Rotating range in ° (degree)	360
Rotational speed A-axis in min ⁻¹	15
Rotational speed C-axis in min ⁻¹	36

Additional information/Local requirements

Outer machine dimensions (depthxwidthxheight) in mm	4 500 x 4 500 x 4 500
Power connection in A	1 x 63
Compressed air in bar	1 x 6
Weight in kg	16 000 (mass with max. part weight)





Working space

Max. linear way (x-y-z) in mm	800 - 900 - 1000
Max. size of machined parts (x-y-z) in mm	800 - 900 - 1000

Linear axes

Linear speed (x-y-z) in m/min	5 - 5 - 2,5
-------------------------------	-------------

Components

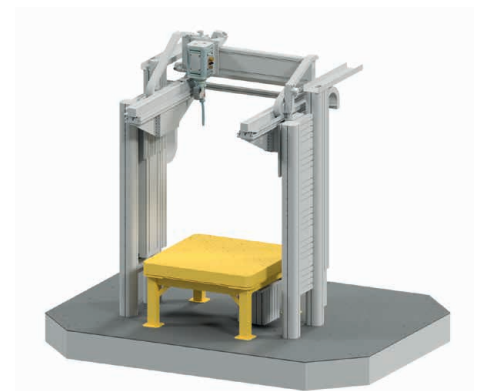
Power source	Fronius TPS 4000 CMT with wire feed unit VR1550 and Robacta-torch with Fronius Explorer for complete process data acquisition
Control	SIEMENS 840Dsl
Interface	HMI via control panel and machine operating panel with additional industrial keyboard and monitor for process observation
Data acquisition	Process data acquisition via an integrated Beckhoff-Industry-PC and graphical user interface for parameter selection and adjustment
Electrical cabinet	2 control cabinet units for measuring and power electronics
Cooling	4 kW cooling capacity

Welding table

Title	arc403-welding table with integrated cooling system
Max. table payload in kg	800

Additional information/Local requirements

Outer machine dimensions (depthxwidthxheight) in mm	2 300 x 3 000 x 3 100
Power connection in A	1 x 63
Compressed air in bar	1 x 6
Weight in kg	ca. 5 000 (mass with max. part weight)



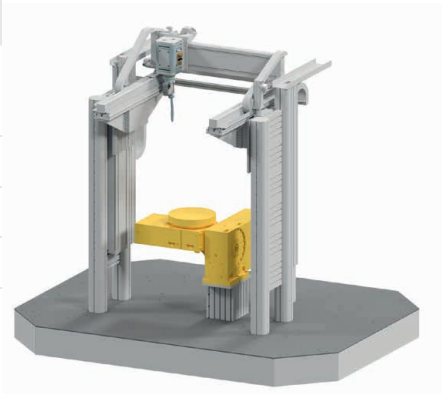


Available in 2 versions

Version 1		Version 2	
Max. size of producible parts (ø - z) in mm	400 - 500	Max. size of producible parts (ø - z) in mm	700 - 300
Max. table payload in kg	200	Max. table payload in kg	150

For both versions:

Working space	
Travel path (x - y - z) in mm	800 - 900 - 1000
Linear axes	
Linear speed (x - y - z) in m/min	5 - 5 - 2,5
Components	
Power source	Fronius TPS 4000 CMT with wire feed unit VR1550 and Robacta-torch with Fronius Explorer for complete process data acquisition
Control	SIEMENS 840Dsl
Interface	HMI via control panel and machine operating panel with additional industrial keyboard and monitor for process observation
Data acquisition	Process data acquisition via an integrated Beckhoff-Industry-PC and graphical user interface for parameter selection and adjustment
Electrical cabinet	2 control cabinet units for measuring and power electronics
Cooling	4 kW cooling capacity
Welding table	
Title	arc405-welding table with integrated cooling system
Max. dimension cooling plate (ø) in mm	400
Swiveling range in ° (degree)	-90/5
Rotating range in ° (degree)	360
Rotational speed A-axis in min ⁻¹	21
Rotational speed C-axis in min ⁻¹	50
Additional information/Local requirements	
Outer machine dimensions (depthxwidthxheight) in mm	2 300x3 000x3 100
Power connection in A	1 x 63
Compressed air in bar	1 x 6
Weight in kg	ca. 5 000 (mass with max. part weight)





Next Level Production.