

/ Perfect Welding / Solar Energy / Perfect Charging



Aluminum Welding
with TPS/i



**INTELLIGENT
REVOLUTION**

TPS/i ROBOTIC ALUMINUM WELDING



/ World's smallest robotic push-pull torch
with an extremely dynamic motor

/ Built-in nozzle touch sense - better suited
for aluminum wire

/ Increased arc stability allows high travel
speeds and excellent weld quality

WELDING PACKAGES FOR ALUMINUM

/ Welding aluminum applications becomes easier thanks to the modular design of the TPS/i and the Welding Packages, as it is possible to create tailored solutions quickly and efficiently.

WELDING PACKAGE PULSE

/ The “Pulse” process enables the user to weld using a pulsed arc and impresses due to its outstanding quality. In addition, it is optimized for the most common material and shielding gas combinations.

WELDING PACKAGE PMC

/ The PMC process is a further development of Pulse. It is characterized by increased welding speeds and lower heat input. The “penetration stabilizer” and “arc length stabilizer” assistance systems ensure constant penetration and high welding speeds.

PMC MIX DRIVE*

This is a feature of PMC, which assists the welder during positional welding providing:

- / Higher welding speed, cost effectiveness
- / Lower heat input
- / Uniform penetration
- / Optimal weld seam appearance
- / Low risk of undercutting through use of new stabilizers
- / Easy parameter finding (assistance systems)

Application areas

- / All material thicknesses; this process can be used in a customized manner and for application-specific requirements thanks to the stabilizers.
- / For visible weld seams, especially when welding aluminum
- / For joining heavy and light-gauge sheets

PMC RIPPLE DRIVE*

- This is a feature of the PMC process for when a cosmetic appearance is the most important criteria.
- / Good gap-bridging ability

* A SB60i or a wire buffer is necessary for these processes



/ Perfect root and leg penetration



/ Optimal weld face profile and toe transition



/ PMC MIX drive
-Perfect for vertical ups and filling gaps

PMC MIX / DRIVE



/ The REEL wirefeeder ensures great feeding with aluminum wire, even with longer conduit lengths. Available in a 2 and 4 drive roll models for the most difficult applications.

/ Dot matrix display with pre-assigned buttons for wirefeed and gas test, plus one unassigned function key that can be programmed by the user



/ The world's most compact push-pull robotic welding torch.



/ The advanced magnetic crash box prevents damage to the welding torch in the event of a crash. Maintains the TCP, eliminating unnecessary downtime.



/ Intuitive touch display and central push-turn controller for fast parameter setting

Robotic welding package for aluminum applications

Package	Description
Ready-to-weld TPS/i robotic package for aluminum applications	TPS/i Power Source*, PMC software, dust filter, internal robotic interface, interconnecting cables, ground connections and wire feed system (including mounting, drive rolls, and quick connector), torch body, torch cable (built to robot length), torch mount, starter kit & tools. Push Pull torch, split box and dereeler *Amperages range from 320A to 600A
Arc welding monitoring solution:	
Weldcube	Each Weldcube will monitor up to 50 power sources, their weld performance and consumables use and can be linked with additional Weldcubes to expand the network. Ask your Fronius sales team how Weldcube can benefit your production.



Technical Data TPS 400i

Mains voltage	3x 200V 230V 380V 400V 460V
Mains range	323 - 529 Vac
Fuse Protection	35A slow-blow
Mains tolerance	-10 / + 15%
MIG current range	3 - 400 A
MIG voltage range	14.2V – 34.0V
Duty cycle 104° F (40° C)*	400A @40%
	360A @ 60%
	320A @ 100%
Protection class	IP 23
Dimensions (L x W x H)*	27.8" x 11.8" x 20.1" (706mm x 300mm x 510mm)
Weight*	103.8 lbs (47.1 kg)

*These values reflect only the welding power supply



Learn more about TPS/i

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THREE BUSINESS UNITS, ONE GOAL: TO SET THE STANDARD THROUGH TECHNOLOGICAL ADVANCEMENT.

What began in 1945 as a one-man operation now sets technological standards in the fields of welding technology, photovoltaics and battery charging. Today, the company has around 3,800 employees worldwide and 1,242 patents for product development show the innovative spirit within the company. Sustainable development means for us to implement environmentally relevant and social aspects equally with economic factors. Our goal has remained constant throughout: to be the innovation leader.

Further information about all Fronius products and our global sales partners and representatives can be found at www.fronius.com

v08 Aug 2017 EN

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