2200C 2700C 3000C 3500C

The multiprocess power source series

Steel Transfer Technology



Multiprocess



Pulse Technology

Infinite applications to unleash your welding potential

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Fronius

# Unlimited applicatio

Transsteel Multiprocess.

No matter what the welding task – MIG/MAG, TIG and electrode welding with just one device.

Whether a construction site or a workshop, from agricultural enterprises to metalworking companies – for assembly, repair, and maintenance work, the TransSteel Multiprocess series masters the MIG/ MAG, TIG, and electrode welding processes to professional levels.



#### TransSteel - the advantages for you



One device – for all manual welding applications Combining MIG/MAG, TIG, and electrode welding in one device means you no longer have to purchase any other power sources. There is absolutely no difference in the welding performance of the respective process compared with a dedicated device.



118 Characteristics Steel, CrNi, AlMg, AlSi, Metal Cored, Rutil FCW, Basic FCW, self-shielded wires, 0.8 – 1.2 mm wire diameter, Eight different gas mixtures.

123

Ready to weld in three steps The intuitive operating concept enables welders to start work straight away – no prior knowledge of the device is required. All the essential welding parameters can be viewed and adjusted on the front panel. The only parameters that have to be selected before welding begins are the gas, wire diameter and material thickness.

70% less rework, 30% faster welding Difficult-to-control and spattering intermediate arcs are a thing of the past thanks to the pulse function and minimizing spatter reduces the need for reworking by up to 70%. Compared to the standard arc, the pulsed arc enables up to 30% faster welding speeds, primarily for aluminum and CrNi applications.

For further information, visit: www.fronius.com/transsteel



# TransSteel series



TransSteel 2200C



TransSteel 2700C



TransSteel 3500C





Pulse and Transsteel 3500C. The cooling unit is filled as standard with FCL10 coolant and is equipped with a coolant filter (and a flow temperature sensor as an option).

optional extra for Transsteel 3000C

Cooling Unit FK 5000



Tu car 2 easy Trolley Suitable for TransSteel 2200C (with platform as an option for optimum working height).



Tu car 4 Trolley Suitable for TransSteel 2700C, 3000C Pulse and 3500C.



Tool Case Transport Box Rugged, versatile transport box for the power source (TransSteel 2200C with ToolCase 120) and/or accessories.

Functions	TransSteel 2200C	TransSteel 2700C	TransSteel 3000C Pulse	TransSteel 3500C	
Multiprocess	$\checkmark$	~	~	$\checkmark$	
Pulse			$\checkmark$		
SynchroPulse			$\checkmark$		
Wirespool size	D 100 / D 200	D 200 / D 300	D 200 / D 300	D 200 / D 300	
Wire speed	2R	4R	4R	4R	
Polarity reverser	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	
Cooling	Gas-cooled	Gas-cooled Gas-cooled water-coole		Gas-cooled / water-cooled (optional)	
Easy Jobs	2	5	5	5	
Data documentation			$\checkmark$	$\checkmark$	
Mains operation	1-phase	3-phase / 1-phase	3-phase	3-phase	
Multivoltage	$\checkmark$	~			



TransSteel 3000C Pulse

Faster welding speeds on thicker materials

Less welding spatter generated

– The pulsed arc also reduces the amount of rework

# The MG/MAC Welding functions

#### Pulse welding controlled and fast

The new TransSteel 3000C Pulse marks the arrival of the pulsed arc in the Trans-Steel series. The setting is simply selected from the main menu and facilitates controlled welding in the intermediate arc range.

#### Spot and stitch welding minimal material distortion

Spot mode enables you to place welding spots at regular intervals. As you have complete flexibility over the pause time between the intervals, spot welding is ideal for the tacking of workpieces. Stitch welding not only produces a rippled seam appearance, the low level of heat input reduces any possible material distortion when working with light gage sheets.



#### Steel transfer technology



- Steel is the universal characteristic for quick and easy welding applications.
- Steel Root is the characteristic specifically developed for root pass welding. It is characterized by particularly strong gapbridging ability, in other words, the ability to fill wide gaps.
- Steel Dynamic is a characteristic with a particularly hard and concentrated arc, resulting in high welding speeds and deep penetration.
- PCS characteristics allow a combination of pulsed and spray arcs and avoid negative effects of the intermediate arc – the result is deep penetration with minimal spattering.

Special 4-step mode for a more stable arc

The "Special 4-step mode" is particularly suitable for welding in the higher power range. In special 4-step mode, welding starts at a lower power, which makes the arc easier to stabilize.

SynchroPulse seam rippling for aluminum alloys

The "SynchroPulse" option is recommended for the welding of aluminum alloys when a rippled seam appearance is required. This effect is achieved by modifying the welding power between two operating points.

> SynchroPulse works in Standard Synergic and Pulse Synergic Mode – but only on the TransSteel 3000C Pulse.





## G Welding functions

Practically the same high

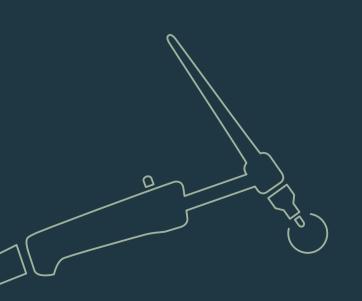
#### Welding performance

as with a regular TIG power source.



TIG Pulse welding

TIG Pulse welding is primarily used for out-of-position welding or when welding especially thin materials. The pulse setting range is from 1 Hz to 990 Hz.



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## Gas pre-flow time + gas post-flow

TransSteel automatically calculates the duration of the optimal gas post-flow time according to the set welding current. This improves the gas shield of the weld seam end and tungsten electrode.

#### Touchdown ignition

The highly accurate touchdown ignition is on a par with high frequency ignition and contributes towards user-friendliness.

#### TAC tacking function

The weld pool is made to oscillate by means of pulse currents. This makes it easier to tack components together and reduces the tacking time. The pulsed arc facilitates the process with very thin materials, since the temperatures are slightly lower in the phases with less current.

- Time saving of up to 50% for the user compared to conventional tacking
- Fast tacking points without burning off the edges
- Minimal temper coloration at the tacking points
- Spot function

# The Melding functions

Anti-Stick f

Anti-Stick function prevents sticking of the electrode

If a short circuit occurs (sticking of the electrode during electrode welding), the welding process is interrupted after 1.5 seconds.This prevents electrode burnout and/or serious weld seam faults.



## Very good ignition behavior

- Reduced sticking
- Stable arc

Arc-force dynamic prevents sticking with low currents

If basic electrodes are welded with coarse droplet material transfer at a low current (underloaded), there is a risk of sticking. To rule this out, more current is supplied for fractions of a second just before sticking. The electrode burns free, preventing sticking.

Hot Start function when igniting the arc

The current is increased for a fraction of a second during ignition to make the electrode easier to ignite and to reach the desired penetration earlier.

# Functions

# for ease of operation





#### Corrections during welding

The <u>arc length</u> <u>correction</u> and <u>arc-</u> <u>force dynamic welding</u> parameters can be used to optimize the welding result.

#### Arc length correction

to change the arc characteristic.

Up to	5	Easy Jobs accessible

#### Pulse correction

for correcting the pulse energy of pulsed arcs.

#### Wire threading

#### made easy

The welding wire is fed automatically through the hosepack and welding torch at the touch of a button without having to open the feed rollers. None of the shielding gas escapes.

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#### Easy Jobs view welding parameters quickly and easily

To set up repetitive welding tasks quickly and easily.

#### Gas test function

If it has not been used for a while, the hosepack can be flushed with shielding gas by pressing the gas test button. The protective gas shield will then already be in place when the arc ignites.

#### Control panel lock

Entering a particular button combination locks the TransSteel control panel.

#### Arc-force dynamic

for influencing the short-circuiting dynamic at the instant of droplet transfer.

# Welding Welding

#### Documentation

Welding data documentation is essential, particularly in steel construction. Load-bearing steel structures, mass-produced products or sensitive parts often have to be traceable down to the final welding parameters. The Easy Documentation option enables TransSteel\* to record welding data extremely easily.



#### Easy documentation recording of welding parameters

Easy Documentation records the following welding parameters:

- Power source ID
- Firmware version
- Serial number
- Process (Manual, Standard, Pulse, TIG, MMA)
- Current / voltage / wire speed in the main process phase, and much more...



#### TIG Multi-connector additional functions for multiprocess

The TransSteel is a genuine multiprocess power source, so also offers a connection for TIG welding torches with additional functions – the TIG Multi Connector (TMC). This enables Up/Down welding torches to be used for TIG welding as well.

\* Standard and Up/Down welding torches.

# Sustainable welding

One device - all manual welding applications



Combining MIG/MAG, TIG, and electrode welding in one device enables us to consistently reduce our resource usage by eliminating the need to purchase multiple power sources. Multiprocess power sources save space and weight – and not only during transport. Last but not least, fewer resources are required thanks to the long service life of our devices – as evidenced by the consumption of components and spare parts.





#### USB thumb drive export function

A USB thumb drive can be connected to the rear of the device (the stick is included as part of the scope of supply with the Easy Documentation option). The drive can then be used to export a CSV file containing welding data.



#### <u>FSC</u> <u>Fronius System</u> <u>Connector</u>

The Fronius System Connector (FSC) is the central connector for all media and enables a variety of different welding torches to be connected.

### MultiLock the patented interface

The patented MultiLock interface allows you to configure the MIG/ MAG welding torch<sup>\*</sup> according to the task in hand. The wide choice of torch bodies in terms of their lengths and angles enables even difficult to access parts to be welded without any problem. In case of doubt, the best alternative is a flexible torch body.



#### Efficiency

The TransSteel series has an efficiency level of at least 85% across the range, which means that most of the power taken from the grid is converted without any loss into energy for the arc.

#### Inverter technology

The inverter technology lowers the power consumption while generating the same output power, consequently reducing energy costs.

#### Technical data

	Trans	Steel 2200	OC MV	TransSteel 2700C		TransSteel	. 2700C MV	TransSteel 3000 C Pulse	TransSteel 3500C
Mains voltage -20 / +15%	230 V	120 V	120 V	380 – 460 V	1 x 240 V	1 x 230 V	3 x 200 - 230 / 380 - 460 V	3 x 380 / 400 V. 3 x 460 V	380 – 460 V
Mains fuse protection (slow-blow)	16 A	20 A	15 A	16 A	30 A (US)	16 A (EU)	25 A / 16 A	35 A	35 A
Mains tolerance		-20/+15		-10/+15%		-10/-	+15%	-10/+15%	-10/+15%
Maximum primary power	5.92 kVA	3.26 kVA	2.35 kVA	8.66 kVA	6.75 kVA	5.10 kVA	8.66 kVA	11.8 kVA	12.3 kVA
Welding current range									
MIG/MAG	10 – 210 A	10 – 135 A	10 – 105 A	10 – 270 A	10 – 220 A	10 – 180 A	10 – 270 A	10 - 300 A	10 – 350 A
MMA	10 – 180 A	10 – 110 A	10 - 90 A	10 – 270 A	10 – 180 A	10 – 150 A	10 – 270 A	10 - 300 A	10 – 350 A
TIG	10 – 230 A	10 – 160 A	10 – 135 A	10 – 270 A	10 – 260 A	10 – 220 A	10 – 270 A	10 – 300 A	10 – 350 A
Welding current									
MIG/MAG									
10min/40°C (104°F) 30% ED	210 A	135 A	105 A	270 A	220 A (40%)	180 A (40%)	270 A	300 A (40%)	350 A (40%)
10min/40°C (104°F) 100% ED	150 A	105 A	80 A	170 A	170 A	145 A	170 A (@230V) 185 A (@>380V)	240 A	250 A
MMA									
10min/40°C (104°F) 35% ED	180 A	110 A	90 A	270 A (30%)	180 A (40%)	150 A (40%)	270 A (30%)	300 A (40%)	350 A (40%)
10min/40°C (104°F) 100% ED	130 A	90 A	70 A	170 A	140 A	130 A	170 A	240 A	250 A
TIG									
10min/40°C (104°F) 35% ED	230 A	160 A	135 A	270 A	260 A	220 A	270 A	300 A (40%)	350 A (40%)
10min/40°C (104°F) 100% ED	170 A	130 A	105 A	170 A	180 A	170 A	185 A (@230V) 195 A (@380V)	240 A	250 A
Open circuit voltage		90 V		85 V		85	5 V	59 V	60 V
Output voltage range									
MIG/MAG	:	14.5 – 24.5 \	/	14.5 – 27.5 V	14.5 – 18.8 V	14.5 – 23.0 V	14.5 – 27.5 V	14.5 – 38.5 V	14.5 – 31.5 V
MMA	:	20.4 - 27.2 \	/	20.4 - 30.8 V	20.4 - 27.2 V	20.4 - 26.0 V	20.4 - 30.8 V	20.4 - 32.0 V	20.4 - 34.0 V
TIG	:	10.4 - 19.2 \	/	10.4 - 20.8 V	10.4 - 20.4 V	′ 10.4 – 18.8 V	10.4 - 20.8 V	10.4 - 22.0 V	10.4 - 24.0 V
Degree of protection		IP 23		IP 23		IP	23	IP 23	IP 23
Dimensions l x b x h	560	x 215 x 370	mm /	687 x 276 x 445 mm /		687 x 276	x 445 mm /	747 x 300 x 497 mm /	747 x 300 x 497 mm /
	22	2.1 x 8.5 x 15	in	27.1 x 10.9 x 17.5 in	27.1 x 10.9 x 17.5 in		29.4 x 11.8 x 19.6 in	29.4 x 11.8 x 19.6 in	
Weight	1	5.2 kg (33.5	lb)	30 kg (66.1 lb)		31 kg (	(68.3 lb)	36 kg (79.4 lb)	36 kg (79.4 lb)

# Extend your warranty

#### Register your power source

to extend your warranty https://www.fronius.com/pw/product-registration







## For more information

about TransSteel, visit https://www.fronius.com/transsteel

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M1,02,0024,EN v02 Feb 2022

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