



TransSteel MultiProcess

2200 C / 2700 C / 3000 C Pulse



Challenges in Steel Construction



Operation

- Different welding tasks
 - several operating points
- Every welding task has to be set manually over and over again
- Control panel must be flexible
- Complex control panels make the setting of new and pre-used welding parameters more complicated



System design

- Complicated welding systems result in a higher error quote during the application
- Heavy, bulky devices are difficult to transport
- Complex wire changing processes result in long setup times and also increase the risk of errors



Welding torches

- High power operations and long duty cycles are challenges for many welding torches
- Poorly-made torch connections and low tensile strength rating for the hose packs cause arc variations



Wire feeding

- Excessive abrasion, wire feeding problems and system failure are caused by
 - Poor quality VR rollers
 - Insufficient drive stability
 - Inadequate protection against contamination
- Results in slipping VR rollers and an unstable welding process



System availability

- Robustness and a reliable power source are essential
- Contamination (dust deposits) can lead to short circuits in the system
- Insufficient cooling results in shorter duty cycles and occasionally in complete system failure
- Poor quality parts and substandard quality reduce duty cycles, lead to longer downtimes and increase maintenance and repair costs

TransSteel Variants

TransSteel Compact



TransSteel Split



TransSteel Lineup

TransSteel 4000 / 5000 Pulse

TransSteel 3000c Pulse MP

TransSteel 2700c MP

TransSteel 2200c MP



No Compromises

TransSteel MultiProcess – 3 processes in one power source: MIG/MAG, E-Hand and TIG each with excellent welding properties for

- Steel construction, apparatus and mechanical engineering
- Metalworking industry
- Maintenance, assembly and repair
- Construction industry
- Industrial plant construction and assembly



Compact Variants

TransSteel 2200 C



220A	230A	180A
MIG/MAG @ 30%	TIG @ 35%	Stick @ 35%

Ø 0,6 – 1,2 mm

Steel, Aluminum, CrNi, FCW

Spot & stich welding

15 kg

MultiVoltage variant

TransSteel 2700 C



270A	270A	270A
MIG/MAG @ 30%	TIG @ 30%	Stick @ 35%

Ø 0,8 – 1,2 mm

Steel, Aluminum, CrNi, FCW

Spot & stich welding

30 / 31 (MV) kg

MultiVoltage variant

TransSteel 3000 C Pulse



300A	300A	300A
MIG/MAG @ 40%	TIG @ 40%	Stick @ 40%

Ø 0,8 – 1,6 mm

Steel, Aluminum, CrNi, FCW

Pulse welding

36 kg

SynchroPulse, PCS characteristics

Split Variants

TransSteel 4000



10-400A
MIG/MAG
@ 40% DC

10-400A
Stick
@ 40% DC

Ø 0,8 – 1,6 mm

Steel, Aluminum, CrNi, FCW

Pulse Welding

SynchroPulse, PCS Characteristics

MultiVoltage variant

TransSteel 5000



10-500A
MIG/MAG
@ 40% DC

10-500A
Stick
@ 40% DC

Ø 0,8 – 1,6 mm

Steel, Aluminum, CrNi, FCW

Pulse Welding

SynchroPulse, PCS Characteristics

MultiVoltage variant

TransSteel Highlights

Optimal wire feeding

- 2 or 4 roll VR drive → 1- max. 25m/min
- 1,0mm Aluminum can be welded
- Protected system design



Easy to use

- Save up to 2 or 5 Easy Jobs
- Intuitive operation (ready to use in 3 steps)
- Two-button operation

User friendly

- One device for many welding processes
- Automatic wire threading without opening of the wire-feed unit (Comfort Wire)
- Modular system structure

Robust power sources

- Protected connection and operating area
- Earth current supervision as a standard
- Dust filter as standard
- High reliability

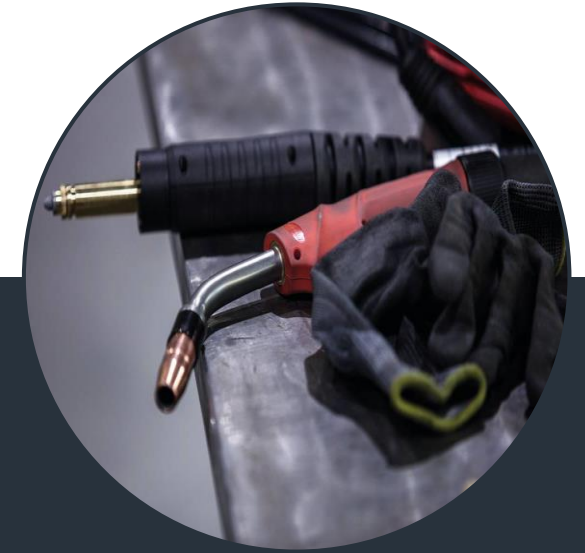
Product Benefits



3 processes x
4 power categories =
countless applications



Ready to weld in 3 steps



Process change possible
within 1 minute

Characteristic Features



Robust and reliable

- Functional design
- Protected connection and operating area



Easy to use

- ComfortWire
- Fronius System Connector (FSC)
- FastSnap (except TSt 2200c)
- Up to 5 Easy Jobs



Outstanding steel welding

- Steel Transfer Technology
- Steel Root | Steel Dynamic | Steel



Easiest operation (Synergic)

Ready to weld in 3 steps



Select wire



Select wire diameter



Select gas mix

Synergic control panel

- Proven two-button operation makes integrated expert knowledge instantly available
- Easy Jobs: Save welding parameters in 1 operating step

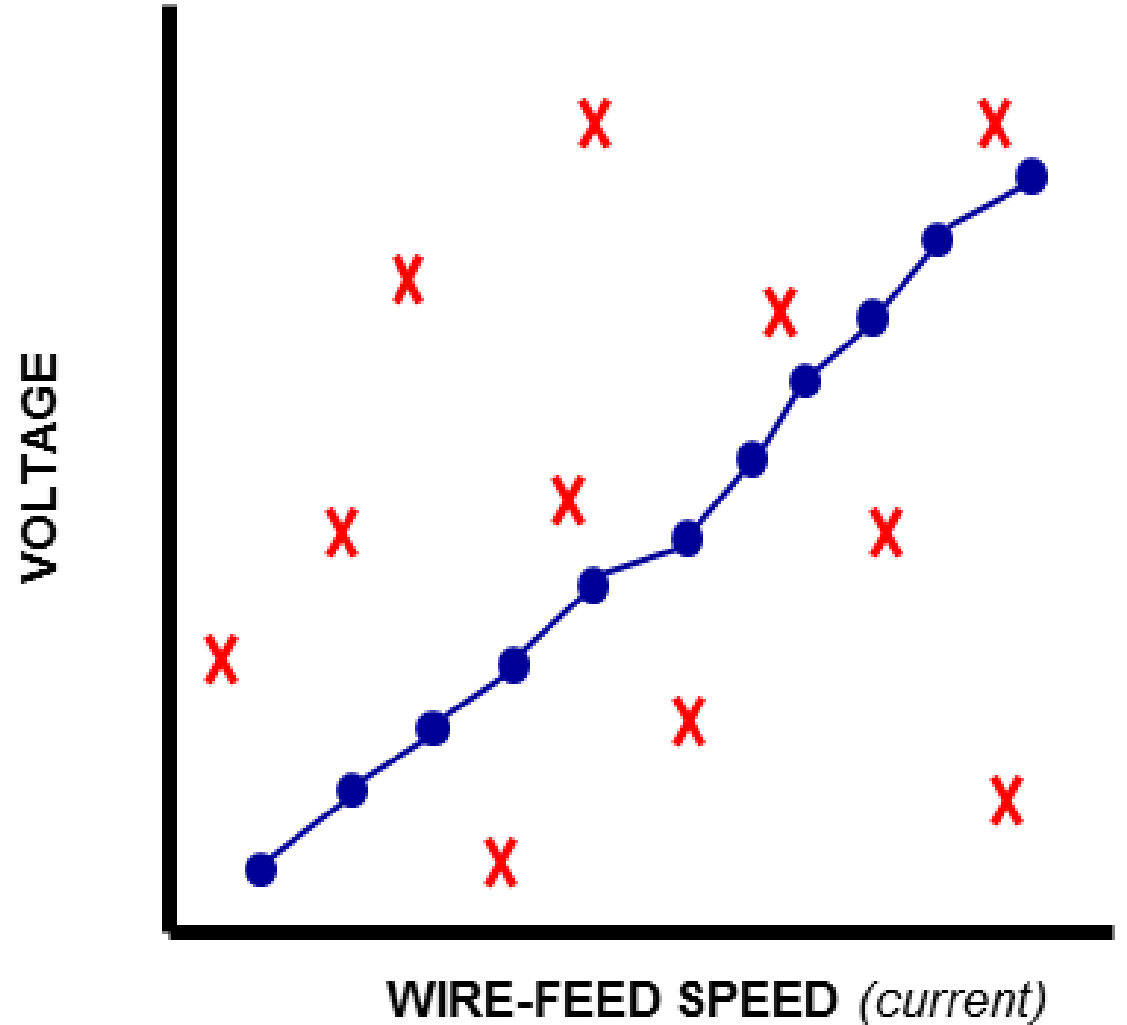
Digital Synergic Welding

- Each synergic line created in a lab
 - Labor-intensive project
 - Requires specialized skill and knowledge (on both system and application side)
- Specialized equipment is used to view the weld electrically and physically.
- Since the lab is a controlled environment, the synergic line needs to be able to be adapted based on real-world use
 - Correction values
 - Resistance calculations
 - Inductance calculations
 - Feedback loop



Synergic Line

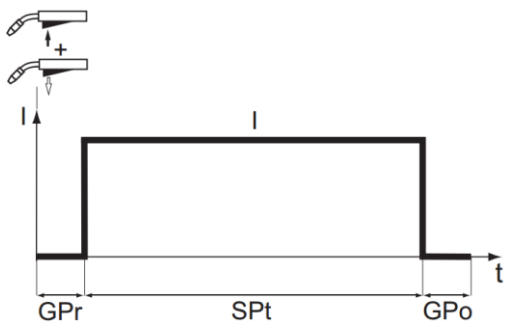
- An arc-characteristic curve that links a number of welding parameters together giving the most 'ideal' values for a specific filler metal, wire diameter, shielding gas, and operating mode
- This line is created through a complex set of measurements taken while welding with the specified settings
- A standard line can be chosen/programmed in a matter of seconds with the simple selection of a few base parameters



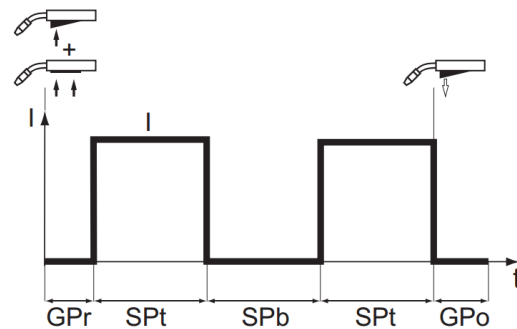
Spot & Stitch Welding

- Less distortion and no burn-through
- Parameters
 - **SPt** – Spot / stitch welding time
 - **SPb** – Stitch breaktime

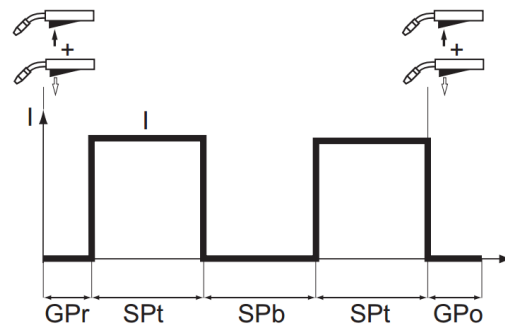
Spot welding



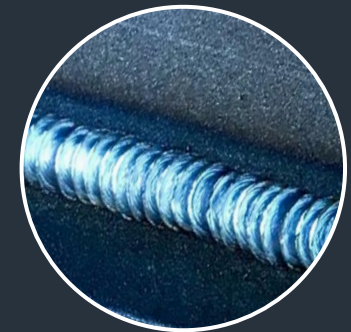
Stitch 2-step mode



Stitch 4-step mode



Reduction of the heat input for thin sheets with stitch welding. Tacking of metal sheets with the help of individual spot welds.



TransSteel 2200 C



Flexible Usage

- Large working areas are possible when welding with long power supply cables
- MultiVoltage variant, available for different mains conditions
- Single-phase mains connection, which can be found in every household and workshop
- Generator operation for locations where no mains connection is available

TransSteel 2200c



TransSteel 2200c



PERFECT SERVICE

- / Guaranteed service availability
- / No costly maintenance
- / Obligatory service training courses

PERFECT WIRE FEEDING

- / TransSteel 2200
- / 2 drive system → 1- max. 18m/min
- / Push Aluminium can be welded up to 1,2mm
- / Protected construction

EASY TO USE

- / Ready to weld in 3 steps
- / Change Process <1min
- / One-button operation

HIGH EFFICIENCY

- / Integrated PFC yields great electrical efficiency
- / 100m (300ft) extension Cables!

WIDE VERSATILITY

- / 100+ Welding Characteristics
- / Perfect synergic lines from Steel to CuSi to Flux



POLARITY REVERSAL

- / Easily switch polarity on the front of the machine

LIGHT WEIGHT

- / High maneuverability
- / Highly portable

ROBUST POWER SOURCES

- / Protected connection and operating area
- / Dust filter as standard
- / High reliability



Easy to Transport



Convenient
carrying handle



Optional carrying strap
(4,101,124)



Only 15 kg

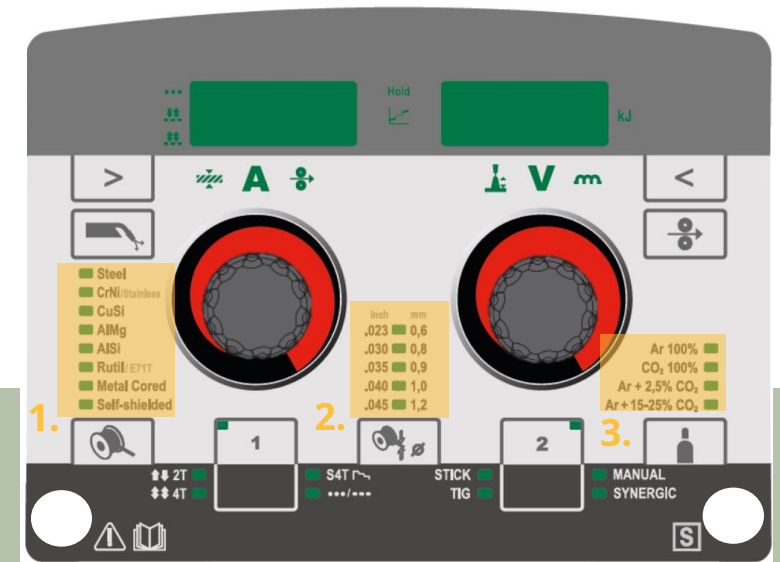


Fits in the Fronius ToolCase 85
(L x B x H: 560 x 215 x 370 mm)

- 42,0510,0272 ToolCase 85 universal
- 40,0006,1447 Insert universal TC85
(Foam)

Easy Parameter Setting

- Ready to weld in 3 steps: Selection of wire, wire diameter and gas leads to a large number of pre-set characteristics!
- Change of parameters is possible directly on the torch (when using an UpDown torch for MIG/MAG or TIG)
- All Standard & UpDown torches with LED from the TransSteel or TPS/i series can be used.



Feeder Rollers

TransSteel 2200 C



mm		inch			
0,6		.025	42,0001,6687		
0,8		.030	42,0001,6688		
0,9		.035	42,0001,6689	42,0001,6691	44,0001,0011
1,0		.040	42,0001,6689		
1,2		.045	42,0001,6690	42,0001,6692	44,0001,0012

42,0408,0006

- Aluminum / Self-shielded / CuSi
- Steel / CrNi / Rutil FCW / Metal Cored

High Operating Comfort

TransSteel 2200 C



Comfortable height of the device with a suitable carriage including a height-adjustable power source platform!

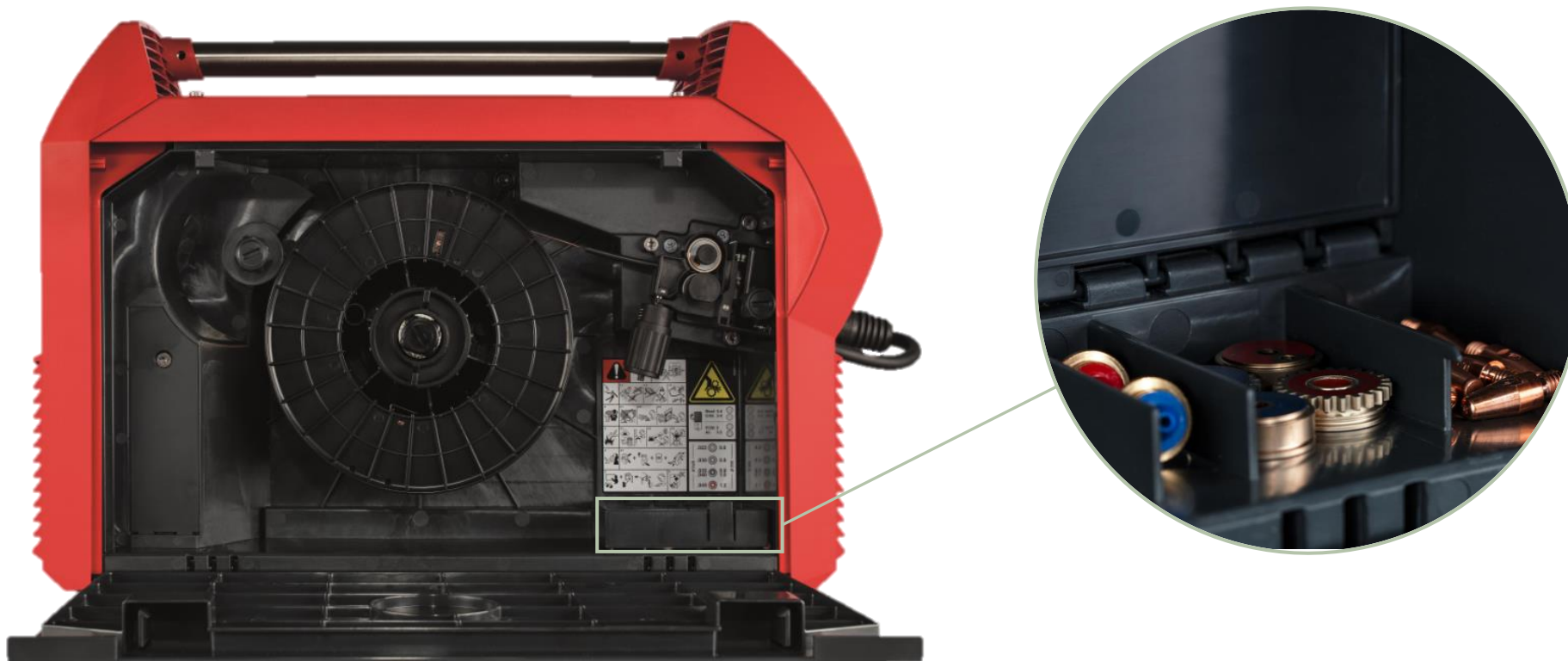


Optional with 4,101,128 OPT/TU Plattform Easy
or 4,101,229 ToolBox 210



Wear Parts Always at Hand

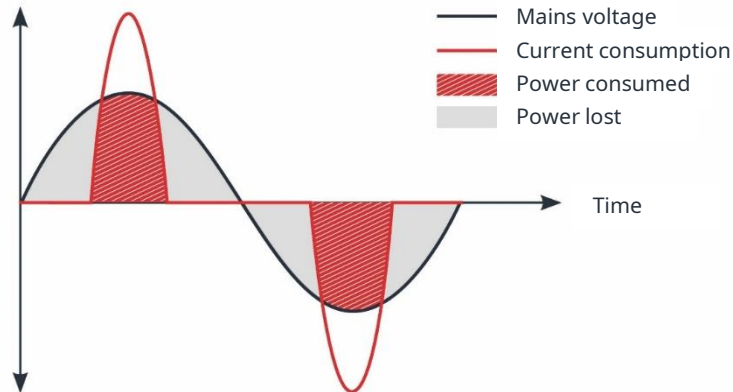
The wear part box integrated in the housing provides a convenient storage option for all required wear parts such as feeder rolls, contact tips, gas nozzles, ... so the right wear parts are always available.



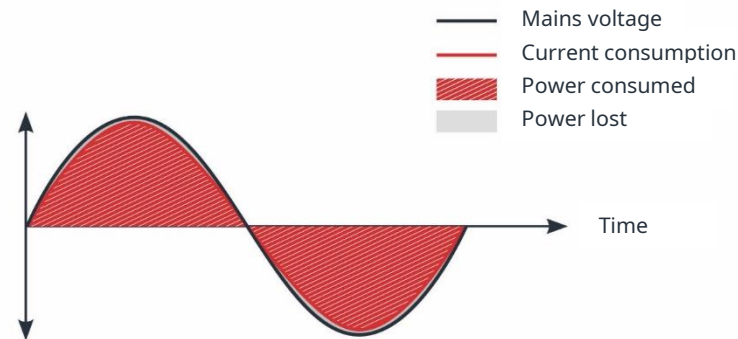
Highest Energy Efficiency

By adapting the current consumption to the mains voltage, losses (reactive effects or reactive power) are reduced and the power factor is improved.

Voltage and current without PFC



Voltage and current with PFC



Efficient use of existing power



Advantages

- Energy saving
- Large working area with up to 100m mains lead without losses
- Improved generator capability
- Higher welding current without tripping of the automatic circuit breaker

Designed To Be Easy

TransSteel 2200 C

Ready for all applications:

- Extended mains voltage range 120-230V -20/+15%
- **Fronius Power Plug**: waterproof, lockable plug-in connector for mains cable- and plug variants
- UL-/CSA certification
- Second solenoid valve for fast and easy process change



The power cord / plug can be changed easily and quickly, depending on the application, by means of a waterproof, lockable plug-in connector on the backside of the power source (Fronius Power Plug).

Fronius POWER Plug

- / The new mains plug is a waterproofed lockable plug connector for a current up to 16 A (USA 20 A).
- / It replaces a rubber connector, where special robust solutions with locking is needed, to ensure a save current supply.

Mains cable- & mains plug versions



machine side

No Plug



Type B- NEMA 5-15



Type B- NEMA 5-20



Type B- NEMA L6-20



- **1-phase mains connection**, which can be found in every household and in every workshop
- Huge action radius when welding with long power supply lines
- **MultiVoltage variant**, available for different network conditions
- **Generator operation** for locations where no mains connection is available



No Interruptions

- The device reacts to the set mains fuse (FUSE-parameter) and reduces the current automatically before a possible trigger of the circuit breaker. So the welder can carry on welding.
- In addition the device is very well suited for welding with generators and has a 400V overvoltage protection.



Almost no triggering of the circuit breaker as well as overvoltage protection for generator operation!



Long Term Investment

TransSteel 2200 C



Impact test



Temperature test



Dust and debris test



Splash water test



IP2x – protected against solid foreign objects with diameter >12,5mm

IPx3 – protection against falling vertical water up to 60°

IPxxS – Static – tested when movable parts are not moving (e.g. fan)

Variants

TransSteel 2200 C



TransSteel 2200 MultiVoltage

Mains plug B

4,075,221,631



Set (MIG/MAG) READY2WELD PACKAGE

TransSteel 2200 MultiVoltage

Mains plug B

49,0410,0069



Set MP (MultiProcess) READY2WELD PACKAGE

TransSteel 2200 MultiVoltage

Mains plug B

49,0410,0070

Technical Highlights



Power consumption

minus 8%* 5,92
kVA @ 200A



Mains tolerance

-20% / +15%
@ max. power
output



Duty cycle

30% (210A) - MIG/MAG
35% (230A) - TIG
35% (180A) - MMA



Weight

Only 15 kg



Open circuit voltage max.

90 V



Multivoltage

120 – 230 V

Technical Data

TransSteel 2200 C

	TransSteel 2200c MV		
Mains voltage -20/+15%	1x 230 V	1x 120 V	1x 120 V
Mains fuse protection (idle)	16 A	20 A	15 A
Maximum primary current	26 A	29 A	20 A
Maximum primary power	5.98 kVA	3.48 kVA	2.4 kVA
Cos phi	0.99		
Efficiency	90 % (at 150A)	87 % (at 100% ED)	
Wire feed speed	1.5 - 18 m/min		
Welding current range			
MIG/MAG	10 - 210 A	10 - 135 A	10 - 105 A
MMA	10 - 180 A	10 - 110 A	10 - 90 A
TIG	10 - 230 A	10 - 160 A	10 - 135 A
MIG/MAG welding current			
10min/40°C (104°F) 30% ED	210 A	135 A	105 A
10min/40°C (104°F) 60% ED	170 A	120 A	95 A
10min/40°C (104°F) 100% ED	150 A	105 A	80 A
MMA welding current			
10min/40°C (104°F) 35% ED	180 A	110 A	90 A
10min/40°C (104°F) 60% ED	150 A	100 A	80 A
10min/40°C (104°F) 100% ED	130 A	90 A	70 A
TIG welding current			
10min/40°C (104°F) 35% ED	230 A	160 A	135 A
10min/40°C (104°F) 60% ED	200 A	150 A	120 A
10min/40°C (104°F) 100% ED	170 A	130 A	105 A
Open-circuit voltage	90 V		
Output voltage range			
MIG/MAG	14.5 - 24.5 V		
MMA	20.4 - 27.2 V		
TIG	10.4 - 19.2 V		
Protection class	IP 23		
Type of cooling	AF		
Dimensions L x W x H	560 x 215 x 370 mm / 22.1 x 8.5 x 15 in		
Weight	15,2kg / 33.5 lb		



TransSteel 2700 C



Advantages

TransSteel 2700 C

Simple

- Viewing window on the side: amount of wire can be checked from outside at any time
- Simple operation - ready to weld in 3 steps
- MultiProcess

Powerful

- Stable welding process – even at the power limit
- No arc extinguishing possible
- 17 % less energy costs in comparison to step-switched systems
- Even greater flexibility with the MultiVoltage variant: single- (up to 200A) and three-phase operation possible

Compact & portable

- Only 30 kg with IP23 protection
- Robust housing design, protected connections



Transsteel 2700 Benefits

- Multi Voltage input.
 - 230V Single
 - 230V 3Phase
- Higher Amperage output (270A)
 - Allows for use of 1/16" Wire.
 - 4 Drive rolls
 - Higher Duty cycle = Better for Production.
- All same features as the smaller 2200
 - Multi process function
 - MIG
 - Stick
 - DC TIG
 - Synergic Welding
 - 2 Solenoid valves for TIG/MIG.



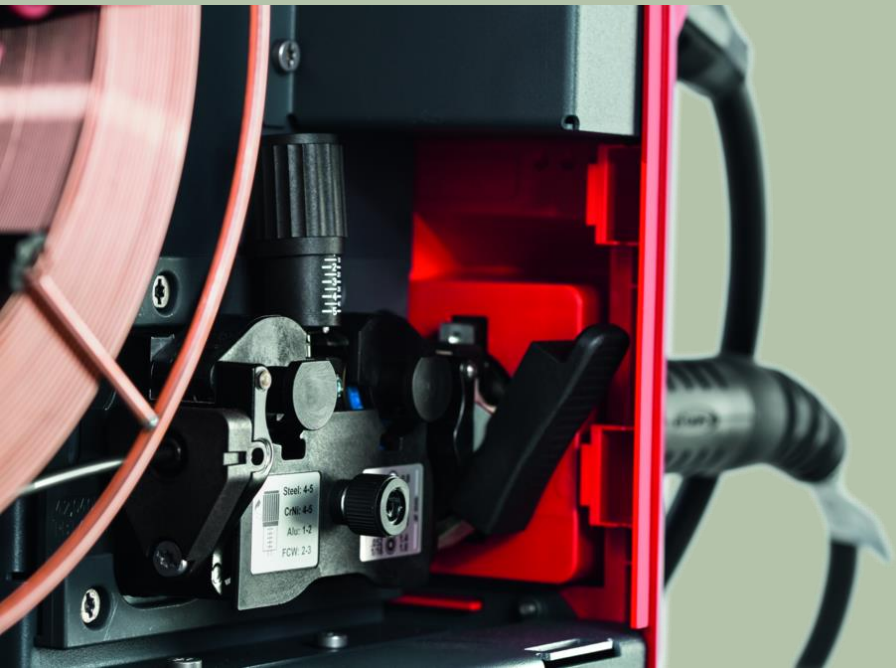
Precise Wire Feeding

Compact motor plate guarantees

- Less abrasion and attrition
- Stable welding process
- Precision due to cast aluminum
- 1,0 & 1,2 mm Aluminum wire can be welded

Features

- 4-roller drive*
- Universal roller geometry optimized for hard and soft wires
- Hose pack holder directly on the motor plate
- Universal wire feed rollers for TransSteel and TPS/i



* applies to TSt 2700c, 3000 C Pulse and 3500 C

Variants

TransSteel 2700 C

TransSteel 2700c MultiVoltage

MultiVoltage nc 4,075,224,800 (UL-/CSA)



Set (MIG/MAG) READY2WELD PACKAGE

TransSteel 2700c MultiVoltage

MultiVoltage nc 49,0410,0071 (UL-/CSA)

Set MP (MultiProcess) READY2WELD PACKAGE

TransSteel 2700c MultiVoltage

MultiVoltage nc 49,0410,0072 (UL-/CSA)

Technical Highlights



Power consumption

minus 17%
7,3kWh @ 250A



Mains tolerance

- 10% / +15% @
max. power
output



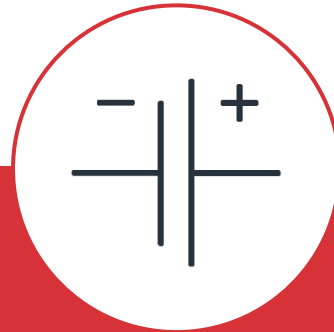
Duty cycle

30% (270A) – MIG/MAG
30% (270A) – TIG
30% (270A) – MMA



Efficiency

88% (170A)



Open circuit voltage max.

85 V



Protection class

IP 23

Technical Data

TransSteel 2700 C

	TransSteel 2700c MV		
Mains voltage -10 / +15%	1 x 240 V	1 x 230 V	3 x 200-230 / 380 - 460 V
Mains fuse protection (idle)	30 A (US)	16 A (EU)	25 A / 16 A
Maximum Primary Current	6.75 kVA	5.10 kVA	8.66 kVA
Wire speed			
Welding current range			
MIG/MAG	10 - 220 A	10 - 180 A	10 - 270 A
MMA	10 - 180 A	10 - 150 A	10 - 270 A
TIG	10 - 260 A	10 - 220 A	10 - 270 A
Welding current			
MIG/MAG			
10min/40°C (104°F) 30% ED	220 A (40%)	180 A (40%)	270 A
10min/40°C (104°F) 100% ED	170 A	145 A	170A (@230V) / 185 A (@380V)
MMA			
10min/40°C (104°F) 35% ED	180 A (40%)	150 A (40%)	270 A (30%)
10min/40°C (104°F) 100% ED	140 A	130 A	170 A
TIG			
10min/40°C (104°F) 35% ED	260 A	220 A	270 A
10min/40°C (104°F) 100% ED	180 A	170 A	185 A (@230V) / 195 A (@380V)
Open circuit voltage			
Output voltage range			
MIG/MAG	14.5 - 18.8 V	14.5 - 25.0 V	14.5 - 27.5 V
MMA	20.4 - 27.2 V	20.4 - 27.2 V	20.4 - 30.8 V
TIG	10.4 - 20.4 V	10.4 - 20.8 V	10.4 - 20.8 V
Schutzart	IP 23		
Dimensions l x b x h	687 x 276 x 445 mm / 27.1 x 10.9 x 17.5 in		
Weight	31.8 kg / 70.11 lb		



TSt Compact Application Areas

– **TransSteel 2200 – 2700c, TransSteel Pulse 3000 (steel sheet 4 – 5 mm)**

- **Universally applicable**
- **Car Repair workshops** (welding and brazing)
 - (especially spot & interval welding)
- **Metalworking shops** (GMAW, SMAW)
- **Architecture and facade construction** (GMAW SS/Al)
- **Repair & Maintenance** (universal TIG, GMAW, SMAW)
- **Outdoor repair** (SMAW, self-shield wire)
- **Construction** (universal TIG, GMAW, SMAW)
- **Boat Building** (GMAW Interval for out of position welding)
- **Shipbuilding** (GMAW Tack welding)
- **Home & Hobby** (highly flexible)



Application Areas



TRANSSTEEL 2200

Small size, light weight, and lower power rating makes it ideal for highly maneuverable applications

- / Construction
- / Maintenance Divisions
- / Garage Welders
- / Farm Repairs
- / Ship building/Repairing (push aluminum)

TRANSSTEEL 2700

Higher output and duty cycle rating yet still maneuverable form makes it great for more production and heavier duty oriented applications

- / Job Shops
- / Construction
- / Sheet metal shops
- / Custom fabrication

Ready 2 Weld Packages

TransSteel 2200c MIG Only

49,0410,0022

- / TransSteel 2200
- / MTG 2100S
- / Ground Cable 25mm
- / 0.035" Drive Rolls
- / 0.045" Drive rolls
- / 0.035" Steel Basic Kit (Liner, Clamping piece, Tips)
- / 0.045" Aluminum Liner
- / 0.045" Aluminum Contact Tips
- / Gas Adapter
- / Main connections

TransSteel 2200c Multi Process

49,0410,0033

- / TransSteel 2200
- / MTG 2100S
- / TTG2200 (TIG Torch)
- / Electrode Holder (Stinger)
- / Ground Cable 25mm
- / 0.035" Drive Rolls
- / 0.035" Basic Kit (Liner, Clamping piece, Contact tip)
- / 0.045" Aluminum Contact Tip
- / 0.045" Aluminum Liner
- / Gas Adapter
- / Mains connections



Ready 2 Weld Packages

TransSteel 2700c MIG Only

49,0410,0022

- / TransSteel 2700
- / MTG 2500S
- / Ground Cable 35mm
- / 0.035" Drive Rolls
- / 0.035" Steel Basic Kit (Liner, Clamping piece, Tips)
- / 0.035" Tips 10 pack
- / Gas Adapter

TransSteel 2700c Multi Process

49,0410,0033

- / TransSteel 2700
- / MTG 2500S
- / THP 220i
- / TTB 220P
- / Electrode Holder (Stinger)
- / Ground Cable 35mm
- / 0.035" Drive Rolls
- / 0.035" steel Basic Kit (Liner, Clamping piece, Tips)
- / 0.035" Tips 10 pack
- / Gas Adapter



TransSteel 3000 C Pulse



STEEL TRANSFER
TECHNOLOGY



PULSE
TECHNOLOGY



Pulse Arc Transfer



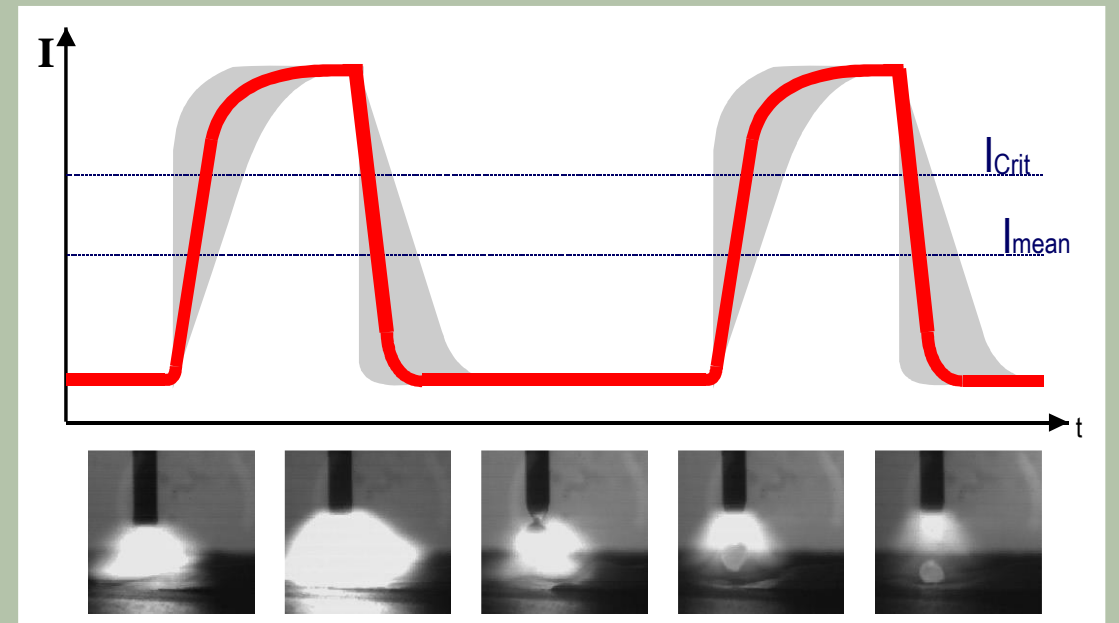
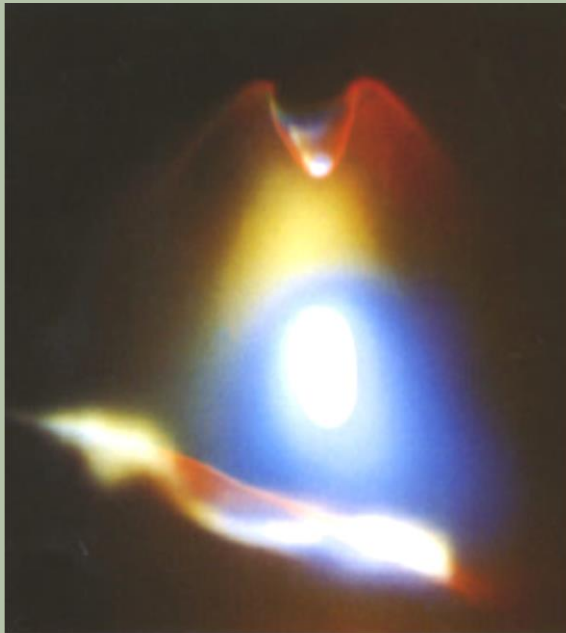
- This is a GMAW process variation in which the welding current is pulsed resulting in a lower heat input for a given set of welding parameters when compared to conventional CV-GMAW.
- Modified spray arc transfer process in which alternates from high peak current/voltage to low back ground current/voltage
- 1 pulse of current results in 1 droplet of metal transfer. Typically between 100-400Hz (pulses per second)
- Background (base) current helps to maintain the arc and keep the heat input low

/ Perfect Welding / Solar Energy / Perfect Charging



MIG Pulsed Arc

- / Reduced spatter levels
- / Generates lower fume levels
- / Provides a more controlled heat input; less distortion
- / Improved quality for material sensitive to heat input
- / Lower loss of alloys in the base metals and from the wire



Pulse, where do we use it?

- To eliminate the globular arc range where increased spatter levels occur.
 - Less rework from grinding and chipping
- Less fume generation
 - Lower heat input compared to spray arc will reduce the generation of fumes in the welding process.
- When changing between different parameters often
 - Always in the same arc range and not chance of transferring from min to max power.
- Aluminum
 - Short circuit process is not always suitable and often requires increasing parameter into spray transfer which is less controllable on thinner sheets.
 - Higher welding speeds, lower heat inputs lead to less chance of burn through and lower spatter levels

Where do we not use Pulse?

- Ultra light gauge material
 - Lower power range of short circuit transfer.
 - Pulse welding has lower heat inputs but the high peak currents can result in burning through the material.

- High power range
 - The pinch effect of spray transfer generates a smooth material transfer.
 - Pulse welding would disrupt the flow and slow the welding speed.

<https://blog.perfectwelding.fronius.com/en/mig-mag-pulse-welding/>
<https://blog.perfectwelding.fronius.com/en/pulsing-steel-welding/>

Application areas

- / Steel
- / Stainless Steel
- / Aluminum
- / Flux cored wire
- / Metal Core

Standard welding characteristics										
Material	Gas	Configuration		Diameter						SP
				0,8 mm .030"	0,9 mm .035"	1,0 mm .040"	1,2 mm .045"	1,4 mm .052"	1,6 mm 1/16"	
Steel/ER70-120	CO ₂ 100%	1	A	S2290	S2300	S2310	S2322			
Steel/ER70-120	Ar + 2-12% CO ₂	1	B	S2418 P4000	S2370 P4001	S2308 P3977	S2377 P3979			
Steel/ER70-120	Ar + 13-25% CO ₂	1	C	S2419 P4006	S2369 P3990	S2309 P3958	S2376 P3987			
Steel/ER70-120	Ar + 2-8% O ₂	1	D	S2285	S2297	S2307				
CrNi/Stainless	Ar + 2-12% CO ₂	2	B	S2427 P3969	S2402 P3970	S2426 P3968	S2405 P3966			
CuSi/ER-CuSi-A	Ar 100%	3	E	S2496 P3973	S2495 P3974	S2493 P3976	S2497 P3975			
AlMg/ER 5xxx	Ar 100%	4	E		P3955	P3956	S3639 P3954	S3643 P3953		
AlSi/ER 4xxx	Ar 100%	5	E				S3640 P3961	S3092 P3960		
Metall Cored	Ar + 2-12% CO ₂	6	B		S2420		S2385 P3980			
Metall Cored	Ar + 13-25% CO ₂	6	C				S2386 P3983			
Self-shielded	(no Gas)	7			S2350		S2349			

Additional welding characteristics										
Material	Gas	Configuration		Diameter						SP
				0,8 mm .030"	0,9 mm .035"	1,0 mm .040"	1,2 mm .045"	1,4 mm .052"	1,6 mm 1/16"	
CrNi/Stainless FCW	Ar + 15-25% CO ₂	8	SP	A		S2423 P4014	S2441	S2442	S2424 P4013	
CrNi/Stainless root	Ar + 2,5% CO ₂	8	SP	B		S2440	S2441	S2442	S2443	
Rutil FCW/E71T FCW	CO ₂ 100%	8	SP	C		S2471			S2472	
Rutil FCW/E71T FCW	Ar + 15-25% CO ₂	8	SP	D		S2470			S2456 P4007	
Basic FCW/E70T FCW	CO ₂ 100%	8	SP	E					S2474	S2476
Basic FCW/E70T FCW	Ar + 15-25% CO ₂	8	SP	F					S2473 P4011	
Steel dyn/ER70-120	Ar + 8-10% CO ₂	1	SP	F	S2374	S2367	S2312	S2380		
Steel dyn/ER70-120	Ar + 15-25% CO ₂	2	SP	F	S2375	S2366	S2313	S2379		
Steel dyn/ER70-120	Ar + 4% O ₂	3	SP	F	S2291	S2301	S2311	S2325		
Steel/root	CO ₂ 100%	4	SP	F	S2502	S2501	S2499	S2500		
Steel/root PCS	Ar + 8-10% CO ₂	5	SP	F	S2295	S2364 P3997	S2315 P3978	S2383 P3986		
Steel/root PCS	Ar + 15-25% CO ₂	6	SP	F	S3962	S2363 P3993	S2316 P3967	S2382 P3989		
Steel/root	Ar + 4% O ₂	8	SP	F	S4017	S2304	S2314			S2328 (1)
CrNi/Stainless	Ar + 90He + 2,5% CO ₂	2		A						S2404 (2)
CrNi/Stainless	Ar + 90He + 2,5% CO ₂	2		B						S2407 (1)
CrNi/Stainless	Ar + 33He + 1% CO ₂	2		C						S2403 (2)
CrNi/Stainless	Ar + 33He + 1% CO ₂	2		D						S2406 (1)
MAP409Ti FCW	Ar + 2% O ₂	2		E						S2464 (1)

– In TransSteel Pulse – We have welding programs for all common materials

Pulse Characteristics

TransSteel 3000 C Pulse

Pulse characteristics were created for the following materials:

- Steel
- CrNi
- FCW (Metal Cored)
- CuSi
- AlMg5
- AlSi 5
- **Including - PCS characteristics for steel 0,8 / 1,0 / 1,2 / 1,6 mm**



In total 57
new pulse characteristics

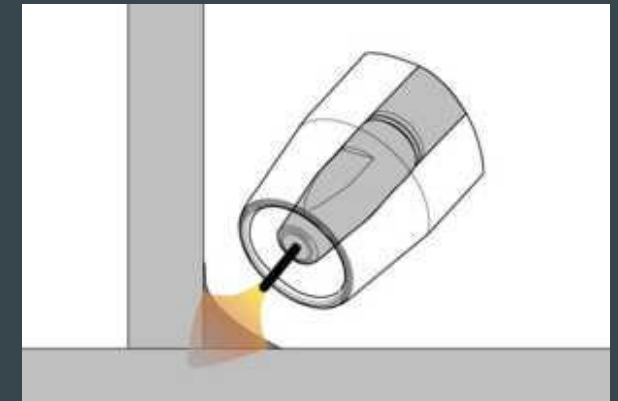
Pulse Controlled Spray Arc

PCS = focused arc

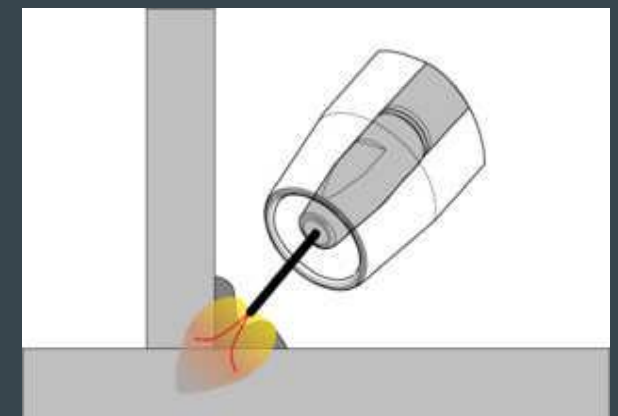
- Low process voltage enables narrow arc focus
- Arc pressure is specifically applied into the component → results in deep, narrow penetration
- High arc pressure → arc does not light up, but presses on the weld pool

Advantages for the user

- Reduced light and heat radiation → arc pushes on the weld pool
- Despite relatively low welding parameters, reliable detection of the root edge
- Lower energy input due to reduced voltage



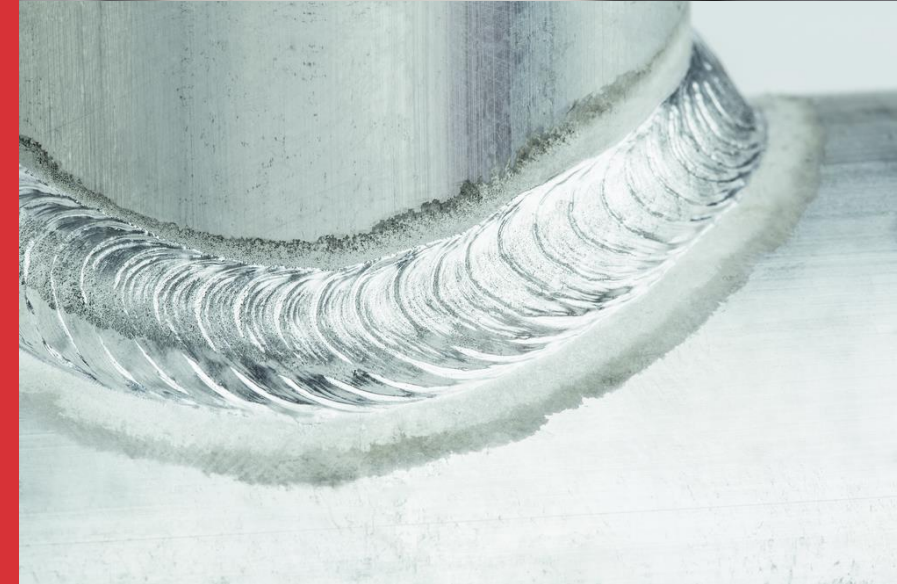
Conventional electric arc – burning above the weld pool



PCS – arc pushes the weld pool

SynchroPulse

- The SynchroPulse function is recommended for welded joints, which should have a scaled appearance
- This effect is achieved by a welding power that alternates between two working points
- Frequency up to 5 Hz
- Performance comparable with TPS



Info – only in connection with
TransSteel 3000 C / 4000 / 5000 Pulse

Advantages



Outstanding steel welding in one compact device

- Steel Transfer Technology
- MultiProcess functionality (MIG/MAG, TIG, MMA)
- Pulse synergic mode
- New user interface
- SynchroPulse up to 5 Hz
- PCS (Pulse Controlled Spray arc) characteristics for steel
- Easy Documentation optional

Easy to use

- ComfortWire
- Fronius System Connector
- 5 EasyJobs

Compact design

- Wire feeding unit is integrated in the power source
- Space-saving for non-mobile operation
- Up to 15% energy saved compared to step-switched systems

Variants

TransSteel 3000 C Pulse



TransSteel 3000c Pulse MultiVoltage

4,075,227,800



Set (MIG/MAG) READY2WELD PACKAGE

TransSteel 3000c Pulse MultiVoltage

49,0410,0074



Set MP (MultiProcess) READY2WELD PACKAGE

TransSteel 3000c Pulse MultiVoltage

49,0410,0075

Technical Highlights



Power consumption

minus 15%
9,6kWh @ 300A



Mains tolerance

- 10% / +15% @
max. power
output



Duty cycle

40% (300A) – MIG/MAG
40% (300A) – TIG
40% (300A) – MMA



Efficiency

89% (250A)



Open circuit voltage max.

60 V



Protection class

IP 23

Technical Data

	TransSteel 3000c Pulse
Mains voltage -10 / +15%	3x 380 - 460 V - 575 V
Mains fuse protection (idle)	35 A
Maximum primary current	11.8 kVA
Wire speed	1 - 25 m/min
Welding current range	
MIG/MAG	10 - 300 A
MMA	10 - 300 A
TIG	10 - 300 A
Welding current	
MIG/MAG	
10min/40°C (104°F) 40% DC	300 A
10min/40°C (104°F) 100% DC	240 A
MMA	
10min/40°C (104°F) 40% DC	300 A
10min/40°C (104°F) 100% DC	240 A
TIG	
10min/40°C (104°F) 40% DC	300 A
10min/40°C (104°F) 100% DC	240 A
Open circuit voltage	59 V
Output voltage range	
MIG/MAG	14,5 - 29 V
TIG	10.4 - 22.0 V
MMA	20.4 - 32.0 V
Protection class	IP 23
Dimensions l x b x h	747 x 300 x 497 mm / 29.4 x 11.8 x 19.6 in
Weight	36 kg / 79.4 lb





TPS/i

Manual Welding Torches
Also for TransSteel

FSC Fronius System Connector

MTG and MTW welding torches are equipped with the FSC connector as a standard



Process security due to defined current transfer

No external control connectors – all control signals are integrated in the central connection

One central connector for all applications

Tool-free, simple and quick change of the welding torch without operating errors

Manual Welding Torches

MIG Torch Gas



| MTG 250i



| MTG 320i



| MTG 400i



| MTG 550i

MIG Torch Water



| MTW 250i



| MTW 400i



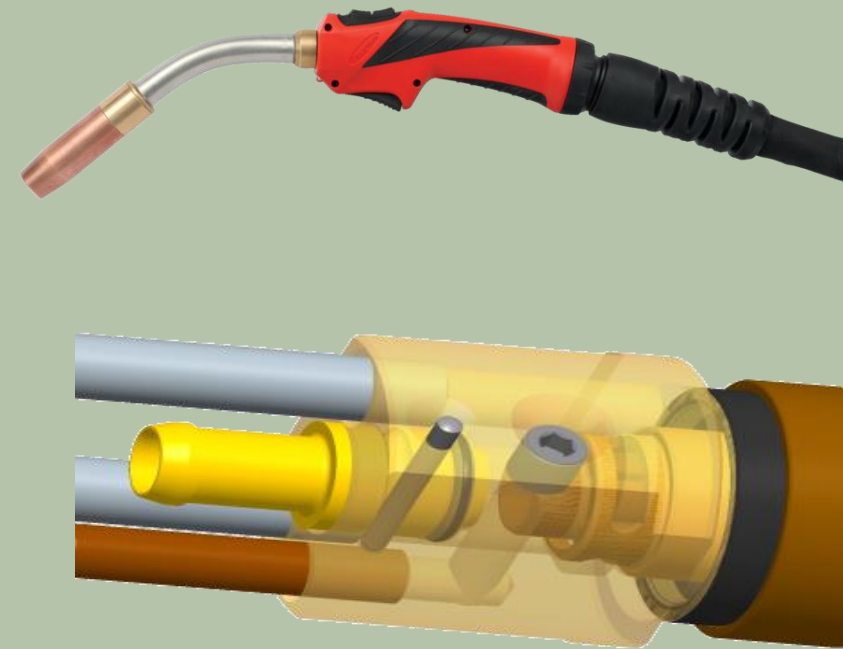
| MTW 500i



| MTW 700i

Characteristics I

- Stainless steel outer tube for maximum stability
- Effortless working due to soft, slip-free components on the handle
- Swivel mounted wire feed hose
- Flexible, rotatable rubber anti-bend protection for better handling
- Insulation of torch body below the outer tube (no external insulation necessary)



Characteristics II

- Illumination with LED
- Illumination of the weld position before and after welding
- Control via two-stage gun trigger (BT2)
- UpDown welding torches are equipped with LED as a standard, as well as MTG 400i, MTW320i and MTW500i standard versions



Torch body length and angle are optimally aligned for every type of welding torch (balanced)



Steel-, Universal- and CrNi- inner liners without isolation

- Clamping nipple can be mounted independently
- This allows the use of per meter goods



Options



Torch trigger
mounted above



Button
extension



Rotatable heat
protection shield

for shielding radiation heat
and spatters



Pistol handle



FumeEx
extractor set

MTG US-Style Torch „Ergo Handle“

Aluminum outer tube for best heat dissipation

Torch body rotatable in 60° steps

Rubber inserts help to prevent the torch from slipping in the hand



Simple wearing part system with only 3 wearing parts

Mechanical gun trigger

Comfortable handling due to the Ergo handle design with a ball joint

Simple wearing part system with only 3 wearing parts

- Gas nozzle insulated – temperature stays in gas nozzle and does not go into the handle
- Heavy duty gas nozzle as an option
- Nozzle stock made of brass with black coating for long life of the threads
- TPS/i contact tip



Torch body rotatable in 60° steps



Fronius System Connector (FSC)

- MTG US-Style torches are equipped with the FSC connection
- Tool-free, simple and quick welding torch change without miss operation
- Process security because of defined current transfer
- No external control connectors - all control signals are integrated in the central connection
- One central connector for all applications (Manual-, Machines- and Robot systems – PAP and conventional)



Technical Data

Ergo Handle | 45° and 60° torch body angle

- **MTG 320i** US-Style – **320A 40% DC** | 260A 60% DC | 210A 100% DC – MIXED / CO2
- **MTG 400i** US-Style – **400A 40% DC** | 320A 60% DC | 260A 100% DC – MIXED / CO2
- **MTG 500i** US-Style – **500A 30% DC** | 400A 60% DC | 300A 100% DC – MIXED / CO2



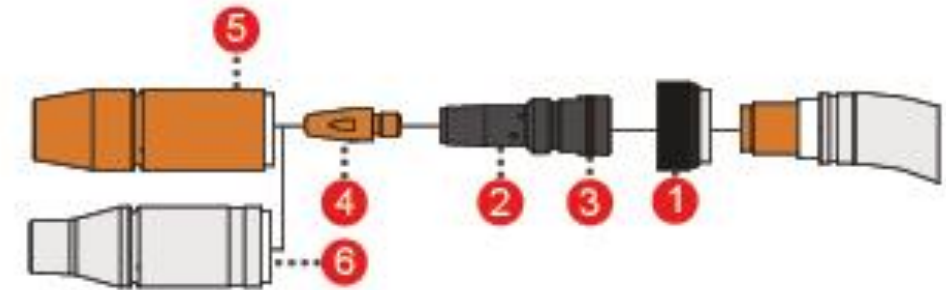
Welding torch lengths:
2,45m | 4,5m | 6,0m | 7,5m

Wear parts MTG 320i / MTG 400i

- 1) 44,0350,4371 Insulating end ring $\varnothing 16 / \varnothing 27 \times 16$
- 2) 42,0001,6639,5 Nozzle stock M8x1,5 / 52,9 (Brass) *)
42,1000,0036,5 Nozzle stock M8x1,5 / 52,9 HD (Copper)
- 3) 42,0402,0334 O-ring MVQ70 15x2mm
- 4) Contact tip M8x1,5
- 5) 44,0350,2028,5 Gas nozzle $\varnothing 15 / \varnothing 25 \times 75$ M18x3 *)
44,0350,2030,5 Gas nozzle $\varnothing 15 / \varnothing 27 \times 75$ Heavy duty M18x3
44,0350,0059,5 Gas nozzle $\varnothing 15 / \varnothing 25 \times 68$ M18x3
- 6) 44,0350,2108,5 Gas nozzle narrow gap $\varnothing 13 / \varnothing 25 \times 75$ M18x3
44,0350,0068,5 Gas nozzle narrow gap $\varnothing 13 / \varnothing 25 \times 68$ M18x3

*) Standard equipment

The wear parts from the MTG 500i can also be used for the MTG 320i/400i. The mounting thread on the torch body is the same.



Options, Accessories and Services



Option | Key Lock Switch

Opportunity to lock control panel with key lock switch

– except TSt 2200c / 2700c



- 4,101,301,IK OPT key lock TSt 3500 C
- 4,101,300,IK OPT key lock TSt 3000 C
- 4,101,058,IK OPT key lock TSt 3500/5000 Syn
- 4,101,302,IK OPT key lock TSt 4000/5000 Pulse

Option | Easy Documentation

- Welding data documentation is particularly essential in steel construction. Load-bearing steel structures, products from series production or sensitive components must often be traced to the last welding parameter.
- With the option Easy Documentation, TransSteel* now offers the possibility to document welding data in the simplest way possible.

USB Stick - Export feature

1. A USB stick can be connected at the back of the device (included in the option Easy Documentation).
2. A csv. file with welding data can be exported using the connected USB stick.



* except TSt 2200c and TSt 2700c

Option | Easy Documentation

The following parameters are documented:

- Power source ID
- Firmware number
- Serial number
- Process (Manual, Standard, Pulse, TIG, MMA)
- Current / voltage / wire feed in the main process phase
- Power from current values „IP“ (instantaneous power) - Energy / Time (in the main process phase)
- Power from current values „IE“ (instantaneous energy) for the whole weld
- Motor current (in the main process phase)
- Time stamp hh:mm:ss at the time of start current flow
- Counter
- Welding time
- Error Nr. at termination of welding
- Wire feed speed metric and imperial
- Number of characteristic
- EasyJob Nr.
- Operating mode (2T, S2T, 4T, S4T, spot welding, stich welding, SynchroPulse)
- Signature per weld seam number
- Template for .csv file



Can be retrofitted with all TransSteel* units produced from July 2020 onwards

TSt MultiProzess serial number 31244027
TSt Synergic serial number 31440389

Option TSt Synergic

- 4,101,292,IK OPT Easy Documentation
- 4,101,292,CK OPT Easy Documentation

Option TSt MultiProzess*

- 4,101,291,IK OPT Easy Documentation C
- 4,101,291,CK OPT Easy Documentation C

* Except TSt 2200c and TSt 2700c

Periphery



**TU Car 4 &
TU Car 2 Easy
Trolley**

Suitable for TransSteel
MultiProcess devices (optional
with platform or ToolBox)



**Toolbox 210/260/300
Practical toolbox**

Available in different sizes for each
power source type



**Tool Case
Transport box**

For welding equipment (TSt 2200
in ToolCase 120) and/or
accessories.



**FK 5000
Cooling unit**

With coolant filter and coolant FCL
10 as a standard - optional with
flow- and thermal sensor.
Optional for TSt 3000 C PULSE and
TSt 3500 C.

Recommended Accessories



Chipping hammer
44,0450,0064



Wire brush
42,0410,0019



Welding workplace equipment
4,001,040



MultiMagnet 360° Switch
42,0510,0055



Fazor 1000 Plus
42,0510,0110



MTG 2100 /FSC/3m/45°
4,035,990



THP /d & small handle
Torches

Calibration Certificate & Label

- The calibration certificate and label are delivered as standard with every TransSteel welding machine.
- Advantages
 - Compliance with standardized quality requirements
 - Reproducibility
 - Transferability
 - Calibration according to EN 60974 - 14



Online Product Registration



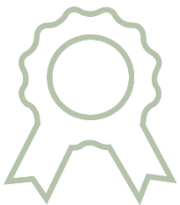
Which products?

- TransPocket 150/180
- TransSteel series
- AccuPocket 150
- TransTig 170/210
- iWave 190i/230i



For whom?

Fronius end customer



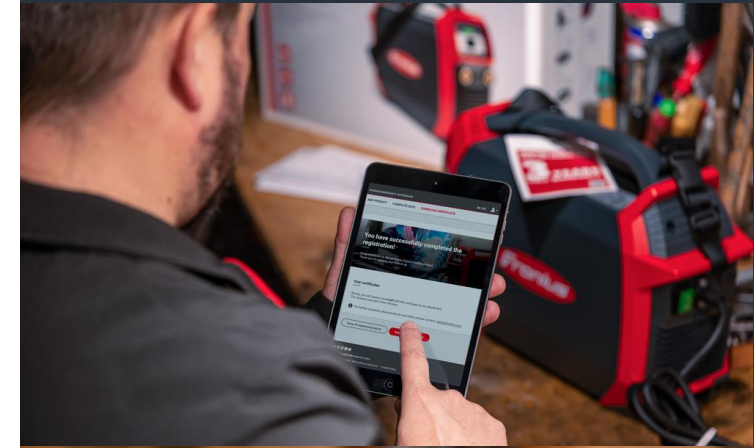
Why?

Free extension of the warranty period to a total of 3 years!



How does it work?

Create an online account and register your serial number



Fronius Warranty

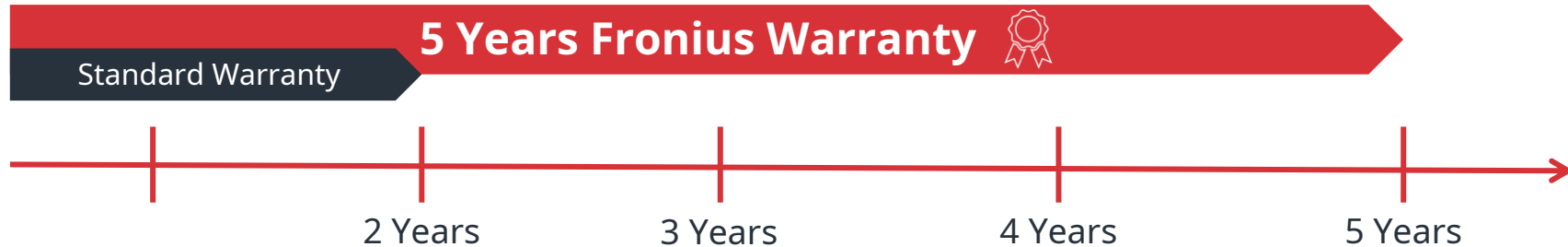
- 5 Years Fronius warranty for your welder
- Onetime payment during the purchase or within the first year



TransSteel 2200 c 41,200,614

TransSteel 2700 c 41,200,615

TransSteel 3000 c Pulse 41,200,616





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