/ Perfect Welding / Solar Energy / Perfect Charging

Fronius

SHIFTING THE LIMITS

PRODUCT CATALOGUE 2016 / 2017

/ Perfect Welding

Index of contents

MIG/MAG

A clear-cut goal: maximum economy combined with a perfect weld-seam. Invented in the late 1940s, today it's impossible to imagine how we did without it: MIG/MAG – the weld-process classic, and the world's most commonly used process; customised arc processes; can be used for materials ranging from unalloyed, low-alloy and high-alloy all the way through to aluminium and copper.

VarioStar 1500 / 2500 / 3100

Processes
MIG/MAG welding

Recommended base materials
Constructional steels
Ferritic / austenitic CrNi steels
Duplex steels
Aluminium materials

Recommended areas of use
Maintenance and repair
Metal and portal construction, fitter‘s shops and smithies

Options
Gas pre-heating socket 36V / 230V
Rubber-mat
Polarity reversal
Holding device for gas bottels, wide
Plastic handle for VST
Current rush limiter
Thermostat-controlled fan
Isolation wire coil, adapter wire coil

Standard equipment
2-roller drive
Wire inching without gas or current
S-mark, CE-mark
Overtemperature protection
2-step mode, 4-step mode
Intermittent welding
Manual mode
Spot welding
Wire coil mounting D 200, D 300
Large dimensioned wheels

	VarioStar 1500 G/F/2R	VarioStar 2500 G/F/2R	VarioStar 3100 G/F/2R
Weight	60,5kg	74kg	92kg
Dimension / h	680mm	680mm	680mm
Dimension / b	380mm	380mm	380mm
Dimension / l	800mm	800mm	800mm
Open-circuit voltage	34V	38V	45V
max. welding current	140A	250A	310A
Welding current min.	30A	25A	20A
Operating voltage	15,5-21V	15,3-26,5V	15-29,5V
Protection class	IP21	IP21	IP21
Mains Frequency	50-60Hz	50-60Hz	50-60Hz
Mains voltage [+/-10%]	230V	3 x 230V / 3 x 400V	3 x 230V / 3 x 400V
Welding current / Duty cycle [10min/40C]	55A / 100%	130A / 100%	140A / 100%
Welding current / Duty cycle [10min/40C]	70A / 60%	160A / 60%	190A / 60%
Welding current / Duty cycle [10min/40C]	140A / 18%	250A / 27%	310A / 30%

VarioSynergic 3400 / 3400-2 / 4000 / 4000-2 / 5000 / 5000-2

Processes
MIG/MAG-welding

Recommended base materials
Constructional steels
Ferritic / austenitic CrNi steels
Duplex steels
Aluminium materials

Recommended areas of use
Construction of plant, containers, machinery, structural steel
Automobile and alied vendor industries
Construction of special machinery and construction machinery
Construction of rail vehicles and rolling stock
Shipbuilding / Offshore

Options
Gas pre-heating socket 230V / 36V
Rubber mat
Crane hoisting lugs
PullMig mode
Hosepack holder
Current regulation+stop+revolutions control (automatic mode)
Intermediate wire feeder
Double head
Rotary table or VR mounting
Human mounting
Polarity reversal
Calibration document

Standard equipment
4-roller drive
Automatic cooling unit cut-out
Softstart
Wire-inching without gas or current
Automatic burn-back control
Gas-test button
Generator compatible
Programm mode
Synergic mode
S-mark, CE-mark
Thermostat-controlled fan
Overtemperature protection
2-step mode, 4-step mode
Intermittent welding
Manual mode
Spot welding
Wire coil adaptor
Volt- / Amperemeter
Large dimensioned wheels
Wire coil mounting D200, D300

	VarioSynergic 3400 G/W/F++	VarioSynergic 4000 G/W/F++	VarioSynergic 5000 G/W/F++
Weight	139kg	147,5kg	156kg
Dimension / h	945mm	945mm	945mm
Dimension / b	460mm	460mm	460mm
Dimension / l	890mm	890mm	890mm
Open-circuit voltage	45V	51V	54V
max. welding current	340A	400A	500A
Welding current min.	10A	30A	35A
Operating voltage	14,5-31V	15,5-34V	15,8-39V
Protection class	IP23	IP23	IP23
Mains fuse	20A / 20A	35A / 35A	35A / 35A
Mains Frequency	50-60Hz	50-60Hz	50-60Hz
Mains voltage [+/-10%]	3 x 230V / 3 x 400V	3 x 230V / 3 x 400V	3 x 230V / 3 x 400V
Welding current / Duty cycle [10min/40C]	200A / 100%	220A / 100%	280A / 100%
Welding current / Duty cycle [10min/40C]	260A / 60%	290A / 60%	360A / 60%
Welding current / Duty cycle [10min/40C]	340A / 35%	400A / 35%	500A / 30%

AL2300 / 3000 / 4000 / 5000 Standard

Processes
MIG/MAG-welding
MIG-brazing

Standard equipment
Steel inner liner for steel wire
Torch body 45° (AL5000 - 30°)
Spatter protection, with high thermal stability
Contact tube, CuCrZr alloy
Coaxial cable
Rubber anti-kink feature at machine and torch end

Recommended base materials
Constructional steels
Coated constructional steels
Ferritic / austenitic CrNi steels
Aluminium materials
Magnesium materials

Recommended areas of use
Automotive and allied vendor industries
Construction of chemical plants
Maintenance and repair

Options
Combination inner liner for Al and CrNi wire
Contact tubes with centre bore for Al wire
Top-mounted torch trigger
Special lengths of hose pack 1,5 – 6,0 m (with 35mm² power cable if more than 4,5m, technical data see AL3000 , AL5000 only available in standard length)
Customer-specific torch body length
Customer-specific torch body angle

	AL2300	AL3000	AL4000	AL5000
Weight	0,95kg	1,1kg	1,35kg	1,8kg
Wire Ø	0,6-1mm	0,8-1,2mm	1-1,6mm	1-1,6mm
Welding duration current (ArCO2)	120A	150A	220A	250A
Welding current / Duty cycle [ArCO2]	200A / 40%	250A / 40%	350A / 40%	400A / 40%
Welding duration current (CO2)	150A	190A	250A	320A
Welding current / Duty cycle [CO2]	230A / 40%	300A / 40%	400A / 40%	500A / 40%

AW2500 / 4000 / 5000 Standard

Processes
MIG/MAG-welding
MIG/MAG-pulsed arc welding
MIG-brazing

Recommended areas of use
Construction of plant, containers, machinery, structural steels
Automotive and allied vendor industries
Construction of special vehicles and construction machinery
Construction of chemical plants
Maintenance and repair
Construction of rail vehicles and rolling stock
Shipbuilding and Offshore

Recommended base materials
Constructional steels
Coated constructional steels
Ferritic / austenitic CrNi steels
Duplex-steels
Nickel based materials
Aluminium materials
Magnesium materials
Copper materials

Options
Combination inner liner for Al and CrNi wires
Contact tubes with centre bore for Al-wire
Top-mounted torch trigger
Special lengths of hose pack 1,5 – 6,0 m
Customer-specific torch body length
Customer-specific torch body bend

Standard equipment
Steel inner liner for steel wire
Torch body 45°
Spatter protection with high thermal stability
Contact tube, CuCrZr-alloy
Forced contacting arrangement for welding wire
Swirl-free gas-flow - no loss of gas
Swivel mounted protective hose
Rubber anti-kink feature at machine and torch end

	AW2500	AW4000	AW5000
Weight	1,1kg	1,2kg	1,4kg
Wire Ø	0,6-1,2mm	0,8-1,2mm	1-1,6mm
Welding duration current (ArCO2)	220A	350A	400A
Welding duration current (CO2)	250A	400A	500A

Multilock-System

Options

Torch body:
Contact tubes with centre bore for Al-wire
Contact tube, CuCrZr-alloy
Customer specific torch body bend
Customer specific lengths up to max. 1200 mm, for more than 500 mm a support is necessary!

Hose pack:
Combi inner liner for Al- and CrNi- wires
Top-mounted torch trigger at standard hose pack
Customer specific legths 1,5 – 6,0 m gascooled: with 35mm2 power cable if more than 4,5m, technical data see AL3000

Processes

MIG/MAG-welding
MIG/MAG-pulsed arc welding with water-cooled torches
MIG-brazing

Recommended base materials

Constructional steels
Coated constructional steels
Ferritic / austenitic CrNi steels
Duplex-steels
Nickel based materials
Aluminium materials
Magnesium materials
Copper materials

Standard equipment

Torch body:
Spatter protection with high thermal stability
Forced contacting arrangement for welding wire
Torch neck rotates through 360°

Hose pack:
Steel inner liner for steel wire
Swivel mounted protective hose
Coaxial cable at gascooled welding torch
Rubber anti-kink feature at machine and torch end

Recommended areas of use

Construction of plant, containers, machinery, structural steels
Automotive and allied vendor industries
Construction of special machinery and construction machinery
Construction of chemical plants
Maintenance and repair
Construction of rail vehicles and rolling stock
Shipbuilding and Offshore

	Weight	Wire Ø	Welding duration current (ArCO2)	Welding duration current (CO2)	Welding current / Duty cycle [ArCO2]	Welding current / Duty cycle [CO2]
Multilock AL2300/AW2500	0,295kg	0,6-1mm Gas / 0,6-1,2mm Wasser	120A Gas / 220A Wasser	150A Gas / 250A Wasser	200A / 40% Gas	230A / 40% Gas
Multilock AL3000/AW4000	0,35kg	0,8-1,2mm	150A Gas / 350A Wasser	190A Gas / 400A Wasser	250A / 40% Gas	300A / 40% Gas
Multilock AL4000/AW5000	0,435kg	1-1,6mm	220A Gas / 400A Wasser	250A Gas / 500A Wasser	350A / 40% Gas	400A / 40% Gas
Multilock AW332	0,26kg	0,8-1,2mm	150A	190A	200A / 60%	250A / 60%
Multilock AW335	0,39kg	0,8-1,2mm	150A	190A	200A / 60%	250A / 60%
Multilock G	1,05kg	0,6-1,6mm	220A	250A	350A / 40%	400A / 40%
Multilock W	1,2kg	0,8-1,6mm	400A	500A		
Multilock AL2000 flex neck	0,442kg	0,6-1,2mm	150A	150A	200A / 40%	200A / 40%
Multilock AL3500 flex neck	0,646kg	1-1,6	220A	220A	350A / 40%	350A / 40%

K4 fume extractor torch

Processes
MIG/MAG-welding
MIG/MAG-pulsed arc welding with water-cooled torches
MIG-brazing

Recommended base materials
Constructional steels
Coated constructional steels
Ferritic / austenitic Crni steels
Duplex-steels
Nickel based materials
Aluminium materials
Magnesium materials
Copper materials

Recommended areas of use
Construction of plant, containers, machinery, structural steels
Automotive and allied vendor industries
Construction of special machinery and construction machinery
Construction of chemical plants
Maintenance and repair
Construction of rail vehicles and rolling stock
Shipbuilding and Offshore

Options
Combi inner liner for Al- and CrNi-wires
Contact tubes with centre bore for Al-wire
Up/Down, JobMaster function
Top-mounted torch trigger at standard hose pack
Special lenghts of hose pack 1,5 - 6,0m gascooled from 4,5m with 35 mm² power cable
Leather protective hose

Standard equipment
Steel inner liner for steel wire
Airflow regulator with single-hand control
Torch body 45°
Spatter protection wigh high thermal stability
Contact tube, CuCrZr-alloy
Extraction nozzle
Swivel-mounted extractor torch
Gascooled welding torch: Fabric protective hose 1,3m
Coaxial cable
Rubber anti-kink feature at machine end
Watercooled welding torch: Swirl-free gas flow no loss of gas
Leather protective hose at torch end
Forced contacting arrangement for welding wire

	AL2300 K4	AL3000 K4	AL4000 K4	AW2500 K4	AW4000 K4	AW5000 K4
Weight	1,5kg	1,9kg	2,1kg	1,6kg	2kg	2,2kg
Welding duration current (ArCO2)	120A	150A	220A	220A	330A	400A
Welding current / Duty cycle [ArCO2]	200A / 40%	250A / 40%	350A / 40%			
Welding duration current (CO2)	150A	190A	250A	250A	400A	500A
Welding current / Duty cycle [CO2]	230A / 40%	300A / 40%	400A / 40%			

TransSteel 2500c

	TransSteel 2500c 4R/FSC
Dimension / b	276mm
Dimension / h	445mm
Dimension / l	687mm
Weight	30,1kg
Mains Frequency	50-60Hz
Mains fuse	16A
Test mark	CE / S
Open-circuit voltage	41V
Mains voltage [+/-10%]	3 x 380V / 400V / 460V
Operating voltage	14,5-34,5V
Welding current / Duty cycle [10min/40C]	170A / 100%
Welding current / Duty cycle [10min/40C]	250A / 40%
Welding current / Duty cycle [10min/40C]	210A / 60%
max. welding current	250A
Welding current min.	10A

TransSteel 3500c

Standard equipment

Gas- or watercooled
Synergic mode
4-roller drive
Memory-function
Liquid level indicator (watercooled)
Temperature controlled fan
Automatic cooling-unit cut-out
Special 4-step mode
Wire coil adaptor
2-/2-step mode
Torch
Automatic burn-back control
Dust filter
Gas-test button
Wire inching
Ground fault detection

Recommended areas of use

Industrial plant construction & installation companies
Plant construction
Container construction
Metal construction
Construction of rail vehicles and rolling stock
Portal construction

Recommended base materials

Steel

Processes

MIG/MAG welding
Electrode welding

Options

Remote control
Flow-control for torch cooling
Crane-transport PickUp
Hose pack holder PickUp
Up/Down control via welding torch
Waterfilter
Heat-protection shield torch

	TransSteel 3500c 4R/FSC Synergic
Dimension / b	300mm
Dimension / h	497mm
Dimension / l	747mm
Weight	34,64kg
Mains Frequency	50-60Hz
Mains fuse	35A
Test mark	CE / S
Open-circuit voltage	59V
Mains voltage [+/-10%]	3 x 380V / 400V / 460V
Operating voltage	14,5-38,5V
Welding current / Duty cycle [10min/40C]	250A / 100%
Welding current / Duty cycle [10min/40C]	350A / 40%
Welding current / Duty cycle [10min/40C]	300A / 60%
max. welding current	350A
Welding current min.	10A

TransSteel 3500 / 5000

Standard equipment
Gas- or watercooled
Manual- or synergic mode
4-roller drive
Memory-function (Synergic)
Adjustment-aid (Manual)
Liquid level indicator (watercooled)
Temperature controlled fan
Automatic cooling-unit cut-out
Special 4-step mode (Synergic)
Wire coil adaptor
2-/4-step mode
View-window wire spool
Torch
Automatic burn-back control
Dust filter
Ground fault detection

Recommended areas of use
Industrial plant construction & installation companies
Shipbuilding and Offshore
Construction of special machinery
Construction machinery
Construction of rail vehicles and rolling stock

Recommended base materials
Steel

Processes
MIG/MAG welding
Electrode welding

Options

Gas-test button
Wire inching
Automation interface
Remote control
Flow-control for torch cooling
CO2 pre-heater socket
Slide mode VR (zu VR)
Crane-transport PickUp
Hose pack holder PickUp
Up/Down control via welding torch (Synergic)
Waterfilter
Crane transport and torch mounting VR
Heat-protection shield torch

	TransSteel 3500	TransSteel 5000
Dimension / b	300mm	300mm
Weight	26,45kg	32,5kg
Dimension / h	497mm	497mm
Dimension / l	747mm	747mm
Mains Frequency	50-60Hz	50-60Hz
Mains fuse	35A	35A
Protection class	IP23	IP23
Test mark	CE / CS 0CSA / S	CE / S
Open-circuit voltage	60V	65V
Mains voltage [+/-10%]	3 x 380V / 400V / 460V	3 x 380V / 400V / 460V
Operating voltage	14,5-38,8V	14,5-39,5V
Welding current / Duty cycle [10min/40C]	250A / 100%	360A / 100%
Welding current / Duty cycle [10min/40C]	350A / 40%	500A / 40%
Welding current / Duty cycle [10min/40C]	300A / 60%	420A / 60%
max. welding current	350A	500A
Welding current min.	10A	10A

MTG 2500S Standard

(Manual welding torch for TransSteel)

Standard equipment

Screw-on gas nozzle
Outer tube of stainless steel
Rubber anti-kink feature at the gip plate side
Coaxial cable
Rubber anti-kink feature at the central connector side
FSC Fronius System Connector (TPS/i System)

Options

BasicKits
Heat protection shield
Customer specific torch body length and angle
Customer specific hose pack length 1,5 - 6,0m
Adaptor for F and Euro connection

	MTG 2500S
Weight	2,35kg
Wire Ø	0,8-1,2mm
Welding duration current (ArCO2)	170A
Welding current / Duty cycle [ArCO2]	230A / 40%
Welding current / Duty cycle [CO2]	250A / 40%

MTG3500 S / MTG5000 S / MTG5300 S Standard, Up/Down

(manual welding torch for TransSteel)

Processes

MIG/MAG welding

Recommended base materials

Steel

Standard equipment

Torch-neck 45°
Heat protection shield (MTG5000)
Coaxial cable
Fronius System Connector FSC
Rubber anti-kink feature at the central connector side
Rubber anti-kink feature at the gip plate side with ball joint
Non-slip handle with soft components
Insulated gas nozzle

Recommended areas of use

Construction of plant, containers, machinery, structural steel
Shipbuilding and offshore engineering
Construction of special vehicles and construction machinery
Construction of rail vehicles & rolling stock

Options

Top-mounted torch trigger
Heat protection shield (MTG3500)
Customer specific hose pack length 1,5-6,0m (Attention: please order customer specific BasicKit starting from 4,5 m)
Customer specific torch body angle
Customer specific torch body length

	MTG3500 S	MTG5000 S	MTG 5300 S
Weight	1,2kg	1,6kg	1,8kg
Wire Ø	0,8-1,2mm	1-1,6mm	1-1,6mm
Welding duration current (ArCO2)	180A	250A	360A
Welding duration current (CO2)	210A	310A	360A
Welding current / Duty cycle [ArCO2]	280A / 40%	400A / 40%	500A / 40%
Welding current / Duty cycle [CO2]	350A / 40%	500A / 40%	530A / 40%

MTW3500 S / MTW5000 S Standard, Up/Down

(manual welding torch for TransSteel)

Processes
MIG/MAG welding

Recommended base materials
Steel

Standard equipment
Torch-neck 45°
Heat protection shield (MTW5000)
Swirl-free gas-flow - no loss of gas
Swivel-mounted protection hose
Fronius System Connector FSC
Kink protection spring at the central connector side
Rubber anti-kink feature at the grip plate side with ball joint
Non-slip handle with soft components

Recommended areas of use
Construction of plant, containers, machinery, structural steel
Shipbuilding and offshore engineering
Construction of special vehicles and construction machinery
Construction of rail vehicles & rolling stock

Options
Top-mounted torch trigger
Heat protection shield (MTW3500)
Customer specific hose pack length 1,5-6,0m (Attention: please order customer specific BasicKit starting from 4,5 m)
Customer specific torch body angle
Customer specifig torch body length

	MTW3500 S	MTW5000 S
Weight	1,4kg	1,5kg
Wire Ø	0,8-1,2mm	1-1,6mm
Welding duration current (ArCO2)	300A	400A
Welding duration current (CO2)	350A	500A

MTG5300-M S / MTW5000-M S automatic welding torches

(automatic welding torches for TransSteel)

Processes
MIG/MAG welding

Recommended base materials
Steel

Recommended areas of use
Construction of plant, containers, machinery, structural steel
Shipbuilding and offshore engineering
Construction of special vehicles and construction machinery
Construction of rail vehicles & rolling stock

Standard equipment
Torch body 50° (MTG5300)
Torch body 45° (MTW5000)
Coaxial cable at gascooled torches
Fronius System Connector (FSC)
Anti-ink feature at central connector side
Automatic tube ø38

Options
Customer specific lengths 1,0-6,0m
Customer specific torch body bend
Customer specific torch body lengths up to max. 1200mm, for more than 500mm a support is necessary.
Holding and adjusting clamp (only with reducing sleeve)
Reducing sleeve

	MTG5300-M S	MTW5000-M S
Dimension / b	38mm	66mm
Weight	2,51kg	2,135kg
Wire Ø	1-1,6mm	1-1,6mm
Welding duration current (ArCO2)	360A	400A
Welding duration current (CO2)	360A	500A
Welding current / Duty cycle [ArCO2]	500A / 40%	-
Welding current / Duty cycle [CO2]	530A / 40%	-

TPS 320i / 400i / 500i / 600i Standard

Standard equipment

Synergic mode
7“ graphic display
Easiest twist´-press-regulator
Logical user prompting (Clear text, Wizard‘s)
Multilingual
EasyJobs
Protection cover-control unit
USB-connection
Ethernet-connection
Thermostat controlled fan
S-mark, CE-mark
Wire inching without gas or current

Options

Welding Process Pulse
Welding Process LSC - Low Spatter Control
Welding Process PMC - Pulse Multi Control

	TPS 320i	TPS 400i	TPS 500i	TPS 600i
Dimension / b	300mm	300mm	300mm	300mm
Weight	33,7kg	36,45kg	38kg	50kg
Dimension / h	510mm	510mm	510mm	510mm
Dimension / l	706mm	706mm	706mm	706mm
Mains Frequency	50-60Hz	50-60Hz	50-60Hz	50-60Hz
Open-circuit voltage	73V	73V	71V	74V
Mains voltage [+/-10%]	3 x 400V	3 x 400V	3 x 400V	3 x 400V
Operating voltage	14,2-30V	14,2-34V	14,2-39V	14,2-44V
Welding current / Duty cycle [10min/40C]	240A / 100%	320A / 100%	360A / 100%	500A / 100%
Welding current / Duty cycle [10min/40C]	320A / 40%	400A / 40%	500A / 40%	-
Welding current / Duty cycle [10min/40C]	260A / 60%	360A / 60%	430A / 60%	600A / 60%
max. welding current	320A	400A	500A	600A
Welding current min.	3A	3A	3A	3A

TPS 270i C / 320i C Pulse

TPS 270i C Pulse

TPS 320i C Pulse

	TPS 320i C PULSE /4R/FSC	TPS 320i C PULSE /4R/FSC/MV/nc	TPS 270i C PULSE /4R/FSC	TPS 270i C PULSE /4R/FSC/MV/nc
Dimension / b	300mm	300mm	276mm	276mm
Dimension / h	510mm	510mm	445mm	445mm
Dimension / l	706mm	706mm	687mm	687mm
Weight	35,8kg	38,5kg	32,7kg	33,95kg
Mains Frequency	50-60Hz	50-60Hz	50 / 60Hz	50 / 60Hz
Open-circuit voltage	71V	82V	57V	66V
Mains voltage [+/-10%]	3 x 400V	3x 200-230V / 3x 380-460V	400V	3x 460V
Welding current / Duty cycle [10min/40C]	220A / 100%	220A / 100%	190A	190A
Welding current / Duty cycle [10min/40C]	320A / 40%	320A / 40%	270A	220A
Welding current / Duty cycle [10min/40C]	260A / 60%	260A / 60%	220A	270A

EN 1090 Certificate of conformity package

EN 1090 Certificate of conformity package

EN 1090 Certificate of conformity package Standard German/English
EN 1090 Certificate of conformity package Pulse German/English
EN 1090 Certificate of conformity package Standard French/Spanish
EN 1090 Certificate of conformity package Pulse French/Spanish

Manual welding torch gascooled MTG 250i / MTG 320i / MTG 400i / MTG 5300 S

MTG 250i

MTG 320i

MTG 400i

MTG 5300 S

Standard equipment

Screw-on gas nozzle
Outer tube of stainless steel
Heat-protection shield (MTG 400i)

Non-slip handle with soft components
Rubber anti-kink feature at the grip plate side with ball joint
2-wire bus

Coaxial cable
Rubber anti-kink feature at the central connector side
Fronius System Connector (FSC)

Options

BasicKits
Contect (MTG 320i, MTG 400i)
Ceramic spatter protection for Heavy Duty applications

Heat-protection shield (MTG 250i, MTG 320i)
Top-mounted torch trigger
Customer specific torch body length and angle

Customer specific hose pack length 1,5 - 6,0m
Adaptor for F and Euro (only for standard welding torches)

	MTG 250i	MTG 320i	MTG 400i	MTG 5300 S
Weight	2,6kg	2,7kg	3,1kg	1,8kg
Wire Ø	0,8-1,2mm	1-1,6mm	1-1,6mm	1-1,6mm
Welding duration current (ArCO2)	170A	210A	260A	360A
Welding duration current (CO2)	170A	210A	260A	360A
Welding current / Duty cycle [ArCO2]	250A / 40%	320A / 40%	400A / 40%	500A / 40%
Welding current / Duty cycle [CO2]	250A / 40%	320A / 40%	400A / 40%	530A / 40%

Manual welding torch watercooled MTW 250i / MTW 400i / MTW 500i / MTW 700i

MTW 250i

MTW 400i

MTW 500i

MTW 700i

Standard equipment

Screw-on gas nozzle
Outer tube of stainless steel
Heat-protection shield (MTW 500i, MTW 700i)

Non-slip handle with soft components
Rubber anti-kink feature at the grip plate side with ball joint
2-wire bus

Swivel-mounted protective hose
Rubber anti-kink feature at the central connector side
Fronius System Connector (FSC)

Options

BasicKits
Contect (MTW 400i, MTW 500i)
Heat-protection shield (MTW 400i, MTW 320i)

Top-mounted torch trigger
Customer specific torch body length and angle

Customer specific hose pack length 1,5 - 6,0m
Adaptor for F++ and Euro (only for standard welding torches)

	MTW 250i	MTW 400i	MTW 500i	MTW 700i
Weight	2,3kg	2,4kg	2,7kg	3kg
Wire Ø	0,8-1,2mm	0,8-1,6mm	1-1,6mm	1-1,6mm
Welding duration current (ArCO2)	250A	400A	500A	700A
Welding duration current (CO2)	250A	400A	500A	700A

Multilock manual welding torch gascooled MTB 250i / MTB 320i / MTB 400i / MHP 250i / MHP 400i

MTB 250i G + MHP 250i G

MTB 320i G + MHP 400i G

MTB 400i G + MHP 400i G

MTB 200i G

MTB 360i G

Standard equipment

Screw-on gas nozzle
Outer tube of stainless steel
360° turnable, twist safety device at 0°
Heat-protection shield (MHP 400i)

Non-slip handle with soft components
Integrated water stop at the hose pack
Rubber anti-kink feature at the grip plate side with ball joint
2-wire bus

Coaxial cable
Rubber anti-kink feature at the central connector side
Fronius System Connector (FSC)

Options

BasicKits
Contect (MTB 320i, MTB 400i)
Ceramic spatter protection for Heavy Duty applications

Heat-protection shield (MHP 250i)
Top-mounted torch trigger
Customer specific torch body length and angle

Customer specific hose pack length 1,5 - 6,0m
Adaptor for F and Euro (only for standard welding torches)

	Weight	Wire Ø	Welding duration current (ArCO2)	Welding duration current (CO2)	Welding current / Duty cycle [ArCO2]	Welding current / Duty cycle [CO2]
MTB 250i G	0,275kg	0,8-1,2mm	170A	170A	250A / 40%	250A / 40%
MTB 320i G	0,375kg	1-1,6mm	210A	210A	320A / 40%	320A / 40%
MTB 400i G	0,415kg	1-1,6mm	260A	260A	400A / 40%	400A / 40%
MHP 250i G	2,5kg	0,8-1,2mm	170A	170A	250A / 40%	250A / 40%
MHP 400i G	2,9kg	1-1,6mm	260A	260A	400A / 40%	400A / 40%
MTB 200i G flex	0,48kg	0,8-1,2mm	160A / 100%	160A / 100%	200A / 40%	200A / 40%
MTB 360i G flex	0,64kg	0,8-1,6mm	240A / 100%	240A / 100%	360A / 40%	360A / 40%

Multilock manual welding torch watercooled MTB 250i / MTB 400i / MTB 500i / MTB 700i / MHP 500i / MHP 700i

MTB 250i W + MHP 500i W

MTB 400i W + MHP 500i W

MTB 500i W + MHP 500i W

MTB 330i W

MTB 400i W

Standard equipment

Screw-on gas nozzle
Outer tube of stainless steel
360° turnable, twist safety device at 0°
Heat-protection shield

Non-slip handle with soft components
Integrated water stop at the hose pack
Rubber anti-kink feature at the grip plate side with ball joint
2-wire bus

Swivel-mounted wire feed hose
Anti-kink feature at the central connector side
Fronius System Connector (FSC)

Options

BasicKits
Contect (MTB 400i, MTB 500i)

Top-mounted torch trigger
Customer specific torch body length and angle

Customer specific hose pack length 1,5 - 6,0m
Adaptor for F++ and Euro (only for standard welding torches, not for UD)

	Weight	Wire Ø	Welding duration current (ArCO2)	Welding duration current (CO2)
MTB 250i W	0,26kg	0,8-1,2mm	250A	250A
MTB 400i W	0,335kg	0,8-1,6mm	400A	400A
MTB 500i W	0,36kg	1-1,6mm	500A	500A
MTB 700i W	0,61kg	1-1,6mm	700A	700A
MHP 500i W	2,5kg	1-1,6mm	500A	500A
MHP 700i W	2,75kg	0,8-1,6mm	700A	700A
MTB 330i W flex	0,46kg	8-1,2mm	330A	330A
MTB 400i W flex	0,6kg	0,8-1,6mm	400A	400A
MHP 700i W	3,4kg	1,2-2,8mm	700A / 100%	700A / 100%

Multilock manual welding torch gascooled for self-shielded flux cored wires MTB 3600S / MHP 3600S

Standard equipment

Small number of wear parts (no gas nozzle, no inner liner in the torch body)
Heat protection shield
360° turnable, twist safety device at 0°
Non-slip handle with soft components
Rubber anti-kink feature at the gip plate side with ball joint
2-wire bus
Coaxial cable
Anti-kink feature at the central connector side
Fronius System Connector (FSC)

Options

Top-mounted torch trigger
Customer specific torch body length and angle
Customer specific hose pack length 1,5 - 6,0m
Adaptor for F and Euro till ø2,0mm (only for standard welding torches)

	MTB 3600S G L190	MHP 3600S G L290
Weight	0,189kg	4kg
Wire Ø	1,2-2,8mm	1,2-2,8mm
Welding duration current (ArCO2)	360A / 100%	360A / 100%
Welding duration current (CO2)	360A / 100%	360A / 100%

PullMig manual welding torch MHP 280i G PM / MHP 320i W PM

Standard equipment

Multilock torch bodies:
Screw-on gas nozzle
Outer tube of stainless steel
360° turnable, twist safety device at 0°
Hose packs:
Non-slip handle with soft components
DC-servomotor
Integrated water stop at the hose pack
Rubber anti-kink feature at the grip plate side with ball joint
2-wire bus and SpeedNet
Rubber anti-kink feature at the central connector side
Fronius System Connector (FSC)

Options

BasicKits
Multilock torch bodies:
Contec (MTB 320i, MTB 400i)
Ceramic spatter protection for Heavy Duty applications
Customer specific torch body length and angle
Hose packs:
Heat-protection shield
Top-mounted torch trigger
Customer specific hose pack length on request

	MHP 280i G PM	MHP 320i W PM
Wire Ø	0,8-1,6mm	0,8-1,6mm
Welding duration current (ArCO2)	170A	320A
Welding duration current (CO2)	170A	320A
Welding current / Duty cycle [ArCO2]	280A / 40%	320A / 100%
Welding current / Duty cycle [CO2]	280A / 40%	320A / 100%

TransSynergic 4000 / 4000 C / 5000 / 5000 C

Processes
MIG/MAG-welding
MIG-brazing
TIG-DC (C-version)
Manual electrode (MMA) welding (C-version)
Arc air gouging (TS 5000 C)

Recommended base materials
Constructional steels
Coated constructional steels
Ferritic / austenitic CrNi steels
Duplex-steels
Nickel-based materials
Aluminium materials

Recommended areas of use
Automotive and allied vendor industries
Construction of special machinery and construction machinery
Construction of plant, containers, machinery, structural steel
Robot welding
Construction of rail vehicles and rolling stock
Shipbuilding and Offshore

Options
Remote control unit
User-defined function button
Touch-down ignition
PullMig-mode
Robot interface
Hose pack holder Human
Keylock switch (C-version)
Welding programmes from databank
Spatterfree ignition SFI
Rate of flow watchdog for torch cooling
SynchroPulse
JobExplorer / WIN RCU
Weld process data
Calibration document
Special step mode

Standard equipment
2-/4- roller drive
Automatic cooling unit cut-out
Wire-inching without gas or current
Earth leakage monitoring
Automatic burn-back control
Gas-test button
Job-mode (C-Version)
Manual welding (C-Version)
Synergic-mode
S-mark, CE-mark
Thermostat-controlled fan
UpDown-control from torch
Overtemperature protection
2-step mode, 4-step mode
Spot welding
Aluminium welding start-up
Digital Display
Wire coil adaptor

	TransSynergic 4000	TransSynergic 4000 MV	TransSynergic 5000	TransSynergic 5000 MV
Weight	35,2kg	35,2kg	35,6kg	35,6kg
Dimension / h	475mm	475mm	475mm	475mm
Dimension / b	290mm	290mm	290mm	290mm
Dimension / l	625mm	625mm	625mm	625mm
Open-circuit voltage	70V	80V	70V	80V
max. welding current	400A	400A	500A	500A
Welding current min.	3A	3A	3A	3A
Operating voltage	14,2-34V	14,2-34V	14,2-39V	14,2-39V
Protection class	IP23	IP23	IP23	IP23
Mains fuse	35A	63A / 38A	35A	63A / 35A
Mains Frequency	50-60Hz	50-60Hz	50-60Hz	50-60Hz
Mains voltage [+/-10%]	3 x 400V	3 x 200-240V / 3 x 380-460V	3 x 400V	3 x 200-240V / 3 x 380-460V
Welding current / Duty cycle [10min/40C]	320A / 100%	280A / 100%	360A / 100%	320A / 100%
Welding current / Duty cycle [10min/40C]	365A / 60%	365A / 60%	450A / 60%	450A / 60%
Welding current / Duty cycle [10min/40C]	400A / 50%	400A / 50%	500A / 40%	500A / 40%

TPS 2700 / 2700 TIG / 2700 Duo / 2700 Duo TIG

Processes
MIG/MAG-welding
MIG/MAG-impulsed arc welding
MIG-brazing
TIG-DC
Manual electrode (MMA) welding

Recommended areas of use
Automotive and allied vendor industries
Maintenance and repair
Construction of plant, containers, machinery, structural steel
Construction of rail vehicles and rolling stock

Recommended base materials
Constructional steels
Coated constructional steels
Ferritic / austenitic CrNi steels
Duplex-steels
Nickel-based materials
Aluminium materials
Special materials

Options
Remote control unit
PullMig mode
Keylock Switch
Welding programmes from databank
Spatterfree ignition SFI
Rate of flow watchdog for torch cooling
SynchroPulse
JobExplorer / WIN RCU
Special step mode
Calibration document

Standard equipment
4-roller drive
Automatic cooling unit cout-out
User-defined function button
Wire inching without gas or current
Earth leakage monitoring
Automatic burn-back control
Gas-test button
Job-mode
Synergic-mode
S-mark, CE-mark
Thermostat controlled fan
UpDown-control from torch
Overtemperature protection
2-step mode, 4-step mode
Manual- / Spot welding
Aluminium welding start-up
Digital Display
Wire coil adaptor

	TransPuls Synergic 2700 4R/Z	TransPuls Synergic 2700 MV/4R/Z
Weight	27,5kg	27,5kg
Dimension / h	480mm	480mm
Dimension / b	290mm	290mm
Dimension / l	625mm	625mm
Open-circuit voltage	50V	50V
max. welding current	270A	270A
Welding current min.	3A	3A
Operating voltage	14,2-27,5V	14,2-27,5V
Protection class	IP23	IP23
Mains fuse	16A	25A / 15A
Mains Frequency	50-60Hz	50-60Hz
Mains voltage [+/-10%]	3 x 400V	3 x 200-240V / 3 x 380-460V
Welding current / Duty cycle [10min/40C]	170A / 100%	170A / 100%
Welding current / Duty cycle [10min/40C]	210A / 60%	210A / 60%
Welding current / Duty cycle [10min/40C]	270A / 40%	270A / 40%

TPS 3200 / 4000 / 5000

Processes
MIG welding
MIG pulsed arc welding
MIG brazing
TIG-DC
Manual electrode welding
Arc air gouging (TPS 5000)

Recommended base materials
Constructional steels
Coated constructional steels
Ferritic / austenitic CrNi steels
Duplex steels
Nickel-based materials
Alumninum materials
Special materials
Copper materials (TPS 5000)
Magnesium materials (TPS 5000)

Recommended areas of use
Automotive- and allied vendor industries
Construction of special machinery and construction machinery
Maintenance and repair
Construction of plant, containers, machinery, structural steels
Industry plant & pipeline construction, site-erection firms
Construction of rail vehicles and rolling stock
Shipbuilding / Offshore

Options
Remote control
PullMIG mode
Robot interface
Hose pack boom „Human“
Keylock switch
Welding programmes from database
Spatter free ignition SFI
Synchro Pulse
Job Explorer / WIN RCU
Weld process data
Special step mode
Calibration document

Standard equipment
2-/4 roller drive
Automatic cooling unit cut out
Wire-inching without gas or current
Ground fault monitoring
Automatic burn-back control
Gas-test button
Job mode
Manual welding
Synergic mode
UL-CSA certificate
Thermostat-controlled fan
UpDown control from torch
Overtemperature protection
2-step mode, 4-step mode
Manual- / spot welding
Aluminum welding start-up
Digital Display
Wire coil adaptor

	TransPuls Synergic 3200	TransPuls Synergic 3200 MV	TransPuls Synergic 4000	TransPuls Synergic 4000 MV	TransPuls Synergic 5000	TransPuls Synergic 5000 MV
Weight	34,6kg	34,6kg	35,2kg	35,2kg	35,6kg	35,6kg
Dimension / h	475mm	475mm	475mm	475mm	475mm	475mm
Dimension / b	290mm	290mm	290mm	290mm	290mm	290mm
Dimension / l	625mm	625mm	625mm	625mm	625mm	625mm
Open-circuit voltage	65V	80V	70V	80V	70V	80V
max. welding current	320A	320A	400A	400A	500A	500A
Welding current min.	3A	3A	3A	3A	3A	3A
Operating voltage	14,2-30V	14,2-30V	14,2-34V	14,2-34V	14,2-39V	14,2-39V
Protection class	IP23	IP23	IP23	IP23	IP23	IP23
Mains fuse	35A	35A / 35A	35A	63A / 35A	35A	63A / 35A
Mains Frequency	50-60Hz	50-60Hz	50-60Hz	50-60Hz	50-60Hz	50-60Hz
Mains voltage [+/-10%]	3 x 400V	3 x 200-240V / 3 x 380-460V	3 x 400V	3 x 200-240V / 3 x 380-460V	3 x 400V	3 x 200-240V / 3 x 380-460V
Welding current / Duty cycle [10min/40C]	220A / 100%	220A / 100%	320A / 100%	280A / 100%	360A / 100%	320A / 100%
Welding current / Duty cycle [10min/40C]	260A / 60%	260A / 60%	365A / 60%	365A / 60%	450A / 60%	450A / 60%
Welding current / Duty cycle [10min/40C]	320A / 40%	320A / 40%	400A / 50%	400A / 50%	500A / 40%	500A / 40%

Human 4000 / 5000

The mounting for the hosepack Human compensates with its gas pressure cylinder the weight of the torch hose pack.
Therefore the torch seems to be nearly weightless, damages of the hose pack can be avoided extensively.

Checklist
no additional wider carriage necessary
load reduction fine adjustable
can be adapted to the torch length
integrated torch mounting
range of action can be adjusted
fourfold adjustable
also suitable for Pull-Mig torches
protection of hose pack by means of bend protection chain

AL2300 / 3000 / 4000 / 5000 Standard, Up/Down, JobMaster

Processes
MIG/MAG-welding
MIG-brazing

Standard equipment
Steel inner liner for steel wire
Torch body 45° (AL5000 - 30°)
Spatter protection, with high thermal stability
Contact tube, CuCrZr alloy
Coaxial cable
Rubber anti-kink feature at machine and torch end

Standard equipment - JobMaster only
Integrated remote control
Frequency parameter recall
Parameter correction mode
Recall function for operating points and jobs
Digital parameter display

Recommended base materials
Constructional steels
Coated constructional steels
Ferritic / austenitic CrNi steels
Aluminium materials
Magnesium materials

Recommended areas of use
Automotive and allied vendor industries
Construction of chemical plants
Maintenance and repair

Options
Combination inner liner for Al and CrNi wire
Contact tubes with centre bore for Al wire
Top-mounted torch trigger
Special lengths of hose pack 1,5 – 6,0 m (with 35mm² power cable if more than 4,5m, technical data see AL3000 , AL5000 only available in standard length)
Customer-specific torch body length
Customer-specific torch body angle

	AL2300	AL3000	AL4000	AL5000
Weight	0,95kg	1,1kg	1,35kg	1,8kg
Wire Ø	0,6-1mm	0,8-1,2mm	1-1,6mm	1-1,6mm
Welding duration current (ArCO2)	120A	150A	220A	250A
Welding current / Duty cycle [ArCO2]	200A / 40%	250A / 40%	350A / 40%	400A / 40%
Welding duration current (CO2)	150A	190A	250A	320A
Welding current / Duty cycle [CO2]	230A / 40%	300A / 40%	400A / 40%	500A / 40%

AW2500 / 4000 / 5000 / 7000 Standard, Up/Down, JobMaster

Processes
MIG/MAG-welding
MIG/MAG-pulsed arc welding
MIG-brazing

Recommended areas of use
Construction of plant, containers, machinery, structural steels
Automotive and allied vendor industries
Construction of special machinery and construction machinery
Construction of chemical plants
Maintenance and repair
Construction of rail vehicles and rolling stock
Shipbuilding and Offshore

Recommended base materials
Constructional steels
Coated constructional steels
Ferritic / austenitic CrNi steels
Duplex-steels
Nickel based materials
Aluminium materials
Magnesium materials
Copper materials

Options
Combination inner liner for Al and CrNi wires
Contact tubes with centre bore for Al-wire
Top-mounted torch trigger
Special lengths of hose pack 1,5 – 6,0 m
Customer-specific torch body length
Customer-specific torch body bend

Standard equipment
Steel inner liner for steel wire
Torch body 45°
Spatter protection with high thermal stability
Contact tube, CuCrZr-alloy
Forced contacting arrangement for welding wire
Swirl-free gas-flow - no loss of gas
Swivel mounted protective hose
Rubber anti-kink feature at machine and torch end

Standard equipment - JobMaster only
Integrated remote control
Frequency parameter recall
Parameter correction mode
Recall function for operating points and jobs
Digital parameter display

	AW2500	AW4000	AW5000	AW7000
Weight	1,1kg	1,2kg	1,4kg	1,65kg
Wire Ø	0,6-1,2mm	0,8-1,2mm	1-1,6mm	1-1,6mm
Welding duration current (ArCO2)	220A	350A	400A	550A
Welding duration current (CO2)	250A	400A	500A	700A

Multilock-System

Options

Torch body:
Contact tubes with centre bore for Al-wire
Contact tube, CuCrZr-alloy
Customer specific torch body bend
Customer specific lengths up to max. 1200 mm, for more than 500 mm a support is necessary!

Hose pack:
Combi inner liner for Al- and CrNi- wires
Top-mounted torch trigger at standard hose pack
Customer specific legths 1,5 – 6,0 m gascooled: with 35mm2 power cable if more than 4,5m, technical data see AL3000

Standard equipment

Torch body:
Spatter protection with high thermal stability
Forced contacting arrangement for welding wire
Torch neck rotates through 360°

Hose pack:
Steel inner liner for steel wire
Swivel mounted protective hose
Coaxial cable at gascooled welding torch
Rubber anti-kink feature at machine and torch end

Processes

MIG/MAG-welding
MIG/MAG-pulsed arc welding with water-cooled torches
MIG-brazing

Recommended base materials

Constructional steels
Coated constructional steels
Ferritic / austenitic CrNi steels
Duplex-steels
Nickel based materials
Aluminium materials
Magnesium materials
Copper materials

Recommended areas of use

Construction of plant, containers, machinery, structural steels
Automotive and allied vendor industries
Construction of special vehicles and construction machinery
Construction of chemical plants
Maintenance and repair
Construction of rail vehicles and rolling stock
Shipbuilding and Offshore

	Weight	Wire Ø	Welding duration current (ArCO2)	Welding duration current (CO2)	Welding current / Duty cycle [ArCO2]	Welding current / Duty cycle [CO2]
Multilock AL2300/AW2500	0,295kg	0,6-1mm Gas / 0,6-1,2mm Wasser	120A Gas / 220A Wasser	150A Gas / 250A Wasser	200A / 40% Gas	230A / 40% Gas
Multilock AL3000/AW4000	0,35kg	0,8-1,2mm	150A Gas / 350A Wasser	190A Gas / 400A Wasser	250A / 40% Gas	300A / 40% Gas
Multilock AL4000/AW5000	0,435kg	1-1,6mm	220A Gas / 400A Wasser	250A Gas / 500A Wasser	350A / 40% Gas	400A / 40% Gas
Multilock AW7000	0,39kg	1-1,6mm	550A	700A		
Multilock AW332	0,26kg	0,8-1,2mm	150A	190A	200A / 60%	250A / 60%
Multilock AW335	0,39kg	0,8-1,2mm	150A	190A	200A / 60%	250A / 60%
Multilock G	1,05kg	0,6-1,6mm	220A	250A	350A / 40%	400A / 40%
Multilock W	1,2kg	0,8-1,6mm	400A	500A		
Multilock AL2000 flex neck	0,442kg	0,6-1,2mm	150A	150A	200A / 40%	200A / 40%
Multilock AL3500 flex neck	0,646kg	1-1,6	220A	220A	350A / 40%	350A / 40%

K4 fume extractor torch

Processes

MIG/MAG-welding
MIG/MAG-pulsed arc welding with water-cooled torches
MIG-brazing

Recommended base materials

Constructional steels
Coated constructional steels
Ferritic / austenitic Crni steels
Duplex-steels
Nickel based materials
Aluminium materials
Magnesium materials
Copper materials

Recommended areas of use

Construction of plant, containers, machinery, structural steels
Automotive and allied vendor industries
Construction of special vehicles and construction machinery
Construction of chemical plants
Maintenance and repair
Construction of rail vehicles and rolling stock
Shipbuilding and Offshore

Options

Combi inner liner for Al- and CrNi-wires
Contact tubes with centre bore for Al-wire
Up/Down, JobMaster function
Top-mounted torch trigger at standard hose pack
Special lenghts of hose pack 1,5 - 6,0m gascooled from 4,5m with 35 mm² power cable
Leather protective hose

Standard equipment

Steel inner liner for steel wire
Airflow regulator with single-hand control
Torch body 45°
Spatter protection wigh high thermal stability
Contact tube, CuCrZr-alloy
Extraction nozzle
Swivel-mounted extractor torch
Gascooled welding torch: Fabric protective hose 1,3m
Coaxial cable
Rubber anti-kink feature at machine end
Watercooled welding torch: Swirl-free gas flow no loss of gas
Leather protective hose at torch end
Forced contacting arrangement for welding wire

	AL2300 K4	AL3000 K4	AL4000 K4	AW2500 K4	AW4000 K4	AW5000 K4
Weight	1,5kg	1,9kg	2,1kg	1,6kg	2kg	2,2kg
Welding duration current (ArCO2)	120A	150A	220A	220A	330A	400A
Welding current / Duty cycle [ArCO2]	200A / 40%	250A / 40%	350A / 40%			
Welding duration current (CO2)	150A	190A	250A	250A	400A	500A
Welding current / Duty cycle [CO2]	230A / 40%	300A / 40%	400A / 40%			

PullMig hose packs / PullMig JobMaster hose packs

Standard equipment

Torch body:
Spatter protection with high thermal stability
Forced contacting arrangement for welding wire
Torch neck rotates through 360°

Hose pack:
Graphit inner liner ø 2,5 mm

Continuously adjustable power
Powerful gear motor unit
Toothed drive and pressure rollers ø 0,8 – 1,2 mm
Bronze inner liner diameter ø 2,0 mm for Multilock torch body
Swivel mounted protective hose
Coaxial cable at gascooled welding torch
Rubber anti-kink feature at machine and torch end

Standard equipment - JobMaster only

Hose pack:
Integrated remote control
Frequency parameter recall

Parameter correction mode
Recall function for operating points and jobs
Digital parameter display

Processes

MIG/MAG-welding
MIG/MAG-pulsed arc welding with water-cooled torches
MIG-brazing

Recommended base materials

Constructional steels
Coated constructional steels
Ferritic / austenitic CrNi steels
Duplex steels
Nickel based materials
Aluminium materials
Magnesium materials
Copper materials

Recommended areas of use

Construction of plant, containers, machinery, structural steels
Automotive and allied vendor industries
Construction of special machinery and construction machinery
Construction of chemical plants
Maintenance and repair
Construction of rail vehicles and rolling stock
Shipbuilding and Offshore

Options

Torch body:
Contact tubes with centre bore for Al-wire
Contact tubes, CuCrZr-alloy
Customer specific torch body bend
Customer specific lengths up to 1200 mm, from 500 mm support is necessary!

Hose pack:
Steel inner liner for steel wire
Toothed drive and pressure rollers 1,6 mm
Customer specific lengths from 3,5 - 16m

	Weight	Wire Ø	Welding duration current (ArCO2)	Welding current / Duty cycle [ArCO2]	Welding duration current (CO2)	Welding current / Duty cycle [CO2]
PullMig G	2,25kg	0,8-1,6mm	170A	280A / 40%	210A	330A / 40%
PullMig W	2,15kg	0,8-1,6mm	400A		500A	

Multilock automatic hose packs, Robacta automatic hose packs / Time automatic hose packs

Processes
MIG/MAG-welding
MIG/MAG-pulsed arc welding for watercooled torches
MIG-brazing

Recommended base materials
Constructional steels
Coated constructional steel
Ferritic / austenitic CrNi steels
Duplex-steels
Nickel based materials
Aluminium materials
Copper materials

Recommended areas of use
Construction of plant, containers, machinery, structural steels
Automotive and allied vendor industries
Construction of special machinery and construction machinery
Construction of chemical plants
Maintenance and repair
Construction of rail vehicles and rolling stock
Shipbuilding and Offshore

Standard equipment

Mulitlock torch body:
Spatterprotection with high thermal stability
Forced contacting arrangement for welding wire
Torch neck rotates through 360°

Multilock robot hose pack:
Automatic tube diameter-ø 38 mm
Steel inner liner for steel wire
Coaxial cable at gascooled welding torch
Rubber anti-kink feature at machine end

Robacta torch body:
Insulated sleeve for watercooled welding torches
Insulated gas nozzle for gascooled welding torches
Contact tube, CuCrZr-alloy
Forced contacting arrangement for welding wire
Torch body bend 0°, 22°, 36°, 45°

Robacta robot hose pack:
Automatic tube diameter -ø 38 mm
Steel inner liner for steel wire
Button „Wirefeed FWD"
Swirl-free gas flow - no loss of gas
UV, temp, and ozone-resistant, rubber fabric hoses
Rubber anti-kink feature at machine end

Options

Multilock torch body:
Contact tubes with centre bore for Al-wire
Contact tubes, CuCrZr-alloy
Customer specific torch body bend
Customer specific lenghts up to 1200 mm, from 500 mm support possible!

Multilock robot hose pack:
Combi inner liner for Al- and CrNi-wire
Customer specific lenghts 1,0 – 6,0 m
(gascooled: with 35mm2 power cable if more than 4,5m - technical data see AL3000)

Robacta torch body:
Contact tube with centre bore for Al-wire
Customer specific torch body bend
Customer specific lenghts up to 500 mm

Robacta robot hose pack:
Separate gas and blow-out lines
Combi inner liner for Al- and CrNi-wire
Customer specific lenghts 1,0 – 6,0 m
Holding and adjusting clamp (only with reducing sleeve)
Reducing sleeve

	Multilock-M G	Multilock-M W	Robacta-M W	Time-M W
Weight	1,75kg	1,65kg	4kg	2,4kg
Wire Ø	0,8-1,6mm	0,8-1,6mm	0,8-1,6mm	1-1,6mm
Welding duration current (ArCO2)	220A	500A	700A	700A
Welding duration current (CO2)	250A	500A	700A	

Time 5000 Digital

Processes
MIG/MAG-welding
MIG/MAG-pulsed arc welding
MAG-high performance welding
MIG-brazing
TIG-DC
Manual electrode (MMA) welding,
arc-air gouging

Recommended base materials
Constructional steels
Coated constructional steels
Ferritic / austenitic CrNi steels
Duplex-steels
Nickel-based materials
Aluminium-materials
Special materials

Recommended areas of use
Automotive and allied vendor industries
Construction of plant, containers, machinery, structural steel
Construction of rail vehicles and rolling stock
Construction machinery
Pipeline construction
Shipmbuilding / Offshore

Options
Remote control unit
PullMig-mode
Keylock switch
Welding programmes from databank
Spatterfree ignition SFI
Rate-of-flow watchdog for torch cooling
SynchroPulse
Documentation of data
Special step mode
Calibration document

Standard equipment
4-roller drive
Automatic cooling-unit cut out
Function buttons
Wire-inching without gas or current
Earth leakage monitoring
Gas-test button
Synergic-mode
S-mark, CE-mark
Thermostat controlled fan
Overtemperature protection
2-step mode, 4-step mode
Manual-/ Spot welding
Digital Display
Wire coil adaptor
Special welding programmes

	TIME 5000 Digital
Weight	36kg
Dimension / h	480mm
Dimension / b	290mm
Dimension / l	625mm
Open-circuit voltage	70V
max. welding current	500A
Welding current min.	3A
Operating voltage	28-48V
Protection class	IP23
Mains fuse	35A
Mains Frequency	50-60Hz
Mains voltage [+/-10%]	3 x 400V
Welding current / Duty cycle [10min/40C]	360A / 100%
Welding current / Duty cycle [10min/40C]	450A / 60%
Welding current / Duty cycle [10min/40C]	500A / 40%

Time / Time Multilock / AW5000 Time / AW7000 Time

Processes
MIG/MAG-welding
MIG/MAG-pulsed arc welding
MIG/MAG-high-performance welding
MIG-brazing

Recommended base materials
Constructional steels
Coated constructional steels
Ferritic / austenitic CrNi steels
Duplex-steels
Nickel based materials
Aluminium materials

Recommended areas of use
Construction of plant, containers, machinery, structural steels
Automotive and allied vendor industries
Construction of special machinery and construction machinery
Construction of chemical plants
Maintenance and repair
Construction of rail vehicles and rolling stock
Shipbuilding and Offshore

Options
Combi inner liner for Al- and CrNi-wire
Contact tubes with centre bore for Al-wire
Top-mounted torch trigger at standard torch
Special lengths of hose pack 1,5 – 6,0 m
UpDown, JobMaster function

Standard equipment
Steel inner liner for steel wire
Torch body 45°
Spatter protection with high thermal stability
Contact tube, CuCrZr-alloy (AW5000 Time, AW7000 Time, AW7000 K4 Time)
Forced contacting arrangement for welding wire (AW5000 Time, AW7000 Time, AW7000 K4 Time)
Swivel-mounted protective hose
Rubber anti-kink feature at machine and torch end

	Time W	Multilock Time W	AW5000 Time W	AW7000 Time W
Weight	1,8kg	1,6kg	1,5kg	1,7kg
Wire Ø	1-1,6mm	1-1,6mm	1-1,6mm	1-1,6mm
Welding duration current (ArCO2)	700A	700A	400A	700A

TPS 2700 CMT / 3200 CMT / 4000 CMT / 5000 CMT

Processes
CMT brazing
CMT welding
MIG welding
MIG pulsed arc welding

Recommended areas of use
Automotive and allied vendor industries
Construction of special machinery and construction machinery
Construction of plant, containers, machinery, structural steels
Construction of rail vehicles and rolling stock

Recommended base materials
Constructional steels
Coated constructional steels
CrNi steels
Nickel based materials
Aluminum materials
Special materials
Magnesium materials
Copper materials

Options
Remote control
Hose pack holder Human
Key lock switch
Welding programmes from database
SynchroPulse
Job Explorer / WIN RCU
Weld Process Data
Special step mode
Calibration document

Standard equipment
2-/4 roller drive
Automatic cooling unit cut out
Wire inching without gas and current
Earth current leakage
Automatic burn-back control
Gas test button
PullMig mode
Job mode
Manual mode
Synergic mode
S-mark, CE-mark
Thermostat controlled fan
UpDown control from torch
Overtemperature protection
2-step,- 4-step mode
Manual spot welding
Welding start aluminum
Digital Display
Wire coil adaptor
Spatter free ignition SFI

PullMig CMT hose pack

Recommended base materials
Constructional steels
Coated constructional steels
Ferritic / austenitic CrNi steels
Duplex-steels
Nickel based materials
Aluminium materials
Special materials
Magnesium materials
Copper materials

Processes
CMT-brazing
CMT-welding
CMT-pulsed arc welding
MIG/MAG-welding
MIG-brazing

Recommended areas of use
Automotive and allied vendor industries
Construction of special machinery and construction machinery
Construction of plant, containers, machinery, structural steels
Pipeline construction
Construction of rail vehicles and rolling stock

Standard equipment

Torch body:
Spatter protection with high thermal stability
Forced contacting arrangement for welding wire
360° rotatable

Hose pack:
AC-direct drive for high dynamic wire feeding
Signal-LED for status display

Forming pressure stepless adjustable
Power stepless adjustable
Rotatable stored protection hose
Rubber anti-kink feature at machine and torch end

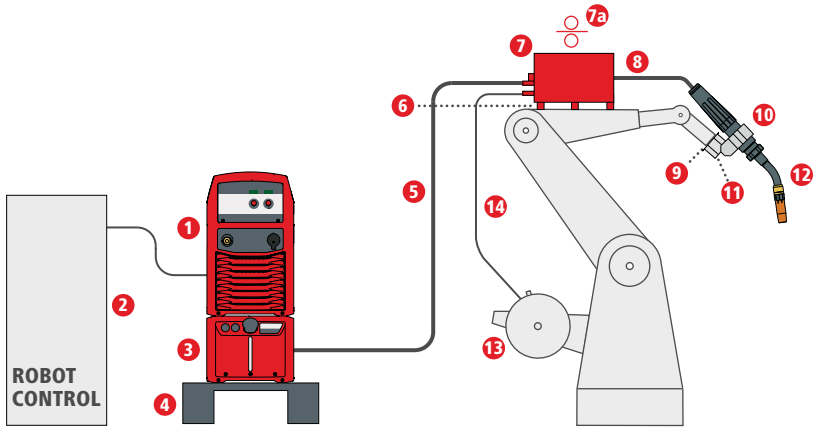
	PullMig CMT G	PullMig CMT W
Weight	7,5kg	7,35kg
Wire Ø	0,8-1,2mm	0,8-1,6mm
Welding duration current (ArCO2)	130A	360A
Welding current / Duty cycle [ArCO2]	210A / 40% [CMT 180A / 35%]	500A / 40% [CMT 210A / 60%]
Welding duration current (CO2)	130A	360A
Welding current / Duty cycle [CO2]	210A / 40%	500A / 40%

MIG/MAG

ROBOT CONFIGURATIONS

It’s the know-how that does it: having durable high-quality solutions, both standardised and customised, for all robot-welding requirements is an absolute must. Whether as a full-liner, a system manufacturer or a single-source supplier, perfection is what is required for every application, for every manufacturer and for every robot.

TransSteel Robot conventional



Processes
MIG/MAG welding

Recommended base materials
Steel

Recommended areas of use
Structural steel, construction of plant and machines
Shipbuilding
Construction machinery
Construction of rail vehicles and rolling stock
Construction of special machinery

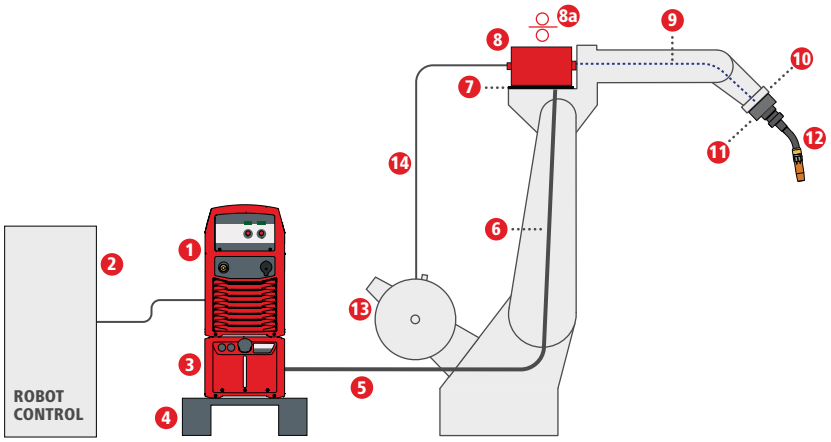
Options

Autom. interface TSt
Flow + thermosensor
Cooling filter
Podium braking wheel digital machines
Torch blow out 16bar
Gas pressure sensor
External collisionbox signal
div. Interfaces (Rob 3000, Rob TSt, Rob 5000 OC, CanOpen TSt, Interbus TSt, DeviceNet TSt, ...)
QuickConnect for wire feed hoses
Control unit

Standard equipment

Steel Transfer Technology
Thermostat-controlled fan
Automatic cooling unit cut-out
Dust filter
Synergic mode
EasyJob (Job memory)
ComfortWire
Rob Interfaces (external/internal)
Magnetic Crash-box
Podium TransSteel
Oil-resistant protection hoses

TransSteel PAP



Processes
MIG/MAG welding

Recommended base materials
Steel

Recommended areas of use
Structural steel, construction of plant and machines
Shipbuilding
Construction of special vehicles
Construction machinery
Construction of rail vehicles and rolling stock

Options

Autom.interface TSt
Flow- and thermosensor
Cooling filter
Podium braking wheel digital machines
Torch blow out 16bar
Gas pressure sensor
External collisionbox signal
Div. Interfaces (Rob 3000, Rob TSt, Rob 5000 OC, CanOpen TSt, Interbus TSt, DeviceNet TSt, ...)
QuickConnect for wire feed hoses
Control unit

Standard equipment

Steel Transfer Technology
Thermostat-controlled fan
Automatic cooling unit cut-out
Dust filter
Synergic mode
EasyJob (Job memory)
ComfortWire
Slidable mounting for VR 5000 PAP
Rob Interfaces (external/internal)
Magnetic crash-box
Podium TransSteel
Oil-resistant protection hoses

Robacta torch bodies MTG3500 S / MTG5000 S / MTW3500 S / MTW5000 S

(robot welding torches for TransSteel)

Robacta MTG conventional
Robacta MTG PAP

Robacta MTW conventional
Robacta MTW PAP

Processes

MIG/MAG welding

Recommended base materials

Steel

Recommended areas of use

Construction of plant, containers, machinery, structural steel
Shipbuilding and offshore engineering
Construction of special machinery and-construction machinery
Construction of rail vehicles & rolling stock
Robot welding

Options

Torch body:
customer specific torch body lengths and customer specific angle

Hose pack:
inner liner for CrNi-wire
customer specific lengths 1,0m to 6m

Hose pack PAP:
steel inner liner for steel wire
CrNi inner liner for CrNi wires

Standard equipment

Torch body gascooled:
Precision TCP ± 0,2mm
Gas nozzle fixing “Fast Snap”
Insulated gas nozzle
Changeable nozzle stock
Outer tube of steel

Torch body watercooled:
Precision TCP ± 0,2mm
High quality spatter guard

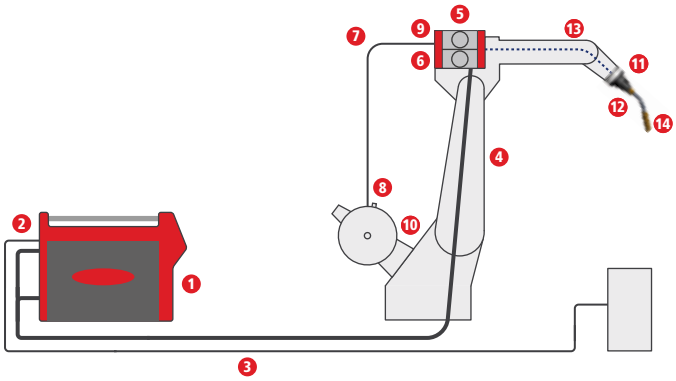
Changeable nozzle stock
Outer tube of brass

Hose pack:
Fronius System Connector FSC
Corrugated hose
Anti-kink feature at machine and torch end
Bare steel inner liners can be used
One control line (for Crashbox)
Precision TCP ± 0,5mm incl. torch body

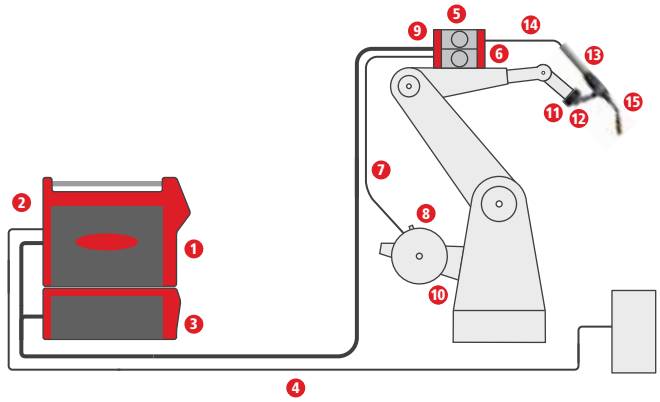
Hose pack PAP:
Abrasion resistant hose pack components
Fronius System Connector FSC
One control line (für Crashbox)
Bare steel inner liners can be used
additional watercooled:
Water stop at machine and torch end
Separate gas and blow out line

	Robacta MTG3500 S	Robacta MTG5000 S	Robacta MTW3500 S	Robacta MTW5000 S
Wire Ø	0,8-1,2mm	1-1,6mm	0,8-1,2mm	1-1,6mm
Welding duration current (ArCO2)	200A	260A	350A	500A
Welding duration current (CO2)	220A	320A	350A	500A
Welding current / Duty cycle [ArCO2]	300A / 40%	400A / 40%	-	-
Welding current / Duty cycle [CO2]	350A / 40%	500A / 40%	-	-

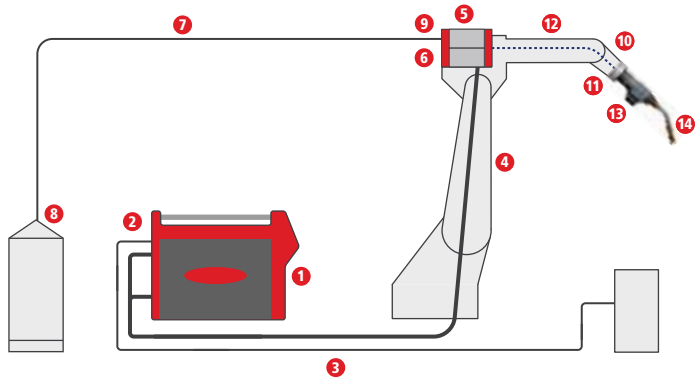
Push gascooled PAP



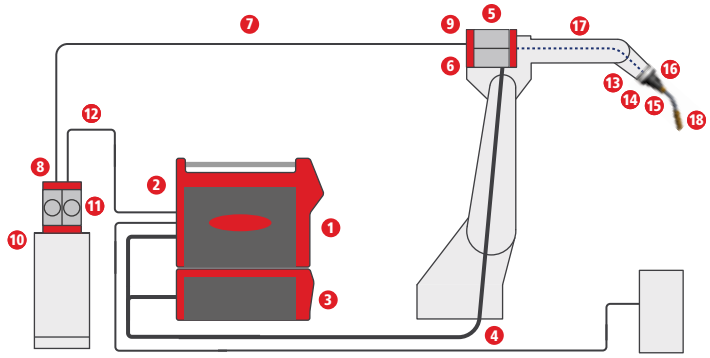
Push watercooled CONV



PowerDrive gascooled PAP



PushPull watercooled CONV



Robot torch bodies gascooled MTB 250i G R / MTB 320i G R / MTB 400i G R

MTB 250i G R

MTB 320i G R

MTB 400i G R

Standard equipment

Line for gas nozzle position search
Device ID
Outer tube of stainless ste
Screw-on gas nozzle
Temperature sensor

Options

BasicKits
Contec (MTB 320i G R, MTB 400i G R)
Ceramic spatter guard for Heavy Duty applications
Black coated gas nozzle for aluminium application

	MTB 250i G R	MTB 320i G R	MTB 400i G R
Weight	0,55kg	0,55kg	0,75kg
Wire Ø	0,8-1,2mm	1-1,6mm	1-1,6mm
Welding duration current (ArCO2)	170A	210A	260A
Welding duration current (CO2)	200A	260A	320A
Welding current / Duty cycle [ArCO2]	250A / 40%	320A / 40%	400A / 40%
Welding current / Duty cycle [CO2]	250A / 60%	320A / 60%	400A / 60%

Robot hose packs gascooled MHP 400i G R

Standard equipment

Control elements: wire-forward, wire-back, gas test
Diffusion resistant gas hose
Temperature resistant rubber braided hose for conventional
Temperature resistant corrugated hose for PAP
Rubber anti-kink feature useable on both sides for conventional
Integrated blow out line
Line for gas nozzle position search
High quality current cable
2-wire bus
FSC-connection

Options

Wire break for mechanical fixing of the wire (for gas nozzle position search)
Customer specific hose pack length on request

	MHP 400i R/G
Wire Ø	0,8-1,6mm
Welding duration current (ArCO2)	260A
Welding duration current (CO2)	320A
Welding current / Duty cycle [ArCO2]	400A / 40%
Welding current / Duty cycle [CO2]	400A / 60%

Robacta Drive gascooled WF 25i / MHP 400i RD R G

Options
BasicKits
Special lengths of hose packs are on request

Symbol picture

Standard equipment

Driving unit:
Control element: Wirefeed FWD/BACK, Gas test and Dot-matrix display
Display for press-on force-adjustment
Brushless AC step motor
Toothed drive and pressure rollers
Precision TCP +/- 0,5mm incl. torch body
Wire feed speed: 1 - 25m/min

Temperature sensor (as overheat protection)
Couplings for simple and fast change of hose pack and torch body

Hose pack:
Diffusion resistant gas hose
Temperature resistant corrugated hose

Anti kink spring on both sides at convetional hose packs
Integrated blow out line
Line for gas nozzle position
High quality current cable
2-wire bus and SpeedNet
FSC connection

	WF 25i Robacta Drive /G
Weight	1,78kg
Wire Ø	0,8-1,6mm
Welding duration current (ArCO2)	210A
Welding duration current (CO2)	260A
Welding current / Duty cycle [ArCO2]	260A / 60%
Welding current / Duty cycle [CO2]	320A / 60%

Robot torch bodies watercooled MTB 250i W R / MTB 330i W R / MTB 400i W R / MTB 500i W R / MTB 700i W R

MTB 250i W R

MTB 330i W R

MTB 400i W R

MTB 500i W R

MTB 700i W R

Standard equipment

Line for gas nozzle position search
Device ID
Outer tube of stainless ste
Screw-on gas nozzle
Temperature sensor
Integrated water stop

Options

BasicKits
Contec (MTB 400i W R / MTB 500i W R)
Black coated gas nozzle for aluminium application

	MTB 250i W R	MTB 330i W R	MTB 400i W R	MTB 500i W R	MTB 700i W R
Weight	0,6kg	0,6kg	0,6kg	0,65kg	0,7kg
Wire Ø	0,8-1,2mm	0,8-1,6mm	1-1,6mm	1-1,6mm	1-1,6mm
Welding duration current (ArCO2)	250A	330A	400A	500A	700A
Welding duration current (CO2)	250A	330A	400A	500A	700A

Robot hose packs watercooled MHP 700i W R

Standard equipment

Control elements: wire-forward, wire-back, gas test
Integrated water stop
Diffusion resistant gas hose
Temperature resistant rubber braided hose for conventional
Temperature resistant corrugated hose for PAP
Rubber anti-kink feature useable on both sides for conventional
Integrated blow out line
Line for gas nozzle position search
High quality current cable
2-wire bus
FSC-connection

Options

Wire break for mechanical fixing of the wire (for gas nozzle position search)

	MHP 700i R/W/PAP	MHP 700i W R
Wire Ø	0,8-1,6mm	0,8-1,6mm
Welding duration current (ArCO2)	700A	700A
Welding duration current (CO2)	700A	700A

Robacta Drive watercooled WF 25i / MHP 700i RD R W

Options

BasicKits
Special production of hose packs are on request

Symbol picture

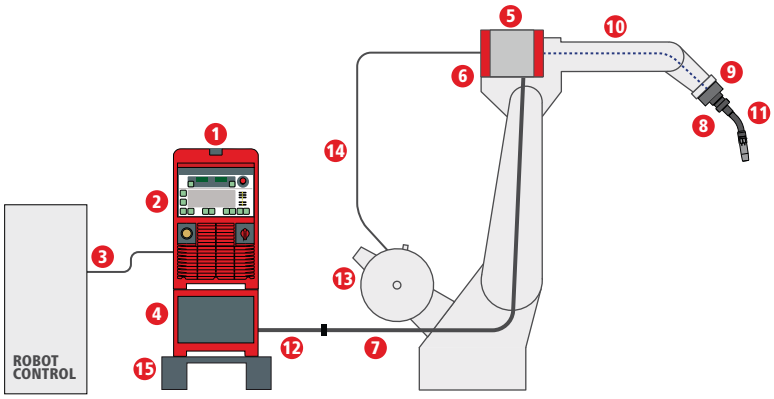
Standard equipment

Driving unit:
Control element: Wirefeed FWD/BACK, Gas test and Dot-matrix display
Display for press-on force-adjustment
Brushless AC step motor
Toothed drive and pressure rollers
Precision TCP +/- 0,5mm incl. torch body
Wire feed speed: 1 - 25m/min
Temperature sensor (as overheat protection)
Couplings for simple and fast change of hose pack and torch body
Water stop

Hose pack:
Diffusion resistant gas hose
Temperature resistant corrugated hose
Anti kink spring on both sides at convetional hose packs
Integrated blow out line
Line for gas nozzle position
High quality current cable
2-wire bus and SpeedNet
FSC connection

	WF 25i Robacta Drive /W
Weight	1,78kg
Wire Ø	0,8-1,6mm
Welding duration current (ArCO2)	500A
Welding duration current (CO2)	500A

PAP watercooled



Recommended areas of use
Automotive and allied vendor industries
Aerospace industry
Steel- machine- and plant construction
Construction of rail vehicles and rolling stock

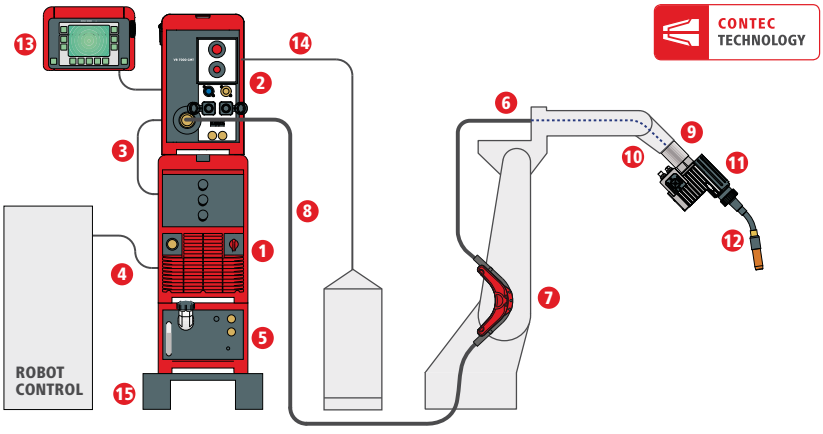
Options
Extension by modules
Synchro Pulse
Key switch
External display
Weld Process Data
Job Explorer / WIN RCU
Calibration document
Fronius XPlorer
Touch sense mode with gas nozzles

Processes
MIG/MAG welding
MIG/MAG impulse arc-welding
MIG brazing
CMT brazing
CMT welding
CMT puls-welding

Recommended base materials
Constructional steel
Coated constructional steel
CrNi steels
Ferritic / austenitic CrNi steels
Duplex steels
Nickel-based materials
Special materials

Standard equipment
4-roller drive
Burn-up impulse (perfect wire end, ideal relighting)
Digital welding process control
Wire soft-start
Wire inching without gas and current
Engergy-saving inverter technology
Ground fault detection
Remote controllable
Automatic burn-back control
Gas test button
External robot interface for Synergic and Jobmode
Hose pack holder (pull relief)
VR-motor current display
Special 2-step mode
Welding programs from databank
Current flow signal
VR-cover
Equipped with 1.2mm VR-rolls
Touch sense mode with wire
Synergic mode
S-mark, CE-mark
Temperature controlled fan
Overtemperature protection

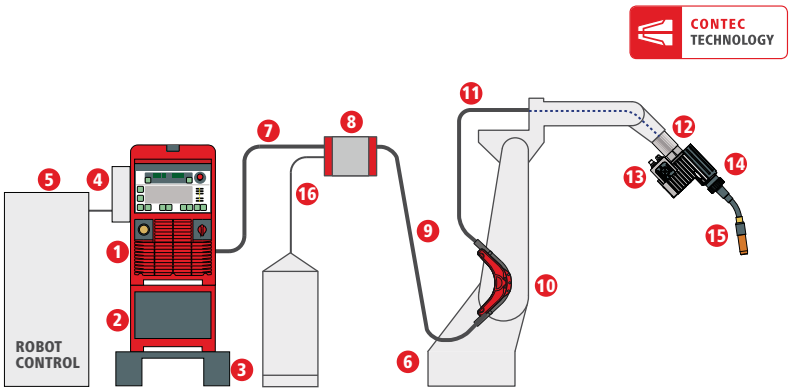
PAP-CMT watercooled / gascooled



PAP-CMT PowerLiner / TPS 3200 / Fieldbus system

Watercooled edition with Fieldbus System (DeviceNet ECO) for TPS 3200.

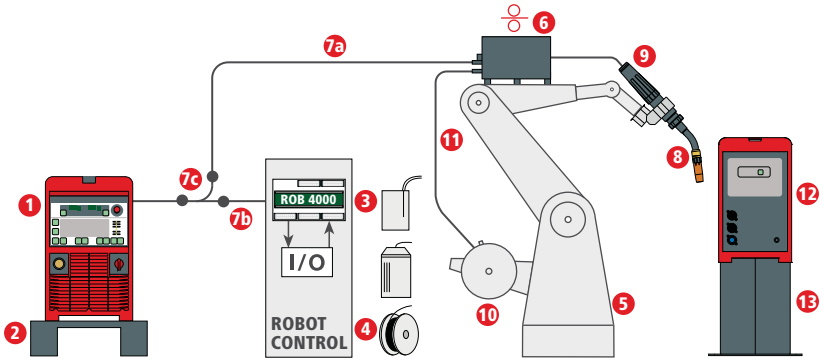
Equipment for ø 1,2mm aluminum wire.



TPS 3200 / Rob 4000 Set / Push / Cleaner

Gascooled edition with Standard I/O Interface (Rob 4000) for Synergic mode for TS/TPS 3200/4000/5000.

Equipment for ø1,2 mm steel wire



Processes

MIG/MAG-welding
MIG/MAG pulsed arc-welding
MIG-brazing

Recommended base materials

Constructional steels
Coated constructional steels
Ferritic / austenitic CrNi steels
Duplex-steels
Nickel-based materials

Recommended areas of use

Automotive and allied vendor industries
Aerospace industry
Construction of plant, containers, machinery, structural steel
Construction of rail vehicles and rolling stock

Standard equipment

4-roller drive
Burn-back impulse (perfectly formed wire-tip, optimum re-ignition)
Digital welding process control
Soft start
Wire inching without gas or current
Energy saving inverter technology
Earth leakage monitoring
Remote controllable
Automatic burn back control
Gas test button
External robot interface for synergic mode
Hose pack holder (pull relief)
VR-display for motor current
Special 2-step mode
Welding programmes from databank
Current flow signal
Synergic mode
S-mark, CE-mark
Thermostat controlled fan
Overtemperature protection

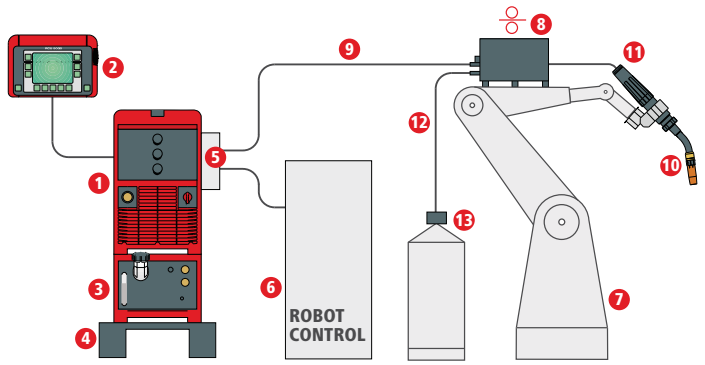
Options

Twin-head control
Upgrades by add-on modules
Synchro pulse
Keylock switch
Spatter Free Ignition (Robacta Drive)
Intermediate drive (Master/Slave)
External displays
Welding data docu
Fronius Xplorer
Calibration document

TPS 5000 Remote / Ethernet IP / Push

Watercooled edtion with Interface Ethernet IP for Synergic and Jobmode for TS/TPS 4000/5000 remote.

Equipement for ø 1,2 mm steel wire for FANUC R30iA control.



Standard equipment

4-roller drive
Burn-back impulse (perfectly formed wire-tip, optimum re-ignition)
Automatic cooling-unit cut-out
Digital welding process control
Soft-start
Wire inching without gas or current
Energy-saving inverter technology
Earth leakage monitoring
Remote controllable
Automatic burn-back control
Gas test button
External robot interface for synergic and job mode
Hose pack holder (pull relief)
VR-display for motor-current
Special 2-step mode
Welding programmes from databank
Current flow signal
Synergic- / Job- / manual mode internal
S-mark, CE-mark
Thermostat controlled fan
Overtemperature protection
Touch Sense Mode (with welding wire)
External program / job selection
Real- and command value (display function)

Processes

MIG/MAG-welding
MIG/MAG-pulsed arc welding
MIG/MAG-high performance welding
MIG-brazing

Recommended base materials

Constructional steels
Coated constructional steels
Ferritic / austenitic CrNi steels
Duplex-steels
Nickel based materials
Aluminium-materials
Magnesium-materials (TPS 5000)
Copper-materials (TPS 5000)
Special materials

Recommended areas of use

Automotive and allied vendor industries
Construction of special machinery and construction machinery
Aerospace industry
Construction of plant, containers, machinery, structural steels
Construction of rail vehicles and rolling stock

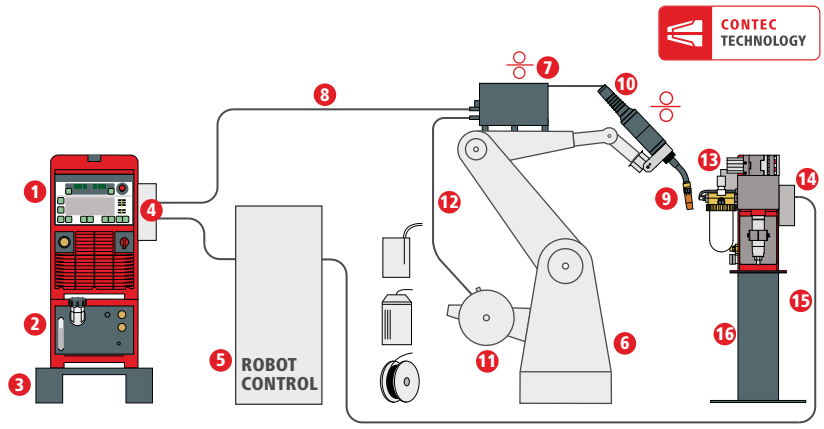
Options

Twin-head control
Keylock switch
Synchro Pulse
Intermediate drive (Master/Slave)
Welding data docu
Fronius Xplorer
Calibration document

TPS 5000 / Feldbus Set / PushPull / Reamer

Watercooled edition with Fieldbus Interface (Interbus 2 MB Rugged Line) for TS/TPS 4000/5000.

Equipment for ø 1,2 mm aluminum wire.



Standard equipment

4-roller drive
Burn-back impulse (perfectly formed wire-up
Automatic cooling-unit-cut out
User-defined function button
Digital welding process control
Soft-start
Wire inching without gas or current
Energy-saving inverter technology
Earth leakage monitoring
Remote controllable
Automatic burn-back control
Gas test button
Robot Interface Fieldbus
Hose pack holder
Special 2-step mode
Welding programme from databank
Current-flow signal
Synergic- / Job- / manual mode internal
S-mark, CE-mark
Thermostat controlled fan
Overtemperature protection
Touch Sense Mode (with welding wire)
External programme- / job selection

Processes

MIG/MAG-welding
MIG/MAG-pulsed arc welding
MIG-brazing

Recommended base materials

Constructional steels
Coated constructional steels
Ferritic / austenitic CrNi steels
Duplex-steels
Nickel-based materials
Aluminium-materials
Magnesium-materials (TPS 5000)
Copper materials(TPS 5000)
Special materials

Recommended areas of use

Automotive and allied vendor industries
Construction of special machinery and construction machinery
Aerospace industry
Construction of plant, containers, machinery, structural steels
Construction of rail vehicles & rolling stock

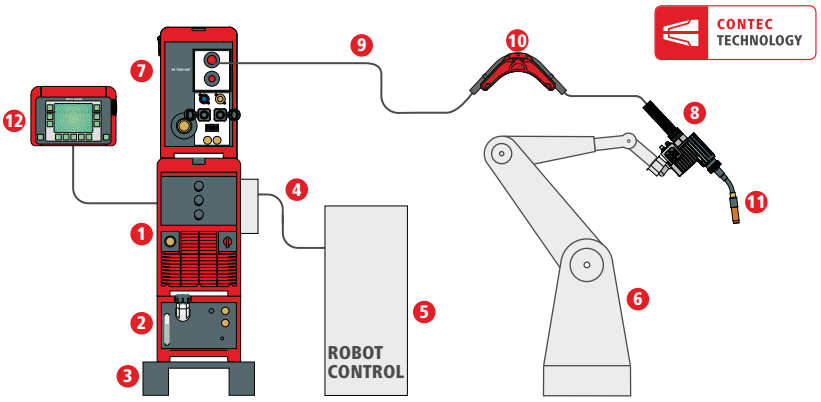
Options

Twin-head control
Upgrades by add-on modules
Rate-of flow watchdog for torch cooling
Keylock switch
Synchro Pulse
Welding data docu
Fronius Xplorer
Calibration document

TPS 3200 CMT / Modbus Interface

Technical data, standard equipment and options of the power source see page 20 TransPuls Synergic 3200/4000/5000.

Equipment for ø1,2 mm aluminum wire for Yaskawa/Motoman DX100 control.
Watercooled edition with WeldCom Interface for CMT systems with new contact system Contec.



Recommended base materials

Constructional steels
Coated constructional steels
Ferritic / austenitic CrNi steels
Duplex-steels
Nickel based materials
Aluminium materials
Special materials
Magnesium materials
Copper materials

Processes

CMT-brazing
CMT-welding
CMT-pulse-welding
MIG/MAG-welding
MIG/MAG-pulsed arc welding
MIG-brazing

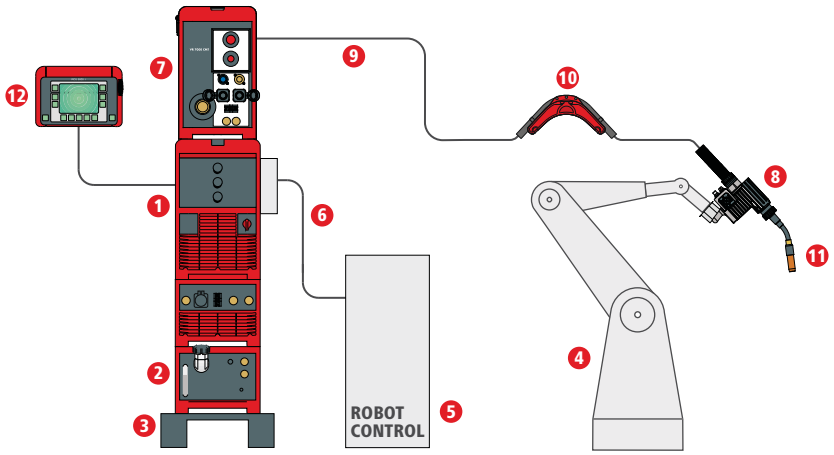
Recommended areas of use

Automotive and allied vendor industries
Construction of special machinery and construction machinery
Construction of plant, containers, machinery, structural steel
Robot welding
Construction of industry plants and pipeline industry
Construction of rail vehicles and rolling stock

CMT Advanced 4000

Technical data, standard equipment and options of the power source see page 20.

Edition for Ø 1,2mm aluminum wire for Yaskawa/Motoman DX100 control with new contact system Contec.



Recommended base materials
Constructional steel
Coated constructional steel
Ferritic / austenitic CrNi steels
Duplex steels
Nickel-based materials
Aluminum materials
Special materials
Magnesium materials
Copper materials

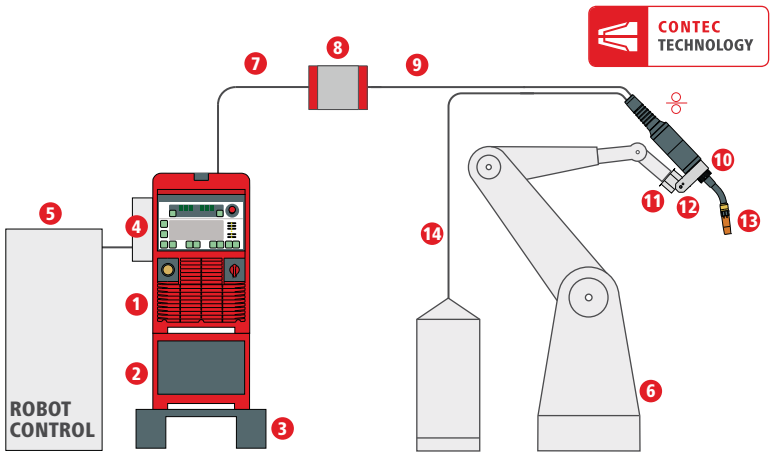
Processes
CMT-brazing
CMT-welding
CMT-pulse welding
MIG/MAG welding
MIG/MAG pulsed arc welding
MIG brazing
CMT advanced welding

Recommended areas of use
Automotive- and supplier industry
Constructional machines and special machinery
Industrial plant construction and installation companies
Robot manufacturers and system integrators
Construction of rail vehicles and rolling stock

Robacta PowerDrive System / TPS 5000 / Fieldbus

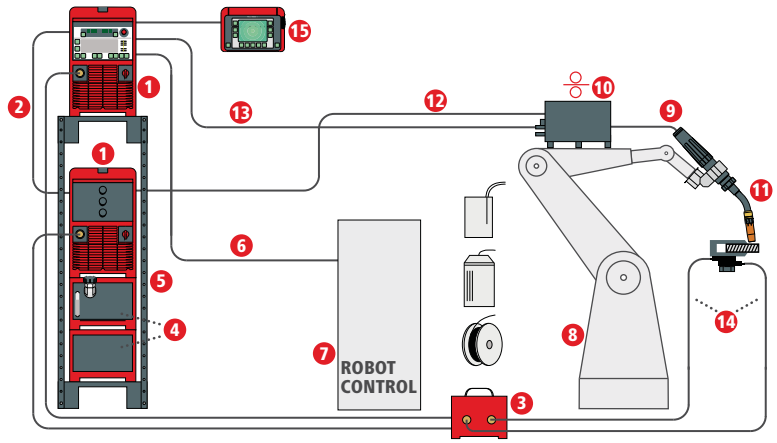
Watercooled edition with Fieldbus Interface (DeviceNet ECO) for TPS 4000/5000.

Equipment for ø 1,2mm aluminum wire.



TPS 7200 / 9000, TransSynergic 7200 / 9000

Technical data see page 20



Processes

MIG/MAG impulse high performance welding
MIG/MAG standard high performance welding
MIG/MAG high performance welding for filled wire up to 3,2mm
MIG/MAG high performance welding for flat wire

Recommended base materials

Constructional steels
Coated construction steels
Ferritic / austenitic CrNi steels
Duplex steels
Nickel based materials
Special materials
Magnesium materials
Copper materials

Recommended areas of use

for automated applications
- Construction of plant, containers, machinery, structural steels
- Automotive and allied vendor industries
- Construction of special machinery and construction machinery
- Maintenance and repair
- Pipeline construction
- Construction of rail vehicles and rolling stock
- Shipbuilding and Offshore

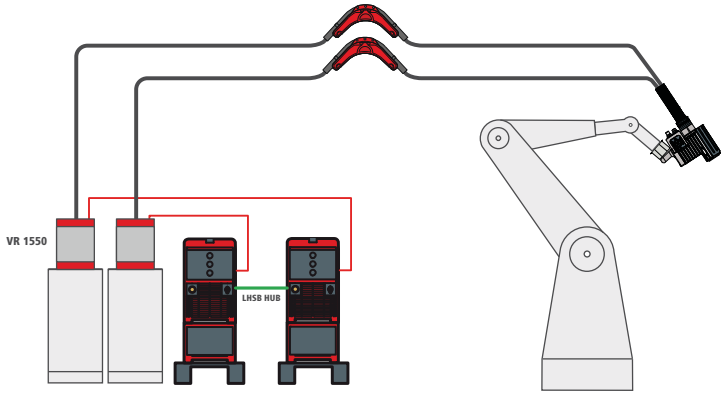
Options

Remote control
PullMig-mode
Robot Interface Fieldbus
Gas sensor
Keylock switch
Welding programmes from databank
Spatter-free ignition SFI
SynchroPulse
Weld Process Data
JobExplorer / WIN RCU
Wire coil adaptor
Service Module
Intermediate drive
Twin-head control
Upgrades by add-on modules
Flat wire equipment
Calibration document

Standard equipment

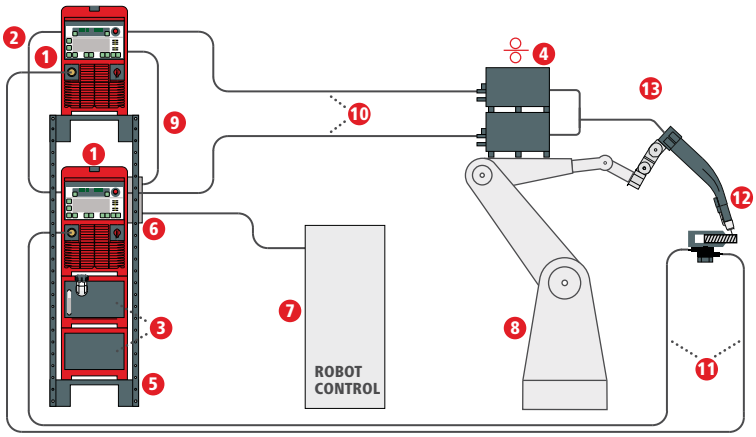
2-/4-roller drive
Wire inching without gas or current
Earth leakage monitoring
Automatic burn-back control
Gas test button
Job-mode (depending on Interface)
Manual mode (depending on Interface)
Synergic-mode
Rate of flow watchdog for torch cooling (FK 9000)
Thermostat for torch cooing (FK 9000)
S-mark, CE-mark
Thermostat controlled fan
Overtemperature protection
2-step mode, Special 2-step mode
Spot welding
Aluminium welding start-up
Digital Display
Current flow signal

CMT Twin



TimeTwin Digital 4000 / 5000 / 7200 / 9000

Technical data see page 20



Processes

MIG/MAG-tandem impulse high performance welding
MIG/MAG-tandem standard high performance welding
MIG/MAG-impulse welding
MIG/MAG-standard welding
MIG/MAG-tandem brazing

Recommended base materials

Constructional steels
Coated constructional steels
Ferritic / austenitic CrNi steels
Duplex steels
Nickel based materials
Special materials

Recommended areas of use

for automated applications
- Construction of plant, containers, machinery, structural steels
- Automotive and allied vendor industries
- Construction of special machinery and construction machinery
- Maintenance and repair
- Pipeline construction
- Construction of rail vehicles and rolling stock
- Shipbuilding and Offshore

Options

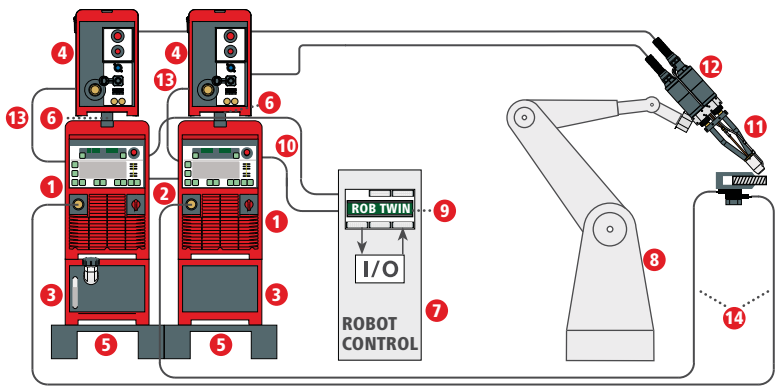
Remote control
PullMig-mode
Robot Interface Fieldbus
Gas sensor
Keylock switch
Welding programmes from databank
Spatterfree ignition SFI
SynchroPulse
Weld Process Data
JobExplorer / WIN RCU
Wire coil adaptor
Service module
Intermediate drive
Twin-head control
Upgrades by add-on modules
Solutions for robot systems
Calibration document

Standard equipment

2-/4-roller drive
Wire inching without gas or current
Earth leakage monitoring
Automatic burn-back control
Gas test button
Rate-of-flow watchdog for torch cooling (FK 9000)
Thermostat for cooling unit (Fk 9000)
S-mark, CE-mark
Thermostat controlled fan
Overtemperature protection
2-step mode, special 2-step mode
Spot welding
Aluminium welding start up
Digital Display
Current flow signal
Synergic- / Job- / manual mode
Touch Sense Mode
External programme- / job selection

	TransPuls Synergic 5000
Weight	35,6kg
Dimension / h	475mm
Dimension / b	290mm
Dimension / l	625mm
Open-circuit voltage	70V
max. welding current	500A
Welding current min.	3A
Operating voltage	14,2-39V
Protection class	IP23
Mains fuse	35A
Mains Frequency	50-60Hz
Mains voltage [+/-10%]	3 x 400V
Welding current / Duty cycle [10min/40C]	360A / 100%
Welding current / Duty cycle [10min/40C]	450A / 60%
Welding current / Duty cycle [10min/40C]	500A / 40%

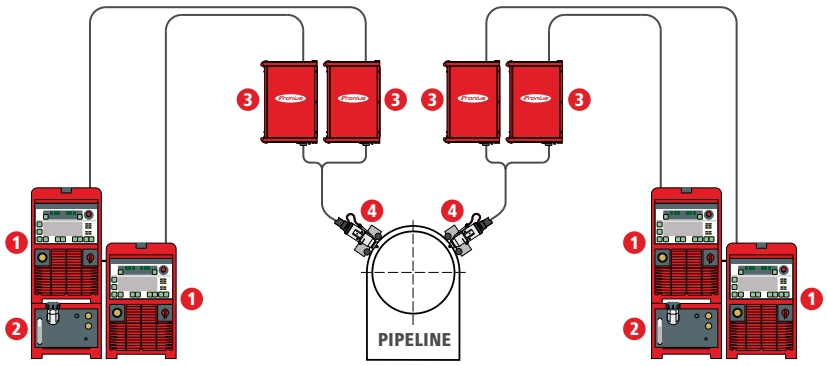
TimeTwin Digital 4000 / 5000



General features

Features see TimeTwin Digital 4000 / 5000 / 7200 / 9000

TPS 3200 Pipe



Standard equipment

2-/4-roller drive
Wire inching without gas or current
Earth leakage monitoring
Gas test button
S-mark, CE-mark, CSA-mark
Thermostat controlled fan
Overtemperature protection
Software TimeTwin digital
Welding programmes for pipeline and Duplex steels
2-step mode, special 2-step mode
Digitale display
Current flow signal
Synergic- / Job- / manual mode
Touch Sense Mode
External programme- / job selection
Secon minus socket
Power source 460V version
Over- and undervoltage control
Suitable for generator mode

Processes

MIG/MAG-welding
MIG/MAG-pulsed arc welding
MIG/MAG-high performance welding

Recommended base materials

Pipeline steels up to bis X120
Duplex steels

Recommended areas of use

Automated Pipeline industry Onshore / Offshore
Pipeline construction

Options

Remote control
PullMig mode
Robot Interface Fieldbus
Keylock switch
Welding programmes from database
Spatterfree ignition SFI
SynchroPulse
Weld Process Data
JobExplorer / WIN RCU
Service module
Calibration document

Construction

Single-wire mode
Doubled single-wire mode synchronised
Tandem mode synchronised
Double Tandem mode synchronised

Robacta torch bodies gascooled MTG 2500 / MTG 3200 / MTG 4000

Robacta MTG conventional

Robacta MTG PAP

Recommended areas of use

Construction of plant, containers, machinery, structural steels
Automotive and allied vendor industries
Construction of special machinery and construction machinery
Construction of chemical plants
Robot welding
Construction of rail vehicles and rolling stock
Shipbuilding and Offshore

Options

Torch body:
Contact tubes with centre bore for Al wire
Customer specific lenghts up to max. 500mm
Examination and correction device
Seam-tracking line

Hose pack:
Combi inner liner for Al- and CrNi-wire
Holding- and adjusting clamp
Extractor set
Customer specific lenghts 1,0-4,5m

Hose pack PAP:
Combi inner liner for Al- and CrNi wires

Processes

MIG/MAG-welding
MIG-brazing

Recommended base materials

Constructional steels
Coated constructional steels
Ferritic / austenitic CrNi steels
Duplex steels
Nickel based materials
Copper materials

Standard equipment

Torch body:
Insulated gas nozzle
Gas nozzle fixing „Quick Snap“
Contact tube, CuCrZr-alloy
Precision TCP ± 0,2mm

Hose pack:
Steel inner liner for steel wire
Precision TCP ± 0,5m incl torch body
Separate gas and blow out lines
Swirl-free gas flow - no loss of gas
UV, temp and ozone-resistant rubber fabric hoses
Seam-tracking line in the hose pack (except PAP)
Corrugated hose

Hose pack PAP:
Steel inner liner for steel wire
Highly flexible coaxial cable
Abrasion protection
no blow-out lines, blow out through gasline

	Robacta MTG 2500	Robacta MTG 3200	Robacta MTG 4000	Robacta G/F	Robacta G/CB-PAP
Weight	0,5kg	0,55kg	0,6kg	1,8kg	3,08kg
Wire Ø	0,8-1,2mm	0,8-1,2mm	0,8-1,6mm	0,8-1,2mm	0,8-1,6mm
Welding duration current (ArCO2)	150A	200A	250A		250A
Welding current / Duty cycle [ArCO2]	200A / 60%	260A / 60%	320A / 60%	320A / 60%	320A / 60%
Welding duration current (CO2)	190A	250A	310A		310A
Welding current / Duty cycle [CO2]	250A / 60%	320A / 60%	400A / 60%	400A / 60%	400A / 60%

Robacta Drive gascooled with external wire feed hose

Processes
MIG/MAG welding
MIG brazing

Recommended areas of use
Construction of plant, containers, machinery, structural steel
Automobile and allied vendor industries
Construction of special machinery and construction machinery
Construction of chemical plants
Construction of rail vehicles & rolling stock
Shipbuilding and offshore engineering
Robot welding

Recommended base materials
Constructional steels
Coated constructional steel
Ferritic / austenitic CrNi steels
Duplex steels
Nickel-based materials
Copper materials

Options
Torch body
Contact tubes with centre bore for Al wire
Special lengths up to max. 500mm
Examination- and correction device
Seam-tracking line

Hose pack:
Steel inner liner for steel wire
Customer specific lengths 1,0m to 16m
Without driving unit
Extraction set
Seam tracking line
Holding and adjusting clamp
Adaptor for Dinse box
Basic kit

Standard equipment

Torch body:
Insulated gas nozzle
Gas nozzle fixing „Quick Snap“
Contact tube, CuCrZr alloy
Precision TCP +- 0,2mm

Driving unit:
Wirefeed FWD/BACK button
Gas test button
Display for press-on force-adjustment
DC-servermotor with digital encoder
Toothed drive and pressure rollers
Precision TCP +- 0,5mm incl. torch body

Hose pack:
Separate gas and blow out lines
Swirl free gas flow – no loss of gas
UV, temp and ozone resistant rubber fabric hoses
Equipped for Alu, CuSi and CrNi
Inner liner for ø0,6-2,0mm

	Robacta Drive Ext. G/F
Weight	4,24kg
Wire Ø	0,8-1,6mm
Welding duration current (ArCO2)	200A
Welding duration current (CO2)	250A
Welding current / Duty cycle [ArCO2]	260A / 60%
Welding current / Duty cycle [CO2]	320A / 60%
Wire feed speed	22m/min

Robacta Drive CMT gascooled

conventional

PAP

Options

Wire buffer set (1,2m, 1,6m)
Wire buffer connections (Universal, for ABB)
Holding angle (0°, 22°, 36°, Flex)
Torch body
Contact tubes with centre bore for Al wire

Special lengths up to max. 500mm
Examination- and correction device
Seam-tracking line
Recommended torch bodies: MTG 2500/4000 (22°, 36°)

Processes

CMT welding
CMT Pulsmix welding
CMT brazing
MIG/MAG welding

Recommended base materials

Constructional steels
Coated constructional steel
Ferritic / austenitic CrNi steels
Duplex steels
Aluminium materials
Copper materials
Special materials

Recommended areas of use

Construction of plant, containers, machinery, structural steel
Automobile and allied vendor industries
Construction of special machinery and construction machinery
Construction of chemical plants
Construction of rail vehicles & rolling stock
Shipbuilding and offshore engineering
Robot welding

Standard equipment

Torch body:
Insulated gas nozzle
Gas nozzle fixing „Quick Snap“
Contact tube, CuCrZr alloy
Precision TCP +- 0,2mm

Driving unit:
AC direct drive for high dynamic wire feeding
External wire feed hose only
Wirefeed FWD/BACK button
Gas test button
Self centering pressure rolls
Display for press-on force adjustment
Signal LED for status display
Precision TCP +- 1,5mm incl. torch body

Pro Version: Precision TCP +- 0,5mm incl. torch body

Hose pack:
Demountable hose pack
Separate gas and blow out line (except PAP)
Swirl free gas flow – no loss of gas
UV, temp and ozone resistant rubber fabric hoses

	Robacta Drive CMT G
Weight	2,648kg
Wire Ø	0,8-1,2mm [Al 1,6mm]
Welding duration current (ArCO2)	200A
Welding duration current (CO2)	250A
Welding current / Duty cycle [ArCO2]	260A / 60%
Welding current / Duty cycle [CO2]	320A / 60%
Wire feed speed	22m/min

Robacta torch bodies watercooled 2500 / 2700 CMT Braze+ / 280 / 300 / 400 / 500 / 5000 / 700 / 700 Time / 7000

konventionell

PAP

CMT Braze+

Processes

MIG/MAG-welding
MIG/MAG-pulsed arc welding
MIG/MAG-high performance welding
MIG-brazing

Recommended base materials

Constructional steels
Coated constructional steels
Ferritic / austenitic CrNi steels
Duplex steels
Nickel based materials
Copper materials

Recommended areas of use

Construction of plant, containers, machinery, structural steels
Automotive and allied vendor industries
Construction of special machinery and construction machinery
Construction of chemical plants
Maintenance and repair
Construction of rail vehicles and rolling stock
Shipbuilding and Offshore

Options

Torch body:
Contact tube with centre bore for Al-wire
Customer specific lenghts up to 500mm
Customer specific torch body angle
Examination- and correction device
Seam-tracking line

Hose pack:
Combi inner liner for Al- and CrNi-wire

Holding- and adjusting clamp
Extractor set
Seam-tracking line in the hose pack
Special lenghts 1,0-4,5m
Corrugated hose

Hose pack PAP:
Combi inner liner for Al- and CrNi-wire
Seam-tracking line

Standard equipment

Torch body:
Insulation sleeve
Contact tube, CuCrZr-alloy
Forced contacting arrangement for welding wire
Precision TCP ± 0,2mm

Hose pack:
Precision TCP ± 0,5mm incl. torch body
Steel inner liner for steel wire
Wirefeed FWD button
Separate gas and blow-out lines
Swirl-free gas-flow - no loss of gas
UV-, temp, and ozone-resistant rubber fabric hoses
Rubber anti-kink feature at machine and torch end

Hose pack PAP:
Steel inner liner for steel wire
Abrasion resistant hose pack components
Swirl-free gas-flow - no waste of gas
no separate blow-out lines, blow out through gasline

	Weight	Wire Ø	Welding duration current ($ArCO_2$)	Welding duration current (CO_2)
Robacta 2500	0,515kg	0,6-1,2mm	250A	250A
Robacta 2700 CMT Braze+	0,68kg	0,8-1,2mm	270A	270A
Robacta 280	0,52kg	0,8-1,2mm	280A	280A
Robacta 300	0,515kg	0,8-1,2mm	350A	350A
Robacta 400	1,9kg	0,8-1,2mm	400A	400A
Robacta 500	0,585kg	0,8-1,6mm	500A	500A
Robacta 5000	0,585kg	0,8-1,6mm	500A	500A
Robacta 700	0,575kg	1-1,6mm	700A	700A
Robacta 7000	0,575kg	1-1,6mm	700A	700A
Robacta W	1,6kg	0,8-1,6mm	700A	700A
Robacta W/CB-PAP	2,4kg	0,8-1,6mm	500A	500A

Robacta Drive watercooled / Robacta Drive watercooled with external wire feed hose

Processes
MIG/MAG standard welding
MIG/MAG pulsed arc welding
MIG brazing

Recommended areas of use
Construction of plant, containers, machinery, structural steels
Automotive and allied vendor industries
Construction of special machinery and construction machinery
Construction of chemical plants
Construction of rail vehicles and rolling stock
Shipbuilding and Offshore
Robot welding

Recommended base materials
Constructional steels
Coated constructional steels
Ferritic / austenitic CrNi steels
Duplex-steels
Aluminium-materials
Copper materials

Options
Torch body:
Customer specific lenghts up to 500mm
Examination and testing device
Seam tracking line

Hose pack:
Steel inner liner for steel wire
Customer specific lenghts 1,0m bis 16m
Without driving unit
Extraction set
Seam tracking line
Holding and adjusting clamp
Adaptor for Dinse box
Basic kit

Standard equipment

Torch bod:
Contact tube, CuCrZr alloy
Forced contacting arrangement
Precision TCP ±0,2mm

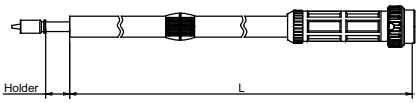
Driving unit:
Wirefeed FWD/BACK button
Gas test button
Display for press-on force adjustment
DC-servomotor with digital encoder

Toothed drive and pressure rollers
Precision TCP ±0,5mm incl. torch body

Hose pack:
Separate gas and blow out lines
Swirl free gas flow - no loss of gas
UV-, temp and ozone resistant rubber fabric hoses
Equipped for Al, CuSi and CrNi
Inner liner for ø 0,6-2,0 mm
Corrugated protection hose

	Robacta Drive W/F++
Weight	2,3kg
Wire feed speed	22m/min
Wire Ø	0,8-1,6mm [Al 2,0mm)
Welding duration current (ArCO2)	500A
Welding duration current (CO2)	500A

Laser Hotwire



Processes
Laser brazing

Recommended base materials
Copper materials
Duplex steels
Coated constructional steels

Recommended areas of use
Automotive and allied vendor industries

Options
Customer specific hose pack length
Adaptor from Robacta to Euro

Standard equipment
Robacta connector
Distance ring for a defined stop at Laser HW with holder 69mm

	Laser HW/G	Laser HW/W
Weight	0,602kg	1,08kg
Wire Ø	0,8-1,6mm	1-1,6mm
Welding duration current (ArCO2)	150A	250A
Welding duration current (CO2)	150A	250A

Robacta Drive CMT watercooled

conventional

PAP

Options

Wire buffer set (1.2 m, 1.6 m)
Wire buffer set variabel
Wire buffer connections (Universal, for ABB)
Holding angle (0°, 22°, 36°, Flex)

Torch body:
Robacta torch bodies recommended
RA300/500/5000 (0°, 22°, 36°)
Customer specific lenghts up to 500mm
Examination and testing device

Standard equipment

Torch body:
Contact tube with centre bore
Forced contacting arrangement
Precision TCP ±0,2mm

Driving unit:
AC-direct drive for highdynamic wire feeding
External wire feed hose only
Wirefeed FWD/BACK button
Gas test button
Self centering pressure roll

Display for press-on force adjustment
Signal LED for status display
Precision TCP ±1,5mm incl. torch body
Pro Version: Precision TCP ±0,5mm incl. torch body

Hose pack:
Demountable hose pack
Separate gas and blow out line (except PAP)
Swirl-free gas flow - no loss of gas
UV-, temp and ozone resistant rubber fabric hoses

Processes

CMT-welding
CMT-pulsed welding
CMT-brazing
MIG/MAG welding
MIG/MAG pulsed arc welding

Recommended areas of use

Construction of plant, containers, machinery, structural steel
Automotive and allied vendor industries
Construction of special machinery and construction machinery
Construction of chemical plants
Construction of rail vehicles and rolling stock
Shipbuilding and Offshore
Robot welding

Recommended base materials

Constructional steels uncoated / coated
Ferritic / austenitic CrNi steels
Duplex steels
Aluminium steels
Copper materials

	Robacta Drive CMT W
Weight	2,478kg
Wire Ø	0,8-1,2mm [Al 1,6mm]
Welding duration current (ArCO2)	360A
Welding duration current (CO2)	360A
Wire feed speed	22m/min

Robacta Twin 900 / Twin 600 / Compact / Compact Complete

Processes
MIG/MAG-welding
MIG/MAG-pulsed arc welding
MIG/MAG-high performance welding
MIG-brazing

Recommended base materials
Duplex-steels

Recommended areas of use
Construction of plant, containers, machinery, structural steels
Automotive and allied vendor industries
Construction of special machinery and construction machinery
Construction of chemical plants
Robot welding
Construction of rail vehicles
Shipbuilding and Offshore

Standard equipment

Torch body:
Contact tube „industrial“ with centre bore at Robacta Twin 900
Contact tube „industrial“ at Robacta Twin Compact
Wire electrodes insulated from one another
Spatter protection with high thermal stability
Forced contacting arrangement for welding wire
Precision TCP ± 0,5mm
Seam tracking line for Robacta Twin Compact
Integrated blow out line

Hose pack:
Steel inner liner for steel wire
Wirefeed button at Robacta Twin 900
Separate gas and blow out line
Swirl-free gas flow - no loss of gas
UV-, temp, and ozone resistant rubber fabric hoses
Rubber anti-kink feature at machine and torch end
Holding clamp mounted
Seam tracking line for Robacta Twin Compact

Options

Torch body:
Torque key for RA Twin Compact
Robacta Twin Compact Complete also possible as PA-version
All Twin torch bodies are available with bigger contact tip distance as option (also Compact and Compact Complete) 0°, 4° and 8° contact tip angle

Hose pack:
Combi inner liner for Al- and CrNi-wire
Customer specific lenghts 1,1 - 3,6m (from 2,6m wire feed problems can occur)

	Robacta Twin900	Robacta Twin 600	Robacta Twin Single	Robacta Twin W/F++	Robacta Twin900 Compact	Robacta Twin Compact W/F++	Robacta Twin Compact Complete F++
Weight	1,5kg	1,25kg	0,95kg	4kg	1,7kg	1,5kg	7,3kg
Wire Ø	1,2-1,6mm	0,8-1,2mm	0,8-1,2mm	1,2-1,6mm	1,2mm	1,2mm	1,2mm
Welding duration current (ArCO2)	900A	600A	300A	900A	900A	900A	900A
Welding duration current (CO2)	900A	600A	300A	900A	900A	900A	900A

Robacta Twin Compact Pro

Options
Kit for seam tracking line
BasicKits for different applications
Holding angle for CMT Twin
Water circulation handle use for Robacta Twin / Robacta Drive Twin
Connection flange 180° rotated

Standard equipment
Integrated blow out line
Wire electrodes insulated from one another
Forced contacting arrangement for welding wire
Precision TCP ± 0,5mm

Recommended areas of use
Construction of plant, containers, machinery, structural steels
Automotive and allied vendor industries
Construction of special machinery and construction machinery
Construction of chemical plants
Robot welding
Construction of rail vehicles
Shipbuilding and Offshore

Processes
CMT Twin
MIG/MAG-welding
MIG/MAG-pulsed arc welding
MIG/MAG-high performance welding

	Robacta Twin Compact PRO
Weight	2kg
Wire Ø	0,8-1,6
Welding duration current (ArCO2)	900A
Welding current / Duty cycle [ArCO2]	900A / 100%

Robacta Drive Twin

Processes
MIG/MAG-welding
MIG/MAG-pulsed arc welding
MIG/MAG-high performance welding
MIG-brazing

Recommended base materials
Duplex-steels
Aluminium-materials

Recommended areas of use
Construction of plant, containers, machinery, structural steel
Automotive and allied vendor industries
Construction of special machinery and construction machinery
Construction of chemical plants
Robot welding
Construction of rail vehicles and rolling stock
Shipbuilding and Offshore

Options
Hose pack:
Steel inner liner for steel wire
Adaptor for other power-cut out boxes
Basic kits
Customer specific lenghts 1,1 – 10,1 m

Standard equipment

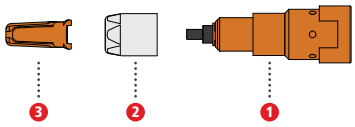
Torch body:
TCP correctness +- 0,5 mm
Contact tube of CuCrZr-alloy with centre bore
Wire electrodes insulated from each other
Spatter protection with high thermal stability
Forced contacting arrangement for welding wire

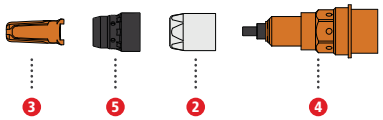
Hose pack:
Graphit inner liner ø 2,5 mm for Al- and CrNi-wire
Exact speed regulation assured by digital encoder
Toothed drive and pressure rollers
Wirefeed FWD/BACK button
Gas test button
Separate gas and blow out lines

Swirl-free gas flow - no loss of gas
UV-, temp and ozone resistant rubber fabric hoses
Rubber anti-kink feature at machine and torch end
Holding clamp mounted
Integrated blow out line

	Robacta Twin900 symmetric	Robacta DriveTwin W/F++
Weight	1,5kg	6,1kg
Wire Ø	1,2-1,6mm	1,2-1,6mm
Welding duration current (ArCO2)	900A	900A
Welding duration current (CO2)	900A	900A

Contec wear parts





Contact tips M6 / M8 / M10

Industrial
high quality material (CuCrZr), precise processing, little manufacturer allowances - „Fronius standard fittings“
Recommendation:
- for steel, CrNi and special alloys
- for aluminum and CuSi

Standard
high quality material (CuCrZr)
Recommendation:
- for steel, CrNi and special alloys

Robacta TX

Torch body changeover system

Processes
MIG/MAG robot welding with TPS technology

Recommended areas of use
Construction of plant, containers, machinery, structural steel
Automotive and allied vendor industries
Construction of special machinery
Construction of machinery
Construction of chemical plants
Robot welding
Construction of rail vehicles & rolling stock
Shipbuilding and offshore engineering

Recommended base materials
Constructional steels
Coated constructional steels
Ferritic / austenitic CrNi
Duplex-steels
Nickel based materials
Copper materials

Options
Bus modules
Anti-contamination cover
Holder for TCP sensor
Frnoius cleaning system
Robacta TX examination and correction device
TXW tool kit

Standard equipment
Podium with 3 torch body racks
Wire end sensor

Robacta TC 2000 / 1000

Processes
Electromagnetic and touchless cleaning of MIG/MAG welding torches

Recommended base materials
Constructional steels
Coated constructional steels

Recommended areas of use
Construction of plant, containers, machinery, structural steels
Automotive and allied vendor industries
Construction of special machinery and construction machinery
Robot welding
Construction of rail vehicles and rolling stock
Shipbuilding and Offshore

Options
Wire cutter
Liquid level monitoring
Interface for Fieldbus connection

Standard equipment
Completely remote controllable
Galvanic separated control
Constant, defined cleaning efficiency
Self test if cleaning process has been performed
Quick-Stop-function
Release agent sensor
Over temperature protection
CE-mark
UL-/CSA-indication
Liquid reservoir
Discharge coil Ø30 (not suitable for RA7000)
Control via Standard I/O
Electrolyte spraying system

	Robacta TC 2000
Dimension / b	296mm
Weight	24,4kg
Dimension / h	472mm
Dimension / l	380mm
Max. main compressed air	6 Bar
Power consumption	350W
Capacity	0,75l
Min. circle time	20-50Sek.
Discharge current	1800A
Control voltage external	24V
Mains voltage (via power source)	230V

	Robacta TC 1000	Robacta TC 1000 external
Dimension / b	250mm	250mm
Weight	13kg	11,5kg
Dimension / h	422mm	422mm
Dimension / l	330mm	330mm
Max. main compressed air	6bar	
Protection class	IP21	IP21
Power consumption	180W	180W
Min. circle time	40 sec	40 sec
Discharge current	1500A	1500A
Control voltage external	24V	24V
Mains voltage (via power source)	230V	230V

Robacta Reamer / Robacta Reamer Twin

Options

Mounting socket
Adjustment aid Robacta Twin 500/900
Interface for Fieldbus connection

Processes

Mechanical cleaning of MIG/MAG robot welding torches

Recommended areas of use

Construction of plant, containers, machinery, structural steels
Automotive and allied vendor industries
Construction of special machinery and construction machinery
Construction of chemical plants
Robot welding
Construction of rail vehicles and rolling stock
Shipbuilding and Offshore

Standard equipment

Completely remote controllable
Wire cutter (Robacta Reamer Twin)
Prism-shaped gas nozzle mounting
Cut-off and ventilation valve
Equal milling- and spray-in position
Spray-in mount adjustable
360° mounting
CE-mark
Wire cutter suitable for wires up to ø1,6 (Twin: wires with ø1,6mm and higher have to be pinched off with the electrical wire cutter seperately)

	Robacta Reamer V Easy without wire cutter	Robacta Reamer V without wire cutter	Robacta Reamer brush head alu	Robacta Reamer V Easy Han6P	Robacta Reamer Alu 900rpm	Robacta Reamer V Twin with wire cutter
Weight	10kg	11,5kg	7,16kg	11,5kg	9kg	17kg
Dimension / h	350mm	345mm	0mm	350mm	280mm	380mm
Dimension / b	245mm	222mm	0mm	250mm	165mm	400mm
Dimension / l	165mm	170mm	0mm	185mm	170mm	225mm
Capacity	1l	1l	0l	1l	0,25l	1l
Power consumption	12W	12W	0W	2,4W	3,2W	14,4W
Control voltage external	24V	24V	24V	24V	24V	24V
Max. main compressed air	6bar	6bar	8bar	6bar	6bar	6bar
Min. circle time	4-7,5sec	3-5sec	3-5sec	7,5 sec	3-5sec	8,5-10sec

EN 1090 Certificate of conformity package

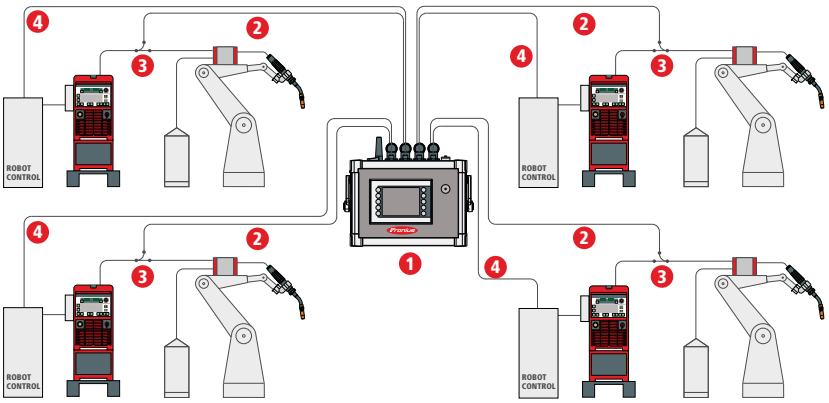
The EN 1090 certificate of conformity package includes welding process specifications (WPS). The devices are certified according to the requirements of the EN 1090-2 EXC 1&2.

EN 1090 Certificate of conformity pakcage TransSteel
EN 1090 Certificate of conformity package Standard German/English
EN 1090 Certificate of conformity package Standard French/Spanish

EN 1090 Certificate of conformity pakcage TransSynergic
EN 1090 Certificate of conformity package Standard German/English
EN 1090 Certificate of conformity package Standard French/Spanish

EN 1090 Certificate of conformity pakcage TransPuls Synergic
EN 1090 Certificate of conformity package Standard German/English
EN 1090 Certificate of conformity package Pulse German/English
EN 1090 Certificate of conformity package Standard French/Spanish
EN 1090 Certificate of conformity package Pulse French/Spanish

Q-Master TPS 3200 / 4000 / 5000



TIG

The ultimate welding discipline. No weld process gives greater expression to quality and appearance than TIG welding. The spectrum of application is very wide – from sheet thicknesses of 0.6 mm, unalloyed or alloyed steels, aluminium, magnesium, copper, grey cast iron, bronze, nickel, silver, titanium or lead – TIG has a huge number of different uses.

TransTig 1750 Puls / Set

Processes
TIG-DC
Manual electrode (MMA) welding

Recommended base materials
Constructional steels
Ferritic / austenitic CrNi steels
Duplex steels
Nickel-based materials
Copper materials
Special materials

Recommended areas of use
Construction of plant, containers, machinery, structural steel
Industry plant and pipeline construction
Maintenance, repair and assembling
Construction of chemical and paper plants
Automobile and allied vendor industries

Options
Remote control unit
Calibrationdocument

Standard equipment
Touch-down ignition / HF switch-selectable
Gas-test button
Generator-compatible
S-mark, CE-mark
Thermostat-controlled fan
Carrying strap
UpDown control from torch
Overtemperature protection
2-step mode, 4-step mode
Spot-welding / Puls mode
Digital display
TAC – special tack mode
Ground fault detection

	TransTig 1750 Puls G/F
Dimension / b	180mm
Weight	9,1kg
Dimension / h	280mm
Dimension / l	430mm
Mains Frequency	50-60Hz
Mains fuse	16A
Protection class	IP23
Open-circuit voltage	93V
Mains voltage [+/-10%]	230V
Operating voltage	10,1-16,8V
Welding current / Duty cycle [10min/40C]	120A / 100%
Welding current / Duty cycle [10min/40C]	170A / 35%
Welding current / Duty cycle [10min/40C]	135A / 60%

TransTig 800 Job / 2200 / 2200 Job

Processes
TIG-DC
Manual electrode (MMA) welding

Options
Remote controllable
Robot Interface, digital
TIG JobMaster
Calibration document

Recommended base materials
Constructional steels
Ferritic / austenitic CrNi steels
Duplex steels
Nickel-based materials
Copper materials
Special materials

Recommended areas of use
Construction of plant, containers, machinery, structural steel
Industry plant & pipeline construction
Maintenance, repair and assembling
Construction of chemical and paper plants
Automobile and allied vendor industries
Robot welding

Standard equipment

Automatic cooling-unit cut-out
Touch-down ignition / HF switch-selectable
Gas-test button
Generator-compatible
Job mode
S-mark, CE-mark
Thermostat-controlled fan
Carrying strap
UpDown control from torch
Overtemperature protection
2-step mode, 4-step mode
Spot-welding / Puls mode
Digital display
Compatible for bus-system
TAC – special tack mode
Earth leakage monitoring
0,8-80A, current range in 0,1 ampere-steps (TT 800 Job)

	TransTig 800 Job G/F	TransTig 2200 G/F
Weight	14,1kg	16,8kg
Dimension / h	344mm	390mm
Dimension / b	180mm	180mm
Dimension / l	485mm	485mm
Operating voltage	10-13,2V	10,1-18,8V
Protection class	23	IP23
Mains fuse	16A	16A
Mains Frequency	50-60Hz	50-60Hz
Mains voltage [+/-10%]	230V	230V
Welding current / Duty cycle [10min/40C]	60A	150A / 100%
Welding current / Duty cycle [10min/40C]	80A	180A / 60%
Welding current / Duty cycle [10min/40C]		220A / 40%

TransTig 2500 / 3000 / 2500 Job / 3000 Job / 2500 Comfort / 3000 Comfort

Processes
TIG-DC
Manual electrode (MMA) welding

Recommended base materials
Constructional steels
Ferritic / austenitic CrNi steels
Duplex steels
Nickel-based materials
Copper materials
Special materials

Recommended areas of use
Construction of plant, containers, machinery, structural steel
Industry plant & pipeline construction
Maintenance, repair and assembling
Construction of chemical and paper plants
Automobile and allied vendor industries
Robot welding
Construction of rail vehicles & rolling stock
Shipbuilding and offshore engineering

Options
Remote-controllable
Robot interface
TIG JobMaster
Calibration document
Rate-of-flow watchdog for torch cooling

Standard equipment

Automatic cooling-unit cut-out
Touch-down ignition / HF switch-selectable
Gas-test button
Generator-compatible
Job mode (only for TT 4000 / 5000 Job)
S-mark, CE-mark
Thermostat-controlled fan
UpDown control from torch
Overtemperature protection
2-step mode, 4-step mode
Spot-welding / Puls mode
Digital display
TAC – special tack mode
Earth leakage monitoring
V-down compatible welding of Cel electrodes (only for TT 2500)

	TransTig 2500 G/F	TransTig 3000 Job G/F
Weight	24,2kg	24,2kg
Dimension / h	435mm	435mm
Dimension / b	250mm	250mm
Dimension / l	560mm	560mm
Open-circuit voltage	85V	81V
Operating voltage	10,1-20V	10,1-20V
Protection class	IP23	IP23
Mains fuse	16A	16A
Mains Frequency	50-60Hz	50-60Hz
Mains voltage [+/-10%]	3 x 400V	3 x 400V
Welding current / Duty cycle [10min/40C]	210A / 100%	240A / 100%
Welding current / Duty cycle [10min/40C]	240A / 60%	300A / 50%
Welding current / Duty cycle [10min/40C]	250A / 50%	300A / 45%

TransTig 4000 / 5000 / 4000 Job / 5000 Job / 4000 Comfort

Processes
TIG-DC
Manual electrode (MMA) welding

Recommended base materials
Constructional steels
Ferritic / austenitic CrNi steels
Duplex steels
Nickel-based materials
Copper materials
Special materials

Recommended areas of use
Construction of plant, containers, machinery, structural steel
Industry plant & pipeline construction
Maintenance, repair and assembling
Construction of chemical and paper plants
Automobile and allied vendor industries
Robot welding
Construction of rail vehicles & rolling stock
Shipbuilding and offshore engineering

Options
Remote-controllable
Robot interface
TIG JobMaster
Calibration document
Rate-of-flow watchdog for torch cooling

Standard equipment

Automatic cooling-unit cut-out
Touch-down ignition / HF switch-selectable
Gas-test button
Generator-compatible
Job mode (only for TT 4000 / 5000 Job)
S-mark, CE-mark
Thermostat-controlled fan
UpDown control from torch
Overtemperature protection
2-step mode, 4-step mode
Spot-welding / Puls mode
Digital display
TAC – special tack mode
Earth leakage monitoring

	TransTig 4000 G/F	TransTig 4000 Job G/F MV	TransTig 5000 Job G/F	TransTig 5000 Job G/F MV
Dimension / b	290mm	290mm	290mm	290mm
Weight	39,8kg	39,8kg	39,7kg	39,7kg
Dimension / h	475mm	475mm	475mm	475mm
Dimension / l	625mm	625mm	625mm	625mm
Mains Frequency	50-60Hz	50-60Hz	50-60Hz	50-60Hz
Mains fuse	35A	63A / 35A	35A	63A / 35A
Protection class	IP23	IP23	IP23	IP23
Open-circuit voltage	86V	86V	86V	86V
Mains voltage [+/-10%]	3 x 400V	3 x 200-240V / 3 x 380-460V	3 x 400V	3 x 200-240V / 3 x 380-460V
Operating voltage	10,1-51V	10,1-51V	10,1-46V	10,1-47V
Welding current / Duty cycle [10min/40C]	310A / 100%	300A / 100%	350A / 100%	350A / 100%
Welding current / Duty cycle [10min/40C]	400A / 45%	400A / 45%	500A / 40%	500A / 40%
Welding current / Duty cycle [10min/40C]	365A / 60%	360A / 60%	450A / 60%	440A / 60%

MagicWave 1700 / 2200 / 1700 Job / 2200 Job

Processes
TIG-DC
TIG-AC/DC
Manual electrode (MMA) welding

Options
Remote controllable
Robot interface
TIG JobMaster
Calibration document

Recommended base materials
Constructional steels
Ferritic / austenitic CrNi-steels
Duplex steels
Nickel-based materials
Aluminium, aluminium alloyed materials
Magnesium materials
Copper materials
Special materials

Recommended areas of use
Construction of plant, containers, machinery, structural steel
Industry plant & pipeline construction
Maintenance, repair and assembling
Construction of chemical and paper plants
Automobile and allied vendor industries
Construction of rail vehicles & rolling stock
Aerospace industry
Robot welding

Standard equipment
Automatic cap-shaping
Automatic cooling-unit cut-out
Touch-down ignition / HF switch-selectable
Gas-test button
Generator-compatible
Job mode
Polarity reversal
S-mark, CE-mark
Thermostat-controlled fan
Carrying handle (MW 2200)
Carrying strap
UpDown control from torch
Overtemperature protection
2-step mode, 4-step mode
Spot-welding / Puls mode
Digital display
TAC – special tack mode
Quiet arc, due to fuzzy logic
Earth leakage monitoring
Compatible for bus-system

	MagicWave 1700 G/F	MagicWave 2200 Job G/F
Dimension / b	180mm	180mm
Weight	15kg	17,4kg
Dimension / h	344mm	390mm
Dimension / l	485mm	485mm
Mains Frequency	50-60Hz	50-60Hz
Mains fuse	16A	16A
Protection class	IP23	IP23
Open-circuit voltage	88V	88V
Mains voltage [+/-10%]	230V	230V
Operating voltage	10,1-26V	10,1-24V
Welding current / Duty cycle [10min/40C]	100A / 100%	150A / 100%
Welding current / Duty cycle [10min/40C]	170A / 35%	220A / 35%
Welding current / Duty cycle [10min/40C]	130A / 60%	170A / 60%

MagicWave 2500 / 3000 / 2500 Job / 3000 Job / 2500 Comfort / 3000 Comfort

Processes
TIG-DC
TIG-AC/DC
Manual electrode (MMA) welding

Recommended base materials
Constructional steels
Ferritic / austenitic CrNi-steels
Duplex steels
Nickel-based materials
Aluminium, aluminium alloyed materials
Magnesium materials
Copper materials
Special materials

Recommended areas of use
Construction of plant, containers, machinery, structural steel
Industry plant & pipeline construction
Maintenance, repair and assembling
Construction of chemical and paper plants
Automobile and allied vendor industries
Construction of rail vehicles & rolling stock
Aerospace industry
Shipbuilding and offshore engineering
Robot welding

Options
Remote-controllable
Robot interface
TIG JobMaster
Calibration document
Rate-of-flow watchdog for torch cooling

Standard equipment
Automatic cap-shaping
Automatic cooling-unit cut-out
Touch-down ignition / HF switch-selectable
Gas-test button
Generator-compatible
Job mode (only for MW 4000 / 5000 Job)
Polarity reversal
S-mark, CE-mark
Thermostat-controlled fan
UpDown control from torch
Overtemperature protection
2-step mode, 4-step mode
Spot-welding / Puls mode
Digital display
TAC – special tack mode
Quiet arc, due to fuzzy logic
Earth leakage monitoring
Compatible for bus-system

	MagicWave 2500 G/F	MagicWave 3000 Comfort G/F
Weight	26,6kg	28,1kg
Dimension / h	435mm	435mm
Dimension / b	250mm	250mm
Dimension / l	560mm	560mm
Open-circuit voltage	89V	89V
Operating voltage	10,1-20V	10,1-22V
Protection class	IP23	IP23
Mains fuse	16A	16A
Mains Frequency	50-60Hz	50-60Hz
Mains voltage [+/-10%]	3x 400V	3x 400V
Welding current / Duty cycle [10min/40C]	180A / 100%	200A / 100%
Welding current / Duty cycle [10min/40C]	210A / 60%	250A / 60%
Welding current / Duty cycle [10min/40C]	250A / 40%	300A / 35%

MagicWave 4000 / 5000 / 4000 Job / 5000 Job /4000 Comfort

Processes
TIG-DC
TIG-AC/DC
Manual electrode (MMA) welding

Recommended base materials
Constructional steels
Ferritic / austenitic CrNi-steels
Duplex steels
Nickel-based materials
Aluminium, aluminium alloyed materials
Magnesium materials
Copper materials
Special materials

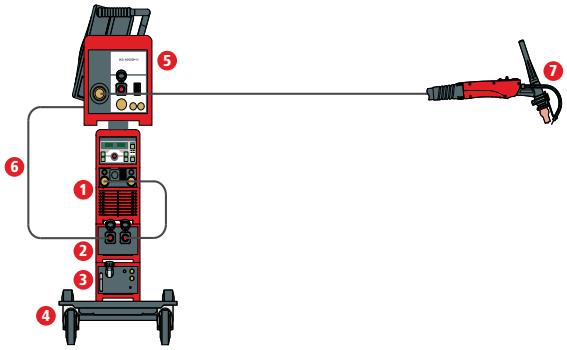
Recommended areas of use
Construction of plant, containers, machinery, structural steel
Industry plant & pipeline construction
Maintenance, repair and assembling
Construction of chemical and paper plants
Automobile and allied vendor industries
Construction of rail vehicles & rolling stock
Aerospace industry
Shipbuilding and offshore engineering
Robot welding

Options
Remote-controllable
Robot interface
TIG JobMaster
Calibration document
Rate-of-flow watchdog for torch cooling

Standard equipment
Automatic cap-shaping
Automatic cooling-unit cut-out
Touch-down ignition / HF switch-selectable
Gas-test button
Generator-compatible
Job mode (only for MW 4000 / 5000 Job)
Polarity reversal
S-mark, CE-mark
Thermostat-controlled fan
UpDown control from torch
Overtemperature protection
2-step mode, 4-step mode
Spot-welding / Puls mode
Digital display
TAC – special tack mode
Quiet arc, due to fuzzy logic
Earth leakage monitoring
Compatible for bus-system

	MagicWave 4000 G/F	MagicWave 5000 Job G/F	MagicWave 4000 Job G/F MV	MagicWave 5000 Job G/F
Dimension / b	290mm	290mm	290mm	290mm
Weight	58,2kg	58,2kg	58,2kg	58,2kg
Dimension / h	705mm	705mm	705mm	705mm
Dimension / l	625mm	625mm	625mm	625mm
Mains Frequency	50-60Hz	50-60Hz	50-60Hz	50-60Hz
Mains fuse	35A	35A	63A / 35A	63A / 35A
Protection class	IP23	IP23	IP23	IP23
Open-circuit voltage	90V	90V	90V	90V
Mains voltage [+/-10%]	3 x 400V	3 x 400V	3 x 200-240V / 3 x 380-460V	3 x 200-240V / 3 x 380-460V
Operating voltage	10,1-33V	10,1-33V	10,1-32V	10,1-30V
Welding current / Duty cycle [10min/40C]	310A / 100%	350A / 100%	300A / 100%	350A / 100%
Welding current / Duty cycle [10min/40C]	400A / 45%	500A / 40%	400A / 45%	500A / 40%
Welding current / Duty cycle [10min/40C]	365A / 60%	440A / 60%	360A / 60%	440A / 60%

TIG cold wire welding MW2200 Job / KD 4000 D-11 manual



Processes
TIG-DC
TIG-AC/DC

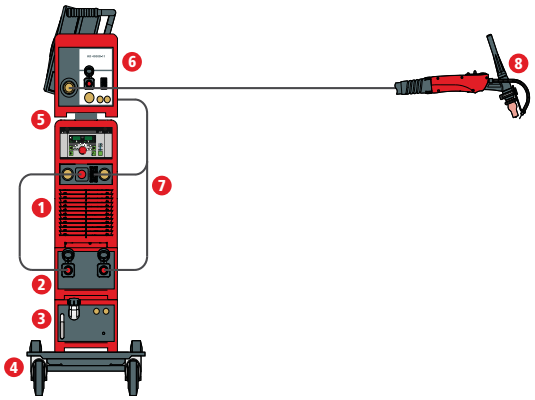
Recommended base materials
Constructional steels
Ferritic / austenitic CrNi steels
Duplex steels
Nickel-based materials
Aluminium materials
Magnesium materials
Copper materials
Special materials

Recommended areas of use
Automobile and allied vendor industries
Construction of chemical plants
Construction of plant, containers, machinery, structural steel
Robot welding
Industry plant & pipeline construction, site erection firms
Construction of rail vehicles & rolling stock
Shipbuilding and offshore engineering
Aerospace industry

Standard equipment
4-roller drive
Automatic cap shaping
Automatic cooling-unit cut out
Automatic cold wire retract
HF ignition
Gas-test button
Generator compatible
Job mode (only with Job mode)
Polarity reversal (only MW-series)
S-mark, CE-mark
Thermostat controlled fan
Rate-of-flow watchdog for torch cooling (FK2200 FC)
Up-down control from torch
Overtemperature protection
2-step mode, 4-step mode
Spot-welding / Pulse mode (only Job mode)
Digital Display
TAC special tack mode (only Job mode)
Quiet arc due to Active Wave
Earth leakage monitoring
Synchronized wire puls mode
Bus compatible

Options
Remote controllable
Robot interface
JobMaster TIG (only Job mode)
Calibration document
Jobexplorer / WinRCU
Upgrades by add-on modules
Service module
OPC-Data

TIG cold wire welding TT 3000 Job / KD4000 D-11 manual



Processes
TIG-DC

Recommended base materials
Constructional steels
Ferritic / austenitic CrNi-steels
Duplex steels
Nickel-based materials
Magnesium materials
Copper materials
Special materials

Recommended areas of use
Construction of plant, containers, machinery, structural steel
Industry plant & pipeline construction
Maintenance, repair and assembling
Construction of chemical and paper plants
Automobile and allied vendor industries
Robot welding
Construction of rail vehicles & rolling stock
Shipbuilding and offshore engineering

Standard equipment
4-roller drive
Automatic cap-shaping
Automatic cooling-unit-cut-out
Automatic cold-wire retract
Touch-down ignition / HF switch-selectable
Gas-test-button
Generator compatible
Job mode
Polarity reversal (only MW-series)
S-mark, CE-mark
Thermostat-controlled fan
Flow conrol for torch cooling system
FK 4000R FC
UpDown control from torch
Overtemperature protection
2-step mode, 4-step mode
Spot welding / Puls mode
Digital display
Quiet arc, due to fuzzy logic
Ground fault detection
Synchronized wire pulse mode

Options
Remote controllable
Robot Interface
Calibration document
Jobexplorer / WinRCU
Upgrades by add-on modules
Service Module
OPC-Data

TTG1200A / 1600A / 2200A / 2600A / PL10

TTG1200 / TTG1600

TTG2200 / TTG2600

Processes
TIG-DC
TIG-AC/DC

Recommended base materials
Ferritic / austenitic CrNi steels
Aluminium materials
Magnesium materials

Standard equipment
Plug-on gas nozzle system
Torch body rotates through 90°
Easy-to-use rocker switch
Swivel-mounted protective hose
UV and ozone-resistant protective hose
Gas nozzle, tungsten electrode, torch cap long
Anti-kink feature at machine and torch end

Options
Flexible leather protection hose L = 0,7 m
Gas lenses
P-system (screw-on gas nozzle)
Fabric-reinforced protection hose
Special lengths of hose pack 1,0 – 20,0 m (HF-ignition can be impaired started from 12 m)
KD-feeding for TTG2200
Adapter for old machines

Recommended areas of use
Automobile and allied vendor industries
Construction of chemical plants
Maintenance and repair
Pipeline construction
Structural steel

	TTG1200A	TTG1600A	TTG2200A	TTG2600A	PL10
Weight	0,65kg	0,65kg	0,96kg	1,2kg	0,55kg
Welding current / Duty cycle [DC]	90A / 60%	120A / 60%	170A / 60%	200A / 60%	65A / 60%
Welding current / Duty cycle [AC]	85A / 35%	120A / 35%	180A / 35%	220A / 35%	60A / 40%
Welding current / Duty cycle [AC]	65A / 60%	90A / 60%	130A / 60%	170A / 60%	50A / 60%
Welding current / Duty cycle [DC]	120A / 35%	160A / 35%	220A / 35%	260A / 35%	80A / 40%
Diameter electrode	1-3,2mm	1-3,2mm	1-4mm	1,6-6,4mm	1-2,4mm

TTG1600A WKZ / 1600A-POT / 1600A S / 2200 S / 2200-TCS

TTG1600 WKZ / TTG1600 Pot

TTG1600 S / TTG2200 TCS

	TTG1600A WKZ	TTG1600A-Pot	TTG1600A S	TTG2200A S	TTG2200-TCS
Weight	0,35kg	0,45kg	2,36kg	2,7kg	0,57kg
Welding current / Duty cycle [DC]	160A / 15%	160A / 15%	160A / 15%	220A / 15%	160A / 35%
Welding current / Duty cycle [DC]	80A / 60%	80A / 60%	80A / 60%	110A / 60%	120A / 60%
Diameter electrode	1-3,2mm	1-3,2mm	1-3,2mm	1-4mm	1-4mm

TTW2500A / 3000A / 4000A / 5000A / PW18

TTW2500 / TTW3000

TTW4000 / TTW5000

Standard equipment

Plug-on gas nozzle system
Torch body rotates through 90°
Easy-to-use rocker switch
Swivel-mounted protective hose
UV and ozone-resistant protective hose
Gas nozzle, tungsten electrode, torch cap long
Anti-kink feature at machine and torch end

Options

Flexible leather protection hose L = 0,7 m
Gas lenses
P-system (screw-on gas nozzle)
Fabric-reinforced protection hose
Special lengths of hose pack 1,0 – 20,0 m (TTW2500 only until 8,0m; HF-ignition can be impaired started from 12 m)
KD-feeding for TTW4000
Adapter for old machines

Processes

TIG-DC
TIG-AC/DC

Recommended base materials

Ferritic / austenitic CrNi steels
Duplex steels
Nickel-based materials
Aluminium materials
Magnesium materials
Copper materials

Recommended areas of use

Construction of plant, containers, machinery, structural steel
Automobile and allied vendor industries
Construction of special machinery and construction machinery
Construction of chemical plants
Maintenance and repair
Pipeline construction
Construction of rail vehicles & rolling stock
Shipbuilding and offshore engineering

	TTW2500A	TTW3000A	TTW4000A	TTW5000A	PW18
Weight	0,47kg	0,75kg	0,96kg	0,985kg	0,6kg
Welding current / Duty cycle [DC]	200A / 60%	300A / 60%	400A / 60%	500A / 60%	180A / 60%
Welding current / Duty cycle [AC]	140A / 60%	250A / 60%	350A / 60%	400A / 60%	140A / 60%
Diameter electrode	1-3,2mm	1-3,2mm	1-4mm	1,6-6,4mm	1-2,4mm

TTW2500A WKZ / TTW3000P-KD internal / 4000A FumeEx / 4000A-KD internal / 5500P

TTW2500 WKZ / TTW3000P-KD

TTW4000 FumeEx / TTW4000A-KD / TTW5500P

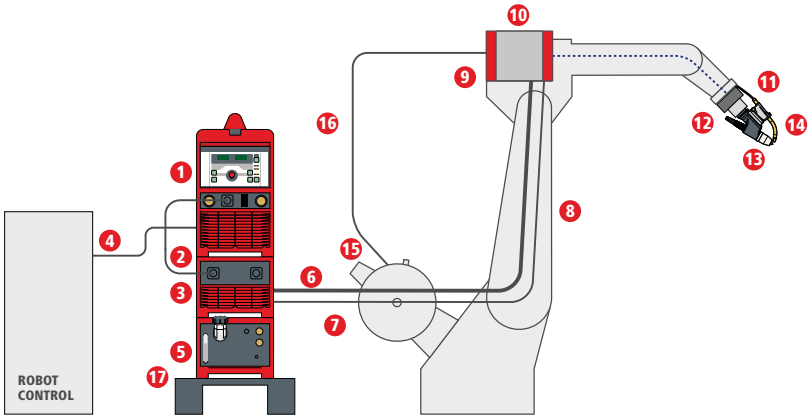
	TTW2500A-WKZ	TTW3000P-KD /JM	TTW4000A F++/ UD/FumeEx	TTW4000A-KD /JM	TTW5500P /UD
Weight	0,39kg	0,64kg	1,01kg	0,84kg	0,98kg
Welding current / Duty cycle [DC]	200A / 60%	300A / 60%	400A / 60%	400A / 60%	550A / 60%
Welding current / Duty cycle [AC]	140A / 60%	250A / 60%	350A / 60%	350A / 60%	440A / 60%
Diameter electrode	1,2-3,2mm	1-3,2mm	1-4mm	1-4mm	3,2-6,4mm

TIG

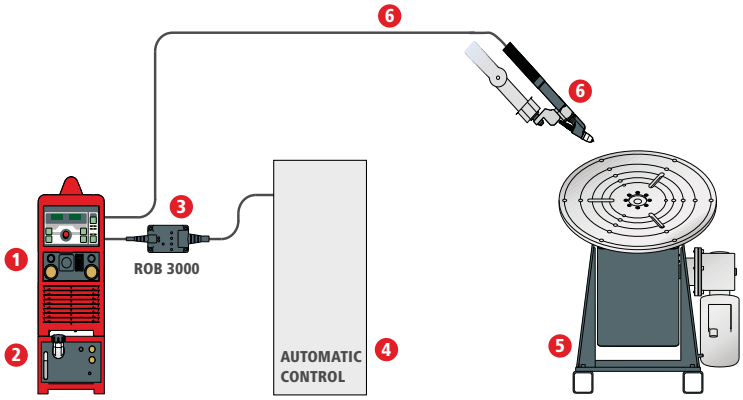
ROBOT CONFIGURATIONS

It's the know-how that does it: having durable high-quality solutions, both standardised and customised, for all robot-welding requirements is an absolute must. Whether as a full-liner, a system manufacturer or a single-source supplier, perfection is what is required for every application, for every manufacturer and for every robot.

PAP watercooled TIG-KD TT/MW 2500/3000



Robotset MW2200 Job with robot interface Rob 3000



Standard equipment

Automatic cap-shaping
Automatic cooling-unit-cut-out
Touch-down ignition / HF switch-selectable
Gas-test-button
Generator compatible
Job mode
Polarity reversal (only MW-series)
S-mark, CE-mark
Thermostat-controlled fan
Flow conrol for torch cooling system
FK 4000R FC
UpDown control from torch
Overtemperature protection
2-step mode, 4-step mode
Spot welding / Puls mode
Digital display
TAC - special tack mode
Quiet arc, due to fuzzy logic
Earth leakage monitoring
Synchronized wire puls mode (only Job mode)
Compatible for bus system (only Job mode)

Processes

TIG-DC
TIG-AC/DC

Recommended base materials

Constructional steels
Ferritic / austenitic CrNi-steels
Duplex steels
Nickel-based materials
Aluminium, aluminium alloyed materials
Magnesium materials
Copper materials
Special materials

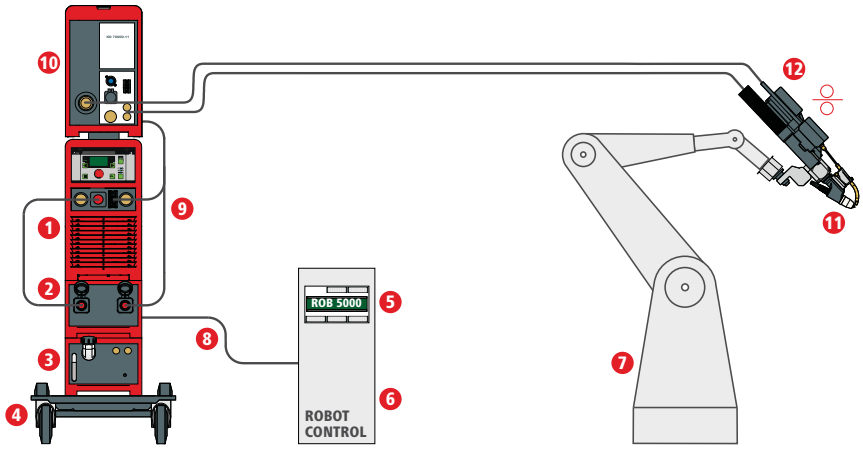
Recommended areas of use

Construction of plant, containers, machinery, structural steel
Industry plant & pipeline construction
Maintenance, repair and assembling
Construction of chemical and paper plants
Automobile and allied vendor industries
Construction of rail vehicles & rolling stock
Aerospace industry
Robot welding

Options

Remote controllable
Robot Interface
Calibration document
Jobexplorer / WinRCU
Upgrades by add-on modules
Service Module
OPC-Data

Robotset MW 3000 comfort with cold wire feeding PushPull



Processes
TIG-DC
TIG-AC/DC

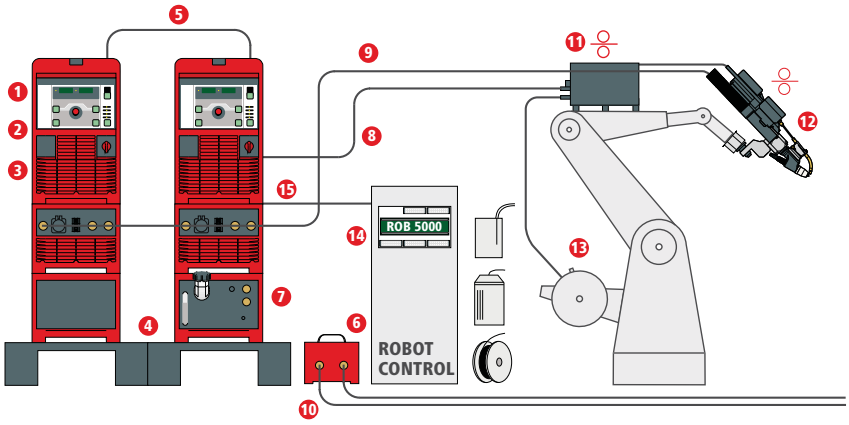
Recommended base materials
Constructional steels
Ferritic / austenitic CrNi-steels
Duplex steels
Nickel-based materials
Aluminium, aluminium alloyed materials
Magnesium materials
Copper materials
Special materials

Recommended areas of use
Construction of plant, containers, machinery, structural steel
Industry plant & pipeline construction
Maintenance, repair and assembling
Construction of chemical and paper plants
Automobile and allied vendor industries
Construction of rail vehicles & rolling stock
Aerospace industry
Shipbuilding and offshore engineering
Robot welding

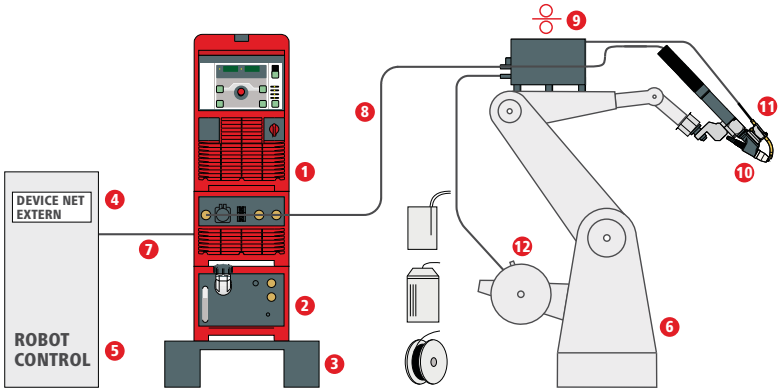
Standard equipment
4-roller drive
Automatic cap-shaping
Automatic cooling-unit-cut-out
Automatic cold-wire retract
Touch-down ignition / HF switch-selectable
Gas-test-button
Generator compatible
Job mode
Polarity reversal (only MW-series)
S-mark, CE-mark
Thermostat-controlled fan
Flow conrol for torch cooling system
FK 4000R FC
UpDown control from torch
Overtemperature protection
2-step mode, 4-step mode
Spot welding / Puls mode
Digital display
Quiet arc, due to fuzzy logic
Earth leakage monitoring
Synchronized wire pulse mode
Compatible for bus system

Options
Remote controllable
Robot Interface
Calibration document
Jobexplorer / WinRCU
Upgrades by add-on modules
Service Module
OPC-Data

Robotset Power-sharing MW5000 with cold wire feeding PushPull



Robot set MW 5000 Job with cold wire feeding Push



Standard equipment

4-roller drive
Automatic cap-shaping
Automatic cooling-unit-cut-out
Automatic cold wire retract
Touch-down ignition / HF switch-selectable
Gas-test-button
Generator compatible
Job mode
Polarity reversal (only MW-series)
S-mark, CE-mark
Thermostat-controlled fan
Flow control for torch cooling system
FK 4000R FC
UpDown control from torch
Overtemperature protection
2-step mode, 4-step mode
Spot welding / Puls mode
Digital display
TAC - special tack mode
Quiet arc, due to fuzzy logic
Earth leakage monitoring
Synchronized wire pulse mode (only Job mode)
Compatible for bus system (only Job mode)

Processes

TIG-DC
TIG-AC/DC

Recommended base materials

Constructional steels
Ferritic / austenitic CrNi-steels
Duplex steels
Nickel-based materials
Aluminium, aluminium alloyed materials
Magnesium materials
Copper materials
Special materials

Recommended areas of use

Construction of plant, containers, machinery, structural steel
Industry plant & pipeline construction
Maintenance, repair and assembling
Construction of chemical and paper plants
Automobile and allied vendor industries
Construction of rail vehicles & rolling stock
Aerospace industry
Shipbuilding and offshore engineering
Robot welding

Options

Remote controllable
Robot Interface
Calibration document
Jobexplorer / WinRCU
Upgrades by add-on modules
Service Module
OPC-Data

Automatic welding torches TTG2200A-M, TTW4000A-M

Processes
TIG-DC
TIG-AC/DC

Recommended base materials
Ferritic / austenitic CrNi steels
Duplex steels (watercooled torches)
Nickel-based materials (watercooled torches)
Aluminium materials
Magnesium materials
Copper materials (watercooled torches)

Recommended areas of use
Construction of plant, containers, machinery, structural steel
Automobile and allied vendor industries
Construction of special machinery and construction machinery
Construction of chemical plants
Maintenance and repair
Pipeline construction
Construction of rail vehicles & rolling stock
Shipbuilding and offshore engineering

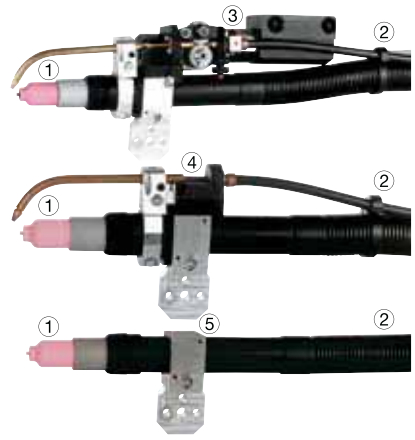
Options
TIG automatic welding torch:
Gas lenses
Cold wire feeding like for TIG robot torches

Standard equipment
TIG automatic welding torch:
Screw-on or plug-on gas nozzle system
UV and ozone-resistant protective hose

Automatic tube diameter 32 mm
Adapter from ø 32 mm to ø 35 mm
Anti-kink feature at machine- and torch end

	TTG2200A-M	TTW4000A-M
Weight	1kg	1kg
Welding current / Duty cycle [DC]	170A / 60%	400A / 60%
Welding current / Duty cycle [AC]	130A / 60%	350A / 60%
Diameter electrode	1-4mm	1-4mm

Robot welding torches TTW4000



Processes
TIG-DC
TIG-AC/DC

Recommended base materials
Ferritic / austenitic CrNi steels
Duplex steels
Nickel-based materials
Aluminium materials
Magnesium materials
Copper materials

Recommended areas of use
Construction of plant, containers, machinery, structural steel
Automobile and allied vendor industries
Construction of special machinery and construction machinery
Construction of chemical plants
Maintenance and repair
Pipeline construction
Construction of rail vehicles & rolling stock
Shipbuilding and offshore engineering

Options
TIG robot welding torch:
Adjusting device for torch head
Special lengths 1,0 – 20 m (HF-ignition can be impaired started from 12 m)
Holding clamp for TIG RO without KD-feeding
BasicKit for TIG RO KD-Drive
Wire feed speed 0 – 5 m/min or 0 – 22 m/min

Standard equipment
Torch head exchangeable:
Screw-on gas nozzle system
Gas lens

Hose pack:
Automatic tube diameter 32 mm
UV- and ozone-resistant protective hose pack

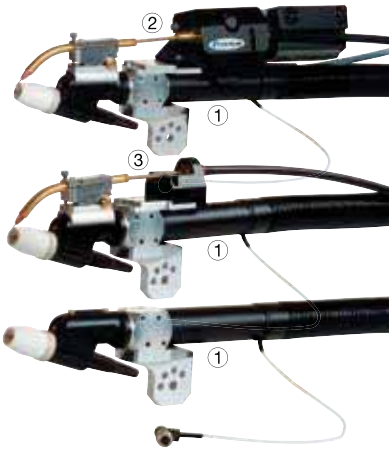
Coldwire feeding Push:
3 x 90° mountable
Wire feeder tube rotatable
Holding clamp
Teflon inner liner 0,8 – 1,2

Coldwire feeding Pull:
Wire feed speed 0 – 10 m/min

Graphit innerliner ø 2,5 mm for Al- and CrNi-wire
3 x 90° mountable
Wire feeder tube rotatable
Holding clamp
Exact speed regulation assured by digital encoder
Toothed drive and pressure rollers
Wirefeed FWD/BACK button

	TTW Robot	Robacta TTW4000	Robacta KD
Weight	1,4kg	0,263kg	1,4kg
Welding current / Duty cycle [DC]	400A / 60%	400A / 60%	
Welding current / Duty cycle [AC]	280A / 60%	280A / 60%	
Diameter electrode		1,6-4mm	
Wire feed speed			10m/min
Wire Ø			0,8-2mm

Robot welding torches TTW4500



Robacta TTW4500 PAP

Standard equipment

Torch head:
Gas nozzle thread type-system
Gas lenses
Adjusting device for electrodes
Hose pack:
UV and ozone-resistant corrugated hose
Holding clamp (4x90° mountable)
Line for shutoff box

Cold wire feeding Push:
Swivel-mounted wire guide tube with locking
Combi inner liner 0,8-1,2

Cold wire feeding Pull:
Wire guide speed 0-10 m/min
Graphit inner liner ø2,5mm for Al- and CrNi-wire
Swivel-mounted wire guide tube with locking
Exact DC-servomotor with digital encoder
Toothed drive and pressure roller
Wire feed FWD/BACK button

Processes

TIG-DC
TIG-AC/DC

Recommended base materials

Ferritic / austenitic CrNi steels
Duplex-steels
Nickel-based materials
Aluminium materials
Magnesium-material
Copper materials

Recommended areas of use

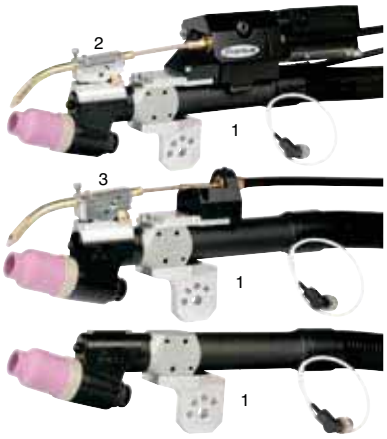
Construction of plant, containers, machinery, structural steels
Industry plant & pipeline construction
Construction of special machinery and construction machinery
Construction of chemical plants and paper plants
Maintenance, repair and assembling
Pipeline construction
Construction of rail vehicles & rolling stock
Shipbuilding and offshore engineering

Options

TIG robot welding torch:
customer specific hose pack length 1,0 - 20 m (HF-ignition can be impaired started from 12 m)
Extension for holding clamp
Basic kit for TIG Ro KD Drive
Wire feed speed 0-5m/min or 0-22m/min
Ignition aid
Gas lens for 3/4“ gas nozzle
Customer specific torch body bend 90°, 70° at TTW4500 PAP

	Robacta TTW4500	Robacta KD-Drive
Weight	1,1kg	3kg
Welding current / Duty cycle [DC]	450A / 60%	
Welding current / Duty cycle [AC]	320A / 60%	
Diameter electrode	1,6-4,8mm	
Wire feed speed		10m/min
Wire Ø		0,8-2mm

Robot welding torches TTW5500



Robacta TTW5500 PAP

Processes
TIG-DC
TIG-AC/DC

Recommended base materials
Ferritic / austenitic CrNi steels
Duplex-steels
Nickel-based materials
Aluminium materials
Magnesium-material
Copper materials

Recommended areas of use
Construction of plant, containers, machinery, structural steels
Industry plant & pipeline construction
Construction of special machinery and construction machinery
Construction of chemical plants and paper plants
Maintenance, repair and assembling
Pipeline construction
Construction of rail vehicles & rolling stock
Shipbuilding and offshore engineering

Standard equipment
Torch head:
Gas nozzle thread type-system
Gas lenses
Adjusting device for electrodes
Hose pack:
UV and ozone-resistant corrugated hose
Holding clamp (4x90° mountable)
Line for shutoff box

Cold wire feeding Push:
Swivel-mounted wire guide tube with locking
Combi inner liner 0,8-1,2

Cold wire feeding Pull:
Wire guide speed 0-10m/min
Graphit inner liner ø2,5mm for Al- and CrNi-wire
Swivel-mounted wire guide tube with locking
Exact DC-servomotor with digital encoder
Toothed drive and pressure roller
Wire feed FWD/BACK button

Options
TIG robot welding torch:
customer specific hose pack length 1,0 - 20 m (HF-ignition can be impaired started from 12 m)
Extension for holding clamp
Basic kit for TIG Ro KD Drive
Wire feed speed 0-5m/min or 0-22m/min
Ignition aid
Gas lens for 3/4“ gas nozzle

	Robacta TTW5500	Robacta KD-Drive
Weight	6,05kg	3kg
Welding current / Duty cycle [AC]	300A / 100%	
Welding current / Duty cycle [AC]	400A / 60%	
Welding current / Duty cycle [DC]	430A / 100%	
Welding current / Duty cycle [DC]	550A / 60%	
Diameter electrode	3,2-6,4mm	
Wire Ø		0,8-2mm
Wire feed speed		10m/min

MagicCleaner

Standard equipment
Cleaning current is continuously adjustable
Electrolyte feed is continuously adjustable
Adjustable current waveform (AC/DC)
Short-circuit detection and cut-out
Generator-compatible
CE mark

Options
MagicCleaner printing set
Mains voltage 110V - 115V, 50/60Hz

Processes
Electrochemical cleaning
Electrochemical polishing / burnishing
Electrochemical labelling / printing

Recommended areas of use
Construction of chemical plants
Maintenance and repair
Industry plant & pipeline construction, site-erection firms

Recommended base materials
Ferritic / austenitic CrNi steels
Copper materials

MMA WELDING RECTIFIER

The all-rounder: uncomplicated, universal, autonomous. MMA is reckoned to be the basic technology of arc welding – one with which virtually all metals can be welded, and where arc quality is the overriding requirement. Invented at the end of the 19th century, and still triggering revolutions today.

AccuPocket - Set

Recommended areas of use

Construction of chemical plants
Maintenance and repair
Construction of plant, containers, machinery, structural steel
Industry plant & pipeline construction, si-teerection firms

Processes

Manual electrode (MMA) welding (C-version)
Cel-compatible
TIG-DC

Recommended base materials

Constructional steels
Ferritic / austenitic CrNi steels
Duplex steels
Aluminium materials

Standard equipment

Li/Ion technology
Charger
Generator-compatible (2kVA)
S-mark, CE-mark
Anti-Stick function
Automatic gas post-flow (TIG)
Touch-down ignition
V-down-compatible welding of CEL elec-trodes
1-phase mode possible until 140A (150 A TIG)
Thermostat-controlled fan
Overtemperature protection
Dust filter
Hot-Start
Soft-Start
Dynamic
Feeder possible until 100m
Capacity display
Standard- and quick start mode
Standalone and Hybrid mode
TAC function (TIG)
Puls mode (TIG)
Comfort-stop
integrated magnet valve (TIG)
UpDown control from torch

Technical data

Technical data for EU:
ActiveCharger 1000/230V
Dimensions length/width/height: 270 x 168 x 100 mm
Weight: 2kg
Protection class: IP 43S
Mains voltage: ~ 230 V AC (+/-15%)
Mains frequency: 50 / 60Hz
Mains current: max. 9,5 A eff.
Mains fuse: max. 16 A
Efficiency factor: max. 95%
Output voltage: 30-58 V DC
Output circuit max.: 18 A DC
Output line max.: 1040 W
Service temperature: -20°C bis +40°C
Test mark: CE

Technical data for USA:
ActiveCharger 1000/120V
Dimensions length/width/height: 270 x 168 x 100 mm
Weight: 2kg
Protection class: IP 43S
Mains voltage: ~ 120 V AC (+/-15%)
Mains frequency: 50 / 60Hz
Mains current: max. 15,6 A eff.
Mains fuse: max. 20 A
Efficiency factor: max. 92,5%
Output voltage: 30-58 V DC
Output circuit max.: 18 A DC
Output line max.: 1020 W
Service temperature: -20°C bis +40°C
Test mark: cTÜVus

Technical data for JAP:
ActiveCharger 1000/100V
Dimensions length/width/height: 270 x 168 x 100 mm
Weight: 2kg
Protection class: IP 43S
Mains voltage: ~ 100 - 110 V AC (+10%/-15%)
Mains frequency: 50 / 60Hz
Mains current: max. 15,7 A eff.
Mains fuse: max. 16 A
Efficiency factor: max. 92%
Output voltage: 30-58V
Output circuit max.: 18 A DC
Output line max.: 840 W
Service temperature: -20°C bis +40°C
Test mark: CE

	AccuPocket 150/230V/EF
Dimension / b	160mm
Dimension / h	310mm
Dimension / l	435mm
Weight	10,9kg
Protection class	IP23
Open-circuit voltage	91V
Operating voltage	0-91V
Welding current / Duty cycle [10min/40C]	40A / 100% ED (Hybrid)
Welding current / Duty cycle [10min/40C]	140A / 18% ED (Hybrid)
Welding current / Duty cycle [10min/40C]	100A / 25% ED (Hybrid)
max. welding current	140A
Welding current min.	10A

TransPocket 150 / 180 / RC / TIG / MV

Available from Q1 / RC and TIG version from Q2 2016

TransPocket 150

TransPocket 180

Standard equipment

Digital resonant inverter
PFC technology
Generator compatible
Multi Voltage (MV Version)
S-mark, CE-mark
Soft-, Hot Start
Anti-Stick function
TCS (TIG Comfort Stop)
TIG Pulse
TAC function
V-down-compatible welding of CEL electrodes
Thermostat-controlled fan
Carrying strap
Overtemperature protection
Dust filter

Processes

Manual electrode (MMA) welding
TIG-DC
Cel-compatible

Recommended base materials

Constructional steels
Ferritic / austenitic CrNi steels
Duplex steels
Aluminium materials

Recommended areas of use

Construction of chemical plants
Maintenance and repair
Construction of plant, containers, machinery, structural steel
Industry plant & pipeline construction, site-erection firms

Options

Remote control unit
VRD (Voltage Reduction Device) from Q3 2016
Set from Q2 2016

	TransPocket 150/EF	TransPocket 180/EF	TransPocket 180 MV/B
Dimension / b	130mm	160mm	160mm
Dimension / h	285mm	310mm	310mm
Dimension / l	365mm	435mm	435mm
Weight	6,5kg	8,9kg	8,9kg
Mains Frequency	50 / 60Hz	50 / 60Hz	50 / 60Hz
Protection class	IP23	IP23	IP23
Open-circuit voltage	96V	101V	101V
Mains voltage [+/-10%]	230V	230V	120 - 230V (-20% / +15%)
Mains fuse	16A	16A	120V: 15/20A 230V: 16A
Operating voltage	20,4 - 26,0V	20,4 - 27,2V	20,4 - 27,2V
Operating voltage TIG	10,4 - 16,0V	10,4 - 18,8V	10,4 - 18,8V
Welding current / Duty cycle [10min/40C]	150A / 35%	180A / 40%	180A / 40%
Welding current / Duty cycle [10min/40C]	90A / 100%	120A / 100%	120A / 100%
Welding current / Duty cycle [10min/40C] 120V/20A	-	-	120A / 40%
Welding current / Duty cycle [10min/40C] 120V/20A	-	-	90A / 100%
max. welding current	150A	180A / WIG: 220A	220A (TIG)
Welding current min.	10A	10A	10A

TransPocket 1500 / 1500 RC / 1500 TIG - Set

Processes
TIG-DC
Manual electrode (MMA) welding
Cel-compatible

Recommended base materials
Constructional steels
Ferritic / austenitic CrNi steels
Duplex steels
Aluminium materials

Recommended areas of use
Construction of chemical plants
Maintenance and repair
Construction of plant, containers, machinery, structural steel
Industry plant & pipeline construction, site-erection firms

Options
Remote control unit

Standard equipment
Generator compatible
S-mark, CE-mark
Anti-Stick function
Automatic gas post-flow
(dep. on welding current – TIG-version)
Touch-down ignition
Energy-saving inverter technology
V-down-compatible welding of CEL electrodes
Remote-controllable (RC version)
Thermostat-controlled fan
Carrying strap
Overtemperature protection
Dust filter

	TransPocket 1500
Dimension / b	110mm
Weight	4,7kg
Dimension / h	200mm
Dimension / l	315mm
Mains Frequency	50-60Hz
Mains fuse	16A
Protection class	IP23
Open-circuit voltage	92V
Mains voltage [+/-10%]	230V
Operating voltage	10,4-25,6V
Welding current / Duty cycle [10min/40C]	80A / 100%
Welding current / Duty cycle [10min/40C]	140A / 30%
max. welding current	150A
Welding current min.	10A

TransPocket 2500 / 3500

Processes
Manual electrode (MMA) welding
TIG-DC
Cel-capable

Options
Remote control unit
Calibration document
Wireless remote control

Recommended base materials
Constructional steels
Ferritic / austenitic CrNi steels
Duplex-steels
Aluminium materials

Recommended areas of use
Construction of chemical plants
Maintenance and repair
Construction of plant, containers, machinery, structural steel
Industry plant & pipeline construction
Site erection firms

Standard equipment

Generator compatible
S-mark, CE-mark
Anti-Stick Function
Automatic post flow
(depending on welding current - TIG-Version)
Touch-down ignition
Energy-saving inverter technology
Capability of vertical down welding
1-phase mode possible until 140A (only with MVm versions)
Remote controllable (RC, Comfort and TIG Version)
Thermostat-controlled fan
Carrying strap
Overtemperature protection
Dust filter
Hot-Start
Soft-Start
Dynamic

	TransPocket 2500	TransPocket 2500 MVm	TransPocket 3500	TransPocket 3500 MVm
Weight	12,5kg	13,5kg	20kg	21kg
Dimension / h	320mm	320mm	390mm	390mm
Dimension / b	180mm	180mm	190mm	190mm
Dimension / l	430mm	430mm	490mm	490mm
Open-circuit voltage	88V	88V	89V	89V
max. welding current	250A	250A	350A	350A
Welding current min.	15A	15A	10A	10A
Protection class	IP23	IP23	IP23	IP23
Mains fuse	16A	16A / 20A	25A	25A / 40A
Mains Frequency	50-60Hz	50-60Hz	50-60Hz	50-60Hz
Mains voltage [+/-10%]	3 x 380-460V	3 x 380-460V / 3 x 200-240V	3 x 380-460V	3 x 380-460V / 3 x 200-240V
Welding current / Duty cycle [10min/40C]	175A / 100%	175A / 100%	230A / 100%	230A / 100%
Welding current / Duty cycle [10min/40C]	200A / 60%	200A / 60%	280A / 60%	280A / 60%
Welding current / Duty cycle [10min/40C]	250A / 35%	250A / 35%	350A / 35%	350A / 35%

TransPocket 4000 Cel / 5000 Cel

Processes
TIG-DC
Manual electrode (MMA) welding
Arc-air gouging

Standard equipment
Generator compatible (except MV)
Microprocessor control
S-mark, CE-mark
Digital welding process control
Earth leakage monitoring
V-down-compatible welding of CEL electrodes
Remote-controllable
Thermostat-controlled fan
Overtemperature protection
Anti-stick function

Recommended base materials
Constructional steels
Ferritic / austenitic CrNi steels
Aluminium materials

Recommended areas of use
Shipbuilding and offshore engineering
Maintenance and repair
Industry plant & pipeline construction, site-erection firms

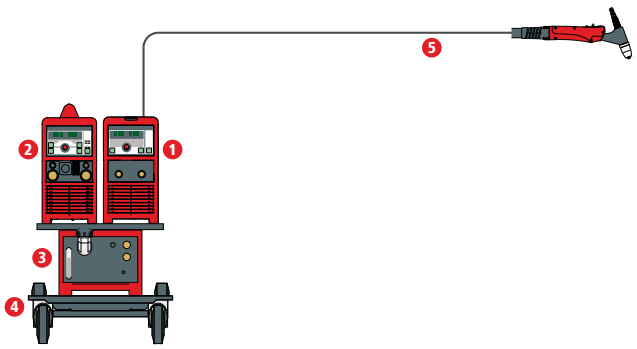
Options
Wireless remote control unit
Keylock switch
Remote control unit
Calibrationdocument

	TransPocket 4000 Cel	TransPocket 4000 MV Cel	TransPocket 5000 Cel	TransPocket 5000 MV Cel
Weight	36,1kg	40kg	37kg	40,5kg
Dimension / h	475mm	475mm	475mm	475mm
Dimension / b	290mm	290mm	290mm	290mm
Dimension / l	625mm	625mm	625mm	625mm
Open-circuit voltage	95V	95V	95V	95V
max. welding current	380A	380A	480A	480A
Welding current min.	10A	10A	10A	10A
Operating voltage	20,4-35,2V	20,4-35,2V	20,4-39,2V	20,4-39,2V
Protection class	IP23	IP23	IP23	IP23
Mains fuse	35A	63A / 35A	35A	63A / 35A
Mains Frequency	50-60Hz	50-60Hz	50-60Hz	50-60Hz
Mains voltage [+/-10%]	3 x 400V	3 x 200-240V / 3 x 380-460V	3 x 400V	3 x 200-240V / 3 x 380-460V
Welding current / Duty cycle [10min/40C]	320A / 100%	320A / 100%	360A / 100%	340A / 100%
Welding current / Duty cycle [10min/40C]	360A / 60%	360A / 60%	415A / 60%	415A / 60%
Welding current / Duty cycle [10min/40C]	380A / 40%	380A / 40%	480A / 40%	480A / 40%

PLASMA

In a nutshell: fast, economical, a jawdropper. Basically very similar to TIG welding, Plasma is a particularly interesting solution for when high quality specifications need to be met in the welding of up to 8 mm thick materials.

SoftPlasma- and MicroPlasma welding TT800/2200 manual



Processes

SoftPlasma, PlasmaKeyhole, Plasma brazing (DC mode)

Recommended base materials

Stainless steel
Constructional steel
Nickel-based materials
Aluminium materials
Titanium
Copper materials

Recommended areas of use

Construction of plant, containers, machinery, structural steel
Automobile and allied vendor industries
Construction of special machinery and construction machinery
Construction of rail vehicles & rolling stock

Standard equipment

Gas check button
Stepless adjustable pilot current (acc. to type of torch)
Digital indication of amps of pilot current
Digital indication of plasma gas quantity
Touchless ignition of pilot arc
Preselection of addressing (internal/external)
Mountable on carriage

Options

Robot interface (not for manual welding)
Plasma torch
Hot wire (not for manual welding)
Coldwire feeder unit
Push Pull system (not for manual welding)
Water recooler

	PlasmaModule 10
Dimension / b	180mm
Weight	14,2kg
Dimension / h	344mm
Dimension / l	505mm
Mains Frequency	50-60Hz
Mains fuse	16A
Protection class	23
Test mark	CE
Open-circuit voltage	88V
Mains voltage [+/-10%]	230V
Operating voltage	10-16V

Plasma manual welding torch PTW 500 / PTW 1500

PTW 500 / PTW 1500

Processes
Plasma DC negative pole

Recommended base materials
Ferritic / austenitic CrNi steels
Duplex steels
Nickel-based materials
Aluminum materials
Titan tantalum zirconium

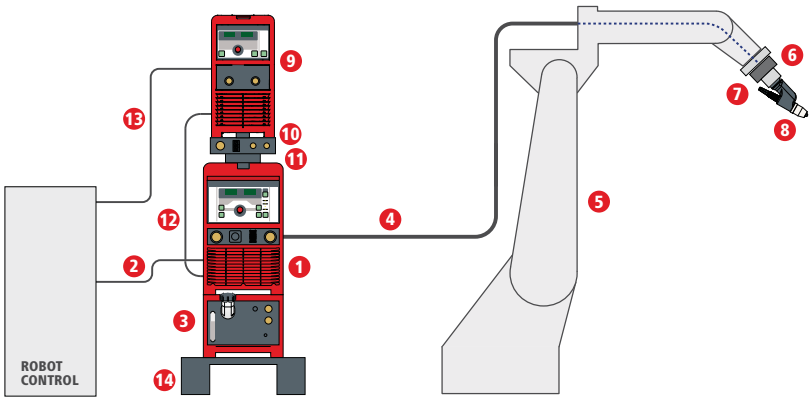
Recommended areas of use
Aerospace industry
Construction of plant, containers, machinery, structural steel
Automobile and allied vendor industries
Construction of special machinery and construction machinery
Construction of chemical plants
Maintenance and repair
Pipeline construction

Options
Fabric-reinforced protection hose
KD-feeding external
Special lengths of hose pack up to 8,0m

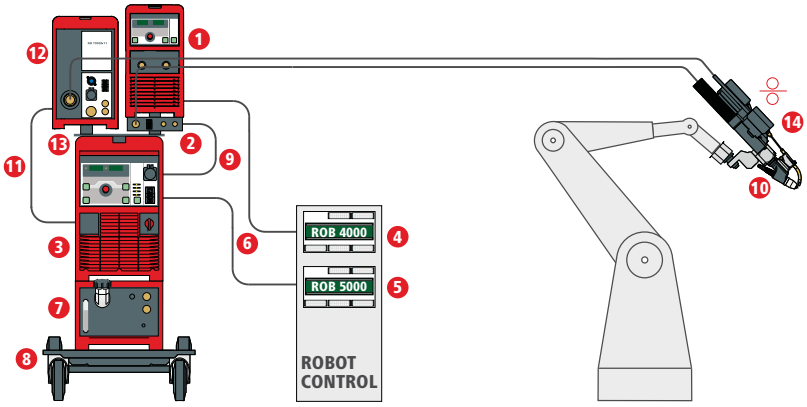
Standard equipment
Swivel-mounted protective hose
UV- and ozone-resistant protective hose
Flexible leather protection hose 0,7m
Anti-kink feature at machine and torch end
Easy-to-use rocker switch

	PTW 500	PTW 1500
Weight	2,78kg	1kg
Diameter range	0,6-1,6mm	1-3mm
Max. welding current at 3mm	50A / 60%	150A / 100%

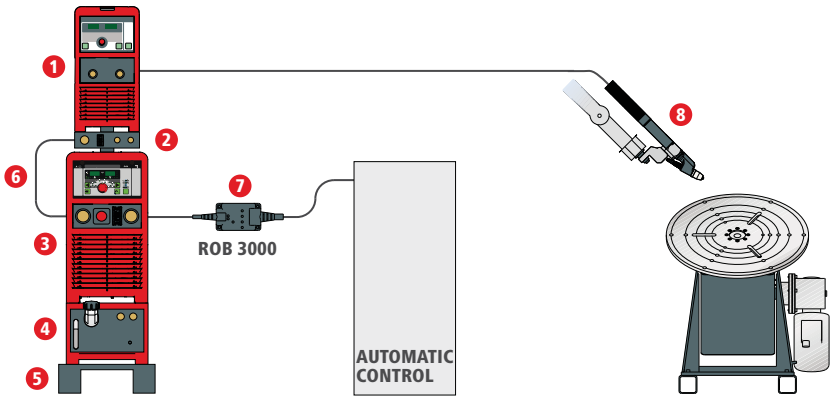
PAP watercooled Plasma-KD TT/MW 4000/5000

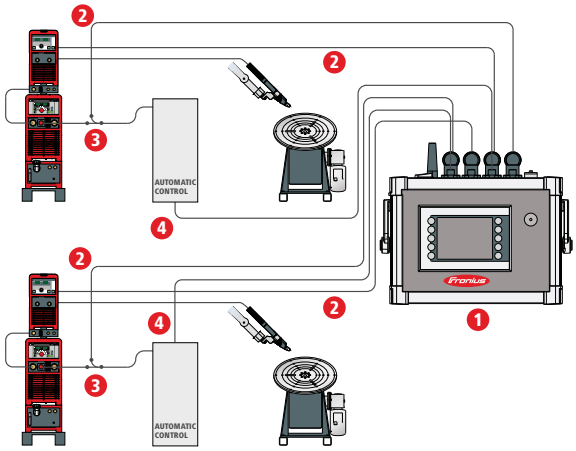


Robot set Plasma TT4000 Job with KD Push/Pull



Robotset Plasma TT3000 / Q-Master





Plasma robot welding torch Robacta PTW 500 / Robacta PTW 1500 / Robacta PTW 3500 / PAP

Robacta PTW 500
Robacta PTW 1500 inkl. KD Drive
Robacta PTW 3500 inkl. KD Drive

Robacta PTW 1500 PAP
Robacta PTW 3500 PAP

Standard equipment

UV and ozone-resistant protective hose
Fix defined TCP with alu-square-fastening bolt
4 x 90° mountable
Holding bracket
Adjust gauge for tungsten electrode to plasma nozzle ø2,5mm

Standard equipment cold wire feeding Push (Robacta Plasma KD):
Locking rocker for defined cold wire feeding-position
Wire feeding tube swivel mounted
Copper wire tube for hot wire applications ø1,2mm

Combi inner liner 1,2
Standard equipment cold wire feeding Pull (Robacta Plasma KD Drive):
Wire feed speed 0-11 m/min
Exact speed regulation assured by digital encoder
Wirefeed FWD/BACK button
Locking rocker for defined cold wire feeding-position
Wire feeder tube rotatable
Graphit inner liner
Standard equipment hot wire:
Drive rollers made of plastic
Leather hose 3,0m with hook and look fastener

Processes

Plasma DC negative pole

Recommended base materials

Ferritic / austenitic CrNi steels
Duplex steels
Nickel-based materials
Aluminium materials
Titan tantalum zirconium

Options

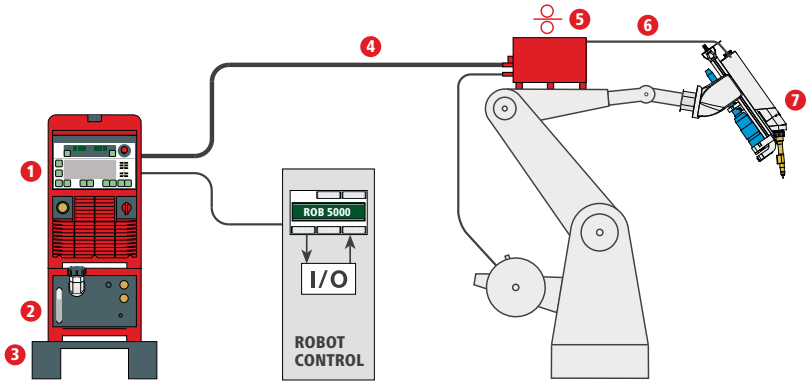
Adjusting device for Plasma nozzle ø1,5mm
Basic kit for Robacta Plasma KD-Drive
Special lengths 1,0 - 10m
Spare parts set
Adaptor TT/MW (G/F) - F gas ext.
Adaptor hose pack
Extension holding clamp / 120mm /140mm/ 160mm
Holding clamp mounting
Customer specific torch body bend 90° for PTW 1500, 70° for PTW 1500 PAP

Recommended areas of use

Aerospace industry
Construction of plant, containers, machinery, structural steel
Automobile and allied vendor industries
Construction of special machinery and construction machinery
Construction of chemical plants
Maintenance and repair
Pipeline construction

	Robacta PTW 500	Robacta PTW 1500	Robacta KD-Drive
Weight	3,6kg	4,72kg	3kg
Diameter range	0,6-1,6mm	1-3mm	
Max. welding current at 3mm	50A / 60%	150A / 100%	
Wire feed speed			10m/min

LaserHybrid



Processes
MIG/MAG pulsed arc welding
LaserHybrid welding
Laser welding
LaserHotwire brazing
Laser brazing

Recommended base materials
Constructional steels
Ferritic / austenitic CrNi steels
Duplex steels
Aluminium materials
Magnesium materials
Special materials
Zinc-plated sheet metal

Recommended areas of use
Construction of plant, containers, machinery, structural steel
Automobile and allied vendor industries
Aerospace industry
Construction of rail vehicles & rolling stock

Standard equipment
4-roller drive
Wire-inching without gas or current
Gas-test button
S-mark, CE-mark
Protective glass changer
Collision unit (+/–0,05 mm)
Adjustment unit for Arc / Laser 360 mm (x, y, z nonius)
Crossjet with integrated exhaust duct
Mirror inverted mounting
Precision torch (+/–0,05 mm)

Options
Holder for optic
Profi wire feeder rolls (grounded)
Holding device for different torches
Precision contact tips
Plug-in, watercooled gas nozzle, lockable
Precision wire guide innerliner
Guide nozzle
Calibrationdocument
Software Laser brazing CC/CV
Roboter Interface Feldbus
Gas sensor
SynchroPuls

	LaserHybrid 0° 4kW
Weight	19kg
Dimension / b	160mm
Dimension / l	770mm
Dimension / h	420mm

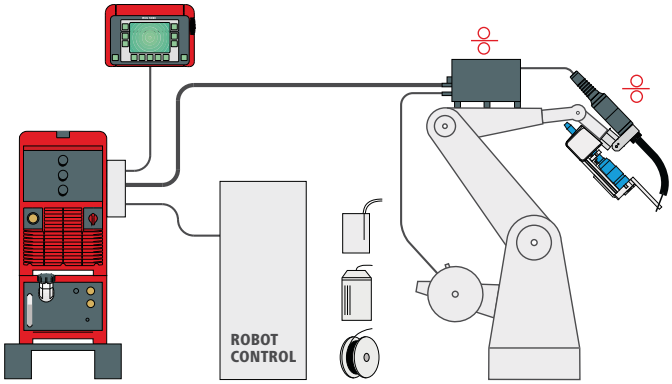
LaserHybrid 10kW

LaserHybrid 90°

8kW-Version auf Anfrage

Fillet weld head

Laser Hotwire



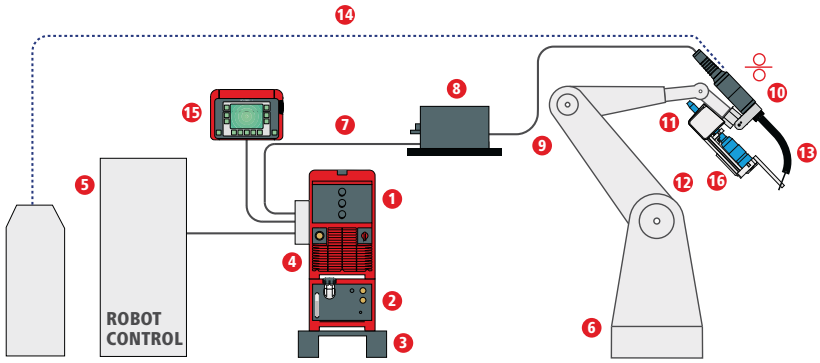
Processes
Laser welding
Laser hotwire-brazing (hotwire)
Laser-brazing (coldwire)

Recommended base materials
Ferritic / austenitic CrNi steels
Duplex-steels
Special materials
Zinc-plated plate metal

Standard equipment
4-roller drive
Wire-inching without gas or current
Gas test button
S-mark, CE-mark

Recommended areas of use
Construction of plant, containers, machinery, structural steel
Automobile and allied vendor industries
Aerospace industry
Construction of rail vehicles & rolling stock

Robot Robacta PowerDrive LaserHotwire



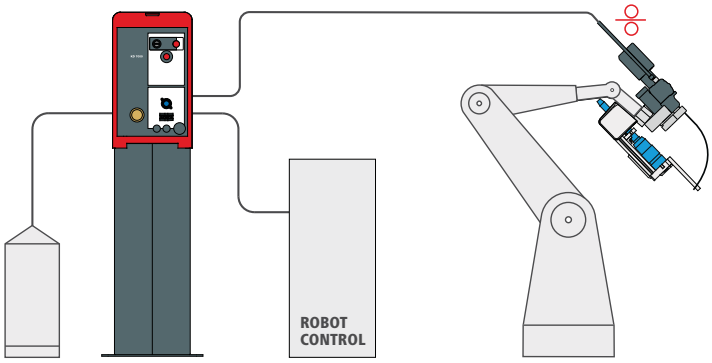
Processes
Laser welding
Laser hotwire-brazing (hotwire)
Laser-brazing (coldwire)

Recommended base materials
Ferritic / austenitic CrNi steels
Duplex-steels
Special materials
Zinc-plated plate metal

Standard equipment
4-roller drive
Wire-inching without gas or current
Gas test button
S-mark, CE-mark

Recommended areas of use
Construction of plant, containers, machinery, structural steel
Automobile and allied vendor industries
Aerospace industry
Construction of rail vehicles & rolling stock

Laser cold wire



Processes
Laser welding
Laser hotwire-brazing (hotwire)
Laser-brazing (coldwire)

Recommended base materials
Ferritic / austenitic CrNi steels
Duplex-steels
Special materials
Zinc-plated plate metal

Standard equipment
4-roller drive
Wire-inching without gas or current
Gas test button
S-mark, CE-mark

Recommended areas of use
Construction of plant, containers, machinery, structural steel
Automobile and allied vendor industries
Aerospace industry
Construction of rail vehicles & rolling stock

AUTOMATION

Mechanisierte Schweißsysteme

Orbital Schweißsysteme

Die Automation entwickelt und realisiert mechanisierte Systemlösungen mit hohem Kundennutzen und herausfordernden Anwendungen.

Carriage FDV 15/MF / FDV 22/MF

Carriage

Recommended areas of use

For mechanized welding (MIG/MAG) of longitudinal seams in horizontal, vertical and overhead position

Options

Oscillation unit FOU 30/ML6 (FDV 22/MF)

Standard equipment

Compact and lightweight design
Control unit integrated in driving vehicle
Battery powered - no mains cable necessary
Permanent magnet for powerful traction in all welding positions
Guide wheels automatically track the torch in the filled joint
Universal torch holder for hand- and machine torche
Battery charger and rechargeable battery 14,4V/ 2Ah
4-wheel drive via stepper motor

Steel wheels with rubber (O-rings)
Microprozessor controlled with digital display (FDV 22/MF)
Control line to power source (Tuchel 9pin) L=10m (FDV 22/MF)

Functions control unit FDV 22/MF:
Switch: On / Off
Switch: Start left / Stop / Start right
Speed knob

Digital travel speed display
Switch: Welding On / Off
Programming buttons for path, segment welding, endcrater fill

Functions control unit FDV 15/MF:
Switch: On / Off
Switch: Start left / Stop / Start right
Speed knob

Carriage FDV 80

Carriage

General features

Mobile and high-modular system for MIG/MAG welding of longitudinal welds. Composed with driving vehicle, remote control unit, torch-head and seam tracker, it enables a wide range of applications.

Options and accessories

Uptake for remote control FRC-40
Torch holder and adjustment devices
FRR reducer rings
Customized wheels
Rail system
I-kit limit switch functions
Adjustable guide rolls (side)

Features and Benefit

Mobile longitudinal welding system
Very versatile and suitable for different applications by its modular design
Variable adjustable torch head system
Mechanical seam tracking system for perfect torch guiding on parallel, reducing or curved profiles
Segment welding function
Job-selection
Programmable welding distance
On-board remote control for fast and easy control of welding parameters

Standard equipment

4-wheele drive with stepper motor
Polyurethane wheels (one side with groove)
Viscose-damper for constant drive
Integrated way-measurement system
Robust frame and adequate uptake for wire feeder
4 pcs. lift facilities to hook in
Integrated power supply and PLC
Mains cable with plug 12m
Control line to power source 10m
Remote control FRC-40 with cable 3m
Mechanical seam tracking system

Carriage FlexTrack 45

Carriage

Recommended areas of use

For mechanized welding (MIG/MAG, CMT) of longitudinal and circular seams

General features

The highly flexible carriage offers a wide range of application possibilities. Flexible rails can be used on objects that are flat, curved or round and can be fixed with different bridges.

One carriage for all applications
High quality components
Robust aluminium housing
Designed for rough application area
Fast and easy setup of rails and carriage
Highest reproducibility
Constant welding speed

Oscillation system linear

Control unit with linear slide FMS

Recommended areas of use

Welding of fill- and multi layer, high wall thickness with seam preparation (MIG/MAG, TIG).

Standard equipment

Graphical user interface
Touchscreen-display for easy navigation and altering parameters
Changeable protective-sheets (weld-spatter resistant)
Multifunction-wheel for selecting and altering parameters even while the welding procedure is running
Prepared for external start-stop
Only for FMS slides with servo motor

Mains cable with plug 5m (196,85inch)
Connection line FRC-12/SE to e-cabinet 5m (196,85inch)
Connection line e-cabinet to oscillation unit 5m (196,85inch)

Functions:
/ Main switch on-off
/ Multifunction-wheel for navigation and altering parameters
/ Start-stop
/ Pre-selection oscillation on-off
/ Fine-positioning

AVC system

Control unit with AVC-slide (DC motor)

Recommended areas of use

For automatic height control or distance control of the torch to the work piece, while welding. Useable with TIG/DC (digital) and Plasma welding process.

Standard equipment

Control unit FCU-8:
/ Main switch On-Off
/ Potentiometer for time (AVC-up)
/ Potentiometer for distance (touch & retract) at TIG-DC
/ External start-stop
/ Mains cable with plug 5m
/ Connection line FCU-8 to AVC-slide 5m
/ Connection line FCU-8 to power source 5m

Remote control FRC-8:
/ Button start-stop
/ Flip switch AVC On-Off
/ Jogging switch for manual positioning up-down
/ Display for welding voltage
/ Potentiometer for AVC-voltage
/ Potentiometer for AVC start delay
/ Potentiometer for AVC-sensitivity
/ Button Error-Reset
/ Remote control cable 5m

Camera system ArcView

Visual monitoring of welding processes

Recommended areas of use

Visual monitoring of the following welding processes:
MIG-MAG
CMT
TIG
Plasma

Features and Benefit

Camera module
Control unit with display (15“)
Camera cable
Absorptive glass - pneumatically controllable
Absorptive glass - cleaning via compressed air
Prepared for air and water cooling
Easy exchangeable absorptive glass
Focus and iris - controllable via control unit
Robust aluminium housing
PLUG & PLAY
Cable length up to 50m (164 ft)
Cross line can be positioned freely via display for comfortable seam tracking inspection
LIVE-VIEW of video data via ethernet possible
Recorder with remote control for recording and playback - USB/SD-CARD
Light source with bracket
Flexible camera bracket

Longitudinal welding systems FLW

Segments
Metalworking industries

Work pieces
Frames

Welding processes
MIG/MAG

Segments
Commercial vehicles

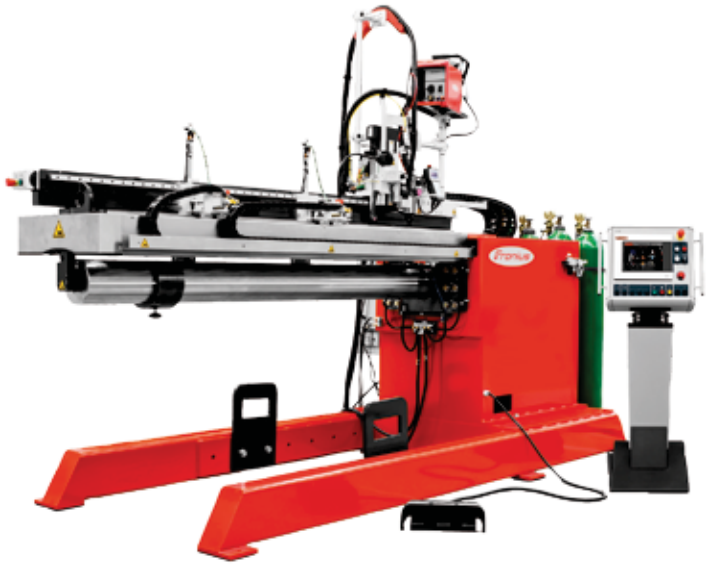
Work pieces
Carrier sections

Welding processes
MIG/MAG
CMT Twin
TIME Twin

Segments
Steel- & machinery construction

Work pieces
Road sign pillars

Welding processes
TIME Twin



Segments
Tank constructions

Work pieces
Exhausts
Containers
Tanks

Welding processes
MIG/MAG
CMT
TIG
Plasma

Segments
Construction of rail vehicles

Work pieces
Rail vehicles assemblies

Welding processes
MIG/MAG
CMT

Segments
Commercial vehicles

Work pieces
Carrier sections

Welding processes
MIG/MAG
CMT Twin
TIME Twin

Circular welding systems FCW

Segments
Steel- & machinery construction

Work pieces
Hydraulic cylinders

Welding processes
MIG/MAG

Segments
Power generation
Offshore
Steel & machinery constructions
Aerospace industries

Work pieces
Tubes, flanges, pipe reducers, fittings, valves

Welding processes
MIG/MAG
CMT
TIG
PLASMA

Segments
Power generation

Work pieces
Pipe- pipe connections

Welding processes
TIG

Segments
Power generation

Work pieces
Boiler

Welding processes
MIG/MAG
TIME Twin

Segments
Energy supply

Work pieces
Gas- insulated power lines

Welding processes
TIG

Segments
Steel & machinery constructions

Work pieces
Valves

Welding processes
MAG

Overlay welding systems FOW

Segments
Subsea

Work pieces
Flow lines

Welding processes
TIG

Segments
Power generation

Work pieces
Membrane walls

Welding processes
CMT

Segments
Automotive manufacturing
Yellow goods

Work pieces
Bolt

Welding processes
CMT

Segments
Steel & machinery constructions
Gas-, oil industrie
Power generation

Work pieces
valve body

Welding processes
CMT

Segments
Subsea

Work pieces
Valves

Welding processes
TIG

Segments
Subsea

Work pieces
Valves

Welding processes
TIG

Orbital system-controller FPA 3020

Orbital welding power source with integrated microprocessor-controller

Processes

TIG welding AC/DC with or without filler wire

Accessories

GroundCable, gas hose
Carriage with console and tool box PickUp
Gas pressure regulator
Closed and open weld heads with or without filler wire
Hosepack extension
Manual TIG torch
USB-stick
Printer paper

Recommended areas of use

Fronius Process Automation - FPA System-Controller are universal and functional with orbital weld heads useable for tube-tube/ tube-flange/ tube-tube sheet welding

/ Microelectronics
/ Pharmacy/ Biochemical Industry
/ Food Industry
/ Climate Technology
/ Aeronautics/ Aerospace
/ Heat Exchangers

Standard equipment

FPA 3020 Orbital Controller
Integrated inverter 200A, single phase
Generator compatible
Integrated water cooling
Mains cable 2,5m with plug
Mountable on carriage
Integrated gas and water flow control
Simple programming via intuitive menue
Touch-screen operation with graphical processvisualisation (colour)
Language selection (De/Gb/Fr/It/Es/Pb/Ru/Cz)

Display during weld cycle:
/ Welding currrent (A)
/ Arc Voltage (V)
/ Torch position (degree)
/ Welding speed (cm/min)
/ Wire feed speed (cm/min)

Programming welding parameter:
/ Internal memory (200 programs)
/ 3 special tack programs with up to 20 tack points
/ 10 sectors/ program free definable

Additional memory of programs on USB-stick
Creation of backup on USB-stick
Welding-data documentation on USB-stick
Addressing torch rotation axis and wire axis
SynergicMode (material, pipe outside diameter, wall thickness, gas, ..)
Auto-Diagnose-System (Error-Code)
Optimum control of weld process via remote control unit
1 pc. USB-stick 8GB
Welding data-documentation
Installed printer
FPA 3020-RC remote control with cable 10m

Functions on remote control:
/ Selection of program
/ Start/stop with slope, immediate weld stop
/ Emergency-stop
/ Manual positioning of axes
/ Manual wire inching (forward/reverse)
/ Parameter adjusting during welding (on the fly)
/ Test button for shielding- and on-off purging gas

Closed chamber weld heads FCH

Welding of tube to tube joints

Recommended areas of use

Special for welding of thin-walled tubes and high productivity applications
(tube outer-Ø 3,0 - 114,0mm)

/ Microelectronics
/ Pharmacy / biochemical industry
/ Food industry
/ Aerospace / aeronautics
/ Heat exchangers
/ Measurement sensors

Processes

TIG welding DC respectively AC/DC
Flush joint welding without filler wire

Options and accessories

Collets (aluminium) for one tube outer-Ø
Special designed collets
Offset electrode holder (tubes with reduced straight length)
Shield for one tube outer-Ø (tube-elbow)
Extension hosepack

Standard equipment

Closed chamber weld head with hosepack 5m
Protection chamber for gas covering to avoid coloration
Compact design for use in areas with limited access
Tube clamps for optimum hold and positioning
Special gas arrival to avoid particle emissions
Consistent high quality welding due to water cooling
DC-motor drive with encoder-system (vibration free drive)
Modular collet-system (quick change)
Transport case

Control buttons integrated in handle of weld head
/ Out of weld cycle: rotation movement, gas and water-circuit test
/ During weld cycle: start cycle, downslope, stop

Open weld heads FOH

Welding of tube to tube joints

Recommended areas of use

Special for welding of thin-walled and thick-walled tubes / pipes (tube /pipe outer-Ø 8 - 168mm)

/ Pharmacy / biochemical industry
/ Food industry
/ Aerospace / aeronautics
/ Chemical industry
/ Shipbuilding
/ Energy / boilers
/ Power generation

Processes

TIG welding with or without filler wire
Welding of multi-pass with filler wire

Options and accessories

External wire feeder KD 4000 D-11 with wire spool Ø 300mm/ 15kg
Adapter-set for connecting wire guide
2-axes wire adjustment device and wire inliner
Hosepack-extension
Angle gear box for tilting the motor
Balancer

Standard equipment

Open weld head with hosepack 5m
Stepless adjustable centering- /clamping system
Mechanical side adjustment (electrode)
Simple adaptation to different tube geometries
Torch tiltable 0° up to 45° (flange)
Modular design
Mechanical height tracking
2-axes wire adjustment device and wire liner
High duty cycle due to water cooling
Transport case
Toolings and wear part box

Tubesheet welder FTW PRO

Welding of tube to tubesheet joints

Processes

Welding process MIG/MAG
Welding positions PA/PB/PG/PF

Description

The FTW PRO's range of use contains mainly areas where factors like less time effort, best quality and highest reproducibility are requested. For tube-to tubesheet joints in heat exchangers or cooling elements these criteria are for utmost importance.
Innovations like the pneumatic clamping system or the hanging device simplify the operators work considerably and additionally decrease the time effort. Precise torch positioning is provided by the 3-point support – even at different tube protrusion.

Features and Benefit

Pneumatic clamping system
Different mandrels and clamping jaws for different tube inner diameters
Adjusting units for precise torch adjustments
Special torch with multilock and water cooling
Hanging device (optional)
Comfortable handle for quick-starting of welding programs
3-point support (optional)

Control unit with remote control:
Robust housing
Graphical user interface
Touch-display
Multifunctional wheel
Changeable protective sheets
Parameter program- and storable
Different languages
Job-switching (optional)

Carriage FlexTrack 45 ACC-OSC

Welding of pipe to pipe joints

Processes

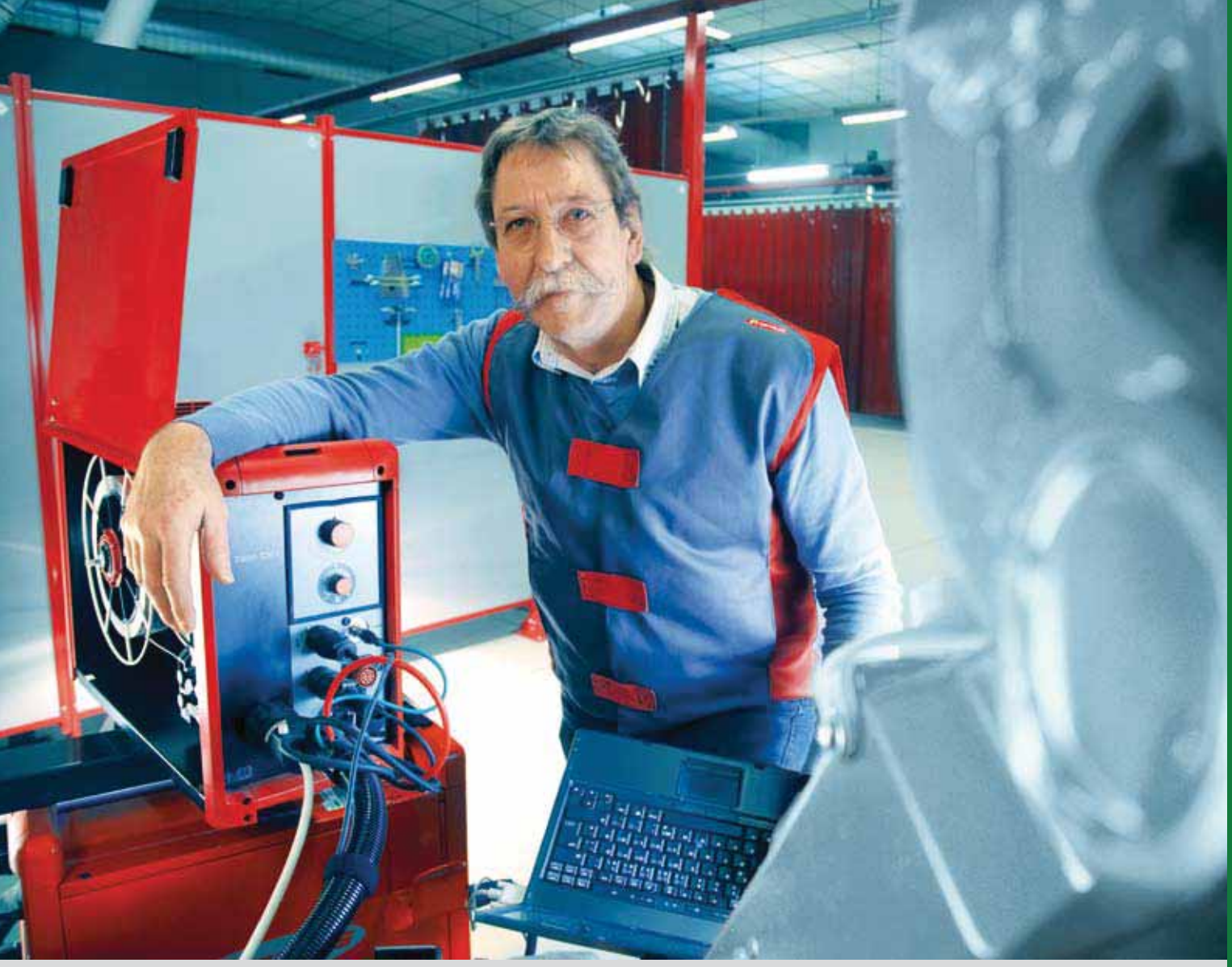
MIG/MAG, CMT
Multi pass in combination with arc length control (ACC) and torch oscillation (OSC)

Recommended base materials

Steel
Stainless steel
Aluminium

Recommended areas of use

Flexible and adaptable tracking vehicle for welding tasks on welding of pipe constructions from tube outer-diameter 200mm (7,874inch)
/ Chemical industry
/ Shipbuilding
/ Power generation



SERVICES

At the end of the day, customer satisfaction is what counts for most, and trendsetting products need services to match. Welding trials, commissioning, maintenance, repairs, training offerings, client-specific projects – every single challenge matters.

Product demonstrations and tests

TRY BEFORE YOU BUY

The purchase of a new welding system is an important investment decision! It requires a comprehensive evaluation.

The investment risk can be minimised through demonstrations or trial installations using Fronius demo systems on the customer's premises. Customers can satisfy themselves of the system's capabilities, try it out and appreciate the advantages of the system and its suitability for their own individual requirements.

The responsible Sales and Service Team is always there to help – simply call to arrange an appointment!

The service in detail:

/ A Fronius application engineer visits the customer with the welding system he is interested in
/ The system is presented, explained and demonstrated in detail
/ The customer has the opportunity to try out the system himself
/ If required, the customer can keep the welding system on his premises for testing and evaluation over a prolonged period.
/ The trial period will be agreed individually

Appointment, contents and periods of demonstrations and trial installations are individually agreed with the customer.

Customers are not charged for demonstrations and trial installations using Fronius demo systems for the period agreed with the Sales and Service Team. If the customer wants to extend the trial period, he has the possibility to rent the required welding system.

Welding Trials

WE DEVELOP WELDING TECHNOLOGY SOLUTIONS

Fronius experts carry out welding trials using customer specific materials and components. This allows them to determine the optimum welding process for use by the customer.

The service in detail:

/ The customer sends components or prepared sheets to Fronius
/ Welding trials are carried out with the customer's own components or sheets. This involves:
  / Parameter finding
  / Determination of feasibility with reproducible welding results
/ Based on tests carried out at Fronius or on the customer's premises, Fronius finds out how the customer's productivity can be increased by using the most efficient welding process
/ Documentation, presentation and discussion of the results.

The welding trials are carried out in the local Fronius branch, at Fronius' Austrian headquarters or on the customer's premises, depending on the task. Tests are carried out manually, on the robot or on components of the automation system – depending on the application and requriements.

The achieved results are documented and then presented and jointly discussed.

PA / PAT

PRE-ASSEMBLED / PRE-ASSEMBLED AND TESTED

Welding systems can be ordered factory pre-assembled or pre-assembled and tested. A system that is ready to use straight away means customers do not have to assemble it themselves, so they can start work immediately.

The service “PA” in detail:

Mechanical set-up of welding systems as ordered:
/ Trolley
/ Cooling unit (will be filled with coolant)
/ Power source
/ Wire-feed unit – correct wire feed rollers will be fitted
/ Hosepack(s)
/ All ordered options (installation and modification kits, interfaces, accessories) are installed

“PAT” – Additional activities:

/ Welding torches are finished with inner liner, contact tip, gas nozzle,…
/ PushPull welding torches, intermediate drives and Robacta welding torches are adjusted to the wire-feed units. Coolant will be re-filled.
/ Roboter will be commissioned within the network of Fronius
/ A test weld is carried out
/ A PAT certificate is provided

Warranty extension for new welding systems

THE CUSTOMISED WARRANTY PACKAGE

Fronius offers a flexible, individual and transparent warranty programme. There are several warranty periods to choose from. The customer can simply choose the package, that offers the best protection for his requirements. With a warranty extension he will enjoy total protection over the whole period.

Training / Seminars / Courses

PREMIUM TRAINING FOR PREMIUM PRODUCTS

Premium products demand premium skills. That's why Fronius offers customers a suitable training and further education programme to enable them to acquire and develop welding skills and product-specific know-how as well as repair know-how for internal maintenance of equipment.

Modular format, geared to individuals' level of knowledge
/ BASIC
/ ADVANCED
/ EXPERT

Training area "product"
/ Product training: Getting to know the welding systems, operation and applications
/ New products: Learning about new products, their operation and applications, functions and maintenance

Training area "welding"
/ Welder training: Getting to know the welding processes, applications and uses

Training area „maintenance of equipment"
/ Service and maintenance training: Getting information about the function and maintenance of the different welding systems
/ Repair training: Learning the professional repair of the different welding systems and torches

Customised training sessions with tailored contents are offered by arrangement.

Commissioning

READY TO USE CONFIGURATION FOR NEW FRONIUS WELDING SYSTEMS

By having a new welding system commissioned, the customer benefits from the valuable technical know-how of a qualified Fronius technician. The new system will be configured ready for use and explained.

The service in detail:

/ Connection of power source to electricity and gas supply (TIG, MIG/MAG systems)
/ Connection of welding torch to power source
/ For MIG/MAG systems, the inner liner is threaded in and cut to length and the wirespool is inserted and fed in
/ The operator is trained in the basic welding system functions.

Expert Training

TRAINING WELDERS TO BECOME EXPERTS

The “expert training” service turns the future operators of the new Fronius system into expert users of the equipment. This training is based on the ready-to-use configuration as included in the standard “welding system commissioning”.

The service in detail:

/ Welding specimen components
/ In-depth training in all system features
/ Issue and presentation of certificate to participants

The expert training is carried out with each individual employee who is to use the Fronius system in the future. The employee is issued with a qualification certificate confirming that he has received expert training.

Calibration

QUALITY ASSURANCE BEGINS HERE

At Fronius, the customer’s production quality has top priority. This requires quality assurance through calibration of welding machines. Calibration must be carried out in welding shops and documented in the Welding Procedure Specification. Fronius recommends a period of 1 year.

Fronius performs these tasks in compliance with the latest regulations, both for arc welding and for DeltaSpot – naturally this can also be done on site.

The service in detail:

/ Performance of a detailed system check
  / Measurement of voltage, amperage and wire feed rate
  / Analysis of results with regard to adherence to tolerances
  / Readjustment of the systems – welding parameters are accurately adjusted.
/ Observance of
  / Quality assurance stanards of the ISO 9000 series
  / Product liability law
  / EN 50504 (Validadtion of arc welding equipment)
/ Issue of
  / Calibration certificate
  / Test record with measured values
/ Once calibration is completed, a calibration sticker is affixed

Fronius executes the calibration service for all types of welding systems – independent of the manufacturer. Customers benefit from our know-how and experience concerning welding and measurement technology.

Safety inspection

MEETING LEGAL REQUIREMENTS

At Fronius the customer's safety has top priority. An important factor in this respect is the protection of personnel by means of an annual safety inspection based on EN 60974-4 (valid for Europe) or IEC 60974-4 (valid for countries outside Europe). In Austria and Germany these inspections are required by law and must be carried out regularly. Fronius recommends a period of 1 year.

Fronius performs these tasks in compliance with the latest regulations – naturally this can also be done on site.

The service in detail:

/ Electrical test
  / Inspection of all relevant safety functions
  / Mains switch, contactor, circuit breakers
  / Voltage reduction devices (VRD)
  / Gas solenoid valve
  / Indicators and control elements
  / Test welding
/ Function test
  / Visual inspection
  / PE conductor resistance
  / Insulation resistance
  / Leakage current – primary and secondary
  / Open circuit voltage
/ Checking and guaranteeing safety in the workplace environment.
/ Issue of test record with measured values.
/ Once the safety inspection is completed, a test sticker is affixed.

Customer Inventory Assessment

WE PROVIDE OUR EXPERTISE

Customers benefit from the useful technical know-how of a skilled Fronius technician by having an customer inventory assessment at the customers' premises.

The condition of the customer's welding systems – regardless of the brand – is capably and independently assessed. Based on this assessment the customer receives recommendations concerning preventive maintenance and suitable Fronius maintenance packages. Education and training needs of welders and equipment operators are identified, necessary repairs can be ordered or finished immediately and future investment needs can be estimated.

The service in detail:

/ Analysis
  / Standardized analysis of the welding systems using a checklist to provide an impartial assessment of the customer's welding systems
  / Visual assessment of the system
  / Recording of gross defects
  / Detected defects can be rectified by Fronius on request. This is not included within the customer inventory assessment and will be invoiced separately
/ Documentation
  / Documentation of the system's condition on the checklist
  / Documentation of existing and – maybe – rectified errors during the customer inventory assessment
  / Allocation of the digital documentation for the customer (Excel list of all analysed equipment)
/ Recommendations and measures
  / Personal interview to discuss the result of the inventory
  / Recommendations to improve the system, operating situation, use of wearing parts…
  / Recommendations for a suitable maintenance package for each analysed welding system are part of every customer inventory assessment documentation and discussion

Individual maintenance packages

FLEXIBLE AND INDIVIDUAL MAINTENANCE

The customised Fronius maintenance packages guarantee high productivity by increasing machine availability and ensure the welding system retains its value – always perfectly tailored to the systems and the customer's conditions.

By the possibility to individually combine – according to requirements – different modules based on the standard module (BASIC) the customer has the chance to create his own maintenance package – perfectly tailored to his needs and conditions.

The customised packages are available for Fronius systems as well as for third party systems (requirement: readable identification plate and CE-/CSA characterisation) – regardless of the device age! The responsible VSP Team decides, which systems are possible for a Fronius maintenance package.

Predefined maintenance packages

A PERFECTLY TAILORED SERVICE PACKAGE

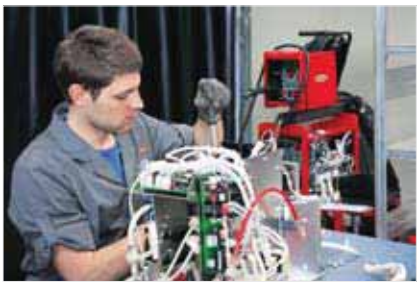
In addition to customised packages the customer can also choose from pre-configured packages and benefit from the same advantages offered by the customised packages – high productivity and cost effectiveness. 4 different service packages provide customers with a solution that exactly meets their requirements:

BASIC **COMPACT** **COMFORT** **PREMIUM**

The packages are available for Fronius systems as well as for third party systems (requirement: readable identification plate and CE-/CSA characterisation) – regardless of the device age! The responsible account manager of Fronius decides, which systems are possible for a Fronius maintenance package.

/ Fronius systems: all 4 packages are available.
/ Third-party systems: BASIC and COMPACT are available as standard (further packages on request).

Repair Service



FAST AND DEDICATED

If a welding system on a customer's premises should malfunction, he will expect nothing less than fast and dedicated assistance. In this case, Fronius experts from our repair service provide efficient support – on site at the customer, at the local Fronius branch or in a specialist repair centre, depending on the situation.
As well as the repair service for welding systems generally, Fronius also offers a specialised welding torch service.

The service in detail:

/ Testing of the welding system to diagnose the fault
/ Preparation of a cost estimate – if desired by the customer (analysis of error)
/ Repair of the welding system
/ Execution of a test weld
/ Finally, a safety inspection of the welding system is carried out
/ Once the safety inspection is completed, a test sticker is affixed

Torch service

/ Testing of the welding torch to diagnose the fault.
/ Preparation of a cost estimate – if desired by the customer (analysis of error)
/ Repair of the welding torch

Fronius takes the correct disposal of the defect parts incurring during the repair. If the welding system or torch is not repaired on site, it is handed back to the customer ready for use once the repair work has been completed. The customer bears the arising transport expenses.

Welding System Conversions

ADJUSTMENTS IN A BREATH

New welding tasks that can be optimally – with some adaptions – achieved with existing welding systems occur for the customer? In this case Fronius is the first contact for the customer to do the necessary conversions of the welding systems.

Experts of Fronius execute the conversions – according to the individual situation and complexity at the customer's premises or at the Fronius branch.

The service in detail:

Dependent on the customer's welding tasks and based on a detailed analysis of requirements Fronius provides:

/ Conversions of entire systems
/ Conversions of parts of the system (e.g. torches)
/ Rebuilding
/ Additional assembly of options

Fronius takes the correct disposal of the parts that are no longer necessary for the system incurring during the conversion. If the conversion does not take place on site, the welding system is handed back to the customer ready for use once the conversion work has been completed. The customer bears the arising transport expenses.

Production Support in the Start-up Phase

WE SUPPORT OUR CUSTOMERS' WELDING PROCESSES IN PRODUCTIVE OPERATION

Let us assume the customer has purchased a new Fronius welding system and wishes to integrate it into his production operations as effectively as possible.

During the start-up phase, as part of the production support undertaken by Fronius experts, the new system is permanently monitored and optimised for the customer's individual needs. A qualified Fronius employee is on hand to pass on the benefit of his specialist know-how.

The service in detail:

/ Visual and computer-assisted monitoring of the welding process
/ Analysis and adaptation of process parameters in production
  / Optimisation of welding parameters
  / Optimisation of welding speeds
  / Optimisation of torch settings
/ Fault detection and troubleshooting in the welding process
/ Training of system operators in use of the system and its special features, in order to recognise sources of error before they happen

Process / Parameter Optimisation

ELIMINATING WEAK SPOTS

Perhaps the customer would like to have one or more of his welding systems analysed with regard to productivity, welding quality or resource conservation – on site in the production environment?

Fronius process optimisation, carried out by experts, includes an analysis of the customer's welding system and of the choosen parameters in relation to the individual objectives. The analysis is carried out in the productive environment during the idle periods. Based on the results of the analysis, adjustments are made to the system so as to optimise the welding process in line with the customer's requirements.

The service in detail:

/ Optimisation of the welding process
  / Selection of optimum characteristic for the application
  / Selection of suitable shielding gas
  / Selection of suitable filler metals
  / Adjustment of wearing parts in the wire-feed system according to the process and filler metal
  / Optimisation of welding parameters, welding speeds and torch settings
/ Fault detection and troubleshooting in the welding process
/ Training of system operators in use of the system and its special features

Customised Project Support

WE SUPPORT THE PROJECTS OF OUR CUSTOMERS

We focus the needs of our customers. Because of that it is important to provide them with appropriate products. To receive a welding system or welding characteristiscs that are individually tailored to customer's needs and requirements the customer has the possibility to order customised project support at Fronius.

The service in detail:

/ Individual project support for customers
/ Creation of individual characteristic curves adapted to the customer's welding requirements. Details and article numbers you see on the following page!
/ Common, customer specific research and development projects (on request)

Is the customer interested in this customised project support by Fronius – tailored to his requirements? Then he can address his sales contact of Fronius at any time. He makes contact to the involved Fronius technicians and by this start the process!

Development of customized special characteristics for TPS/i & TPS

WE FIND THE BEST SOLUTION

The optimum welding solution for our customers is our wish. Maybe our provided welding characteristics are not always enough to achieve this. In this case, ordering the development of special characteristics by Fronius is the perfect solution – available for TPS/i and TPS.

The service in detail:

/ Individual development of a set of welding parameters according to the demands and wishes of the customer.
/ Executed by Fronius specialists with longtime experience in developing welding programs to achieve the best possible soultion.
/ Possibilities for TPS/i:
  / Special characteristics LSC or LSC Advanced.
  / Special characteristics PMC.
  / Special characteristics CMT.
/ Possibilities for TPS:
  / Special characteristics Digital Revolution.
  / Special characteristics CMT.

Which characteristic for which system?

It is very important for TPS/i to check that the ordered special characteristic matches the customer's welding system!

Example:
The customer has a special welding wire which is not available within the standard characteristic database. So he needs a new characteristic.
This characteristic can be developed using the LSC or the PMC process – depending on the customer's wish.
Thus the customer needs to own a TPS/i including WP LSC respectively PMC to be able to use the new characteristic.

The customer has to provide the following information and materials for developing special characteristics:

/ Detailed information on the customer's requirements.
  / Operating range (wire feed speed or welding current range)
  / If necessary special features of the welding program such as special welding positions, maximum welding speed, minimum spatter ejection,…
/ Base material, filler metal and shielding gas
/ Special gas has to be provided by the customer or is charged to him separately

Services Automation

AUTOMATION: QUICK AND CAPABLE SERVICE

Concerning automated welding systems Fronius is an inimitable partner. At all points. Because Fronius offers entire solutions from one source. From the planning and implementation to the service after finishing the whole system. Each of these steps requires optimum know-how.

Rental Service – Rent a System

HIGH-TECH ON DEMAND - THE RENTAL SERVICE FOR TOP WELDING SYSTEMS

We all need extra backup from time to time. A customer will often find that his own welding systems are not sufficient to handle a large order, but it is not worth buying new equipment to meet short term needs. The answer is simple: Customers can hire extra welding systems from Fronius. The Fronius rental service gives our customers flexibility, saves expenses and offers them systems from the premier division of welding technology.

The service in detail:

/ Customers are provided with a welding system that meets their requirements on a rental basis.
/ The required system is delivered and installed promptly.
/ Our experts provide all necessary advice and training for operators.

FeeL the TPS/i: Remote Access and Crosslinking

SIMPLE AND EFFICIENT SERVICE FROM AFAR

FeeL – Fronius everytime easy Link stands for an easy link connection between power source(s) and a headquarters – at the customers premises or at a Fronius subsidiary. Available at any time, this permits the remote access of the power source for troubleshooting, maintenance, data analysis or process optimization of the weldingsystems. At first two packages are offered: FeeL and FeeL Remote Support.

The service in detail:

FeeL – Remote Access by the Customer himself serially for every TPS/i

/ Visualisation and working on the PC
  / Display power source software and hardware versions on the PC
  / Backup / restore functions via PC
  / Licensing / addition of licenses via PC
/ Customer-internal remote access (e.g. by internal maintenance staff)
  / Troubleshooting
  / Fault rectification – if possible
  / Adding software updates, characteristics…
These functions are provided through the new Fronius Xplorer Basic

FeeL Remote Support – Remote Access by Fronius serially activated for every TPS/i

Fronius technicians can perform the following activities by remotely accessing the power source:
/ Remote diagnosis in the event of a fault
  / Identify software errors
  / Identify and localise hardware faults
  / Identify operating faults
/ Remote system modifications / fault rectification
  / Perform software maintenance / software updates to correct software errors
  / Modify missing parameters (e.g. cooling circuit settings)
  / Make recommendations to rectify hardware faults (customers themselves may effect repairs)
/ Inspect and modify basic power source data (software and hardware verion, backup / restore, install licenses)
/ Remotely upgrade the welding system (e.g. install extra characteristics)
/ Notes
  / Changes to welding parameters CANNOT be made remotely!
  / Hardware faults still have to be rectified on site!
  / Remote upgrades – unless free – are invoiced separately (e.g. characteristics, welding processes)!

AccuCare – the Carefree Package for AccuPocket

5 SECURE YEARS

With AccuCare Fronius offers a 5 years carefree package for AccuPocket. When purchasing the welding system, the customer already decides in favour of AccuCare. By paying a periodical flat charge, the customer gets full safety for the whole period of time – 5 years full warranty for the whole system, a guaranteed functioning battery and an annual system check.

The service in detail:
/ 5 years full warranty for the whole system
/ Assumption of incurring repair during the warranty period
/ The battery is exchanged free of charge at less than 70´% residual capacity
/ Batteries that are removed during the battery exchange are withdrawn by Fronius
/ The AccuPocket system is annually checked on device status and functional capacity by a Fronius expert (including safety inspection)
/ If a battery is that extremely deeply discharged that the AccuPocket doesn‘t work anymore, the battery is reactivated by Fronius free of charge

The customer can freely choose the accounting period for AccuCare:

/ Quarterly
/ Annually
/ Once (entire amount for 5 years)

AccuCare for Sales Partners:

Fronius sales partners (dealers, distributors & representatives) can also buy AccuCare from Fronius and then sell it to their customers. Fronius provides the partner with the following services

/ 5 years full warranty for the whole system
/ Assumption of incurring repair during the warranty period
/ The battery is exchanged free of charge at less than 70´% residual capacity

Costs for annual inspection and battery reactivation are not covered by Fronius. They have to be covered by the partner and included within the package price he charges to his customers!

Exchange parts

In order to keep repair times as short as possible and to get clear repair costs
we established the exchange parts system for certain components.
The defective part has to be sent to Fronius International GmbH
in an appropriate packing.
Within a short time a repaired exchange part will be delivered (technically updated)
Pre-deliveries are not possible.

All details regarding the item number you will find in the spareparts pricelist.

Vizor 3000 Professional / Plus / Standard

General features
Automatic darkening due to LCD-technology
Permanent UV-IR-Radiation protection
Adjustable distance betweel cartridge and eyes
Adjustable helmet inclination
Height and diameter adjustable head band
2 spare-front cover lenses per set

Vizor 3000 Plus
Adjustable parameter:
Stepless shade level adjustment from 9-13
Opening-speed adjustment
Grind modus
Shade-level area adjustment
Sensitivity adjustment
Sensor slider

Vizor 3000 Standard
Adjustable parameters:
Shade level adjustment 10/11
Sensor bar

Vizor 3000 Professional
Adjustable parameters:
Stepless Shade level adjustment from 5-13
Opening speed adjustment
Grinding mode
Sensitivity adjustment
Sensor slide
Real-colour filter (Vizor 3000 Professional)

	Vizor 3000 Professional	Vizor 3000 Plus	Vizor 3000 Standard
Weight	0,49kg	0,49kg	0,46kg
Type of cartridge	4 / 5-9bzw. 4 / 9-13	4 / 9-13	4 / 10 bzw. 4-11
Cartridge size	90x110x 7mm	90 x 110 x 7mm	90 x 110 x 7mm
Switching time dark / light	fast < 0,35 sec / slow > 0,35sec	fast:1-0,35sec / slow: >0,35sec	0,2-0,3sec

Vizor 3000 Air/3 Professional, Air/3 Plus, Air/3 Standard

Features of the welding helmet see page 118

not certificated for America

General features
Fan-filter device, battery charged
Air-flow: adjustable in three levels: 150l/min, 200l/min, 250l/min, controlled
Material: Polyamid (PA-GF)
Fan: ball-bearing fan motor
Filter: type TH3P R SL
Sound level: max. 60dB
Alarm: audible and visible alarm for low batterie-level, blocked or missing filter and low air-flow

	Vizor 3000 Air/3 Professional	Vizor 3000 Air/3 Plus	Vizor 3000 Air/3 Standard
Weight	1,195kg	1,195kg	1,195kg
Type of cartridge	5-9 / 9-13	9-13	10-11
Cartridge size	90 x 110 x 7mm	90 x 110 x 7	90 x 110 x 7mm
Switching time dark / light	fast < 0,35 sec / slow > 0,35 sec	fast < 0,35 sec / slow > 0,35 sec	0,2-0,3sec
Protection class	TH3P (EN12941)	TH3P R SL (EN12941)	TH3P (EN12941)
Air flow	150l/min, 200l/min, 0,25l/min	150l/min, 200l/min, 0,25l/min	150l/min, 200l/min, 0,25l/min

Vizor 4000 Professional

Standard equipment
„Auto-Mode“ Automatic modus
„Super-High-Sensivity“ perfect sensivity adjustment
„Soft-Delay“ dimming from dark to light
Best optical classes 1/1/1/1 acc. EN 379
Real colour display

	Vizor 4000 Professional
Weight	0,50kg
Protection class	Man. Mode: 4/5-9 and 4/9-13; Aut. Mode: 4/5-13
Cartridge size	90x110x7mm
Switching time dark / light	0,1-2,0s

Fazor 1000

General features
Automatic darkening due to LCD-technology
Permanent UV-IR-Radiation protection
Adjustable distance between cartridge and eyes
Adjustable helmet inclination
Height and diameter adjustable head band

Fazor 1000
Adjustable parameter:
Stepless shade level adjustment from 9-13
Opening-speed adjustment
Sensitivity adjustment

	Fazor 1000
Weight	0,49kg
Type of cartridge	4 / 9-13
Cartridge size	90 x 110 x 7mm
Switching time dark / light	0,25sec0-00,7sec, stufenlos verstellbar

Protection equipment






Welding protective clothing

Quality

HighEnd:
/ 79% cotton
/ 20% polyester
/ 1% static control
/ EN 11612 : 2008
/ EN 11611 category 1
/ EN 1149-5 : 2008
/ EN 61482-1-2: 2007 (category 1)
/ tested for type examination

Basic:
/ 100% cotton
/ EN 11612 : 2008
/ EN 11611 category 1
/ tested for type examination

Safety boots S3

Quality

Upper leather: oil and dirt resistant geniune leather in Scotchguard quality
Lining: Natural orthoppaedic leather lining
Toe cap: high, wide FreeToes safety steel toe cap
EN IS 20345: 2004
Sizes: 39-47

Recommended areas of use

Construction sites
Workshops

Equipment

The sole is:
- oil and fuel resistant, acid resistant, slip resistant
- permanently elastic and shock absorbent
- the high muld guarantees good moisture protection
- contact heat resistant up to 300°C
- heat and cold insulated
- puncture proof

International welding accessories
















Virtual Welding

By the use of Virtual Welding it is possible for the user to practise the necessary manual skill for welding stationary, without security risk and high expenditure of plates, filler material and gases.

Also an objective comparison of the results (point system) becomes possible by fixed standards. Appropriate didactical concepts ensure a systematic training progress on different welding joints and welding positions.

Standard equipment

tracking system
22“ LCD touch screen module+frame
IPC BOX
operating system Windows embedded
Virtual Welding engine
work piece holder with sensor
work pieces (fillet weld, V-preparation, 1. and 2., tube)
work table
Headband with sensor
carrying case mobile (Mobilcase)
audio system
network connection

Recommended areas of use

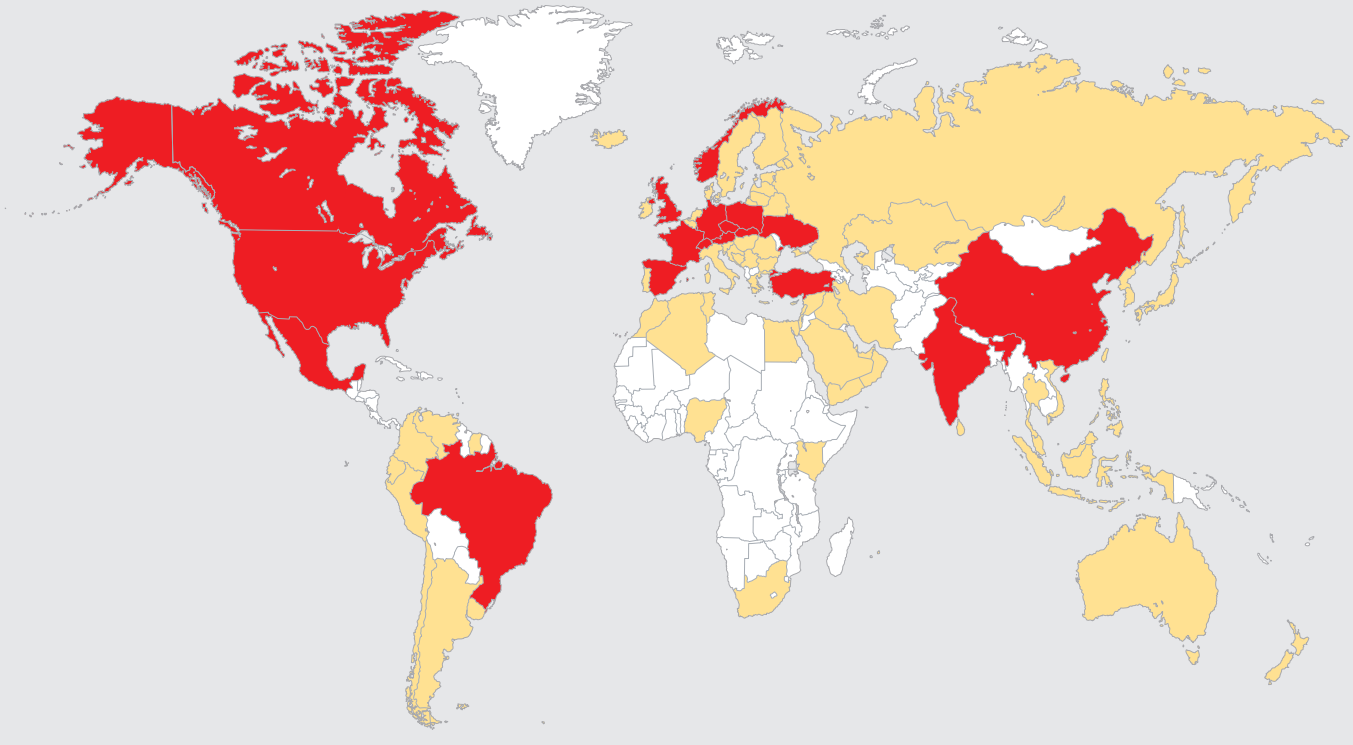
Young people for job selection
Vocational schools
Vocational training workshops
Institutes
Specialist colleges
Universities
Personnel Leasing companies
Welding federations
Enterprises

Teachware Set

Recommended areas of use

Technical colleges
Technical universities
Further education
Training workshops

SHIFTING THE LIMITS



Fronius subsidiaries

Fronius representatives

Fronius Canada Ltd.
2875 Argentia Road, Units 4,5 & 6
Mississauga, ON L5N 8G6
Canada
Telephone +1 905 288-2100
Fax +1 905 288-2101
sales.canada@fronius.com
www.fronius.ca

Fronius USA LLC
6797 Fronius Drive
Portage, IN 46368
USA
Telephone +1 877 FRONIUS
sales.usa@fronius.com
www.fronius-usa.com

Fronius UK Limited
Maidstone Road, Kingston
Milton Keynes, MK10 0BD
United Kingdom
Telephone +44 1908 512 300
Fax +44 1908 512 329
info-uk@fronius.com
www.fronius.co.uk

Fronius International GmbH
Froniusplatz 1
4600 Wels
Austria
Telephone +43 7242 241-0
Fax +43 7242 241-953940
sales@fronius.com
www.fronius.com

M,06,0194,EN v01 Oct 2015 aw20