schweißkraft®
Schweißtechnik

PROFESSIONAL INVERTER ELECTRODE WELDING SYSTEMS







Power Factor Correction

- **PFC** is an electrical or electronic circuit which increases the power factor

Generator Friendly

- Suitable for use with generator, e.g., in company workshops, schools, metalworking, on building sites, or for agricultural applications

Multivoltage Einsatz weltweit

- Regulates the voltage from 110 V – 230 V

VRD safe Voltage Reduction Device

- Voltage reduction in idle mode

PRO-STICK 161 electrode inverter–

230 V model with ultra-compact and lightweight design

- Automatic hot start
- Automatic arc force
- Integrated anti-stick function
- Intelligent ignition management
- Ultra-modern inverter unit
- Generator capability
- Completely insulated
- Ultra-compact and light design

The lightweight model among electrode inverters **Only 2.3 kg**







The controls

1. *Operation indicator (green)*
2. *Temperature indicator (yellow)*
3. *Rotary switch for welding current pre-selection*

Scope of delivery
PRO-STICK 161
- Without electrode holder
- Without earth cable

Model		PRO-STICK 161
Art. no.		1082161

Technical specifications		
Electrode setting range	A	5 – 150 A
TIG setting range	A	5 – 150 A
Duty cycle at $I_{max.}$ 40 °C electrode	%	20 %
Current at 100 % DC 40 °C electrode	A	100 A
Power consumption at $I_{max.}$ Electrode	kVA	4.2
Power supply 50/60Hz AC	V	230 V
Slow-blow fuse	A	16 A
Degree of efficiency cos phi		0.7
Degree of protection		IP 23
Torch cooling		Air
Weight	kg	2.3
Dimensions (L x W x H)	mm	280 x 125 x 140

Schweißkraft equipment has the S mark and complies with standard EN 60 974-1; -10/EMC class A



Set articles

Designation	Art. no.
PRO-STICK 161 SET *Consisting of: Electrode inverter, transport case, 5 m welding cable 16 mm² with electrode holder, 3 m earth cable 16 mm² with ground clamp 200 A, manual protection shield with welding visor, welders' gloves, chipping hammer, wire brush*	1082161SET



PRO-STICK 161 SET

Accessories

Designation	Art. no.
Transport case rugged design, padded, fixed compartments in interior, perfect for storing your inverter, incl. welding workplace equipment, TIG torch, etc., dimensions approx. 590 x 360 x 200 mm	1240003
Welding workplace equipment SPA 16, 5 m welding cable 16 mm² with electrode holder and plug KS 25, 3 m earth cable 16 mm² with plug KS25 and earth clamp 200 A, wire brush, chipping hammer, manual protection shield with welding visor and lens, welders' gloves	1240400



Transport case

Electrode inverters

Electrode inverter easystick® series – 230 Volt models with standard design

- All devices implemented with state-of-the-art inverter technology
- Perfectly suited for on-site work (on ladders, on scaffolding, etc.) and also generally suitable for outdoor work thanks to IP 21S degree of protection
- Suitable for use with generator, e.g., in company workshops, schools, metalworking, on building sites, or for agricultural applications
- **Hot Start:** Short-term automatic listing of the welding current reliably ignites the arc and is immediately stable
- **Anti-Stick:** if the electrode inadvertently sticks, the welding current is automatically reduced, thus preventing annealing of the electrode
- **Arc force control:** internal monitoring of the welding current and welding voltage reliably and safely resolves short-circuits. This stabilises the arc, and the electrode can be processed without any problems



Info & Video



EASY-STICK 161

The controls

1. *Operation control lamp*
2. *Temperature control lamp*
3. *Rotary switch for welding current pre-selection*



Model		EASY-STICK 121	EASY-STICK 141	EASY-STICK 161
Art. no.		1073012	1073014	1073016
Technical specifications:				
PCB		not potted	not potted	not potted
Weldable electrode Ø	mm	1.6 – 3.2	1.6 – 3.2	1.6 – 4.0
Electrode setting range	A	10 – 120	10 – 140	10 – 160
Sheet thicknesses	mm	1.0 – 4.0	1.0 – 4.0	1.0 – 6.0
Current consumption	A	28	36.6	36.5
Slow-blow fuse	A	16	16	16
Mains plug	A	16	16	16
Required generator output	kVA	›6.4	›8.4	›8.4k
Open circuit voltage	V	77.9	77.4	69.9
Electrode power consumption	kVA	3.8	4.5	5
Total power	kVA	6.4	8.4	8.4
Supply voltage	V	1 Ph / 230	1 Ph / 230	1 Ph / 230
Current type		AC	AC	AC
Mains frequency	Hz	50/60	50/60	50/60
Electrode duty cycle at I_{max}	%	25	15	25
Electrode welding current at DC = 100 %	A	60	55	80
Degree of protection		IP21S	IP21S	IP21S
Standard		EN 60974-1:2012 EN 60974-10:2014	EN 60974-1:2012 EN 60974-10:2014	EN 60974-1:2012 EN 60974-10:2014
Insulation class		H	H	H
Operating temperature	°C	-10~40	-10~40	-10~40
Weight	kg	4.1	4.3	4.4
Dimensions (L x W x H)	mm	320 x 135 x 255	320 x 135 x 255	320 x 135 x 255



Schweißkraft equipment has the **S mark** and complies with standard EN 60 974-1; -10.
EMC Class A welding equipment and therefore not intended for use in residential areas where power is supplied by a low voltage public power supply system.

Scope of delivery
EASY-STICK 121
- 3 m welding cable 12 mm² with electrode holder 300 A
- 3 m earth cable 12 mm² with ground clamp 300 A

Scope of delivery
EASY-STICK 141
- 3 m welding cable 16 mm² with electrode holder 300 A
- 3 m earth cable 16 mm² with ground clamp 300 A

Scope of delivery
EASY-STICK 161
- 3 m welding cable 16 mm² with electrode holder 300 A
- 3 m earth cable 16 mm² with ground clamp 300 A



Accessories

Designation	Art. no.
Transport case	1174050
Earth cable 4 m, complete with earth clamp 16 mm², KS 25/9 mm, clamp for 200 A	1250215
Earth cable 4 m, complete with earth clamp 25 mm², KS 25/9 mm, clamp for 200 A	1250224
Welding cable 5 m pre-assembled 25 mm²/10-25 mm 2/9 mm journal/M8	1250227
Welding cable 4 m complete with electrode holder 16 mm², KS25/9mm, electrode holder 260A	1250353
Welding cable 4 m complete with electrode holder 25 mm², KS25/9mm, electrode holder 260A	1250354



Transport case



Earth cable 4 m, complete with earth clamp



Welding cable 5 m



Welding cable 4 m

Accessories

Designation	Art. no.
Welding workplace equipment 25 mm²; KS 50/Pratica 1/earth clamp 200 A Consisting of: welding cable PVC 5 m with electrode holder and welding cable plug, earth cable PVC 3 m with earth clamp, and welding cable plug, chipping hammer, wire brush 2-row, hand protection shield polypropylene (CE) welding visor DIN 9, lens 90 x 110 mm, 5-finger gloves	1240445



Welding workplace equipment

Electrode inverter craftstick®

230 volt models with standard design with potted PCB

- All devices implemented with state-of-the-art inverter technology
- Perfectly suited for on-site work (on ladders, on scaffolding, etc.) and also generally suitable for outdoor work thanks to IP 21S degree of protection
- Suitable for use with generator, e.g., in company workshops, at ports, chemical plants, schools, metalworking, on building sites, vessels, or for agricultural applications
- **Protected against moisture, salt spray mist, corrosion thanks to sealed PCB. Thus also suitable for offshore use**
- **Hot Start:** Short-term automatic listing of the welding current reliably ignites the arc and is immediately stable
- **Anti-Stick:** if the electrode inadvertently sticks, the welding current is automatically reduced, thus preventing annealing of the electrode
- **Arc force control:** internal monitoring of the welding current and welding voltage reliably and safely resolves short-circuits. This stabilises the arc, and the electrode can be processed without any problems
- Longer duty cycle than the EASY-STICK Series



Generator Friendly

CRAFT-STICK 161

The controls

1. *Operation control lamp*
2. *Temperature control lamp*
3. *Rotary switch for welding current pre-selection*



Model		CRAFT-STICK 161
Art. no.		1073161

Technical specifications:		
PCB		sealed
Weldable electrode Ø	mm	1.6 – 4.0
Electrode setting range	A	10 – 160
Sheet thicknesses	mm	1.0 – 6.0
Current consumption	A	36.5
Slow-blow fuse	A	16
Mains plug	A	16
Required generator output	kVA	›8.7
Open circuit voltage	V	75.3
Electrode power consumption	kVA	5.2
Total power	kVA	8.7
Supply voltage	V	1 Ph / 230
Current type		AC
Mains frequency	Hz	50/60
Electrode duty cycle at I_{max}	%	40
Electrode welding current at DC = 100 %	A	90
Degree of protection		IP21S
Standard		EN 60974-1:2012 EN 60974-10:2014
Insulation class		H
Operating temperature	°C	-10~40
Weight	kg	4.9
Dimensions (L x W x H)	mm	320 x 135 x 255



Schweißkraft equipment has the **S mark** and complies with standard EN 60 974-1; -10. EMC Class A welding equipment and therefore not intended for use in residential areas where power is supplied by a low voltage public power supply system.

Scope of delivery
CRAFT-STICK 141/161
- 3 m welding cable 16 mm² with electrode holder
- 3 m earth cable 16 mm² with earth clamp 200 A



Potted high-performance PCB

Experience our capability and request individual advice!

Contact: +49 (0951) 96 555-501
beratung@schweisskraft.de



Accessories

Earth cable 4 m, complete with earth clamp	Art. no.
16 mm², KS 25/9 mm, clamp 200 A	1250215
25 mm², KS 25/9 mm, clamp 200 A	1250224

Welding cable 4 m complete with electrode holder	Art. no.
16 mm², KS25/9 mm, electrode holder 260 A	1250353
25 mm², KS25/9 mm, electrode holder 260 A	1250354

Designation	Art. no.
Transport case	1174050
Welding workplace equipment 25 mm²; KS 50/Pratica 1/earth clamp 200 A Consisting of: welding cable PVC 5 m with electrode holder and welding cable plug, earth cable PVC 3 m with earth clamp, and welding cable plug, chipping hammer, wire brush 2-row, hand protection shield poly-propylene (CE) welding visor DIN 9, lens 90x110 mm, 5-finger gloves	1240445







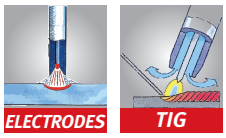
Transport case



Welding workplace equipment

Electrode inverter craftstick®P – Robust 230 volt models with potted PCB for professional use

- All devices implemented with state-of-the-art inverter technology
- Perfectly suited for on-site work (on ladders, on scaffolding, etc.) and also generally suitable for outdoor work thanks to IP 23 degree of protection
- Suitable for use with generator, e.g., in company workshops, schools, metalworking, on building sites, or for agricultural applications
- **Protected against moisture, salt spray mist, corrosion thanks to sealed PCB. Thus also suitable for offshore use**
- Devices feature **PFC** (power factor correction), **VRD** (voltage reduction in idle mode)
- TIG DC function = supports easy TIG welding with contact ignition
- Precise setting of the correct welding parameters via digital display
- Universally deployable for welding with all popular electrode types
- The low-noise fans capably dissipate heat from the devices thus ensuring a high duty cycle
- Constant welding current ensures a consistent deposition rate
- At least 30 % ED for all devices
- **All CRAFT-STICKs have the following features as factory standard:**
- **Hot Start:** Short-term automatic listing of the welding current reliably ignites the arc and is immediately stable
- **Anti-Stick** if the electrode inadvertently sticks, the welding current is automatically reduced, thus preventing annealing of the electrode
- **Arc force control:** internal monitoring of the welding current and welding voltage reliably and safely resolves short-circuits
- This stabilises the arc, and the electrode can be processed without any problems



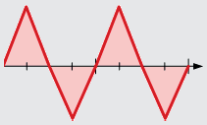




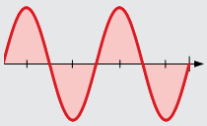


- **PFC** is an electrical or electronic circuit which increases the power factor

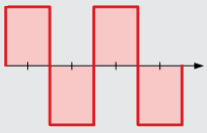
Always the right wave for your task:



Alternating current triangle wave welding output:
- Lower heat input with the same current setting. Particularly useful for welding thin metals



Alternating current sinus wave welding output:
- Traditional AC TIG welding wave form. Quieter "soft" arc characteristic



Alternating current square wave:
- Focused arc for maximum penetration, fast welding speed and best possible directional control



The controls

1. *Digital display*
2. *Operation indicator (green)*
3. *Temperature indicator (yellow)*
4. *E manual*

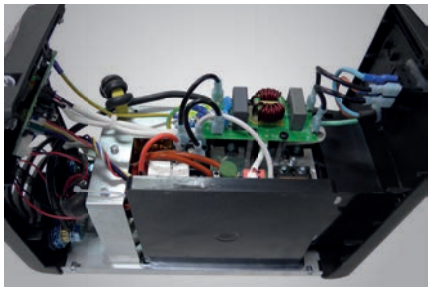


5. *VRD = Voltage reduction in idle mode*
6. *TIG DC function*
7. *Selection switch*
8. *Rotary switch for welding current pre-selection*

Model		CRAFT-STICK 161 P	CRAFT-STICK 201 P
Art. no.		1073162	1073201
Technical specifications:			
PCB		sealed	sealed
Weldable electrode Ø	mm	1.6 – 4.0	1.6 – 4.0
Electrode setting range	A	10 – 160	10 – 200
TIG DC setting range	A	10 – 160	10 – 200
Sheet thicknesses	mm	1.0 – 8.0	1.0 – 10.0
Current consumption	A	MMA 22.1 / TIG 14.7	MMA 28.8 / TIG 19.5
Slow-blow fuse	A	16	16
Mains plug	A	16	16
Required generator output	kVA	›5.1	›6.6
Open circuit voltage	V	MMA 70.6 / TIG 65.6	MMA 68.7 / TIG 65.3
Power consumption TIG DC	kVA	3.4	4.5
Electrode power consumption	kVA	5.1	6.6
Total power	kVA	5.1 / 3.4	6.6 / 4.5
Supply voltage	V	1 Ph / 230	1 Ph / 230
Current type		AC	AC
Mains frequency	Hz	50/60	50/60
Duty cycle at max. current 40 °C TIG DC	%	30	40
Duty cycle at max current 40 °C electrode	%	30	40
Current at 100 % duty cycle 40 °C TIG DC	A	90	130
Current at 100 % DC 40 °C electrode	A	90	130
Degree of protection		IP21S	IP21S
Standard		EN 60974-1:2012 EN 60974-10:2014	EN 60974-1:2012 EN 60974-10:2014
Insulation class		H	H
Operating temperature	°C	-10~40	-10~40
Weight	kg	6.7	6.7
Dimensions (L x W x H)	mm	365 x 150 x 280	365 x 150 x 280

Schweißkraft equipment has the **S mark** and complies with standard EN 60 974-1; -10/EMC class A





Potted high-performance PCB

Scope of delivery
CRAFT-STICK 161P/201P

- 3 m welding cable 16 mm² for 300 A
- 3 m earth cable 16 mm² for 300 A with ground clamp

Accessories

Designation	Art. no.
Transport case	1174050
Pressure regulator Argon/CO_2 large Schweißkraft	1700050
Welding workplace equipment 25 mm²; KS 50/Pratica 1/earth clamp 200 A Consisting of: welding cable PVC 5 m with electrode holder and welding cable plug, earth cable PVC 3 m with earth clamp, and welding cable plug, chipping hammer, wire brush 2-row, hand protection shield polypropylene (CE) welding visor DIN 9, lens 90x110 mm, 5-finger gloves	1240445
Ground cable 4 m 25 mm², KS50/13 mm, terminal 200 A	1250225
Ground cable 4 m 35 mm², KS50/13 mm, terminal 400 A	1250235
Welding cable 4m 25 mm², KS50/13 mm, electrode holder 260A	1250361
Welding cable 4m 35 mm², KS50/13 mm, electrode holder 400A	1250362



Transport case



Pressure regulator







Welding workplace equipment

Designation CRAFT STICK 161 P	Art. no.
TIG torches	
WP 17V ED 4 m with gas regulator	1461745

Designation CRAFT STICK 201 P	Art. no.
TIG torches	
WP 26 V/4 m with gas regulator	1462614



WP 17 V

Designation	Art. no.
Wear part set	1100152
Consisting of: Torch cap short, torch cap medium, torch cap long, gas tip size 5 / 8 mm, gas tip size 6 / 9.8 mm, gas tip size 7 / 11.2 mm, gas tip size 8 / 12.7 mm, gas tip size 10 / 15.7 mm, 1x each clamping sleeve 1.6 mm / 3.2 / 4.0 mm /2.4 mm, 1x each clamping sleeve housing 1.6 mm / 2.4 mm / 3.2 / 4.0 mm, Teflon seal for tip	

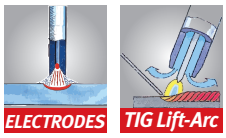


Wear part set

Electrode inverters

craftstick® 253 – 400 Volt model in standard design with potted PCB

- All devices implemented with state-of-the-art inverter technology
- Perfectly suited for on-site work (on ladders, on scaffolding, etc.) and also generally suitable for outdoor work thanks to IP 21S degree of protection
- Suitable for use with generator, e.g., in company workshops, schools, metalworking, on building sites, or for agricultural applications
- **Protected against moisture, salt spray mist, corrosion thanks to sealed PCB; thus also suitable for offshore use**
- **Hot Start:** Short-term automatic welding current boost reliably ignites the arc and is immediately stable
- **Anti-Stick:** if the electrode inadvertently sticks, the welding current is automatically reduced, thus preventing annealing of the electrode
- With TIG DC Lift arc ignition
- **Arc force control:** internal monitoring of the welding current and welding voltage reliably and safely resolves short-circuits. This stabilises the arc, and the electrode can be processed without any problems
- **VRD (voltage reduction device):** for voltage reduction when idle



VRD safe Voltage Reduction Device

Generator Friendly



The controls



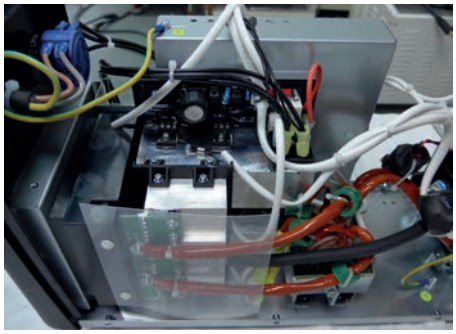
1. *Digital display*
2. *Operation control lamp*
3. *Temperature control lamp*
4. *Selection switch MMA, MMA VRD, Lift-Arc*
5. *Rotary switch for welding current pre-selection*
6. *Rotary control for "Hot start" setting*
7. *Rotary control for "Arc Force" setting*

Model		CRAFT-STICK 253
Art. no.		1073253

Technical specifications:		
PCB		sealed
Weldable electrode Ø	mm	1.6 – 5.0
Electrode setting range	A	20 – 250
Sheet thicknesses	mm	1.0 – 10.0
TIG DC setting range	A	20 – 250
Current consumption	A	MMA 17.7 / TIG 13.1
Slow-blow fuse	A	16
Required generator output	kVA	›10
Open circuit voltage	V	MMA 70.1 / TIG 69.4
Power consumption TIG DC	kVA	6.3
Electrode power consumption	kVA	8.5
Total power	kVA	10 / 7.4
Supply voltage	V	3 Ph / 400±10 %
Current type		AC
Mains frequency	Hz	50/60
Duty cycle at max. current 40 °C TIG DC	%	60
Duty cycle at max current 40 °C electrode	%	60
Current at 100 % duty cycle 40 °C TIG DC	A	200
Current at 100 % DC 40 °C electrode	A	200
Degree of protection		IP21S
Standard		EN 60974-1:2012 EN 60974-10:2014
Insulation class		H
Operating temperature	°C	-10~40
Weight	kg	11.8
Dimensions (L x W x H)	mm	495 x 190 x 350

Schweißkraft equipment has the **S mark** and complies with standard EN 60 974-1; -10. EMC Class A welding equipment and therefore not intended for use in residential areas where power is supplied by a low voltage public power supply system.





Potted high-performance PCB

Scope of delivery
CRAFT-STICK 253

- 3 m welding cable 25 mm² with electrode holder 300 A
- 3 m earth cable 25 mm² with ground clamp 300 A

Accessories

Earth cable 4 m, complete with earth clamp	Art. no.
25 mm², KS 50/13 mm, clamp 200 A	1250225
35 mm², KS 50/13 mm, clamp 400 A	1250235



Welding cable 4 m complete with electrode holder	Art. no.
25 mm², KS50/13 mm, electrode holder 260 A	1250361
35 mm², KS50/13 mm, electrode holder 400 A	1250362



Pressure regulator Argon/CO_2 large Schweißkraft	1700050
Welding workplace equipment SPA 35 mm²; KS 35-50 mm²/Pratica 2/ earth clamp 600 A	1240450



Pressure regulator



Welding workplace equipment

Torch

Torch	Art. no.
WIG WP 26 V/4 m	1462614

Wear part set

Designation	Art. no.
Wear part set	1100152
Consisting of: 1x torch cap short, 1x torch cap medium, 1x torch cap long, 1x gas tip size 5 / 8 mm, 1x gas tip size 6 / 9.8 mm, 1x gas tip size 7 / 11.2 mm, 1x gas tip size 8 / 12.7 mm, 1x gas tip size 10 / 15.7 mm, 1x each clamping sleeve 1.6 mm / 3.2 / 4.0 mm /2.4 mm, 1x each clamping sleeve housing 1.6 mm / 2.4 mm / 3.2 / 4.0 mm, 1x Teflon seal for tip	

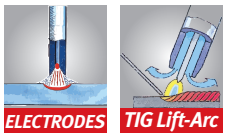


Wear part set

Electrode inverters craftstick® 403 CEL

400 Volt model for industrial use, suitable for cellulose electrodes

- State-of-the-art inverter technology
- TIG welding with lift-arc ignition
- Suitable for use with generator, e.g., in company workshops, schools, metalworking, on building sites, or for agricultural applications
- **Hot Start:** Short-term automatic welding current boost reliably ignites the arc and is immediately stable
- **Anti-Stick:** If the electrode inadvertently sticks, the welding current is automatically reduced, thus preventing annealing of the electrode
- Suitable for cellulose electrodes
- **Arc force control:** internal monitoring of the welding current and welding voltage reliably and safely resolves short-circuits. This stabilises the arc, and the electrode can be processed without any problems
- **VRD (voltage reduction device):** for voltage reduction when idle



VRD safe Voltage Reduction Device

Generator Friendly



1. *Display for welding current and other parameters*
2. *Rotary button for setting the welding current*
3. *Rotary button for hot start control*
4. *Rotary button for arc force control*



5. *Selection switch for electrode, TIG or VRD with display*
6. *Warning light for excess voltage, excess current or overheating*
7. *Operating status display*

Model		CRAFT-STICK 403 CEL
Art. no.		1073403
Electrode		
Weldable electrodes	mm	1.6 – 8.0
Adjusting range		
Electrode	A	20 – 400
TIG	A	20 – 400
Duty cycle		
At max. current 40 °C electrode	%	60
at max. current 40 °C TIG	%	60
Current at 100 % DC 40 °C electrode	A	310
Current at 100 % DC 40 °C TIG	A	310
Power input		
Electrode	kVA	16.4
TIG	kVA	12.4
Electrical data		
Supply voltage	V	400
Mains frequency	Hz	50/60
Required generator output	kVA	›22.4
Total current draw	A	32.3 / 25.1
Dimensions and weights		
Dimensions (L x W x H)	mm	560 x 240 x 440
Weight approx.	kg	21.7
Standards and certifications		
Degree of protection		IP21S
Standard		EN 60974-1:2012, EN 60974-10:2014
EMC level		A
Identifier		CE



Scope of delivery
CRAFT-STICK 403 CEL

- Welding cable 3 m 50 mm² with electrode holder 500 A
- Earth cable 3 m 50 mm² with earth clamp 500 A

Accessories

89.1 mm	Art. no.
50 mm², KS 50/13 mm, clamp 600 A	1250250
70 mm², KS 70/13 mm, clamp 600 A	1250270



Welding cable 4 m complete with electrode holder	Art. no.
50 mm², KS50/13 mm, electrode holder 600 A	1250363
70 mm², KS50/13 mm, electrode holder 600 A	1250364



Pressure regulator Argon/CO_2 large Schweißkraft	1700050
Welding workplace equipment SPA 35 mm²; KS 35-50 mm²/Pratica 2/ earth clamp 600 A	1240450



Pressure regulat



Welding workplace equipment

Torch

Torch	Art. no.
WIG WP 26 V/4 m	1462614

Wear part set

Designation	Art. no.
Wear part set	1100152
Consisting of: 1x torch cap short, 1x torch cap medium, 1x torch cap long, 1x gas tip size 5 / 8 mm, 1x gas tip size 6 / 9.8 mm, 1x gas tip size 7 / 11.2 mm, 1x gas tip size 8 / 12.7 mm, 1x gas tip size 10 / 15.7 mm, 1x each clamping sleeve 1.6 mm / 3.2 / 4.0 mm / 2.4 mm, 1x each clamping sleeve housing 1.6 mm / 2.4 mm / 3.2 / 4.0 mm, 1x Teflon seal for tip	



Wear part set

DVS PERSZERT

SCHWEISSER-PRÜFUNGSBESCHEINIGUNG
NACH DIN EN ISO 9606-1:2017-12

Beispiel einer Bezeichnung nach Norm

ISO 9606-1	141	T	BW	FM4	S	s3.6 D60	PH	ss nb
Norm	Schweißprozess	Produktform	Nahtart	Schweiß-zusatzgruppe	Schweißzusatzart	Abmessung des Prüfstücks	Prüfposition	Schweißnahteinzelheiten

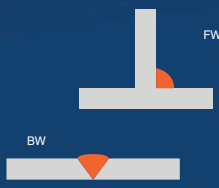
Schweißprozesse

Ordnungsnummern nach DIN EN ISO 4063

111	Lichtbogenhandschweißen
114	Metall-Lichtbogenschweißen mit Fülldrahtelektrode ohne Schutzgas
121	Unterpulverschweißen mit Massivdrahtelektrode
125	Unterpulverschweißen mit Fülldrahtelektrode
131	Metall-Inertgasschweißen mit Massivdrahtelektrode
135	Metall-Aktivgasschweißen mit Massivdrahtelektrode
136	Metall-Aktivgasschweißen mit schweißpulvergefüllter Drahtelektrode
138	Metall-Aktivgasschweißen mit metallpulvergefüllter Drahtelektrode
141	Wolfram-Inertgasschweißen mit Massivdraht- oder Massivstabzusatz
142	Wolfram-Inertgasschweißen ohne Schweißzusatz
143	Wolfram-Inertgasschweißen mit Fülldraht- oder Füllstabzusatz
145	Wolfram-Inertgasschweißen mit reduzierenden Gasanteilen im ansonsten inerten Schutzgas und Massivdraht- oder Massivstabzusatz
15	Plasmaschweißen
311	Gasschweißen mit Sauerstoff-Acetylen-Flamme

Nahtarten

BW	Stumpfnaht (butt weld)
FW	Kehlnaht (fillet weld)



Prüfposition

Gemäß DIN EN ISO 6947

PA	Wannenposition
PB	Horizontalposition
PC	Querposition
PD	Horizontal-Überkopfposition
PE	Überkopfposition
PF	Steigposition
PG	Fallposition
H-L045	Steigposition
J-L045	Fallposition
PH	Steigendschweißen
PJ	Fallendschweißen

Schweißnahteinzelheiten

Stumpfnähte

ss	einseitiges Schweißen
mb	Schweißen mit Schweißbadsicherung
nb	Schweißen ohne Schweißbadsicherung
gb	Gaswurzelschutz
fb	Schweißpulverabstützung
bs	beidseitiges Schweißen
ci	Schweißzusatz Einlegering

Kehlnähte

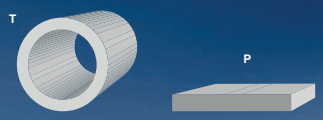
sl	einlagig
ml	mehrlagig

Gasschweißen mit Sauerstoff-Acetylen-Flamme

lw	nach links Schweißen
rw	nach rechts Schweißen

Produktformen

T	Rohr (tube)
P	Blech (plate)



Schweißzusatzart

Umhüllte Elektroden

Route A, Europa

A	sauer umhüllt
B	basisch umhüllt oder basische Fülldrahtelektrode
C	zelluloseumhüllt
R	rutilumhüllt oder rutile Fülldrahtelektrode – langsam erstarrende Schlacke
RA	rutilsauer umhüllt
RB	rutilbasisch umhüllt
RC	rutilzelluloseumhüllt
RR	dick rutilumhüllt

Route B, Pazifikraum

03	rutilbasisch umhüllt
10	zelluloseumhüllt
11	zelluloseumhüllt
12	rutilumhüllt
13	rutilumhüllt
14	rutil- und eisenpulverumhüllt
15	basisch umhüllt
16	basisch umhüllt
18	basisch und eisenpulverumhüllt
19	limenitumhüllt
20	eisenoxidumhüllt
24	rutil-und eisenpulverumhüllt
27	eisenoxid- und eisenpulverumhüllt
28	basisch und eisenpulverumhüllt
45	basisch umhüllt
48	basisch umhüllt

Fülldrähte

M	Metallpulver-Fülldrahtelektrode
P	rutile Fülldrahtelektrode – schnell erstarrende Schlacke
V	Fülldrahtelektrode – rutil oder basisch/fluorid
W	Fülldrahtelektrode – basisch/fluorid, langsam erstarrende Schlacke
Y	Fülldrahtelektrode – basisch/fluorid, schnell erstarrende Schlacke
Z	Fülldrahtelektrode – andere Arten

Alle weiteren

S	Massivdrahtelektrode/-stab
nm	kein Zusatzwerkstoff

Schweißzusatzgruppeneinteilung

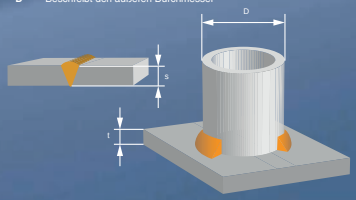
Gruppe	Schweißzusatz zum Schweißen von	Beispiele anwendbarer Normen*
FM1	unlegierte Stähle und Feinkornstähle	ISO 2560, ISO 14341, ISO 636, ISO 14171, ISO 17632, ISO 20378
FM2	hochfeste Stähle	ISO 18275, ISO 16834, ISO 26304, ISO 18276
FM3	warmfeste Stähle Cr < 3,75 %	ISO 3580, ISO 21952, ISO 24598, ISO 17634, ISO 20378
FM4	warmfeste Stähle 3,75 ≤ Cr ≤ 12 %	ISO 3580, ISO 21952, ISO 24598, ISO 17634
FM5	nichtrostende und hitzebeständige Stähle	ISO 3581, ISO 14343, ISO 17633
FM6	Nickel und Nickellegierungen	ISO 14172, ISO 18274

* In Deutschland sind die entsprechenden nationalen Normen zu verwenden, hierzu wird auf das Nationale Vorwort der Norm verwiesen.



Abmessungen des Prüfstücks

s	Beschreibt die Schweißgutdicke
t	Beschreibt die Werkstoffdicke
D	Beschreibt den äußeren Durchmesser



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