



MICROMIG™ WELD PACKAGE

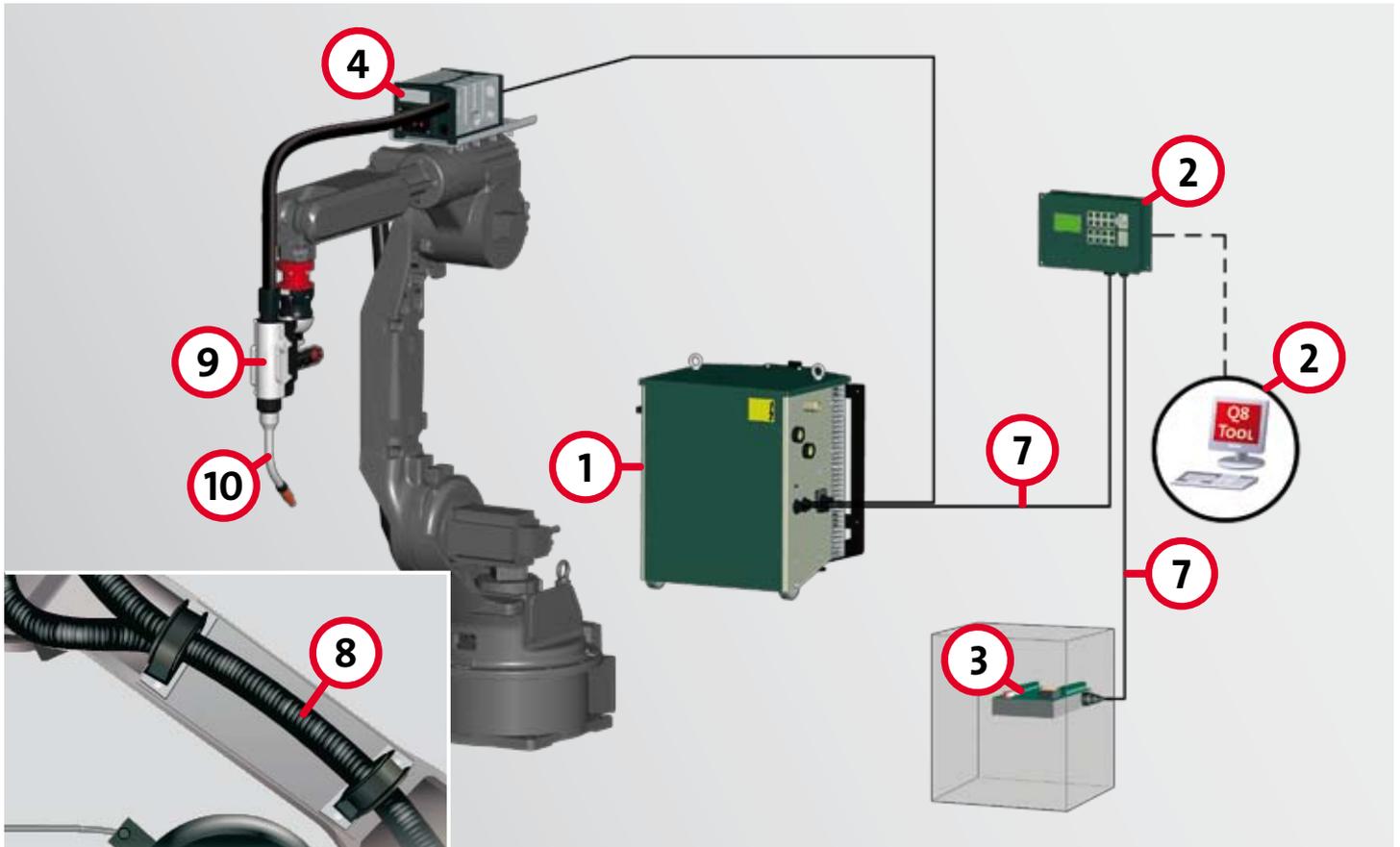
FOR HEAT-REDUCED WELDING WITH PENETRATION



SPATTER-FREE, HEAT-REDUCED, DEFINED PENETRATION

**MICROMIG™ WELD PACKAGE: DCT POWER SOURCE // WELD PROCESS CONTROLLER //
ROBOT INTERFACE // FRONTPULL™ MODULE // WIRE GUIDANCE // CONTROL CABLE // CABLE BUNDLE //
TORCH SYSTEM // GOOSENECKS // CONSUMABLES**

SKS WELD PACKAGE: SYSTEM DESIGN



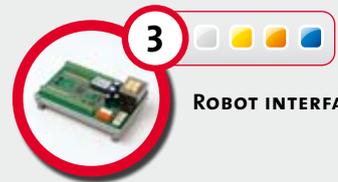
SKS WELD PACKAGE COMPONENTS: OVERVIEW



1 DCT POWER SOURCE



2 WELD PROCESS CONTROLLER + SOFTWARE



3 ROBOT INTERFACE



4 FRONTPULL™ MODULE



5 WIRE GUIDANCE



6 GROUND CABLE



7 CONTROL CABLE



8 CABLE BUNDLE



9 TORCH SYSTEM FRONTPULL™



10 GOOSENECKS/ CONSUMABLES



11 TCP DRAWINGS/ CHECKING FIXTURES/ GAS NOZZLE DIMENSIONS

SKS MICROMIG™ WELD PACKAGE



MICRO»»MIG™

Weld Package

Torch system Frontpull™ with integrated wire feeder

This brochure contains information about the SKS Weld Package **MICROMIG™**, the torch system, as well as consumables and spare parts. There are various features of the welding machine components and torch systems available depending on the robot system and the welding task.

The **MICROMIG™ WELD PACKAGE** can be used with common industrial robots. Please look for color coding to specify the robot types **ABB**, **FANUC**, **KUKA** and **MOTOMAN** (   ).



THE COMPLETE SKS MICROMIG™ WELD PACKAGE IS DESIGNED FOR THE FOLLOWING WELDING PROCESSES, MATERIALS AND POWER RANGE:

Processes: microMIG™ (MIG/MAG/GMAW), Pulse, MIG Brazing
Materials: Fe, CrNi, Al, CuSi
Wire diameter: 0.8-1.6 mm
Max. power: 420 A - 60 % duty cycle/40 °C, air-cooled



POWER SOURCE LSQ5

LSQ5 POWER SOURCE WITH DIRECT CONTROL TECHNOLOGY DCT

The LSQ5 ensures the optimum arc energy. It uniquely adjusts to different weld processes. Unlike conventional power sources with inverter technology, the LSQ5 with Direct Control Technology controls its switching transistors without any fixed clock frequency according to the needs of the weld process. Without any delay, the energy needed for the process is provided instantly. The flexible fine tuning is done by a central processor. The CPU continuously analyzes the weld process and current/voltage values on the basis of data obtained and optimally drives the switching transistors of the power section. This results in an extremely high efficiency and a low temperature development. The power source can be configured with only two buttons and four LED indicators. For world-wide usage, voltages can be configured without opening the power source.

ALTERNATIVE



LSQ3 POWER SOURCE WITH DIRECT CONTROL TECHNOLOGY (DCT)

The LSQ3 offers enough power reserves for special weld tasks like chassis and exhaust parts and other thin sheet metal applications. LSQ3: 340 A at 60 % duty cycle, 3 x 400 V
LSQ3A: 340 A at 60 % duty cycle, 3 x 480 V

OVERVIEW OF POWER SOURCES

DESCRIPTION	PART-NO.
LSQ5	77-1185-00
LSQ3	77-1184-00
LSQ3A	77-1184-10

THE MAIN BENEFITS ARE:

DCT provides a speed regulation up to ten times higher compared to conventional inverter technology. This leads to excellent control behavior and shorter response times.

The weld properties are substantially improved. Software replaces hardware: Fewer components also increase the reliability in continuous operation.

SPECIFICATIONS:

DESCRIPTION	LSQ5	LSQ3	LSQ3A
Performance	420 A - 60 % duty cycle/40 °C	340 A - 60 % duty cycle/40 °C	340 A - 60 % duty cycle/40 °C
Processes	MIG/MAG (GMAW)		
Weight	49 kg	37 kg	37 kg
Primary voltage	3 x 400 (480) V	3 x 400 V	3 x 480 V
Wall mounting	Yes (optional)	Yes (integrated)	Yes (integrated)
Conformities	CE, CSA, UL	CE	CE
Dimensions L/W/H	450 x 400 x 540 mm	450 x 330 x 540 mm	450 x 330 x 540 mm

OPTION



WALL MOUNT FOR LSQ5

Space-saving design that makes for easy cleaning/maintenance.

LSQ5 OPTION

DESCRIPTION	PART-NO.
Wall mount	77-1180-01

Innovative Control Concept with Touch Screen.

With the new Q84 up
to four weld machines can
be controlled centrally.

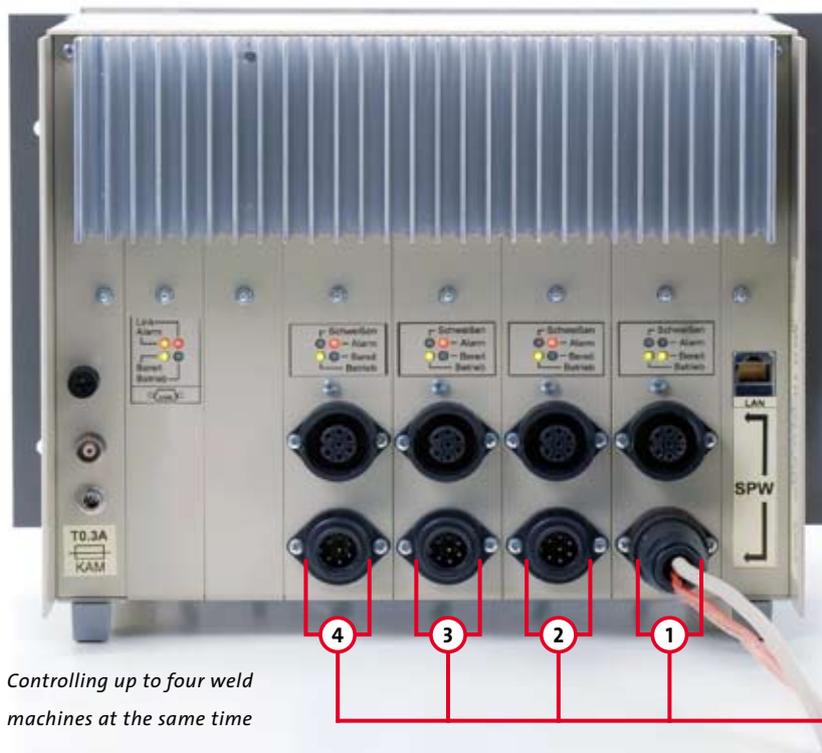


Weld Process Controller Q84

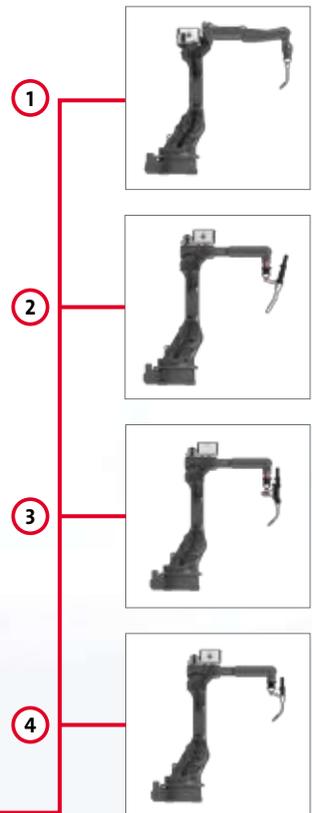
The new Q84 is equipped with a 10 inch touch screen, an innovative usability concept and an advanced visualization technology for much easier operating. The user interface has the look and feel of the Q8Tool4 software.

The real weld controllers are in card slots in the Q84. This new weld controller concept can host up to four Q81 weld process controller cards. Every single Q81 card can independently control a weld machine.





Controlling up to four weld machines at the same time



WELD PROCESS CONTROLLER Q84

The universal weld process controller Q84 calculates the optimal parameters for each welding process. Only basic data such as material, wire type, wire feed speed and type of gas must be entered.

Processes/features: microMIG™ (MIG/MAG/GMAW, Pulse, MIG Brazing), RWDE™, NWDE™

Programs: 992 (x4)

General functions: Display and saving of readings, alarms

Monitoring functions: Weld current monitoring, auto compensation, arc and ignition monitoring, motor current, gas and water monitoring

Easy to network via Ethernet: Traceability

Ports: RJ45-Ethernet, SPW-Bus, micro SD

Remtote Control/Administration: Q8Tool, VNC client

PLEASE NOTE:

The Q84 can be equipped with up to four Q81 weld process controller cards.

OVERVIEW WELD PROCESS CONTROLLER

DESCRIPTION	PART-NO.
Q84 with 1 Q81 weld process controller card	77-7240-10
Q84 with 2 Q81 weld process controller cards	77-7240-20
Q84 with 3 Q81 weld process controller cards	77-7240-30
Q84 with 4 Q81 weld process controller cards	77-7240-40

OVERVIEW Q84 MOUNTING KITS

DESCRIPTION	PART-NO.
Mounting on Power Source LSQ5	77-7240-01
Wall mounting	77-7240-02

Perfect integration.

Interfacing all industrial robot types.

A



OR

B



Interface UNI 5

With the universal interface solution from SKS, weld controllers can be connected with all industrial robot types. Users basically have two options for connecting robots with weld controllers: The connection can be realized with the SKS interface UNI 5 or by integrating into a given field bus environment with a field bus solution.

STANDARD APPLICATION

Robot controllers or overall system controllers (e.g. PLC) use digital or analog signals to communicate with the SKS weld controller. The interface UNI 5 translates these signals for the SKS welding machine. With just one interface, a variety of digital encodings and analog levels can be processed. The interface UNI 5 comes with a preconfigured connection kit for easy installation.

FIELD BUS APPLICATION

Field bus systems exchange signals via serial communication. The field bus master, usually the robot controller or overall system controller, bundles and processes the signals of the connected field bus, including the welding machine. Standard field bus systems are e.g., Interbus-S, Profibus DP or Device-Net. The SKS field bus interface FB5 translates the field bus signals for the SKS welding machine using a standardized protocol. It makes no difference which type of field bus system is used. The signals are always at the same place on the field bus. This makes the preparation of the robot or system controller much easier.

A



ROBOT INTERFACE UNI 5

The interface connects the welding equipment with all industrial robot types. With its high degree of standardization, the UNI 5 is the perfect choice for connecting the weld controller (e.g. Q8pt/w) with an industrial robot. The UNI 5 comes preprogrammed and configured for different robot types. Configuration to a particular robot type is handled easily by programming the interface with two buttons for the given robot type.

OVERVIEW OF ROBOT INTERFACES

FOR ROBOT TYPE-ABB

DESCRIPTION	PART-NO.
UNI 5A FOR IRC5	77-8011-08

FOR ROBOT TYPE-FANUC

DESCRIPTION	PART-NO.
UNI 5A FOR RJ3iC	77-8001-84

FOR ROBOT TYPE-KUKA

DESCRIPTION	PART-NO.
UNI 5A FOR KR C2	77-8011-08

FOR ROBOT TYPE-MOTOMAN

DESCRIPTION	PART-NO.
UNI 5C (Synchroweld™ over RS232) FOR NX 100 / DX 100	77-8013-00

ALTERNATIVE

B



FIELD BUS CONNECTION

Various field bus types are supported (e.g. Profibus DP, DeviceNet). The field bus interface has drilled bore holes for flexible mounting within the weld cell. Two additional mounting kits provide easy installation at the power source or into the cabinet. Additionally, external power can be connected to the interface. More details on SKS solutions for the specific field bus types are available on request.

OVERVIEW FB 5 INTERFACES

DESCRIPTION	PART-NO.
Interbus-S (copper line)	77-3-1
Profibus DP	77-3-2
DeviceNet	77-3-3

CABINET MOUNTING

DESCRIPTION	PART-NO.
Mounting kit for cabinet	77-1182-02
Control cable with bracket	77-3102-02

POWER SOURCE MOUNTING

DESCRIPTION	PART-NO.
Mounting kit for power source	77-1182-03

OPTIONAL POWER SUPPLY (24V)

DESCRIPTION	PART-NO.
Connection cable 2.0m (with open ends)	77-1182-04



FRONTPULL™ MODULE

The Frontpull™ module uses the proven industrial strength housing of the PF5 wire feeder. The installation is easy because the wire feeder brackets also fit the Frontpull™ module. The motor control board is included in the module. The wire feeder mechanics are located in the torch. This separation protects the electronics from the noise of the welding process. The PF5 proven power pin block connection technology is also used in the Frontpull™ module to reach the most possible standardization.

OVERVIEW OF FRONTPULL™ MODULE

DESCRIPTION	PART-NO.
Frontpull™ module	10-5-100
Gas pressure monitoring	10-2-0-70

OPTION



GAS PRESSURE MONITORING

FRONTPULL™ MODULE BRACKET

Wire feeder bracket for Frontpull™ module with holes and screws for installation

OVERVIEW OF FRONTPULL™ MODULE BRACKETS

FOR ROBOT TYPE-ABB

DESCRIPTION	PART-NO.
IRB1600	14-2-3
IRB2600	14-2-7

FOR ROBOT TYPE-FANUC

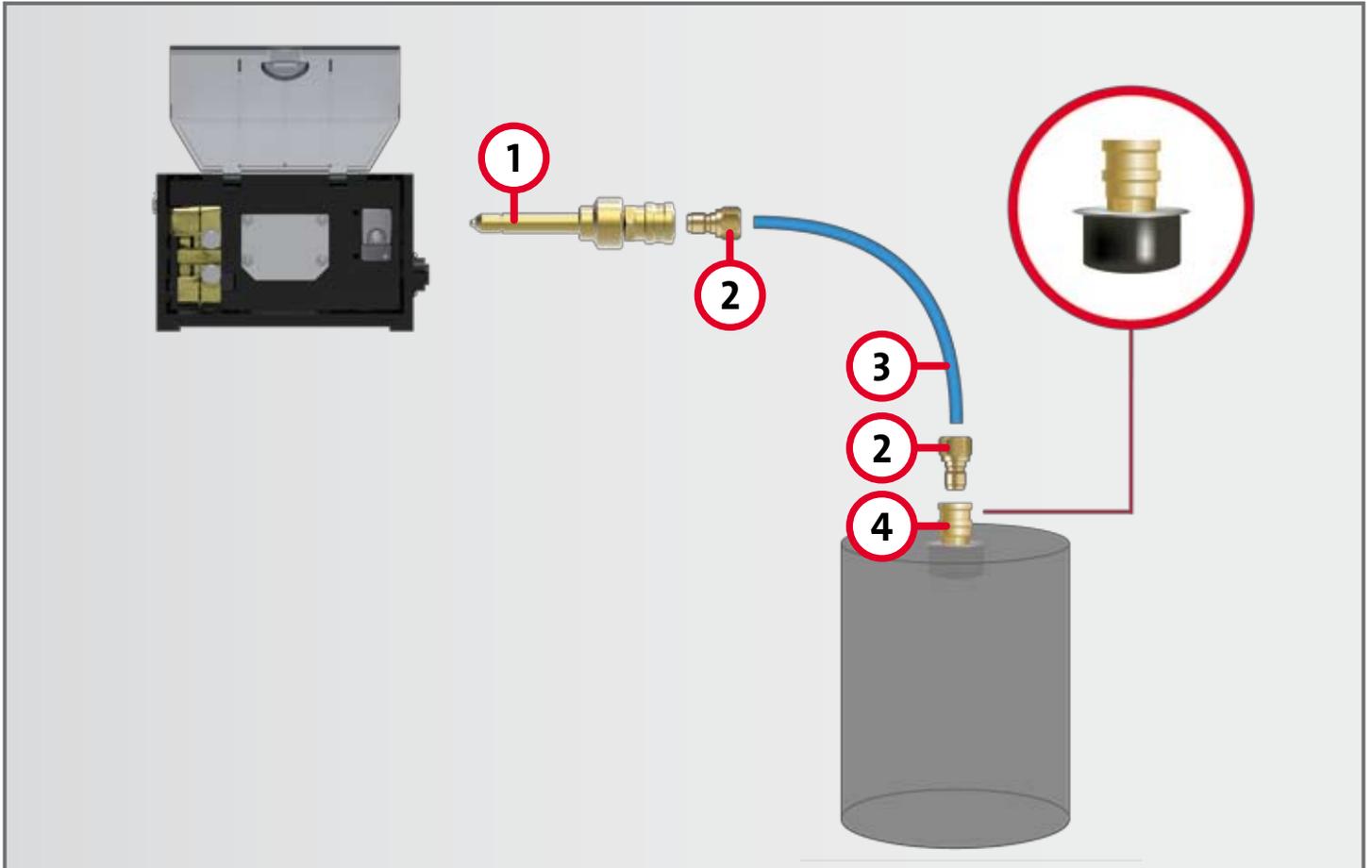
DESCRIPTION	PART-NO.
M10iA / M20iA	14-4-2

FOR ROBOT TYPE-KUKA

DESCRIPTION	PART-NO.
KR16	14-3-2

FOR ROBOT TYPE-MOTOMAN

DESCRIPTION	PART-NO.
HP20	14-1-16



- ① Wire inlet body with quick coupling at wire feeder
- ② Connector for polymer conduit
- ③ Polymer conduit
- ④ Drum connector

With the new SKS polymer guidance, the high efficiency of the whole system extends up to the drum.

ADVANTAGES OF POLYMER WIRE GUIDANCE

Extraordinary good glide properties reduces motor load

Minimized abrasive wear and reduced dirt in wire feeder and torch system

Lightweight design and a high inherent stability for easy installation

Length can be freely chosen by the customer

Cost optimized exchange: only the polymer conduit must be changed, connectors are reusable.

ALTERNATIVE



WIRE INLET BODIES FOR ADDITIONAL SYSTEMS

Beside the wire inlet body for the SKS wire guidance, inlet bodies for additional systems are available.

OVERVIEW OF WIRE INLET BODIES FOR ADDITIONAL SYSTEMS

DESCRIPTION	PART-NO.
M10 with internal thread for ESAB	10-2-0-50
UNF 3/8x24" with external thread	10-2-0-51
with 9.6 mm bore hole	10-2-0-52
with 13 mm bore hole	10-2-0-53
with PG9 thread	10-2-0-56
with 1/4" internal thread	10-2-0-60

1

**WIRE INLET BODY WITH QUICK COUPLING**

Wire inlet body for PF5 with quick coupling

WIRE INLET BODY WITH QUICK COUPLING

DESCRIPTION	PART-NO.
Wire inlet body with quick coupling	10-2-0-61

2

**CONNECTOR FOR POLYMER CONDUIT**

Connection nipple for polymer conduit

CONNECTOR FOR POLYMER CONDUIT

DESCRIPTION	PART-NO.
Connector for polymer conduit	44-40-3

PLEASE NOTE: Two connectors necessary.

3

**POLYMER WIRE CONDUIT**

Polymer wire conduit (sold by meter)

POLYMER WIRE CONDUIT

DESCRIPTION	PART-NO.
Polymer wire conduit, blue	44-9-1

4

**CONNECTOR FOR WIRE DRUM**

Quick connector with ceramic-inlet

CONNECTOR FOR WIRE DRUM

DESCRIPTION	PART-NO.
Connector for wire drum	44-40-1

7

GROUND CABLE


**GROUND CABLE WITH 70 mm²
CONNECTOR AND CABLE PLUG**

Cables with larger diameters are available on request.

OVERVIEW OF GROUND CABLES

LENGTH	PART-NO.
6 m	228078106
10 m	228078100
15 m	228078115
20 m	228078120

8

CONTROL CABLE


CONTROL CABLE: L700/SPW-BUS

Standard control cable to connect the components:
Weld controller, power source, robot interface,
Frontpull™ module.

OVERVIEW OF CONTROL CABLES

LENGTH	PART-NO.
0.5 m	541031050
1 m	541031001
2 m	541031002
3 m	541031003
5 m	541031005
7 m	541031007
10 m	541031000
12 m	541031012
15 m	541031015
20 m	541031020
25 m	541031025
30 m	541031030

PLUG & PLAY: CONTROL CABLE L700

The advantages of a system concept are revealed by its details: One standard control cable (L700) connects all system components (power source, robot interface, weld process controller and Frontpull™ module) within the SKS welding system. The system is expandable: Other components, such as the water cooler WK5, can be integrated at any time into an existing system. New devices are automatically detected.


POWER SOURCE

ROBOT INTERFACE

**WELD PROCESS
CONTROLLER**

FRONTPULL™ MODULE

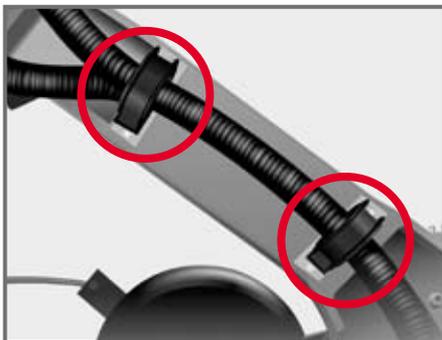


CABLE BUNDLES: POWER SOURCE TO FRONTPULL™ MODULE

Coaxial power cable 72 mm² with internal gas flow, control cable L700, disconnect cable, corrugated tube and cable holder. Air-cooled version.

OVERVIEW OF CABLE BUNDLES

LENGTH	PART-NO.
5 m	20-4-5
7 m	20-4-7
10 m	20-4-10
12 m	20-4-12
15 m	20-4-15
20 m	20-4-20



MOUNTING CABLE BUNDLE: CLAMPING SET

Provides perfect installation of the cable bundle for all different robot types. Undefined cable movements are prevented. This results in higher lifetime.

OVERVIEW OF CABLE BUNDLE CLAMPING SETS

FOR ROBOT TYPE-ABB

DESCRIPTION	PART-NO.
IRB1600	ON REQUEST
IRB2600	91-3-0-41-11

FOR ROBOT TYPE-FANUC

DESCRIPTION	PART-NO.
M10iA	91-3-0-41-6
M20iA	91-3-0-41-8

FOR ROBOT TYPE-KUKA

DESCRIPTION	PART-NO.
KR16	91-3-0-41-12

FOR ROBOT TYPE-MOTOMAN

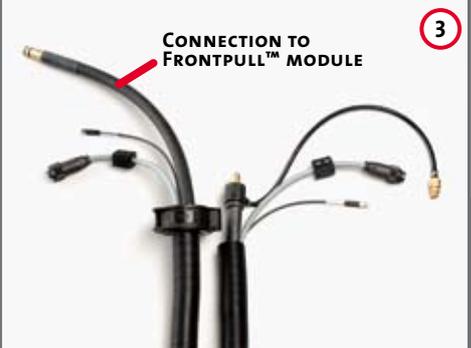
DESCRIPTION	PART-NO.
HP20	91-3-0-41-4

DIVIDABLE CABLE BUNDLES

ALTERNATIVE



PARTS OF THE DIVIDABLE CABLE BUNDLE



CONNECTION FROM POWER SOURCE TO CONNECTION BRACKET

LENGTH	PART-NO.
5 m	20-7-5
7 m	20-7-7
10 m	20-7-10
12 m	20-7-12
15 m	20-7-15

CONNECTION BRACKET

LENGTH	PART-NO.
Connection bracket	20-6-0-1

CONNECTION FROM CONNECTION BRACKET TO FRONTPULL™ MODULE

LENGTH	PART-NO.
3 m	20-6-3
5 m	20-6-5
7 m	20-6-7

CABLE BUNDLE WITH SEPARATION BETWEEN POWER SOURCE AND FRONTPULL™ MODULE

The moving parts of the cable bundle (next to the robot) are separated from the non-moving parts (power source). In case of maintenance work, only the moving parts have to be changed. The quick and easy replacement concept results in time and cost savings.

TO POWER SOURCE



TO FRONTPULL™ MODULE

Welding evolution: Spatter-free ignition.



microMIG™ with torch system Frontpull™

Technology determines future: Latest example is the newly developed welding process **MICROMIG™**, the SKS innovation for heat-reduced welding with defined penetration: as good as spatter-free. The highly precise Frontpull™ torch system was the perfect hardware platform to realize the new weld process; just by adding a new software. Two innovations resulted in many advantages: No synchronizing problems leads to a high reliability, thus, just one wire feeder is necessary. This one is integrated into the torch. Additionally the integrated new **MICROMIG™** weld process is as good as spatter-free and provides heat-reduced welding with defined penetration.



THE COMPLETE SKS MICROMIG™ WELD PACKAGE IS DESIGNED FOR THE FOLLOWING WELDING PROCESSES, MATERIALS AND POWER RANGE:

Processes: microMIG™ (MIG/MAG/GMAW), Pulse, MIG Brazing
Materials: Fe, CrNi, Al, CuSi
Wire diameter: 0.8-1.6 mm
Max. power: 420 A - 60 % duty cycle/40 °C, air-cooled

9A

TORCH SYSTEM: COLLISION PROTECTION



COLLISION PROTECTION POWER CLUTCH HD FOR WELDING ROBOTS WITH OUTER CABLE DRESS

The SKS collision protection is based on the Power Joint™ concept, continuing the modular structure of the SKS components. This ensures the same high precision TCP accuracy in the Frontpull™ as found in SKS Power Joint™ systems.

POWER CLUTCH HD

DESCRIPTION	PART-NO.
Collision protection	71-6

TECHNICAL DATA

Collision protection	deflection 10°
Reset accuracy	± 0.2 mm with TCP 400 mm
Weight	1.5 kg

9B

TORCH SYSTEM: TORCH BODY AND MOUNTING ARM



FRONTPULL™ TORCH SYSTEM INCLUDING MOUNTING ARM

In comparison to traditional push-pull systems, the SKS Frontpull™ concept provides a higher reliability. This is achieved by omitting the "push" part and solely pulling the wire. Using the PF5 drive technology ensures appropriate power reserves for the best wire feeding. With a weight of only 3.2 kilograms, the Frontpull™ torch supports the new generation of robots.

The requirement for a fast acceleration and high response speeds are implemented. The mechanics is separated from the electronics allowing less weight on the sixth robot axis resulting in a higher reliability of the electronics. The Frontpull™ torch prevents wire slippage therefore providing the most accurate wire feeding closest to the process. The "Lift-Arc" spatter-free ignition routine and a spatter reduced welding process provide an additional quality improvement. With the microMIG™ Technology (MMT) the Frontpull™ torch provides heat-reduced welding, practically spatter-free.

FRONTPULL™

DESCRIPTION	PART-NO.
Frontpull™ with torch body and mounting arm	10-6

ADVANTAGES:

Standard components (power source, weld process controller)

Standard SKS torches and consumables can be used

The wire feeder is at the sixth robot axis providing for a highly precise wire feeding

The Frontpull™ torch system is based on the proven SKS Power Joint™ and

Power Feeder know-how

Supports spatter-free ignition

High reliability – No synchronization problems

TECHNICAL DATA

Weight	3.2 kg	Motor	70 W, 42V
Wire feeding speed	0 - 25 m/min	Roll diameter	28 mm

**DRIVE ROLL FOR FRONTPULL™**

For wire diameters 0.8 - 1.6 mm and groove-types (V-groove for steel and U-groove for aluminum wires)

OVERVIEW OF FOUR ROLLER DRIVE ROLLS

DESCRIPTION	PART-NO.	DESCRIPTION	PART-NO.
Wire- ϕ 0.8 mm, V-groove	12-2-4-08	Wire- ϕ 1.6 mm, V-groove	12-2-4-16
Wire- ϕ 0.9 mm, V-groove	12-2-4-09	Wire- ϕ 1.0 mm, U-groove	12-2-4-110
Wire- ϕ 1.0 mm, V-groove	12-2-4-10	Wire- ϕ 1.2 mm, U-groove	12-2-4-112
Wire- ϕ 1.2 mm, V-groove	12-2-4-12	Wire- ϕ 1.6 mm, U-groove	12-2-4-116
Wire- ϕ 1.4 mm, V-groove	12-2-4-14		

**PRESSURE ROLL**

Pressure roll for wire feeder

PRESSURE ROLL

DESCRIPTION	PART-NO.
Pressure roll	12-2-3-0

**CENTER GUIDES**

Available in two versions:
For steel or aluminum wires

OVERVIEW OF CENTER GUIDES

DESCRIPTION	PART-NO.
Wire- ϕ < 2 mm for steel wire	12-2-1-15
Wire- ϕ 0.8-1.0 mm for aluminium	12-2-1-17
Wire- ϕ 1.2-1.6 mm for aluminium	12-2-1-19

**POWER CLUTCH ROBOT FLANGE****OVERVIEW OF ROBOT FLANGE**

FOR ROBOT TYPE-ABB

DESCRIPTION	PART-NO.
IRB1600	63-4-13
IRB2600	63-4-5

FOR ROBOT TYPE-KUKA

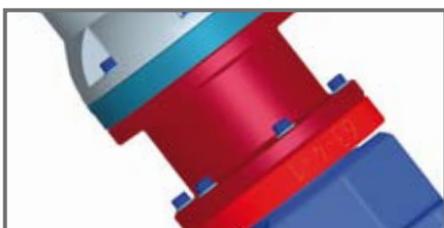
DESCRIPTION	PART-NO.
KR16	63-4-3

FOR ROBOT TYPE-FANUC

DESCRIPTION	PART-NO.
M10iA / M20iA	63-4-8

FOR ROBOT TYPE-MOTOMAN

DESCRIPTION	PART-NO.
HP20	63-4-1

**TCP-EXTENSION**

The TCP-extension increases the freedom of accessibility and depth of immersion into the weld part/fixture

OVERVIEW TCP-EXTENSION

LENGTH	PART-NO.
50 mm	93-29
100 mm	93-14

**PLEASE NOTE:**

For aluminum applications the Power Pin-Cap with

PART-NO. 61-2-0-2-7 is required.

TORCH CABLE

High flexible coaxial cable 72 mm² with Power Pin and torch connector including switch-off cable for the robot. Additionally the Power Pin extension is required.

OVERVIEW RECOMMENDED TORCH CABLE LENGTHS FOR ROBOTS**FOR ROBOT TYPE-ABB**

DESCRIPTION	PART-NO.
IRB1600 (0.75 m)	61-5-075
IRB2600 (1.0 m)	61-5-10

FOR ROBOT TYPE-FANUC

DESCRIPTION	PART-NO.
M10iA (0.9 m)	61-5-09
M20iA (1.0 m)	61-5-10

FOR ROBOT TYPE-KUKA

DESCRIPTION	PART-NO.
KR16 (1.0 m)	61-5-10

FOR ROBOT TYPE-MOTOMAN

DESCRIPTION	PART-NO.
HP20 (1.0 m)	61-5-10

OVERVIEW OF TORCH CABLES

LENGTH	PART-NO.	LENGTH	PART-NO.
0.75 m	61-5-075	1.5 m	61-5-15
0.9 m	61-5-09	1.8 m	61-5-18
1.0 m	61-5-10	2.0 m	61-5-20
1.2 m	61-5-12	2.4 m	61-5-24
		Power Pin extension	61-2-0-2-5

**CONNECTION CABLE FOR FRONTPULL™ TORCH**

Connection between Frontpull™ torch and microMIG™ module

OVERVIEW CONNECTION CABLES

LENGTH	PART-NO.	LENGTH	TEILE-NR.
1.0 m	77-2012-10	2.1 m	77-2012-21
1.2 m	77-2012-12	2.7 m	77-2012-27
1.3 m	77-2012-13	Velcro® tape for mounting (10 pcs.)	571040310
1.5 m	77-2012-15		
1.8 m	77-2012-18		

**LINER FOR TORCH CABLE**

For the following diameters and filler materials:

STEEL, BRONZE (WIRE-Ø 0.8 - 1.6 MM)

LENGTH	PART-NO.
2 m	44-22-0810-20
3.5 m	44-22-0810-35
5 m	44-22-0810-50
Sleeve for liner	44-30-2

ALUMINIUM (WIRE-Ø 1.0 - 1.6 MM)

LENGTH	PART-NO.
2.0 m	44-26-1216-20
3.5 m	44-26-1216-35
Sleeve for liner	44-30-7

**LINER FOR GOOSENECK****STEEL**

DESCRIPTION	PART-NO.
Wire Ø 0.8 - 1.0 mm	58-4-4-500
Wire Ø 1.2 - 1.6 mm	58-4-3-500

ALUMINIUM

DESCRIPTION	PART-NO.
Wire Ø 0.8 - 1.0 mm	58-4-7-500
Wire Ø 1.2 - 1.6 mm	58-4-8-500



GOOSENECKS FOR FRONTPULL™

With the innovative bayonet lock system, the SKS gooseneck can be replaced quickly. This unique tool-free quick change system is also highly precise with TCP accuracy of ± 0.2 mm.

OVERVIEW OF GOOSENECKS

TYPE / TCP IN MM	PART-NO.
45° / 450	58-4-345-450-1
22° / 350	58-1-22-350-1
22° / 400	58-1-22-400-1
45° / 350	58-1-45-350-1
45° (ZK) / 400	58-1-245-400-1

SKS offers a special gooseneck (up to 250 A) for welding components with tight accessibility.

The special gooseneck needs a smaller insulator (ZK) and a more compact gas nozzle (ZK). Standard Power Lock contact tips can be used.

INFO

GOOSENECK



ZK-TYPE



TCP drawings can be found on the last two pages (goose-necks).



CLAMPING CAP FOR SKS SINGLE WIRE GOOSENECKS

Tool-free assembly with bayonet quick-change system

CLAMPING CAP

DESCRIPTION	PART-NO.
Clamping cap	71-3-24



INSULATOR FOR SKS GOOSENECKS

OVERVIEW OF INSULATORS

DESCRIPTION	PART-NO.
Standard	58-1-5
ZK-type	43-6-4-2

**POWER LOCK: RETAINING HEADS**

Retaining heads for heavy duty applications with thread for threaded gas nozzles for simple and safe installation

OVERVIEW OF RETAINING HEADS

DESCRIPTION	PART-NO.
Standard	43-9-2
ZK-type	43-8-6

**POWER LOCK: CONTACT TIPS**

Tapered design for high TCP reproducibility

Improved heat transfer extends lifetime

Improved power transition: constant arc quality

OVERVIEW OF CONTACT TIPS (ALSO FOR ZK-TYPE)

WIRE-Ø	CU-ETP	CU-CRZR
0.8 mm	40-4-5-0.8E	40-4-7-0.8S
0.9 mm	40-4-5-0.9E	40-4-7-0.9S
1.0 mm	40-4-5-1.0E	40-4-7-1.0S
1.2 mm	40-4-5-1.2E	40-4-7-1.2S
1.4 mm	————	40-4-7-1.4S
1.6 mm	————	40-4-7-1.6S

**GAS NOZZLES**

Standard common gas nozzles with thread

PLEASE NOTE: An overview of gas nozzles with dimensions can be found on the last page.

OVERVIEW OF GAS NOZZLES (SHORT)

DESCRIPTION	PART-NO.
ø 16 mm, tapered	401-8-62-G
ø 13 mm, tapered	41-8-13-TS
ø 13 mm, bottle shaped	401-48-50-G
ø 16 mm, tapered, HD	401-81-62-G
ø 15 mm, bottle shaped (ZK)	41-8-115
ø 13 mm, bottle shaped (ZK)	41-8-113

OVERVIEW OF GAS NOZZLES (LONG)

DESCRIPTION	PART-NO.
ø 16 mm, tapered	401-4-62-G
ø 13 mm, tapered	401-4-50-G
ø 13 mm, bottle shaped	401-42-50-G
ø 16 mm, tapered, HD	401-6-62-G
ø 13 mm, tapered, HD	401-6-50-G

**POWER LOCK TOOL FOR CONTACT TIPS**

For replacement of contact tips: Fast exchange of contact tip without removing the gas nozzle

POWER LOCK TOOL FOR CONTACT TIPS

DESCRIPTION	PART-NO.
Power Lock tool	51-9001-00

**PROGRAMMING TIPS**

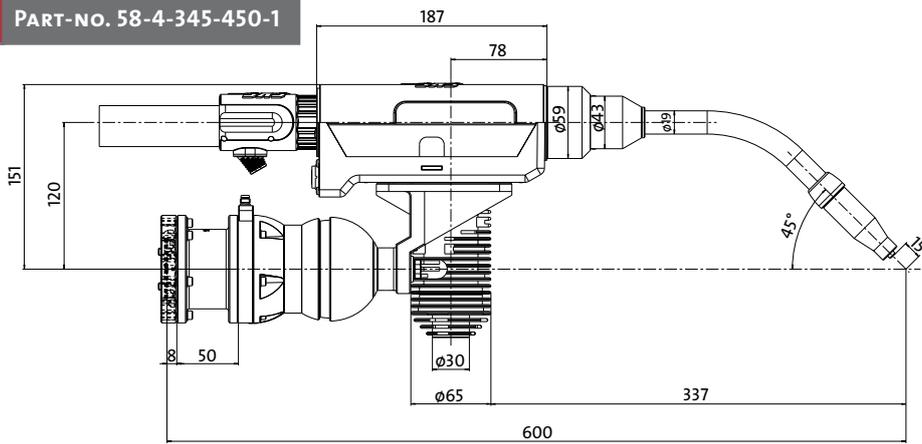
Power Lock programming tips for precise seam programming

OVERVIEW OF PROGRAMMING TIPS

STICKOUT	PART-NO.
12 mm	65-6
15 mm	65-7
20 mm	65-8

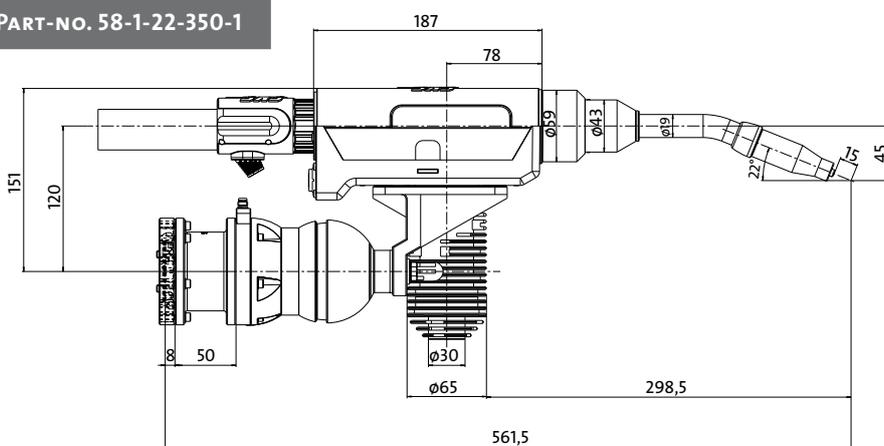
TORCH 45°

PART-NO. 58-4-345-450-1



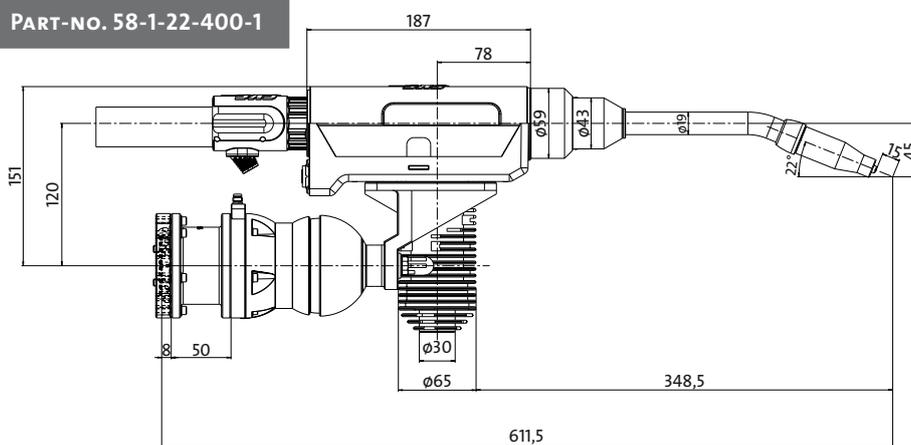
TORCH 22°

PART-NO. 58-1-22-350-1



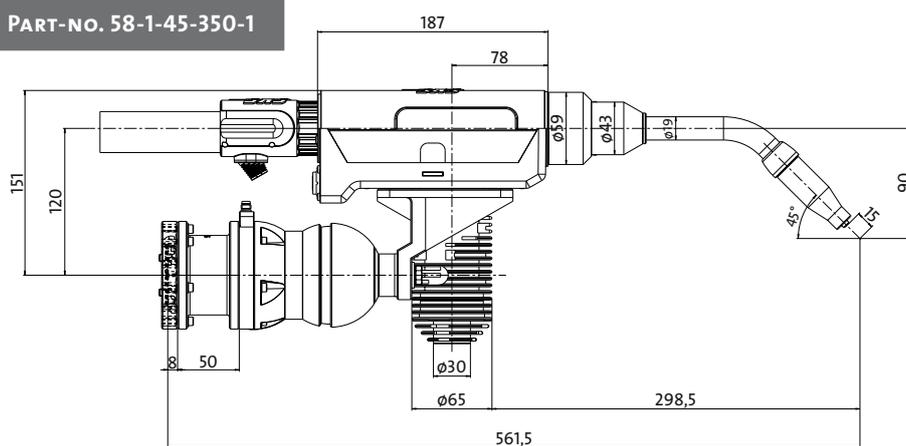
TORCH 22°

PART-NO. 58-1-22-400-1



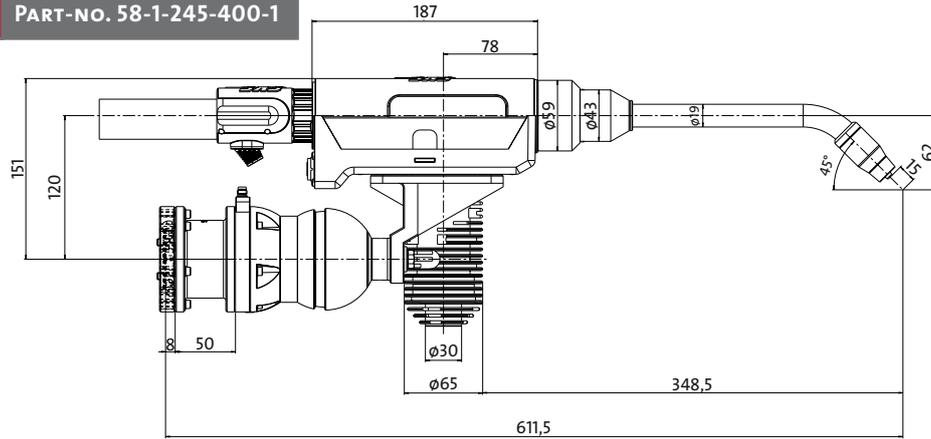
TORCH 45°

PART-NO. 58-1-45-350-1



ZK TORCH 45°

PART-NO. 58-1-245-400-1

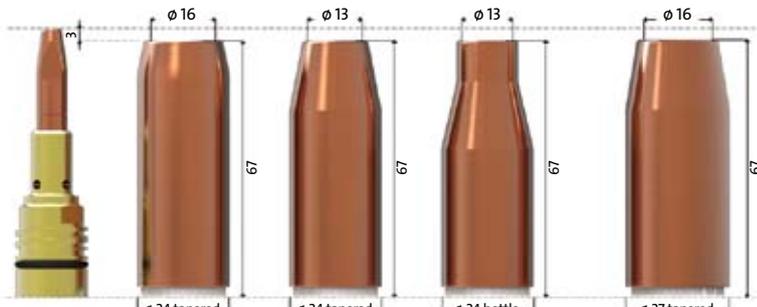


To check TCP of goosenecks and complete torch.

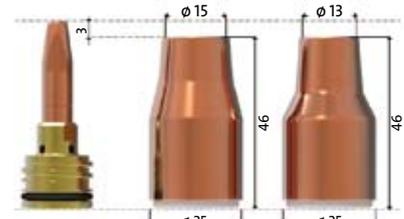
Checking fixtures are provided for all listed goosenecks with Frontpull™/ microMIG™ torch system. Please contact us for detailed information.

Standard – type K (short)

Heavy Duty – type K (short)



Standard – type ZK (short)



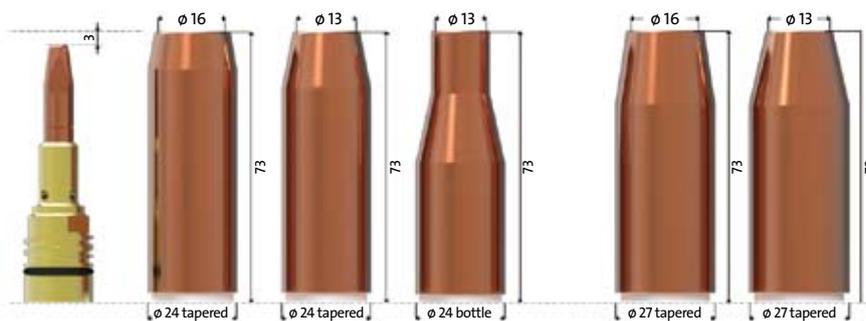
GAS NOZZLE PART-NO.:
CUTTERS (UNF3/8" x 24)
FOR GAS NOZZLES PART-NO.:

401-8-62-G	41-8-13-TS	401-48-50-G	401-81-62-G
66-3-13	66-3-16	66-3-16	66-3-13

41-8-115	41-8-113
66-3-12	66-3-17

Standard – type L (long)

Heavy Duty – type L (long)



GAS NOZZLE PART-NO.:
CUTTERS (UNF3/8" x 24)
FOR GAS NOZZLES PART-NO.:

401-4-62-G	401-4-50-G	401-42-50-G	401-6-62-G	401-6-50-G
66-3-14	66-3-15	66-3-15	66-3-14	66-3-15

PLEASE NOTE: With long gas nozzles the contact tip is recessed 3 mm.



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Subject to change.