

# ROBOTIC MIG/MAG TORCH SU-477

**SUMIG III**



# THRU-THE-ARM ROBOTIC TORCH

Sumig innovative line of robotic torches are designed to easily and quickly connect to any robotic system. Manufactured with the most advanced and durable materials available to minimize any downtime and keep you productive. Numerous cooling combinations and torch heads design provides the best solution for your needs.

**Sumig is the *PREFERRED SOLUTION* in robotic welding torches.**



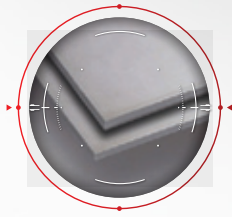
**SU-477**

**For Robots with Internal Cabling System**

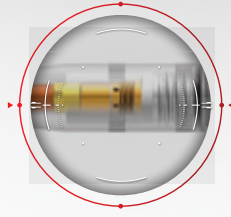
- *Single model for all robot brands;*
- *More compact, robust and resistant;*
- *Easy and quick maintenance;*
- *Ultraresistant Cables.*

# Technical Benefits

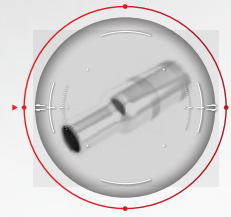
## Torches for Welding Robots



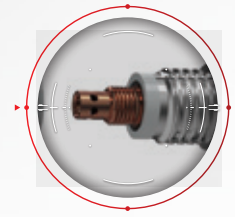
Coated with stainless steel



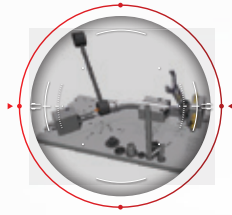
Built-in cooling system (no external hoses)



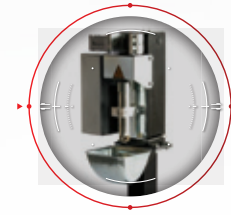
Various nozzles options



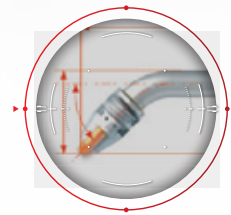
Thread nozzles for better fixing



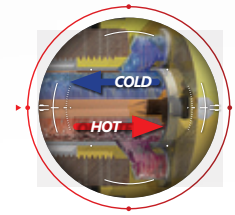
Available gooseneck alignment plate



Available to manual or automatic nozzle cleaning



Special projects Development

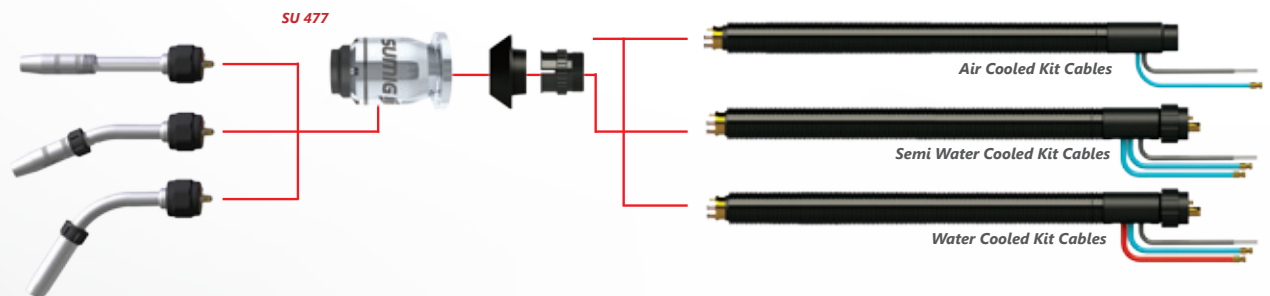


Separated water inlet and outlet flow

## Assembly Possibilities

### Choose your torch in 3 steps:

1° Torch Heads	2° Clutch	3° Cables
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## Internal Kit of Cables



Brand Model	Length of the kit
ABB IRB 1600 ID	3.30 (1.00 m)
ABB IRB 2600 ID	4.25 (1.30 m)
FANUC 100 iC	2.60 (0.80 m)
FANUC 100 iC 6L	3.30 (1.00 m)
FANUC 100 iC 8L	4.10 (1.25 m)
FANUC 120 iC	3.30 (1.00 m)
FANUC 120 iC 10L	3.90 (1.20 m)
KUKA KR5 ARC HW	3.30 (1.00 m)
KUKA KR16 ARC HW	3.30 (1.00 m)
KUKA KR16 L8 ARC HW	4.60 (1.40 m)
MOTOMAN EA MA1400 / SSA2000	3.30 (1.00 m)

MOTOMAN EA MA1400 / SSA2000	3.60 (1.10 m)
MOTOMAN EA1800	4.10 (1.25m)
MOTOMAN EA MA1900	4.10 (1.25m)
MOTOMAN EA MA1900	4.40 (1.35m)
OTC AII B4	3.30 (1.00m)
OTC AII B4 L	4.60 (1.40m)
PANASONIC TB1400	3.60 (1.10m)
PANASONIC TB1800	4.25 (1.30m)
KAWASAKI BA006N	3.30 (1.00m)
KAWASAKI BA006L	4.90 (1.50m)



# Torch Heads

## Cooling Levels

### 54000

For most welding applications in 350A in short beads with possibility of use in 400A with 10mm stick-out contact tip from the nozzle. Note: Flat welding, 90° angle, and 50cm/mm

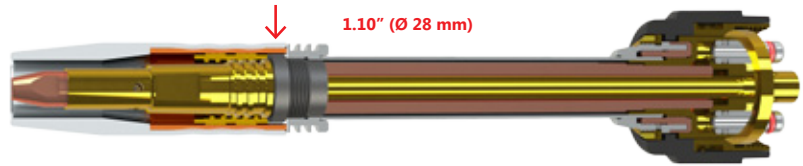
0.030" - 1/16" (0.8- 1.6 mm)

Wire Ø

Up to 400 A

Duty Cycle

Cooling



### 5400W

For welding applications in short beads and short duty cycles with water cooling benefit.

0.030" - 1/16" (0.8- 1.6 mm)

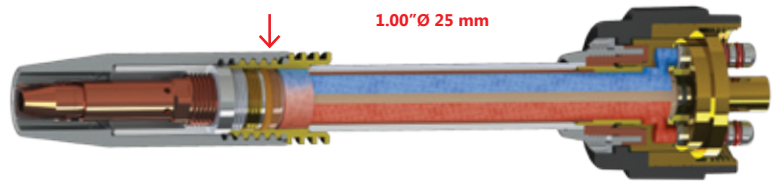
Wire Ø

Up to 450 A

Duty Cycle

Cooling

Water flows until the heat sink



### 55500W

For continuous cycles and long welding beads.

0.045" - 1/16" (1.2 - 1.6 mm) | 0.09" and 0.110" (2.4 e 2.8mm)\*

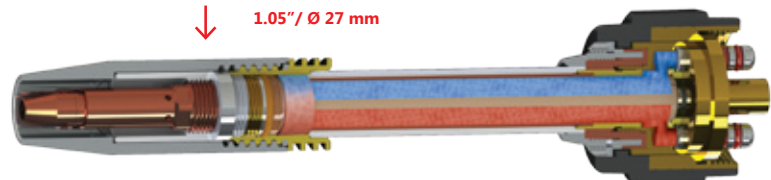
Wire Ø

Up to 550 A

Duty Cycle

Cooling

Water flows until the end of the nozzle



## Internal Cabling System



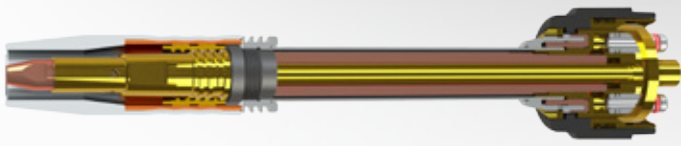
- Torch clutch with shock sensor built-in, avoids the external connections need;
- Adaptor flange for all models of robots;
- Uses all SUMIG torch head models;
- Kit of installation tools included.

### Code

### Description

0901.2020

Clutch SU 477



### Duty Cycle

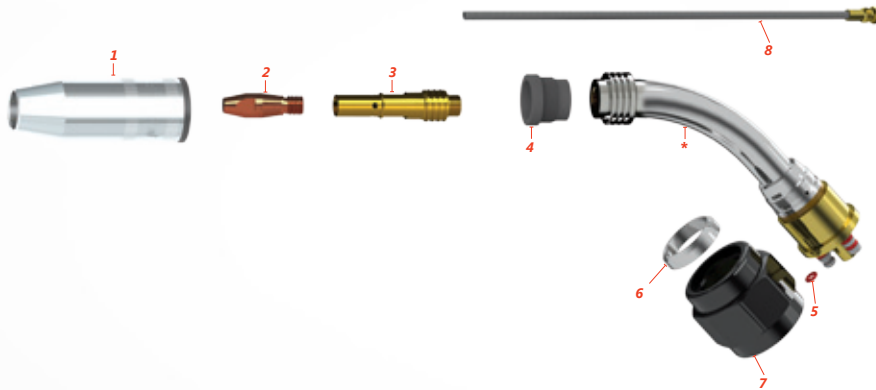
### Wire

<p><b>400A</b> 60%</p>	<p><b>350A</b> 60%</p>	<h1>0.8 a 1.6</h1> <h2>0.030" to 1/16"</h2>
CO <sub>2</sub>	Argon Mixture	

54000

Code	Description	Length	Mes.
0901.1093	S4000 Torch Head	185 mm	22°
0901.1089		181 mm	45°
0901.1129		220 mm	22° Long
0901.1092		261 mm	45° Long
0901.1095		236 mm	35°
<b>S4000 Torch Head</b>			

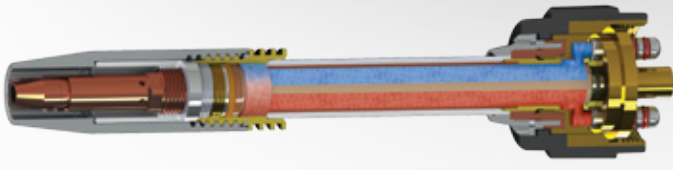
\* The mentioned cycle refers to a nozzle when the contact tip protrudes 10mm out of the nozzle's exit point (Stick-out). When the contact tip sits inline with the bore of the nozzle (Flush), the cycle is 280A-60% Argon/Mixture and 320A-60% CO<sub>2</sub>.



(\*) Not sold separately

Pos.	Code	Description	Mes.
01	0900.1756	Conical Nozzle	0.62" x 2.95" (16x75mm)
	0900.1761		0.75" x 3.75" 18x95mm
	<b>0900.1790</b>	Conical Nozzle	<b>0.62" x 2.95"</b> <b>(16x75mm)</b>
	0900.1805		0.75" x 2.95" (18x75mm)
	0900.1843		0.80" x 2.55" (21x65mm)
02	0900.1370	S+ HD Contact Tip	0.030" (0.80mm)
	0900.1071		0.040" (1.00mm)
	<b>0900.1316</b>		<b>0.045"</b> <b>(1.20mm)</b>
	0900.1372		1/16" (1.60mm)
03	0900.1758	Gas Diffuser	
04	2146.5100	Insulator	

Pos.	Code	Description	Mes.
05	4002.1014	Torch Head O-Ring	
06	2146.5122	Locking Nut	
07	2146.5068	Nut w/Insulation for Torch Head	
08	<b>0500.2099</b>	Torch Head Liner	<b>0.0030" - 0.045"</b> <b>(8/1.0/1.2mm)</b>
	0500.1415		1/16" (1.60mm)
08	<b>0500.2100</b>	Long Torch Head Liner	<b>0.030" - 0.045"</b> <b>(0.8/1.0/1.2mm)</b>
	0900.1051		1/16" (1.60mm)



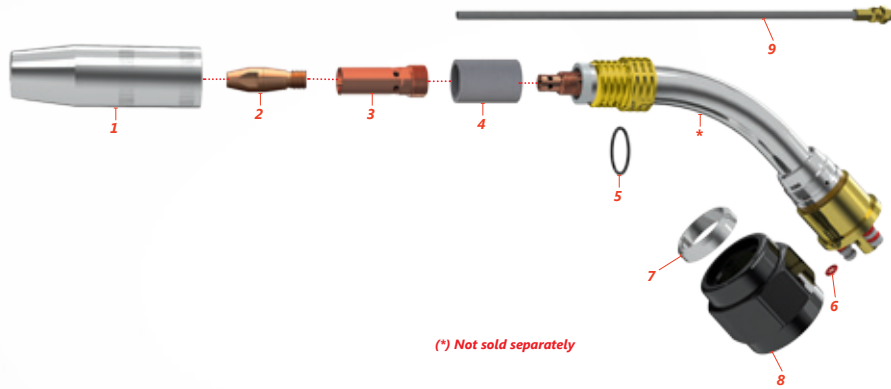
### Duty Cycle

### Wire

<p><b>450A</b> 60%</p>	<p><b>400A</b> 60%</p>	<p><b>0.8 a 1.6</b> 0.030" to 1/16"</p>
CO <sub>2</sub>	Argon Mixture	mm / inches

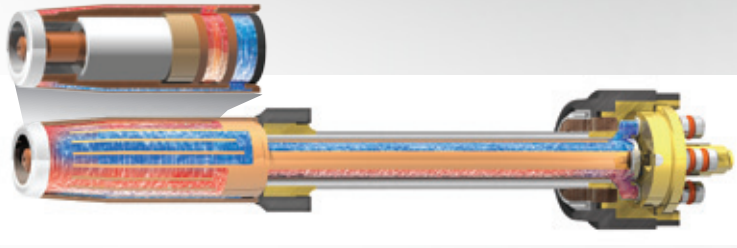
54500W

Code	Description	Length	Mes.
0901.1070	<i>S4500W Torch Head</i>	192 mm	Straight
0901.1069		185 mm	22°
0901.1067		285 mm	22° Long
0901.1047		181 mm	45°
0901.1071		222 mm	45° Long
<i>S4500W Torch Head</i>			



Pos.	Code	Description	Mes.
01	<b>0900.0038</b>	CRS/CRD Conical Nozzle	<b>0.60" x 2.95"</b> <b>(ø15.6mm x 75)</b>
02	0900.1370	S+ HD Contact Tip	0.030" (0.80mm)
	0900.1371		0.040" (1.00mm)
	<b>0900.1316</b>		<b>0.045" (1.20mm)</b>
	0900.1372		1/16" (1.60mm)
03	<b>0900.1317</b>	S+ HD Gas Diffuser	
04	<b>0900.0037</b>	Fibra Gas Diffuser Insulator	
	0900.0058	Alumina Gas Diffuser Insulator	
	0900.0132	Gas Diffuser Insulator	

Pos.	Code	Description	Mes.
05	4002.1013	Nozzle O-Ring	
06	4002.1014	Torch Head O-Ring	
07	21.465.122	Locking Nut	
08	2146.5068	Nut w/Insulation for Torch Head	
09	<b>0500.2099</b>	Torch Head Liner	<b>0.030" - 0.045"</b> <b>(0.8/1.0/1.2mm)</b>
	0500.1415		1/16" (1.60mm)
	<b>0500.2100</b>	Long Torch Head Liner	<b>0.030" - 0.045"</b> <b>(0.8/1.0/1.2mm)</b>
	0900.1051		1/16" (1.60mm)



### Duty Cycle

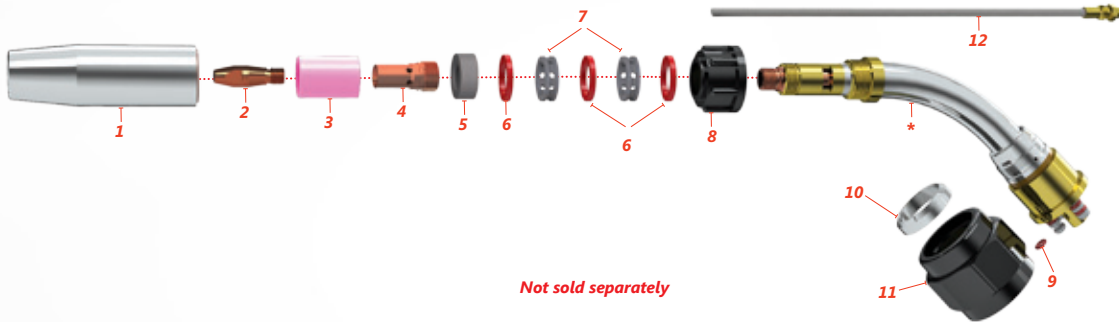
### Wire

<p><b>550A</b> 100%</p> <p>CO<sub>2</sub></p>	<p><b>500A</b> 100%</p> <p>Argon Mixture</p>	<p><b>1.2 a 1.6</b> <b>0.045" to 1/16"</b></p> <p>mm / inches</p>
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**55500W**

Code	Description	Lenght	Mes.
0900.0075	55500W Torch Head	192 mm	Straight
0901.1012		185 mm	22°
0901.1006		181 mm	45°
0901.1009		322 mm	45° Long
<b>55500W Torch Head</b>			

*\* (Possibility of applications with 2.40 mm and 2.80 mm welding wire, please contact SUMIG technical department for information).*



Pos.	Code	Description	Mes.
01	<b>0900.0060</b>	TPR Nozzle	<b>0,70" x 2,95"</b> <b>(ø18mm x 75)</b>
02	0900.1371	S+ Contact Tip	0.040" (1.00mm)
	<b>0900.1316</b>		<b>0.045" (1.20mm)</b>
	0900.1372		1/16" (1.60mm)
	<b>0900.0058</b>	Alumina Gas Diffuser Insulator	
03	0900.0037	Gas Diffuser Insulator	
	0900.0132	Gas Diffuser Insulator	
04	0900.1373	Gas Diffuser	
05	0500.1194	Front Ring	
06	4002.1016	Silicone Ring	
07	0500.1931	Water Diffuser	

Pos.	Code	Description	Mes.
08	0500.1196	Nozzle Fixing Nut	
09	4002.1014	Torch Head O-Ringz	
10	2146.5122	Locking Nut	
11	2146.5068	Nut w/Insulation for Torch Head	
12	<b>0500.2099</b>	Torch Head Liner	<b>0.040" - 0.045"</b> <b>(1.0/1.2mm)</b>
	0500.1415		1/16" (1.60mm)
	<b>0500.2100</b>	Long Torch Head Liner	<b>0.040" - 0.045"</b> <b>(1.0/1.2mm)</b>
	0900.1051		1/16" (1.60mm)

# Our International Structure



Caxias do Sul - RS - Brazil  
Headquarters



Leading Welding and Cutting Torches  
Manufacturer in Latin America



Training Center



**SUMIG**

Welding and Cutting  
Solutions, since 1980



**ISO 9001**  
Certified Company



Quality Control



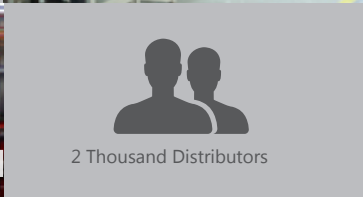
Over 1 Million Welding and  
Cutting Torches Sold



USA Branch



Manufacturing



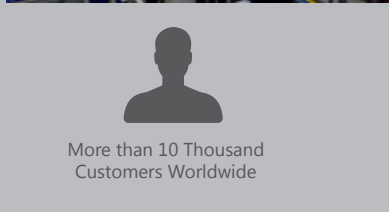
2 Thousand Distributors



Warehouse



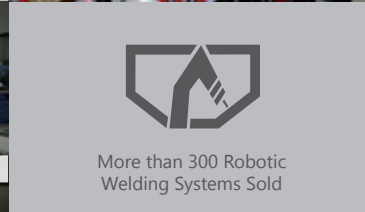
More than 200  
International Partnerships



More than 10 Thousand  
Customers Worldwide



Engineering



More than 300 Robotic  
Welding Systems Sold



Robotics Manufacturing



*Sumig Global Presence*

**MANUFACTURING PREMIUM WELDING  
EQUIPMENT SINCE 1980.**



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