

Water-Cooled Robotic Torches

TOKINARC®
TOKIN CORPORATION

■ WX702/500/451/452/401/402 ■ β -600W ■ TK308RW/308ALW
■ YMES-500W/400W/508W/308ALW



www.tokinarc.co.jp

TOKIN CORPORATION

WX451S

TOKIN Water-Cooled Torches Now Available with Detachable System

WX Series

WX Series torches are shown as follows.

J: Water-Cooled Wire Feeders
K: Air-Cooled Wire Feeders
E: Euro Type

▼ Torch Type

WX451 S J - 3000

S: Straight R: Curved

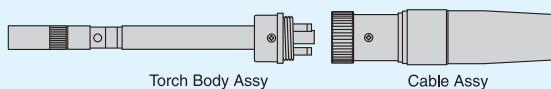
* Standard contact tip size:
WX500: 1.6 mm
WX450 Series: 1.6 mm
WX400 Series: 1.2 mm

Indicates Cable Length

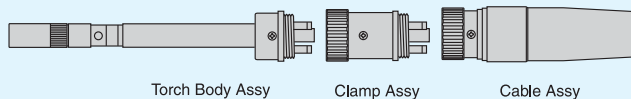
Cable Length

WX Series Quick Detachable System

▼ WX401S (451) Detachable System



▼ WX402S (452) Detachable System



Benefits of WX Series Quick Detachable System

To replace a part in ordinary systems, you have to remove the entire torch from the robot. However, on our Quick Detachable System you only remove the section containing the part you want to replace.

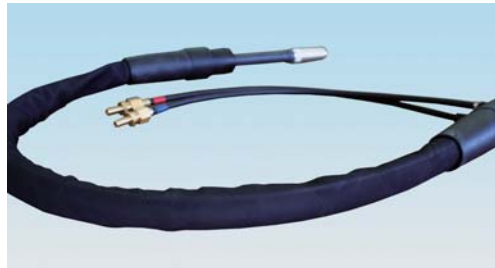
WX Series is the first detachable Water-Cooled Robot Torch System in Japan. TOKIN adopted its original technology of detachable system to the joint between Torch Body Assy and Cable Assy. The high-quality Quick Detachable System eliminates all problems with connectors such as fluid and gas leaks yet operation is just as easy as conventional types. This system allows replacing just the problem part during repairs and also gives big benefits in terms of costs. It also drastically reduces downtime while replacement.

At Tokin, we put all our knowledge and effort to work to deliver a reliable high quality product whose precision and durability fully match our previous models. The WX Series Water-Cooled Robotic Torch is the answer to all your workplace needs!

Features

1 Hose sheath made of heat resistant fiber that shuts out spatter and flame

The hose sheath is made of heat resistant fiber that protects the cables against spatter and flames. You no longer have to worry about spatter while handling the torch because spatter cannot penetrate or scorch the sheath even by direct contact.



2 Easy exchange boosts work efficiency



Easily attaches to welding robots and welding carriages.

On the Quick Detachable System, the torch is removable with just an easy twist of the wrist, which greatly boosts work efficiency. After connecting the adapter to the wire feeder, you



just insert the welding torch into the adapter and tighten the nut. Replacing the torch is no longer an annoying task.

3 Powerful water-cooling by the TOKIN's original circulation system

Our water circulator mechanism effectively cools the torch body, contact tip, and nozzle. These are the parts most often exposed to heat. The circulator makes these parts last longer and results in a good weld.

4 Connectable to both Water-Cooled and Air-Cooled wire feeders

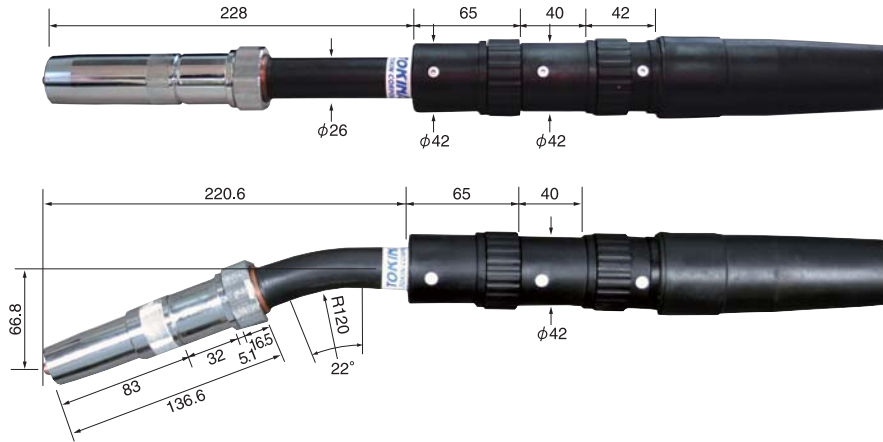
We used an adapter to standardize welding torches to the Quick Detachable System. Just attach an adapter matching each manufacturer's Water or Air-Cooled Wire Feeder. The Tokin torch then easily connects to either type Wire Feeder with an easy twist of the wrist.



New Concept of Robotic Welding Torches

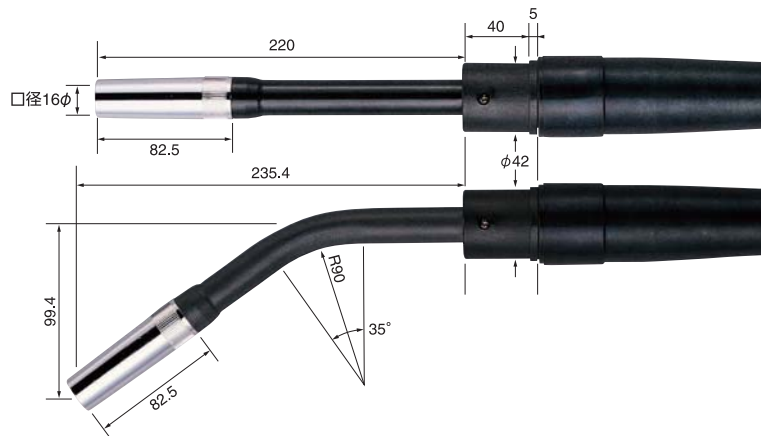
Series

WX702S / WX702R



Torch Model	WX702 S/R	
Rated Current	A (CO ₂)	700
	A (MAG)	600
Duty Cycle	% (CO ₂)	80
	% (MAG)	70
Wire Diameter	mm	1.2-1.6
Cooling Method	Water-Cooled	
Cable Length	m	1-5

WX500S / WX500R



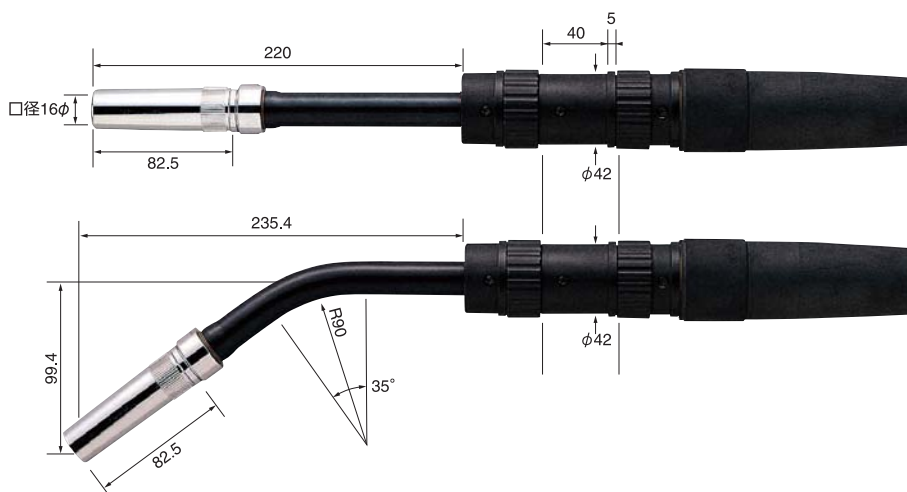
Torch Model	WX500 S/R	
Rated Current	A (CO ₂)	500
	A (MAG)	450
Duty Cycle	% (CO ₂)	100
	% (MAG)	100
Wire Diameter	mm	1.2-1.6
Cooling Method	Water-Cooled	
Cable Length	m	1-5

*Nozzle diameter is 16 mm and wire diameter is 1.6 mm unless specified by customer.



NEG *For wire clamp only

WX452S / WX452R



Torch Model	WX452 S/R	
Rated Current	A (CO ₂)	500
	A (MAG)	450
Duty Cycle	% (CO ₂)	80
	% (MAG)	70
Wire Diameter	mm	1.2-1.6
Cooling Method	Water-Cooled	
Cable Length	m	1-5

*Nozzle diameter is 16 mm and wire diameter is 1.6 mm unless specified by customer.



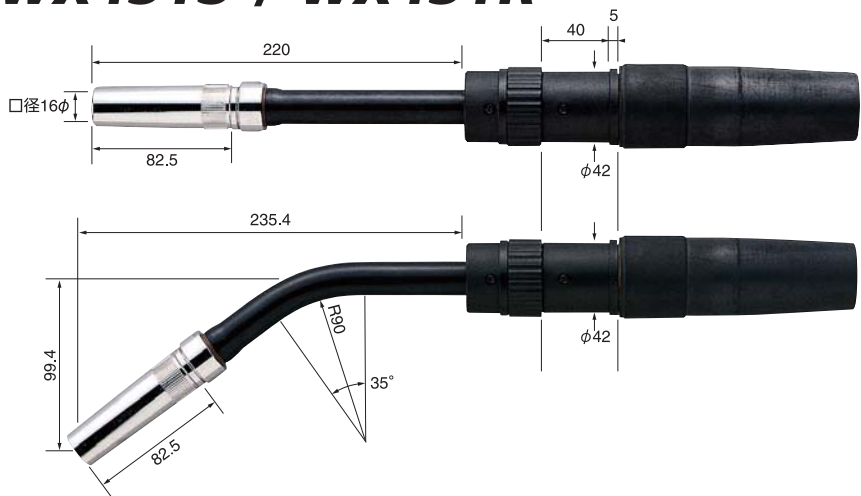
Icons in this catalogue

AL Usable for Aluminum Welding

ALS Special Torch for Aluminum Welding

INZ Water-Cooled Nozzle can be installed

WX451S / WX451R

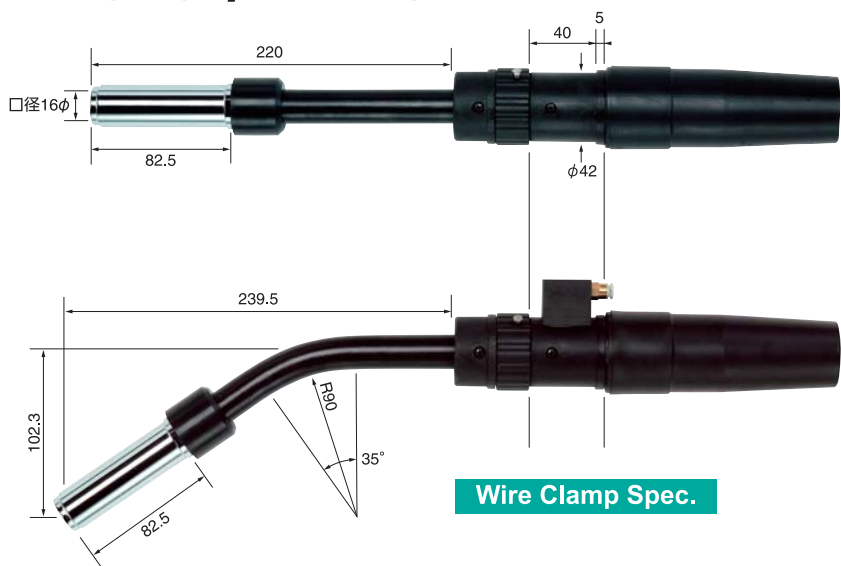


Torch Model	WX451 S/R	
Rated Current	A (CO ₂)	500
	A (MAG)	450
Duty Cycle	% (CO ₂)	80
	% (MAG)	70
Wire Diameter	mm	1.2-1.6
Cooling Method	Water-Cooled	
Cable Length	m	1-5

*Nozzle diameter is 16 mm and wire diameter is 1.6 mm unless specified by customer.

AL INZ ICB WCP MO Weeks

WX451S / WX451R Water-Cooled Nozzle Spec.



Torch Model	WX451 S Water-Cooled Nozzle	
Rated Current	A (CO ₂)	500
	A (MAG)	450
Duty Cycle	% (CO ₂)	100
	% (MAG)	100
Wire Diameter	mm	1.2-1.6
Cooling Method	Water-Cooled	
Cable Length	m	1-5

*Nozzle diameter is 16 mm and wire diameter is 1.6 mm unless specified by customer.

AL ICB WCP MO Weeks

Wire Clamp Spec.

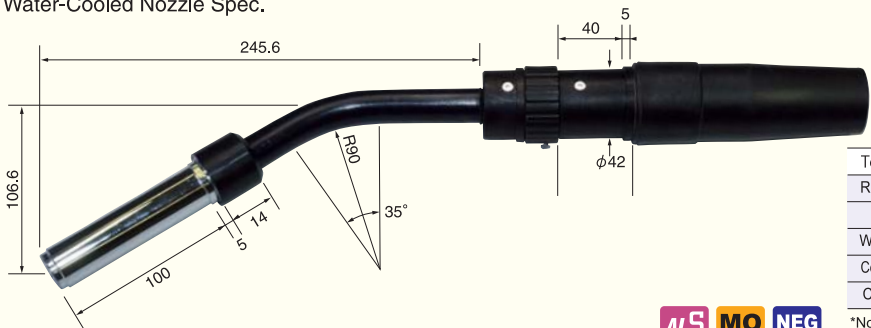
Water-Cooled torch for Aluminum Welding

WX451AWS / WX451AWR

Water-Cooled Nozzle Spec.

WX452AWS / WX452AWR

Water-Cooled Nozzle Spec.



- Features**
- Water-Cooled torch specially designed for aluminum welding
 - Durability of the contact tip is vastly improved by water cooling nozzle at nozzle end
 - Spatter accumulation is reduced by utilizing the Water-Cooled Nozzle
 - Tip body surface is finned to improve heat dissipation

Torch Model	WX451/452 AWS/R	
Rated Current	A (MIG)	350
Duty Cycle	% (MIG)	50
Wire Diameter	mm	1.2-1.6
Cooling Method	Water-Cooled	
Cable Length	m	1-5

*Nozzle diameter is 16 mm and wire diameter is 1.6 mm unless specified by customer.

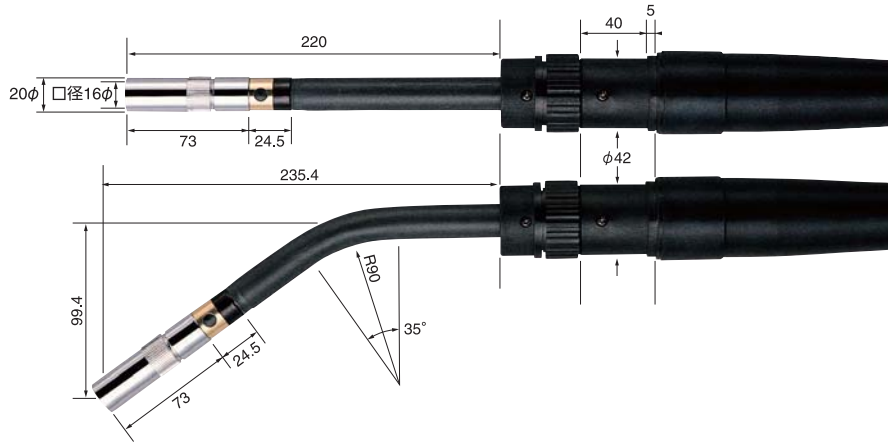
ALS MO NEG



New Concept of Robotic Welding Torches

Series

WX401S / WX401R

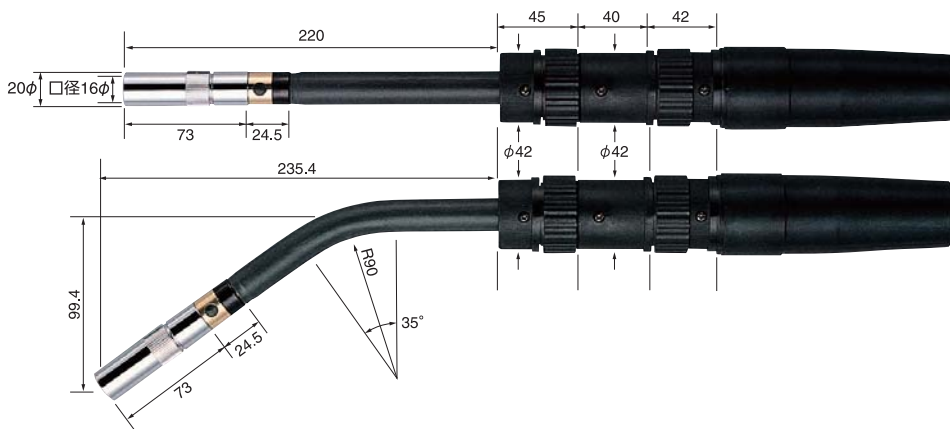


Torch Model	WX401 S/R	
Rated Current	A (CO ₂)	400
	A (MAG)	350
Duty Cycle	% (CO ₂)	100
	% (MAG)	100
Wire Diameter	mm	1.2-1.4
Cooling Method	Water-Cooled	
Cable Length	m	1-5

*Nozzle diameter is 16 mm and wire diameter is 1.6 mm unless specified by customer.



WX402S / WX402R



Torch Model	WX402 S/R	
Rated Current	A (CO ₂)	400
	A (MAG)	350
Duty Cycle	% (CO ₂)	100
	% (MAG)	100
Wire Diameter	mm	1.2-1.4
Cooling Method	Water-Cooled	
Cable Length	m	1-5

*Nozzle diameter is 16 mm and wire diameter is 1.6 mm unless specified by customer.



Water-Cooled Nozzle and Wire Clamp

WX451/452
Standard Nozzle

Upgraded



Water-Cooled Nozzle

Clamp Assy



Wire Clamp Spec.

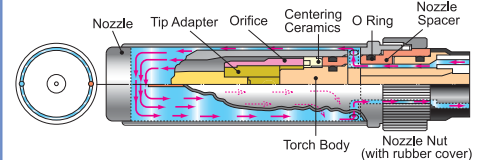


Advantage

Wire stick-out is strictly controlled during sensing so as not to change with robot movement. So sensing can function in an optimal state.

*If you need a wire clamp, please specify it when placing initial order.

Water-Cooled Nozzle



Advantage

Cooling effect is greatly enhanced by cooling water flowing through the nozzle end. Spatter accumulation is reduced at the same time.

How to replace

Just remove nozzle adapter then replace nozzle and orifice with Water-Cooled Nozzle and orifice.
*For further details please see the TK-308RW in page 11.

Optional

Carbon Water-Cooled Nozzle
(Made-to-order)



Connection to Wire Feeders

● Quick Detachable System[Standard types]

*You may have to use an adapter different than shown here depending on the wire feeder type you are using.

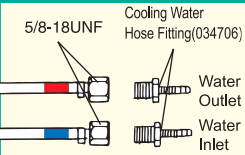
*Please consult with us if your wire feeder is not made by PANASONIC or DAIHEN.

Connection to Air-Cooled Wire Feeder

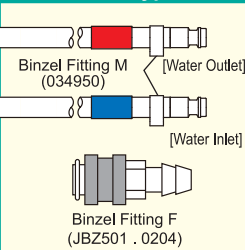
Air-Cooled P/C (K Type)

Use the following to specify the connection type for coolant water.

Hexagon Cap Nut Type



Euro Type

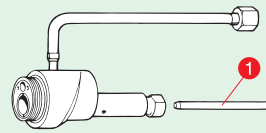


Adapter Type

For PANASONIC

034800

N Air-Cooled Adapter

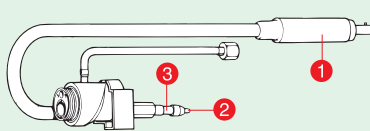


	Parts No.	Parts Name
①	020040	N/M/MC Guide Tube

For DAIHEN

034810

D Air-Cooled Adapter



	Parts No.	Parts Name
①	020050	Power Cable Adapter
②	020052	Outlet Guide
③	020053	Guide Adapter
	020041	D Guide Tube

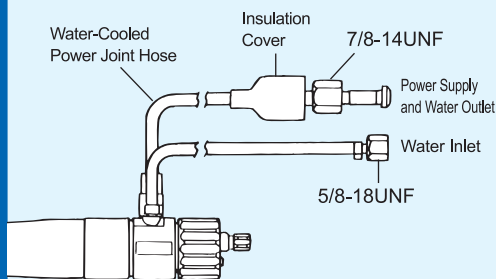
For DAIHEN(Digital)

034811

β /WX D CMRE741 Adapter

Connecting to Water-Cooled Wire Feeder

Water-Cooled P/C (J Type)



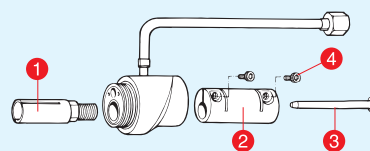
Adapter Type

Please consult us if using a wire feeder other than shown below.

For PANASONIC

034700

N Water-Cooled Adapter (Type B)



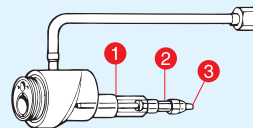
	Parts No.	Parts Name
①	034702	Joint
②	034703	Clamp Fitting
③	034705	Outlet Guide
④	034704	Hexagon Bolt

Wire Feeder Models YM-508UFHK7 YM-508UFHK6 YM-UFHU5 YM-508UFHU60
YM-505UFMSK2 YW-501FW

For DAIHEN

034710

D Water-Cooled Adapter (Type F)



	Parts No.	Parts Name
①	020041	Guide Tube
②	020053	Guide Adapter
③	020053	Outlet Guide

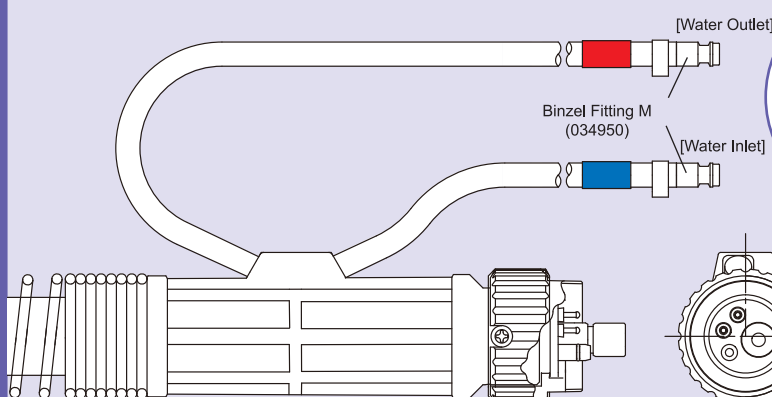
Wire Feeder Models CMW-145 CMW-231 CMWH-231 CMLW-231 CMLWH-231
CMLWH-232

For DAIHEN(Digital)

034818

β /WX D CMW741 Adapter

Euro Type



●Continue using the socket you are currently using.

Enlarged photo of cable end



Carbon Water-Cooled Nozzle can be installed (Takes about 1 month for delivery)



Wire Clamp is available (Must be specified when placing initial order)



Made-to-order



1 to 2 weeks for delivery



1 month for delivery

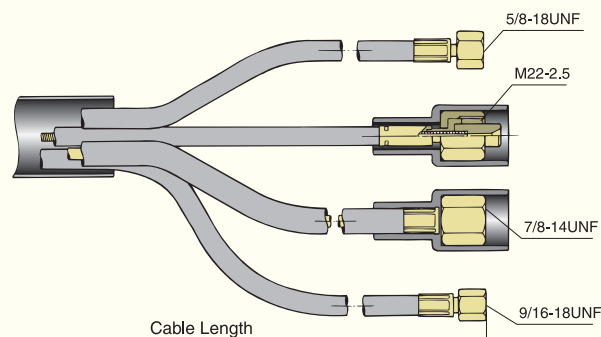


Please consult us about delivery date

Connection to Wire Feeders

■ Direct Type (optional)

Direct Type



*If using the direct type, then the following adapters are required depending on the wire feeder.

Please specify the adapter by referring to those shown below.

- Each cable is separate from the others so maintenance and repair is relatively easy.
- Helps keep costs low because individual cables can be replaced.

Note:

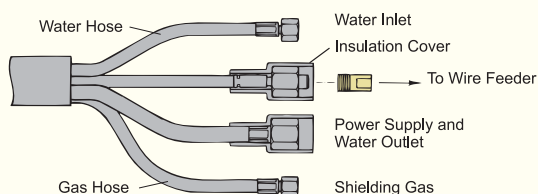
- Cables are available in lengths between 1 and 5 meters.
- Be sure the cooling water circulates while the torch is in operation. Without cooling water the torch will be damaged.
- Cooling water must be operated with the pressure between 1 kg/cm² and 3 kg/cm² and with a flow rate of more than 1 liter per minute.

***Direct type is available for all torches in the WX Series.**

Fittings to Wire Feeders (Direct Type) *Consult us if using a wire feeder other than shown below.

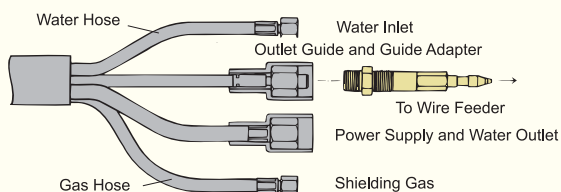
Water-Cooled Wire Feeders

- **PANASONIC** | YM-505UFMSK2 / YM-501FW
YM-508UFHK6



- ★ No adapter needed for these models | YM-505UFMS
YM-508UFHK8/YW-601FWK4

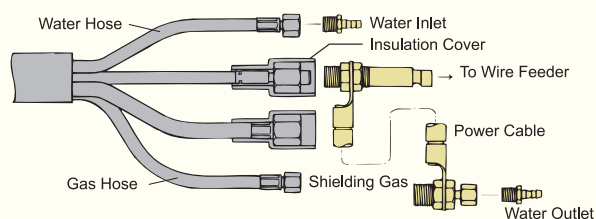
- **DAIHEN** | CMW-145/CMLW-231



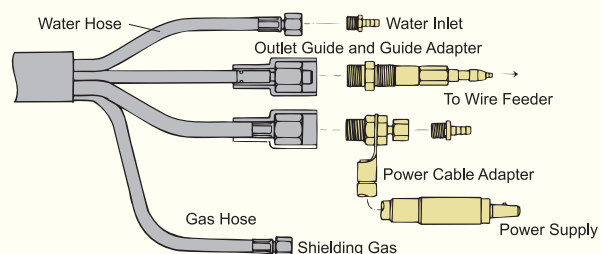
β-600W/N Water-Cooled Adapter Parts No. 060 500 for PANASONIC
β-600W/D Water-Cooled Adapter Parts No. 060 600 for DAIHEN

Air-Cooled Wire Feeders

- **PANASONIC** | YM-508UFHNK6 / YW-501F
YM-508UFHN96 / YW-501FK4
YM-505UFMNS



- **DAIHEN** | CM-145/CM-231/CM-501



β-600W/N Air-Cooled Adapter Parts No. 060 510 for PANASONIC
β-600W/D Air-Cooled Adapter Parts No. 060 610 for DAIHEN

*Same connection method is used on β-600W torches.

WX Series Torch List

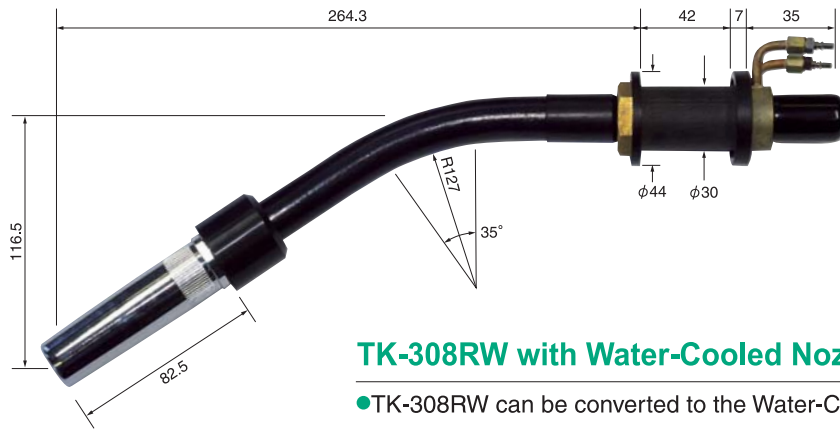
		Water-Cooled Robot Torch					
Torch Model		WX500(S/R)		WX451(S/R)		WX452(S/R)	
Torch Body Type		Curved	Straight	Curved	Straight	Curved	Straight
Rated Current (CO ₂)	A	500(CO ₂)/450(MAG)		500(CO ₂)/450(MAG)		500(CO ₂)/450(MAG)	
Duty Cycle	%	100(CO ₂)/100(MAG)		80(CO ₂)/70(MAG)		80(CO ₂)/70(MAG)	
Separation		×	×	○(2 sections)	○(2 sections)	○(3 sections)	○(3 sections)
Wire Diameter	mm	1.2/1.4/1.6		1.2/1.4/1.6		1.2/1.4/1.6	
	Standard	N Tip 1.6mm		N Tip 1.6mm		N Tip 1.6mm	
Nozzle Diameter	mm	16/19		16/19		16/19	
	Standard	Air-Cooled 16 mm		Air-Cooled 16 mm		Air-Cooled 16 mm	
Wire Clamp				○	○	○	○
Water-Cooled Nozzle				○	○	○	○
Cooling Method		Water-Cooled		Water-Cooled		Water-Cooled	
Cable Length	m	1-5		1-5		1-5	
Features		Has all capabilities of conventional torches and greatly improved operability and part replacement.		Torch Body Assy, Cable Assy, and Clamp Assy can be quickly detached and reassembled with 1 torch. (500 A/80% Duty Cycle)		Torch Body Assy, Cable Assy, and Clamp Assy can be quickly detached into 3 sections and reassembled with 1 torch. (500 A/80% Duty Cycle)	

		Water-Cooled Robot Torch				Aluminum welding Water-Cooled torch			
Torch Model		WX401(S/R)		WX402(S/R)		WX451AW(S/R)		WX452AW(S/R)	
Torch Body Type		Curved	Straight	Curved	Straight	Curved	Straight	Curved	Straight
Rated Current (CO ₂)	A	400(CO ₂)/350(MAG)		400(CO ₂)/350(MAG)		350(MIG)		350(MIG)	
Duty Cycle	%	100(CO ₂)/100(MAG)		100(CO ₂)/100(MAG)		50(MIG)		50(MIG)	
Separation		○(2 sections)	○(2 sections)	○(3 sections)	○(3 sections)	○(2 sections)	○(2 sections)	○(3 sections)	○(3 sections)
Wire Diameter	mm	1.2/1.4		1.2/1.4		1.2/1.4/1.6		1.2/1.4/1.6	
	Standard	N Tip 1.2mm		N Tip 1.2mm		N MIG Tip 1.2mm		N MIG Tip 1.2mm	
Nozzle Diameter	mm	350A 12/16/18		350A 12/16/18		Water-Cooled Nozzle 16 mm for Aluminum MIG		Water-Cooled Nozzle 16 mm for Aluminum MIG	
	Standard	Air-Cooled 16 mm (Thick Nozzle)		Air-Cooled 16 mm (Thick Nozzle)					
Wire Clamp		○	○	○	○	○	○	○	○
Water-Cooled Nozzle						Standard	Standard	Standard	Standard
Cooling Method		Water-Cooled		Water-Cooled		Water-Cooled		Water-Cooled	
Cable Length	m	1-5		1-5		1-5		1-5	
Features		Has all features of the WX400 and Torch Body Assy and Cable Assy can be quickly detached and reassembled with 1 torch.		Has all features of the WX400 and Torch Body Assy and Cable Assy can be quickly detached and reassembled with 1 torch.		Water-Cooled torch specially designed for aluminum welding. Torch Body Assy and Cable Assy can be quickly detached and reassembled with 1 torch. This comes supplied with the Water-Cooled Nozzle to improve cooling effect at nozzle end.		Has all features of the WX451AW and Torch Body Assy, Cable Assy, and Clamp Assy can be quickly detached and reassembled with 1 torch.	

*1 See "WX Series Quick Detachable System" on page 1 to find how the torch is detached and reassembled.

*2*3 Optional

TK-308RW Air-Cooled Nozzle Spec. or Water-Cooled Nozzle Spec.



TK-308RW with Water-Cooled Nozzle

- TK-308RW can be converted to the Water-Cooled torch by replacing its nozzle and orifice with the "Water-Cooled Nozzle" and "Water-Cooled Nozzle Orifice."
- Water-cooling reduces spatter accumulation at nozzle end.

Features

- Water-Cooled version of TK-308RR
- Torch can be replaced without altering the TK-308RR teaching points

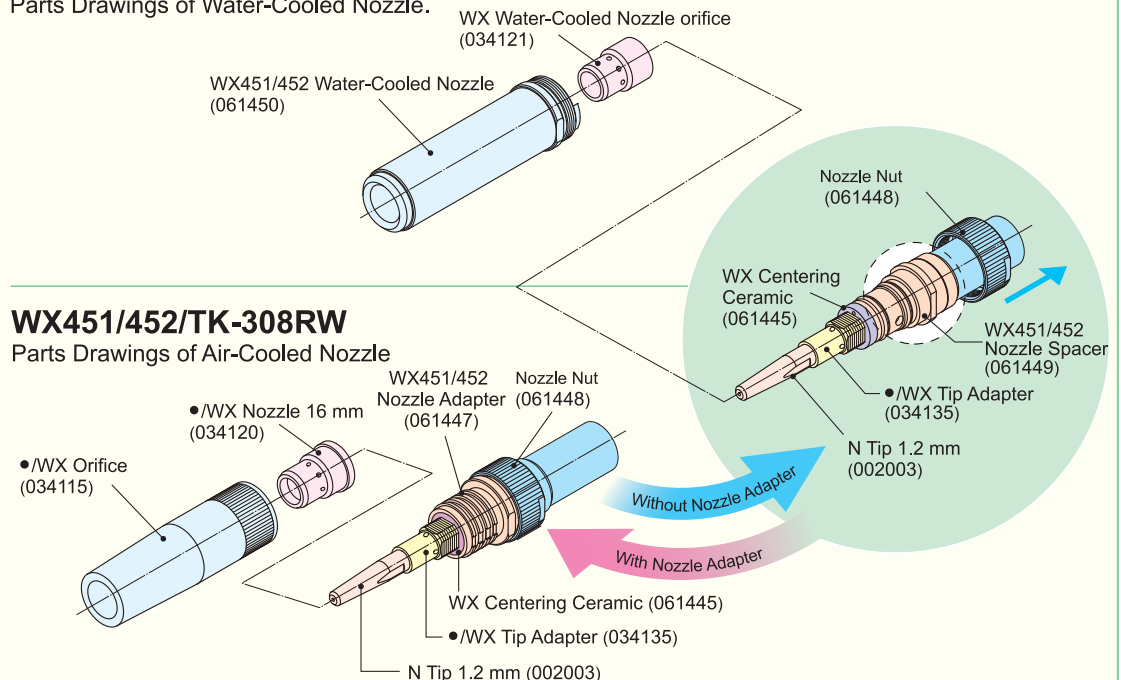
Torch Model	TK-308RW	
Rated Current	A (CO ₂)	500
	A (MAG)	450
Duty Cycle	% (CO ₂)	80
	% (MAG)	70
Wire Diameter	mm	1.2-1.6
Cooling Method	Water-Cooled	
Cable Length	m	1-5

*Nozzle diameter is 16 mm and wire diameter is 1.6 mm unless specified by customer.

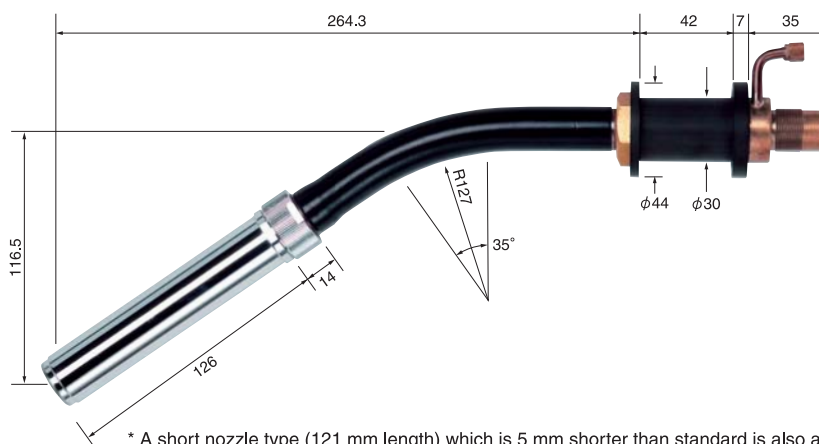


WX451/452/TK-308RW

Parts Drawings of Water-Cooled Nozzle.



TK-308ALW Aluminum MIG Welding Torch



* A short nozzle type (121 mm length) which is 5 mm shorter than standard is also available.

Features

- Water-Cooled torch specially designed for aluminum welding
- Maintenance is much easier since water inlet passages and water outlet passages are formed separately from each other
- Gas flow is strictly regulated by a long Water-Cooled Nozzle and tip body specifically designed for aluminum welding

Torch Model	TK-308ALW	
Rated Current	A (MIG)	300
	% (MIG)	50
Wire Diameter	mm	1.0-1.2
Cooling Method	Water-Cooled	
Cable Length	m	1-5

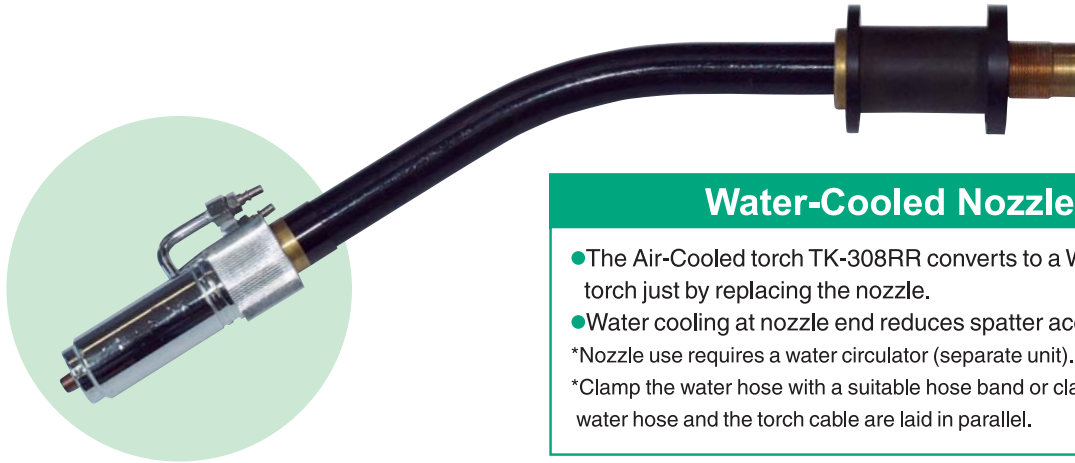
*This product is equipped with the Water-Cooled Nozzle and 1.2 mm wire unless otherwise specified by customer.



Icons in this catalogue



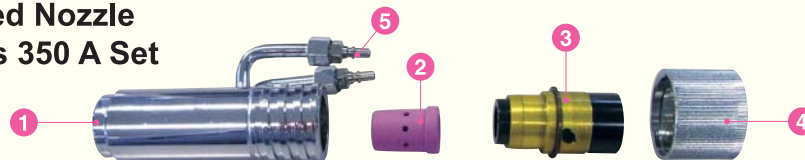
TK-308RR Water-Cooled Nozzle Spec.



Water-Cooled Nozzle

- The Air-Cooled torch TK-308RR converts to a Water-Cooled torch just by replacing the nozzle.
- Water cooling at nozzle end reduces spatter accumulation
- *Nozzle use requires a water circulator (separate unit).
- *Clamp the water hose with a suitable hose band or clamp so that the water hose and the torch cable are laid in parallel.

Water-Cooled Nozzle components 350 A Set (WN0402252)



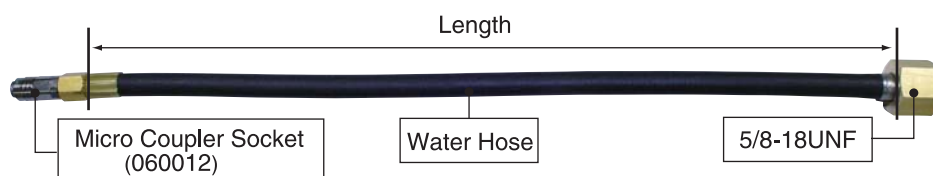
①	350A Water-Cooled Nozzle (Nut Type)	WN4022521	④	Water-Cooled Nozzle Nut	WN6203234
②	N Orifice S	003002	⑤	Micro Coupler Plug	060011
③	Water-Cooled Insulator S	DX0006052			

*Please specify the part numbers when placing orders for individual parts.

Water-Cooled Nozzle Water Hose

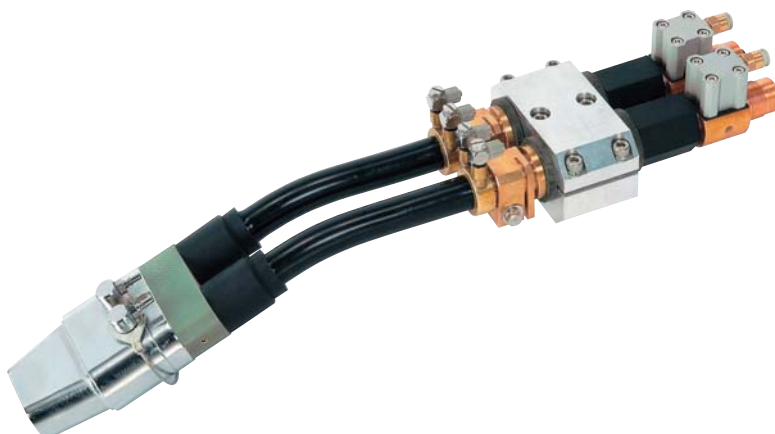
*Required when using the Water-Cooled Nozzle.

Parts No. **ATU470905** - Hose length is shown in mm. Example: 1m → **1000**



*Please specify the length when ordering the water hose.

DEW-450R Tandem Torch



Features

- Usable for high speed multilayer welding
- Excellent cooling performance by utilizing large Water-Cooled Nozzle
- Reliable cooling via independent cooling system that separately cools the torch body and nozzle
- Wire Clamp unit included as standard equipment

Torch Model	DEW-450R
Rated Current	A 450+450
Duty Cycle	% 100
Wire Diameter	mm 1.2-1.6
Cooling Method	Water-Cooled
Cable Length	m 1-5

*This product is equipped with the Water-Cooled Nozzle and 1.2 mm wire unless otherwise specified by the customer.

MO **NEG**



Carbon Water-Cooled Nozzle can be installed (Takes about 1 month for delivery)



Wire Clamp is available (Must be specified when placing initial order)



Made-to-order



1 to 2 weeks for delivery



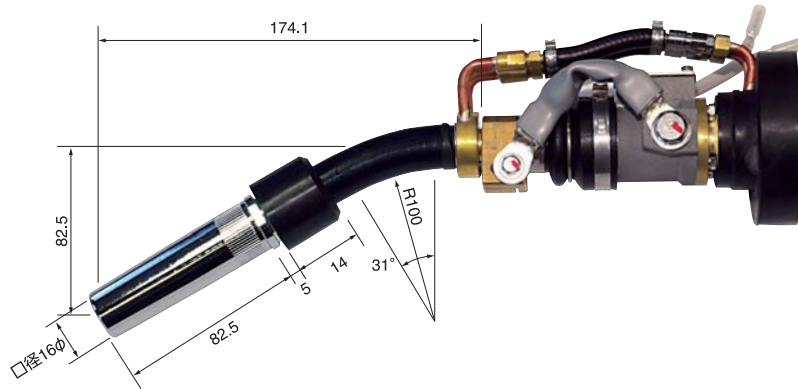
1 month for delivery



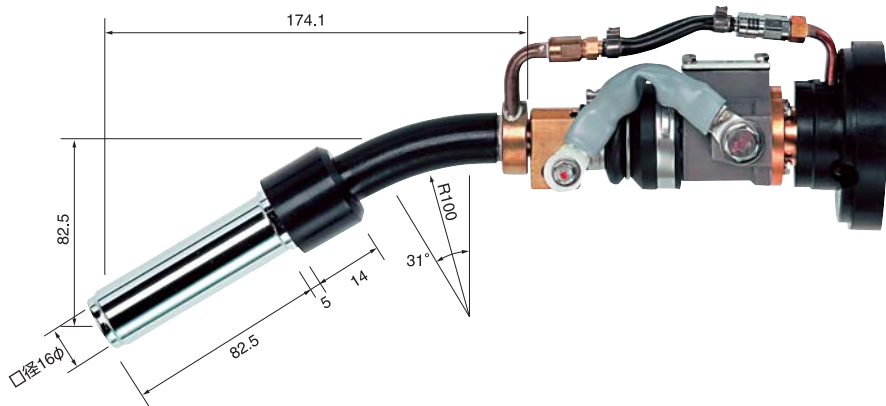
Please consult us about delivery date

For MOTOMAN-EA

YMES-500W Air-Cooled Nozzle Spec.

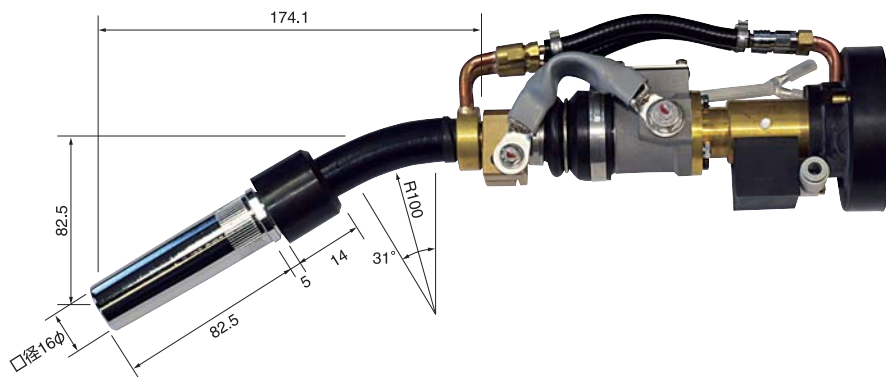


YMES-500W Water-Cooled Nozzle Spec.



YMES-500W Wire Clamp Spec.

*Wire Clamp available on all torches.



Features

- Standard Water-Cooled torch model for built-in cable type robots
- Durability of contact tip is vastly improved by water-cooling effect at nozzle end

Torch Model	YMES-500W	
Rated Current	A (CO ₂)	500
	A (MAG)	450
Duty Cycle	% (CO ₂)	80
	% (MAG)	70
Wire Diameter	mm	1.2-1.6
Cooling Method	Water-Cooled	

*Nozzle diameter is 16 mm and wire diameter is 1.6 mm unless otherwise specified by customer.



Features

- Same great YMES-500W performance plus water-cooling to reduce spatter
- Durability of contact tip is vastly improved by water-cooling effect at nozzle end.

Torch Model	YMES-500W Water-Cooled Nozzle	
Rated Current	A (CO ₂)	500
	A (MAG)	450
Duty Cycle	% (CO ₂)	100
	% (MAG)	80
Wire Diameter	mm	1.2-1.6
Cooling Method	Water-Cooled	

*Nozzle diameter is 16 mm and wire diameter is 1.6 mm unless otherwise specified by customer.



Features

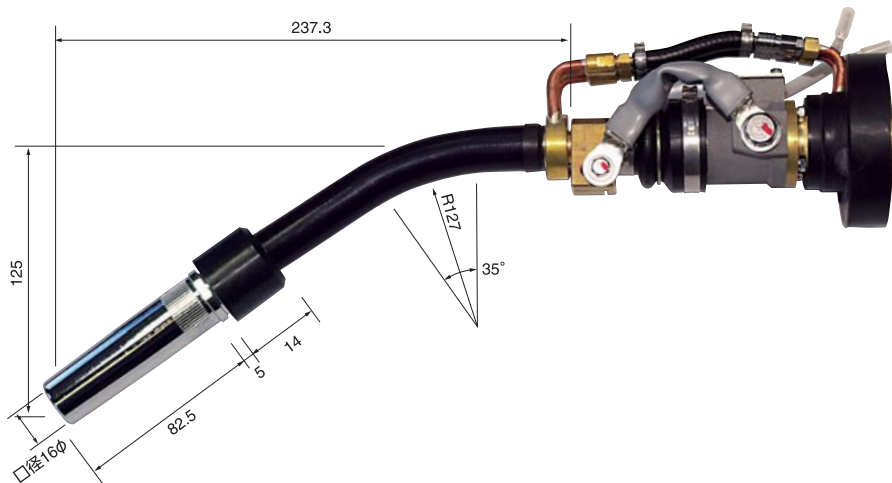
- Performance is the same as YMES-500W and the wire clamp prevents the wire stick-out length from changing with the robot movement, thus sensing can function in an optimal state.

Torch Model	YMES-500W Wire Clamp	
Rated Current	A (CO ₂)	500
	A (MAG)	450
Duty Cycle	% (CO ₂)	80
	% (MAG)	70
Wire Diameter	mm	1.2-1.6
Cooling Method	Water-Cooled	

*Nozzle diameter is 16 mm and wire diameter is 1.6 mm unless specified by customer.



YMES-508W



Features

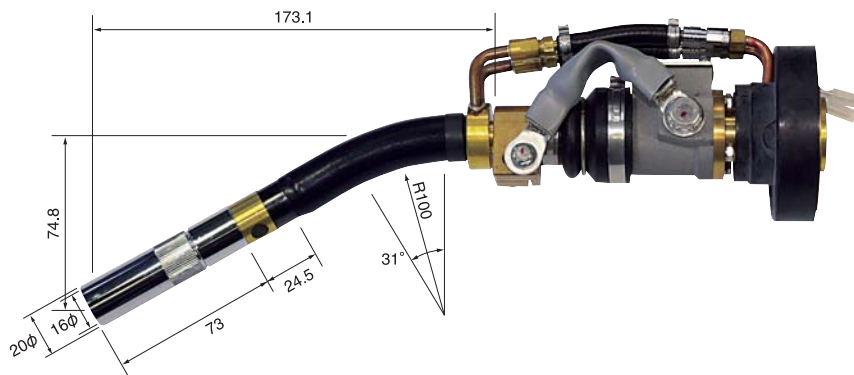
- The longer torch allows welding in hard-to-reach places. Other performance specs. are the same as YMES-500W.

Torch Model	YMES-508W with Water-Cooled Nozzle	
Rated Current	A (CO ₂)	500
	A (MAG)	450
Duty Cycle	% (CO ₂)	80
	% (MAG)	80
Wire Diameter	mm	1.2-1.6
Cooling Method	Water-Cooled	

*Nozzle diameter is 16 mm and wire diameter is 1.6 mm unless otherwise specified by customer.



YMES-400W



Features

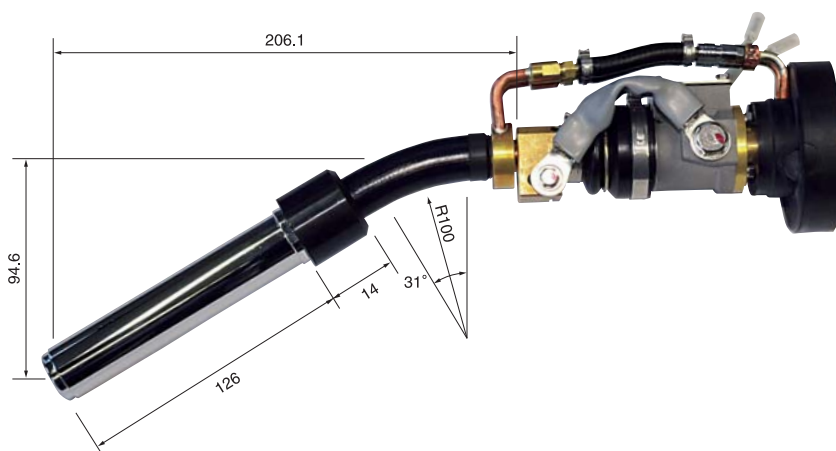
- Designed for use in the medium current range
- Uses the lightweight and compact 350A Water-Cooled Torch end and so is highly adaptable to different work and ideal for work pieces in complicated shapes.

Torch Model	YMES-400W	
Rated Current	A (CO ₂)	400
	A (MAG)	350
Duty Cycle	% (CO ₂)	70
	% (MAG)	70
Wire Diameter	mm	1.2-1.6
Cooling Method	Water-Cooled	

*The N Nozzle (Thick Nozzle) diameter is 16 mm and 1.2 mm wire unless otherwise specified by the customer.



YMES-500ALW



Features

- Water-Cooled Torch specially designed for aluminum welding
- Gas flow is strictly regulated by a long Water-Cooled Nozzle and tip body specifically designed for aluminum welding.

Torch Model	YMES-500ALW	
Rated Current	A (MIG)	300
Duty Cycle	% (MIG)	50
Wire Diameter	mm	1.0-1.2
Cooling Method	Water-Cooled	

*This product is equipped with the Water-Cooled Nozzle and 1.2mm wire (MIG tip) unless otherwise specified by customer.



Carbon Water-Cooled Nozzle can be installed (Takes about 1 month for delivery)



Wire Clamp is available (Must be specified when placing initial order)



Made-to-order Weeks 1 to 2 weeks for delivery



1 month for delivery



Please consult us about delivery date

Minimizes Blowholes

Prevents shielding gas from flowing outward from the gap between the wire and contact tip and in this way helps prevent blowholes from forming.

Effective Shielding

Shielding gas passageways have been enlarged and gas-discharging holes formed. This has the effect of making the shielding gas flow mild and uniform.

100% Duty Cycle

Excellent cooling allows automatic welding at a 100% duty cycle even under severe conditions.

Water-Cooled Nozzle

Nozzle end is directly cooled by coolant water branching out from torch body.

Original Circulation System

Efficiently cools the torch body, contact tip, and nozzle. These are the components most frequently exposed to heat, so durability is boosted to a higher level.

Lower Heat Emissions

The tip is integrated into the Water-Cooled torch body which indirectly cools contact tip and significantly extends its service life.

Supports CO₂, MAG, and MIG Welding

Great for aluminum MIG welding and handles wire diameter up to 2.0 mm

Auxiliary Power Feeding

At the back of contact tip, there is a fitting to increase the surface area contact with the wire to stabilize the positive power feeding.

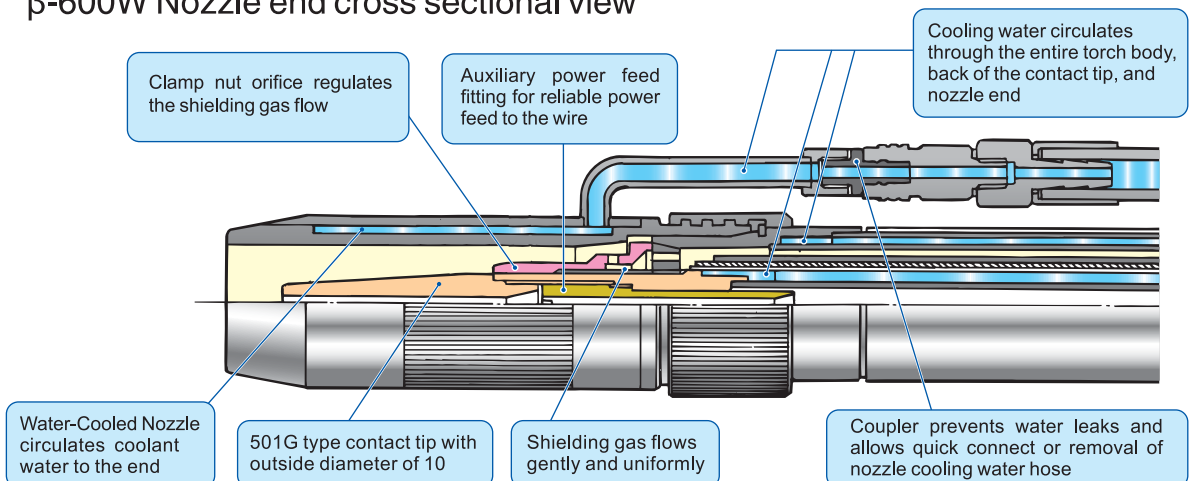


High Current and Long-Term Operation

The cross sectional area of the Water-Cooled power cable conductor was increased to 22 mm² and the coolant water hose inner diameter widened to a level allowing a flow rate of 1.8 liters per minute or more in every passage. These improvements allow long-term continuous torch use at a high current.

Powerful Original Circulation System

β-600W Nozzle end cross sectional view



Coolant Circulation Systems

Thermo-chiller equipped

WR-200TC



WR-200TC front

- Equipped with high lift pump. Approximate discharge pressure of 0.4MPa.
- Temperature setting range between 5°C~40°C (±0.1°C temperature stability)
- Operating conditions can be monitored by way of the digital indication on the control panel
- Particle filter is provided at the return outlet of the circulating fluid, thus preventing problems caused by dirty circulating fluid
- Equipped with heating function to prevent freezing
- Compact design allows installation in tight space



Particle filter



WR-200TC control panel

Model	WR-200TC
Supply voltage	AC200V(single phase)
Frequency	50/60Hz
Power consumption	1.1/1.4KVA
Discharge pressure	0.4MPa
Discharge flow rate (* 1)	2.1~2.2L/min
Cooling capacity	1700/1900W
Tank capacity	Approx. 5 L
Unit Weight (* 2)	51kg
Exterior dimensions (W×D×H)	377×500(+280)×615
Flow rate (body only)	4.1~4.2L/min
Flow rate (torch head + hose 10m)	2.1~2.2L/min

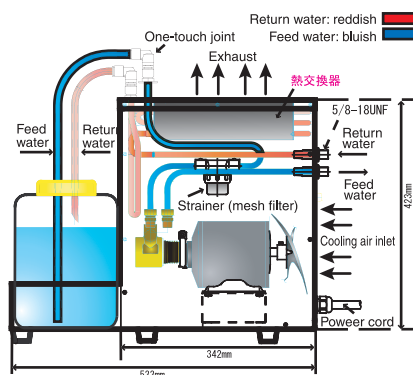
* 1: With water-cooled torch connected 60Hz
* 2: Cooling water mass not included

WR-100 (046500)



WR-100 front

- Compact body and superior cooling capacity realizing 35kcal/min of heat value
- In the circulation system, the pump and the body are insulated to eliminate any adverse influences during arc starting
- Priming water is not needed, significantly reducing the work load associated with replacing water
- Water tank is separate and independent, facilitating water replacement
- Excels in serviceability, reducing cleaning work load



Model	WR-100
Supply voltage	AC200V(single phase)
Frequency	50/60Hz
Power consumption	200/240W
Discharge pressure	0.3MPa
Discharge flow rate (* 1)	2.1~2.2L/min
Heat discharge	35kcal/min
Tank capacity	10 L
Unit Weight (* 2)	22kg

* 1: With water-cooled torch connected 60Hz
* 2: Cooling water mass not included

Simple construction facilitates the cleaning of the tank and filter





Product Catalogue



Air-Cooled
Robotic Torches



Semi-Automatic Torches



TIG Welding Torches



Replacement Parts



Robotic Peripherals



Fume Extractors



Plasma Parts,
Laser Parts & Optics

▼ Please contact us by FAX or E-mail for catalogues that interest you.
You can also download them from our website.

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The parts color shown here is a printed image and the actual color might vary somewhat.



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