

# Robot Peripherals

**TOKINARC®**  
TOKIN CORPORATION

- Nozzle Cleaning Stations
- Wire Cutters
- Nozzle Cleaners
- Wire Changing Welding Systems
- APC
- Tungsten Changers
- Cooling Water Circulation Systems
- Coaxial Cables
- Easyglides
- Microglides
- Flexible Conduits
- Peripherals



**[www.tokinarc.co.jp](http://www.tokinarc.co.jp)**

**TOKIN CORPORATION**



Robotic welding made more efficient

### One station

Consists of

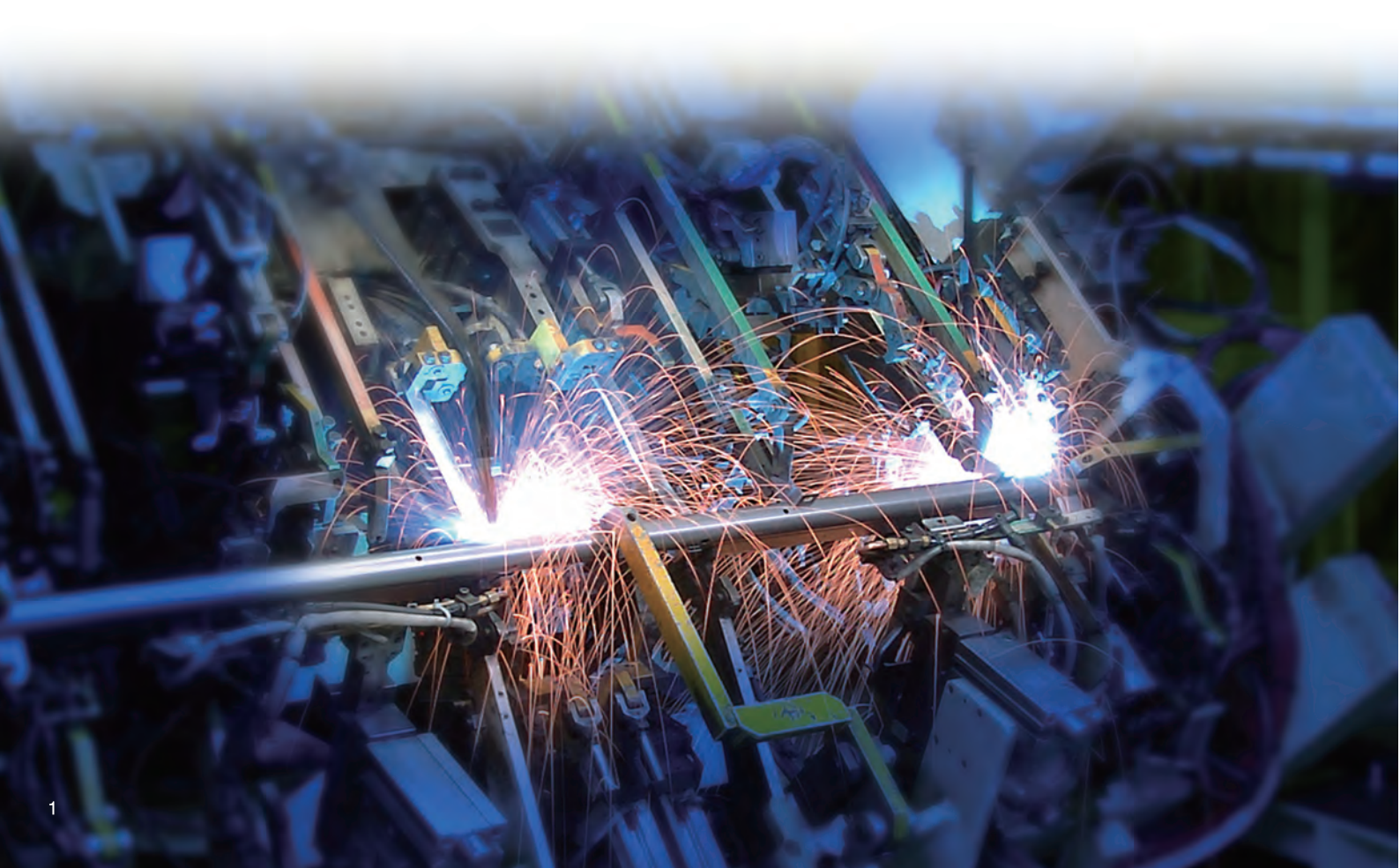
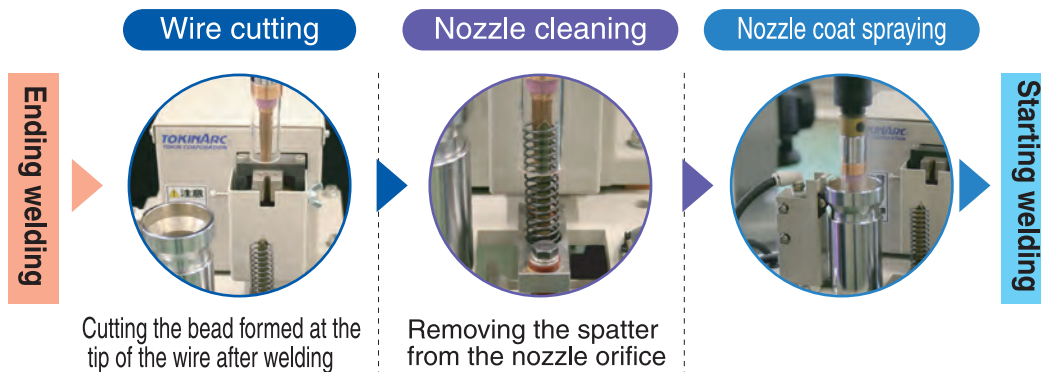
**Wire cutter**

**Nozzle Cleaner**

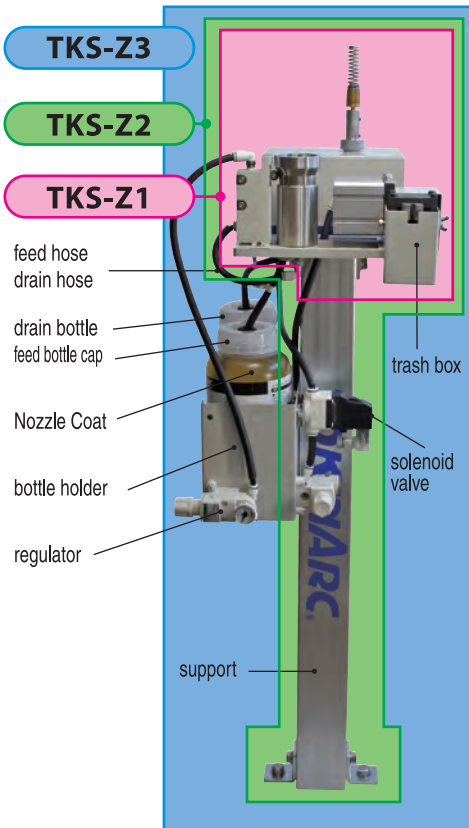
**Anti-spatter solution sprayer  
Station**

The space-saving configuration cleans nozzles efficiently. The stations are available in two series, "F Series", and "Z Series", so that they can be selected to suit your spatter conditions.

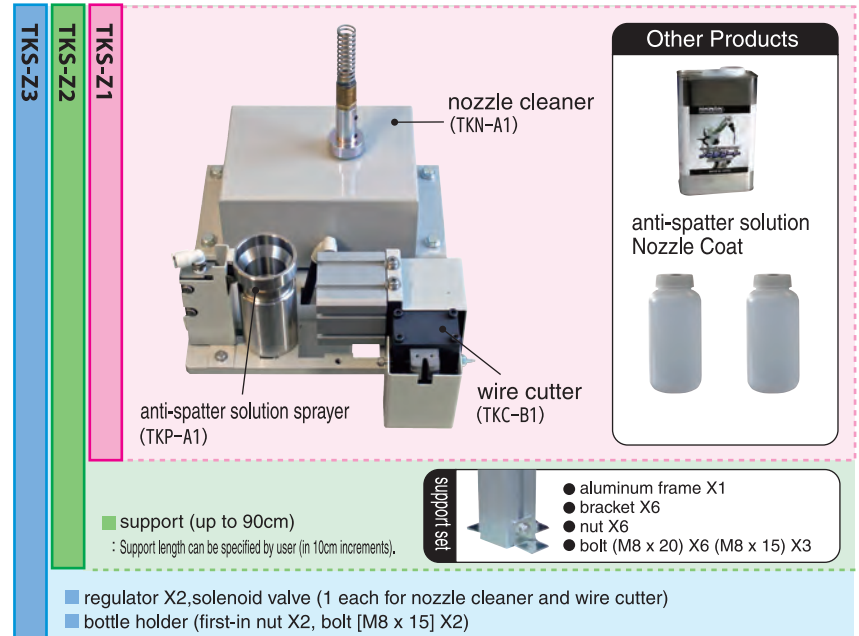
### ▼ Nozzle cleaning station action example



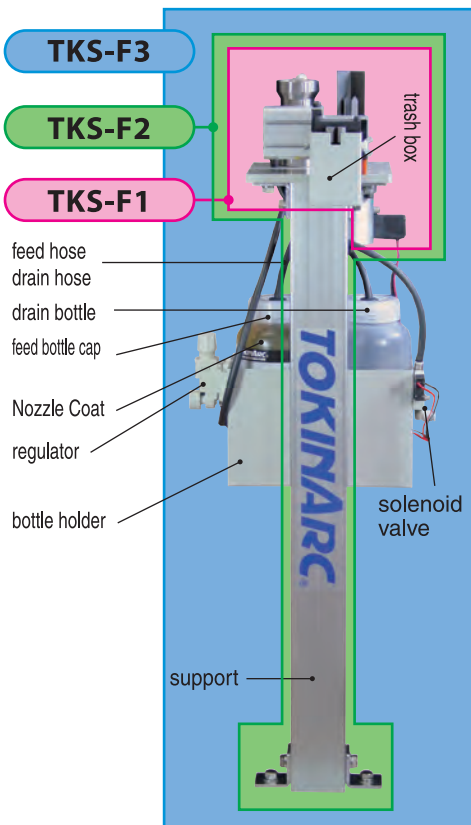
## TKS-Z Series (0462Z \*) (\* Fits type numbers 1 - 3)



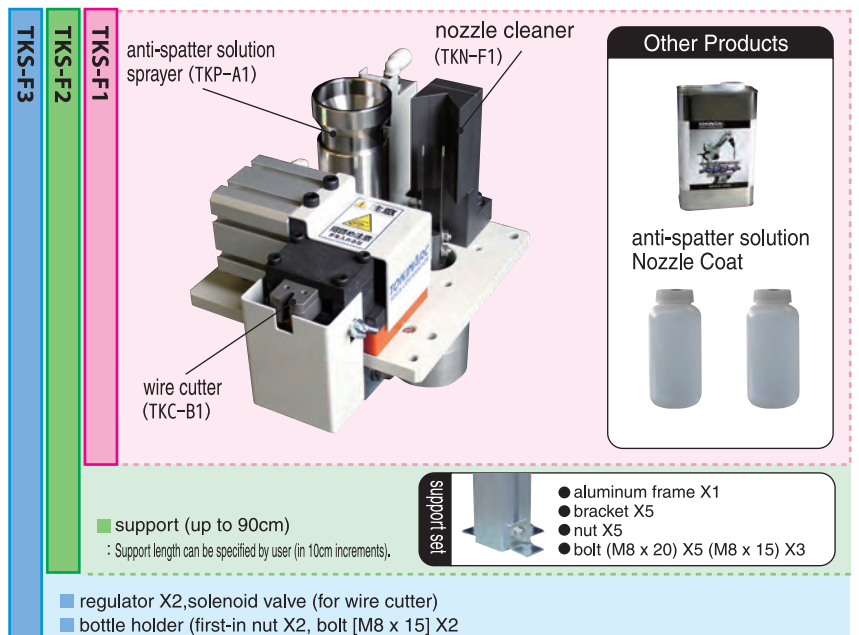
It consists of a nozzle cleaner (TKN-A1), in which the signals from the robot turn the solenoid valve ON/OFF, allowing the pneumatic force to turn the spring, thus removing the spatter; a compact wire cutter (TKC-B1), and an anti-spatter solution sprayer (TKP-A1). It is the standard type nozzle cleaning station that accommodates a wide range of conditions.



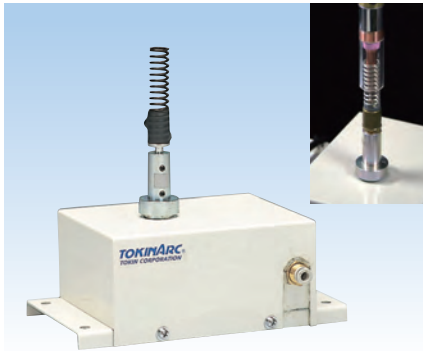
## TKS-F Series (0462F \*) (\* Fits type numbers 1 - 3)



The spatter that is stuck onto the nozzle orifice can be forcefully removed by using a reamer type nozzle cleaner (TKN-F1). Moreover, it combines a compact wire cutter (TKCB1), allowing it to be installed in the smallest space possible among all the series. Select this type for highamperage region and high use frequency applications where a large amount of spatter is produced.

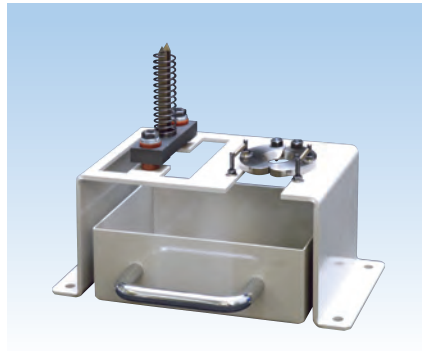




**TKN-A1 (046200)**


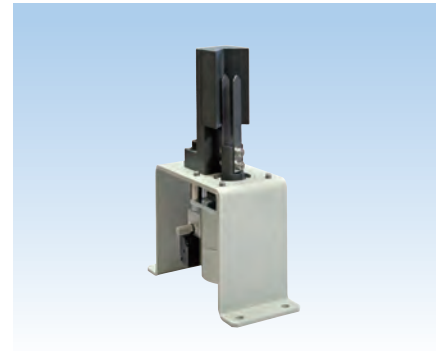
- Pneumatic force turns the spring, allowing easy installation and safe operation.
- It stops turning if excessive force is applied to the head during nozzle cleaning. Thus, it minimizes damage to the nozzle.
- Numerous types of heads are available to accommodate nozzles.
- A "regulator and solenoid valve set" type is also available.
- A nozzle cleaner cover (spatter receptacle) is available as an option.

Type	TKN-A1
Air pressure	0.2~0.5Mpa
Air consumption	60L/min
Air connection	6ø one-touch joint
Outer dimensions (WxDxH)	200×110×190
Weight	1.5kg

**TKN-B1 (046230)**


- The spatter that is stuck onto the nozzle can be removed through the use of two different types of cleaners: a ring cleaner that removes ring-shaped spatter from the nozzle tip, and a spring cleaner that removes spatter from inside the nozzle. Because it can clean nozzles without damaging them unnecessarily, use it on carbon nozzles or in applications that produce relatively a small amount of spatter.
- This unit, which does not require electrical power or pneumatic source, can be used by merely teaching it.

\*The standard type is for use with ø16 nozzle diameter. To use with a nozzle orifice other than ø16, please specify it at the time of purchase.  
 (Options: various types of cleaner heads for ø12, ø13, ø18, ø19)

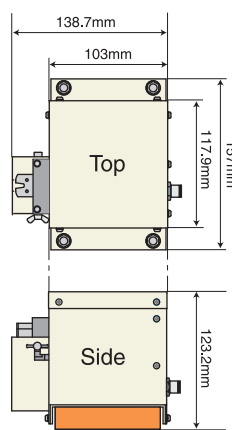
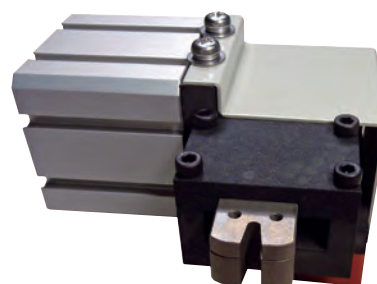
**TKN-F1 (046225)**


- The reamer rotates inside the nozzle to forcefully remove spatter from the nozzle orifice.
- The reamer rotates forward or backward when the electric signal is turned ON or OFF.
- It uses compressed air to remove spatter, which facilitates installation.
- A regulator is optional equipment.

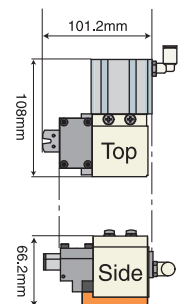
Type	TKN-F1
Air pressure	0.2~0.7Mpa
Air connection	6ø one-touch joint
Outer dimensions (WxDxH)	150×60×195
Weight	1.6kg

**TKC-A2 (046250)**


TKC-A2  
(external dimension diagram)


**TKC-B1 (046256)**


TKC-B1  
(external dimension diagram)



- A favorable arc start can be obtained by cutting off the bead that forms at the tip of the wire.
- A type that uses leverage to push and cut the wire, it cuts wire after the air pipe is connected.
- The cutter blade is made of highly durable material, which makes over 40,000 cuts per side.  
 (Either the front or back of the cutter blade can be used.)

\* The number of cuts is based on our test data obtained under certain conditions.  
 As such, it is not a guarantee, because the number of cuts can vary with the environment where the unit is used.  
 \* TKC-B1 is a compact version of TKC-A2, which can be used in a smaller space.  
 \* TKC-B1 is not equipped with a trash box to receive the ends of wire that have been cut off.  
 \* A solenoid valve is optional equipment.

Type	TKC-A2/TKC-B1
Air pressure	0.3~0.8Mpa
Air connection	ø6 one-touch joint
Weight	2.6kg
Cuttable wire	solid wire ø1.6 max. flux wire ø3.2 max.



## TKP-A1 (046260)



- This unit, which atomizes and sprays anti-spatter solution, can spray the solution evenly and thinly into the nozzle orifice. The sprayed Nozzle Coat, which dries quickly due to the heat created at the nozzle after welding, forms an anti-spatter film.
- Because this unit sprays the proper amount of anti-spatter solution, it prevents waste (approximately 3,000 sprays are possible per Nozzle Coat \*1).
- Recommended setting [air pressure 0.2 MPa, 0.5 second spray]
- Accommodates nozzles within an external diameter range of  $\phi 16$  to  $\phi 26$ .

\*1: The recommended setting is based on our test data obtained under certain conditions. As such, it is not a guarantee, because the number of sprays can vary with the environment where the unit is used.

\* To use the unit, you will need the dedicated anti-spatter solution "Nozzle Coat". (One can is included for initial use.)

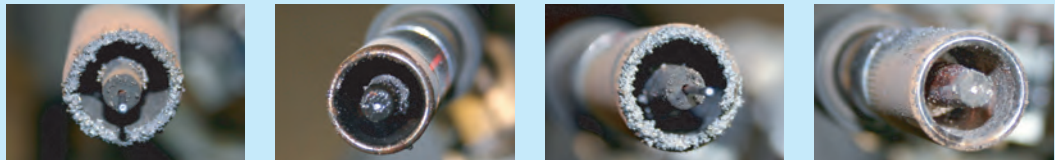
\* The regulator and the bottle holder are optional equipment.

Air pressure	0.2~0.4Mpa
Air flow rate	27~46Nℓ/min
Air connection diameter	$\phi 6$ one-touch joint
Weight	1.4kg

## Anti-Spatter Solution Nozzle Coat (046110)

After it dries, it forms anti-spatter film to minimize the amount of spatter that sticks onto the nozzle. The spatter that is stuck onto the nozzle can be removed easily with a small amount of force.

### Nozzle Coat spray



After welding (10 minutes elapsed) ⇒ Cleaning performed ⇒ After welding (20 minutes elapsed) ⇒ Cleaning performed

### No Nozzle Coat spray



\* One cycle consists of 10 minutes of continuous welding, followed by one cleaning process. Two cycles of this are performed. The amount of spatter adhesion is checked, depending on whether the nozzle has been sprayed with Nozzle Coat or not.

## NOZZLE COAT



Nozzle Coat  
2 ℓ can

Nozzle Coat spray  
220ml

Nozzle Coat  
18 ℓ can

## CLEAN ARC



(046100)

- When Nozzle Coat is sprayed by the sprayer, the post-welding heat of the nozzle dries it quickly and forms anti-spatter film on the nozzle surface. This film allows the spatter to be removed with a weak force from the nozzle.

Nozzle Coat 18 ℓ can  
Nozzle Coat 2 ℓ can  
Nozzle Coat spray 220ml

- This is an immersion type anti-spatter agent for semi-automatic use.
- It suppresses spatter adhesion and improves the use life of nozzles and tips.

Automatic changes between wire and gas can be accomplished by placing two feeders equipped with a switching unit onto one Yaskawa Electric robot and one digital welder. Through the use of a motor equipped with an encoder, the setting of the amount of wire retraction or feeding is made possible. Setting the amount of retraction and feeding to the same values will result in a constant length of wire protrusion, allowing you to immediately start welding.

Installation example: Yaskawa Electric  
EA1400N



**Features** ● **High-speed automatic wire changes**

High-speed automatic changes between equal-diameter and unequal-diameter wires (\*1) are made possible. At the same time, two types of shielding gases can be changed.

● **Space-savings around the arm**

A space-saving configuration has been accomplished through the use of a newly developed special cable and a dedicated torch.

● **A single digital welder supports various types of welding**

It can change between short-circuiting and pulse welding of course; it also supports aluminum and SUS welding. Signals from the robot controller enable changes in wires and welding conditions.

(\*1: APC is required for unequal-diameter wire changes.)

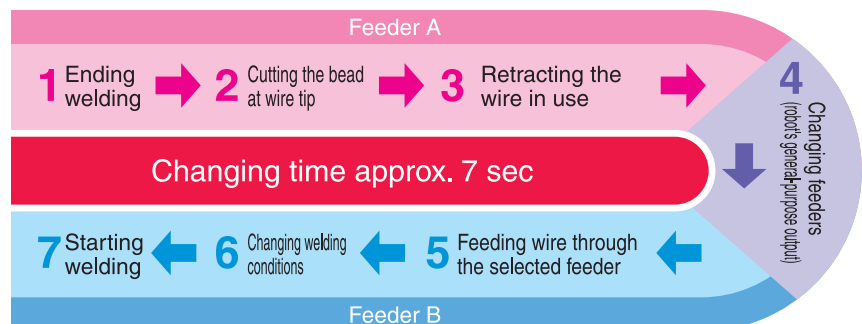
## Equal-Diameter Wire Changes



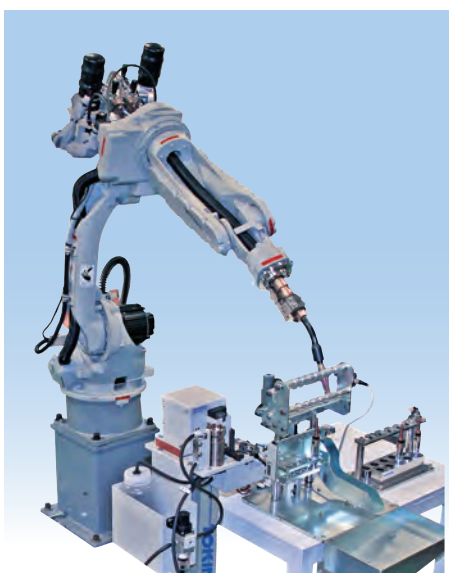
Installation example:  
Yaskawa Electric HP6

### Image of wire changing type welding system operation

▼ For changing equal-diameter wires from Feeder A in use, to Feeder B



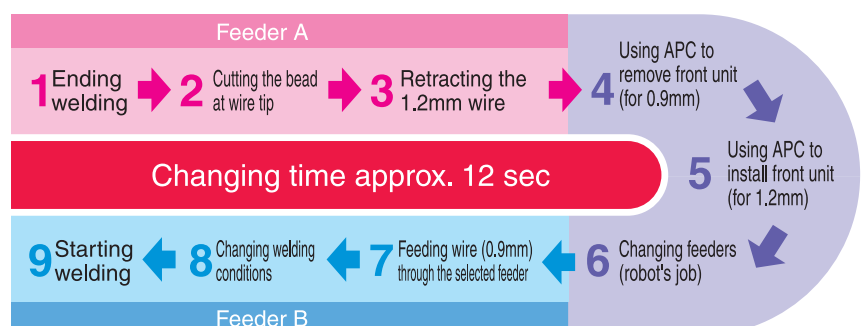
## Changing Unequal-Diameter Wires (APC required)



Using the unit in combination with an APC (Auto Parts Changer) will enable it to change unequal-diameter wires. This will greatly expand the combinations of wires that can be used.

### Image of wire changing type welding system operation

(Example: Changing unequal-diameter wires - SUS1.2mm→0.9mm)





## Realizing high rigidity and high precision

### A high grade Collision sensor optimal for tough use environments

## Features

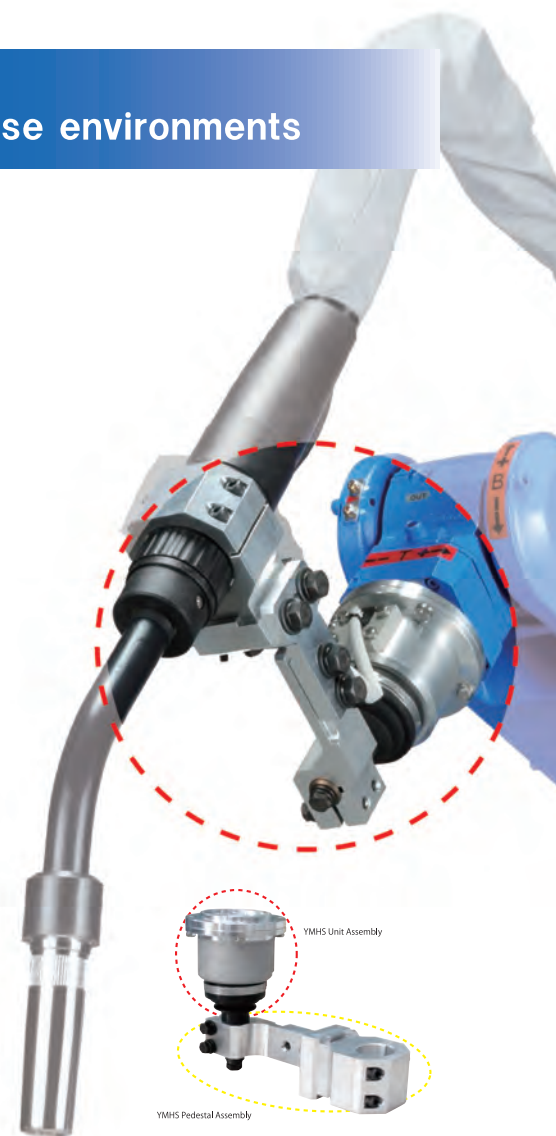
- ① Dampens shocks from all directions.
- ② Despite its high rigidity, it is designed for optimal lost motion to alleviate torch deformation on impact and minimize damage to the robot.
- ③ Impact detection of interference objects is set to an optimal sensitivity level in order to protect the robot; as such, it does not impede the robot's normal movements such as high-speed air cuts.
- ④ Due to its highly rigid and high precision nature, it offers high duplicability, which shortens the recovery time following an impact.
- ⑤ Because the torch clamp portion has been changed, it can use torches of varying diameters, such as for air-cooled or water-cooled applications.(\*1)
- ⑥ By replacing the flange portion, it can be used regardless of the type of robot (\*2)

\*1 For use with a Tokin torch. (Contact us before using a torch made by another manufacturer.)

\*2 The standard specs are for the HP/MH series robots made by Yaskawa Electric.

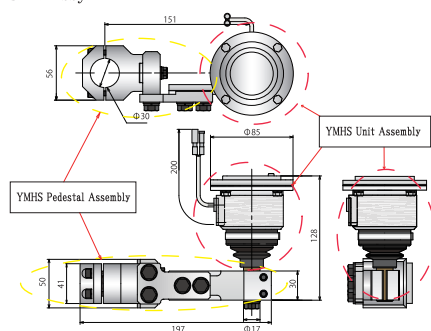
To use it on a robot made by other manufacturers, contact us beforehand.

(At times, it might not be possible to mount it on a robot made by other manufacturers.)



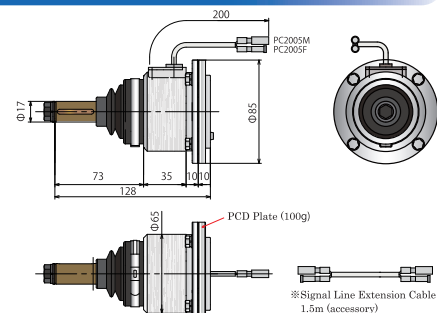
(YMHS Unit Assembly + YMHS Pedestal Assembly)

Please use assembled YMHS Unit Assy  
and YMHS Pedestal Assy



YMHS Unit Assembly      YMHS00001      900g

The standard specs are for the HP/MH Robot series robots made by Yaskawa Electric.

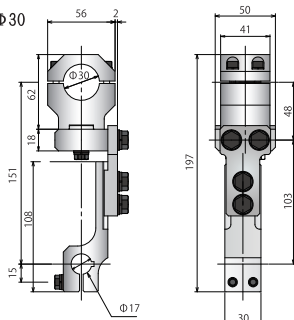


Other Robots can be used with an applicable PCD plate.  
(ask us for more information in case of using other Robots.)

YMHS Pedestal Assembly YMHS00005 620g

YMHS Pedestal Assembly for MH6 •  $\Phi 30$ 

For mounting Tokin308  
(TK-308) Torch series.  
Torch of the pedestal  
Φ30 can be mounted.



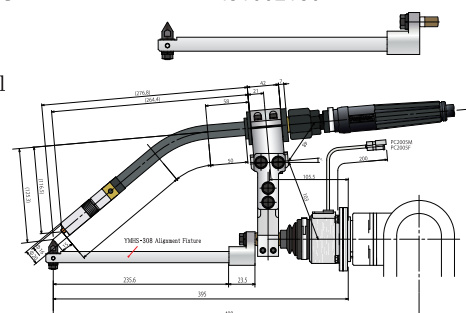
Applicable Torch

- ACC-308RR
- TK-308RR
- TK-308RS
- SRCT-308R
- ACC-308RX
- TK-308RX
- TK-508RR
- TK-508RX
- TK-308RW
- TK-308ALW

## Option

YMHS-308 Alignment Fixture YJ1002180

Gauge dedicated to adjust the Tool Center Point when replacing the Torch.



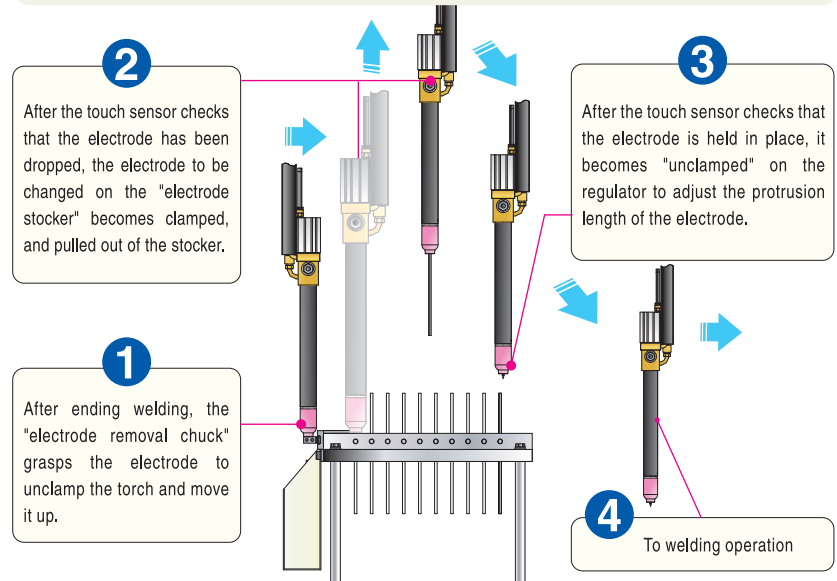
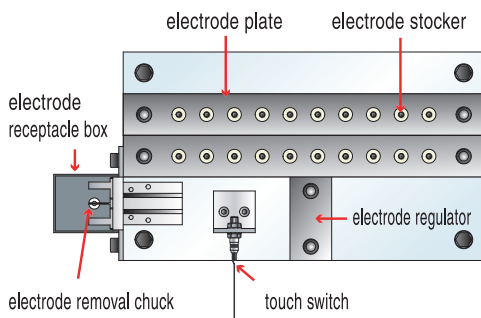
## Automatic Changing of Tungsten Electrodes on the Robot Made Possible

Using in combination with the Tokin TIG torch with a builtin air cylinder (which clamps and unclamps the electrode by actuating the air cylinder located behind the torch body), it can automatically change tungsten electrodes.



\* The legs are not supplied.

- Features**
- Simple configuration consisting of a tungsten electrode stand, chuck, and sensor
  - Shortens the time for changing tungsten electrodes, thus saving manpower
  - Enables the protrusion length to be kept constant when changing tungsten electrodes



### Usable TIG Torches

- Features**
- With a built-in air cylinder, it shortens the operation for changing tungsten electrodes.
  - The gas lens type is standard equipment, producing a positive shielding effect.

#### TA-200CDA



Type	200CDA
Amperage rating	A 200
Operating ratio	% 60
Tungsten diameter	mm 1.6, 2.4, 3.2
Cable length	m 6, 8
Cooling system	air-cooled
Cylinder	double-acting

The standard product has gas lens, nozzle No. 6, and e2.4 type electrode.

#### TA-500CDW



Type	500CDW
Amperage rating	A 500
Operating ratio	% 100
Tungsten diameter	mm 3.2, 4.0
Cable length	m 6, 8
Cooling system	water-cooled
Cylinder	double-acting

The standard product has gas lens, nozzle No. 10, and e4.0 type electrode.

#### TA-301CDW

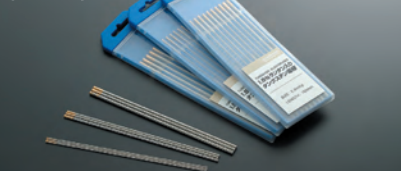


Type	301CDW
Amperage rating	A 300
Operating ratio	% 100
Tungsten diameter	mm 2.4, 3.2
Cable length	m 6, 8
Cooling system	water-cooled
Cylinder	double-acting

The standard product has gas lens, nozzle No. 6, and e3.2 type electrode.

### Various Types of Tungsten Electrodes

#### Tungsten with 1.5% lanthanum (WL15)



Nonferrous metals other than aluminum, iron

#### Tungsten with 2% cerium (WC20)



Nonferrous metals, iron

#### Pure tungsten (wf)

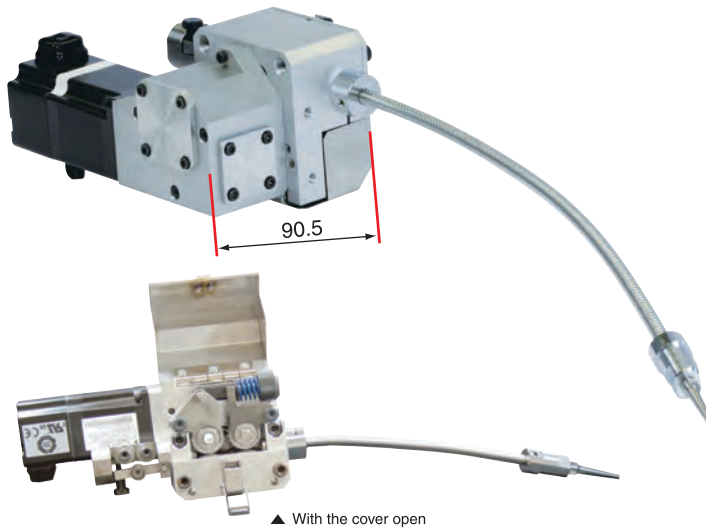


For aluminum only



## Filler Wire Feeder

Usable in plasma welding, laser welding, etc.  
Filler wire feeder with a compact, 100W servo motor.



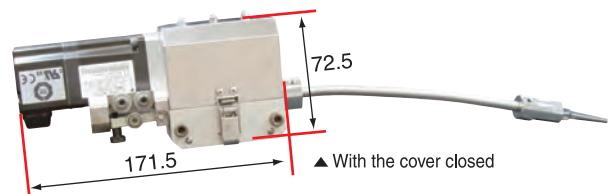
Product name	filler wire feeder
Battery voltage	single-phase AC 200V
Rated output	100W
Reducer reduction	1/12.5
Wire feed speed	Max. 15m/min (motor 3,000 rpm)
Feed system	4-wheel drive
Wire type	aluminum, brazing, mild steel
Applicable wire diameter	φ 0.8・φ 0.9・φ 1.0・φ 1.2・(φ 1.6) *1
Weight	approx. 1.4kg

\* Please contact us before using φ1.6 wire on the product.

\* The standard wire guide length is 300mm.

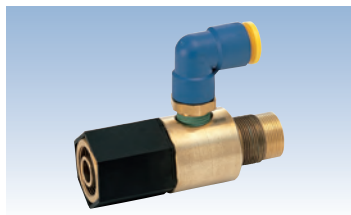
\* Before using the product, secure the tip of the wire guide to attain an optimal insertion position of the wire guide.

\* With regard to the specs, preliminary discussions are required. Please contact us.



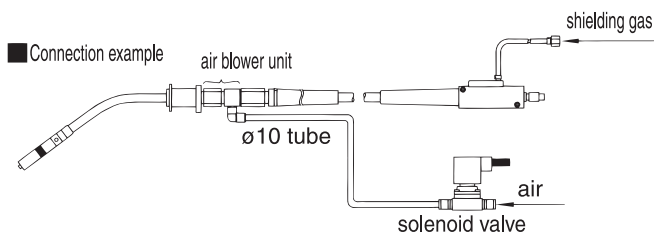
## Air Blower Unit (016700)

- Uses pneumatic force to remove spatter.
- The air flow cools the tip and nozzle, thus extending their use life.
- It can be installed easily on existing torches.

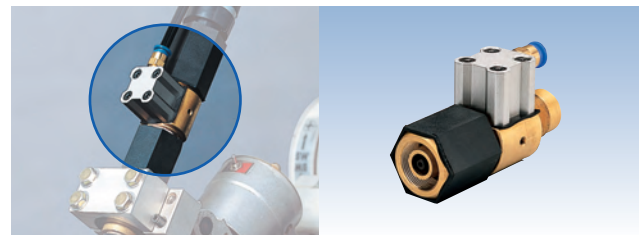


TK-308RR/ACC-308RR/ACC-352/RT352/RR308Y/  
DT-RA/MAN-308RR/YT-352CAT

- Its effects can be further improved by combining it with a carbon nozzle.
- An inner tube is supplied as standard equipment.



## Wire Clamp Unit (017100)



- Sensing capability in an optimal state
  - Placed between the torch body and the power cable, this unit securely clamps the wire.
  - The clamping force on the wire can be changed by changing the air supply pressure.
  - supply pressure.
- It can be installed easily on existing torches.

TK-308RR/ACC-308RR/  
ACC-352/RT352/RR308Y/  
DT-RA/MAN-308RR/  
YT-352CAT

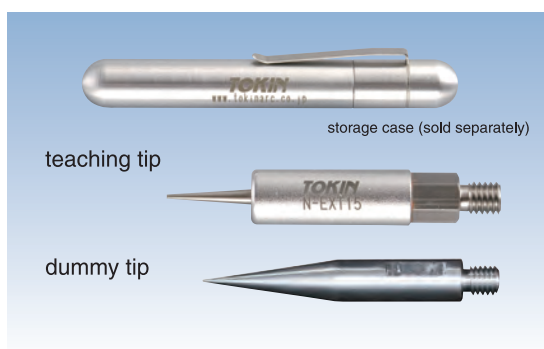
Product name	wire clamp unit
Drive system	air (3~6) kgf/cm <sup>2</sup>
Applicable wire diameter (mm)	1.2, 1.4, 1.6
Air connection diameter	ø6 one-touch joint

Air Supply Pressure and Corresponding Pulling Force (pulling force unit: kg/f)

air supply pressure (MPa)	0.3	0.4	0.5	0.6
pressure wire diameter (mm)				
1.2	0.8	1.3	1.7	2.0
1.4	0.8	1.3	1.7	2.1
1.6	1.2	2.3	3.0	3.1

For air supply pressure, use the table on the left for reference.

## Teaching Tip/Dummy Tip



### Teaching Tip

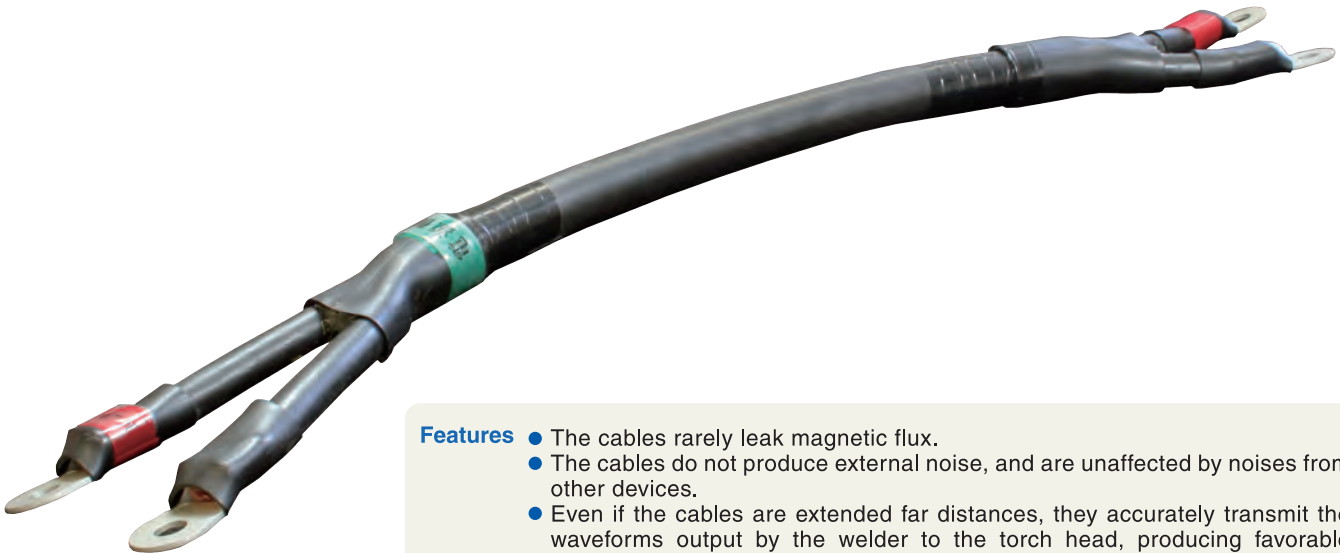
It has a movable tip that is used for test runs during teaching.

To accommodate different wire protrusion lengths, the tips are available in sizes shown in the table above.

### Dummy Tip

It is a long stainless steel tip that accommodates the length of the wire extension used for tool calibration.

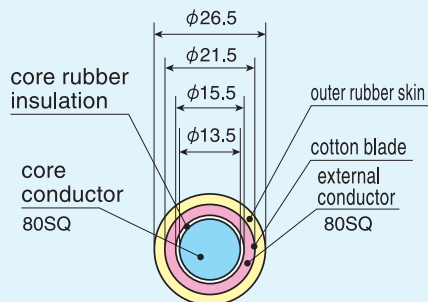
Size	Teaching Tip	Dummy Tip
N-EXT10	DTT000N10	—
N-EXT12	DTT000N12	DT0000N12
N-EXT15	DTT000N15	DT0000N15
N-EXT20	—	DT0000N20
N-EXT25	—	DT0000N25
D-EXT10	DTT000D10	—
D-EXT12	DTT000D12	DT0000D12
D-EXT15	DTT000D15	DT0000D15
D-EXT20	—	DT0000D20
D-EXT25	—	DT0000D25



- Features**
- The cables rarely leak magnetic flux.
  - The cables do not produce external noise, and are unaffected by noises from other devices.
  - Even if the cables are extended far distances, they accurately transmit the waveforms output by the welder to the torch head, producing favorable welds.
  - Because the effects of noise to other devices are kept to a minimum level, a signal line and a gas hose can be installed in parallel. Also, the coaxial cable configuration, results in saving wires.
  - The cables can bring the welder's performance into full play during pulse welding.

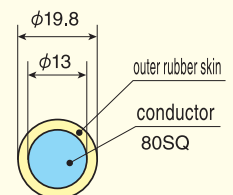
#### Coaxial Cable Features

Compared to a cabtyre cable, the coaxial cable handles higher pulse waveforms (about 300A during a test), allowing the waveforms output by the welder to be transmitted accurately to the torch head.



#### Cabtyre Cable Features

The waveforms output by the welder are repeated within a small range of about 100A. Also, the output waveforms turn into dull, crest shapes.

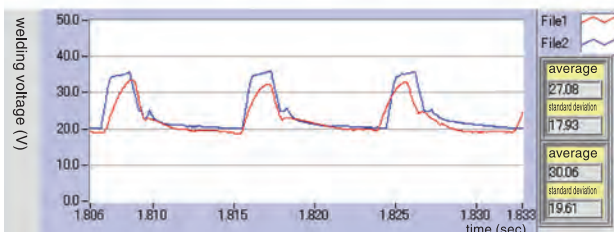
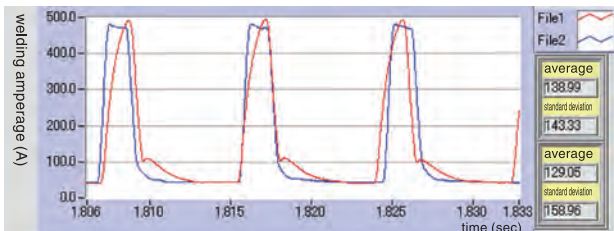


## Test Results

### ▼ Pulse Welding Waveforms (Amperage Waveforms, Voltage Waveforms) Comparison

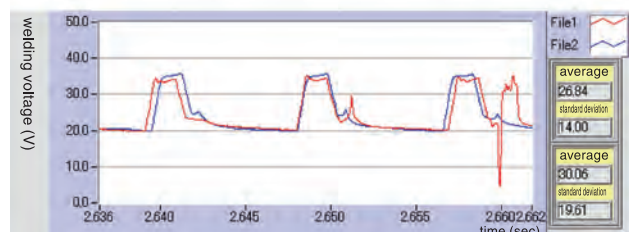
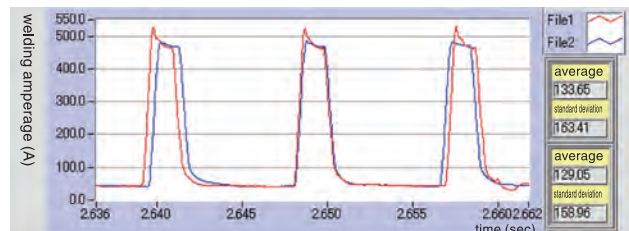
— single cable — coaxial cable

[Single Cable (100m) and Coaxial Cable (100m) Comparison]



While the single power cable exhibits duller pulse waveforms, the coaxial power cable maintains the rectangular shape.

[Single Cable (5m each way) and Coaxial Cable (50m each way)]



The pulse waveforms of 50m each way of a coaxial power cable have practically the same shape as those of 5m each way of a single power cable.



## Easy Glide

Here is a next-generation flexible conduit with feeding resistance reduced by using rollers in the wire feeding path inside the cable. The pieces can be separated or added on a block-by-block basis, allowing the length to be adjusted at will. \*1

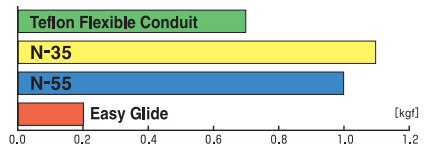
\*1: Adjustable in 1 block (37mm) increments.

### ① Outstanding Feeding Performance

Feeding is made possible in sharp curves of up to 200mm in diameter.



Flexible Conduit Feeding Performance Comparison  
Achieving one-fifth the resistance of conventional flexible conduits



### ③ Cables Can Be Used in Cable Veyor



### ② Adjustable Length



The pieces can be separated or added on a block-by-block basis. By adding blocks, the conduit can be installed to suit the location of use.



Up to 30m in length

A special construction is used to minimize the accumulation of wire debris.

It is possible to replace only a damaged area, and this reduces the overall running cost.

The pieces can be joined to adjust the length at will.

The roller force minimizes resistance during feeding.

- Achieving outstanding feeding performance, with minimum use diameter of 200mm, realizing one-third that of conventional flexible conduits.
- Can be used in sharp curves while using cables in cable veyor.

## Microglide

Here is a next-generation flexible conduit that uses rollers in the wire feeding path inside the cable, successfully reducing feeding resistance to a minimum level. It can be used as a conduit in areas that had previously suffered feeding failures due to the high feeding resistance of conventional flexible conduits.

### ① Outstanding Feeding Performance



Weight (per meter)	0.25kg
Rollers (per meter)	500 (4 pcs X 125)
Maximum use length	30m
Maximum curve diameter	500mm (during wire lead-in) 400mm (during wire feed)
Maximum use temperature	65°C
Applicable wire diameter	φ 0.6 ~ φ 2.0

### ② Dramatically Improving the Use Life of Parts Such as Feeders

With the Microglide, the wire suffers an extremely small amount of friction during feeding, thus minimizing the damage sustained at the outer surface of the wire. This minimizes the production of wire debris, without requiring any special maintenance tasks. Moreover, because Microglide does not damage the wire, it can dramatically extend the use life of parts such as feeders.



## Flexible Conduits: N-24, D-24, N-35, D-35, N-55

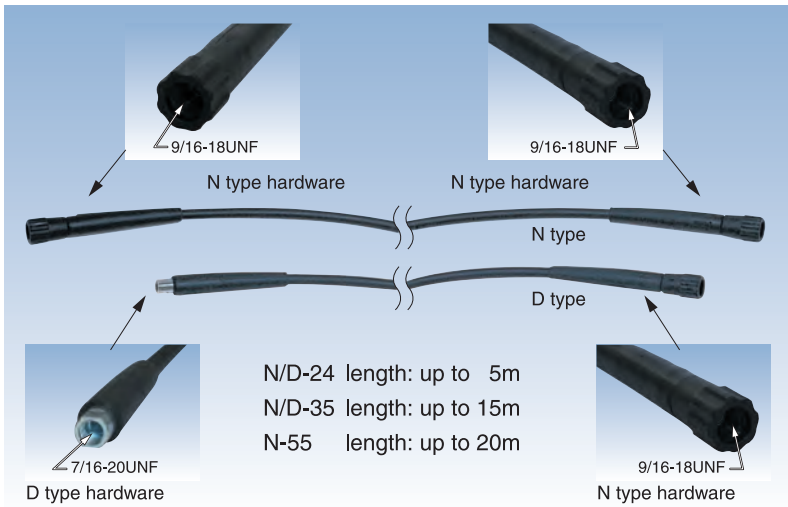
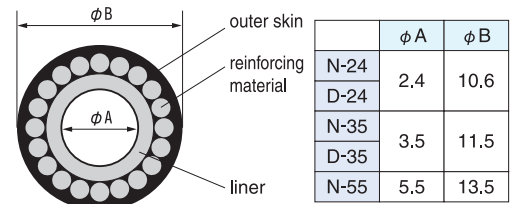
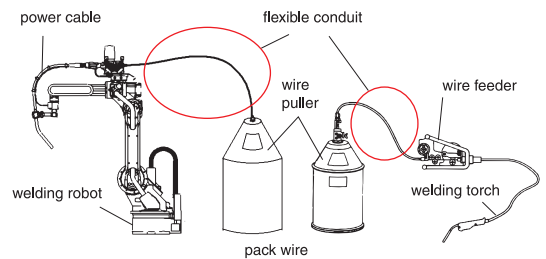


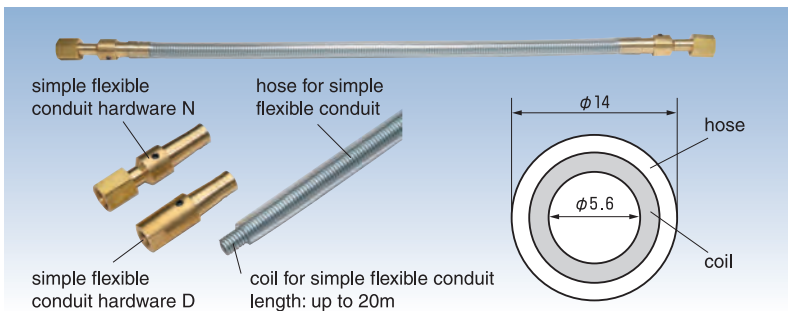
Image of Flexible Conduit Interior



Flexible Conduit Use Positions (Robot/Semi-Auto)

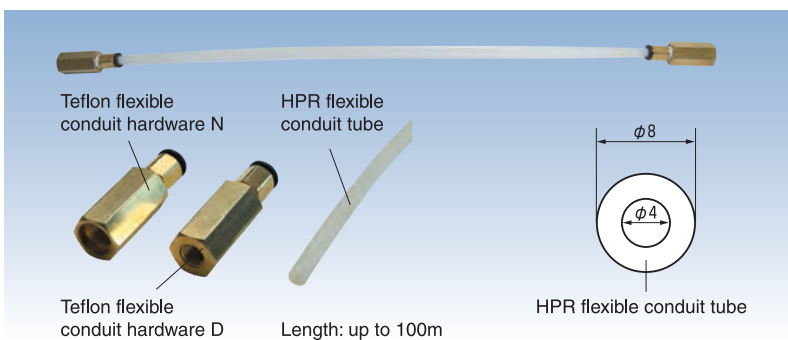


## Simple Flexible Conduit



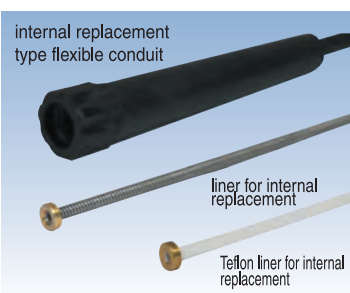
- Features**
- A combination of hardware (both ends) + coil spring + outer skin hose can be assembled on site.
  - Parts can be separated, enabling a worn coil or hose to be replaced.

## Teflon Flexible Conduit



- Features**
- Simply constructed of hardware (both ends) + HPR Teflon tube only, it can be assembled easily by anyone.
  - Made of a ultra-high molecular material that excels in impact resistance and wear resistance, the tube has low friction resistance and improved feeding performance.
  - Its length can be set at will, enabling it to be installed to suit the available space on site.
  - Aluminum wire can be used.

## Internal Replacement Type Flexible Conduit



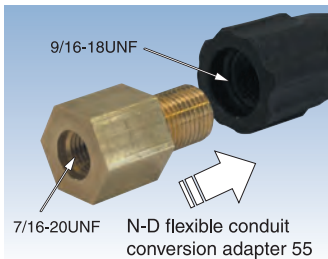
Types of Internal Replacement Type Flexible Conduits

N internal replacement type flexible conduit up to 5m	Liner	for ~ $\phi 1.2$
	Liner	for ~ $\phi 1.6$
	Teflon liner	for ~ $\phi 1.2$
	Teflon liner	for ~ $\phi 1.6$
D internal replacement type flexible conduit up to 5m	Liner	for ~ $\phi 1.2$
	Liner	for ~ $\phi 1.6$
	Teflon liner	for ~ $\phi 1.2$
	Teflon liner	for ~ $\phi 1.6$

- Features**
- Optimally used in a wide range of applications from feeders to torches, these conduits stabilize the feeding of wires through the use of liners.
  - By replacing the internal liner, the flexible conduit can be used in various applications including iron, aluminum, and other uses.
  - The liner replacement type can reduce operation costs.

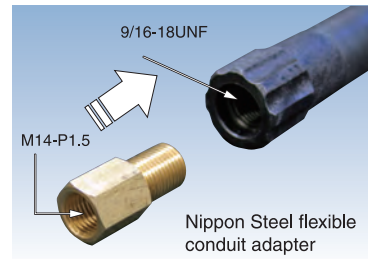


## Conversion Adapters



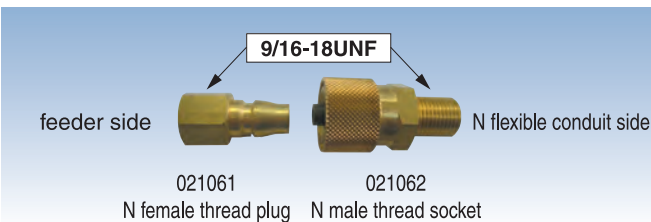
**021012**  
N-D Flexible Conduit Conversion Adapter 55  
(converts N type → D type)  
● Adapter for ø5.5 inner diameter)

**021011**  
N-D Flexible Conduit Conversion Adapter 35  
(converts N type → D type)  
● Adapter for ø3.5 inner diameter)



**021015**  
Nippon Steel Flexible Conduit Conversion Adapter  
(converts N type → Nippon Steel type)  
● Puller for Nippon Steel Sumikin  
This hardware is for attaching an N flexible conduit to (thread pitch M14-P1.5).

## Quick Joints



\* A reverse male-female type for N type flexible conduit is also available.

**Features**

- Placing the joint between the feeder and the flexible conduit enables the flexible conduit to be removed or installed at a touch.
- The joint can be used also on a puller.

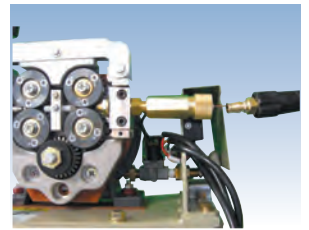
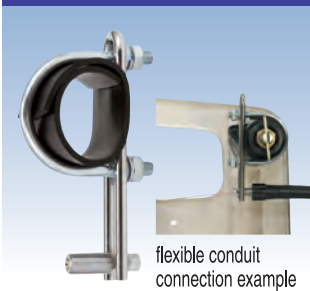


Image of Joint Connected to Feeder Side

### Pack-Wire Pulling Tool (047800)



Pack-Wire Pulling Tool

#### Features

- Attaches to the spool spindle for a semi-automatic welder.
- An N flexible conduit attaches to it.

### Pack-Wire Pulling Apparatus (047801)



Pack-Wire Pulling Apparatus

#### Features

- Puller outer diameter ø510-ø515
- This puller is for winding 250kg.

\* Hardware for the puller is supplied.

### Flexible Cable Support (047805)

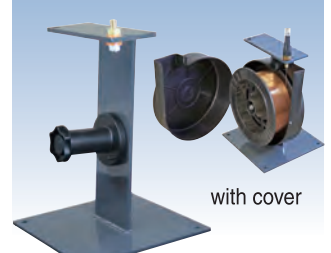


Flexible Cable Support

#### Features

- Mounted above the pack wire puller, it supports the flexible conduit.
- Use a tie strap to install the flexible conduit.

### Reel Stand (TM4-116) Reel Stand with Cover (TM4-116C)

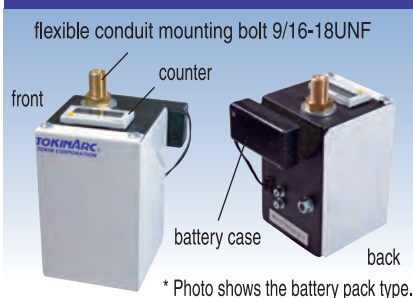


wire reel stand

#### Features

- This stand is used when using spool wire instead of pack wire.

### Wire Measurer (047850) Wire Measurer Square 9V Battery Type (047860)

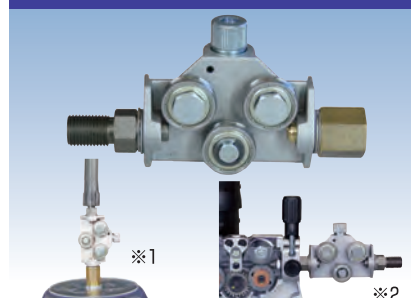


\* Photo shows the battery pack type.

#### Features

- After the measurer is attached to the wire pack, it allows you to monitor the amount of wire that has been used.
- It measures in 1cm increments.
- The digital counter display can display a maximum of 8 digits.

### Wire Corrector WS-3 Unit Assembly (047810) for Yaskawa Electric Feeder (047811)



#### Features

- The force of the correction rollers rectifies the curvature of the wire. Thus, it minimizes the discrepancy in the target position caused by wire deformation.

\*1: Installed on pack wire puller

\*2: Installed on feeder

### Butt Welder 100V type (046270) 200V type (046271)



#### Features

- Enables simple, error-free butt welding work.
- Supports wire diameters ø0.9 ~ ø1.6.
- It is available as a 100V or 200V type.

## Thermo-chiller equipped coolant circulation system

### WR-200TC



**Body Front**



**Particle filter**



**control panel**

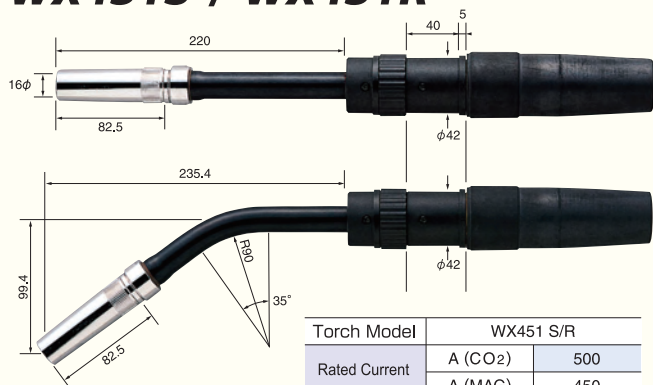
- Equipped with high-lift pump. Approximate discharge pressure of 0.4MPa.
- Temperature setting range between 5°C and 40°C (±0.1°C temperature stability)
- Operating conditions can be monitored by way of the digital indication on the control panel
- Particle filter is provided at the return outlet of 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

Type	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. 5L
Unit Weight (* 2)	51kg
Exterior dimensions (WxDxH)	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

## Water-Cooled Robotic Torches

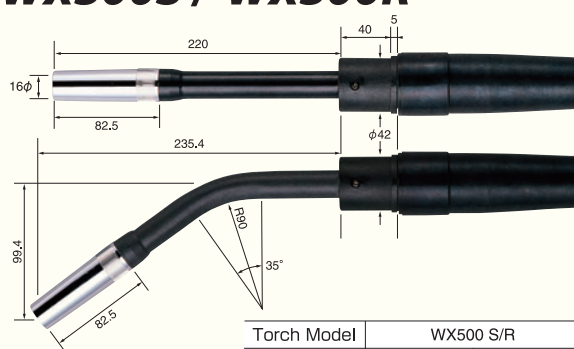
### WX451S / WX451R



Torch Model	WX451 S/R	
Rated Current	A (CO <sub>2</sub> )	500
	A (MAG)	450
Duty Cycle	% (CO <sub>2</sub> )	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.

### WX500S / WX500R



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

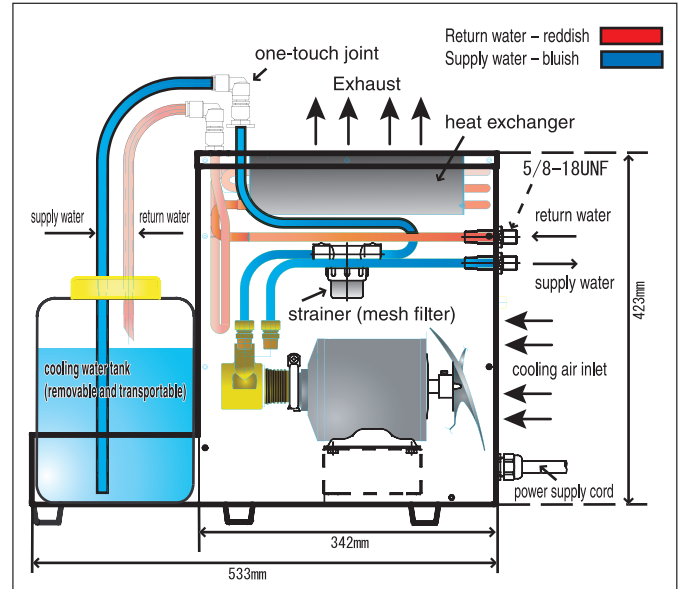
\*Nozzle diameter is 16 mm and wire diameter is 1.6 mm unless specified by customer.



**WR-100 (046500)**



**WR-100 Front View**



- Features**
- With a "compact body" and "superior cooling performance", it achieves 35kcal/min of heat value.
  - The pump portion in the circulation unit and the body have been insulated to eliminate any adverse influences while starting arc welding.
  - No priming is required, and this dramatically reduces the workload for water replacement.
  - Because the water tank is a separate, independent type, it facilitates the changing of water.
  - It offers superior serviceability and reduces the work load for cleaning.

**Product Specs**

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

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

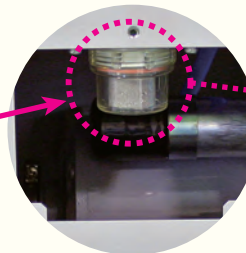
**Simple Configuration Facilitates Tank and Filter Cleaning**



The cooling water tank can be replaced in its entirety. The supply and return hoses can be removed at a touch, facilitating the changing of cooling water.



**WR-100 Side View**



The filter can be changed directly through the small opening in the external panel. It can be changed easily by merely removing the strainer cap.



Product Catalogue



Semi-Automatic Torches



Air-Cooled  
Robotic Torches



Water-Cooled  
Robotic Torches



TIG Welding Torches



Replacement Parts



Fume Extractors



Plasma Parts,  
Laser Parts & Optics

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