

Instruction Manual

Welding Torch for MOTOMAN Robot

YMENS-300R/308R/500R/508R/250RA

YMES-500W/508W/500W(Water Nozzle)/500AW

YMENS-500W(With Wire Clamp)/508W(With Wire Clamp)

ACC-308RR/308RX

TK-308RR/308RX/308RS

TK-508RR/508RX/508RS

TK-309R1

SRCT-308R

Please read this instruction manual
before using the product.

Please be sure to deliver this instruction manual
to the end user of this product.

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NOTES REGARDING SAFETY

Be sure to read these instructions before using the welding torch.

- In order to ensure safe operation, this equipment should only be set up, inspected and maintained by a qualified person, or by someone who has a thorough understanding of the welding equipment and who has received sufficient training in its use.
- In order to ensure safe operation, this equipment should only be operated by people who have read these instructions thoroughly and understood their contents and who have the knowledge and ability to handle the equipment safely.
- It is recommended that instruction in all aspects of safe operation should be obtained from institutions and associations which provide courses in proper welding techniques taught by qualified welding instructors.
- After reread these instructions, keep them in a safe and easily-accessible place so that they can be reread at a later date as required.
- Please contact TOKIN CORPORATION or its dealer if there are any unclear points in this manual. If there are any questions regarding service, contact the dealer of your purchase or TOKIN CORPORATION. The contact address and the telephone number are printed on the rear cover of this instructions.

1. Precautions for safety

- Different degrees of personal injury or equipment damage can occur if this welding torch is used incorrectly. The terms and symbols which appear in the "NOTES REGARDING SAFETY" section of these instructions are classified into three ranks according to the possible degree of danger or injury that each one warns against.

Symbol	Term	Definition
	DANGER	The instructions which follow this term represent situations where failure to follow the instructions will almost certainly result in severe injury or death.
	WARNING	The instructions which follow this term represent situations where failure to follow the instructions can possibly result in severe injury or death.
	CAUTION	The instructions which follow this term represent situations where failure to follow the instructions may result in injury to the operator or physical damage.

In the above definitions, "severe injury" refers to cases of blindness, physical wounds, burns (high- and medium-temperature), electric shocks, fractures or poisoning which may leave scars or lasting ill-effects and for which medical treatment or prolonged hospitalization may be necessary. "Injury refers to cases of physical wounds, burns and electric shocks for which prolonged medical treatment and hospitalization are not necessary, and "physical damage" refers to extensive damage that may result in damaged property or broken equipment.

2. Items that must always be observed for safety

WARNING 	These items should be observed at all times in order to prevent the possibility of serious personal injury.
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- Welding torches have been designed and manufactured with full consideration given to safety; however, the warning and cautions given in this "Notes Regarding Safety" section must always be strictly observed during use. If they are not observed, severe injury or death through misoperation may result.
- Do not unauthorized personal come into the area where welding equipment is being used.
- When welding equipment is turned ON, it generates a magnetic field. This magnetic field may adversely affect the operation of some sensors and gauges. For the same reason, people who are using a heartbeat pace maker must not go close to operating welding equipment or go into workshops where welding equipment is being used unless prior medical approval has been obtained.
- In order to ensure safe operation, welding torch, wire feeder and the welding power supply equipment should only be set up, inspected, maintained and repaired by a qualified person, or by someone who has a thorough understanding of welding equipment and who has received sufficient training in its use.
- In order to ensure safe operation, welding torch should only be operated by people who have read these instructions and the instructions for the wire feeder and power supply equipment through and understood their contents and who have the knowledge and ability to handle the equipment safely.
- Do not use welding torch for any applications other than for arc welding as explained in these instructions and in the instructions for the wire feeder and power supply equipment.

WARNING 		These items should be observed at all times in order to prevent the possibility of electric shocks.
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- *Touching the charged parts can cause fatal electric shocks or burns. Welding wire, contact tip and tip body are charged whenever the welding torch is turned ON and operating.
- Never Torch charged parts such as welding wire, or contact tip while welding torch is turned ON and operating.
- Grounding of welding power supply case and base metal and tools which are connected electrically to the base metal, must be carried out by a qualified electrician in accordance with the proper electrical engineering regulations.
- Turn OFF all input power supplies by turning OFF the switches in the distribution box before carrying out any inspections or maintenance.

- Inspections and maintenance should be carried out at periodic intervals, and the equipment must not be used until any damaged parts found have been repaired or replaced.
- Do not use cables that are damaged or that have exposed conductors, or that are rated lower than the specified level.
- Make sure that the cable is connected securely and that it is insulated.
- Welding cable should be connected as close as possible to the base metal being welded and it should be connected securely.
- Do not wear gloves which are torn or wet.
- Use a safety strap if welding in raised places.
- Turn OFF all power switches and the input power supply when not using.

CAUTION 		Wear protective equipment at all times to protect yourself and others against arc beam, welding flashes, flying spatter and slag, and noise.
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*Welding flashes contain harmful ultraviolet and infrared lights which can cause inflammation or burn to eyes.

*Flying spatter and slag can hurt the eyes and cause serious burns.

*The noise generated by welding can cause problems with hearing.

- Always wear protective goggles or welding masks which have sufficient shielding properties when doing welding or when observing welding being done.
- Wear protective glasses to protect the eyes from spatter and slag.
- Hang a curtain around the area where welding is being carried out to prevent welding flashes from affecting passers-by.
- Wear protective clothing such as leather gloves, longsleeves, leg covers and a leather apron for protection while welding.
- Wear noise proof ear protectors if the noise level is too high.

CAUTION 		Use protective equipment at all times to protect yourself and others against any fumes and gases that may be generated from welding.
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*Fumes and gases are generated when welding is carried out. Inhaling fumes and gases can be dangerous to your health.

*Welding in confined spaces can reduce the oxygen content in the air, which can result in suffocation.

- To prevent gas poisoning and suffocation, always use a proper ventilation equipment to vent gases locally or entirely as stipulated by labor safety regulations and air contamination prevention regulations, or use an adequate breathing apparatus.
- When welding in a confined space, make sure that the air is circulating freely, wear some kind of breathing apparatus, and work only under the supervision of a properly trained supervisor.
- Toxic gases may be generated if welding is carried out near where degreasing, cleaning or demisting operations are also being carried out. Avoid welding near places where such operations are being carried out.
- Welding metal which has been plated with zinc will cause toxic fumes. Remove the plating before welding, or wear adequate absorption equipment for protection.

CAUTION 		Be sure to observe the following to avoid burns from the nozzle and tip or injury from fine wire ends.
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*The nozzle or contact tip becomes very hot after use, and it can cause serious burns if touched.

- Do not touch the nozzle or tip immediately after welding has been completed.
- Do not bring the tip of the welding torch close to your face during wire inching.

CAUTION 		Be sure to observe the following to avoid fires, explosions and rupturing.
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*Fires can be caused by spatter and base metals which are hot after welding.

*Fire can occur as a result of heat generated by the flow of current if the cable has not been correctly connected or there is an incomplete contact in the current path at the base metal being used.

*Explosions can occur if an arc is generated near containers that contain flammable substances such as gasoline.

*Ruptures can occur if welding sealed objects such as tanks and pipes.

- Do not use the welding torch in places where flying spatter can cause flammable materials to ignite.
- Do not use the welding torch near places where flammable gases are present.
- Keep base metals away from flammable materials immediately after welding as they may have become hot.
- Remove any flammable materials on the other side of ceilings, floors and walls that are being welded as sparks from welding could cause such materials to ignite.
- The welding cable should be connected as close as possible to the base metal being welded, and it should be connected securely.
- Do not weld gas cylinders which still contain gas.
- Do not weld sealed tanks or pipes.
- Keep a fire extinguisher close by the place where welding is being carried out in case a fire starts.

[1]Specifications

YMENS

Torch Model		YMENS-300R	YMENS-500R	YMENS-308R	YMENS-508R	YMENS-250RA
guidance		Mechanical	Mechanical	Mechanical	Mechanical	Mechanical
Rated Current	A	350(CO2)/300(MAG)	500(CO2)/350(MAG)	350(CO2)/300(MAG)	500(CO2)/350(MAG)	250(MIG)
Duty Cycle	%	60	60	60	60	60
Applicable Wire Size	mm	(0.8) ~ 1.2	1.2 ~ (1.6)	(0.8) ~ 1.2	1.2 ~ (1.6)	(1.0) ~ 1.2
Cooling Method		Air Cooled	Air Cooled	Air Cooled	Air Cooled	Air Cooled
cable Length	m	0.8 ~ 2.0	0.8 ~ 2.0	0.8 ~ 2.0	0.8 ~ 2.0	0.8 ~ 2.0

YMES,YMENS

Torch Model		YMES-500W	YMES-508W	YMES-500W (Water-cooled nozzle)	YMES-500AW	YMENS-500W (With wire clamp)	YMENS-508W (With wire clamp)
guidance		Mechanical	Mechanical	Mechanical	Mechanical	Mechanical	Mechanical
Rated Current	A	500(CO2)/400(MAG)	500(CO2)/400(MAG)	500(CO2)/400(MAG)	300(MIG)	500(CO2)/400(MAG)	500(CO2)/400(MAG)
Duty Cycle	%	80	80	80	50	80	80
Applicable Wire Size	mm	1.2 ~ (1.6)	1.2 ~ (1.6)	1.2 ~ (1.6)	1.2 ~ (1.6)	1.2 ~ (1.6)	1.2 ~ (1.6)
Cooling Method		Water Cooled	Water Cooled	Water Cooled	Water Cooled	Water Cooled	Water Cooled
cable Length	m	0.8 ~ 2.0	0.8 ~ 2.0	0.8 ~ 2.0	0.8 ~ 2.0	0.8 ~ 2.0	0.8 ~ 2.0

ACC,TK,SRCT

Torch Model		ACC-308RR	ACC-308RX	TK-308RR	TK-308RX	TK-308RS
guidance		Mechanical	Mechanical	Mechanical	Mechanical	Mechanical
Rated Current	A	350(CO2)/300(MAG)	350(CO2)/300(MAG)	350(CO2)/300(MAG)	350(CO2)/300(MAG)	350(CO2)/300(MAG)
Duty Cycle	%	60	60	60	60	60
Applicable Wire Size	mm	(0.8) ~ 1.2	(0.8) ~ 1.2	(0.8) ~ 1.2	(0.8) ~ 1.2	(0.8) ~ 1.2
Cooling Method		Air Cooled	Air Cooled	Air Cooled	Air Cooled	Air Cooled
cable Length	m	0.8 ~ 5.0	0.8 ~ 5.0	0.8 ~ 5.0	0.8 ~ 5.0	0.8 ~ 5.0

Torch Model		TK-508RR	TK-508RX	TK-508RS	TK-309R1	SRCT-308R
guidance		Mechanical	Mechanical	Mechanical	Mechanical	Mechanical
Rated Current	A	500(CO2)/400(MAG)	500(CO2)/400(MAG)	500(CO2)/400(MAG)	350(CO2)/300(MAG)	350(CO2)/300(MAG)
Duty Cycle	%	60	60	60	60	60
Applicable Wire Size	mm	1.2 ~ (1.6)	1.2 ~ (1.6)	1.2 ~ (1.6)	(0.8) ~ 1.2	(0.8) ~ 1.2
Cooling Method		Air Cooled	Air Cooled	Air Cooled	Air Cooled	Air Cooled
cable Length	m	0.8 ~ 5.0	0.8 ~ 5.0	0.8 ~ 5.0	0.8 ~ 5.0	0.8 ~ 5.0

Remark
1: Type of shielding gas
CO2---CO2 100% MAG---CO2 20%; Argon 80% MIG---Argon 100%
2: Type of electrode
Solid and Flux cored wire

[2]Model Notation

YMENS

Y M E N S - 3 0 0 R - N 1 4 (Special mention item)



YMES/YMENS

YMENS-500W (With Wire Clamp) - N 1 4 (Special mention item)

Torch Model
YMES-500W
YMES-508W
YMES-500W (Water Nozzle)
YMES-500AW
YMENS-500W (With Wire Clamp)
YMENS-508W (With Wire Clamp)

Robot Model
N14.....MA1400
N19.....MA1900

ACC,TK,SRCT

ACC-308RR-N-1.3 SC

Torch Model
ACC-308RR TK-508RR
ACC-308RX TK-508RX
TK-308RR TK-508RS
TK-308RX TK-309R1
TK-308RS SRCT-308R

Robot Model
N...YASUKAWA MOTOPAC type PANASONIC type
D...DAIHEN direct connection type
DD...DAIHEN CMRE-741¹ type
—...Earlier standard type²
AD...TOKIN adapter type
BZ...BINZEL adapter type

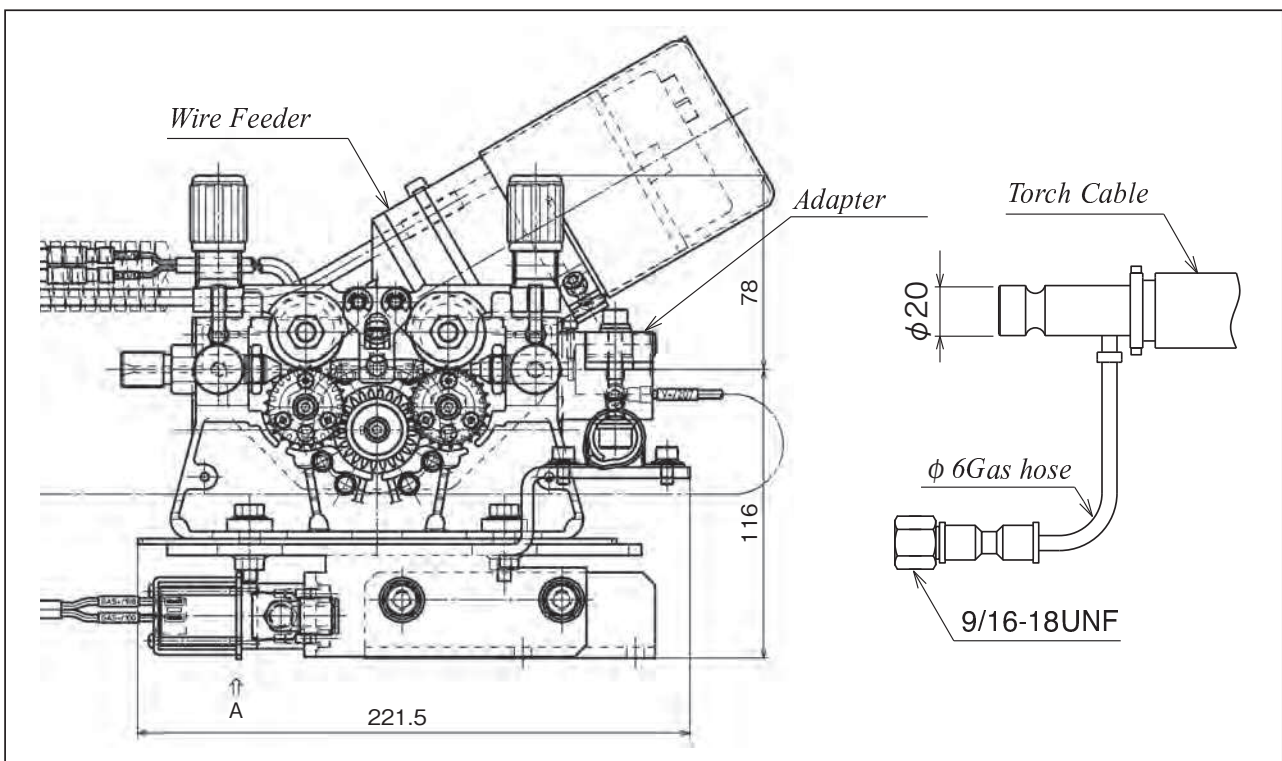
Please specify the
cable length in meters

Option
SC...Internal shock sensor wire
—...None

¹If using the DL350, please specify separately.

²If using the earlier standard types, then a special adapter is needed.

[3]Connection of the torch



[4]Replace the Tip Body

Unscrew the tip body with a wrench if damaged by heat and spattering.
Keep the tip body tightened to the torch body all the time for longer life.

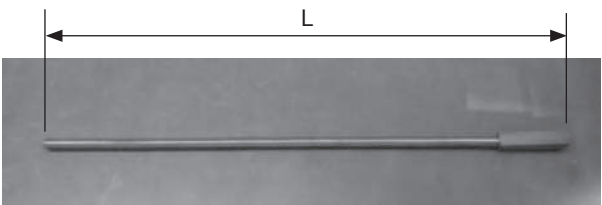
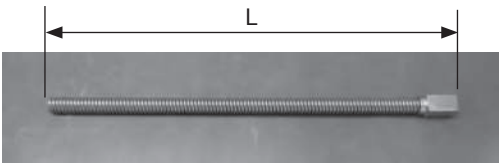
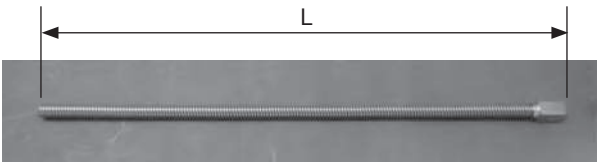
[5]Replace the Inner Tube

When inside of the inner tube has been worn,replace the inner tube.

Parts No	Model	L mm
YEA003013	YMENS-300R	174.5
YEA003812	YMENS-308R	262.5
YEA005013	YMENS-500R	188.5
YEA005812	YMENS-508R	276.5
YEA002514	YMENS-250RA	158.7

Parts No	Model	L mm
YEW005013	YMES-500W	184.5
YEW005813	YMES-508W	261.6
YEW005013	YMES-500W (水筒ノズル)	184.5
YEW005046	YMES-500AW	200.5
YEW005013	YMENS-500W (ワイヤクランプ付)	184.5
YEW005812	YMENS-508W (ワイヤクランプ付)	261.6

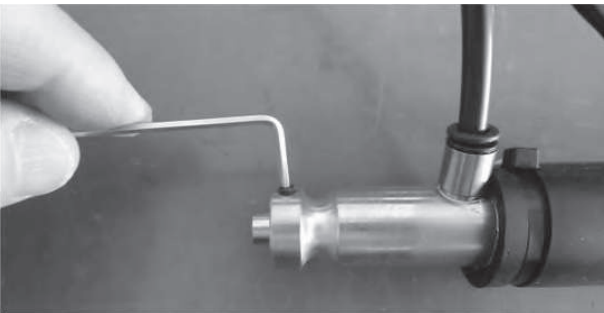
Parts No	Model	L mm
016505	ACC-308RR/ACC-308RX	270
016053	TK-308RR/TK-308RX	335
016053	TK-308RS	269
016053	TK-508RR/TK-508RX/TK-508RS	335
016053	TK-309R1	230
3001004	SRCT-308R	410.5



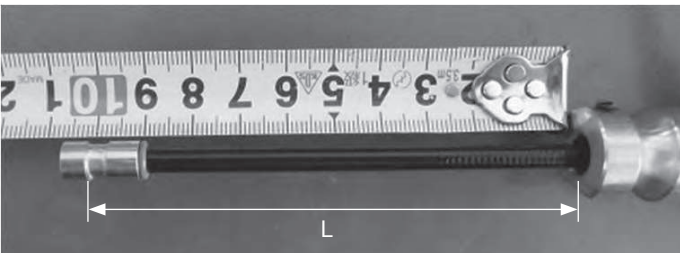
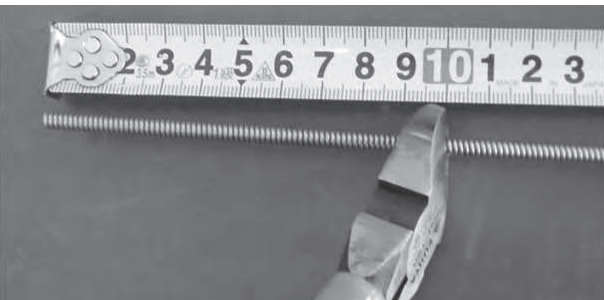
[6]Replace the Liner

Replace the liner by following the procedure,when wire feeding is not smooth. The liner may be clogged with wire shavings,rust or dart.

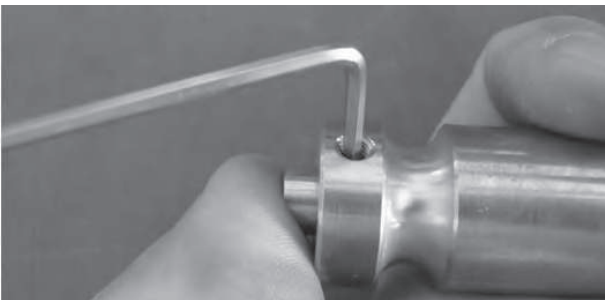
- ① Remove the torch cable.
- ② Unscrew the bolt. Pull out the liner.
- ③ Insert the new liner fully into the cable.
- ④ Measure the length "L" which protrudes from the end.



- ⑤ Pull the liner out and cut off the same length "L" at the front.



- ⑥ Insert the new length adjusted liner into the cable. Screw the bolt.O-ring at the end of the liner prevents gas leaks.



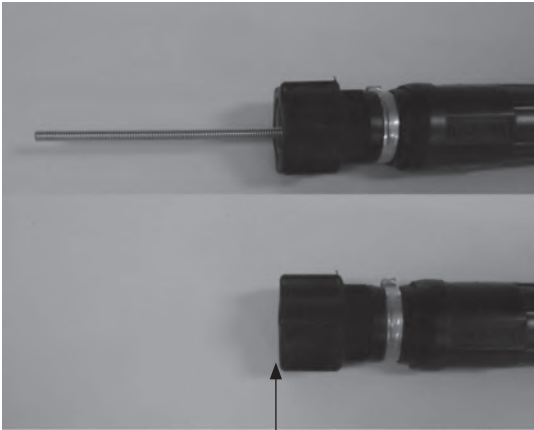
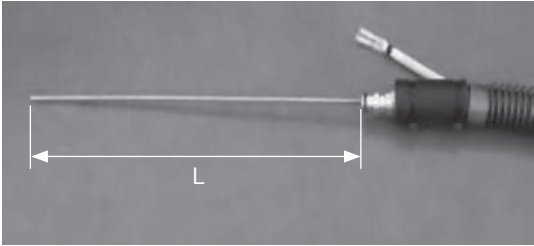
[7]Adjust the liner length of cable assy

Adjust the liner length accordingly to the tables below.

Model	L mm
YMENS-300R	73
YMENS-308R	73
YMENS-500R	73
YMENS-508R	73
YMENS-250RA	73

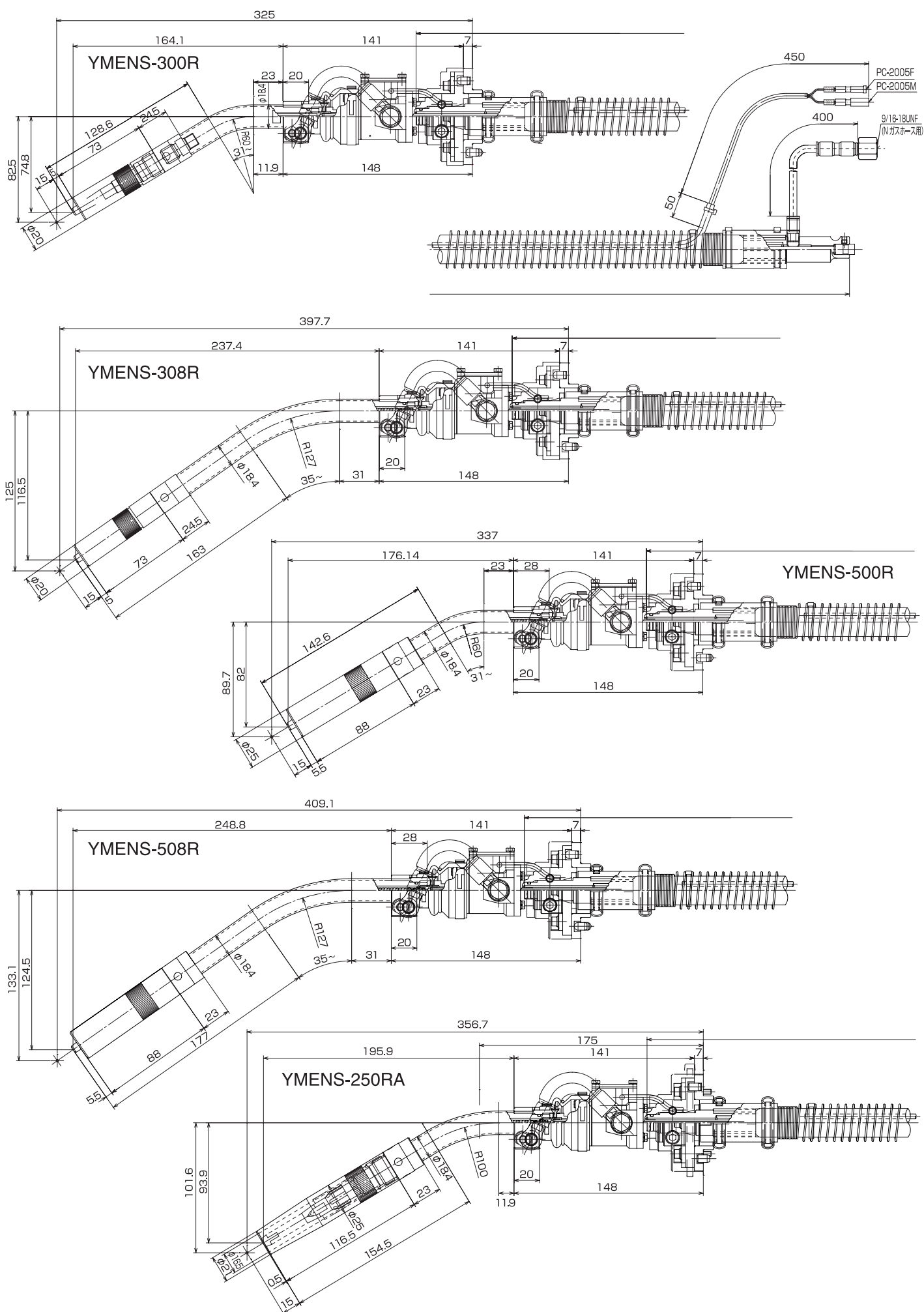
Model	L mm
YMES-500W	73
YMES-508W	73
YMES-500W (Water Nozzle)	73
YMES-500AW	73
YMES-500W (With Wire Clamp)	12
YMES-508W (With Wire Clamp)	12

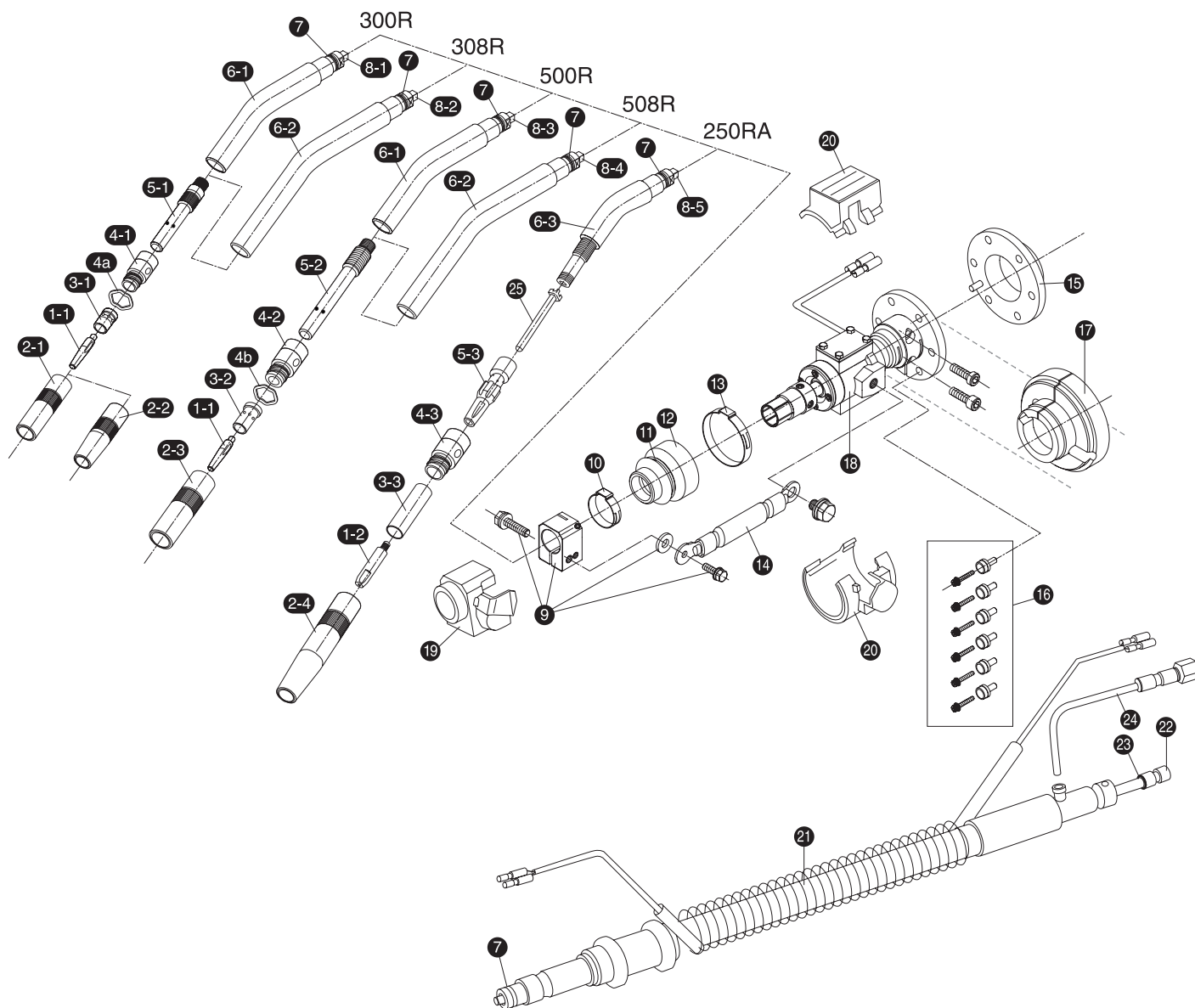
Model	L mm
ACC-308RR/ACC-308RX TK-308RR/TK-308RX/TK-308RS TK-508RR/TK-508RX/TK-508RS TK-309R1/ SRCT-308R	0



Cutting the Liner

[8]Outline drawing & Bill of material

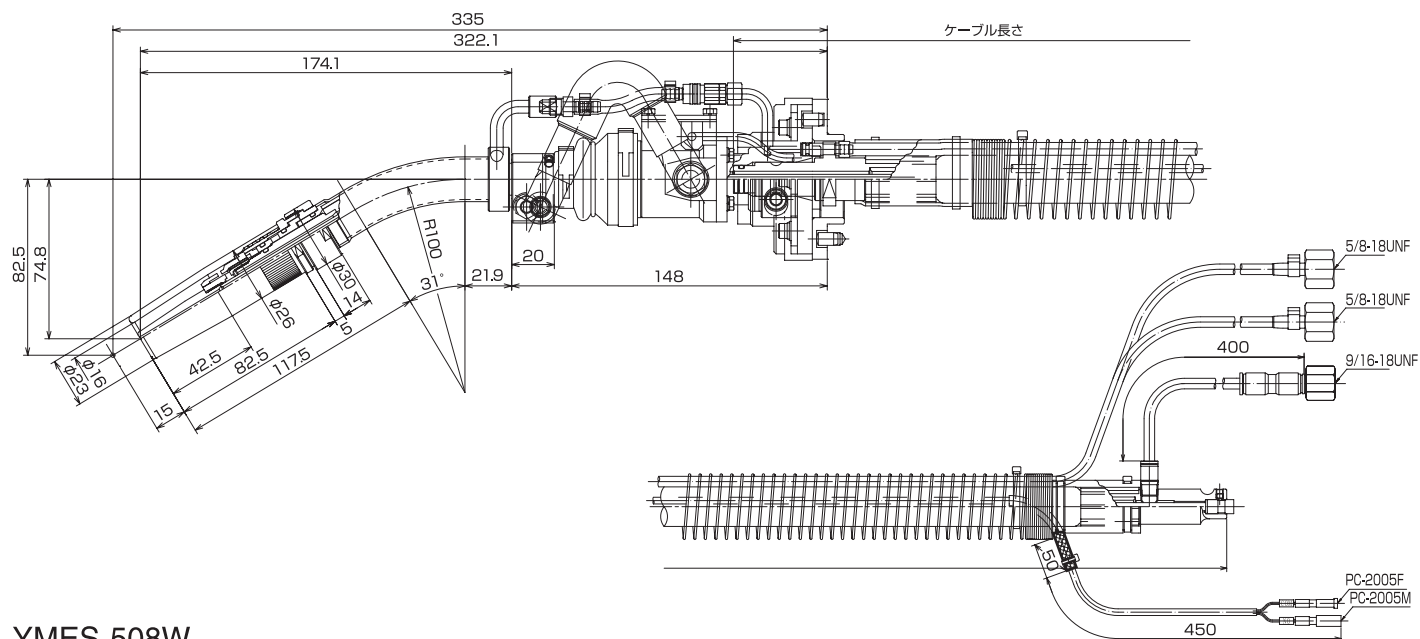




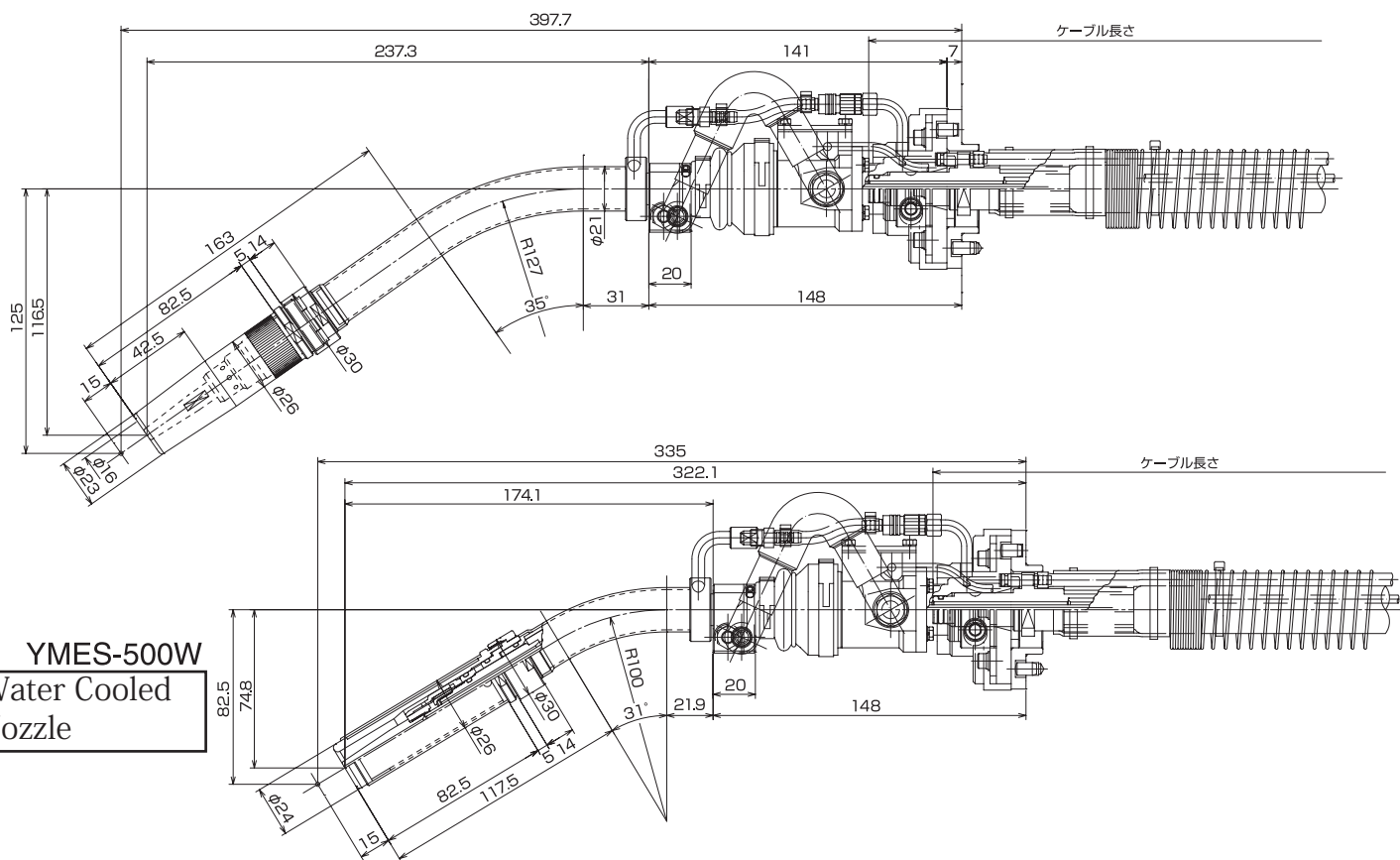
YMENS-300R/308R/500R/508R/250RA Parts List

No	Part NO	Parts Name	No	Part NO	Parts Name
1-1	002005	Tip N-0.8mm	8-1	YEA003013	YMES-300R Inner Tube
	002001	Tip N-0.9mm	8-2	YEA003812	YMES-308R Inner Tube
	002002	Tip N-1.0mm	8-3	YEA005013	YMES-500R Inner Tube
	002003	Tip N-1.2mm	8-4	YEA005812	YMES-508R Inner Tube
	002017	Tip N-1.4mm	8-5	YEA002514	YMENS-250RA Inner Tube
	002004	Tip N-1.6mm	1 ~ 8-1	YEA003010	YMES-300R Torch Body Assy
1-2	002504	Tip N-MIG1.2mm	1 ~ 8-2	YEA003810	YMES-308R Torch Body Assy
2-1	001002	Nozzle N-16 73L	1 ~ 8-3	YEA005010	YMES-500R Torch Body Assy
2-2	001003	Nozzle N-12 73L	1 ~ 8-4	YEA005810	YMES-508R Torch Body Assy
2-3	001001	Nozzle N-19 88L	1 ~ 8-5,25	YEA002510	YMENS-250RA Torch Body Assy
2-4	YEA002511	YMENS-250RA Nozzle	9	YEA000018	YSRC Clamp Block Assy
3-1	003002	Orifice N-S	10	3001024	Hose Clamp 286-7R
3-2	003001	Orifice N-L	11	YM0980009	YMST-9800-09 Ring
3-3	Y902ALW10	Nozzle Sleeve	12	YM0980012	YMST-9800-12 Rubber Boots
4-1	004002	Insulation Tube N-S	13	3001025	Hose Clamp 455-7R
4-2	004001	Insulation Tube N-L	14	3001023	SRC Jumper Cable
4-3	031103	CSA Insulation Tube		3001023-0001	SRC Jumper Cable (60SQ)
4a	255406	Wave Washer S	15	YEA000014	YME Insulation Spacer
4b	255407	Wave Washer L	16	YEA000015	YME Insulation Sleeve
4-1+4a	004004	N Insulation Tube S(With Wave Washer)	17	YME000017	YME Insulation Cover (S-type)
4-2+4b	004008	N Insulation Tube L(With Wabe Washer)	9 ~ 18	YEA000020	YMES T-axis Unit (S-type)
4-3	031103-01	CSA Insulation Tube L	19	YM1304170	SRC Clamp Block Cover
5-1	016051	TK-308RR Tip Body	20	YM1304171	SRC Casing Cover
5-2	016403	TK-508RR Tip Body	21,22-1 ~ 24	YEA14T025	YMES Cable Assy (EA1400N-S12)
5-3	Y102ALW04	YMST-0102ALW-04 Tip Body	21,22-1 ~ 24	YEA19T025	YMES Cable Assy (EA1900N-S12)
6-1, 7	YEA003012	YMES-300R/500R Torch Body(Without Tip body)	21,22-2 ~ 24	YEA14T029	YMES Cable Assy (EA1400N-S12)AL
6-2, 7	3001043	YMES-308R/508R Torch Body(Without Tip body)	21,22-2 ~ 24	YEA19T029	YMES Cable Assy (EA1900N-S12)AL
6-3,7	YEA002513	YMENS-250RA Torch Body(Without Tip body)	22-1	016076	Liner308RR/309R1-N-1.3m(With Liner O ring)
7	Y0000FP10	O Ring 4D P-10	22-2	0443013	Pura Liner308RR/309R1-N-1.3m(With Liner O ring)
5-1,6-1,7	YEA003011	YMES-300R Torch Body(With Tip body)	23	036035	Liner O ring(S-4)
5-1,6-2,7	3001042	YMES-308R Torch Body(With Tip body)	24	YB0312082	YMENS Gas Hose N
5-2,6-1,7	YEA005011	YMES-500R Torch Body(With Tip body)	25	YEA002512	Guide
5-2,6-2,7	YEA005811	YMES-508R Torch Body(With Tip body)			

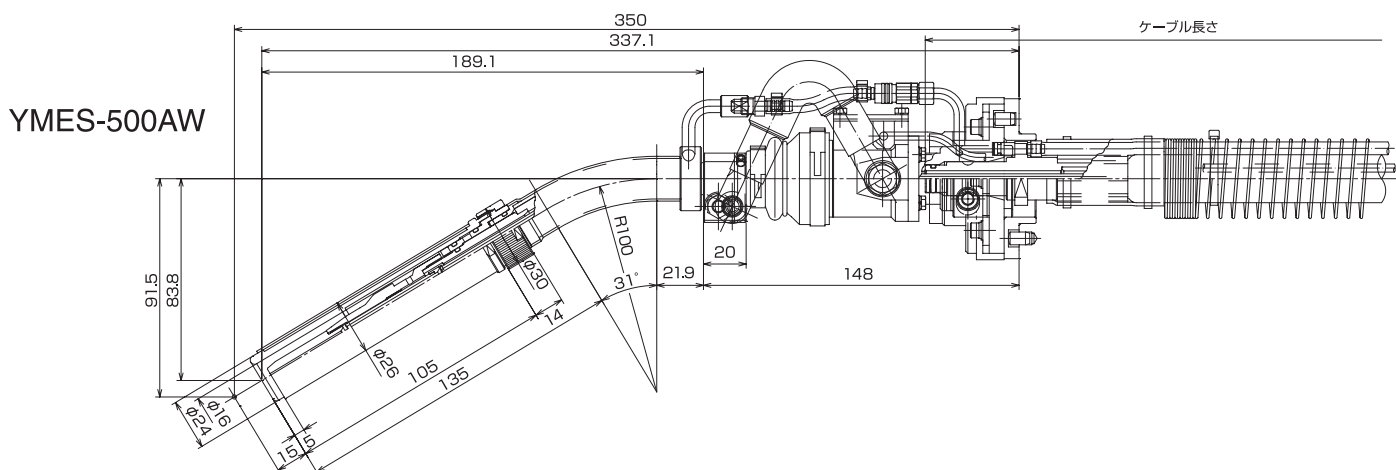
YMES-500W



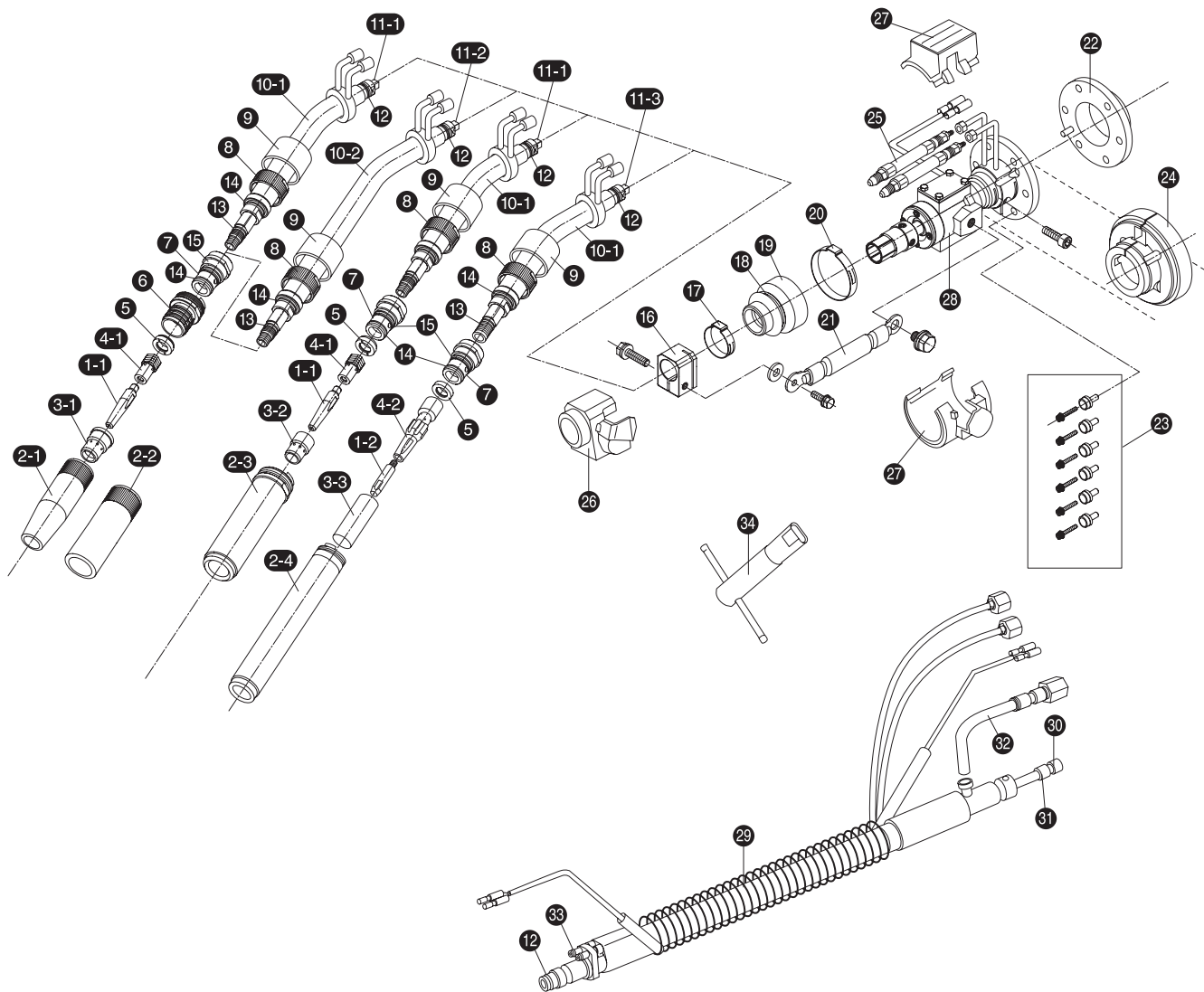
YMES-508W



YMES-500W
Water Cooled
Nozzle



YMES-500AW

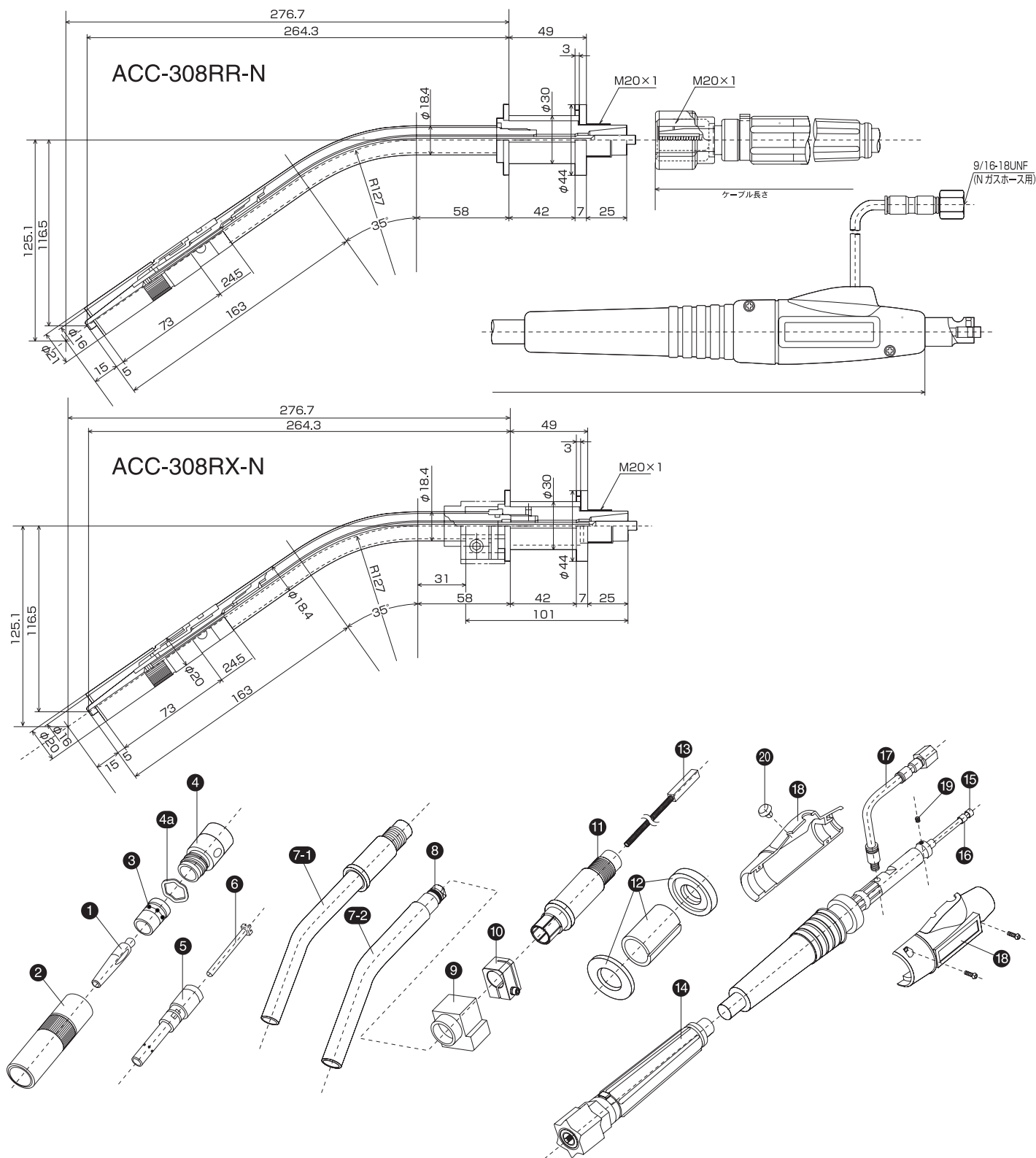


YMES-500W/508W/500W (Water Nozzle)/500AW Parts List

No	Part NO	Parts Name	No	Part NO	Parts Name
1-1	002003	Tip N-1.2mm	16	YEA000018	YSRC Clamp Block
	002017	Tip N-1.4mm	17	3001024	Hose Clamp 286-7R
	002004	Tip N-1.6mm	18	YM0980009	YMST-9800-09 Ring
1-2	023406	Tip D MIG-1.2mm	19	YM0980012	YMST-9800-12 Rubber Boots
	023409	Tip D MIG-1.6mm	20	3001025	Hose Clamp 455-7R
2-1	034115	NEW β /WX Nozzle 16mm	21	3001023-0001	SRC Jumper Cable (60SQ)
2-2	034116	NEW β /WX Nozzle 19mm	22	YEA000014	YME Insulation Spacer
2-3	061450	WX451/452 Water Nozzle	23	YEA000015	YME Insulation Sleeve
2-4	KW0205061	KWST-500AW Water Nozzle	24	YEW000015	YSRCW Insulation Cover
3-1	034120	NEW β /WX Orifice	25	YEW000012	YSRCW Water hose Assy (2pieces)
3-2	034121	WX Water Nozzle Orifice	26	YM1304170	SRC Clamp Block Cover
3-3	Y902ALW10	YMST-9902ALW-10 Nozzle Sleeve	27	YM1304171	SRC Casing Cover
4-1	034135	NEW β /WX Tip Adapter	16 ~ 28	YEW000010	YMES-500W T-axis Unit
4-2	CT9908192	KWST-500AW Tip Body	29 ~ 34	YEW14T015	YMES-500W Cable Assy (EA1400N-S12)
5	061445	WX Senter Ceramic		YEW19T015	YMES-500W Cable Assy (EA1900N-S12)
6	061447	WX451/452 Nozzle Adapter		YEW14T017	YMES-500W Cable Assy (EA1400N-S16)
7	061449	WX451/452 Nozzle Spacer(With O ring1015,1016)		YEW19T017	YMES-500W Cable Assy (EA1900N-S16)
8	061448	WX451/452 Nozzle Nut		YEW14T019	YMES-500AW Cable Assy (EA1400N-AL)
9	061440	WX451/452 Cover Rubber		YEW19T019	YMES-500AW Cable Assy (EA1900N-AL)
10-1	YEW005011	YMES-500W Torch Body(With O ring 1009,1015,4D-P10)	30	016076	Liner308RR/309R1-N-1.3m(With Liner O ring)
10-2	YEW005811	YMES-508W Torch Body(With O ring 1009,1015,4D-P10)		016126	Liner308RR-N-1.3m 1.6(With Liner O ring)
11-1	YEW005013	YMES-500W Inner Tube		0443013	Plastic Liner308RR-N-1.3m 1.6(With Liner O ring)
11-2	YEW005813	YMES-508W Inner Tube	31	036035	Liner O ring(S-5)
11-3	YEW005046	YMES-500AW Inner Tube	32	YB0312082	YMENS Gas Hose N
1~11-1,12~14	YEW005010	YMES-500W Torch Body Assy	33	OS04-04D	O ring(4D S-4)
1~11-2,12~14	YEW005810	YMES-508W Torch Body Assy	34	YJ9905200	Tip removal tool
1~5,7~11-1,12~14	YEW005020	YMES-500W(Water Nozzle) Torch Body Assy			
1~5,7~11-3,12~14	YEW005045	YMES-500AW Torch Body Assy			
12	Y0000FP10	O ring 4D-P10			
13	Y90201009	O ring 1009			
14	Y90201015	O ring 1015			
15	Y90201016	O ring 1016			

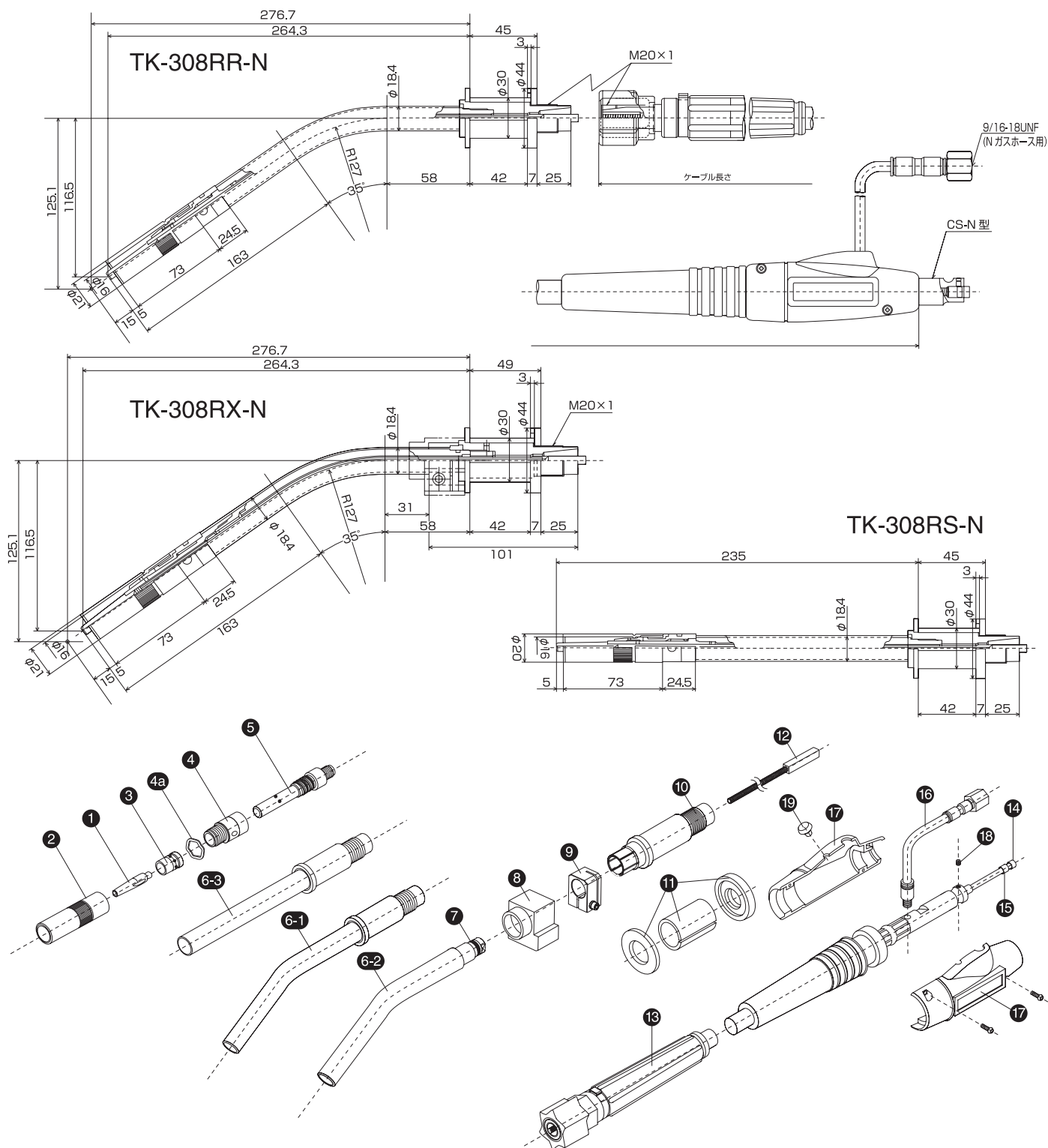
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No	Part NO	Parts Name	No	Part NO	Parts Name	No	Part NO	Parts Name
1	002003	Tip N-1.2mm	11	YEW005013	YMES-500W Inner Tube	22	YEA000029	YME Insulation Spacer for wire clamp
	002017	Tip N-1.4mm		YEW005813	YMES-508W Inner Tube	23	YEA000015	YME Insulation Sleeve
	002004	Tip N-1.6mm	1 ~ 15	YEW005010	YMES-508W Torch Body Assy	24	YEW000052	YSRCW Insulation Cover for wire clamp
2-1	034115	NEW β WX Nozzle 16mm		YEW005810	YMES-500W Torch Body Assy	25	YEW000014	YSRCW Water hose Assy for wire clamp×2
2-2	034116	NEW β WX Nozzle 19mm	12	Y0000FP10	O ring 4D-P10	26	YM1304170	SRC Clamp Block Cover
3	034120	NEW β WX Orifice	13	Y90201009	O ring 1009	27	YM1304171	SRC Casing Cover
4	034135	NEW β WX Tip Adapter	14	Y90201015	O ring 1015	16 ~ 28	YEW000050	YMES-500W T-axis Unit for wire clamp
5	061445	WX Senter Ceramic	15	Y90201016	O ring 1016	29 ~ 34	YMES-500W Cable Assy for wire clamp	
6	061447	WX451/452 Nozzle Adapter	16	YEA000018	YSRC Clamp Block Assy	30	016076	Liner308RR/309R1-N-1.3m(With Liner O ring)
7	061449	WX451/452 Nozzle Spacer(With O ring1015,1016)	17	3001024	Hose Clamp 286-7R		016126	Liner308RR-N-1.3m 1.6(With Liner O ring)
8	061448	WX451/452 Nozzle Nut	18	YM0980009	YMST-9800-09 Ring	31	036035	Liner O ring(S-4)
9	061440	WX451/452 Cover Rubber	19	YM0980012	YMST-9800-12 Rubber Boots	32	YB0312082	YMENS Gas Hose N
10	YEW005011	YMES-500W Torch Body(With O ring 1009,1015,4D-P10)	20	3001025	Hose Clamp 455-7R	33	Y0000FP10	O ring(4D P-10)
	YEW005811	YMES-508W Torch Body(With O ring 1009,1015,4D-P10)	21	3001023	SRC Jumper Cable (60SQ)	34	OS04-04D	O ring(4D S-4)



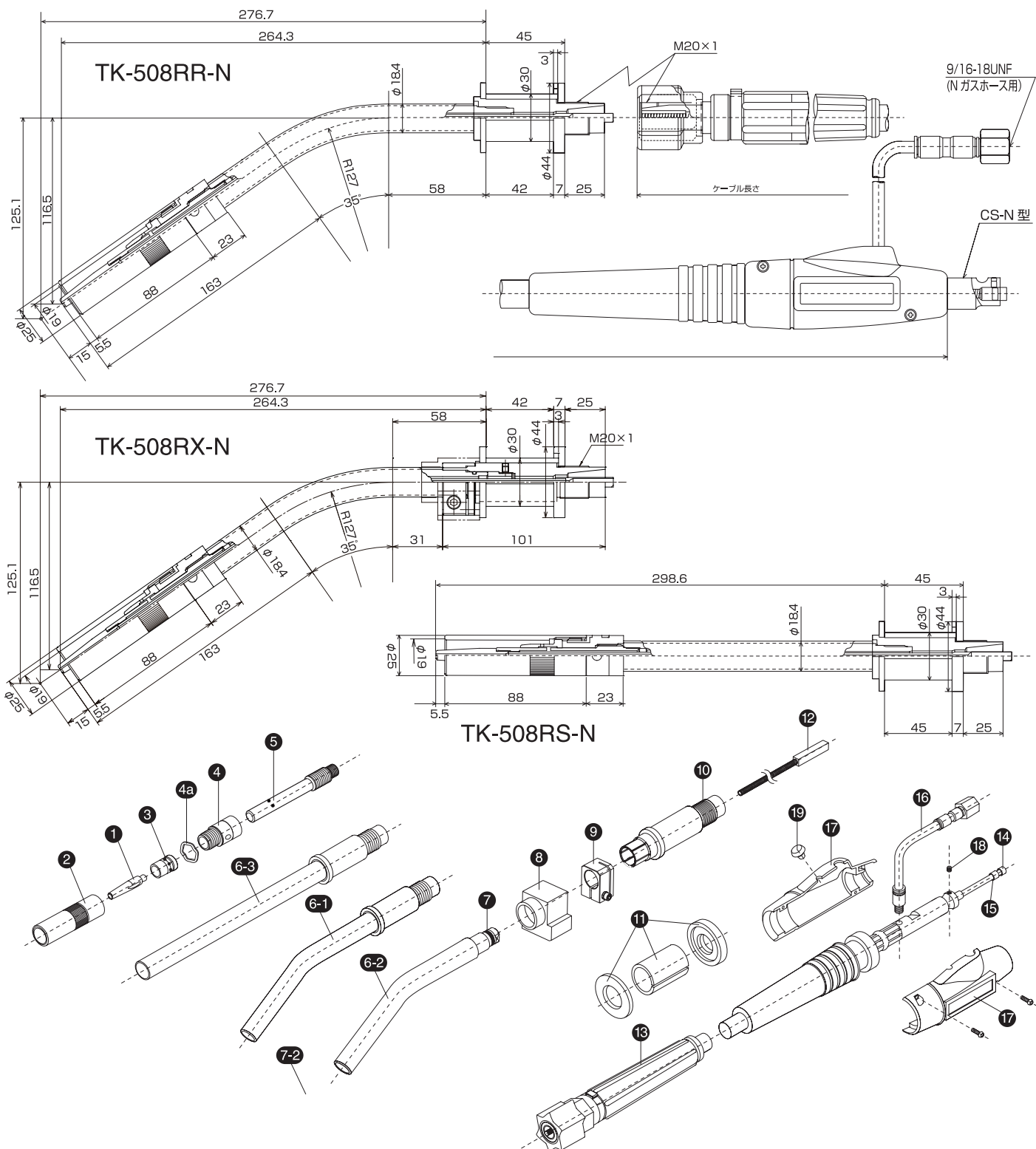
ACC-308RR-N/308RX-N Parts List

No	Part NO	Parts Name	No	Part NO	Parts Name	No	Part NO	Parts Name
	RA3RN0090	ACC-308RR-N-0.9	3	003002	Orifice N-S	1~7-1+12+13	016506	ACC-308RR Torch Body Assy
	RA3RN0100	ACC-308RR-N-1.0	4	004002	Insulation Tube N-S	1~7-2+8	3002031	ACC-308RX Torch Body Assy
	RA3RN0110	ACC-308RR-N-1.1	4a	255406	Wave Washer S	14 ~ 20	016N09	308RR/309R1-N Power Cable 0.9m
	RA3RN0120	ACC-308RR-N-1.2	4+4a	004004	Insulation Tube N-S(W/Wave Washer)		016N10	308RR/309R1-N Power Cable 1.0m
	RA3RN0130	ACC-308RR-N-1.3	5	016503	ACC-308RR Tip Body		016N11	308RR/309R1-N Power Cable 1.1m
	RA3XN0090	ACC-308RX-N-0.9	6	016504	ACC-308RR Guide Tube		016N12	308RR/309R1-N Power Cable 1.2m
	RA3XN0100	ACC-308RX-N-1.0	7-1	016501	ACC-308RR Torch Body		016N13	308RR/309R1-N Power Cable 1.3m
	RA3XN0110	ACC-308RX-N-1.1	7-2+8	3002032	YMES-308R Torch Body	15	016076	308RR-N Liner 1.3m
	RA3XN0120	ACC-308RX-N-1.2	5 ~ 7-1	016500	ACC-308RR Torch Body(W/Tip Body)		016122	308RR-N Liner 1.3m(0.9mm)
	RA3XN0130	ACC-308RX-N-1.3	5~7-2+8	3002033	ACC-308RX Torch Body(W/Tip Body)	16	036035	Liner O ring(S-4)
1	002003	Tip N-1.2	8	Y0000FP10	O Ring 4D P-10	17	033701	N/D Gas Hose Assy
	002005	Tip N-0.8	9	3002014	308RX Clamp Block Cover	18	033108	Robotic Torch Cable Supporter
	002001	Tip N-0.9	10	3002013	308RX Clamp Block	19	031035	Liner Set Screw M4*4
	002002	Tip N-1.0	11	3002012	308RX Clamp Body	20	033742	Plug Gushioning Rubber
2	001002	Nozzle N-16	12	016052	308RR Insulation Spacer	9~12	3002011	TK-308RX Clamp Body Assy
	001003	Nozzle N-12	13	016505	ACC-308RR Inner Tube	1~7-2+8 ~13	3002030	ACC-308RX Torch Assy



TK-308RR-N/308RX-N/308RS-N Parts List

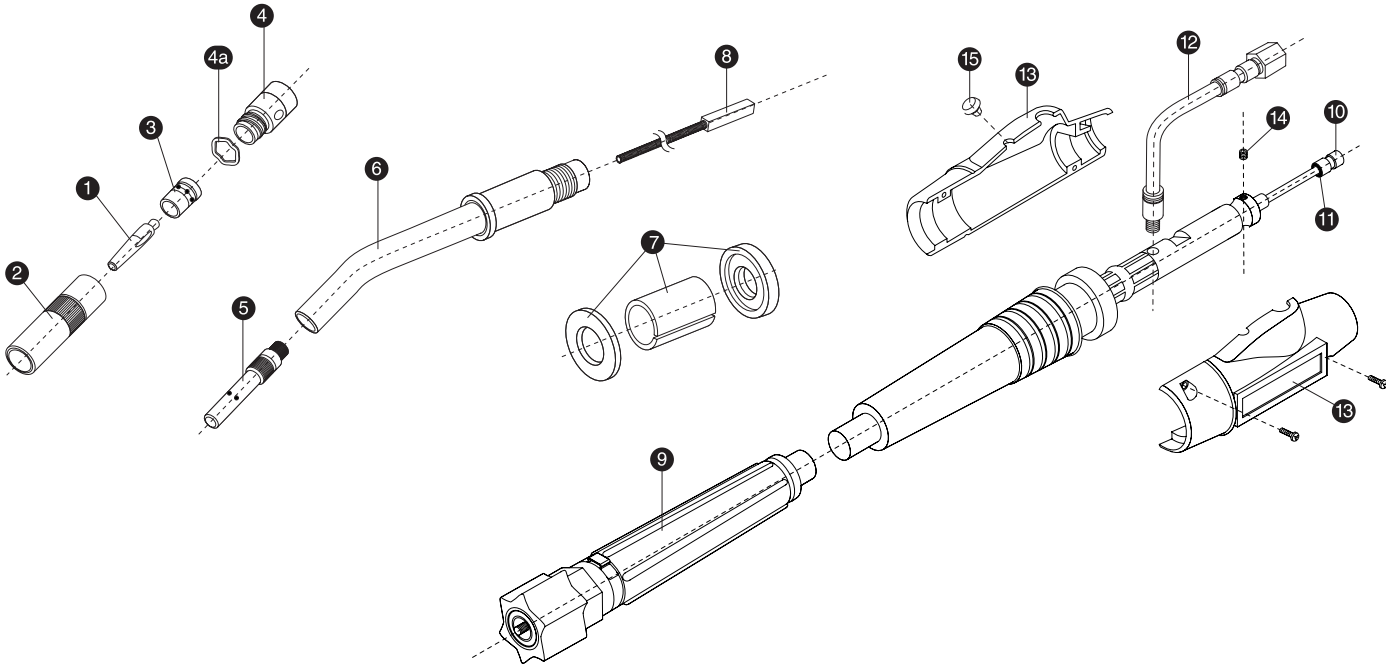
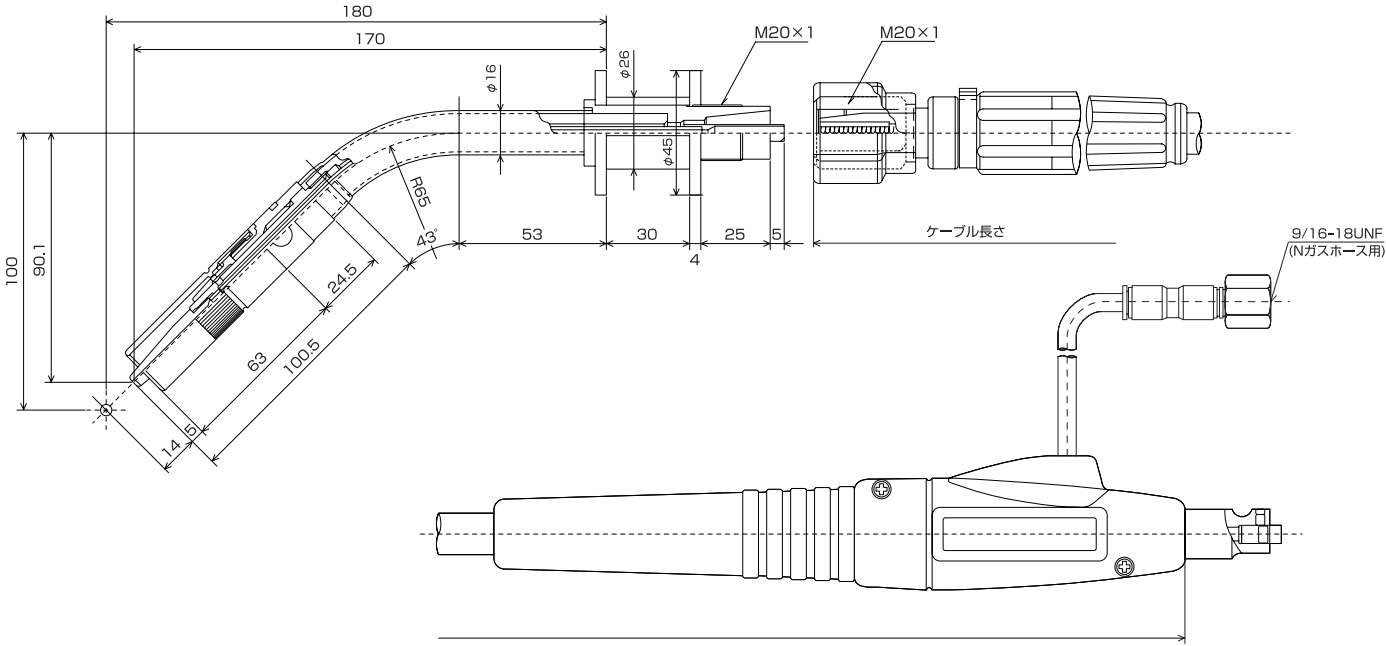
No	Part NO	Parts Name	No	Part NO	Parts Name	No	Part NO	Parts Name
	RT3RN0090	TK-308RR-N-0.9	2	001002	Nozzle N-16	12	016053	TK-308RR Inner Tube
	RT3RN0100	TK-308RR-N-1.0		001003	Nozzle N-12	1~6-1+11+12	016058	TK-308RR Torch Body Assy
	RT3RN0110	TK-308RR-N-1.1	3	003002	Orifice N-S	1~6-2+7	3001002	SRCT-308R Torch Body Assy
	RT3RN0120	TK-308RR-N-1.2	4	004002	Insulation Tube N-S	1~6-2+7~12	3002010	TK-308RX Torch Assy
	RT3RN0130	TK-308RR-N-1.3	4a	255406	Wave Washer S	1~6-3+11+12	016045	TK-308RS Torch Body Assy
	RT3RXN0090	TK-308RX-N-0.9	4+4a	004004	Insulation Tube N-S(W/Wave Washer)	13~19	016N09	308RR/309R1-N Power Cable 0.9m
	RT3RXN0100	TK-308RX-N-1.0	5	016051	TK-308RR Tip Body		016N10	308RR/309R1-N Power Cable 1.0m
	RT3RXN0110	TK-308RX-N-1.1	6-1	016054	TK-308RR Torch Body(w/o Tip Body)		016N11	308RR/309R1-N Power Cable 1.1m
	RT3RXN0120	TK-308RX-N-1.2	6-2+7	3001043	YMES-308R Torch Body(w/o Tip Body)		016N12	308RR/309R1-N Power Cable 1.2m
	RT3RXN0130	TK-308RX-N-1.3	6-3	016044	TK-308RS Torch Body(w/o Tip Body)		016N13	308RR/309R1-N Power Cable 1.3m
	RT3SN0090	TK-308RS-N-0.9	5+6-1	016050	TK-308RR Torch Body(W/Tip Body)	14	016076	308RR-N Liner 1.3m
	RT3SN0100	TK-308RS-N-1.0	5+6-2+7	3001042	YMES-308R Torch Body(W/Tip Body)		016122	308RR-N Liner 1.3m(0.9mm)
	RT3SN0110	TK-308RS-N-1.1	5+6-3	016043	TK-308RS Torch Body(W/Tip Body)	15	036035	Liner O ring(S-4)
	RT3SN0120	TK-308RS-N-1.2	7	Y0000FP10	O Ring 4D P-10	16	033701	N/D Gas Hose Assy
	RT3SN0130	TK-308RS-N-1.3	8	3002014	308RX Clamp Block Cover	17	033108	Robotic Torch Cable Supporter
1	002003	Tip N-1.2	9	3002013	308RX Clamp Block	18	031035	Liner Set Screw M4*4
	002005	Tip N-0.8	10	3002012	308RX Clamp Body	19	033742	Plug Gushioning Rubber
	002001	Tip N-0.9	8~10	3002011	TK-308RX Clump Body Assy			
	002002	Tip N-1.0	11	016052	308RR Insulation Spacer			



TK-508RR-N/508RX/508RS-N Parts List

No	Part NO	Parts Name	No	Part NO	Parts Name	No	Part NO	Parts Name
	RT5RN0090	TK-508RR-N-0.9	2	001001	Nozzle N-19mm 500A	11	016052	308RR Insulation Spacer
	RT5RN0100	TK-508RR-N-1.0		001010	Nozzle N-16mm 500A	12	016053	TK-308RR Inner Tube
	RT5RN0110	TK-508RR-N-1.1	3	003001	Orifice N-L	1~6-1+11+12	016401	TK-508RR Torch Body Assy
	RT5RN0120	TK-508RR-N-1.2	4	004001	Insulation Tube N-L	1~6-2+7~12	3002040	TK-508RX Torch Assy
	RT5RN0130	TK-508RR-N-1.3	4b	255407	Wave Washer L	1~6-3+11+12	016405	TK-508RS Torch Body Assy
	RT5RXN0090	TK-508RX-N-0.9	4+4b	004008	Insulation Tube N-L(W/Wave Washer)	13 ~ 19	017N09	508RR-N Power Cable 0.9m
	RT5RXN0100	TK-508RX-N-1.0	5	016403	TK-508RR Tip Body		017N10	508RR-N Power Cable 1.0m
	RT5RXN0110	TK-508RX-N-1.1	6-1	016404	TK-508RR Torch Body(w/o Tip Body)		017N11	508RR-N Power Cable 1.1m
	RT5RXN0120	TK-508RX-N-1.2	6-2+7	3002043	TK-508RX Torch Body(w/o Tip Body)		017N12	508RR-N Power Cable 1.2m
	RT5RXN0130	TK-508RX-N-1.3	6-3	016407	TK-508RS Torch Body(w/o Tip Body)		017N13	508RR-N Power Cable 1.3m
	RT5SN0090	TK-508RS-N-0.9	5+6-1	016400	TK-508RR Torch Body(W/Tip Body)	14	016126	508RR-N Liner 1.3m
	RT5SN0100	TK-508RS-N-1.0	5+6-2+7	3002042	TK-508RX Torch Body(W/Tip Body)	15	036035	Liner O ring(S-4)
	RT5SN0110	TK-508RS-N-1.1	5+6-3	016406	TK-508RS Torch Body(W/Tip Body)	16	033701	N/D Gas Hose Assy
	RT5SN0120	TK-508RS-N-1.2	7	Y0000FP10	O Ring 4D P-10	17	033108	Robotic Torch Cable Supporter
	RT5SN0130	TK-508RS-N-1.3	8	3002014	308RX Clamp Block Cover	18	031035	Liner Set Screw M4*4
1	002003	Tip N-1.2	9	3002013	308RX Clamp Block	19	033742	Plug Gushioning Rubber
	002017	Tip N-1.4	10	3002012	308RX Clamp Body			
	002004	Tip N-1.6	8 ~ 10	3002011	TK-308RX Clamp Body Assy			

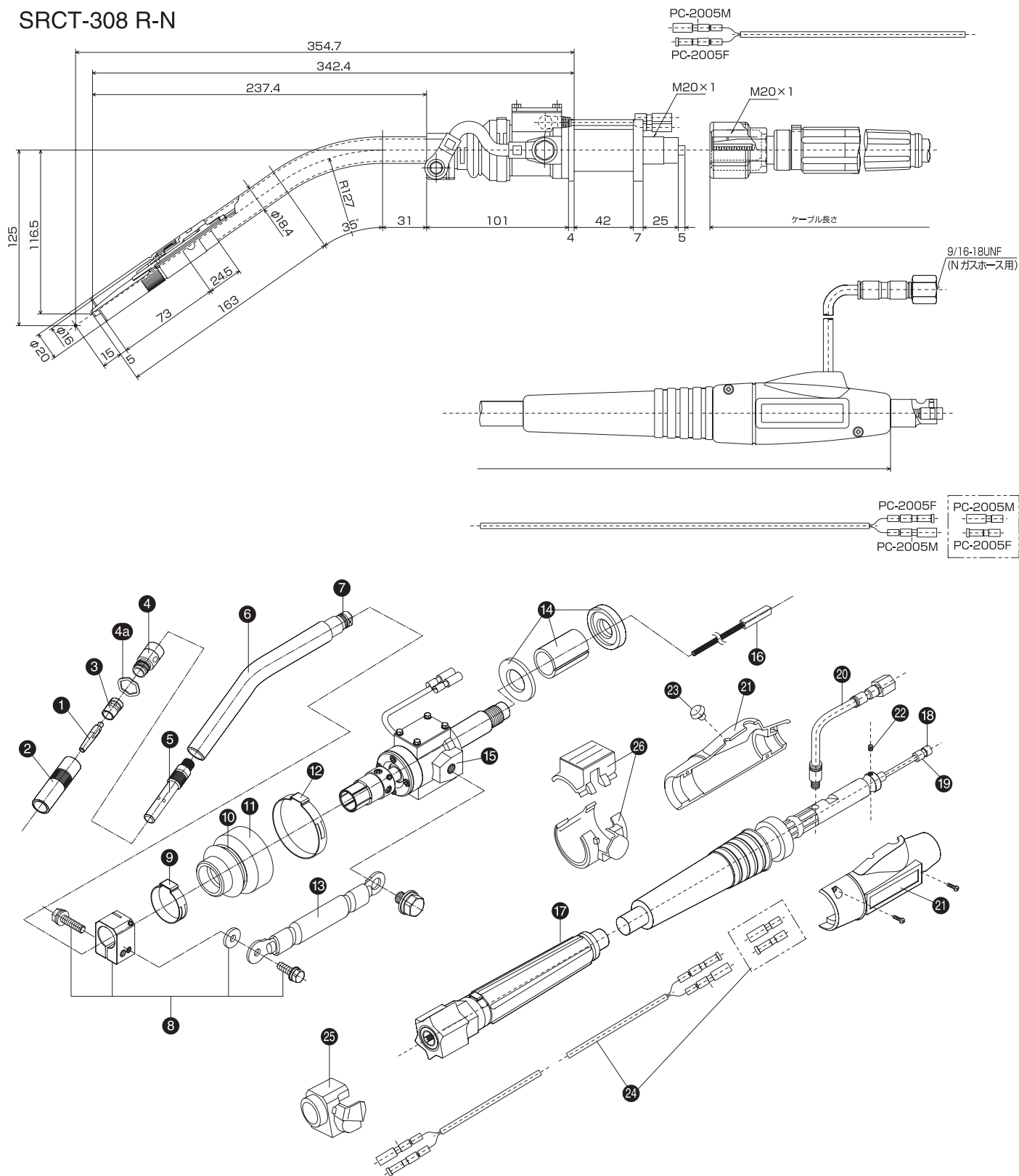
TK-309R1-N



TK-309R1-N Parts List

No	Part NO	Parts Name	No	Part NO	Parts Name
	RT9SN0090	TK-309R1-N-0.9	8	016053	TK-308RR Inner Tube
	RT9SN0100	TK-309R1-N-1.0	1 ~ 8	016049	TK-309R1 Torch Body Assy
	RT9SN0110	TK-309R1-N-1.1	9 ~ 15	016N09	308RR/309R1-N Power Cable 0.9m
	RT9SN0120	TK-309R1-N-1.2		016N10	308RR/309R1-N Power Cable 1.0m
	RT9SN0130	TK-309R1-N-1.3		016N11	308RR/309R1-N Power Cable 1.1m
1	023010	Contact Tip D-1.2		016N12	308RR/309R1-N Power Cable 1.2m
2	001013	Nozzle N-16 63L		016N13	308RR/309R1-N Power Cable 1.3m
3	003002	Orifice N-S	10	016076	308RR-N Liner 1.3m
4	004002	Insulation Tube N-S		016122	308RR-N Liner 1.3m(0.9mm)
4a	255406	Wave Washer S	11	036035	Liner O ring(S-4)
4+4a	004004	Insulation Tube N-S(W/Wave Washer)	12	033701	N/D Gas Hose Assy
5	036001	CS Tip Body A	13	033108	Robotic Torch Cable Supporter
6	016047	TK-309R1 Torch Body(w/o Tip Body)	14	031035	Liner Set Screw M4*4
5+6	016046	TK-309R1 Torch Body(W/Tip Body)	15	033742	Plug Gushioning Rubber
7	016048	309R1 Insulation Spacer			

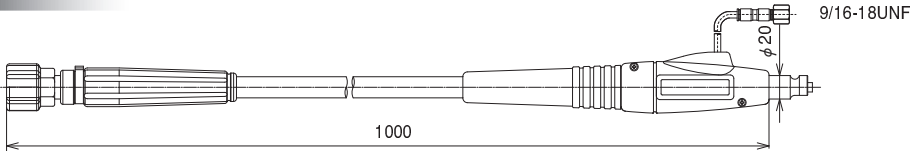
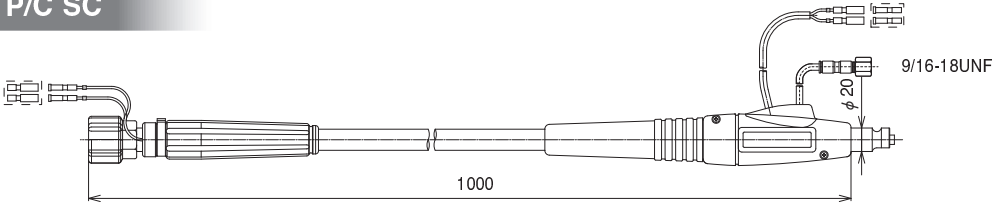
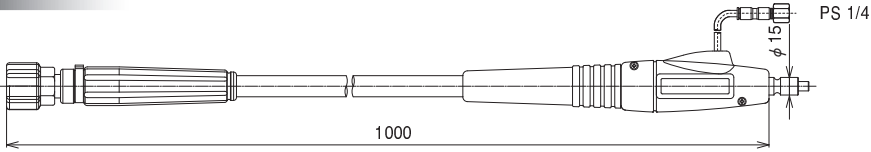
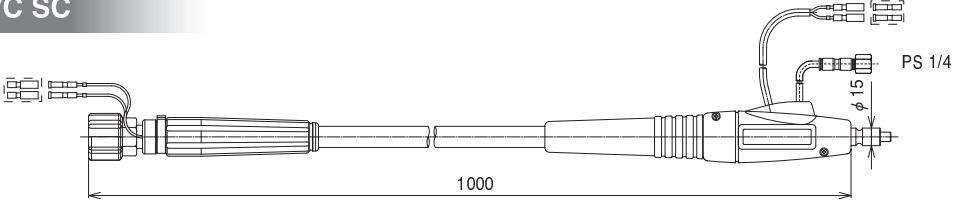
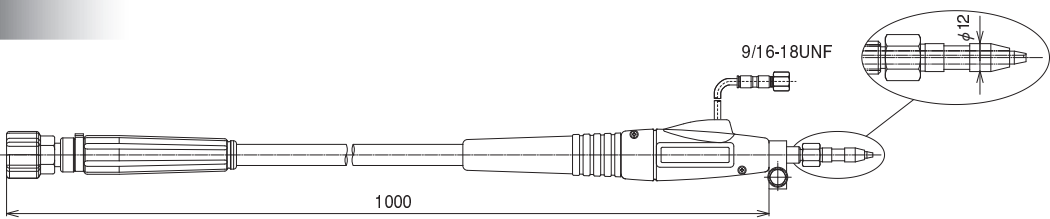
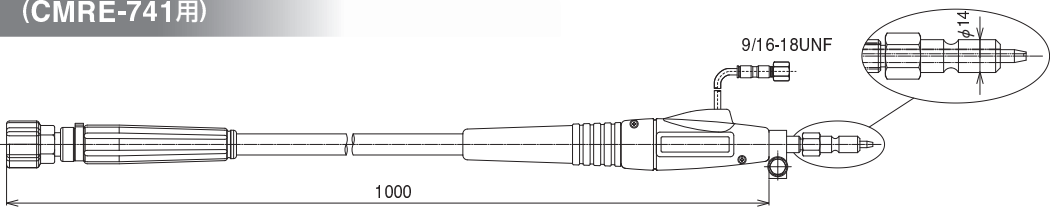
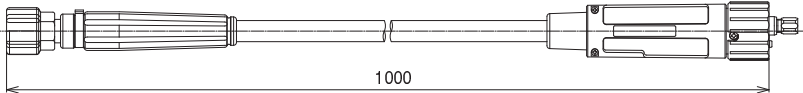
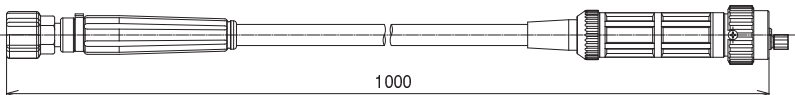
SRCT-308 R-N



SRCT-308R-N Parts List

No	Part NO	Parts Name	No	Part NO	Parts Name	No	Part NO	Parts Name
	RS3RN0090	SRCT-308R-N-0.9	5	016051	TK-308RR Tip Body	17 ~ 23	016N10	308RR/309R1-N Power Cable 1.0m
	RS3RN0100	SRCT-308R-N-1.0	6+7	3001043	YMES-308R Torch Body		016N11	308RR/309R1-N Power Cable 1.1m
	RS3RN0110	SRCT-308R-N-1.1	7	Y0000FP10	O-Ring 4D-P10		016N12	308RR/309R1-N Power Cable 1.2m
	RS3RN0120	SRCT-308R-N-1.2	1 ~ 7	YEA003810-IL	YMES-308R Torch Body ASSY(Innertube less)		016N13	308RR/309R1-N Power Cable 1.3m
	RS3RN0130	SRCT-308R-N-1.3	8	YEA000018	YSRC Clamp Block Assy	18	016076	308RR-N Liner 1.3m
1	002003	Tip N-1.2	9	3001024	Hose Clamp 286-7R		016122	308RR-N Liner 1.3m(0.9mm)
	002005	Tip N-0.8	10	YM0980009	YMST-9800-09 Ring	19	036035	Liner O ring(S-4)
	002001	Tip N-0.9	11	YM0980012	YMST-9800-12 Rubber Boots	20	033701	N/D Gas Hose Assy
	002002	Tip N-1.0	12	3001025	Hose Clamp 455-7R	21	033108	Robotic Torch Cable Supporter
2	001002	Nozzle N-16	13	3001023	SRC Jumper Cable	22	031035	Liner Set Screw M4*4
	001003	Nozzle N-12	14	016052	308RR Insulation Spacer	23	033742	Plug Gushioning Rubber
3	003002	Orifice N-S	8 ~ 15	3001001	SRC Unit Assy	24		SRC Extra Cable(W/Terminal set)
4	004002	Insulation Tube N-S	16	3001004	SRCT-308R Inner Tube	25	YM1304170	SRC Clamp Block Cover
4a	255406	Wave Washer S	1 ~ 16	3000002	SRCT-308R Torch Assy	26	YM1304171	SRC Casing Cover
4+4a	004004	Insulation Tube N-S(W/Wave Washer)	17 ~ 23	016N09	308RR/309R1-N Power Cable 0.9m			

[9]Power Cable

308RR-N-1.0 P/C	
308RR-N-1.0 P/C SC	
308RR-1.0 P/C	
308RR-1.0 P/C SC	
308RR-D-1.0 P/C	
308RR-DD-1.0 P/C (CMRE-741用)	
308RR-AD-1.0 P/C	
308RR-BZ-1.0 P/C	

TC1502T01-1

MOTOMAN Robot

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