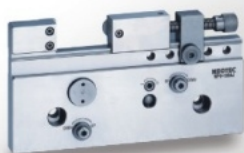




Sodick

**Comprehen-
sive List of
Consumables**

Vol.11.0



Comprehensive List of Consumables

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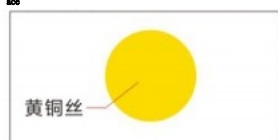
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Yan T S U B A M E P L U S W I R E

brass electrode wire



Intersecting surface



■ sub point

• high dimensional accuracy

The diameter tolerance is ± 0 to -0.002mm , and the roundness tolerance is within 0.001mm .

• orthogonality superiority

Each spool of wire undergoes bending and twisting inspection to ensure stable automatic threading success rate.

• stable mechanical properties

The tensile strength, elongation, and breaking load of the electrode wire must be inspected by automatic measuring equipment to ensure consistent quality control.

• super smooth surface

The unique diamond wire drawing die and lubrication management system were introduced, resulting in an electrode wire surface that is exceptionally smooth, free from bumps, dirt, or scratches.

• Made in Japan

Production and quality management are handled by Sodick F · TEWS Division, a subsidiary of Sodick Group.

■ size specification

Product Code	Electrode wire diameter	Volume weight	Trade name	Pack
J00378A	0.10	3kg roll	Yan T S U B A M E WIREP 100 P5-3	1 box, 4 lanes
J13062A	$\phi 0.15$	3kg roll	Yan T S U B A M E PLUS WIREP 150 P5-3	1 box, 4 rolls
J13066A	$\phi 0.20$	5kg roll	Yan T S U B A M E PLUS WIRE 200 P5-5	1 box, 4 rolls
J13068A		6kg roll	Yan T S U B A M E PLUS WIRE 200 P5-6	1 box, 4 rolls
J13069A		10kg roll	Yan T S U B A M E PLUS WIRE 200 P10-10	1 box, 2 rolls
J13071A		20kg roll	Yan T S U B A M E PLUS WIRE 200 P20-20	1 box, 1 roll
J13073A		30kg roll	Yan T S U B A M E PLUS WIRE 200 DP30-30	1 box, 1 roll
J13074A	0.25	5kg roll	Yan T S U B A M E PLUS WIRE 250 P5-5	1 box, 4 rolls
J13077A		6kg roll	Yan T S U B A M E PLUS WIRE 250 P5-6	1 box, 4 rolls
J13079A		10kg roll	Yan T S U B A M E PLUS WIRE 250 P10-10	1 box, 2 rolls
J13082A		20kg roll	Yan T S U B A M E PLUS WIRE 250 P20-20	1 box, 1 roll
J13084A		30kg roll	Yan T S U B A M E PLUS WIRE 250 DP30-30	1 box, 1 roll
J13085A	0.30	5kg roll	Yan T S U B A M E PLUS WIRE 300 P5-5	1 box, 4 rolls
J13087A		6kg roll	Yan T S U B A M E PLUS WIRE 300 P5-6	1 box, 4 rolls
J13089A		10kg roll	Yan T S U B A M E PLUS WIRE 300 P10-10	1 box, 2 rolls
J13090A		20kg roll	Yan T S U B A M E PLUS WIRE 300 P20-20	1 box, 1 roll
J13092A		30kg roll	Yan T S U B A M E PLUS WIRE 300 DP30-30	1 box, 1 roll

Starting from 1 box

YAN T S U B A M E E C O electrode wire

ETO wire electrode



■ sub point

• extremely smooth surface quality

We employ a unique production management approach to achieve surface quality with minimal defects such as unevenness, dirt, and scratches. This method is suitable for standard processing requirements that demand high precision and surface finish.

• Excellent linearity

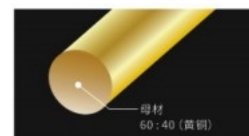
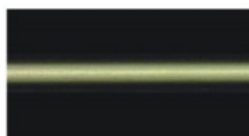
The production management of distortion and curling is thoroughly implemented, achieving excellent linearity. It features stable automatic threading rate, making the processing operation more smooth.

• Copper: Zinc ratio is 60:40

Leveraging extensive expertise in manufacturing technology, we have developed this electrode wire with a high zinc content. The elevated zinc ratio enhances processing speed.

■ size specification

Product Code	Electrode wire diameter	Volume weight	Trade name	Pack
J59160A	0.20	5kg	Tsubame ECO electrode wire 200 P5-5	1 box, 4 rolls
J59162A		10kg roll	Tsubame ECO electrode wire 200 P10-10	1 box, 2 rolls
J59163A		20kg roll	Tsubame ECO electrode wire 200 P20-20	1 box, 1 roll
J59164A		30kg roll	Tsubame ECO electrode wire 200 DP30-30	1 box, 1 roll
J59165A	0.25	5kg	Tsubame ECO electrode wire 250 P5-5	1 box, 4 rolls
J59167A		10kg roll	Tsubame ECO electrode wire 250 P10-10	1 box, 2 rolls
J59168A		20kg roll	Tsubame ECO electrode wire 250 P20-20	1 box, 1 roll
J59169A		30kg roll	Tsubame ECO electrode wire 250 DP30-30	1 box, 1 roll
J59170A	$\phi 0.30$	5kg	Tsubame ECO electrode wire 300 P5-5	1 box, 4 rolls
J59172A		10kg roll	Tsubame ECO electrode wire 300 P10-10	1 box, 2 rolls
J59173A		20kg roll	Tsubame ECO electrode wire 300 P20-20	1 box, 1 roll
J59174A		30kg roll	Tsubame ECO electrode wire 300 DP30-30	1 box, 1 roll



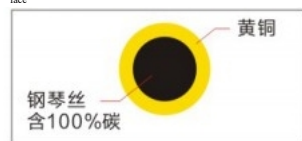
Electrode wire for wire cutting

A P electrode wire

Copper-plated electrode wire for precision micro-machining



■ intersecting surface



■ characteristic

• high tensile strength

The tensile strength is almost twice that of brass electrode wire.

• high conductivity

The surface of the brass coating has strong conductivity, which can be directly used in the processing conditions of brass wire, so that the characteristics of the discharge machining machine can be brought into play.

• straightness reliability

The straightness is very high, which is enough to complete the ultra-precision fine machining and automatic threading operation.

• Good surface quality

The surface hardness is the same as that of the brass electrode wire, which can reduce the wear of the wire feeding system (e.g. the conductive block or the wire feeder).

• Low price

The price is lower than tungsten wire, economical and practical.

■ size specification

Product Code	Electrode wire diameter	Volume (m)	spool	trade name	pack
2088779	0.03	5,000m roll	P5-RK	AP030 P5RK-5000	1 box, 1 roll
2088781	0.04	5,000m roll	P5-RK	AP040 P5RK-5000	1 box, 1 roll
2088783	φ 0.05	5,000m roll	P5-RK	AP050 P5RK-5000	1 box, 1 roll
2088784		10,000m roll	P5-RK	AP050 P5RK-10000	1 box, 1 roll
2088785		20,000m roll	P5-RK	AP050 P5RK-20000	1 box, 1 roll
2088789	φ 0.07	5,000m roll	P5-RK	AP070 P5RK-5000	1 box, 1 roll
2088790		10,000m roll	P5-RK	AP070 P5RK-10000	1 box, 1 roll
2088791		20,000m roll	P5-RK	AP070 P5RK-20000	1 box, 1 roll
2088795	0.10	5,000m roll	P5-RK	AP 100 P5RK-5000	1 box, 1 roll
2088796		10,000m roll	P5-RK	AP 100 P5RK-10000	1 box, 1 roll
2088797		20,000m roll	P5-RK	AP 100 P5RK-20000	1 box, 1 roll

Starting from 1 box

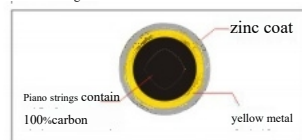
For other sizes, please contact us separately.

A P Z electrode wire

Galvanized electrode wire for precision micro-machining



■ intersecting surface



■ sub point

• galvanized electrode wire

The core wire is made of piano wire with a special galvanized coating on its surface.

• Processing speed increased

The galvanized coating can enhance the discharge power. In oil processing, compared with AP electrode wire, the speed is improved.

30-80%。

• straightness reliability

The automatic threading performance is the same as that of AP electrode wire.

• high finishing quality

The surface finish quality of the finished product is comparable to, or even surpasses, that of the AP electrode wire.

• Low price

The price is lower than tungsten wire, economical and practical.

■ size specification

Product Code	Electrode wire diameter	Volume (m)	Spool	Trade name	Pack
J24902A	φ 0.03	5,000m roll	P5-RK	APZ030 P5RK-5000	1 box, 1 roll
2088798	φ 0.04	5,000m roll	P5-RK	APZ040 P5RK-5000	1 box, 1 roll
2088799		10,000-meter coil	P5-RK	APZ040 P5RK-10000	1 box, 1 roll
2088800		5,000m roll	P5-RK	APZ050 P5RK-5000	1 box, 1 roll
2088801	φ 0.05	10,000-meter coil	P5-RK	APZ050 P5RK-10000	1 box, 1 roll
2088802		20,000m roll	P5-RK	APZ050 P5RK-20000	1 box, 1 roll
2088803		5,000m roll	P5-RK	APZ070 P5RK-5000	1 box, 1 roll
2088804	φ 0.07	10,000-meter coil	P5-RK	APZ070 P5RK-10000	1 box, 1 roll
2088805		20,000m roll	P5-RK	APZ070 P5RK-20000	1 box, 1 roll
2088806		5,000m roll	P5-RK	APZ 100 P5RK-5000	1 box, 1 roll
2088807	φ 0.10	10,000-meter coil	P5-RK	APZ100 P5RK-10000	1 box, 1 roll
2088808		20,000m roll	P5-RK	APZ100 P5RK-20000	1 box, 1 roll

* Minimum order quantity: 1 box

For other sizes, please contact us separately.

TWS electrode wire



■ size specification

Product Code	Electrode wire diameter	Volume (m)	Trade name	Pack
2085878	0.02	3,000-meter coil	TWS-20	1 box, 1 roll
2082767	0.03	3,000-meter coil	TWS-30	1 box, 1 roll
2082318	0.05	5,000m roll	TWS-50	1 box, 1 roll
2082768	φ 0.07	5,000m roll	TWS-70	1 box, 1 roll
2085707	0.10	5,000m roll	TWS-100	1 box, 1 roll

Starting from 1 box

※ Features exceptional tensile strength, ideal for ultra-precision machining.

LINE CUTTING AND ELECTRODEPULTING FILTER FOR MACHINE

Filter's
System of selection

Filters are categorized into water filters and oil filters, each further divided into internal pressure and external pressure types. Additionally, based on size and filter paper diameter variations, other classifications may exist. If a filter is used that.

The filter of the machine tool is not matched, which will affect the performance of the filter, and sometimes even cause the filter to break.

When selecting filters, make sure to choose the correct filter for your discharge machining machine from the "Sodick Filter List for Each Model". For filters not listed, contact our company.

Sodick Filter List by Model(Water: SHF/HF series, Oil: MF series)							
Classify	Type	Aquatic			Edible		
		Way	Trade name	Number	Way	Trade name	Number
AL series	AL400P/AL600P/AL400G/AL600G/ALN400G/ALN600G/ALN400Q/ALN600Q	Internal pressure	SHF-25E	3			
	AL800G/ALN800G	Internal pressure	SHF-25E	4			
VL series	VL400Q/VL600Q	Internal pressure	SHF-25E	2			
SL series	SL400P/SL600P/SL400G/SL600G/SLN400G/SLN600G	Internal pressure	SHF-25E	3			
	SL400Q (~#A326) SL600Q (~#A276) SL400Q (#A327~) SL600Q (#A277~)	Internal pressure	SHF-25E	2			
AG series	AG400L/AG600L	Internal pressure	SHF-25E	3			
	AG360L	Internal pressure	SHF-25E	2			
AD series	AD325L/AD360L	Internal pressure	SHF-25E	2			
AQ series	AQ400L/AQ600L/AQ300L/AQ325L/AQ360L/AQ535L/AQ550L/AQ560L/AQ800L/AQ600/AQ750L (~#642)/HANA-CO/JUNCO	Internal pressure	SHF-25E	2			
	AQ327L/AQ537L/AQ900L	Internal pressure	SHF-25E	3			
	AQ750L (#643~)/AQ1200L/AQ1500L	Internal pressure	SHF-25E	4			
	Combined filter	External pressure	HF-23	4			
A series	A300/A320/A325/A530/A535/A750	Internal pressure	SHF-25E or HF-25A	2			
	A350/A500/A600 M25 power supply	Internal pressure	SHF-25E	2			
	A350/A500/A600 models Column filter up to the M22 power supply	Internal pressure	SHF-25E or HF-25A	2			
	A350/A500/A600 Combination Filter	External pressure	HF-23	2			
	A1100S	External pressure	HF-23	2			
AP series	AP200L/AP200/AP300 (Water)	External pressure	HF-23	2			
	AP200L/AP200/AP300 (water-based oil)	External pressure	HF-23	2	External pressure	MF-1546	2
	AP200L/AP200 (oil)				External pressure	MF-1546	2
	AP250L (water-oil)	Internal pressure	SHF-25E	1	Internal pressure	MF-2400	2
	AP350L (oil)				Internal pressure	MF-2400	2
	AP330/AP450/AP450L (~#686) (water)	External pressure	HF-23	4			
	AP330/AP450/AP450L (~#686) (water-based oil)	External pressure	HF-23	4	External pressure	MF-2628	2
	AP330/AP450/AP450L (~#686) (oil)				External pressure	MF-2628	2
	AP330/AP450/AP450L (Space-saving model)	Internal and external pressure	HF-3445A	2	Internal and external pressure	MF-3445A	2
	AP450L (#687~) (water)	Internal pressure	SHF-25E	2	Internal pressure	MF-2400	2
	AP450L (No.687~) (oil)				Internal pressure	MF-2400	2
	AP500L (Water)	Internal pressure	SHF-25E	3			
	AP650L (Water)	Internal pressure	SHF-25EK	3			
	AP650L (oil)			—	Internal pressure	MF-2400	2
EXC series	EXC100/EXC100S/EXC100L				External pressure	MF-1546	1
HBW series	HB1000W	Internal pressure	SHF-25E	4			
BF series	BF275/BF280L	Internal pressure	SHF-25E or HF-25A	1			
EPOC series	E300/E500/E600/E800/E1100	External pressure	HF-23	2			
AW series	AW330/AW453	External pressure	HF-02	2	External pressure	MF-1546	2

For aircraft models not listed in the above table, please contact our company.

SHF-25E

Aquatic internal pressure filter



Product Code	Trade name	Way	Grid mesh (μ)	Outer diameter × Inner diameter × Height (mm)
2065374	SHF-25E (2 units per box)	Internal pressure	3~5	340×46×300
J04021A	SHF-25E (1 box, 3 units)	Internal pressure	3~5	340×46×300

Please order by quantity

■Sodick wire-cutting discharge machining machine corresponding model

AL400P/AL600P/AL400G/AL600G/ALN400G/ALN600G/ALN400Q/ALN600Q/AL800G/ALN800G/VL400Q/VL600Q/SL400P/SL600P/SL400G/SL600G/SLN400G/SLN600G/SL400Q/SL600Q/AG400L/AG600L/AG360L/AD325L/AD400L/AD600L/AD300L/AQ325L/AQ327L/AQ36L/AQ535L/AQ537L/AQ550L/AQ560L/AQ750L/AQ900L/AQ1200L/AQ1500L/AQ600/HANACO/JUNCO/AP250L (water use)/AP450L (#687~)/AP500L/HB1000W/A300/A320/A325/A350/A500/A530/A535/A600/A750/BF275/BF280

HF-23

Aquatic external pressure filter



Product Code	Trade name	Way	Grid mesh (μ)	Outer diameter × Inner diameter × Height (mm)
2060553	HF-23	External pressure	5~10	260×37×280

■Sodick wire-cutting discharge machining machine corresponding model

AP200/AP200L/AP300/AP330/AP450/AP450L
A350/A500/A600/A1100S E300/E500/E600/E800/E1100 Combination Filter (Water Use)

MF-1546

Oil external pressure filter



Product Code	Trade name	Way	Grid mesh (μ)	Outer diameter × Inner diameter × Height (mm)
2060137	MF-1546	External pressure	5~10	150×72×450

■Sodick wire-cutting discharge machining machine corresponding model

AP200/AP200L/AP300/EXC100/EXC100S/EXC100L
AW330/AW453

MF-2628

Oil external pressure filter



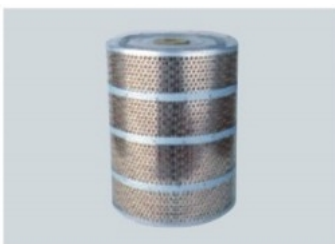
Product Code	Trade name	Way	Grid mesh (μ)	Outer diameter × Inner diameter × Height (mm)
2060139	MF-2628	External pressure	10~20	260×36×280

■Sodick wire-cutting discharge machining machine corresponding model

AP330/AP450/AP450L (up to #686) / Oil filter with optional combination filter

MF-2400

Oil internal pressure filter



Product Code	Trade name	Way	Grid mesh (μ)	Outer diameter × Inner diameter × Height (mm)
2060835	MF-2400	Internal pressure	10~20	260×29×340

■Sodick wire-cutting discharge machining machine corresponding model

AP250L (oil-grade)/AP350L (oil-grade)/AP450L (#687~)/AP650L (oil-grade)

Electrofirework Discharge Processing Machine Filter

S o d i c k All Filter Models				
Series name	Type	Edible		
		Way	Filter name	Number
C series	C32	External pressure	MF-1530	1
AD series	AD25L	External pressure	MF-1530	1
	AD3L/AD30L/AD35L	Internal pressure	MF-2400	2
AG series	AG35L/AG40L/AG40LP/AG60L	Internal pressure	MF-2400	2
	AG55L/AG75L/AG80L	Internal pressure	MF-2400	4
AQ series	AQ25L/AQ35L	Internal pressure	MF-2400	2
	AQ55L/AQ75L	Internal pressure	MF-2400	4
	AQ15L	Internal pressure	MF-2400	12
AM series	AM3L/AM25L/AM35/AM35L/AM45L	Internal pressure	MF-2400	2
	AM55/AM55L/AM65	Internal pressure	MF-2400	4
AP series	AP1/AP3	External pressure	MF-1546	1
	AP1 L	Internal pressure	MF-1530P	1
	AP3L	Internal pressure	MF-1530P	1
EPOC series	E2/E3/E4	External pressure	MF-1546	2
	E5/E6	External pressure	MF-2628	2
A series	A1	External pressure	MF-1546	1
	A2/A3/A4	External pressure	MF-1546	2
	A5/A6/A7	External pressure	MF-2628	2
	A30	Internal pressure	MF-2400	1
	A35/A50/A4R/A4	Internal pressure	MF-2400	2
	A65/A5R	Internal pressure	MF-2400	4
	A85/A85L/A10/A10L	Internal pressure	MF-2400	8
PGM series	A15/A15L	Internal pressure	MF-2400	16
	PGM3	External pressure	MF-1546	2
	PGM 30	Internal pressure	MF-2400	1
	PGM 35/PGM 50	Internal pressure	MF-2400	2
AH series	PGM65	Internal pressure	MF-2400	4
	AH5/AH6/AH7	External pressure	MF-2628	2
	AH65	Internal pressure	MF-2400	4
SD series	AH85/AH10	Internal pressure	MF-2400	8
	SD3LR	Internal pressure	MF-2400	2

MF-1546

oil @-@ using internal @-@ pressure filter

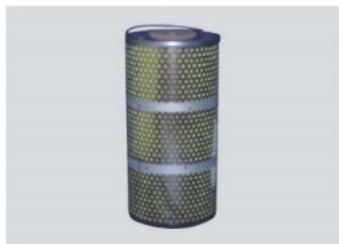


Product Code	Trade name	Way	Grid mesh (μ)	Outer diameter × Inner diameter × Height (mm)
2060137	MF-1546	Internal pressure	5~10	150x72x450

■ Sodick EDM machine models: A1/A
2/A3/A4/AP1/AP3
E2/E3/E4/PGM3

MF-1530P

oil @-@ using internal @-@ pressure filter



Product Code	Trade name	Way	Grid mesh (μ)	Outer diameter × Inner diameter × Height (mm)
2065728	MF-1530P	Internal pressure	10~20	150×33×300

- Sodick AP1L/AP3L series EDM machine

MF-2400

Oil internal pressure filter



Product Code	Trade name	Way	Grid mesh (μ)	Outer diameter × Inner diameter × Height (mm)
2060835	MF-2400	Internal pressure	10~20	260×29×340

- Sodick EDM machine corresponding model
A4/A4R/A5R/A30/A35/A50/A65/A85/A85L/A10/A10L/A15/A15L/AH65/AH85/AH10/AQ25L/AQ35L/AQ55L/AQ75L/PGM30/PGM35/PGM501/PGM65/SD3LR/AM3L/AD3L/AD30L/AD35L/AG35L/AM45L/AG55L/AG75L/AM65L/AQ15L/AG40L/AG40LP/AG60L/AG80L/AD35L

MF-2628

Oil external pressure filter



Product Code	Trade name	Way	Grid mesh (μ)	Outer diameter × Inner diameter × Height (mm)
2060139	MF-2628	External pressure	10~20	260×36×280

- Sodick EDM machine models: A5/A6/A7/AH5/AH6/AH7/E5/E6

exchange resin

ecological ion bottle



Product Code	Trade name	For reference
J04019A	Ion exchange bottle	No elbow tube, ion, or lock
J04025A	Electrolyte Ion Elbow Tube (Large Diameter)	D22.5 (2 pieces/set)
J04024A	Electrolyte Ion Elbow Tube (Small Diameter)	D16 (2 pieces/set)
J04018A	Ion lock	With the key
J04027A	Ion filter	External, spring-loaded
J04028A	Eco Ion Filter Mesh [INSUS MESH]	
J04029A	Ion exchange filter mesh	

KH Ion Exchange Resin

Disaccharide exchange tree



Product Code	Trade name	Pack
2084914	KH ions 10L	10L (5Lx2 bags)
J44406A	KH Ion 15L	15L (5Lx3 bags)
2088311	KH ions 25L	25L (5Lx5 bags)

- KH ion is a kind of ion exchange resin specially developed for wire cutting discharge machining machine, which can keep the resistivity of machining solution in proper range and stabilize machining. KH ion is a kind of ion exchange resin with high cost performance. KH ions utilize new resin, with no use of recycled (second-hand) resin whatsoever.

D I C E Guide Wire Size Table

size specification a

DICE AQ-1U (T)



DICE AQ-1U (T)

FJ-AWT Dedicated DICE Wire Guide (Upper) AL Series
AP250L(#C374~#T057~)
AP350L
AP450L(#J785~)
AP650L(#J016~)

Electrode wire diameter (φmm)	Size (φmm)	Product Code
0.03	0.040	J25270A
0.05	0.060	J25272A
0.07	0.080	J25274A
0.10	0.105	J17101A
	0.110	J17102A
0.15	0.155	J17104A
	0.160	J17105A
0.20	0.205	J17107A
	0.210	J17108A
0.25	0.255	J17110A
	0.260	J17111A
0.30	0.310	J17114A

size specification b

DICE AQ-1U(W)



DICE AQ-1U(W)

FJ-AWT dedicated DICE guidewire (upper) SL, AG, AQ series AP250L (#C255~#C373)
AP650L (~#J015)

Electrode wire diameter (φmm)	Size (φmm)	Product Code
0.10	0.110	3110253
0.15	0.155	3110259
	0.160	3110545
0.20	0.205	3110058
	0.210	3110546
0.25	0.255	3110291
	0.260	3110547
0.30	0.310	3110067

size specification c

DICE AQ-1U(S)



DICE AQ-1U(S)

VL series, AD325L

SuperJet AWT Option 0 Dedicated DICE Wire Guide (Upper)

FJ-AWT dedicated DICE guidewire (upper) SL, AG, AQ, AP series
Use when the electrode wire diameter is less than 0.07 mm

Electrode wire diameter (φmm)	Size (φmm)	Product Code
0.05	0.060	3110336
0.06	0.070	118642A
0.07	0.080	3110760
0.10	0.110	118762A
0.15	0.155	118745A
	0.160	118758A
0.20	0.205	118725
	0.210	118759A
0.25	0.255	118726
	0.260	118760A
0.30	0.310	118727

size specification d

DICE(COLOR)



DICE(COLOR)

87-3 type guidewire
(With AWT down/without AWT up)

Electrode wire diameter (φmm)	Size (φmm)	COLOR	Product Code
0.10	0.105		J03638A
	0.110		J03639A
	0.120		J03640A
0.15	0.155		J03641A
	0.160		J03642A
	0.170		J03643A
0.20	0.205		J03644A
	0.210		J03645A
	0.220		J03646A
0.25	0.255		J03647A
	0.260		J03648A
	0.270		J03649A
0.30	0.305		J03650A
	0.310		J03651A
	0.320		J03652A

D I C E Guide Wire Size Table

size specification
e

Diamond Wire Guide 87-3



Diamond Wire Guide 87-3

87-3 type guidewire
With AWT down / without AWT up

Electrode wire diameter (φmm)	Size (φmm)	Product Code	
		Falling-rising tone	Down
0.03	0.035	3083702	3083701
	0.040	3081429	3081435
0.04	0.045	J03636A	J03637A
	0.050	3081428	3081434
0.05	0.055	3083779	3083780
	0.060	3081427	3081433
	0.070	3081426	3081432
0.07	0.075	3084216	3082433
	0.080	3081425	3081431
	0.090	3081424	3081430

size specification
f

TAPERFLEX (large taper processing) for RDICE



Super Jet AWT Option 45 DICE
Wire Guide (Upper and Lower)
FJ-AWT Dedicated DICE Wire Guide (Lower)

Electrode wire diameter (φmm)	Size (φmm)	Product Code
0.20	0.205	3089087
	0.210	3089086
	0.220	3088898
0.25	0.255	3089093
	0.260	3089092
	0.270	3088913
0.30	0.305	3089096
	0.310	3089095
	0.320	3089094

size specification
g

TAPERFLEX (large taper processing) using RDECE (FJ-AWT)



FJ-AWT dedicated DICE guidewire (upper)

Electrode wire diameter (φmm)	Size (φmm)	Product Code
0.20	0.22	3110338
0.25	0.27	3110423

size specification
h

AWT guidewire device (FJ)



AWT guidewire (FJ)

FJ-AWT dedicated AWT guide wire device

Electrode wire diameter (φmm)	Size (φmm)	Product Code
0.03	0.05	J06539A
0.05	0.07	J06541A
0.07	0.09	J06543A
0.10	0.12	J06545A
0.15	0.17	J06547A
0.20	0.22	J06549A
0.25	0.27	J06551A
0.30	0.32	J06553A
0.33	0.35	J06555A
AP series AWT	0.40	J06558A

D I C E Guide Wire Size Table

size specification i

Sapphire Guide Wire



sapphire guide wire

Note 1: When using electrode wires with a diameter of $\phi 0.03$, the recommended size for the AWT wire threading tube is below $\phi 0.3$.

* In addition to the above sizes, there are intermediate sizes. Please consult separately for details.

It can also be used as an up-and-down guide wire on older models.

Electrode wire diameter (φmm)	size (φmm)	Product Code
0.03	0.04 (Note ①)	3081993
	0.05	3080202
0.04	0.06	3080204
0.05	0.07	3080205
0.07	0.09	3080207
0.10	0.11	3080211
0.15	0.17	3080214
0.20	0.22	3080220
0.25	0.27	3080224
0.30	0.32	3080226
AWT need	0.40	3080229
	0.60	3085043

size specification j

Split-Type Guidewire S (Diamond)



S split-type guidewire (diamond)

AP/EXC series AP-U guidewire (upper)

Electrode wire diameter (φmm)	Size (φmm)	Product Code
0.02	0.025	3111016
0.03	0.035	3111017
	0.040	J13110A
0.04	0.045	J13111A
	0.050	J13112A
0.05	0.055	3111018
	0.060	J13113A
0.07	0.075	3111019
	0.080	J13114A
0.10	0.105	3111020
0.15	0.155	3111021
0.20	0.205	3111022
0.25	0.255	3111023
0.30	0.305	3111024

size specification k

split @-@ style guidewire device Z (diamond) <diamond material>



Split-type guidewire device Z (Diamond)

Equipped with AWT 86-2/90-1 guide wire (upper) and 90-5/S guide wire (upper and lower)

Electrode wire diameter (φmm)	Size (φmm)	Product Code
0.03	0.035	J55315A
	0.040	J55316A
0.04	0.045	J55317A
	0.050	J55318A
0.05	0.055	J55319A
	0.060	J55320A
0.07	0.075	J55323A
	0.080	J55324A
0.10	0.105	J55327A
	0.110	J55328A
0.15	0.155	J55330A
	0.160	J55331A
0.20	0.205	J55333A
	0.210	J55334A
0.25	0.255	J55336A
	0.260	J55337A
0.30	0.305	J55339A
	0.310	J55340A
	0.320	J55341A

size specification l

Split-type guidewire device A+B (diamond) <diamond material>



Split-type guidewire device A+B (Diamond)

With AWT 86-2/90-1 guide wire (upper) and 90-5/S guide wire (upper and lower)

Electrode wire diameter (φmm)	Size (φmm)	Product Code
0.03	0.035	3082994
	0.040	3086306
0.04	0.045	J03570A
	0.050	3083904
0.05	0.055	3088361
	0.060	3088364
0.07	0.075	3082992
	0.080	3083334

List of Wire Guides Corresponding to Each Model

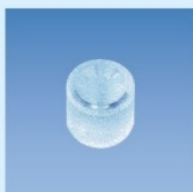
AL400P/AL600P/AL400G/AL600G/ALN400G/ALN600G /ALN400Q/ ALN600Q/AL800G/ALN800G

■FJ Type A (upper) ·FJ Type A (lower) FJ-AWT

falling-rising tone



DICE AQ-1U(T)



Catheter Guide
C 3080065



Nozzle C86-
2 3081604



JET AWT NOZZLE NSJ
G01467B



Conductive Block 87-3
J04254A

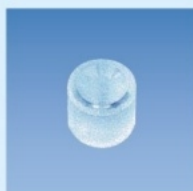
Down



DICE(COLOR)



Guide Wire
G J17100A



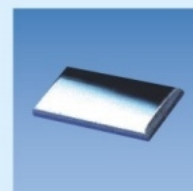
Catheter Guide
C 3080065



Floating nozzle SF-
JHS J44605F



Spring coil
FJ 3110304



Conductive block
87-3 J04254A

AP250L(#C374~, #T057~)/AP350L/AP450L(#J0785~)/AP65L(#J016~)

■FJ Type P (upper) ·FJ Type P (lower) FJ-AWT

Falling-rising tone



DICE AQ-1U(T)



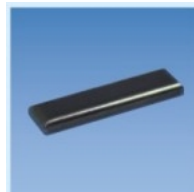
thread guide C
3080065



Nozzle C86-2
3081604



JETA WTN OZZLENSJ
G01467B



Conductive Block FJ(H=10)
J01118A

Down



DICE(COLOR)



thread guide G
J17100A



Thread guide C
3080065



Floating nozzle SFJHS
J44605F



Spring coil FJ
3110304



Conductive block FJ(H=10)
J01118A

List of Wire Guides Corresponding to Each Model

AQ300L/AQ325L(#641~)/AQ327L(~#942)/AQ535L(#251~) AQ537L(~#902)/AQ550L/AQ360L/AQ560L/AQ750L(~#540)/AQ600

■90-1 Type (Upper) ·87-3 Type (Lower) 97AWT Type

falling-rising tone



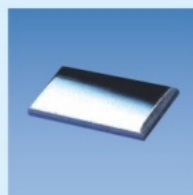
Split-type guidewire guide Z (diamond) 3082269



Guidewire guide C1 3081604



Nozzle C86-2 J04254A



Conductive block 87-3

Down



DICE(COLOR)



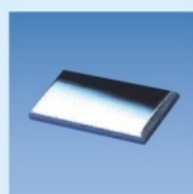
thread guide C 3080065



floating nozzle S87-3 3086386



spring coil 3086221



Conductive block 87-3 J04254A

Conductive block 87-3

SL400P/SL400G/SLN400G/SL400Q/SL600P/SL600G/SLN600G/SL600Q/ AG 400L(#0965,#0969,#0971,#0973~,#A001~)/AG600L(#0738~,#A001~)/ AG360L (#C229~,#A111~)/AQ400L(#C507~#C508,#C603~)/AQ600L(#C176~)

■FJ Type (Upper) ·FJ Type (Lower) FJ-AWT Standard

falling-rising tone



DICE AQ-1U (W) (Diamond) ※When using electrode wires with diameters of $\phi 0.10$ to $\phi 0.30$



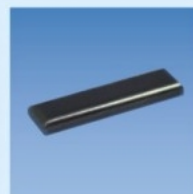
Catheter Guide C10 3110135



Nozzle C86-2 3081604



JET AWTNOZZLENSJ G01467B



Conductive block FJ (H=10) J01118A



DICE AQ-1U (S) (Diamond) ※When the electrode wire diameter is below $\phi 0.07$

Do



DICE(COLOR)



thread guide C 3080065



Floating nozzle SFJHS J44605F



Spring coil FJ 3110304



Conductive block FJ (H=10) J01118A

List of Wire Guides Corresponding to Each Model

AG400L(~#0964,#0966~#0968,#0972)/AG600L(~#0737)/AQ327L(#943~)/AQ537L(#903~)/
AQ750L(#541~)/AQ900L/AQ1200L/AQ1500L/AQ360LX/AQ560LX/HB1000W

■ 90-1 (Upper) · 87-3 (Lower) Super Jet AWT Standard

Upper



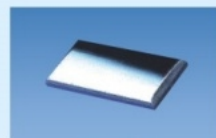
Split-type guidewire Z (Diamond)



3082269



3081604



Nozzle C86-2
J04254A

Conductive block 87-3

Down



DICE(COLOR)



Catheter Guide
C 3080065



Floating nozzle S
87-3 3086386



Spring coil
3086221



Conductive block
87-3 J04254A

AP200/AP200L/P330/AP450 fine wire specifications

■ 90-1 type (upper) · 90-3 type (lower) spring coil 85AWT type

falling-rising tone



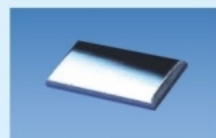
Split-type guidewire Z (Diamond)



Catheter guide C1
3082269



Nozzle C86-2
3081604



Conductive block
87-3 J04254A



Oil specification machine tools can
also use split-type guide wire S
(diamond)

falling-rising tone



Diamond Wire Guide 87-3



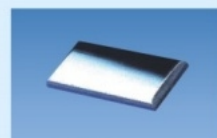
Guidewire C
1 3082269



Floating nozzle S
90-3 3086396



Spring coil
3086221



Conductive block
87-3 J04254A

EXC100L(~#130)

■ 90-1 Type (Upper) · 90-5S Type (Lower) · 85AWT Type

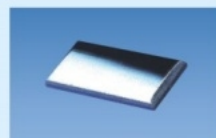
falling-rising tone



Split-type guidewire guide Z (diamond) Guidewire
guide C1 (diamond) hole φ2-φ2.5
3085088



Nozzle C86-2
3081604



Conductive block
87-3 J04254A



Oil specification machine tool can
also use split guide wire S (dia-
mond)

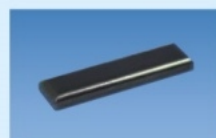
falling-
rising
tone



Split-type guidewire guide Z (diamond) Guidewire
guide C1 (diamond) hole φ2-φ2.5
3085088



Nozzle EXC
90-5 3086196



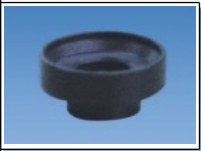
Conductive block FJ
(H=10) J01118A



Oil specification machine tool can
also use split guide wire S (dia-
mond)

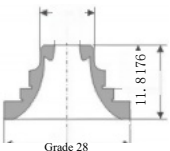
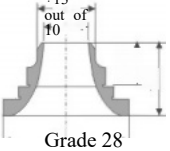
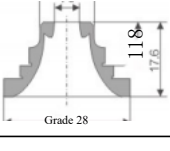
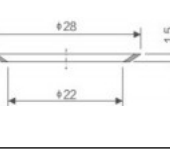
Overview of deflector nozzles

AL/SL/VL series (head-mounted nozzles)

■ FJ-type guidewire nozzle (upper part)		Product Code	Trade name	Aperture φd (mm)	Altitude (mm)	For reference
	M16	3081604	Spray nozzle C	6	3.5	Good merchantable quality
	Grade 6, Grade 20					
	M16	3081606	Nozzle H2	10	3.5	Standard Annex
	M16	3082998	Nozzle G4	4	3.5	Standard Annex
		3089835	Nozzle G1	1	3.5	
		3088496	Nozzle G2	2	3.5	
		3082997	Nozzle G3	3	3.5	
		3082129	Nozzle G5	5	3.5	
	Grade 15	G01467B	JETAWT NOZZLE NSJ	1.2	6.7	Good merchantable quality
	d 9	G01468B		2.0	6.7	Standard Annex

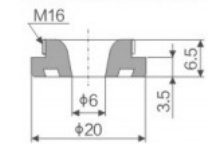
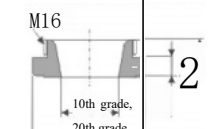
Overview of deflector nozzles

AL/SL/VL series (lower nozzle)

■ FJ-type guide wire nozzle (for lower use)		Product Code	Trade name	Aperture Medium D (mm)	Altitude (mm)	For reference
		J44605F	Floating nozzle SFJHS	6	11.8	Good merchantable quality
		3110461	Floating nozzle FFJ	10	11.8	Standard Annex
		J44608C	Floating nozzle E4FJHS	4	11.8	Standard Annex
		J44611C	Floating nozzle E1FJHS	1	11.8	
		J44610C	Floating nozzle E2FJHS	2	11.8	
		J44609C	Floating nozzle E3FJHS	3	11.8	
		J44607C	Floating nozzle E5FJHS	5	11.8	
		3110304	Spring coil FJ	—	—	

Overview of Diversion Nozzles

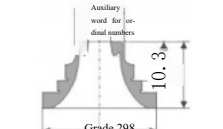
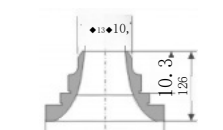
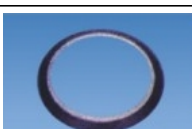
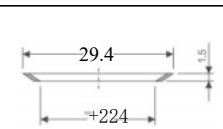
AG/AG series (head-mounted nozzles)

86 Type 2/90-Nozzle for Type 1 guidewire		Product Code	Trade name	Aperture φ d (mm)	Altitude (mm)	For reference
		3081604	Spray nozzle C	6	3.5	Good merchantable quality
		3081606	Nozzle H2	10	3.5	Standard Annex

Overview of Diversion Nozzles

AG/AG

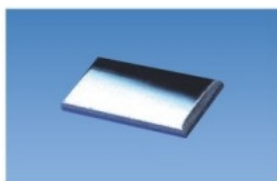
Series (Lower Head Nozzle)

Nozzle for 87-3 type guidewire (coil type)		Product Code	Trade name	Aperture Medium D (mm)	Altitude (mm)	For reference
		3086386	Floating nozzle S	6	10.3	Good merchantable quality
		3086443	Floating nozzle F	10	10.3	Standard Accessories*
		3086221	Spring coil	—	—	

Conductive BLOCK VIEW

- In an online cutting discharge machining machine, the conductive blocks function as electrodes to power the electrode wire. Typically, these blocks are installed separately on the upper and lower wire units. The type of conductive blocks used varies depending on the wire unit's shape, so verify the model and configuration of the wire unit.

Conductive block 87-3

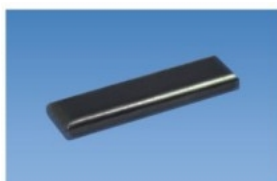


Nowadays, this widely-used model is adopted by nearly all aircraft types, offering broad applicability and dual-sided functionality.

Product Code	Trade name
J04254A	Conductive block 87-3

Applicable guide wire nozzle units: 90-1 type/87-3 type

Conductive block FJ (H=10)



Approximately half the size of the 87-3 model, the FJ-AWT machine is designed for the lower guide wire unit of fine wire specifications.

Product Code	Trade name
J01118A	Conductive block FJ (H=10)

Applicable guide wire nozzle unit AP200L φ0.03 accessory (90-3)

EXC100L 90-5S model
FJ-AWT machine

electrode wire transfer belt overview

- The electrode wire conveyor belt transports electrode wires to the winding device (wiring unit). Prolonged wear may cause slippage, potentially triggering AWT (Automatic Wire Threading) malfunctions or wire accumulation. Regular maintenance is recommended. The belt's length and material vary by machine model. Refer to the table below to select the appropriate product. (Note: Some belts may differ in length due to machine model variations or special designs. Always verify the belt's actual length.)

For conveyor belts or dimensions of aircraft models not listed in the table below, please contact our customer service for further details.

	Conveyor Belt A1
	Double-sided rubber material
	Primarily used for the AP series Width: 18mm [Model Name] SD-18BW

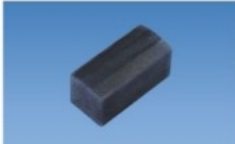
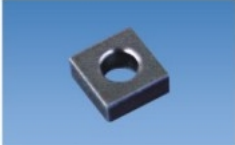
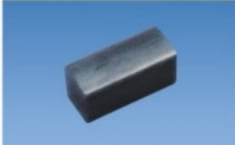
Type	Mould	Product Code	Size
AP200	A1	2040774	18x3045
	A1	2040773	18x3085
	A1	2040814	18x3434
	A1	2040813	18x3475
AP200 (#086~) / AP200L (UVAC)	A1	2040995	18x3715
	A1	2040996	18x3670
AP200L (UVLN)	A1	2041595*	18x3060
AP250L (~#C522)	A1	2041930	18x2050
	A1	2041931*	18x2060
AP250L (#C523~)	A1	2041931*	18x2060
AP350L	A1	2040996*	18x3670
EXC100L	A1	2041328	18x1850
	A1	2041319	18x1910

Wheel @-@ View

	
3050098 Pulley Eφ25 Stainless Steel	3050106 Pulley Eφ25 Stainless steel (with pulley cover)
	
3050047 φ25 ceramic pulley	3050105 φ25 ceramic pulley (with 6 mm groove)

Product Code	Trade name
3050098	Eφ25 stainless steel pulley
3050106	Eφ25 stainless steel pulley (with pulley cap)
3050047	φ25 ceramic flat pulley
3050131	φ25 ceramic pulley (with 2mm groove)
3050105	φ25 ceramic pulley (with 6mm groove)
3050070	Fixed with a short discharge pulley
3050071	Long movable discharge pulley

A W T ALL TYPE EXCHANGE PARTS

	
J06376E AWT thread pipe length 307mm	3110031 Lower electrode (block)
	
3110034 Lower electrode (square)	3110030 Intermediate electrode (block)
	
AWT DICE(FJ)	

Note 1: The AWT DICE (FJ) size varies depending on the electrode wire diameter used. Refer to the size table on page 53 and use an AWT DICE (FJ) with the selected electrode wire diameter plus 0.02mm.

Note 2: For the AL·SL series

Note 3: Diagram AG400L/AG600L

Note 4: AL800G/ALN800G for use

Note 5: AL800GH for use

■ Part List (AL·SL Series)

Product Code	Trade name	For reference
	AWTDICE (FJ) (Note ①)	
J06376E	AWT thread pipe, φ3.5-φ2.5 (Note 2)	307mm long
T03967C	AWT thread pipe, φ3.5-φ2.5 (Note ④)	482mm long
T04710C	AWT threaded pipe, φ3.5-φ2.5 (Note ⑤)	848mm long
3110031	Lower electrode (block)	18×8.5×9mm (R-face electrical discharge machining)
3110034	Lower electrode (square)	12×12×5mm
3110030	Intermediate electrode (block)	18×7.5×9mm (R face milled)

■ List of replacement parts (AG400L/AG600L)

Product Code	Trade name	For reference
	AWTDICE (FJ) (Note ①)	
11802FA	AWT thread pipe, φ3.0-φ2.0 (Note ③)	280mm long
A12961D	Lower electrode (cylindrical)	φ 10 • φ 6L=28mm
C12420B	Lower electrode (square)	20×20×4mm
A12947C	Intermediate electrode	φ 8 • φ 3, 2L=16mm

■ List of replacement parts (AQ400L/AQ600L/AG360L)

Product Code	Trade name	For reference
	AWTDICE (FJ) (Note ①)	
3110014	AWT thread pipe φ3.0-φ2.0	250mm long
3110031	Lower electrode (block)	18×8.5×9mm (R-face electrical discharge machining)
3110034	Lower electrode (square)	12×12×5mm
3110030	Intermediate electrode (block)	18×7.5×9mm (R face milled)

CuU electrode tube

single hole steel electrode tube



* Sold in units of 20.



EL=D×300mm

External diameter (φmm)	Long (mm)	Product Code
0.25	300	2088093
0.30		2050308
0.40		2050310
0.50		2050312
0.60		2055779
0.70		2084815
0.80		2055784
0.90		J03310A
1.00		2055782
1.10		2187390
1.20		2055780
1.30		2187391
1.40		2055785
1.50		J00606A
1.60		2055783
1.70		2187392
1.80		J03316A
1.90		2187393
2.00		2052763

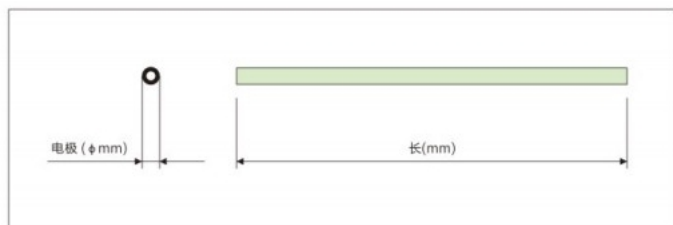
K I C electrode tube (N)

Two-hole copper electrode tube electrode



■ The K I C electrode tube (N) can be used to realize the coreless processing of φ0.4~3.0mm. The inner core is made inside the electrode. The electrode itself rotates while the processing fluid is delivered from the inside, enabling deep-hole machining without leaving any residual core.

* Sold in units of 20. L=400mm. Not available in the AEF kit.



External diameter (φmm)	Long (mm)	Product Code
0.4	300	3560524
0.5		3560525
0.6		2050313
0.7		J05200A
0.8		J04639A
0.9		J05202A
1.0		J07088A
1.1		3560539
1.2		3560545
1.3		J07090A
1.4		3560552
1.5		J04637A
1.6		3560558
1.7		3560560
1.8		3560564
1.9		3560566
2.0		3560570
0.4	400	J03722A
0.5		J03232A
0.6		3564324
0.7		3564325
0.8		3561542
0.9		3563030
1.0		3561508
1.1		2101969
1.2		2101894
1.3		3563892
1.4		2050934
1.5		3560554
1.6		2101897
1.7		2108813
1.8		3564422
1.9		2050937
2.0		3561115

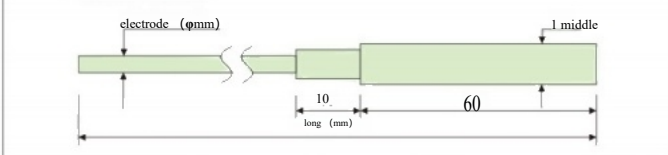
K I C electrode tube (B N)

single hole copper electrode tube

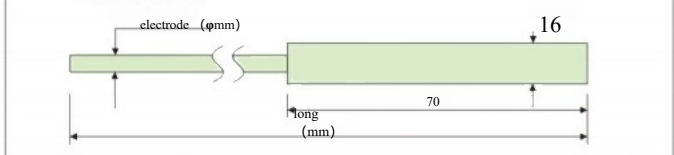


※φ0.08 size starts at 1 unit, other sizes are sold in 10-unit packs.
Inner diameter cannot be specified.

Electrode shape: A



Electrode shape: B



External diameter (φmm)	Long (mm)	Electrode shape	Product Code
0.08	250	A	2058341
0.10			2058156
0.12			J03270A
0.13			2058342
0.15			2058157
0.17			2058343
0.20			2058158

External diameter (φmm)	Long (mm)	Electrode shape	Product Code
0.23	250	B	2058344
0.25			2058159
0.27			2058345
0.30			2058305
0.35			2058498
0.40			2058306
0.45			2058499
0.50			2058307

Consumables for guide unit of micro-hole machining

T S Guide Set 9 2



■ Applicable devices

K1C-4/K1C-5/K1C-6
K1C-7/K1C-8/K1C-10/K1CN-3
K2CN(#1011~)/K3CN(#1013~)
K3HN /K3BL/K3HS

■ Package contents

Ts Guide 8920μ · 5μ Set
Clamp N
Rubber sealing ring
92, guide tube 92

11101

- For water processing, use the "TS Guide Set 9220μ".
- " . For oil processing, use the "TS Guide Set 925μ".

[For water processing] Bearing clearance 20μ

[For oil processing] Bearing clearance 5μ

Please select based on the diameter of the electrode tube you are using.				TS Guide Set 9220μ		TS Guide Set 925μ	
Electrode diameter (φmm)	Inner diameter of the clamp (φmm)	Rubber Sealing Ring 92	Inner diameter of guide tube 92 (φmm)	TS Guide 89 Bore size (φmm)	Product Code	Inner diameter of TS guide 89 (φmm)	Product Code
0.25	0.3	1.0	0.4	0.27	3561845	0.255	3564451
0.30	0.4		0.4	0.32	3562016	0.305	3562590
0.40	0.5		0.5	0.42	3562017	0.405	3562589
0.50	0.6		0.6	0.52	3562018	0.505	3563485
0.60	0.7		0.7	0.62	3562019	0.605	3561061
0.70	0.8		0.8	0.72	3562020	0.705	3561062
0.80	0.9		0.9	0.82	3562021	0.805	3561063
0.90	1.0	1.2	1.0	0.92	3562022	0.905	3561064
1.00	1.1		1.1	1.02	3562023	1.005	3561065
1.10	1.2	1.4	1.2	1.12	3562024	1.105	3561066
1.20	1.3		1.3	1.22	3562025	1.205	3561067
1.30	1.4	1.6	1.4	1.32	3562026	1.305	3561068
1.40	1.5		1.5	1.42	3562027	1.405	3561069
1.50	1.6	1.8	1.6	1.52	3562028	1.505	3561070
1.60	1.7		1.7	1.62	3562029	1.605	3561071
1.70	1.8	2.0	1.8	1.72	3562030	1.705	3561072
1.80	1.9		1.9	1.82	3562031	1.805	3561073
1.90	2.0	2.2	2.0	1.92	3562032	1.905	3561074
2.00	2.1		2.1	2.02	3562033	2.005	3561075

TS DIRECTOR 8 9 / TS EXTENDED DIRECTOR



- For water processing, use a guide with a 20μ clearance; for oil processing, use one with a 5μ clearance.
- TS extended guide must be used for inclined surface machining and deep hole bottom surface machining.
- The guide is different according to the diameter of the electrode.

Electrode diameter (φ mm)	Corresponding guide
0.03~φ0.09 (※1)	TS Guide BL (※1)
φ 0.1~ φ 3.0	TS Guide 89 / TS Extended Guide
3.1 to 6.0 mm	TS Guide F (C) (※2)

■ Applicable devices

K1C-4/K1C-5/K1C-6/K1C-7/K1C-8/K1C-10

K1CN-3/K2CN/K3CN/K1BL/K3BN/K3BL/K3HS

※ Some electrode models are not compatible. Refer to the Model Guide · Filter Compatibility Table. ※1) Electrodes with medium diameter (φ0.03~φ0.09) are exclusively compatible with K1 BL/K3BN/K3BL. ※2) For electrodes with diameter (φ3.1~φ6.0), an extension rod (for thick electrodes) is required.

Do not use on oil-based machining equipment, as it may cause fire.

use electrode diameter φ0.1~φ3.0 TS guide / TS extended guide

[For water processing] Bearing clearance 20μ

Electrode diameter (φ mm)	Inner diameter of the guide (φmm)	TS Guide 8920μ Product Code	TS Guide 8920μ Product Code
0.10	0.12	3564705	3563917
0.12	0.14	J03489A	—
0.13	0.15		
0.15	0.17	3561930	3564207
0.16	0.18	3564305	
0.17	—	—	—
0.18	—	—	—
0.20	0.22	3561932	3562375
0.23	—	—	—
0.25	0.27	3561933	3562236
0.27	—	—	—
0.30	0.32	3561666	3561172
0.40	0.42	3561667	3561883
0.50	0.52	3561668	3561173
0.60	0.62	3561669	3561974
0.70	0.72	3561670	3561971
0.80	0.82	3561671	3561174
0.90	0.92	3561672	3561421
1.00	1.02	3561673	3561175
1.10	1.12	3561674	3561855
1.20	1.22	3561675	3561176
1.30	1.32	3561676	3561975
1.40	1.42	3561677	3561976
1.50	1.52	3561678	3561219
1.60	1.62	3561679	3561177
1.70	1.72	3561680	3561977
1.80	1.82	3561681	3561178
1.90	1.92	3561682	3561856
2.00	2.02	3561683	3561179

[For oil processing] Bearing clearance 5μ

Electrode diameter (φ mm)	Inner diameter of the guide (φmm)	TS Guide 8920μ Product Code	TS Guide 8920μ Product Code
0.10	0.105	3560775	3564357
0.12	0.125	J03488A	—
0.13	0.135	3564691	3564356
0.15	0.155	3564629	3564355
0.16	0.165	3564753	3564889
0.17	0.175	3564734	3564890
0.18	0.185	3564754	3564891
0.20	0.205	3560777	3563430
0.23	0.235	3560765	3564892
0.25	0.255	3560778	3561424
0.27	0.275	3560766	3564893
0.30	0.305	3561638	3561792
0.40	0.405	3561639	3561793
0.50	0.505	3561640	3561794
0.60	0.605	3561641	3561795
0.70	0.705	3561642	3561796
0.80	0.805	3561643	3561797
0.90	0.905	3561644	3561798
1.00	1.005	3561645	3563427
1.10	1.105	3561646	3564370
1.20	1.205	3561647	3564371
1.30	1.305	3561648	3564372
1.40	1.405	3561649	3564373
1.50	1.505	3561650	3563918
1.60	1.605	3561651	3564374
1.70	1.705	3561652	3564375
1.80	1.805	3561653	3564376
1.90	1.905	3561654	3564090
2.00	2.005	3561655	3564378

Reference Sphere



■ characteristic

- The accuracy of positioning by contact sensing is ensured.

Product Code	Product Name (φmm) x (mm)	Product Code
3570441	Baseline ball 5×22	Magnetic base
3570443	Baseline ball 5×50	Magnetic base
3570874	Baseline ball 5×100	Magnetic base
3571070	Baseline ball 10×22	Magnetic base
3571072	Baseline ball 10×50	Magnetic base
3571074	Baseline ball 10×100	Magnetic base
3570255	Baseline ball 5×50	No magnetic base
3570017	Baseline ball 5×100	No magnetic base
3571071	Baseline ball 10×50	No magnetic base
3571073	Baseline ball 10×100	No magnetic base

30 Neutral Processing Oil

Oil Processing Fluid for Wire Cutting Discharge Machining Machine



■ Appropriate model

- Water Oil Processing Line Cutting Discharge Machine
- Sodick AP series, EXC series, etc.

■ characteristic

- The main oil used in oil machining line cutting discharge machining machine.
- It has good water-oil separation and stable oxidation resistance, and does not need to change the processing oil frequently.

■ Precautions for Use

- When mixed with other oils, it changes composition and causes poor performance.
- Do not use on water-based machining equipment, as it may cause fire.

■ ingredient

- Petroleum-based hydrocarbon and additives

■ Product Code

Product Code	Trade name	Container
9050027	#30 Neutral Processing Oil 200L	DRUM
9050019	#30 Neutral Processing Oil 100L	DRUM
9050087	#30 Neutral Processing Oil 20L	PAIL

■ various LEGAL RELATIONS

United Nations classification · United Nations code	Not applicable
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VITOL-2

VITOL-2 Specialized Supplementation Solution



■ applicable MODEL

- Oil Processing Type EDM Machine
- K3BL MICRO-HOLE PROCESSING MACHINE

■ characteristic

- Universal discharge machining fluid.
- As a discharge machining oil, it is suitable for plastic molds, die casting molds, forging molds, stamping dies, and other mold steel materials, as well as all metals including superhard alloys.
- The processing stability is maintained from rough processing to fine processing, with rapid inter-electrode recovery, thereby enhancing processing efficiency. The special fine products exhibit extremely high oxidation stability and can be used for extended periods.
- The ignition point is over 100°C, which improves the safety.
- Compared with previous products, its volatility has been reduced to one-fifth, and it is less likely to cause viscosity changes.

■ Product Code

Product Code	Trade name	Container
9050052	VITOL-2200L	DRUM
9050064	VITOL-2100L	DRUM
9050029	VITOL-220L	PAIL

■ various legal relations

United Nations classification · United Nations code	Not applicable
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■ on-product information

Odour	Odorless
Ignite COC (°C)	Above 92°C
Proportion	0.76
Viscosity of motion (10 ⁻⁶ mm ² /s)	1.88

Received the "Design Contribution Award" from the Japan Invention Promotion Association in 1980.

Additives FOR GLASS SURFACE TREATMENT



- Mirror surface machining is a kind of machining technology which uses dielectric containing mirror powder to produce mirror surface effect in the process of electrical discharge machining.

Some machine tools cannot use additive for mirror surface machining because of the different models of discharge machining machine and whether there is automatic switching device or stirring device.

■ usage method

PGM WHITE3+VITOL-2 (Additive for WHITE3)

- The rough machining is performed using [VITOL-2] (or "WHITE3 additive"). During the finish machining, 0.1% (by volume) of "PGM WHITE3" containing white micro-powder is mixed to achieve mirror finish. For subsequent machining processes, all additives are processed after filtration (without mirror finish). Since "PGM WHITE3" is re-mixed during finish machining, there's no need for a dedicated EDM machine with an additive automatic switching device.

■ Product Code

Product Code	Trade name	Container
9050271	PGM WHITE3 (UN)	3L

■ Product Code

Types of discharge machining machines	Mirror powder	Additive
Electric spark discharge machining machine	PGM WHITE-3	VITOL-2

VITOL-KS

Water soluble processing solution for high speed micro hole machining



■ applicable MODEL

- Water Machining Type Small Hole Discharge Machining Machine K1CS/KCN and Others

■ characteristic

- High speed small hole discharge machining machine processing fluid.
- water-soluble processing solution
- It can be corresponded to aluminum processing.

■ Product Code

Product Code	Trade name	Container
9050192	VITOL-KS 200L	DRUM
9050191	VITOL-KS 100L	DRUM
9050190	VITOL-KS 20L	Plastic container

■ Various Legal Relations

United Nations classification · United Nations code	Not applicable
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VITOL WX



■ use

- Add to wire cutting discharge machining liquid (water) to inhibit rusting.

■ usage method

- Adjust the resistivity of the processing solution to the desired value and add 1~3%.
- If you want to increase the resistivity during processing, you can pass the working fluid through a water purifier and then adjust it.
- After processing, thoroughly rinse with water and spray with SERBINAITO.

■ ingredient

- Water, lubricant additives

■ characteristic

- Only adding 1~3% of the water of the processing solution can get the remarkable anti-rust effect.
- The low foaming property prevents thread breakage and sink staining.
- It does not contain harmful substances or heavy metals.

water soluble rust inhibitor

■ Product Code

Product Code	Trade name	Capacity · Container
9050083	VITOLWX10L	10L plastic container

■ various legal relations

United Nations classification · United Nations code	Not applicable
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■ note ON USE

- If crystallization occurs in dry conditions, clean the sliding unit of the main unit (around the AWT pulley) regularly before spraying SERBINAITO.
- The rust-proof effect varies with different processing methods.
- It will affect the filter and ion exchange resin.
- The color of the processed liquid will change.
- It is recommended to replace the processing solution once a year.

K H lubricant 6 4 5 9 / grease gun

Grease



■ use

- lubrication, rust prevention

■ usage method

- Attach KH Grease 6459 to the dedicated grease gun (A-315).

■ ingredient

- The special polyurea is used as thickener in the high purity crude oil.

■ characteristic

- High performance grease with special polyurea as thickener is mixed with various additives in high purity crude oil.
- In order to simplify the oil feeding, the ink cartridge is adopted.
- Outstanding heat and water resistance, particularly effective against fretting corrosion.
- It also has the function of long-term rust prevention.

■ Product Code

Product Code	Trade name	Capacity · Container
J15575A	KH Grease 6459 (BNSTFree)	Tube: 0.4kg
2030206	Grease gun A-315 (for KH Grease 6459)	

■ various legal relations

United Nations classification · United Nations code	Not applicable
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The effect of micro-motion wear is obvious.

SERBINAITO / SERBINAITO (Original)

antirust



■ use

- Prevent the workpiece from rusting after processing.
- It can also be used as a lubricant.

■ usage method

- For rust prevention, spray repeatedly in areas requiring thorough lubrication.
- After wiping off the solvent from the spray, apply VITOL degreasing cleaner and wipe clean with wiping paper.

■ characteristic

- Compared with the previous industrial rust inhibitor, it not only maintains superior rust prevention effect and durability, but also effectively handles various sheet metal operations with water-soluble cutting agents.
- This water-displacement lubricant and rust inhibitor achieved A grade in the 72-hour salt spray test (Japan Corrosion Engineers Association).
- It not only has the function of rust prevention, but also lubrication and rust removal (light rust).
- Effective for medium and short-term rust prevention (temporary rust protection for machined tools and mold materials).
- It has an impregnating lubrication effect (effectively separating rusted bolts and nuts).

■ Product Code

Product Code	Trade name	Capacity · Container
9000008	SERBINAITO Spray	480ml spray canister
J04012A	SERBINAITO (Original Solution) 200L	200L DRUM
9000931	SERBINAITO (Original Solution) 20L	20L PAIL

■ various legal relations

United Nations classification	High-pressure gas (Class 2)
UN number	UN1950

VITOL Fat-Loss Cleansing Spray

Degreasing De-
tergent

■ Use

- Remove the oil and dirt attached to the workpiece.
- Remove the oil residue from the reference ball.

■ usage method

- Apply directly to the metal surface requiring degreasing. Allow to dry slightly.

■ characteristic

- Unlike conventional degreasing agents, VITOL degreasing cleaner is specifically engineered for ultra-precision electrical discharge machining. It outperforms competitors with exceptional degreasing capability.
- When positioning by contact sensing, the oil sludge on the electrode, reference ball and workpiece is sprayed and removed.
- VITOL degreasing cleaner is a spray formula that effectively removes grease and stains with just a spray on the reference ball and surface.
- Environmental protection products, no harm to the ozone layer.

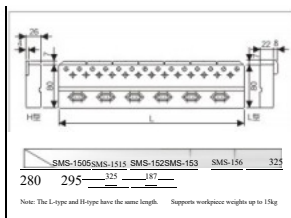
■ Product Code

Product Code	Trade name	Capacity · Container
9000180	VITOL Fat-Free Cleansing Spray	480ml spray canister

■ various legal relations

United Nations classification	High-pressure gas (Class 2)
UN number	UN1950

SWS Foundation Bed



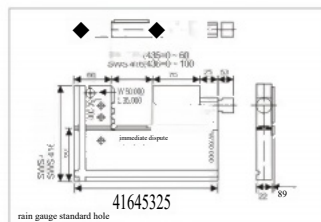
- I-shaped overviews

Product Code	Trade name	Compatible models	Size (L×W×Tmm)
J03754A	swS-150 (L)	AL600G AL400G ALN600G ALN400G ALN600Q ALN400Q SL600G SL400G SLN600G SLN400G SL600Q SL400Q VL600Q VL400Q AG600L AG400L AQ600L AQ400L LAQ1200L AQ537L AQ535L AQ550L AQ560L (X) AQ750L AP650L AP500L AP450L VZ500L A530D A1100S AQ600 EPOC600 EPOC800 EPOC1100	325×80×22
J03756A	SWS-151 (L)	AL400G ALN400G ALN400Q SL400G SLN400G SL400Q VL400Q AG400L AQ400L AQ325L AQ327L AQ360L (X) A325 AP330 EPOC500	280×80×22
J03758A	SWS-152 (L)	AG360LVZ300L AD325L AQ300L AP200L AP200 A325 A300 (W) BF275 BF280L	235×80×22
J03779A	SwS-153 (L)	AQ900L A350 (W) A500 (W) A600 (W) A750 (W) AP330 AP450 EPOC300	325×80×22
J03877A	SwS-155 (L)	AP250L	187×80×22

■ H-type overview

Product Code	Trade name	Compatible models	
J03755A	SWS-150 (H)	AL600G AL400G ALN600G ALN400G ALN600Q ALN400Q SL600G SL400G SLN600G SLN400G SL600Q SL400Q VL600Q VL400Q AG600L AG400L AQ600L AQ400L LAQ1200L AQ537L AQ535L AQ550L AQ560L (X) AQ750L AP650L AP500L AP450L VZ500L A530D A1100S AQ600 EPOC600 EPOC800 EPOC1100	325×80×26
J03757A	SWS-151 (H)	AL400G ALN400G ALN400Q SL400G SLN400G SL400Q VL400Q AG400L AQ400L AQ325L AQ327L AQ360L (X) A325 AP330 EPOC500	280×80×26
J03759A	SWS-152 (H)	AG360L VZ300L AD325LAQ300L AP200L AP200 A325 A300 (W) BF275 BF280L	235×80×26
J03760A	SwS-153 (H)	AQ900L A350 (W) A500 (W) A600 (W) A750 (W) AP330 AP450 EPOC300	325×80×26
J04878A	SWS-155 (H)	AP250L	222×80×26

S W S-4 1 5 ,4 1 6 ,4 3 5 ✖, 4 3 6 ✖ Tiger Claw Plate



Product Code	Trade name	Workpiece dimensions	Allowable workpiece weight
3100014	SWS-415	0~□60mm	1.5kg
3100015	SWS-416	0~□100mm	4.0kg
3100482	SWS-435	0~□60mm SWS-415 reverse specification	1.5kg
3100481	SWS-436	0~100mm SWS-416 reverse specification	4.0kg

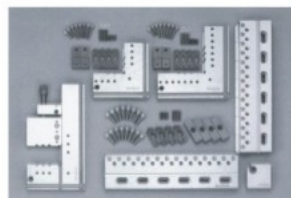
- Precision vise tongs for workpiece clamping, allowing quick and tool-free fixation.

※SWS-435, SWS-436 It is SWS-415 and SWS-416. The reverse specification.

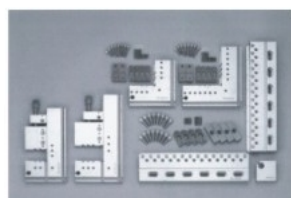
When using AP150 or AP200, select SWS-435 or SWS-436.



Beginner's Kit



Standard Suite



Expert Suite

■ BEGINNER Suite

Standard type (right-hand type with pliers tray)

Product Code	Trade name	Compatible models							
J03794A	SWS-150 (L) Beginner Set	AL600G SL600G	AL400G SL400G	ALN600G SLN600G	ALN400G SLN400G	ALN600Q SL600Q	ALN400Q SL400Q	VL600Q	VL400Q
J03793A	SWS-150 (H) Beginner Set	AG600L AQ535L	AG400L AQ537L	AQ600L AQ550L	AQ400L AQ560L	AQ750L AQ600	AQ1200L A530D		
J03769A	SWS-151 (L) Beginner Set		AL400G	ALN400G	ALN400Q	SL400G	SLN400G	SL400Q	VL400Q
J03795A	SWS-151 (H) Beginner Set	AG400L	AQ400L	AQ325L	AQ327L	AQ360L	A325		
J03797A	SWS-152 (L) Beginner Set		AD325L	AQ300L	A320D	AG360L	VZ300L		
J03796A	SWS-152 (H) Beginner Set								
J03800A	SWS-153 (L) Beginner Set		AQ900L	A350 series	※ A500 series	※ A600 series	A750 series	EPOC300	
J03799A	SWS-153 (H) Beginner Set								

■ STANDARD Package

Standard type (right-hand type with pliers tray)

Product Code	Trade name	Compatible models							
J03770A	SWS-150 (L) Standard set	AL600G SL600G	AL400G SL400G	ALN600G SLN600G	ALN400G SLN400G	ALN600Q SL600Q	ALN400Q SL400Q	VL600Q	VL400Q
J03826A	SWS-150 (H) Standard set	AG600L AQ535L AP650L	AG400L AQ537L AP500L	AQ600L AQ550L AP450L	AQ400L AQ560L VZ500L	AQ750L AQ600	AQ1200L A530D		
J03828A	SWS-151 (L) Standard set	AL400G	ALN400G	ALN400Q	SL400G	SLN400G	SL400Q	VL400Q	
J03827A	SWS-151 (H) Standard kit	AG400L	AQ400L	AQ325L	AQ327L	AQ360L	A325		
J03771A	SWS-152 (L) Standard set	AD325L	AQ300L	A320D	AG360L	VZ300L			
J03829A	SWS-152 (H) Standard kit								
J03772A	SWS-153 (L) Standard set	AQ900L	A350 series	※ A500 series	※ A600 series	A750 series	EPOC300		
T03830A	SWS-153 (H) Standard kit								