ATT Group

Wire EDM machining is an electro thermal production process in which a thin single-strand metal wire in conjunction de-ionized water allows the wire to cut through metal by the use of heat from electrical sparks.

VISION OF

ATT Group

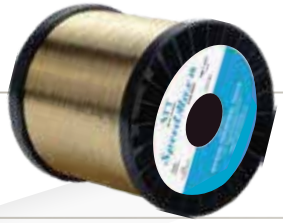
We want to be the most preferred supplier to our customers from concept to delivery in development of tools & value added services, with innovative and sound manufacturing solutions




ATT Group

Brass Wire

ATT wires has been developed using Japanese wire drawing technology. These wires are based on integrated process technology starting from the state of casting & free from paraffin coating.



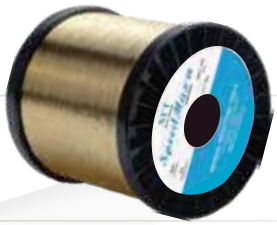
SPEED MAX-I- STANDARD SERVICES

- Base material : Cu60%, Zn40%
- Stable performance
- Precise cutting & straightness
- Suitable for automatic threading
- Extremely clean & smooth wire surface

CuZn40

	Core Material	Tensile Strength	Elongation	Colour	
XuperCut Brass	CuZn40	950 N/mm ^{2}	2%	Yellow	
		700 N/mm ^{2}	5%		
		450 N/mm ^{2}	23%		
Ø (mm)	0.10	0.15	0.20	0.25	0.30
P3/3	•	•	•	•	•
P5/5	•	•	•	•	•
P10/10			•	•	•
P15/20			•	•	•
DIN125/3.5	•	•	•	•	•
DIN160/8	•	•	•	•	•
DIN200/16			•	•	•
DIN250/25			•	•	•

ATT wire EDM machining is an electro thermal production process in which a thin single-strand metal wire in conjunction with de-ionized water allows the wire to cut through metal by the use of heat from electrical sparks.



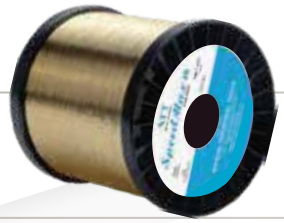
SPEED MAX-S- STANDARD BRASS WIRE

- Base material : Cu61%, Zn39%
- High accuracy cutting
- High speed cutting
- High cutting surface quality
- Suitable for thick work piece

	Core Material	Tensile Strength	Elongation	Colour	
XebraCut Brass	CuZn39	1000 N/mm ^{2}	1%	Yellow	
		500 N/mm ^{2}	20%		
Ø (mm)	0.10	0.15	0.20	0.25	0.30
P3/3	•	•	•	•	•
P5/5	•	•	•	•	•
P10/10			•	•	•
P15/20			•	•	•
DIN125/3.5	•	•	•	•	•
DIN160/8	•	•	•	•	•
DIN200/16			•	•	•
DIN250/25			•	•	•

CuZn39

ATT SPEEDMAX IS developed according to market needs with customized solutions, We are serving EDM wire with higher quality and more convenient service.



SPEED MAX - SPECIAL BRASS WIRE

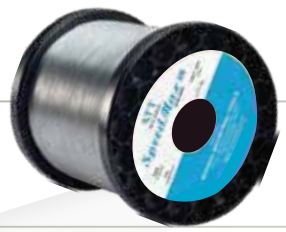
- Base material : Cu63%, Zn37%
- High accuracy cutting
- Special alloy composition to improve stability of gasification & processing performance
- Precise automatic threading with good universality
- Stable processability with excellent accuracy and surface quality

CuZn37

	Core Material	Tensile Strength	Elongation	Colour	
XcelCut Brass	CuZn37	1050N/mm ^{2}	2%	Yellow	
		550 N/mm ^{2}	22%		
Ø (mm)	0.10	0.15	0.20	0.25	0.30
P3/3	•	•	•	•	•
P5/5	•	•	•	•	•
P10/10			•	•	•
P15/20			•	•	•
DIN125/3.5	•	•	•	•	•
DIN160/8	•	•	•	•	•
DIN200/16			•	•	•
DIN250/25			•	•	•

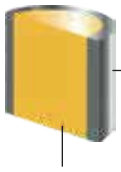
Coated Wire

ATT SM2C A thin single-strand metal wire is fed through the workpiece, submerged in a tank of dielectric fluid, typically de-ionized water. XetaCut typically used to cut plates as thick as 300mm and to make punches, tools and dies from hard metals that are difficult to machine with other methods.



Speed Max ZC -STANDARD ZINC COATED WIRE

- Base material : Cu60%, Zn40%
- Coating thickness : Zn150 µm
- High speed cutting
- Precise cutting
- Stable coating state



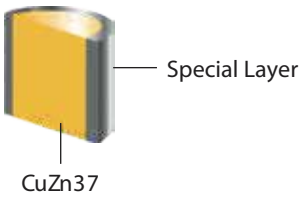
	Core Material	Coating Material	Tensile Strength	Elongation	Colour
XetaCut Brass	CuZn40	Special Layer	1000 N/mm 2	2%	Silver Grey
			500 N/mm 2	21%	
Ø (mm)	0.10	0.15	0.20	0.25	0.30
P3/3	•	•	•	•	•
P5/5			•	•	•
P10/10			•	•	•
P15/20			•	•	•
DIN125/3.5	•	•	•	•	•
DIN160/8			•	•	•
DIN200/16			•	•	•
DIN250/25			•	•	•

ATT SPEED MAX IS most suitable wire on various cutting purpose, It performs with consistent conductivity & no flaking during WEDM operation.

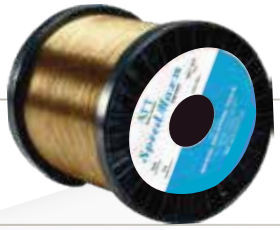
Speed Max ZCS - Premium Zinc Coated Wire

- Base material : Cu63%, Zn37%
- High precision zinc-coated wire
- Excellent processing accuracy & surface quality
- High straightness, suitable for auto-threading machines.

	Core Material	Coating Material	Tensile Strength	Elongation	Colour
XtraCut Brass	CuZn37	Special Layer	980 N/mm 2	3%	Silver Grey
			470 N/mm 2	22%	
Ø (mm)	0.10	0.15	0.20	0.25	0.30
P3/3	•	•	•	•	•
P5/5		•	•	•	•
P10/10		•	•	•	•
P15/20		•	•	•	•
DIN125/3.5	•	•	•	•	•
DIN160/8		•	•	•	•
DIN200/16		•	•	•	•
DIN250/25		•	•	•	•

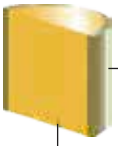


ATT SMZEW is developed according to market needs with customized solutions, We are serving EDM wire with higher quality and more convenient service.



SpeedMaxZEW - Zinc Diffused Wire

- Base material : Cu60%, Zn40%
- High speed coated wire
- Suitable for most production efficiency preferred machines, especially suitable for processing difficult-to-process materials such as tungsten, graphite etc.
- Higher processing precision.
- Suitable for auto threading machines.
- Cutting speed 20% higher than brass wire.

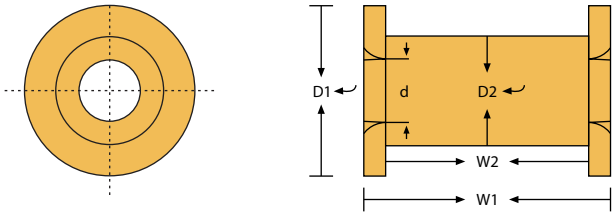


	Core Material	Coating Material	Tensile Strength	Elongation	Colour
	CuZn40	Special Layer	1000 N/mm 2	2%	Grey Yellow
			500 N/mm 2	21%	
Ø (mm)	0.10	0.15	0.20	0.25	0.30
P3/3	•	•	•	•	•
P5/5			•	•	•
P10/10			•	•	•
P15/20			•	•	•
DIN125/3.5	•	•	•	•	•
DIN160/8			•	•	•
DIN200/16			•	•	•
DIN250/25			•	•	•

Data for Production Planning

Spool Type	Wire Dia (mm)	Nominal Weight Per Spool (Kg.)	Nominal Length per Spool (m)	Run-Off Times per Spool at Run-Off time Speeds			
				6m/min(h)	9m/min(h)	12m/min(h)	15m/min(h)
P3	0.15	3	19700	55	36	27	22
	0.20	3	11000	31	20	15	12
	0.25	3	7000	19	13	10	8
	0.30	3	4900	14	9	7	5
P5	0.15	5	32600	91	60	45	36
	0.20	5	18300	51	34	25	20
	0.25	5	11700	33	22	16	13
	0.30	5	8100	23	15	11	9
	0.33	5	6740	19	12	9	7
P10	0.20	10	36600	102	68	51	41
	0.25	10	23400	65	43	33	26
	0.30	10	16200	45	30	23	18
	0.33	10	13500	36	25	19	15
P15	0.20	20	73500	204	136	102	82
	0.25	20	46800	130	87	65	52
	0.30	20	32400	90	60	45	36
	0.33	20	27000	75	50	37	30
DIN125	0.15	3.5	23000	64	43	32	26
	0.20	3.5	12500	35	23	17	14
	0.25	3.5	8000	22	15	10	9
	0.30	3.5	5500	5	10	8	6
DIN160	0.15	8	39000	108	72	54	43
	0.20	8	22000	61	41	31	24
	0.25	8	14000	39	26	19	16
	0.30	8	9800	27	18	14	11
DIN200	0.20	16	57500	160	106	80	64
	0.25	16	37000	103	69	51	41
	0.30	16	25800	72	48	36	29
	0.33	16	21200	59	39	29	24
DIN250	0.20	25	93750	260	174	130	104
	0.25	25	60000	167	111	83	67
	0.30	25	41250	115	76	57	46
	0.33	25	33500	93	62	47	37

Spool Drawing



Spool Size :

Spool Type	Material	Outer Height D1 (mm)	Inner Height D2 (mm)	Inner Dia d (mm)	Outer Width W1 (mm)	Inner Width W2 (mm)	Wire Weight	Weight Tolerance(kg)
P3	ABS(PS)	130	80	20	110	90	3	±0.05
P5	ABS(PS)	160	90	20	114	90	5	±0.05
P10	ABS	200	90	25	135	110	10	±0.05
P15	ABS	250	110	33	140	110	20	±0.05
DIN125	ABS	125	80	20	125	100	3/3.5	±0.05
DIN160	ABS	160	100	22	160	128	7/8	±0.05
DIN200	ABS	200	124	22	250	160	15/16	±0.05
DIN250	ABS	250	160	23	200	160	25	±0.05

Packing Units :

	Weight/ Spool (kg)	Spools/ Carton	Weight/ Carton (kg)	Cartons/ Layer	Weight 1 Layer (kg)	Weight 2 Layers (kg)	Weight 3 Layers (kg)	Weight 4 Layers (kg)
P3	3	4	12	6	72	144	216	288
P5	5	4	20	8	160	320	480	640
P10	10	2	20	9	180	360	540	
P15	20	1	20	18	360	720		
DIN125	3.5	6	21	6	126	252	378	504
DIN160	8	2	16	10	160	320	480	640
DIN200	16	1	16	12	192	384	576	
DIN250	25	1	25	12	300	600		

Wire Storage

Please Note :

1. Always store spools in their original packaging in a dry area :

The spools are packed in shock, dust and oxidation proof material to protect the wire from shipping damage and contamination. The wire should be stored in the original packaging until ready for use. This will ensure the highest quality for your EDM applications.

2. Used spools handling procedures :

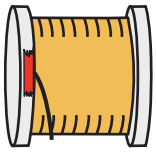
It is very important to properly secure the loose end of the wire on partially used spools. This will prevent the wire from shifting on the spool and becoming tangled. Improper handling and storage techniques can cause unwinding problems and unnecessary wire breakage. Figure 1 and 2 show two correct ways to secure the loose end of the wire.

Figures 3 and 4 show incorrect ways and should be definitely be avoided. Partially used spools should be stored in their original packaging material when not in use. This will minimize contamination and shifting of the wire on the spool.

Warranty will be voided in case of improper storage

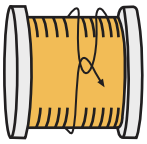
Proper handling of partially used spools :

Figure 1



Attach wire to spool flange with tape.

Figure 2



Attach wire by making a loop and securing it to itself. Make sure that the wire is snug.

Strictly avoid :

Figure 3

Do not tape wire to the spooled material.

Figure 4

Do not thread the wire underneath itself so as to overlap.

BRISLOY Molybdenum wire has properties of high tensile strength, small elongation ratio, good stability and high cutting precision. Refer to molybdenum wire used for high-speed EDM wirecut, there are various sizes available: 0.2mm, 0.18mm, 0.16mm, 0.15mm, 0.14mm, 0.12mm, 0.08mm & 0.18mm is the most common size used.

MOLYBDENUM WIRE - XTREME

Molybdenum Wire Qualities :

- 710 : Standard quality containing minimum 99.9% Mo.
- 720 : Special quality containing minimum 99.9% Mo., which has a good workability even in the recrystallized state.

Some Characteristics of Molybdenum Wire :

- High melting point
- High hot strength
- Low thermal expansion
- Low heat capacity
- High thermal conductivity

Properties of Bare Molybdenum Wire :

- Purity : 99.9% Mo
- Melting point : 2620° C
- Density : 10.14g/cm ^{3}
- Specific electrical resistance at 20° C : 0.052 Ohm X mm ^{2}/m
- Modulus of elasticity at 20° C : 320 kN/mm ^{2}

Quality (Out of Roundness) :

øMicrons	Standard	Available on request
<15	Max 6%	Max 3%
≥15	Max 5%	Max 2%

Dimensional Tolerances :

Qualities : 710/ 21, 710/ 22, 710/ 31, 710/ 32, 720/ 21, 720/ 31
Diameter Tolerance : Standard : +/-1% , On Request : +/-0.25%
Weight Tolerance : Standard : +/-2%, On Request : +/-0.5%

Surface Finishes		Diameter Range (microns)	Elongation (%)
21	Black drawn wire	25 - 500	< 2
22	Black drawn wire, straightened	25 - 500	< 2
31	"21" wire, electrolytically cleaned	25 - 500	< 2
32	"21" wire, straightened and electrolytically cleaned	25 - 500	< 5
41	"21" wire, electrolytically etched to the final dimension	10 - 25	< 2
42	"21" wire, straightened and electrolytically etched to the final dimension	10 - 25	< 5
52	"31" wire, annealed in protective gas to a tensile strength of minimum 48g/ mg/ 200mm	25 - 200	10 - 20
53	"31" wire, annealed in protective gas to a tensile strength of minimum 40g/ mg/ 200mm	25 - 200	15 - 25
54	"53" wire, with a highly polished surface	25 - 200	15 - 25

Qualities : 710/ 52
Diameter Tolerance : Standard : +/-2.5% , On Request : +/-0.5%
Weight Tolerance : Standard : +/-5%, On Request : +/-1%

Qualities : 710/ 53, 710/ 54, 710/ 41, 710/ 42
Diameter Tolerance : Standard : +/-1.5% , On Request : +/-0.5%
Weight Tolerance : Standard : +/-3%, On Request : +/-1%

Filters

Removing waste material via an adequate filtering system is essential for maintaining high quality standards in machines that use EDM technology. For this reason, choosing the right filter is vital to your business. Why are EDM filters so important? Firstly, EDM machines must always be kept clean to guarantee high levels of efficiency and precision when cutting materials, which results in a perfect finished product. EDM filters keep your technology clean and in good working order, even after long periods. By lubricating the system and removing waste and harmful residues, filters save energy, cut costs, and increase productivity and efficiency.

It is important to regularly change your wire EDM machine filters because they are continuously put through their paces and, over time, the waste and dirt that build up can compromise their effectiveness. Our filters have been carefully selected and guarantee the removal of liquid dielectrics. They achieve this quickly, comprehensively, and accurately.

Ashrin Tools Technology offers a huge range of EDM filters such as its mesh filter, plastic cartridge, layered cartridge and metal mesh filter. Technical details, such as the diameter, height, holes, and compatibility with EDM machines, are quick and easy to find on our website. Contact us for a quote and include the product code of the filter you are interested in for more information. We are here to answer any questions or meet any special requests you may have.

CODE	FE361532P05ML/16
DIA.	150
HEI.	360
HOLE	32
MIC	10
MACHINES	CHARMILLES – AGIE

FILTER WITH NET

CODE	FEH15190/16
DIA.	150
HEI.	360
HOLE	32
MIC	16
MACHINES	CHARMILLES – AGIE

FILTER WITH
PLASTIC END-PIECE

CODE	PE361532P10A/16
DIA.	150
HEI.	360
HOLE	32
MIC	16
MACHINES	CHARMILLES – AGIE

FILTER WITH PLASTIC END-PIECE

CODE	FE361532D05M2T
DIA.	150
HEI.	360
HOLE	32
MIC	10
MACHINES	TUFFO

FILTER LAMELLAR FILTER

CODE	FE361932P10M
DIA.	195
HEI.	360
HOLE	30
MIC	5
MACHINES	TUTTE

FILTER NET METAL

CODE	FE342628P05ML
DIA.	195
HEI.	360
HOLE	30
MIC	5
MACHINES	

FILTER NET METAL

CODE	FE453446NP05L
DIA.	340
HEI.	450
HOLE	45
MIC	5
MACHINES	FANUK – SODIK

UPPER CONE FILTER
NET METAL

CODE	FE453446NP05HC
DIA.	340
HEI.	450
HOLE	45
MIC	5
MACHINES	

FILTER WITHOUT CONE,
NET METAL

CODE	FE303446P05L
DIA.	340
HEI.	300
HOLE	46
MIC	5
MACHINES	FANUK – SODIK

FILTER NET METAL

CODE	FE3034G34P05L
DIA.	340
HEI.	300
HOLE	46
MIC	5
MACHINES	

MIDDLE QUICK CONNECTION
FILTER NET METAL

CODE	FE5104H341158/2
DIA.	340
HEI.	450
HOLE	45
MIC	5
MACHINES	FANUK – SODIK

GALVANIZED
FILTER UPPER CONE

CODE	FE256530FA
DIA.	65
HEI.	250
HOLE	30
MIC	50
MACHINES	CHARMILLES

MICROCLEAN FILTER
WOUND WIRE

CODE	FE503029P05L
DIA.	300
HEI.	500
HOLE	30
MIC	10
MACHINES	MITSUBISHI – HITACHI – BROTHER

FILTER NET METAL

CODE	FE503054PG10L
DIA.	300
HEI.	500
HOLE	
MIC	
MACHINES	

GALVANIZED LATERAL QUICK CONNECTION FILTER NET METAL

CODE	FEH31967
DIA.	300
HEI.	500
HOLE	30
MIC	10
MACHINES	MITSUBISHI – HITACHI – BROTHER

GALVANIZED
FILTER NET METAL

CODE	FE282646P05ML
DIA.	260
HEI.	280
HOLE	48
MIC	5
MACHINES	SODIK

FILTER NET METAL

CODE	FEH341070/20
DIA.	340
HEI.	300
HOLE	45.5
MIC	2
MACHINES	FANUK – SODIK

PAINTED
NET FILTER

CODE	FEH341380/1
DIA.	340
HEI.	300
HOLE	45.5
MIC	5
MACHINES	FANUK – MITSUBISHI

QUICK CONNECTION
FILTER PAINTED NET METAL

Authorized Distributor:-
MANGAL INDUSTRIAL TOOLS
OFFICE :- 314-315 VARDHAMAN SUNRISE PLAZA
PLOT NO 1LSC' VASUANDRA ENCLAVE , NEW DELHI
OFFICE :- B-34' SECTOR-10 NOIDA (U.P) 201301 INDIA
PHONE :- 91 11 43451168
EMAIL :- info@mangaltools.com

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