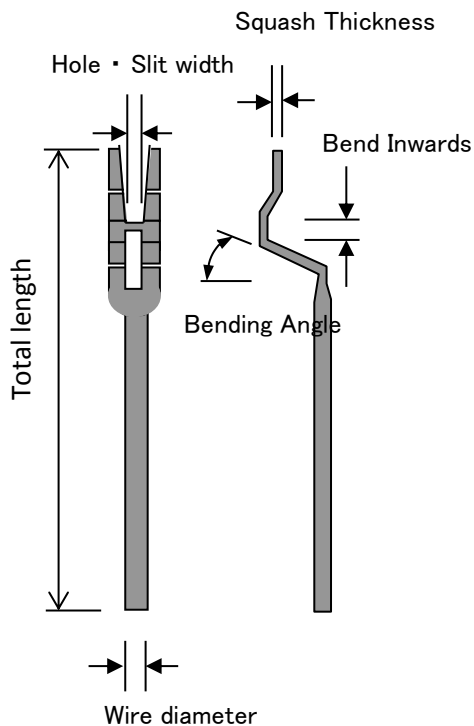


Forming lead

ITEC's forming lead is made by machine developed in house. Our micro forming machine made high precision and stable production possible. It can do extremely fine press working of fine wire.

ITEC's products have got favorable review as long actual production of crystal resonator supporter.

We are aiming for application in new fields as advanced technology for minimal parts production.



●Machining result

Material Kv·FeNi·SUS

Wire Diameter	$\phi 0.3\text{mm} \sim \phi 0.8\text{mm}$
Total Length	20mm
Hole·Slit width	0.4mm \sim
Squash Thickness	0.15mm \sim 0.35mm
Bend Inwards	0.5mm \sim

●Machining accuracy

Wire Diameter	$\pm 0.01\text{mm}$
Hole·Slit width	$\pm 0.01\text{mm}/\square = 0.4$
Squash Thickness	$\pm 0.01\text{mm}/t = 0.15$
Bend Inwards	$\pm 0.01\text{mm}/L = 0.5$
Bending Angle	$\pm 0.5^\circ$

●Application example

Crystal resonator for car (Crystal supporter)
Connector for electron gun

●Features

Three-dimensional shape can be freely machined with high accuracy.

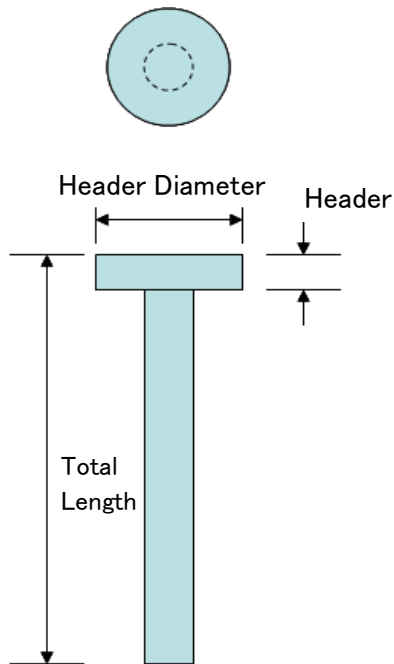
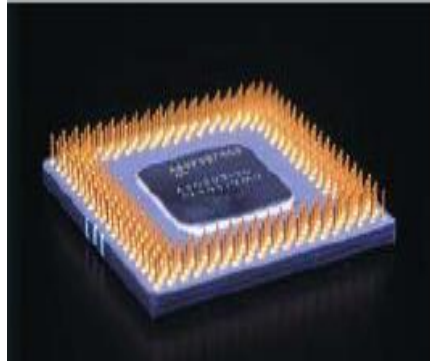
Header-Lead

The feature of ITEC's Header-Lead is micro header processing of ultra fine wires. It is possible to process from 0.1 mm wire diameter.

Our Header-Lead is mainly used for lead-pin of hermetic sealing and electrodes of various semiconductors.

We have experience in processing various kinds of metal materials and we also support various kinds of plating.

ITEC is proposing to small parts of every kind of electronic equipment that is becoming lighter, thinner and smaller.



● Machining result

Material	Kv
	FeNi
	Cu
	SUS
	Ni
	Ag

Wire Diameter	ϕ 0.1mm ~ ϕ 2.0mm
Total Length	1.0mm ~ 70.0mm
Header Diameter	ϕ 0.2mm ~ 4.0mm
Header Thickness	0.1mm ~ 1mm

● Machining accuracy

Total Length	\pm 0.03mm ~
Header Diameter	\pm 0.02mm ~
Header Thickness	\pm 0.02mm ~

● Features

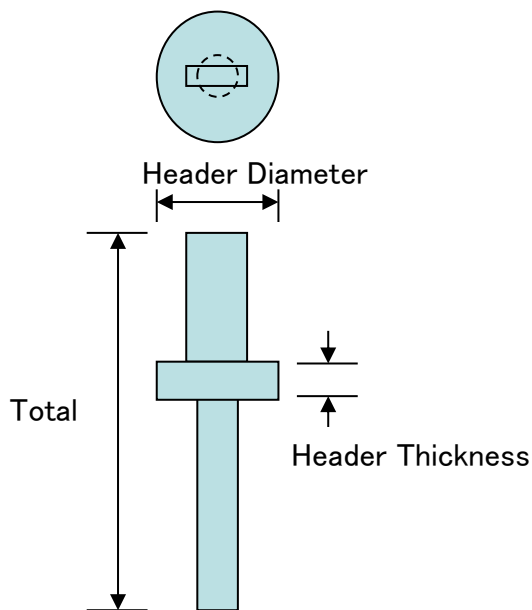
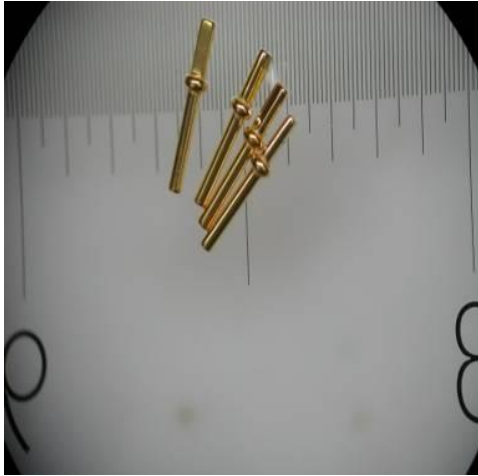
Three-dimensional shape can be freely machined with high accuracy.

Middle flange pin

Middle flange pin is an application of header processing.

This is produced by forming a flange shape in the center of the lead.

By combination of casting and crushing process, the shape of the lead part can be flattened and cross shape. It is mainly used for terminal pins of all electronic parts, and it is used as a shape of pin stopper.



●Machining result

Material	Kv FeNi Cu 42%FeNi
Wire Diameter	$\phi 0.3 \sim 1.0$
Total Length	5.0~40.0mm
Header Diameter	$\phi 0.6 \sim 2.0$
Header Thickness	0.2~1mm

●Machining accuracy

Total Length	$\pm 0.03 \sim$
Header Diameter	$\pm 0.02 \sim$
Header Thickness	$\pm 0.02 \sim$

●Application example

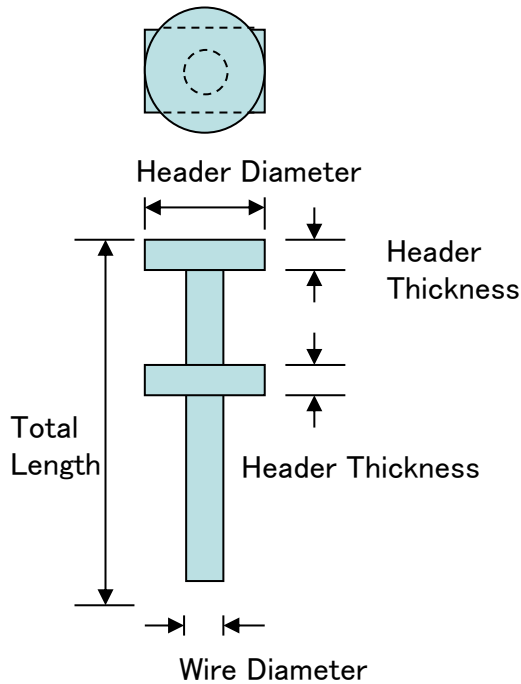
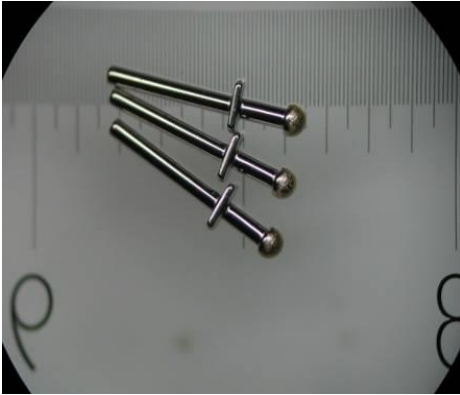
Lead for CPU・MPU
Lead for stopping falling out

●Features

Use for stopping falling out.
The shape is used for various purposes.

Two stage flange pin

Two stage lead is complex processed item of middle flange processing and header processing. It can produce header surface into spherical surface and can make shape of middle flange and header different shapes by casing process.



●Machining result

Material	Kv FeNi Ag solder 72V Ag solder 85V Ag solder 90V
Wire Diameter	$\phi 0.3\sim 1.0$
Total Length	5.0~40.0mm
Header Diameter	$\phi 0.6\sim 2.0$
Header Thickness	0.2~1mm

●Machining accuracy

Total Length	$\pm 0.03\sim$
Header Diameter	$\pm 0.02\sim$
Header Thickness	$\pm 0.02\sim$

●Application example

Lead for CPU·MPU
Various earth leads

●Features

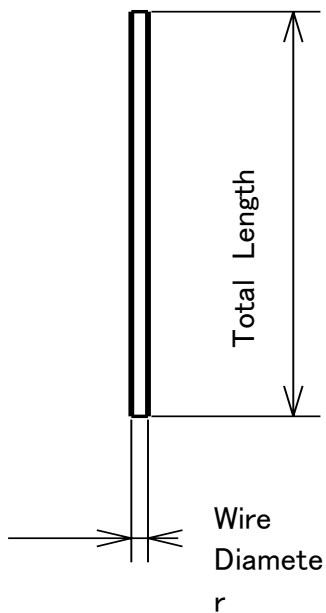
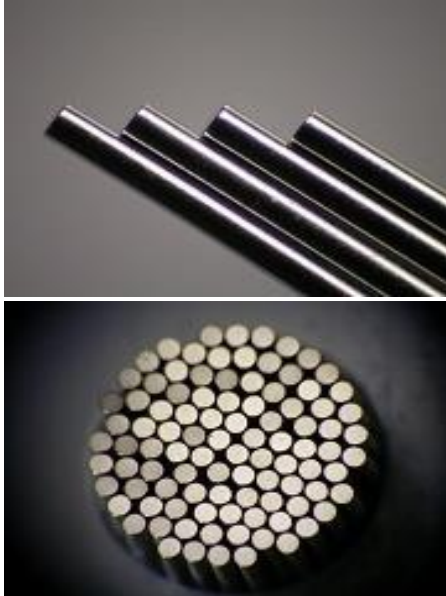
Cut width of middle flange and volume of Ag solder can be custom-made.

Cutting processed product

ITEC's cutting processed products have three features as follows.

- ① Cost performance type...normal cutting by ultra high speed rotation.
- ② Fine Cut type...Most of the cut surfaces become shear surfaces.
- ③ Long length cutting product...It is characterized by precise linear correction

We will propose cutting products suitable for your application.



● Machining result

Material	SUS, Kv, FeNi, Ni, Tungsten
Wire Diameter	$\phi 0.1 \sim \phi 2.5$
Total Length	1~1500mm

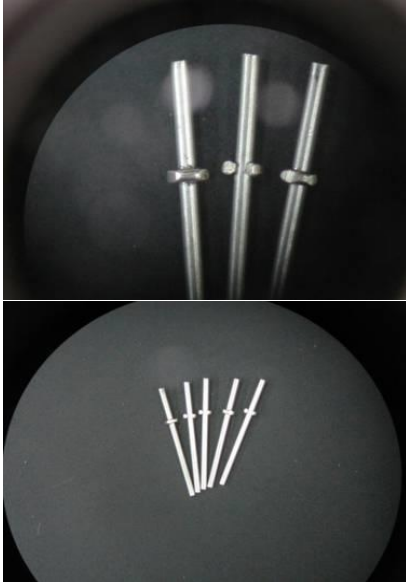
● Machining accuracy

Fine cut shear plane ratio:	over 90%
Total length of normal cutting product;	$\pm 0.03 \sim$
Total length of fine cutting product;	$\pm 0.3 \sim$
Total length of long length cutting product;	$\pm 0.5 \sim$

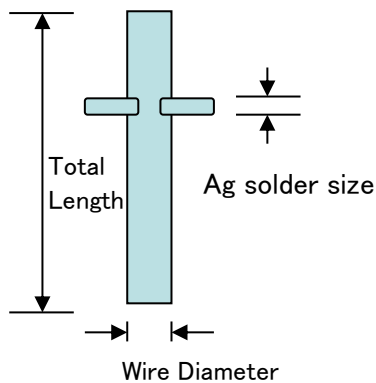
Ag solder winding processed product

ITEC can offer the lead wire with Ag solder winding. If you produce in two steps of Ag solder bonding process and lead wire sealing process in hermetic seal manufacturing process, Our products realize cost reduction by providing built-in lead wire that welds Ag solder in advance.

Utilizing the features of wrapping, we also propose products of extremely small washers with an inner diameter of 0.5mm or less.



Ag solder roll rating



●Machining result

Material	Kv
	FeNi
	Ag Solder 72V
	Ag Solder 85V
	Ag Solder 90V
Wire Diameter	$\phi 0.4 \sim 1.0$
Total Length	7.0~14.0mm
Ag solder roll rating	: Over 75% of Wire Diameter
Ag solder size	$\phi 0.25 \sim 0.4$

●Machining accuracy

Total Length	$\pm 0.05 \sim$
Ag Volume	$\pm 10\%$

●Application example

Crystal Oscillator

●Features

No welding process of Ag solder washer and lead.

The processing steps are shortened,
and the accuracy becomes unnecessary.

Cutting fracture sections can be secured
at over 70%.

Ag solder ring

Ag solder ring can be brazed freely by attaching to the lead to heatometric terminal etc.

Old Ag ring by punching was large material loss and high cost. ITEC eliminate material loss at all by processing Ag solder wire into ring shape. We succeeded in reducing material cost to less than one third compared with conventional materials

Press dies are unnecessary and we can freely adjust the dimensions. And, we correspond to small-volume production in great varieties.

ITEC can process ring except for Ag, we also propose it as an extremely small washer.

- Photographic products (Wire Diameter : 0.25mm / Inner Diameter : 0.8mm)

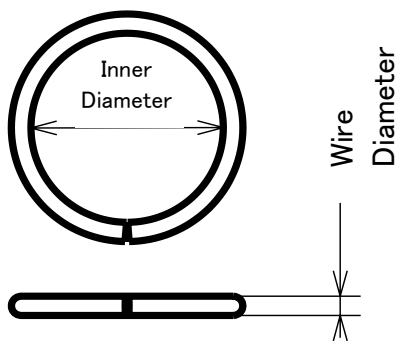


- Machining result

Material Ag solder 72V, 85V, 90V
Wire Diameter 0.25, 0.30, 0.35
Inner Diameter 0.50, 0.80

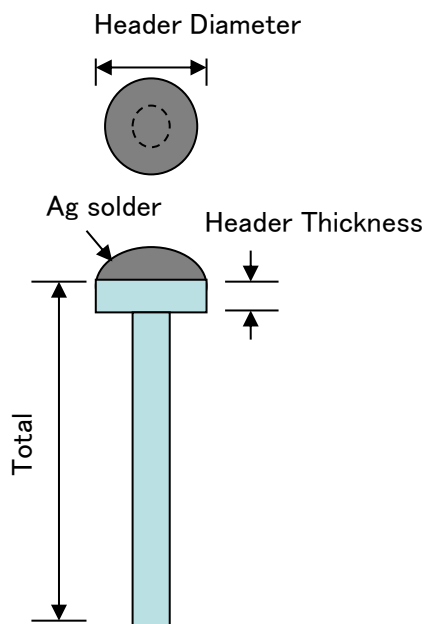
- Features

Processing of extremely small washer at low cost is possible.



Ag braze pin

Ag braze pin is made by welding silver solder to the top of the header lead.
Our product is adopted for sealing of hermetic terminal.
The lineup of Ag solder content is 72%, 85%, 90%.



●Machining result

Material	Kv FeNi Pd Ag solder 72V Ag solder 85V Ag solder 90V
Wire Diameter	$\phi 0.135 \sim 1.0$
Total Length	4.0~41.0mm
Header Diameter	$\phi 0.2 \sim 2.0$
Header Thickness	0.1~1mm

●Machining accuracy

Total Length	$\pm 0.03 \sim$
Header Diameter	$\pm 0.02 \sim$
Header Thickness	$\pm 0.02 \sim$

●Application example

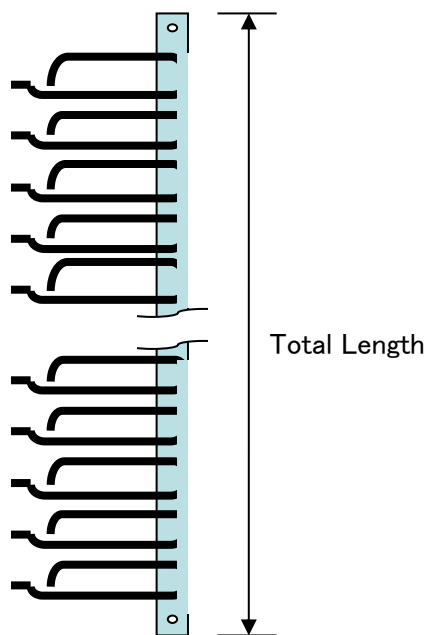
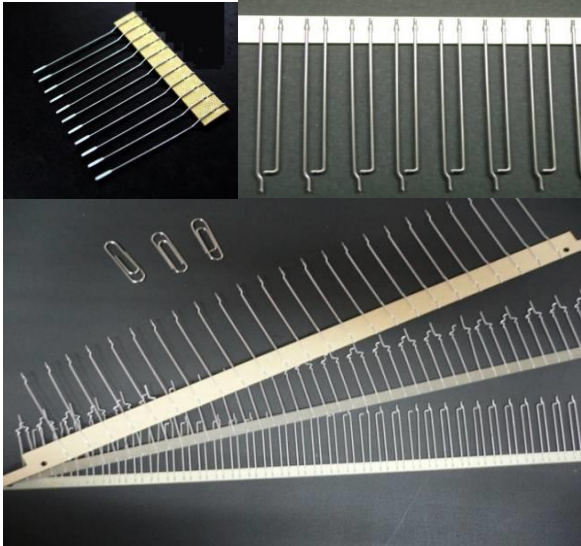
Earth lead for LD
Lead for CPU·MPU
Earth lead for various hermetics

●Features

Passing furnace at hermetic processing can be welding deposition,
It is hard to come off compared with welding.

Chain Lead

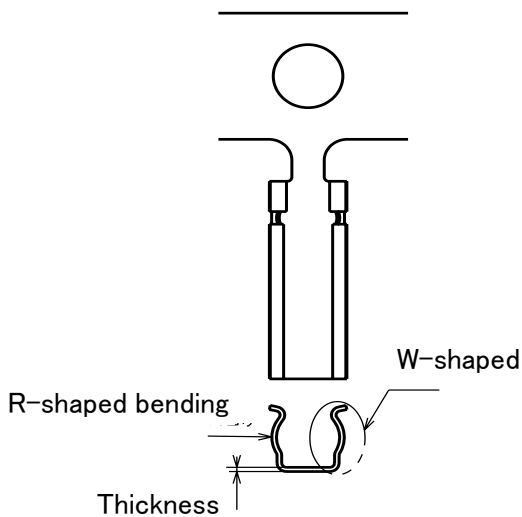
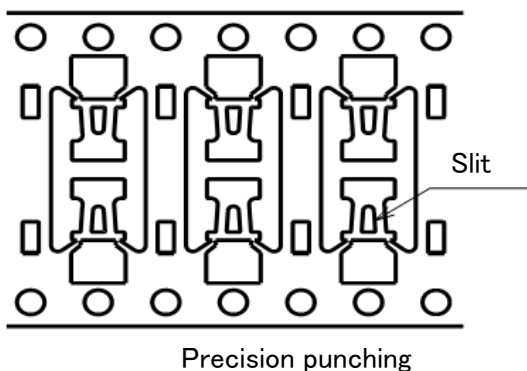
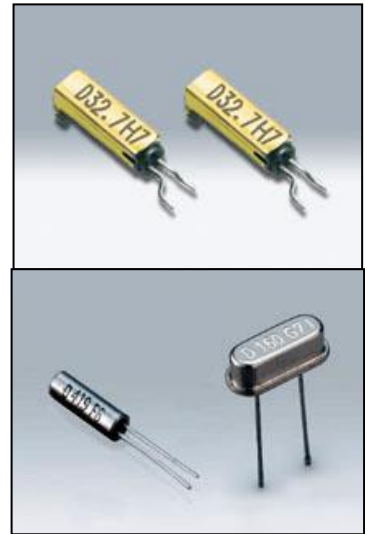
Chain Lead is bending-lead wires that are welded or caulked at regular intervals on the frame. Customers can use Chain Lead by wearing it in an automatic machine. Because the lead wires are aligned, it is also suitable for increasing the efficiency of total inspection. Chain Lead is mainly adopted for tantalum condenser. Unlike press leadframes, Chain Lead has little material loss. We are proposing new applications such as lead frame of expensive material.



- Machining result
 - Material Solder plating CP
Tin plating CP
Solder plating annealed copper wire
SUS
 - Wire Diameter $\phi 0.4 \sim 1.0$
 - Total Length 25.0~40.0mm
- Machining accuracy
 - Total Length $\pm 0.1 \sim$
- Application example
 - Capacitor
 - Varistor
- Features
 - Welding lead wire to bar and resin mold bring customer process in good spring work efficiency

Thin plate press processing

ITEC's press processing can process foil material from 0.08mm with high accuracy and high speed. Our products are adopted for Crystal resonator and various lead frames. We correspond to In-line image inspection, In-line cleaning, In-line material surface polishing, specified length cut and hoop type packaging.



- Machining result
Material NI • KV • SUS • Brass • Phosphor bronze
Plate thickness t=0.08mm ~
Hole • Slit width 2t ~
- Machining accuracy
Plate thickness ±0.01mm
Hole • Slit width ±0.01mm
- Processing example
Precision punching
W-shaped bending
R-shaped bending
Coining
- Application example
Crystal resonator for car (Crystal supporter)
Crystal resonator holding clip
Various terminal
- Features
Gold plating, Nickel plating and the other is possible.