



MAIN LINE  
OF  
BUSINESS:

PRODUCTION

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# SINTOMS PRODUCTION OF FRETS & FRETTING TOOLS

We produce our products since 1992:



✓ FRETS for various stringed musical instruments.

✓ FRETTING TOOLS for fret mounting:

Fret Bender

Cutters for Fret Mounting

Tang Nipper

Fret Limiter of Tang Nipping



We deliver our products to 70 countries worldwide.

# SINTOMS Frets

## WHY ARE THEY CHOSEN?

- ✓ **SINTOMS frets are highly professional products that are designed and produced according to the needs and desires of luthiers from all over the world.**

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- ✓ **Due to special technologies and high-quality materials, SINTOMS frets do not absorb but sustain, support and improve the sound of a musical instrument making it more natural and rich.**

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- ✓ **The product range includes more than 500 models of frets, different in shapes, types and purposes:** \*conventional, \*triangular, \*asymmetrical, \*frill, \*antique, \*zithers, \*repair (with a thicker tang), \*equal high (with a different fret crown width but equal crown height).

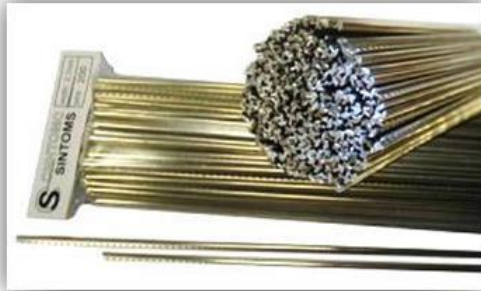
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- ✓ **SINTOMS frets are produced from various high-quality materials such as:** \*nickel silver, \*stainless steel, \*brass, \*bell bronze, \*titanium, \*zirconium, \*non allergenic alloy.

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- ✓ **SINTOMS frets have high wear resistance. Nickel silver frets have different hardness. They are produced with** \* 8%, \* 12%, \* 18%, \* 25% **nickel content.**

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- ✓ **Special variants of delivery and high manufacturing accuracy of SINTOMS frets allow to reduce the time of their mounting twice.**

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- ✓ **SINTOMS frets are the result of the company's 30-year research work.**

## Variants of Frets Delivery



### Factory Delivery Frets (F)

- ✓ One set of frets consists of 6 straight lengths of 260 mm each.
- ✓ One pack can contain from 1 up to 30 sets of frets.



### Store Delivery Frets (S)

- ✓ One set of frets contains 12 arc-shaped fret lengths of 130 mm each.
- ✓ Each set is packed in a separate blister pack.



### Factory Delivery Fret Wire in Rolls (FR)

- ✓ One item of fret wire can be delivered with different weight from 1 up to 10 kg.

## Variants of Frets Delivery

### Factory Delivery Frets (F)

- ✓ One set of frets consists of 6 straight lengths of 260 mm each.
- ✓ One pack can contain from 1 up to 30 sets of frets.

### Arc-shaped Factory Delivery Frets (FA)

- ✓ One set of frets consists of 6 arc-shaped fret lengths of 260 mm each with the radius of 7.5–8.5 inches (19.05–21.59 cm).
- ✓ Each fret length has the same curve radius along the entire length.

### Store Delivery Frets (S)

- ✓ One set of frets contains 12 arc-shaped fret lengths of 130 mm each.
- ✓ Each set is packed in a separate blister pack.



## Variants of Frets Delivery

### Factory Delivery Zero Frets (MF)

- ✓ One straight fret length is at least 260 mm long.
- ✓ One pack can have from 1 up to 30 lengths.

### Arc-shaped Factory Delivery Zero Frets (MFA)

- ✓ One arc-shaped fret length is at least 260 mm long.
- ✓ One pack can have from 1 up to 30 lengths.

### Store Delivery Zero Frets (ML)

- ✓ One straight fret length is at least 70 mm long.
- ✓ Each fret is packed in a separate blister pack.

### Arc-shaped Store Delivery Zero Frets (MLA)

- ✓ One arc-shaped fret length is at least 70 mm long.
- ✓ Each fret is packed in a separate blister pack.

SINTOMS

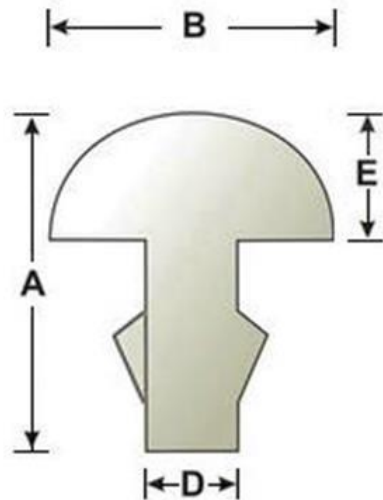


SINTOMS



## Shapes (types)

### TRADITIONAL FRETS

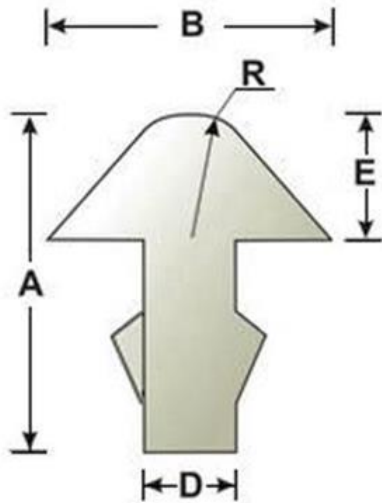


Conventional  
type (CT)

- ❑ Traditional frets are in highest demand.
- ❑ They have the fret crown width from 1.2 up to 4.3 mm (0.047–0.169”).
- ❑ They are produced from the following materials:
  - ✓ Nickel silver (4 types);
  - ✓ Stainless steel (2 types);
  - ✓ Brass;
  - ✓ Bell Bronze;
  - ✓ Titanium;
  - ✓ Zirconium;
  - ✓ Non allergenic alloy.

## Shapes (types)

### TRIANGULAR FRETS ( $\Delta$ )



Triangular type (TT)

- They are specially designed for studio recordings.
- They make the sound of an instrument flat, bright and clear, excluding any rustle due to the minimum contact of strings with frets.
- They are usually mounted on electroacoustic and electric guitars as sensitive audio equipment catches even the slightest shades of the sound of an instrument.
- They are produced in 2 types:

Sharp triangular frets  
with a smaller fret crown radius.

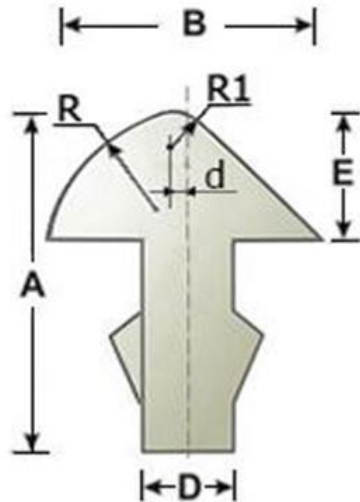
Non-sharp triangular frets  
with a larger fret crown radius.

- The performance of glissando on the instrument with sharp triangular frets is more difficult than on the instrument with non-sharp ones.
- Triangular frets are produced from nickel silver.



## Shapes (types)

### ASYMMETRICAL FRETS (ASF)

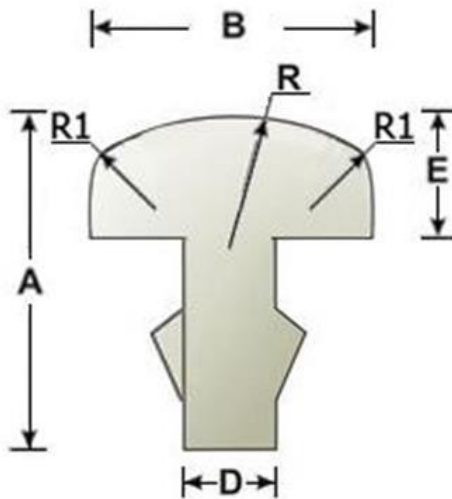


Asymmetrical Type (AT)

- Asymmetrical frets give an opportunity to tune strings on each fret.
- Due to the unique shape of the fret crown, one side of which has a radius while the other one has a straight line, asymmetrical frets allow not only to reduce rustling and fret wear but also easily to play a glissando or legato from top to bottom.
- They are especially popular among luthiers who make and repair classical guitars.
- Asymmetrical frets are produced from 2 materials:
  - ✓ Nickel silver;
  - ✓ Stainless steel.

## Shapes (types)

### FRILL FRETS (FRF)



Frill Type (FT)

- The main difference of frill frets from other types of frets is the optimum combination of the shape and weight of a fret.
- The achieved combination:
  - ✓ provides a powerful bright and clear sound throughout the full sound range of a musical instrument;
  - ✓ facilitates the sound-producing techniques;
  - ✓ increases the sustain of a musical instrument.
- Frill frets are produced from different materials:
  - ✓ Nickel silver with 12%, 18% and 25% nickel content;
  - ✓ Stainless steel;
  - ✓ Ringing stainless steel;
  - ✓ Bell bronze.

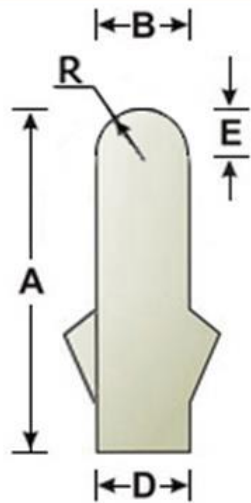
## Shapes (types)

### Modern line of ANTIQUE FRETS (ANT)

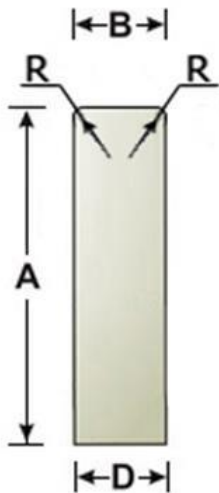
- ❑ This type of frets are specially designed for restoration of ancient musical instruments as well as for creation of new musical instruments of ancient construction.
- ❑ Frets of modern construction can influence the sound of an ancient musical instrument and spoil its appearance.
- ❑ Antique frets are produced from nickel silver.

### ZITHER FRETS (ZTR)

- ❑ This type of frets is quite specific as zithers have narrow and pretty high frets. Frets with such a profile can be mounted on different models of zithers.
- ❑ Zither frets are produced from nickel silver.



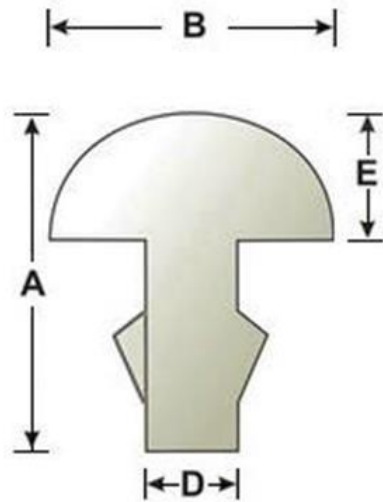
Antique Type (QT)



Zither Type (ZT)

## Special-Purpose

### REPAIR FRETS (REF)



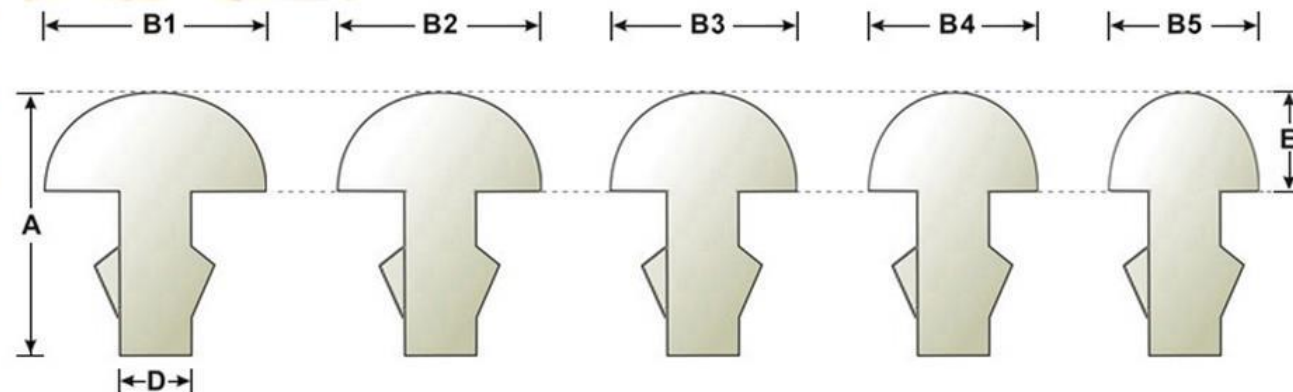
Conventional  
Type (CT)

The replacement of old worn-out frets often leads to damaging and widening of slots in the fingerboard. As a rule the tang width of modern frets is up to 0.5 mm. Mounting a fret like this into a damaged wide slot results in a diffused sound of a musical instrument.

- ❑ SINTOMS repair frets have a thicker (up to 0.63 mm) fret tang than traditional frets.
- ❑ They get more tightly in an expanded slot and fix better.
- ❑ They are very popular among luthiers and in repair workshops.
- ❑ SINTOMS repair frets are produced from nickel silver.

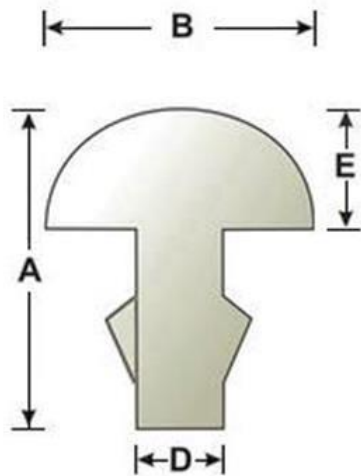
## Special-Purpose EQUAL HIGH FRETS (EQH)

- EQH frets are produced with different fret crown width but equal crown height.
- The main idea of these frets is to facilitate playing musical instrument with frets, the space between which narrows to the bottom of the fingerboard. EQH frets give an opportunity to increase this space for a musician to play such an instrument easily and comfortably at the bottom of the fingerboard.
- There are 2 lines of EQH frets:
  - ✓ with the fret crown height of 1.08–1.09 mm – for folk musical instruments like mandolins, domras, balalaikas, etc.;
  - ✓ with the fret crown height of 1.4 mm – for electric guitars.
- Equal high frets are produced from 2 materials:
  - ✓ Nickel silver;
  - ✓ Stainless steel.

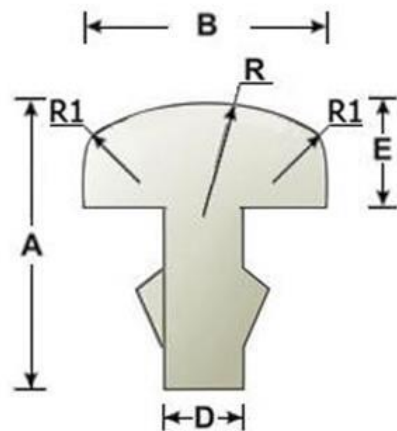


## Special Materials

### BELL BRONZE FRETS (SBZ)



Conventional Type (CT)

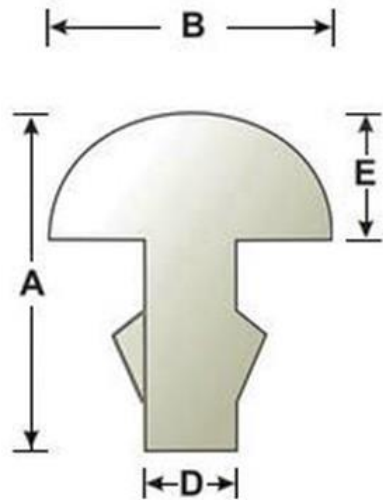


Frill Type (FT)

- ❑ There are 2 crown shapes (types) of bronze frets: conventional and frill.
- ❑ SINTOMS bell bronze frets are a real masterpiece among other frets due to the following characteristics:
  - ✓ Increased wear resistance. Bronze frets may last from 7 to 10 times longer than the standard nickel silver frets.
  - ✓ Prolonged sustain. Bronze frets, especially frets with frill profile, provide a clear sound throughout the full sound range of an instrument.
  - ✓ Improved articulation. Bronze frets make the sound more articulate, clear and focused. They absorb the sound less at low and medium frequencies.
  - ✓ Well-balanced sound. These frets make the sound of an instrument more balanced and natural while playing a melody.
  - ✓ Aesthetics. Bell bronze metal has a nice deep golden colour that perfectly matches gold or chrome colored hardware.

## Special Materials

### TITANIUM FRETS (STI)



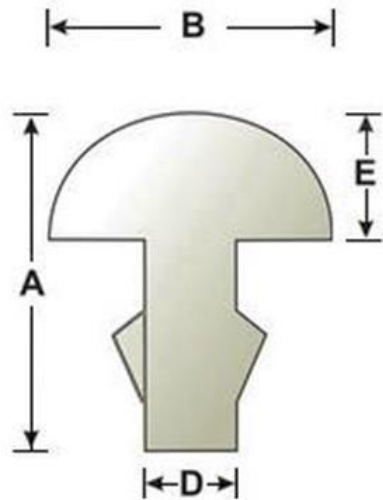
Conventional  
type (CT)

Peculiarities:

- ✓ Preserve and support the sound of a musical instrument well improving its timbre.
- ✓ Have excellent resistance to the corrosion.
- ✓ The lightest among the frets made of other materials.
- ✓ More durable than nickel silver frets.
- ✓ It is not recommended to install titanium frets on instruments with metal strings or with strings having nickel or steel wound because while playing such an instrument there may appear a side tone or a squeak, some inconvenience due to the feeling of friction of a string against a fret.
- ✓ Titanium frets are preferably installed on classical guitars or other musical instruments with nylon strings or with strings having soft metal wound.

## Special Materials

### RINGING STAINLESS STEEL FRETS (RSS)



Conventional  
type (CT)

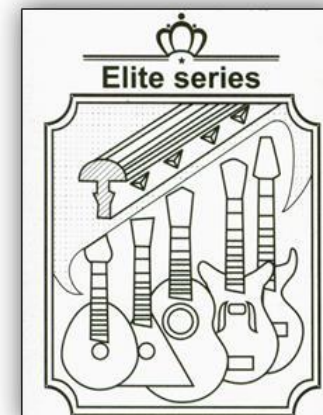
Peculiarities:

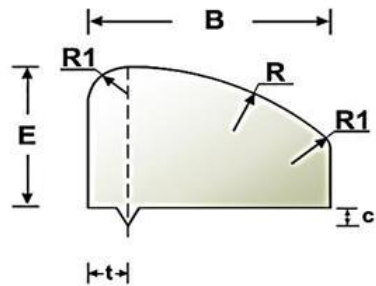
- ✓ Have increased wear resistance.
- ✓ Improve sound quality of a musical instrument providing smoother and more natural sound.
- ✓ Increase sustain of an instrument.



## The Peculiarities of the Series

- ❑ Elite series includes only nickel silver frets.
- ❑ Moreover, only this series includes nickel silver adamant hard (a.h.) frets with 25% nickel content with improved wear resistance.
- ❑ They can be delivered in arc-shaped factory delivery fret lengths (FA) with the same curve radius 7.5–8.5 inches (19.05–21.59 cm) along the entire length.
- ❑ The frets have well-shaped fret ends.
- ❑ The package for elite series frets has bar codes and a new design.





Zero Frill without Tang Type (ZF.FT N.T.)

### The Peculiarities of the Series

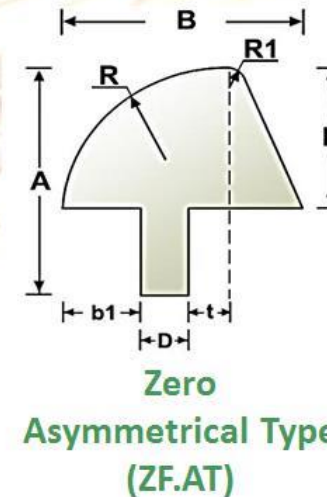
There are 2 SINTOMS zero frets types:

1) Zero frets without a tang (patent pending) have only a frill type. Such a fret is easily mounted on any musical instrument without additional works with a nut and a fingerboard.

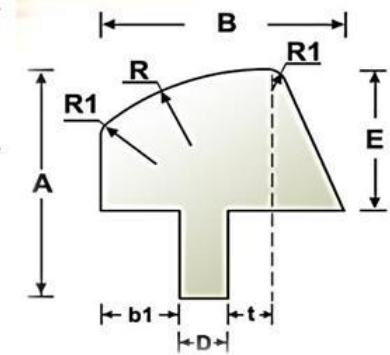


2) Zero frets with a tang without studs have 2 types: asymmetrical and frill-asymmetrical profiles. They are mounted in a previously milled nut.

- The highest point of the fret crown of each profile has a shift that reduces the musical instrument's scale by 0.4 mm thus improving its tuning.
- SINTOMS zero frets are produced from 3 different materials:
  - ✓ Nickel silver with 25% nickel content;
  - ✓ Stainless steel;
  - ✓ Bell bronze.



Zero Asymmetrical Type (ZF.AT)



Zero Frill-Asymmetrical Type (ZF.FAT)

# SINTOMS Fretting Tools

## CUTTERS for FRET MOUNTING



- ❑ Make slots in a fingerboard for mounting frets of different sizes. The slots are clean without chipping and cracks.
- ❑ Are made of special tool steel (HSS – high-speed steel).
- ❑ Are produced with high manufacturing accuracy (0.02 mm).
- ❑ Work well without regrinding for a year.
- ❑ Can last up to 5 regrindings.

### DIMENTIONS:

- ✓ Outer diameter: 80 mm.
- ✓ Inner diameter: 25, 28, 30 (the most used one), 32, 40 mm and customized sizes.
- ✓ Cutter washer thickness: 1.8 mm.
- ✓ Standard tooth thickness: 0.43; 0.52; 0.65 mm.

# SINTOMS Fretting Tools

## FRET TANG NIPPER



- ❑ The fret tang nipper is designed to cut tangs of different fret models.
- ❑ It provides a very clean L-shaped cut of a fret tang.
- ❑ SINTOMS tang nipper can cut frets made of nickel silver and other materials with the following characteristics:
  - fret crown width up to 3,3 mm;
  - tang thickness up to 0,8 mm;
  - tang height up to 3,0 mm.

## FRET LIMITER of Tang Nipping

- ❑ It is used for precise nipping of fret tang ends.
- ❑ It provides one and the same selected length of nipping.



# SINTOMS Fretting Tools

## FRET ENDS NIPPER



*After cutting*

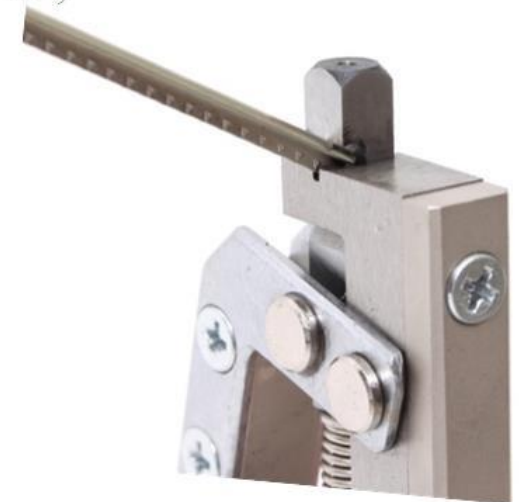


*at a right angle*



*at a non-straight angle*

- ❑ The nipper is designed for cutting of rough ends of a fret length before installing it in the fingerboard.
- ❑ The nipping can be made at a right or a non-straight angle.
- ❑ The nipper can cut frets made of nickel silver and other materials with the following characteristics:
  - fret crown width from 1,5 up to 3,2 mm;
  - fret crown height up to 1,5 mm;
  - tang thickness up to 0,8 mm;
  - tang height up to 2,1 mm.



# SINTOMS Fretting Tools

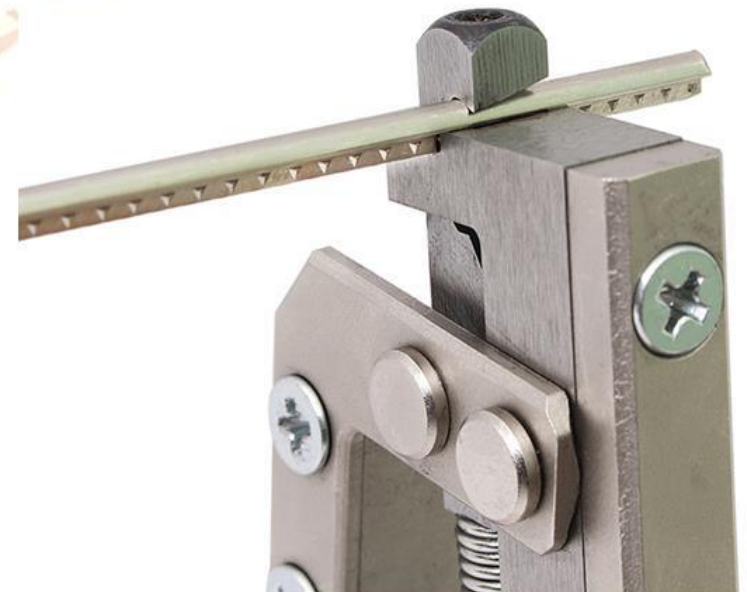
## FRET NIPPER



*After cutting*



- The nipper is designed for clean cutting of frets from either lengths or rolls while retaining the profile of the fret end.
- The nipper can cut frets made of different materials: nickel silver, brass and others with the following characteristics:
  - fret crown width from 1,5 up to 3,2 mm;
  - fret crown height up to 1,5 mm;
  - tang thickness up to 0,8 mm;
  - tang height up to 2,1 mm.



# SINTOMS Fretting Tools

## FRET BENDER

- ❑ Transforms a straight fret length into an arc-shaped one.
- ❑ Allows to adjust a bend radius.
- ❑ Bends frets of different models with different tang width.



# Contact Information

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