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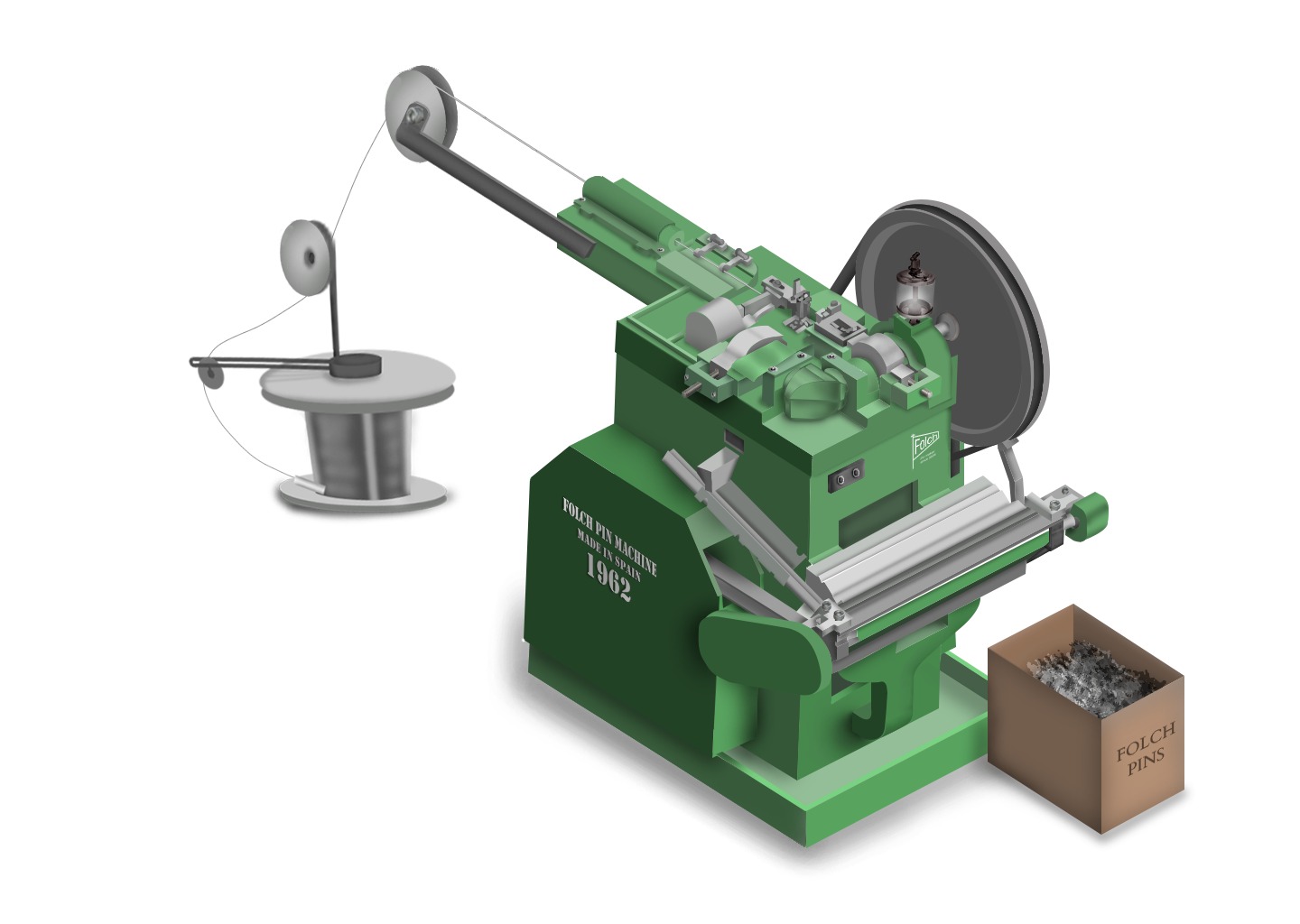
1. COMPANY PRESENTATION

Our family company Metalurgica Folch established in 1924, in Spain, is one of the last remaining European pin manufacturers, we have been producing straight pins for different markets for almost 100 years.

Pin manufacturing has long been a family heritage and now forms part of the FOLCH DNA.

Our factory is approximately 120Km/75miles along the coastline South of Barcelona in Tarragona within the Catalan region - San Jorge is the Patron Saint of this region, the SAN JORGE brand was registered to our company in 1927.

A typical Folch pin manufacturing machine.



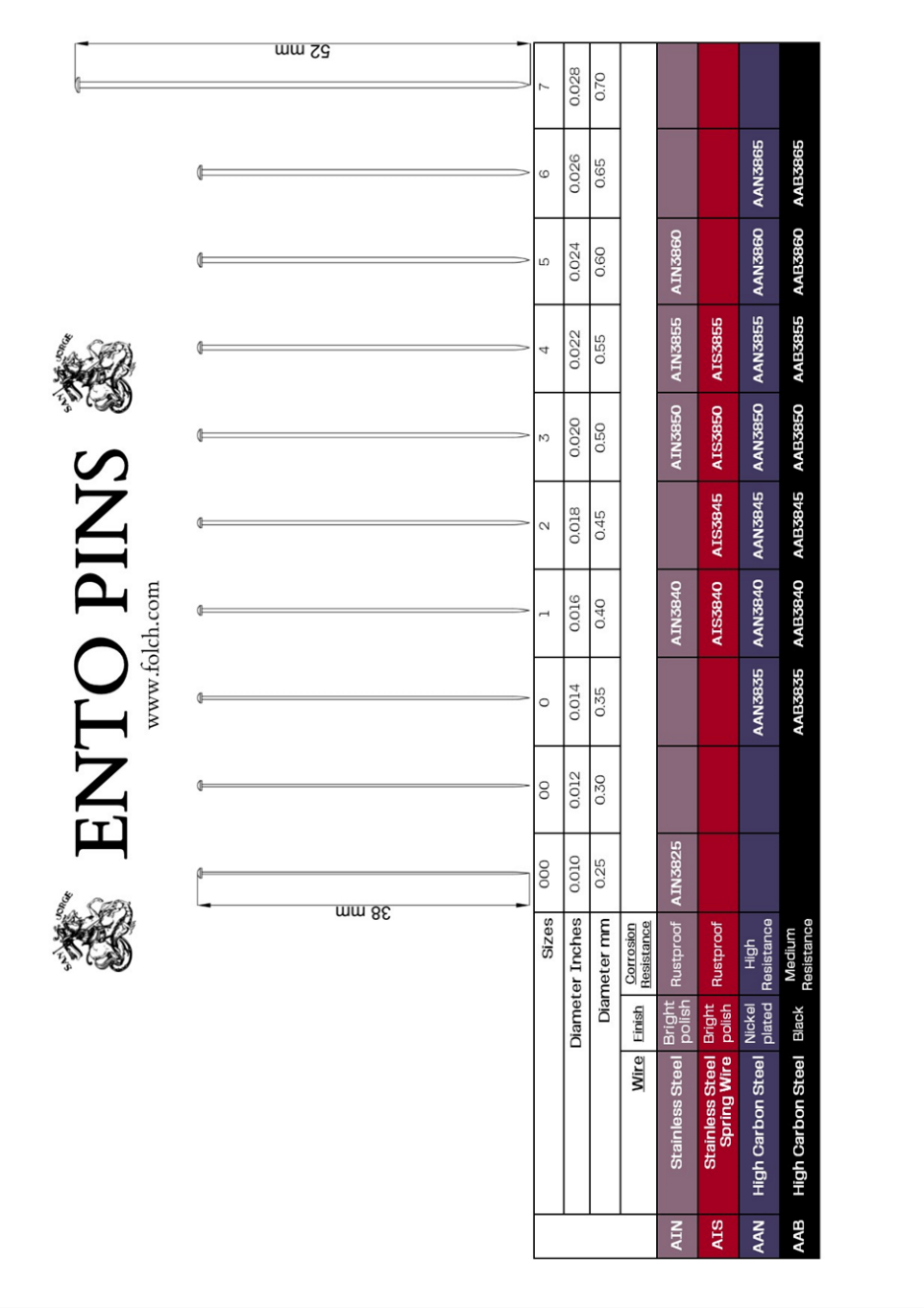
1. **ENTOPINS SAN JORGE**

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We are in the process of launching our SAN JORGE branded Entopins range, which will include new qualities based upon our experience of pin manufacturing.

Our program will include 4 qualities for each size of Ento pin that are currently available in the market place.

Each quality will have different properties that will meet the requirements for the preservation of different specimens.



**2.1 Type of Wire**

The wire is the primary material from which all pins are manufactured.

This wire can be made from different metals, for the SAN JORGE Entopins.

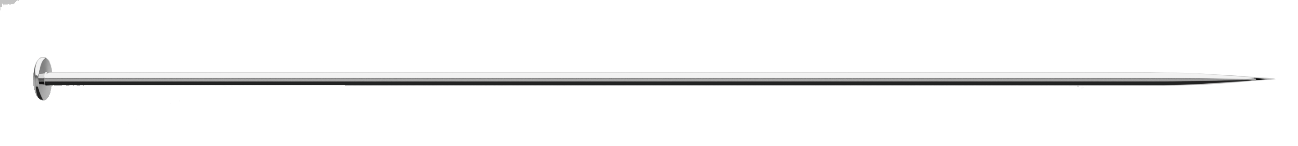
We have chosen the wires with the highest tensile strength to obtain the hardest pin ever made for the entoworld.

**AIS (Alfiler Inoxidable Spring Wire)**

Stainless Steel spring wire pins are the hardest pins made in Stainless Steel wire AIS304 for the long term storage of specimens.

High tensile strength.

Spring wire has the unique characteristic of being able to withstand considerable twisting or bending forces without any distortion.

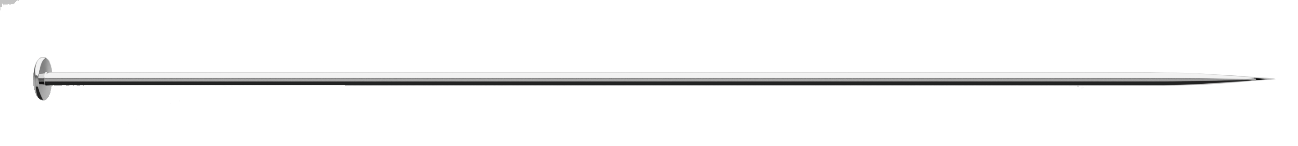


These pins have a bright polished finish and are rustproof.

**AIN (Alfiler Inoxidable Normal tensile)**

Stainless Steel AISI304 bright polished standard wire pins, also for long term storage of specimens (AIN).

Medium tensile strength.

 These pins have a bright polished finish and are rustproof.

**AAB (Alfiler Acero Black)**

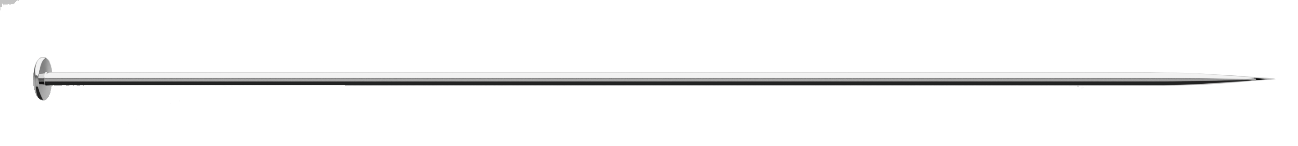
High Carbon Steel hardened and tempered black finish pins for shorter term storage of specimens, finish Black (AAB).



These pins have been treated with our process of hardening and tempering to achieve the highest hardness in the market, this is followed by our Blacking and polishing processes to achieve a smooth surface.

**AAN (Alfiler Acero Nickel)**

High Carbon steel hardened, tempered and Nickel plated finish pins for shorter term storage of specimens, finish Nickel plated (AAN).



These pins have been treated with our process of hardening and tempering to achieve the highest hardness in the market, this is followed by our Nickel plating which provides the pin with both a protective coating and a bright finish - the result being a pin with a higher resistance to corrosion and like all our pins they have a smooth surface.

* 1. **The manufacturing process**

Our automatic pin machines were built by our in house engineers (see page 6). The wire is feed to the machine, straightened and during this process, the head is formed using the same piece of wire hence the term Solid Head pins.

* + 1. **Solid head**

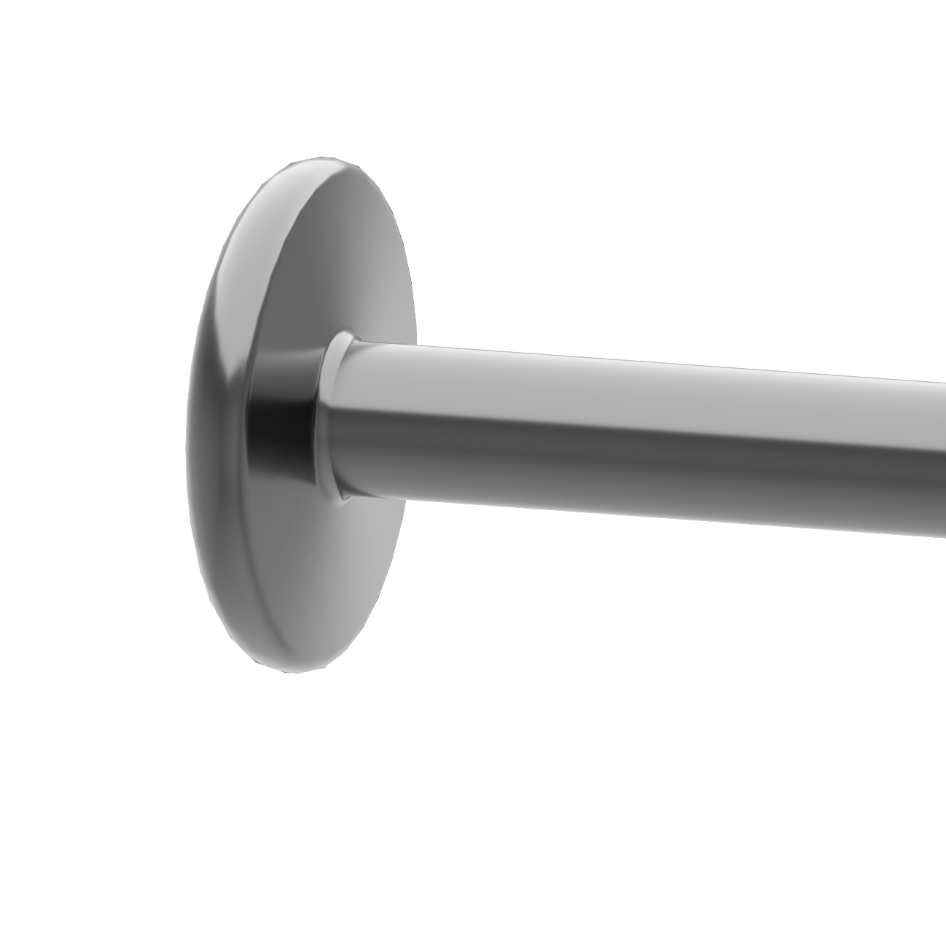
Solid metal head, or upset heads (one-piece design)

The size of the pin head will be in the size range of 2 to 2.5 times the diameter of the wire, although for ultrafine pins, the head size will be smaller than for bigger gauges.

The diameter of our Size 1 38 mm 0.40 mm is 1.05 mm compared with the size of the Nylon head is 1.60 mm .

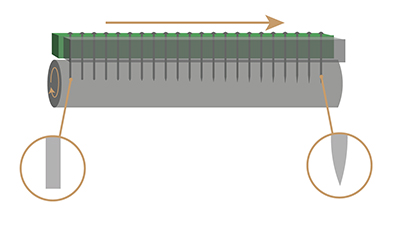
The head will never will be removed from the stem unlike Nylon headed pins, and never will be damaged for any chemical used during the preservation

***Our heads are smaller and everlasting***



* + 1. **The point**

The pin point is achieved by the use of grinding wheels which are made using very high specification finest abrasive materials, these cylindrical grinding wheels rotate at very high speeds.



The pin point profile including point length and shape will be preset depending on the actual pin to be produced.

For the San Jorge Entopins we produce pins with a progressive point where the point is smooth and sharp, this slim fine point allow the best smoother penetration into the delicate specimens, wobby cards and support boards.

***Our points are smoother and everlasting***

**

* 1. **The Hardness - Bending resistance**

The bending resistance is the capacity of any pin to recover its straight shape after being pushed into any material; this property depends on the wire used, its tensile strength, the diameter of the wire and the finishing process.

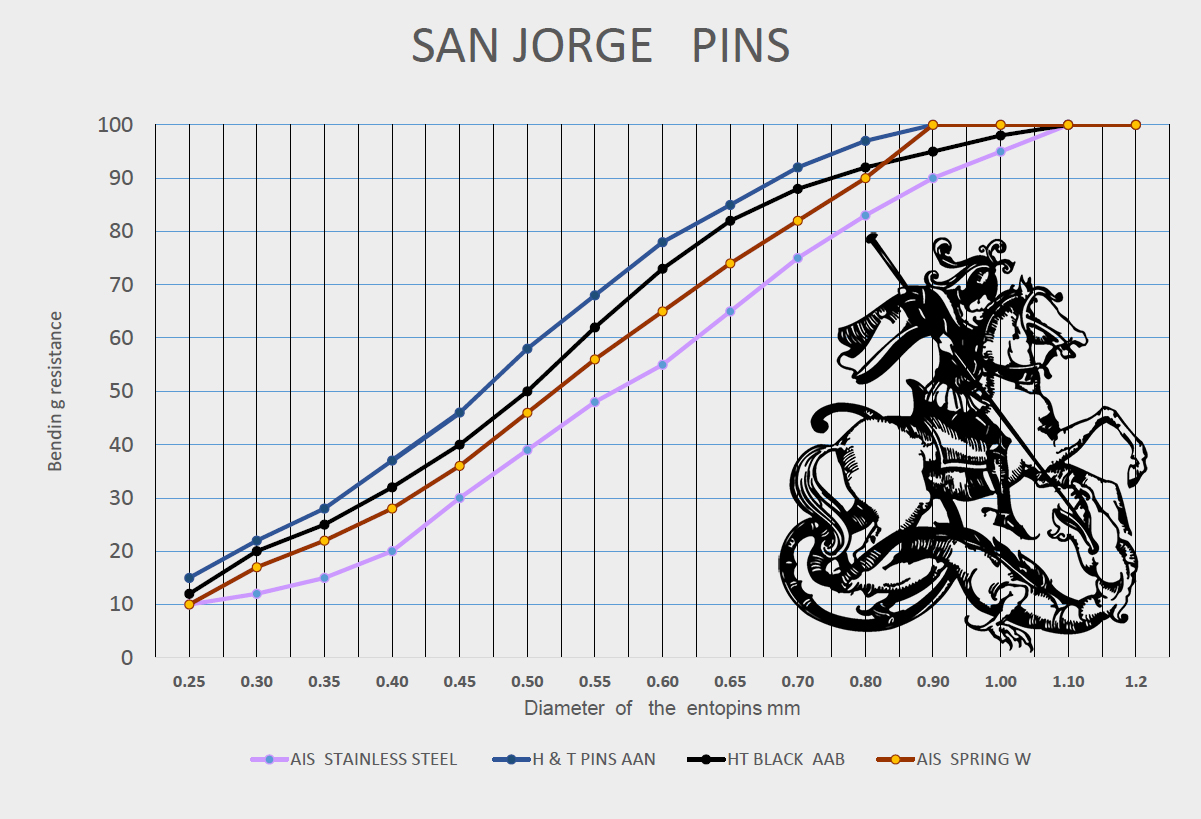
We have measured all of our pins strength and have a created a scale from 1 to 100 to identify this bending resistance in all our pins.

Depending on its application, the hardness value can guide you to the ideal pin when pinning pin strong scutellums or hard prothoraxes.

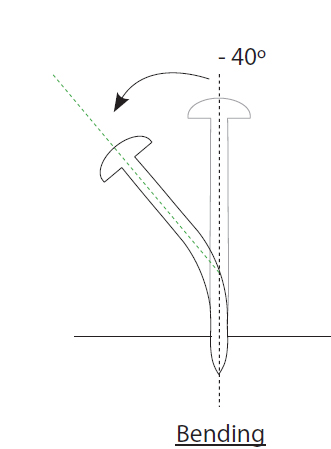
Which is the right pin for you?

Our AIS Stainless Steel pins are made with spring wire that has the highest tensile strength possible or perhaps it is the high Carbon Steel pins have been hardened and tempered in the traditional way after manufacture achieving the highest strength for these ultrafine pins.

This Chart will show the bending resistance of our pins depending of his diameter, wire material and coating finish.



Bending resistance of the SAN JORGE Entopins, this is the most important parameter for the Entopins even though they are made from thin diameter wire.



The use of the right diameter pin helps to minimize the impact of the pinning and reduce the pin bending.

Depending of the task that you have to accomplish:

If you are looking for the highest corrosion resistance with the highest bending resistance then your ideal option will be one of our AIS pins.

If you are looking for the highest bending resistance and the pin is not required to be rustproof your ideal option will be one of our AAN pins.

We have been working years to learn how to set up the Machines, to produce the hardest pins ever made.

The Bending resistance will be different for each diameter and quality:

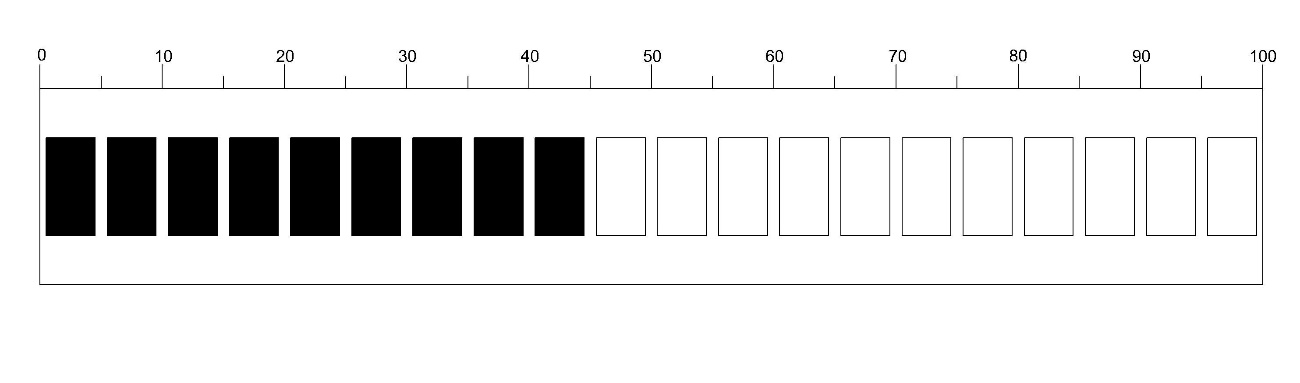
For the Size 1: 38 mm x 0.40 mm

|  |  |  |
| --- | --- | --- |
| QUALITY | FINISH | BENDING RESISTANCE |
| AIS Stainless Steel spring wire | Polished | 28 |
| AIN Stainless Steel | Polished | 20 |
| AAN Hardened and tempered Steel | Nickel plated | 45 |
| AAB Hardened and tempered Steel | Black | 32 |

BENDING RESISTANCE CHART

For Size 1 San Jorge Entopins

AAB AAN



AIN AIS

Each diameter will have different values; the hardness value is stated on each label.

* 1. **Finishes and Corrosion resistance**

We only use the best quality wire for our Stainless Steel Entopins to guarantee the best corrosion resistance and equally for our Carbon Steel pins we start with the best wire plus our surface treatments of either Nickel plating or Blackening to guarantee the best performing pins.

Our Q.C department check our pins at every stage of production starting with the wire at the point of delivery and use specific techniques such as salt spray testing to check the corrosion resistance of our materials and surface coatings.

We give all our pins the best polishing treatments to give the best bright and smooth surface.

We monitor the Pins Quality with Quality controls during the production and finishing processes, each box will bring the QC code with our Quality control Code for any further revision.

|  |  |  |
| --- | --- | --- |
| QUALITY | FINISH | CORROSION RESISTANCE |
| AIS Stainless Steel spring wire | Polished | Rustproof |
| AIN Stainless Steel | Polished | Rustproof |
| AAN Hardened and tempered Steel | Nickel plated | High resistance |
| AAB Hardened and tempere Steel | Black | Medium resistance |

1. **PACKAGING**

Our standard packing is 100 units per plastic box.

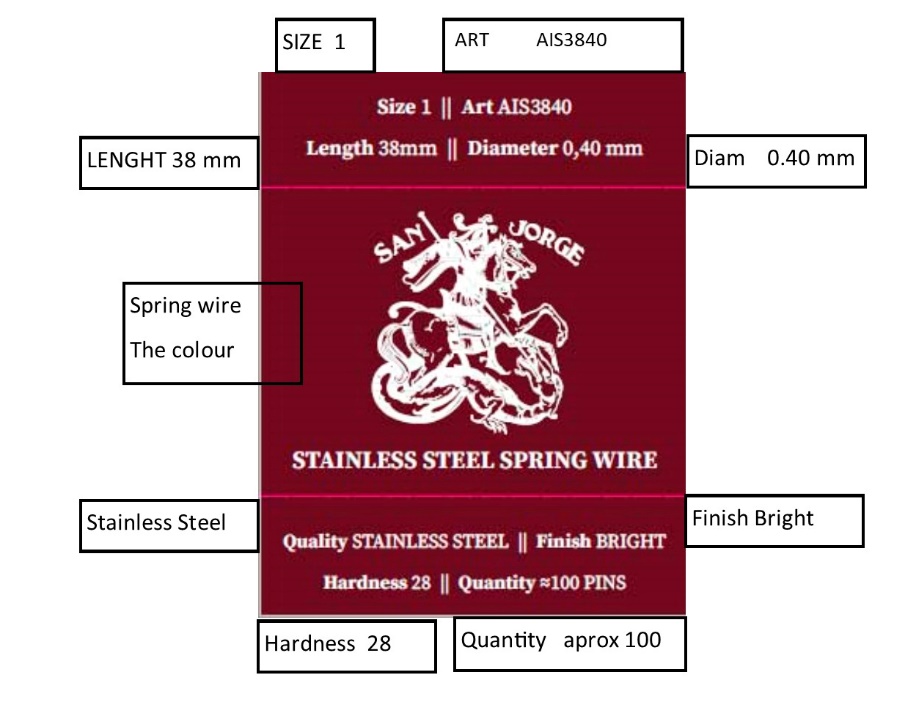
The outer will be 10 boxes = 1000 pins



LABEL INFORMATION

Everyone will find the Entopins pins main parameters within the inner label.

For example our Art. AIS3840 states.



We have identified each quality with different label colours:

AIS AIN

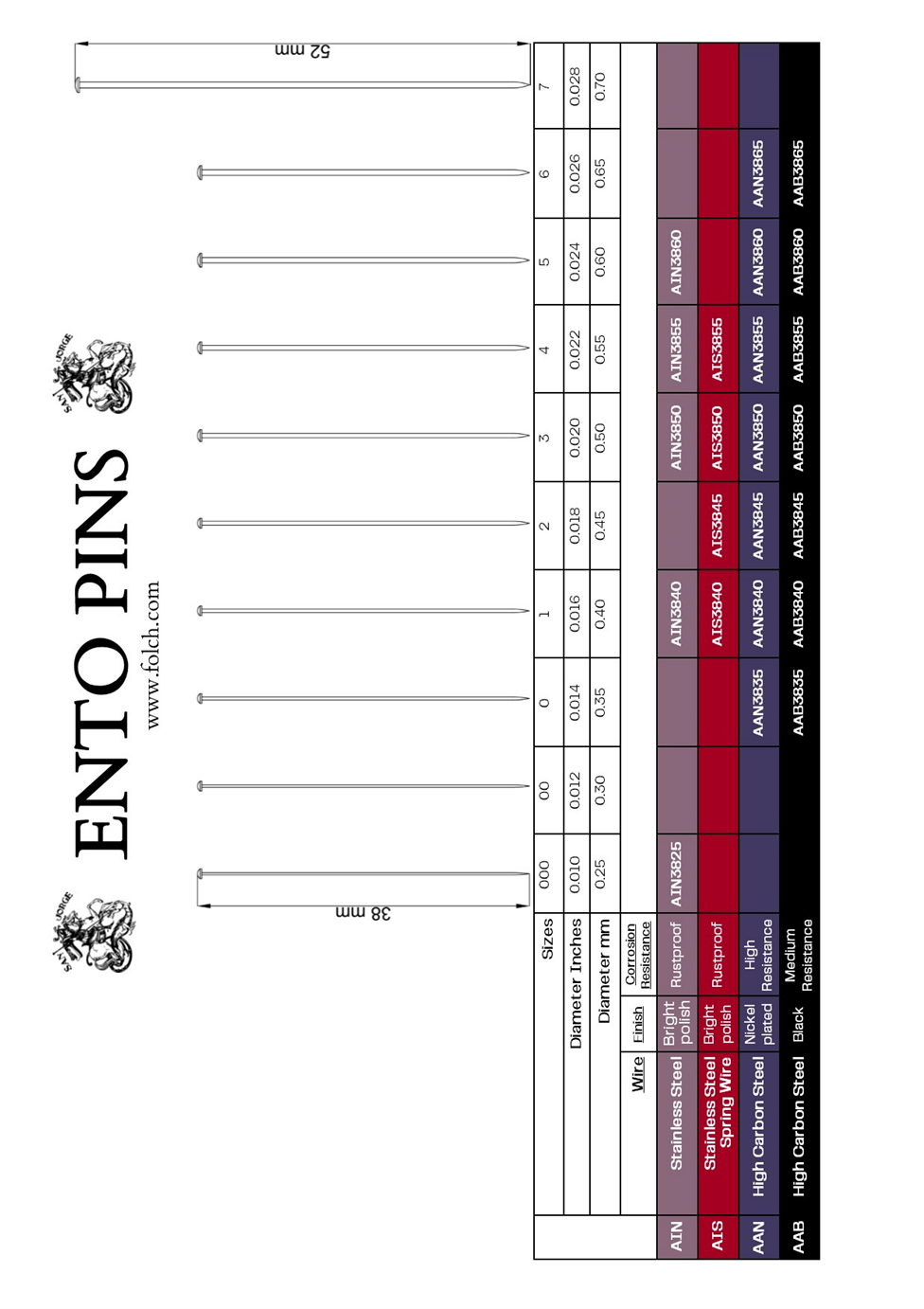
 

AAB AAN

1. **ENTOPINS RANGE**

We are going to gradually increase the range of sizes, materials and finishes to cover all the requirements of Entomologists, students and hobbyists.



We also include our questionnaire that will help us to understand better your requirements and build up our range into the direction of your proposals.

1. CONTACT INFORMATION

If you need any further information,

Technical information Josep M. Folch [jm@folch.com](mailto:jm@folch.com)

Commercial information Silvia Corral [silvia@folch.com](mailto:silvia@folch.com)

Shop online Alba García [alba@folch.com](mailto:alba@folch.com)

and www.folch.com

QUESTIONAIRE ENTOPINS SANJORGE PROJECT

1. What is the diameter that you prefer for preserving insects and butterflies

Give a score from 1 to 3

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 0-25 mm | 0.30 mm | 0.35 mm | 0.40 mm | 0.45 mm | 0.50 mm | 0.55 mm | 0.60 mm | 0.65  mm | 0.70  mm |
|  |  |  |  |  |  |  |  |  |  |

1. Being most often

2. Slightly less

3. Not used at all

1. Which features of an insect pin do you consider to be the most important

|  |  |
| --- | --- |
| PIN FEATURES | Give points/ Feature |
| Holds insects well |  |
| Easy point penetration |  |
| High corrosion resistance |  |
| Hardness of the pin |  |
| The head will not fall off |  |
| Head has to be chemically resistant |  |
| Smooth surface |  |
| Availability of different lengths |  |
|  |  |

* Add another feature if you wish

1. Being high

2. Slightly less

3. Not relevant

1. Have you ever used solid head pins for insect setting, pinning and labeling?

If you could choose from both qualities, what do you prefer?

SOLID HEAD PINS NYLON HEAD PINS

Solid head pins are upset heads, the pin head will never fall off because the head and stem are made from the same piece of wire plus they are chemically resistant.

The process of manufacturing of both pins are totally different.

The nylon head is made attaching the nylon to the stems already cutted, are needed 3 singles machines to produce nylon head pins:

1. Straightening the wire and cutting the stems

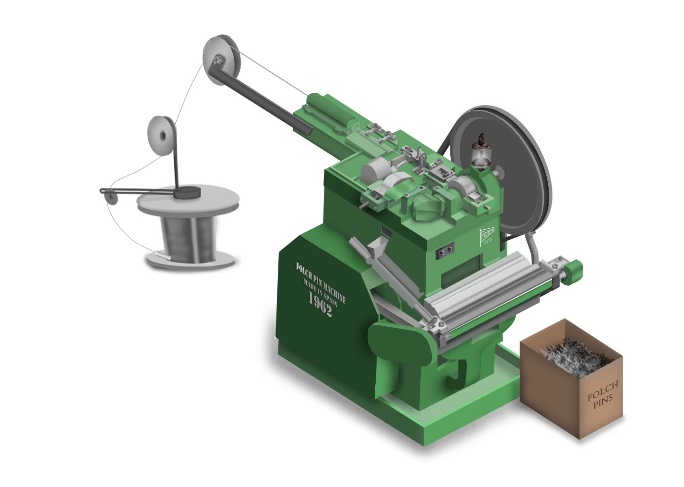
2. Pointing the stems

3. Attaching the nylon head

The solid head pins are made with 1 single automated machine

The size of our solid head is 1.05 mm the size of the nylon head is 1.6 mm for

The pins made with 0.40 mm diameter wire -SIZE 1



1. Do you use different pins when you are preparing the specimens, and the early stages of pinning, compared with the pins when the specimens have to be displayed for a long time

YES NO

Can you write down the specimen name that you normally prefer for each pin size. Our idea is to draw a specimen for each size in the label to match the pin diameter with the specimen that could represent the size most used around the world.

Depending of the specimen that you have to prepare, do you choose different pins diameter or pin finish:

|  |  |  |
| --- | --- | --- |
| Type of specimen | Size of the pin | Finish (stainless steel or Black) |
|  |  |  |
|  |  |  |
|  |  |  |

I use the following pins when I have mount, for labeling or pinning for display

|  |  |  |
| --- | --- | --- |
| Type of specimen | Size of the pin | Finish (stainless steel or Black) |
|  |  |  |
|  |  |  |
|  |  |  |

1. **About packing**

The worldwide standard packing for insect pins is 100 pins.

Are you satisfied with this packaging? What packaging do you should prefer?

Yes No units

1. Materials to penetrate with the insect pins to hold the specimen correctly onto the board during preparation, labeling, mounting, displaying, storage and shipping to other locations, for donations or exhibitions

|  |  |  |
| --- | --- | --- |
|  | normally | Once a while |
| INSECT PINNING BLOCK |  |  |
| INSECT MOUNTING BOARD |  |  |
| DISPLAY CASES |  |  |
| CABINETS OR DRAWERS |  |  |
| \* |  |  |



Write down the soft or hard mounting base that you use. use use

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| wood | 1 | styrofoam | 2 | Cork layer | 3 | Other material | \_\_\_\_\_\_\_\_\_\_\_\_ |

1. Because we are the actual manufacture of the pins, we could develop, all sizes, diameters, and materials and Coatings, although we would like to build the right range for most of the users.

Apart from the pin sizes mentioned, in this questionnaire are there other sizes that you use on a regular basis or indeed are there pins that you would like to be available to you that perhaps are difficult to source, like different lengths, or with different finish:

Wish 1 Desired length mm Desired diameter mm

Wish 2 Desired length mm Desired diameter mm

Wish 3 Desired coating finish

Thank you for your collaboration with this questionnaire, it will help us to produce the right pins for entoworld,

COMMENTS ABOUT YOUR INSECT PINS EXPERIENCE OR ANY COMMENT

THAT YOU WOULD LIKE TO SENT TO THE PIN FACTORY

