FELCO®

SWISS MADE

CONSUMER JOURNEY

FELCO develops, manufactures, and markets pruning and cutting solutions. Our complementary products and services consistently meet professional requirements and reflect our commitment to provide the best tools possible.

Since its inception in 1945, FELCO has been located in Switzerland, in the heart of the Watch Valley, between Neuchâtel and La Chaux-de-Fonds.

Contents

Swiss Precision. Made to Last.

Design for unique functional and robust products.

High quality materials for superior performance and consistency.

Unique production processes produce unrivaled usability.

High mechanical precision of each component to allow interchangeability.

Spare parts available to increase longevity.

FELCO's DNA.

Genuine, Responsive, Reliable
In the way we listen to our customers, make our products, and serve our users.

Sustainable
With our approach to the environment, lifetime guarantee of any products, quality made to last.

Family Business
Deeply rooted in Switzerland with strong ethical values - Excellence, Dynamism, Team Spirit and Kindness.

Transparency, Freedom, Accountability
For all our employees.

View of Switzerland from Neuchâtel Region

How is FELCO a Sustainable Business?

Use of recycled coolant and lubricant for grinding

Within Its Factory

- Closed-loop recycling metal scraps, lubricants & coolants.
- Solar panels to allow factory to create its own electricity.

David Ribeiro Lima, apprentice, in front of a CN equipment

Amongst Its Employees

- FELCO assures its employees long-term careers at FELCO through apprenticeship programs.
- FELCO collaborates with specialized institutions to offer a protected workshop for people with disabilities.

Exploded parts of FELCO 8

With Its Products

- Each part of a product can be replaced.
- All the components of a product are made from recycled materials.
- Zero toxins in the materials.
- All products are produced by 100% green energy.

A Look Into FELCO's History

As the Second World War ended and Europe was in the process of piecing itself back together, the nation was in search of ways to improve their lives, especially when it came to agriculture. One solution appeared when a young man named Félix Flisch brought to the market a tool that, soon after, revolutionized agriculture. On August 1, 1945, Félix Flisch had created FELCO.

CONFÉDÉRATION SUISSE

PROTECTION DES INVENTIONS

BREVET PRINCIPAL N° 249065.

Le bureau soussigné, ayant constaté l'accomplissement des formalités prescrites par la loi, a délivré le présent brevet principal à Monsieur

Félix Flisch,
Peseux-Neuchâtel (Suisse),

pour l'invention intitulée :

Sécateur,

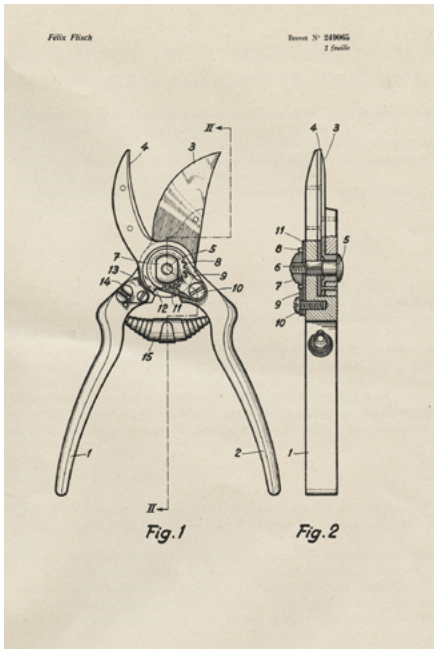
qui est décrite dans l'exposé ci-joint.

Date du dépôt de la demande 8 mai 1945, 16 1/2 h.
La durée maximum de la protection légale s'étend jusqu'au 8 mai 1960.
La taxe annuelle échoit le 8 mai.

La réalité, la valeur ou la nouveauté de l'invention ne sont pas garanties par la délivrance du brevet

BUREAU FÉDÉRAL DE LA PROPRIÉTÉ INTELLECTUELLE
LE DIRECTEUR:

BERNE, le 16 mars 1948.



FELCO original patent from 1945

As soon as Félix Flisch started the company, he had a worldwide vision. Instead of focusing on selling his products locally at first, he immediately expanded the brand to multiple countries outside of Switzerland. In 1946, only one year after the company was founded, the first exports to Belgium, Holland, Germany, and South Africa took place. In the span of a couple of months, FELCO was already an international company.

In order to become worldwide, FELCO had to learn to be successful selling their products to the richest and poorest countries of the world without having to jeopardizing quality. As a solution, FELCO started using simplified designs to create some of their products in order to reduce the cost yet maintain high quality. By taking this step, FELCO was able to successfully offer solutions to users with limited budgets.

In 1948, the FELCO 2, which is the first FELCO tool that deeply impacted agriculture as we know it today, was launched. Félix Flisch was able to build a tool that perfectly fit the person's ergonomics, as it was both light and comfortable to use. This emphasis on the user's comfort differentiated FELCO products from any other products that had been invented.

Juliette and Félix Flisch

From that point on, the company started to expand and develop multiple families of products all which had the same DNA. In the 1950s, the first series of cable cutters with a triangular cutting head were launched. 10 years later, the ergo line pruners with a rotative handle and orientated cutting head were introduced. In the 1970s, the first power tools driven by air were placed on the market, followed by the first handsaws in the 1980s.

Beginning of the 1990s, the first autonomous power tools driven by a battery were put on the market. As such new and unique products were being produced, the FELCO factory in Switzerland was being built and slowly expanding throughout the years.

Since the beginning, FELCO's goal was to produce and create products that fit to the user's ergonomics. As each new family of products was being invented throughout the years, the emphasis on the user's comfort which differentiated FELCO tools from any other agricultural products was the main priority.

Original factory FELCO 1945

As the demand for products was increasing each year, FELCO was faced with the challenge of transforming a limited craft production into a large-scale industrial activity. This transition had to maintain, and even strengthen, key success factors such as consistency of quality. Targeting large scale production with limited cost and short lead-time was a priority. The control of key suppliers such as PRETAT for forging, and key technologies such as robotic and CN machining all supported this strategy.

Les Geneveys-sur-Coffrane, Switzerland

FELCO's 75th Anniversary

As FELCO celebrated its 50th anniversary in1995, it was already a key player in its industry with a broad assortment of products and a large footprint in the world's agricultural market.

In the last 25 years, management focus has been to scale up the overall product portfolio, industrial activity, and distribution over the world. By 2010, FELCO products were distributed over 100 countries and about 90% of FELCO sales came from exports.

In 2020, FELCO now controls 60% of its own distribution with subsidiaries in Switzerland, France, Belgium, Luxembourg, Netherlands, Germany, Austria, South Africa, Australia, USA, and Canada. As FELCO celebrates its 75th anniversary, the range of product assortment is bigger than ever as it offers multiple solutions for various types of activity and level of productivity.

FELCO is an organization which is able to design, industrialize, produce and distribute all of its product line and for that FELCO has received many awards throughout the years. From what started off as a small workshop with only four employees including Félix Flisch, FELCO is now one of the largest and best-known professional pruner companies in the world.

PRETAT, FELCO Group forging plant in Cornol, Switzerland

Products, Materials & Design

What materials are used for **cutting heads?**

The cutting head is the essence of any product. For pruners, the cutting head is two pieces. For saws or knives, the cutting head is one piece. In order to manufacture a cutting head, you need to find the perfect balance between **Tenacity**, **Elasticity** and **Hardness.**

In order to meet these criteria, FELCO has been working with 3 distinct types of materials: **High Carbon Steel, Stainless Steel & Chrome-Plated Carbon Steel**.

Cutting blades in high carbon steel

High Carbon Steel

High Carbon Steel is used on all pruners, loppers, and cable cutters blades. It offers the best compromise between tenacity, elasticity and hardness. However, it has the disadvantages of being high cost, hard to manufacture, and does not have natural resistance to corrosion.

Snip cutting head in stainless steel

Stainless Steel

Stainless Steel is used on snips and knives blades. It has the advantage to resist corrosion as it is stainless, which means that no matter how many times you clean it the blade will not rust. However, it does not fully meet the 3 criteria especially in terms of hardness and tenacity.

Saw blade in chrome-plated carbon steel

Chrome-Plated Carbon Steel

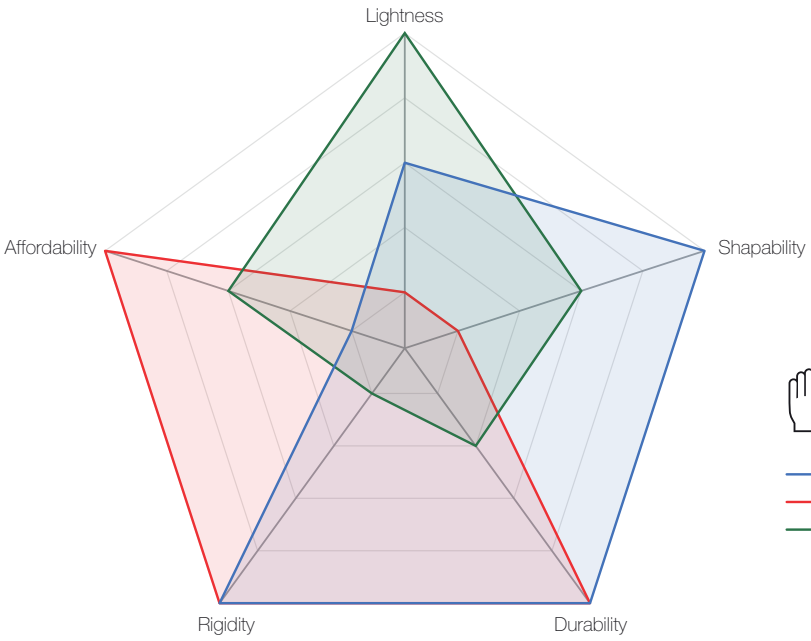
Chrome Plated Carbon Steel is used on saw blades. It meets the two criteria of hardness and tenacity by ensuring its lifetime lasting ability. The blade is protected against rust as it is chrome plated.

What materials are used for **handles?**

For one-handed tools, materials used include forged aluminum, steel and composite.

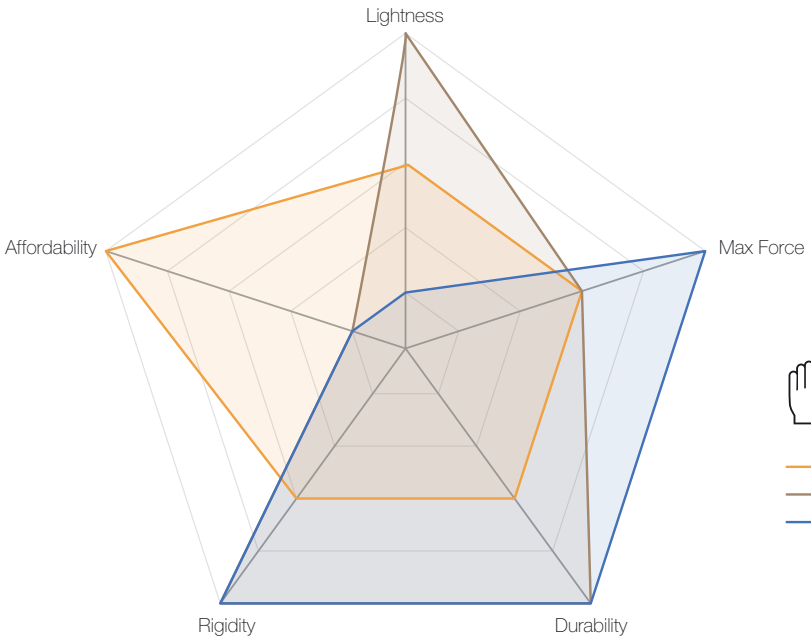
For two-handed tools, materials used include forged aluminum, hollow tube aluminum and carbon fiber tubes.

Various steps to manufacture a forged aluminum handle



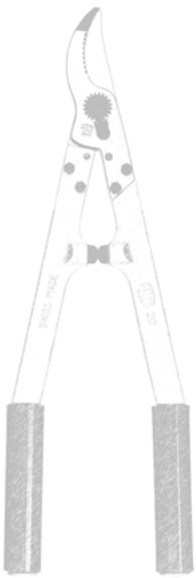
One Hand

- Forged aluminum
- Steel
- Composite



Two Hands

- Hollow aluminum tubes
- Carbon fiber tubes
- Forged aluminum



Straight Tools vs. Ergonomic Tools

Straight tools are for **multipurpose** use. By using a straight tool, you can adapt various postures and the tool can be held in many different ways.

Ergonomic tools are for **specific** purpose. By using an ergonomic tool, you will be provided with more comfort, precision and less effort will be needed as long as it is held in the correct position.

Comparison of straight (FELCO 4) and ergonomic (FELCO 8) tools

DESIGN

Bypass Cutting Heads vs. Anvil Cutting Heads

Bypass cutting heads are two blades, where one blade passes the other blade. By bypassing the blade, the material is never crushed, it is sliced which creates a clean cut preventing any diseases or fungi such as mushrooms to infiltrate the wood and cause it to rot.

Anvil cutting heads require the blades to make a smaller opening to cut a piece of material against a flat surface, requiring less effort and producing a symmetrical cut. However, if not maintained properly, an anvil cutting head has a higher risk than a bypass tool to crush or damage material.

Comparison of bypass (FELCO 220) and anvil (FELCO 230) cutting heads

Gearing Mechanisms

Gearing Mechanisms are used to cut bigger and higher branches without having to use the force of your body weight.

The **advantage** of a gearing mechanisms is that it provides the force in order to cut a certain type of materials.

The **disadvantage** of a gearing mechanism is that it requires the product's handles to be wide open, therefore limiting reach and maneuverability.

Cable cutter gearing mechanism

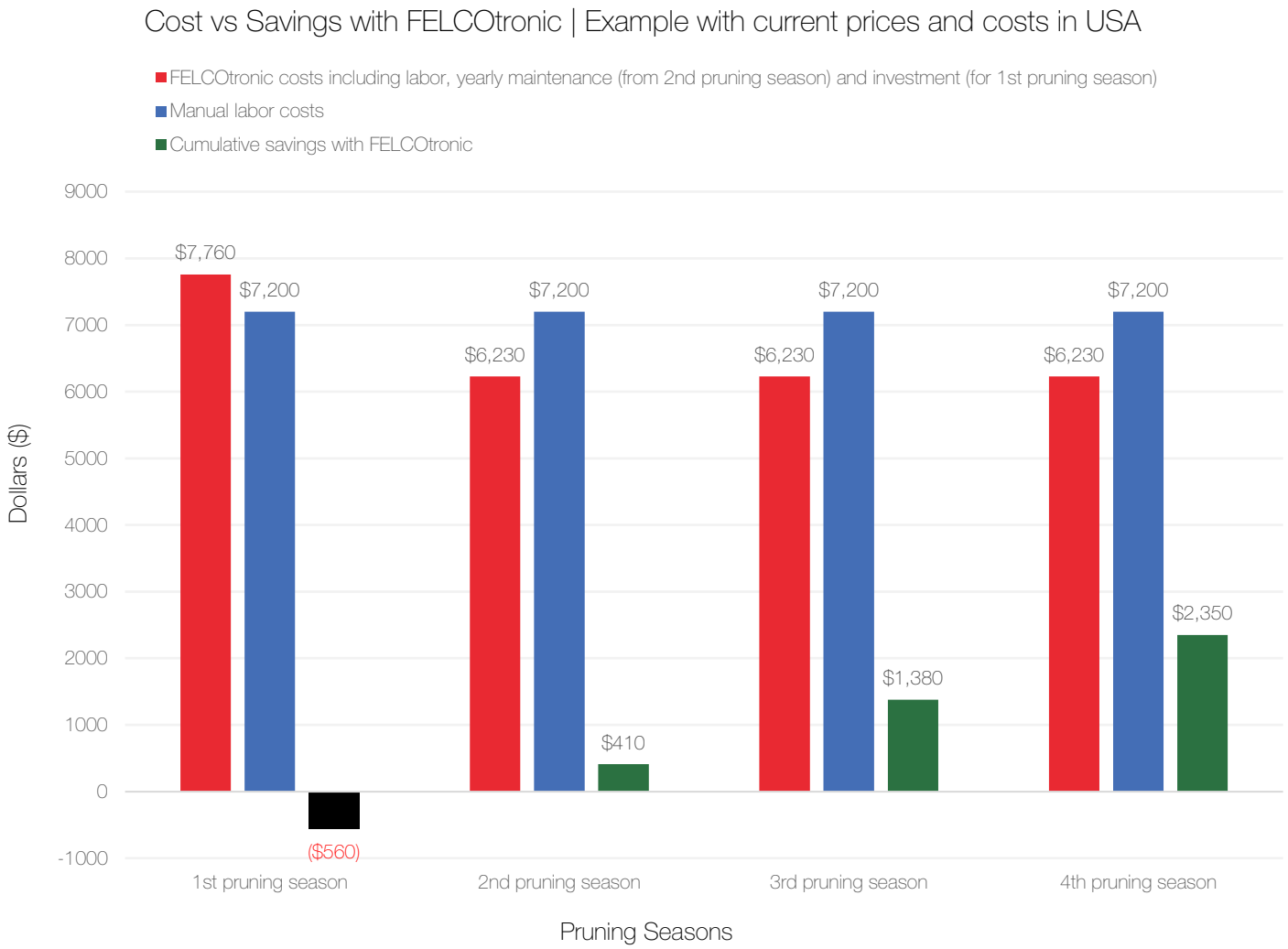
Lopper gearing mechanism

Power Tools

Power Tools are a division of FELCO products that require a very limited amount of effort when used as they are electric tools. These tools have a higher rate of productivity because they limit the amount of effort and fatigue while making multiple cuts over days, weeks, and even months of work.

Purchasing a FELCOtronic is a significant investment. However, it will only take a few months to obtain a return on investment.

FELCO 802 in use



Choosing the Right Product

The right **foundations** and **solutions** will help you...

Decrease tension
right size, good grip and comfort

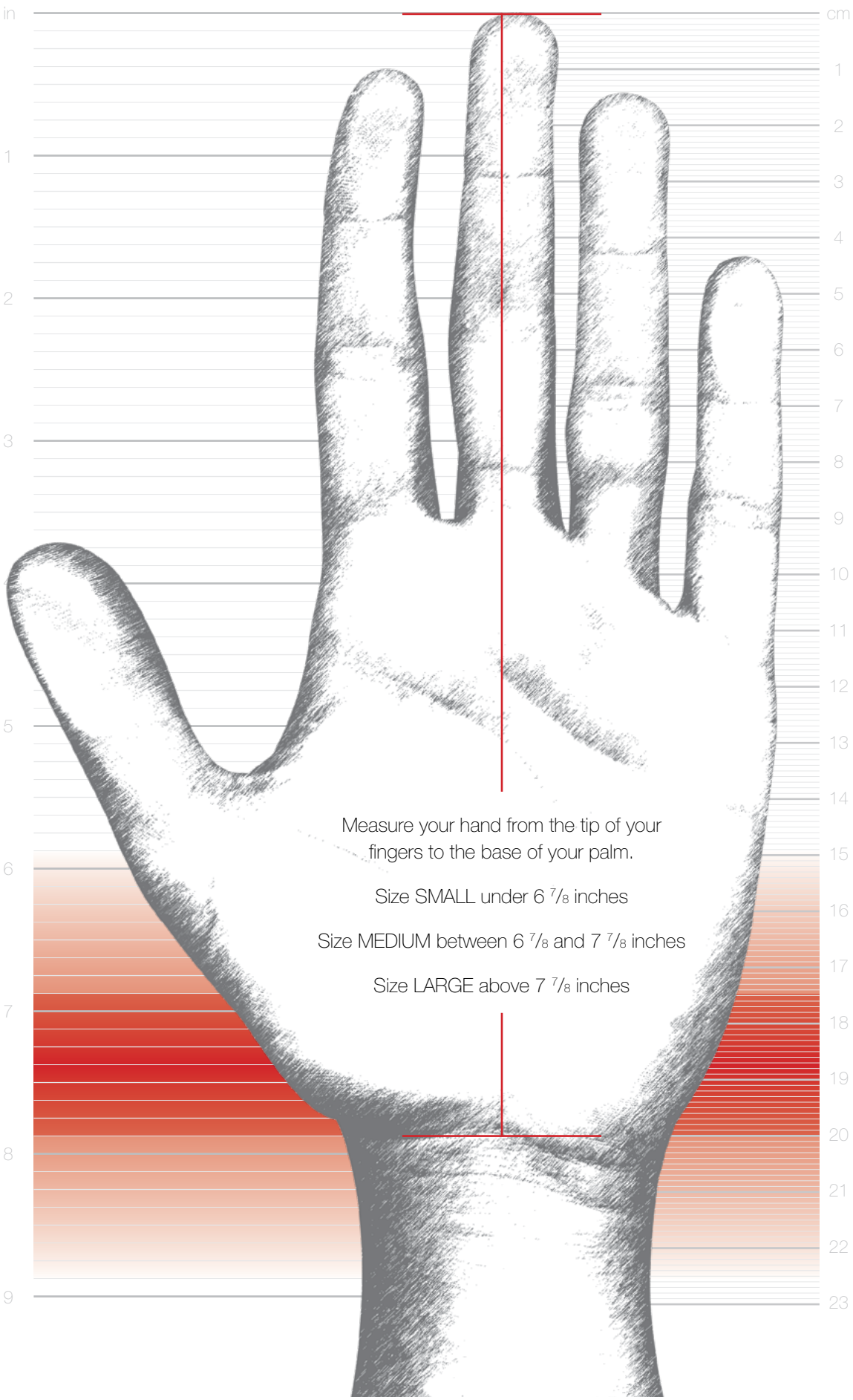
Adopt better posture
natural prolongation of the hand

Reduce work intensity
limits effort and injuries

Save time
limits fatigue

Avoid shocks
avoid the source of cumulative micro injuries

FELCO 15 in use


in
1
2
3
5
6
7
8
9
cm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
Measure your hand from the tip of your fingers to the base of your palm.
Size SMALL under 6 7/8 inches
Size MEDIUM between 6 7/8 and 7 7/8 inches
Size LARGE above 7 7/8 inches
SMALL
MEDIUM
LARGE

Product Selector

Denotes left-handed version

SMALL

F14 F15

MEDIUM

F6 F12 F160S

F16 F17

LARGE

F2 F4 F5 F7 F8

F10 F9

F11 F31 F32 F160L

EXTRA LARGE

F13

Solutions to Ergonomics: **Rotative Handles**

In the 1960s, FELCO developed the first rotative handle pruner in collaboration with the Max Plank Institute in Germany. This was a disruptive innovation.

PROS

- Rotative handles allow force to be spread throughout multiple muscles of your hand, which causes less effort and fatigue than if you were using the same muscle over and over again as you do with regular handles.
- As your hand is moving with the rotation of the handles, it reduces the amount of friction between your fingers and the handle.
- With the limited amount of effort due to the handle always being perfectly positioned into the user's hand, it allows for a higher number of cuts, as many as over 5,000 cuts a day.

CONS

- The rotative handle is made to fit perfectly into one's hand in a specific position. Therefore, if the work is not continuous and the same position is not held over a long period of time, it will take time to readjust the handle every time a new position is adopted.
- It is highly recommended to size down for increased comfort.

FELCO 15 in use

What Type of Activity Are You Conducting?

The following pages contain our recommendations for tools that are useful in these settings. Applicable tools are not limited to those shown.

Landscaping / Municipalities | page 21

Horticulture | page 22

Nurseries | page 23

Fruit & Nut Trees / Orchards | page 24

Grapes & Vineyards | page 25

Arboristry / Forestry | page 26

Other Settings | page 27

Landscaping / Municipalities

One-Handed Pruner | F2

tool ergonomics: basic

cutting capacity: high

versatility: high

optimal duration of use: mid

Lopper | F211-60

tool ergonomics: superior

cutting capacity: high

versatility: mild

optimal duration of use: long

Saw | F600

tool ergonomics: basic

cutting capacity: high

versatility: high

optimal duration of use: short

Ornamental Horticulture

One-Handed Pruner | F14

tool ergonomics: superior

cutting capacity: low

versatility: high

optimal duration of use: mid

One-Handed Pruner | F6

tool ergonomics: superior

cutting capacity: mild

versatility: high

optimal duration of use: mid

One-Handed Pruner | F8

tool ergonomics: superior

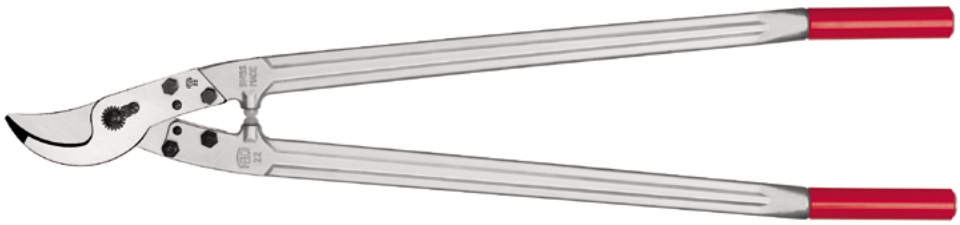
cutting capacity: high

versatility: high

optimal duration of use: mid

Nurseries

Lopper | F22



tool ergonomics: basic

cutting capacity: high

versatility: high

optimal duration of use: short

One-Handed Pruner | F2

tool ergonomics: basic

cutting capacity: high

versatility: high

optimal duration of use: mid

One-Handed Pruner | F6

tool ergonomics: superior

cutting capacity: mild

versatility: high

optimal duration of use: mid

Fruit & Nut Trees / Orchards

One-Handed Pruner | F7

tool ergonomics: superior

cutting capacity: high

versatility: mild

optimal duration of use: long

Lopper | F220

tool ergonomics: superior

cutting capacity: high

versatility: mild

optimal duration of use: mild

Power Tool | F822

tool ergonomics: superior

cutting capacity: high

versatility: high

optimal duration of use: long

Grapes & Vineyards

One-Handed Pruner | F15

tool ergonomics: superior

cutting capacity: low

versatility: mild

optimal duration of use: long

One-Handed Pruner | F12

tool ergonomics: superior

cutting capacity: mild

versatility: mild

optimal duration of use: long

Power Tool | F802

tool ergonomics: superior

cutting capacity: mild

versatility: high

optimal duration of use: long

Arboristry / Forestry

Saw | F640

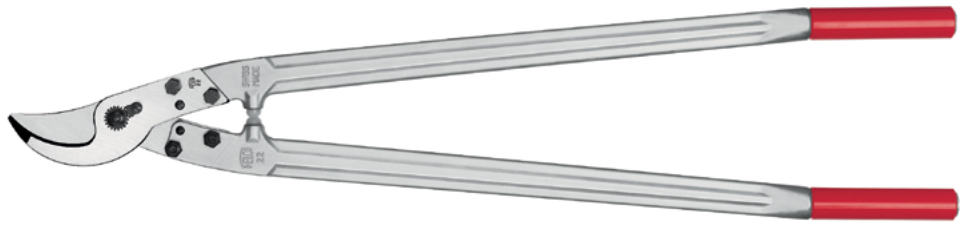
tool ergonomics: superior

cutting capacity: high

versatility: high

optimal duration of use: short

Lopper | F22



tool ergonomics: basic

cutting capacity: high

versatility: high

optimal duration of use: short

Power Tool | F822

tool ergonomics: superior

cutting capacity: high

versatility: high

optimal duration of use: long

Other Settings (greenhouse production, garlic growers, etc)

One-Handed Pruner | F2

tool ergonomics: basic

cutting capacity: high

versatility: high

optimal duration of use: mid

Snip | F310

tool ergonomics: basic

cutting capacity: low

versatility: high

optimal duration of use: mid

PYGAR Companies are part of the FELCO Group
felco.com

PYGAR USA Inc.
10002 Aurora Ave N
Suite 36 PMB 393
Seattle, WA 98133-9348
pygar.us | info@pygar.us

PYGAR Sales Canada Ltd.
PO Box 75548
RPO Edgemont Village
North Vancouver, BC V7R 4X1
pygar.ca | info@pygar.ca

Phone 206-258-2901 | Fax 206-258-2620