

S E E O E



TRUST BLUE

- Quality tools to sharpen instruments used in forestry for easier and more efficient work
 - Reduction in costs for expensive manual work with a constant filing performance
 - The perfectly sharpened saw chain in a few steps
-



PFERD is leading for the development, production and support, as well as the distribution of tool solutions for surface finishing and material cutting.

For 200 years, PFERD has been manufacturing files of a world-renowned high quality. Many years of experience as a tool manufacturer have led to the steady development of PFERD files. Application-oriented file shapes and cuts for industry and crafts guarantee good economic value. Even after long use, PFERD files achieve high stock removal rates and an excellent surface quality.

State-of-the-art production technology and strict quality controls guarantee the outstanding PFERD quality.

Absatz davor PFERD is certified according to ISO 9001.

We have compiled our years of experience and our current know-how on maintaining chain saws on pages 2 to 14 and have put an optimized tool range together for you. PFERD tools for repairing other forestry equipment and accessories can be found on pages 15 to 32.

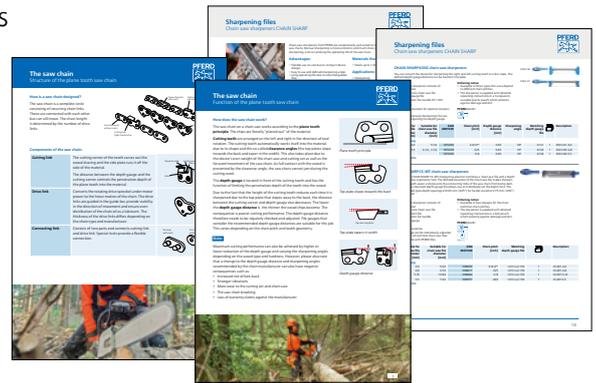


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Work in forests

Forest owners and forestry professionals have long recognized the importance of the forest for society and the environment. Forestry work makes a significant contribution towards maintaining three fundamental core functions: the **economic, ecological and social functions**.

The forest is an **important economic factor** and serves as a **workplace** for many people. With sustainable management by foresters, it supplies the **raw material of wood**, which, despite industrially produced alternatives made of plastics and metals, is an indispensable part of our everyday lives.



Wood is used in a **range of industries**, for example, the furniture, construction and paper industries and is receiving acclaim as a **fuel** for heating and energy generation.

Alongside the production of raw materials, forestry serves **the protection of humankind and the environment**, as well as providing **relaxation for people** and **helping them maintain their health**. Woods can only provide leisure facilities such as walking, cycling and riding paths and special play areas through the work performed by foresters.

The **instrument most frequently used** in forestry is the **chain saw**. Its introduction in the middle of the 1950's revolutionized manual forestry work. Much less time is now needed to fell a tree, remove its branches and cut it into appropriate pieces in comparison to working with a hand saw or axe. However, forestry work is still **hard, demanding and dangerous work** that places high demands on people and machinery and during which serious accidents can happen. Even the increasing mechanization since the end of the 1980's won't change the fact that **people are always the focus**.

The **correct posture, optimum working methods, safe machines and instruments** and the use of **personal protection equipment** are important aspects that need to be considered during daily work. The **condition of working equipment** often influences the work result, the level of physical strain and safety. Optimum maintenance of the machines and instruments deployed is a basic prerequisite for **efficient, ergonomic and safe work**.



Why use files from PFERD?

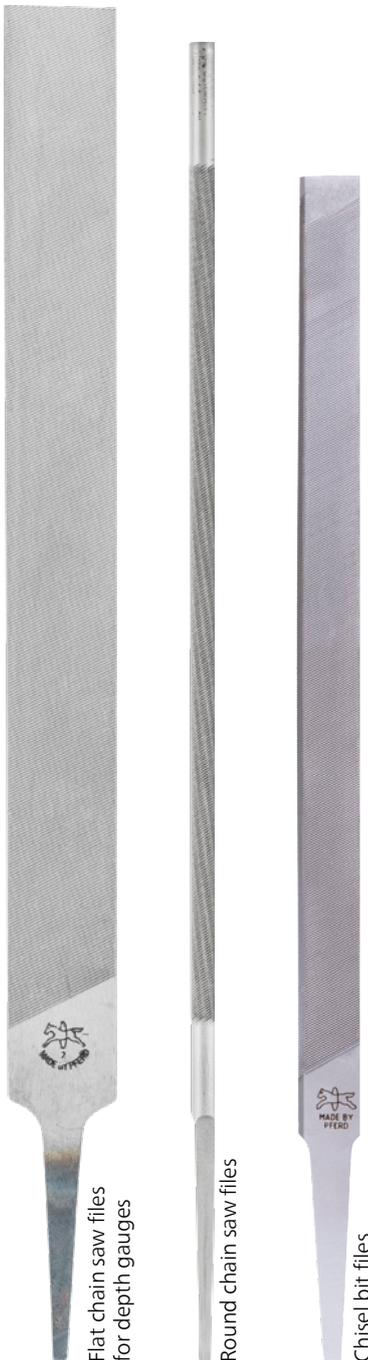
For almost 200 years, PFERD files have been renowned worldwide as a **top-quality** product. With their constant high cutting performance, they reduce the cost of labour-intensive manual work and will thus provide significant **economic benefits**. PFERD files still achieve an excellent surface quality after long periods of use.

PFERD has used its centuries of experience to develop perfect file shapes and cuts **for use in forestry** with practical use in mind.

The state-of-the-art production technology, our own machine tooling at the Marienheide site and strict quality controls guarantee excellent PFERD quality. PFERD is certified according to ISO 9001.

Professionals appreciate PFERD files for

- excellent stock removal
- comfortable guidability
- durability
- optimal surfaces and sharpening results



Flat chain saw files for depth gauges

Round chain saw files

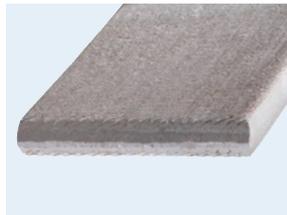
Chisel bit files

Uniform hardness through a flawless steel microstructure

The profiling in the rolling mill, shaping of blanks and tangs, the annealing prior to cutting and the heat treatment each cause a change in the steel microstructure. The high carbon content of the steel microstructure determines the hardness and cutting performance of the file and must therefore be maintained.

Exact shape and uniform cut from tang to tip

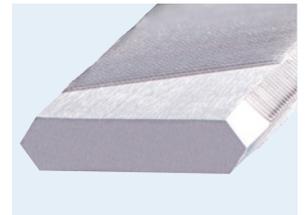
The blanks acquire their exact shape through forging and grinding. This enables accurate work. Equally spaced teeth and a uniform depth of cut ensure good cutting performance and good surface finishes. The type and angle of the cut depend on the purpose for which the file is intended.



Flat chain saw files for depth gauges



Round chain saw files



Chisel bit files

Know-how

PFERD publications make a great impression: they are easy to understand, offer tool navigation with a logical structure and provide in-depth technical knowledge.

You will find detailed information and valuable knowledge around tools and applications at www.pferd.com.

Visit us online and experience your added value with PFERD on all channels.

For more detailed information on files, please refer to the PFERD Tool Manual, Catalogue section 1.



The saw chain

Advantages of a sharp saw chain

Why does a saw chain need to be sharpened?

The saw chain is subjected to natural wear when used. The chain must be regularly sharpened to achieve the **optimum cutting performance with the chain saw** and to guarantee **ergonomic and safe work**.

A perfectly sharpened saw chain ensures:

- Less wear to the cutting set and chain saw.
- Better cutting performance and higher cutting speed.
- Less fuel consumption and lower exhaust fume emissions.
- Fewer vibrations and better work comfort.
- Lower force input and less physical strain.
- Reduction of kick-back risk and reduced accident risk.

When should a saw chain be serviced?

- If the saw chain no longer pulls itself into the wood, this is a sign of a dull saw chain.
- If the chips become increasingly smaller or as fine as sawdust, this is a sign of insufficient sharpness and immediate action must be taken.
- If the aggressiveness is excessive or insufficient, the depth gauge distance must be checked.
- If the cut does not run in a straight line, this is a sign of unequal tooth lengths, sharpening angles and/or depth gauge distances.

Tip:

By **resharpening early enough**, less material needs to be removed and the time needed to sharpen is considerably reduced. This is how you can **increase the period of use of your saw chain**.



Note:

Please observe the current instructions and recommendations of the manufacturer of the respective chain saw or device.

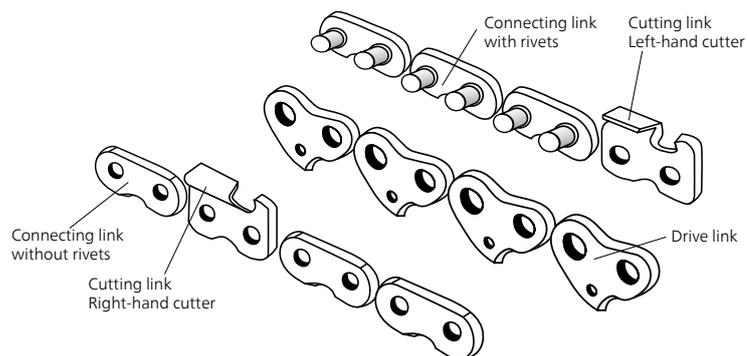


The saw chain

Structure of the plane tooth saw chain

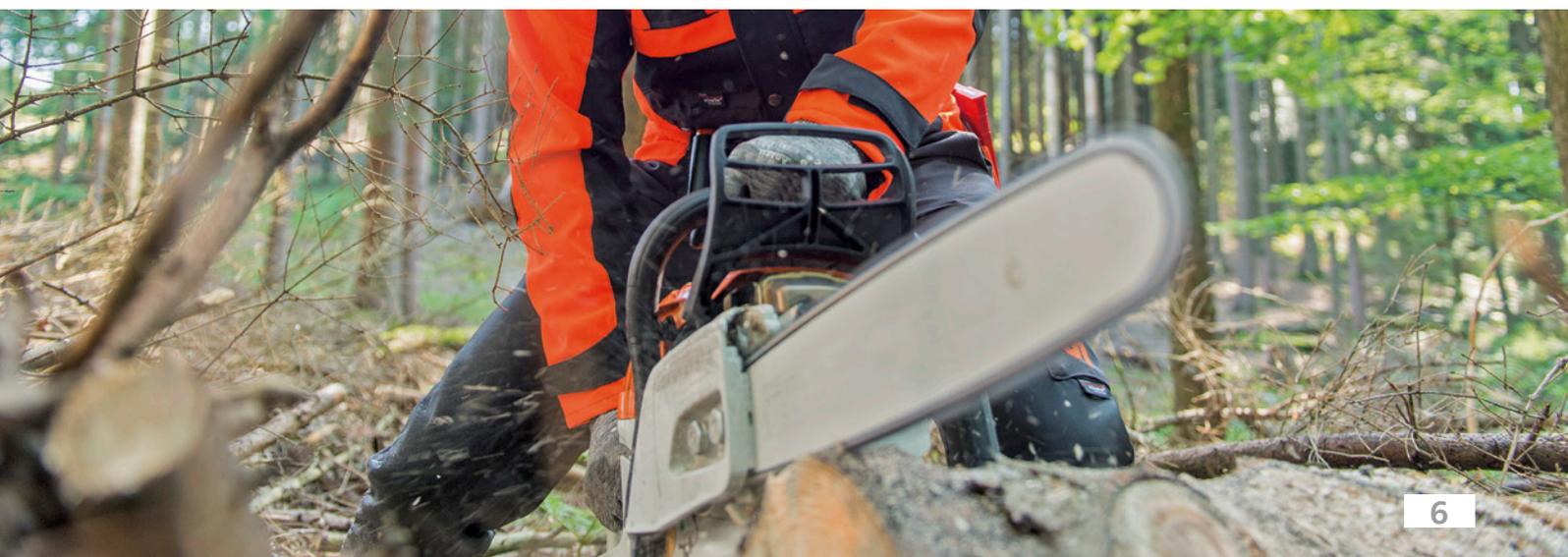
How is a saw chain designed?

The saw chain is a complete circle consisting of recurring chain links. These are connected with each other but can still move. The chain length is determined by the number of drive links.



Components of the saw chain:

<p>Cutting link</p>	<p>The cutting corner of the tooth carves out the wood shaving and the side plate cuts it off the side of the material.</p> <p>The distance between the depth gauge and the cutting corner controls the penetration depth of the plane tooth into the material.</p>	
<p>Drive link</p>	<p>Converts the rotating drive sprocket under motor power to the linear motion of the chain. The drive links are guided in the guide bar, provide stability in the direction of movement and ensure even distribution of the chain oil as a lubricant. The thickness of the drive links differs depending on the chain type and manufacturer.</p>	
<p>Connecting link</p>	<p>Consists of two parts and connects cutting link and drive link. Special rivets provide a flexible connection.</p>	



The saw chain

Function of the plane tooth saw chain

How does the saw chain work?

The saw chain on a chain saw works according to the **plane tooth principle**. The chips are literally “planed out” of the material.

Cutting teeth are arranged on the left and right in the direction of tool rotation. The cutting tooth automatically works itself into the material due to its shape and the so-called **clearance angles** (the top plates slope towards the back and taper in the width). This also takes place due to the device’s own weight of the chain saw and cutting set as well as the forward movement of the saw chain. As full contact with the wood is prevented by the clearance angle, the saw chain cannot jam during the cutting work.

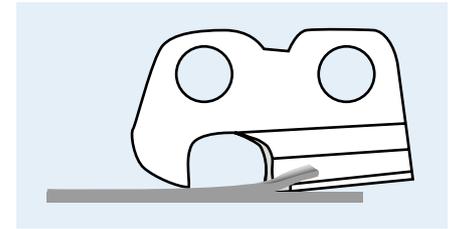
The **depth gauge** is located in front of the cutting tooth and has the function of limiting the penetration depth of the tooth into the wood.

Due to the fact that the height of the cutting tooth reduces each time it is sharpened due to the top plate that slopes away to the back, the distance between the cutting corner and depth gauge also decreases. The lower the **depth gauge distance** is, the thinner the wood chips become. The consequence is poorer cutting performance. The depth gauge distance therefore needs to be regularly checked and adjusted. File gauges that consider the recommended depth gauge distances are suitable for this job. This varies depending on the chain pitch and tooth geometry.

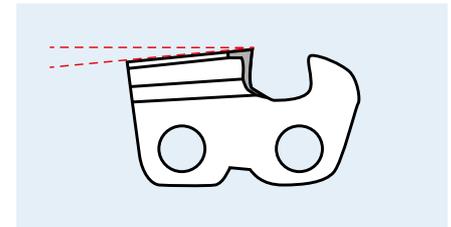
Note:

Maximum cutting performance can also be achieved by higher or lower reduction of the depth gauge and varying the sharpening angles depending on the wood type and hardness. However, please also note that a change to the depth gauge distance and sharpening angles recommended by the chain manufacturer can also have negative consequences such as:

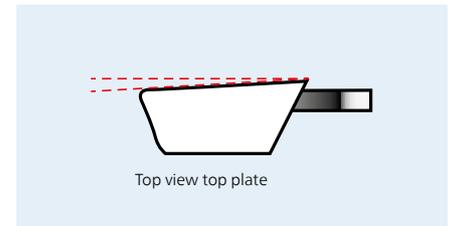
- Increased risk of kick-back
- Stronger vibrations
- More wear to the cutting set and chain saw
- The saw chain breaking
- Loss of warranty claims against the manufacturer



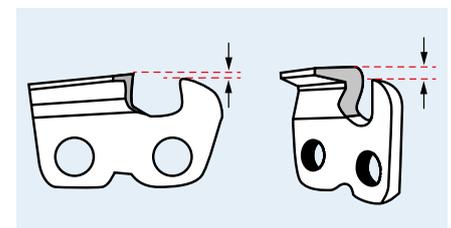
Plane tooth principle



Top plate slopes towards the back



Top plate tapers in width



Depth gauge distance



The saw chain

Tooth shapes

Which tooth shapes are available?

Tooth shapes differ with respect to the arrangement of the side and cutting corner. The tooth shape can be best identified by looking from the back in the direction of chain rotation. Professional sharpening is only guaranteed if the tooth shape has been identified and the corresponding angle is maintained.

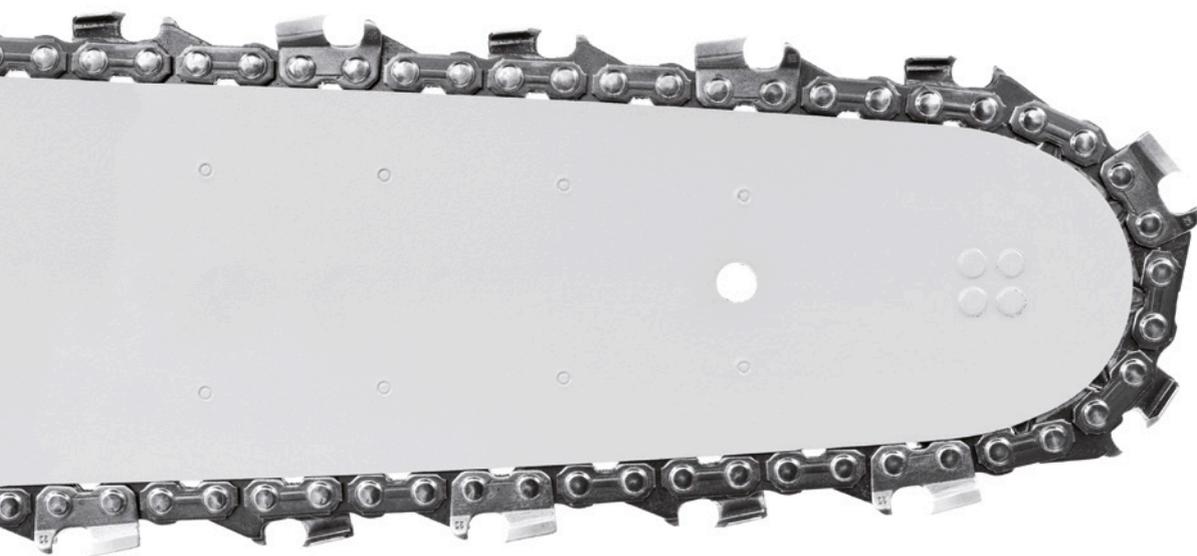
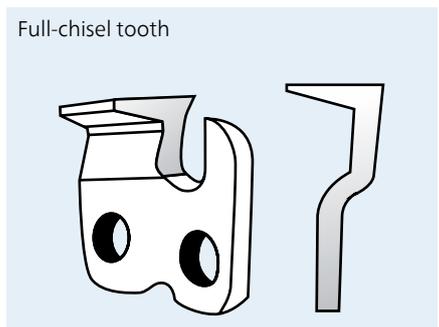
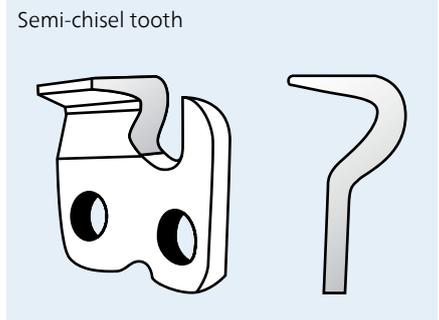
The two most common tooth shapes are:

- **The semi-chisel tooth**

The semi-chisel tooth can be identified by the curved arrangement of the side and cutting corner. Compared to the full-chisel tooth, it is less susceptible to damage caused by dirt and easier to resharpen. Saw chains with this tooth shape are primarily used in the semi-professional segment.

- **The full-chisel tooth**

With the full-chisel tooth, the side and cutting corner form a sharp-edged tip. It has less cutting resistance than the semi-chisel tooth, which contributes to better cutting performance. It is therefore very popular with professionals. Sharpening the full-chisel tooth requires practice and must be carried out very precisely.



The saw chain

Angles

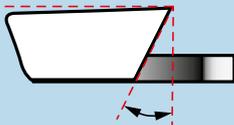
Which angles need to be considered?

There are various recommendations with respect to the angle sizes depending on the tooth shape, the respective chain type and the application. You will find basic information in the table below. However, please also take the chain manufacturer's recommendations into account.

Angle \ Tooth shape	Semi-chisel	Full-chisel
Sharpening angle	30° or 35°	25° or 30°
Side plate angle	80°–85°	60°–70°
Top plate angle	60°	60°

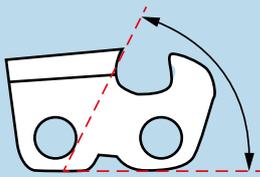
Note:

Please pay attention to consistent sharpening angles, uniform depth gauge distances and identical tooth lengths when sharpening. This guarantees optimum cutting performance, a straight, even cut and ergonomic handling of the chain saw.



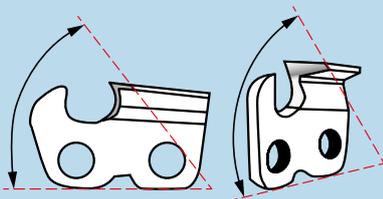
Sharpening angle

The guide bar is the starting point for measuring the angle. A sharpening angle differing from the recommendation can lead to a more irregular chain movement and increased wear to all components.



Side plate angle

The side plate angle can be best determined and checked from the closed outer side of the tooth.

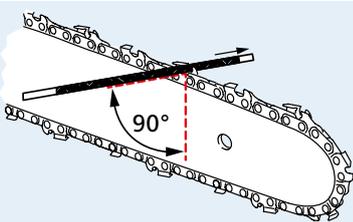


Top plate angle

The top plate angle, as the most important angle, is best identified by looking at the side of the open inner side of the tooth.

The optimum sharpening result is achieved by the interaction of all angles. If the sharpening angle, file diameter and file control are right, the result is the correct top plate angle.

File control

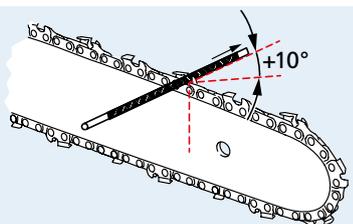


At which angle is the file controlled?

Depending on the chain or tooth type and the manufacturer recommendation, the file is controlled horizontally = 90° to the guide bar or with +10° gradient.

Examples of different manufacturer recommendations:

- **Full-chisel chain, manufacturer A**
Sharpening angle 30°, file control 90°
- **Full-chisel chain, manufacturer B**
Sharpening angle 25°, file control +10° gradient



Note:

The file only works in a forward motion. Therefore, make sure to lift the file when moving back along the tooth.

The saw chain

File diameter

How is the correct file diameter determined?

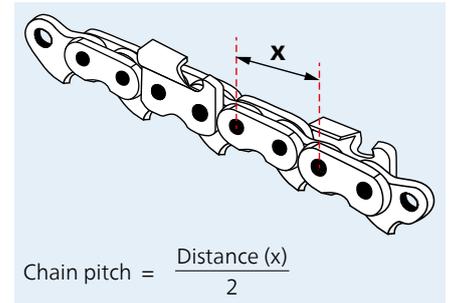
The choice of the correct file diameter is influenced by the chain pitch and the tooth geometry.

- **Determining the chain pitch:**

The pitch of the chain is established by dividing the distance between three consecutive rivets by two. The reference point for the distance measurement is the centre of the respective rivet. The sizes are provided in inches (1 inch = 2.54 cm).

- **Determining the right file diameter:**

You will find a general recommendation on the file diameter to be used below. The details from the respective chain manufacturer are however also to be considered as different tooth heights are also available with the same chain pitch. Please also note that 1/5 (20%) of the file diameter must protrude over the top plate.



Tip:

Due to the fact that the tooth height reduces with progressing wear and constant resharping, it is advisable to use a file with a smaller diameter from around half of the tooth length. This ensures a consistently optimum sharpening result and compliance with the recommended angle.

Chain pitch		File diameter	
inch	mm	inch	mm
1/4"	6.35	5/32"	4.0
.325"	8.25	11/64"–3/16"	4.5–4.8
3/8"	9.32	13/64"–7/32"	5.16–5.5
.404"	10.26	7/32"	5.5
3/4"	19.05	5/16"	7.9



The saw chain

Recommendations of chain manufacturers

We have put together the proper file diameters for the chain types from several manufacturers here.

Manufacturer: HUSQVARNA

Description	Chain pitch		File diameter	
	inch	mm	inch	mm
S36/ 91VG	3/8" LP	9.32	5/32"	4.0
90SG	3/8" LP	9.32	11/64"	4.5
H25/21BP - H30/95VP	.325"	8.25	3/16"	4.8
H42/73LP - H49/73D	3/8"	9.32	13/64"	5.16
H 64/27	.404"	10.26	7/32"	5.5

Manufacturer: OREGON

Description	Chain pitch		File diameter	
	inch	mm	inch	mm
25AP	1/4"	6.35	5/32"	4.0
20BP, 21BP, 22BP	.325"	8.25	3/16"	4.8
20LP, 21LP, 22LP	.325"	8.25	3/16"	4.8
M21LP, M22LP	.325"	8.25	3/16"	4.8
33LG, 34LG, 35LG	.325"	8.25	11/64"	4.5
95VP	.325"	8.25	3/16"	4.8
95R	.325"	8.25	3/16"	4.8
72D/DP, 73D/DP, 75D/DP	3/8"	9.32	7/32"	5.5
72LG, 73LG, 75LG	3/8"	9.32	7/32"	5.5
72LP, 73LP, 75LP	3/8"	9.32	7/32"	5.5
M73LP, M75LP	3/8"	9.32	7/32"	5.5
72RD, 73RD, 75RD	3/8"	9.32	7/32"	5.5
90SG	3/8"	9.32	11/64"	4.5
91VS	3/8"	9.32	5/32"	4.0
91VG	3/8"	9.32	5/32"	4.0
91R	3/8"	9.32	5/32"	4.0
M91VS	3/8"	9.32	5/32"	4.0
16H, 18H	.404"	10.26	7/32"	5.5
26, 26P, 27, 27P	.404"	10.26	7/32"	5.5
27R, RA	.404"	10.26	7/32"	5.5
59AC/CP	.404"	10.26	7/32"	5.5
58L/LG, 59L/LG	.404"	10.26	7/32"	5.5
11H	3/4"	19.05	5/16"	8.0
11BC	3/4"	19.05	5/16"	8.0

Manufacturer: CARLTON

Description	Chain pitch		File diameter	
	inch	mm	inch	mm
E1MC-BL	1/4"	6.35	5/32"	4.0
K1L, K2L, K3L	.325"	8.25	11/64"	4.5
K1NK-BL	.325"	8.25	3/16"	4.8
K1C, K2C, K3C	.325"	8.25	3/16"	4.8
K1C-BL, K2C-BL, K3C-BL	.325"	8.25	3/16"	4.8
N4C-BL	3/8" LP	9.32	5/32"	4.0
N1C, N1C-BL	3/8" LP	9.32	5/32"	4.0
A1LM, A2LM, A3LM	3/8"	9.32	7/32"	5.5
A1EP, A2EP, A3EP	3/8"	9.32	7/32"	5.5
A1EP-GL, A2EP-GL, A3EP-GL	3/8"	9.32	7/32"	5.5
B2LM, B3LM	.404"	10.26	7/32"	5.5
B2EP, B3EP	.404"	10.26	7/32"	5.5
B3H	.404"	10.26	7/32"	5.5
B3H-RP	.404"	10.26	7/32"	5.5
B3S	.404"	10.26	7/32"	5.5
B3RM10	.404"	10.26	7/32"	5.5

Manufacturer: SABRE

Description	Chain pitch		File diameter	
	inch	mm	inch	mm
16	1/4"	6.35	5/32"	4.0
357, 357D	3/8" LP	9.32	5/32"	4.0
463	.404"	10.26	1/4"	6.3
520(D), 523(D), 528(D)	.325"	8.25	3/16"	4.8
727(D), 737(D), 747(D)	3/8"	9.32	7/32"	5.5
757 MK*, 757 MK* Skip	.404"	10.26	7/32"	5.5
757(S), 767(S), 777(S), 858	.404"	10.26	1/4"	6.3
880(D), 883(D), 888(D)	3/8"	9.32	7/32"	5.5
920(D), 923, 928(D)	.325"	8.25	3/16"	4.8
943, F, P, PF	.404"	10.26	1/4"	6.3
980(D), 983(D), 988(D)	3/8"	9.32	7/32"	5.5
Jungle 58, J58	.404"	10.26	7/32"	5.5
Jungle 63, J68	.404"	10.26	7/32"	5.5
Jungle Ripping, E63	.404"	10.26	7/32"	5.5
MK II, MK II Skip	.404"	10.26	7/32"	5.5

Manufacturer: SARP

Description	Chain pitch		File diameter	
	inch	mm	inch	mm
S25	1/4"	6.35	5/32"	4.0
SE3S, SE1S	3/8"	9.32	5/32"	4.0
SG30, SG3, SG5, SG6	.325"	8.25	3/16"	4.8
SG3C, SG5C, SG6C	.325"	8.25	3/16"	4.8
SD3, SD5, SD6	3/8"	9.32	7/32"	5.5
SD3C, SD5C, SD6C	3/8"	9.32	7/32"	5.5
SF6	3/8"	9.32	7/32"	5.5
SF6H, SF2H (Harvester)	3/8"	9.32	7/32"	5.5

Manufacturer: DOLMAR

Description	Chain pitch		File diameter	
	inch	mm	inch	mm
062, 466	1/4"	6.35	5/32"	4.0
290	3/8"	9.32	11/64"	4.5
092	3/8"	9.32	5/32"	4.0
084	.325"	8.25	11/64"	4.5
086, 484, 686	.325"	8.25	3/16"	4.8
093, 099	3/8"	9.32	7/32"	5.5
103	.404"	10.26	7/32"	5.5
093, 099	3/8"	9.32	13/64"	5.16

Manufacturer: STIHL

Description	Chain pitch		File diameter	
	inch	mm	inch	mm
Rapid micro (RM)	1/4"	6.35	5/32"	4.0
Picco mini (PMN)	3/8" P	9.32	5/32"	4.0
Picco micro (PM)				
Picco micro1 (PM1)				
Rapid micro (RM)	.325"	8.25	3/16"	4.8
Rapid micro2 (RM2)				
Rapid super (RS)				
Rapid micro (RM)	3/8"	9.32	13/64"	5.16
Rapid micro2 (RM2)				
Rapid super (RS)				
Rapid micro (RM)	.404"	10.26	7/32"	5.5
Rapid micro2 (RM2)				
Rapid super (RS)				

Note: Please observe the instructions and recommendations of the manufacturer of the respective chain saw or device.

The saw chain

The fast way to the perfectly sharpened saw chain

Before sharpening saw chains

The following tools and aids have proven to be successful when sharpening saw chains:

- Gloves and safety glasses to reduce the risk of injury
- Dirt/resin loosening detergent
- Brush/cleaning cloths
- Calipers to establish the tooth length
- File/combination gauge to establish the depth gauge distance
- Combination wrench to tighten the chain
- Portable vise to fix the chain saw
- Angle template
- 2 round files (graduated diameter) with file handle
- 1 flat file for depth gauge with file handle
- Marking chalk

Tip:

PFERD supplies **non-slip, easy-to-use, ergonomic file handles** for optimum use.



In our pocket guide "Sharpening the saw chain", we have concisely summarised all the important information that you need for sharpening your saw chains.



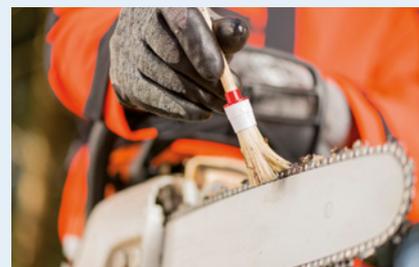
The saw chain

The fast way to the perfectly sharpened saw chain

1 Assessing the chain condition

Please **check** the saw chain for damages that may make it necessary to replace the chain immediately before sharpening it.

It is advisable to **remove dirt** from the cutting set first. This allows you to assess the condition of the cutting teeth better and comply with the corresponding angle more precisely. This means that you extend the service life of your files and maintain their stock removal rates. **Detergents** that loosen resin and dirt and **brushes** are recommended to clean the cutting set.



2 Checking the chain tension

Increasing the chain **tension** a little **supports the sharpening work**. A stronger tension prevents the cutting tooth from moving or lifting.

Note:

- Do not forget to **loosen** the **chain tension again** once the sharpening work has been completed and tighten the chain according to the manufacturer's details for use of the chain saw.



3 Fixing the chain saw

It is **advisable to fix the cutting set** in position to avoid it slipping when applying pressure during sharpening work. This means faster and more precise sharpening results can be achieved. A **portable vise** for flexible use on-site, hammered into a tree stump for example, is helpful.

Tip:

- Alternatively, you can cut/pierce the saw into a tree stump and clamp the cutting set in place with a combination wrench.



4 Identifying the shortest tooth

Initially identify the **shortest cutting tooth** with **calipers**, sharpen the tooth and then measure it again.

The length of this tooth **serves as orientation** for how the lengths of all other cutting teeth need to be adapted. The teeth must have the same length. A **uniform tooth length** contributes towards an even and straight cut. Slight deviations of up to **.020"** (0.5 mm) can be ignored as they will not have a noticeable effect on the cutting action.

Tips:

- Mark the first sharpened tooth** with chalk. This means you can clearly see when one side of the chain is fully sharpened.
- Applying the **chain brake makes sharpening easier** as the chain can no longer move.



The saw chain

The fast way to the perfectly sharpened saw chain

5 Sharpening the saw chain

Once you have sharpened the shortest tooth you can start to work on the other teeth. The method of **sharpening the row of teeth on one side first** before moving to the other has proven to be successful.

Please note:

- It is generally recommended to hold the file horizontally at a **90° angle** to the guide bar. A **sharpening angle of 30°** is preferred.
- File from the **open inner side** of the tooth **outwards**.
- Make sure to apply **light and even pressure** to the file on all teeth.
- 1/5 (20%) of the file diameter must protrude over the top plate.
- It is essential that you do **not damage the chain links** when filing.

Tips:

- The use of an **angle template** makes compliance with the recommended sharpening angle easier.
- Count the file strokes performed.** Apply the **same number** of file strokes to each tooth. This helps you keep the tooth length as even as possible.



Note:

- Please pay attention to the chain manufacturer's advice and recommendations.

6 Checking the sharpening result

To **assess the result of sharpening**, you should ask yourself the following questions after working on each tooth:

- Has the **sharpening angle** been maintained?
- Are the **side and top plate angles** correct?
- Does the **tooth length** correspond with the length of the previous tooth?

Note:

- Reflections of light on the cutting edge** display an insufficient sharpness.



7 Checking the depth gauge

Once you have sharpened all teeth of a chain, the **depth gauge distance** must be checked and adjusted if necessary. Corresponding **gauges** are available with which the distance can be quickly checked. The depth gauge distance can be adjusted with a **flat file**.

Notes:

- Make sure that the **distance** between the **cutting corner and the depth gauge** is the **same** on all cutting links. It can differ depending on the chain type, pitch and application:
 - For pitch 1/4", .325", 3/8": .025" (0,65 mm), For pitch .404": .030" (0.75 mm)
 - The depth gauge distance affects the thickness of the chips.
- The rounded/sloping shape of the depth gauge to the front **reduces the chain saw's kick-back risk** and achieves more regular operation and **reduced vibration**. It is therefore important to always check the shape of the depth gauge when lowering.



8 Final work

- Remove metal shavings** from the saw chain.
- Check the chain tension** before using the chain saw. Please take the manufacturer's details into account when doing so.
- Clean the files and tools.**

Note:

- Always **inspect the condition of all components** of the cutting set. The condition of the guide bar and the drive sprocket also influence the operation of the saw chain, the transfer of forces and the cut quality.

Characteristics of a perfectly sharpened saw chain:

- The same sharpening, side plate and top plate angle of all teeth.
- Cutting teeth with the same length.
- Even depth gauge distances.



Sharpening files

Chain saw files

Chain saw files, round

Round file for manual sharpening of saw chains with precise spiral cut for outstanding sharpness and particularly long tool life. For fast, score-free sharpening of saw teeth. In comparison to machine sharpening, these files remove stock sparingly without thermal loads due to friction on the metal.

Advantages:

- **Classic Line:** Optimum combination of tool life and stock removal rate, aggressive filing for quick sharpening.
- **Premium Line:** Perfect sharpness thanks to innovative spiral cut, for ensuring a fine tooth surface for maximum cutting performance and a gentler feel to the tool whilst filing.

Applications:

sharpening

Ordering notes:

- Please specify the desired Performance Line.
- Available in different diameters, suitable for all common saw chains.
- Packaging units of 6 and 60 pieces in a practical cardboard box.



Materials that can be worked:

steels up to 1,200 N/mm²

Profile	Length [mm]	Length [inch]	Dia. [mm]	Dia. [inch]	Performance Line		Chain pitch [inch]	Matching handle	Description	
					Classic Line	Premium Line				
					EAN 4007220					
412	200	8	3.5	9/64	005194	-	1/4 LP*	SH 220	6	412 200 x 3,5 ...
			4.0	5/32	005217	021897	1/4, 3/8 LP*	FH 2	6	412 200 x 4,0 ...
			4.5	11/64	005224	021910	.325	FH 2	6	412 200 x 4,5 ...
			4.8	3/16	005231	021927	.325	HKSF 100, FH 2, FH 3	6	412 200 x 4,8 ...
			5.16	13/64	005248	021934	3/8	HKSF 100, FH 3	6	412 200 x 5,16 ...
			5.5	7/32	005255	021941	3/8, 404	HKSF 100, FH 3	6	412 200 x 5,5 ...
			6.3	1/4	005262	-	-	HKSF 100, FH 3	6	412 200 x 6,3 ...
			7.0	9/32	005279	-	-	HKSF 100, FH 3	6	412 200 x 7,0 ...
			7.9	5/16	005286	-	-	3/4 HKSF 100, FH 3	6	412 200 x 7,9 ...

Always observe the current guidelines and recommendations of the equipment and saw chain manufacturers. * LP = Low Profile

Chain saw files in plastic pouch 2 pc. packaging

Two round Classic Line files with spiral cut in promotional plastic packaging to protect against dirt and damage.



Advantages:

- The overlapping opening on the rear ensures that no files can inadvertently slide out of the packaging.
- **Classic Line:** Optimum combination of tool life and stock removal rate, aggressive filing for quick sharpening.

Ordering notes:

- One packaging unit contains twenty plastic packs, each containing two files.

Profile	Length [mm]	Length [inch]	Dia. [mm]	Dia. [inch]	Performance Line	Chain pitch [inch]	Matching handle	Description	
					Classic Line				
					EAN 4007220				

POS packaging

412	200	8	4.0	5/32	005408	1/4, 3/8 LP*	FH 2	40	4122 SK-4,0 200 Classic
			4.8	3/16	005415	.325	HKSF 100, FH 2, FH 3	40	4122 SK-4,8 200 Classic
			5.16	13/64	045718	3/8	HKSF 100, FH 3	40	4122 SK-5,16 200 Classic
			5.5	7/32	005422	3/8, 404	HKSF 100, FH 3	40	4122 SK-5,5 200 Classic

Always observe the current guidelines and recommendations of the equipment and saw chain manufacturers. * LP = Low Profile

Sharpening files

Chain saw files

Chain saw files in plastic pouch 3 pc. packaging

Three round files with spiral cut in promotional plastic packaging to protect against dirt and damage.



Advantages:

- The opening on the front of the packaging makes it easier to remove and return the files.
- **Classic Line:** Optimum combination of tool life and stock removal rate, aggressive filing for quick sharpening.
- **Premium Line:** Perfect sharpness thanks to innovative spiral cut, for ensuring a fine tooth surface for maximum cutting performance and a gentler feel to the tool whilst filing.

Ordering notes:

- Please specify the desired Performance Line.
- Chain saw files 412, file diameter 3.2 mm, are supplied with a round cylindrical tang.
- One packaging unit contains four plastic packs, each containing three files.

Profile	Length [mm]	Length [inch]	Dia. [mm]	Dia. [inch]	Performance Line		Chain pitch [inch]	Matching handle		Description
					Classic Line 	Premium Line 				
EAN 4007220										

POS packaging

412	200	8	3.2	1/8	959534	-	1/4 LP*	SH 220	12	412 4x3 200 3,2 ...
			4.0	5/32	958803	056899	1/4, 3/8 LP*	FH 2	12	412 4x3 200 4,0 ...
			4.5	11/64	072868	072875	.325	FH 2	12	412 4x3 200 4,5 ...
			4.8	3/16	958810	057339	.325	HKSF 100, FH 2, FH 3	12	412 4x3 200 4,8 ...
			5.16	13/64	056875	063965	3/8	HKSF 100, FH 3	12	412 4x3 200 5,16 ...
			5.5	7/32	958827	064214	3/8, 404	HKSF 100, FH 3	12	412 4x3 200 5,5 ...

Always observe the current guidelines and recommendations of the equipment and saw chain manufacturers. * LP = Low Profile

Chisel bit files

For servicing and sharpening saw chains with a square tooth base. For edge grinding saw chains. Available as a three square or flat file.



Advantages:

- The three square type is particularly suited to sharpening 3/8" chains.
- The flat type fulfills two functions: it can be used to sharpen the blade and also to reduce the depth gauge. Particularly recommended for beginners.

Ordering notes:

- For the 1-piece packaging unit, please add "(1)" at the end of the description.

Profile	Length [mm]	Length [inch]	Cut	Cross section [mm]	Matching handle	Packaging		Description
								
EAN 4007220								
three square	175	7	2	4.6	FH 3	174968	539040	1250 DKT 175
flat	175	7	2	3.3 x 12.4	FH 3	174975	539057	1215 FLST 175



Sharpening files

Chain saw sharpeners CHAIN SHARP



Chain saw sharpeners from PFERD are exceptionally well suited to the manual sharpening of saw chains. Manual sharpening is more economic and much more gentle than machine-based sharpening, and can prolong the operating life of the saw chain.

Advantages:

- Flexible use on-site due to compact device design.
- Easy to use and defined sharpening angle.
- Long operating life due to interchangeable files.
- Precise and uniform sharpening result, even for inexperienced users.

Materials that can be worked:

- Steels up to 1,200 N/mm²

Applications:

- Sharpening

CHAIN SHARP CS-X chain saw sharpeners

The CHAIN SHARP CS-X chain saw sharpener stands out due to its excellent file position, ergonomic shape and easier operation. The device provides a sharpening angle of 30°. The defined depth gauge distance can be found in the table.

Contents:

- The chain saw sharpener consists of:
- One sharpener
 - One depth gauge file
 - Two Classic Line chain saw files

Advantages:

- Turn the device over to change from the right to the left tooth – no conversion work required.
- Optimized shape for precise guidance and optimal sharpening results.
- Improved design makes it easy to replace the files.
- For simultaneously sharpening the saw teeth and adjusting the depth gauge.

Ordering notes:

- PFERD offers five types of the CHAIN SHARP CS-X chain saw sharpener adapted to different chain pitches.
- The sharpener is supplied with detailed operating instructions in a transparent, reusable plastic pouch which protects against damage and dirt.

PFERDVALUE:



CS-X-3,2



CS-X-4,0
CS-X-4,8
CS-X-5,16
CS-X-5,5



Suitable for chain saw file diameter [mm]	Suitable for chain saw file diameter [inch]	EAN 4007220	Chain pitch [inch]	Depth gauge distance [mm]	Matching depth gauge file		Description
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POS packaging

3.2	1/8	943731	1/4 LP*	0.45	4132	1	CS-X-3,2
4.0	5/32	835913	3/8 LP*	0.65	4132	1	CS-X-4,0
4.8	3/16	835920	.325	0.65	4132	1	CS-X-4,8
5.16	13/64	835937	3/8	0.65	4132	1	CS-X-5,16
5.5	7/32	835944	.404	0.75	4132	1	CS-X-5,5

* LP = Low Profile



Sharpening files

Chain saw sharpeners CHAIN SHARP

CHAIN SHARP KSSG chain saw sharpeners

You can convert the device for sharpening the right and left cutting teeth in a few steps. The defined depth gauge distance can be found in the table.

Contents:

The chain saw sharpener consists of:

- One sharpener
- One Classic Line chain saw file
- One depth gauge file
- One ergonomic file handle FH 1 KSF

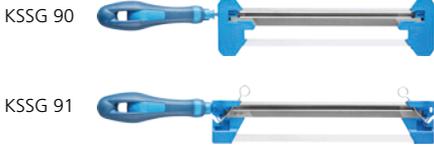
Advantages:

- Maximum precision for optimal sharpening results.
- For simultaneously sharpening the saw teeth and adjusting the depth gauge.

Ordering notes:

- Available in three types that are adapted to different chain pitches.
- The sharpener is supplied with detailed operating instructions in a transparent, reusable plastic pouch which protects against damage and dirt.

PFERDVALUE:



Suitable for chain saw file diameter [mm]	Suitable for chain saw file diameter [inch]	EAN 4007220	Chain pitch [inch]	Depth gauge distance [mm]	Sharpening angle	Matching depth gauge file		Description
POS packaging								
4.0	5/32	005460	3/8 LP*	0.65	30°	4131	1	KSSG 91-4,0
4.8 / 5.5	3/16 , 7/32	005439	.325	0.65	35°	4130	1	KSSG 90-4,8
		005446	3/8	0.65	35°	4130	1	KSSG 90-5,5

* LP = Low Profile

CHAIN SHARP CS-MT chain saw sharpeners

The compact CHAIN SHARP CS-MT sharpening solution combines a chain saw file and a depth gauge file in one ergonomic tool. The defined elevation of the chain saw file makes sharpening the saw teeth easier and prevents the connecting links of the saw chain from being damaged. The side-mounted depth gauge file allows you to individually set the depth limit. The gauge provided gives depth spacings of 0.65 mm (.025") for harder wood or 0.75 mm (.030") for softer wood.



Contents:

The chain saw sharpener consists of:

- One sharpener
- One Classic Line chain saw file
- One depth limit file
- One ergonomic file handle
- One depth gauge

Advantages:

- Compact sharpener.
- Depth gauge can be individually adjusted.
- Suitable for all common chain saw files.
- Long tool life with PFERD files.

Ordering notes:

- Available in four designs for the most common chain pitches.
- The sharpener is supplied with detailed operating instructions in a belt pouch which protects against damage and dirt.

PFERDVALUE:



Suitable for chain saw file diameter [mm]	Suitable for chain saw file diameter [inch]	EAN 4007220	Chain pitch [inch]	Matching depth gauge file		Description
4.0	5/32	098646	3/8 LP*	1213 ruk 150	1	CS-MT-4,0
4.8	3/16	098677	.325	1213 ruk 150	1	CS-MT-4,8
5.16	13/64	098684	3/8	1213 ruk 150	1	CS-MT-5,16
5.5	7/32	098707	.404	1213 ruk 150	1	CS-MT-5,5

* LP = Low Profile

Sharpening files

Depth gauge files

Depth gauge file for CHAIN SHARP CS-X



Rectangular file with cut on two sides.
Suitable for the CHAIN SHARP CS-X chain saw sharpener.

Advantages:

- Stock removal rate is precisely tailored to the depth gauge.

Ordering notes:

- For the 1-piece packaging unit, please add "(1)" at the end of the description.

Profile	Length [mm]	Length [inch]	Cut	Cross section [mm]	Suitable for	Packaging		Description
								
						EAN 4007220		
4132	200	8	2	9.0 x 6.0	CS-X-3,2, CS-X-4,0, CS-X 4,8, CS-X 5,16, CS-X 5,5	174951	831335	4132 200

Depth gauge files for CHAIN SHARP KSSG



Rectangular file with cut on two sides.
Available in two different cross sections.
Suitable for the CHAIN SHARP KSSG chain saw sharpener.

Advantages:

- Stock removal rate is precisely tailored to the depth gauge.

Profile	Length [mm]	Length [inch]	Cut	EAN 4007220	Cross section [mm]	Suitable for		Description
4130	200	8	2	011218	9.0 x 6.0	KSSG 90-4,8, KSSG 90-5,5	10	4130 200
4131	200	8	2	011225	7.0 x 4.5	KSSG 91-4,0	10	4131 200

Flat chain saw files for depth gauges



Rectangular file, tapered with two round uncut edges and cut on two sides. Shape F according to DIN 7262. Flat chain saw files are used to file the depth gauges of saw chains.

Advantages:

- Stock removal rate is precisely tailored to the depth gauge.

Ordering notes:

- For the 1-piece packaging unit, please add "(1)" at the end of the description.

Profile	Length [mm]	Length [inch]	Cut	Cross section [mm]	Matching handle	Packaging		Description
								
						EAN 4007220		
1213 ruk	150	6	2	16.0 x 3.0	FH 3	174968	011041	1213 ruk 150 H2
	200	8	2	20.0 x 3.5	FH 4/1	174937	011058	1213 ruk 200 H2

Milled tooth files

Universal chamfer file

Universal chamfer file

Rectangular file in a special plastic holder, straight cut on two sides. Ideal for easy and fast repair and for deburring on the guide rails of chain saws. Regular maintenance extends the service life of the guide rail and saw chain. Increases cutting precision and safety.



Materials that can be worked:
aluminium, grey cast iron, steels up to 1,200 N/mm²

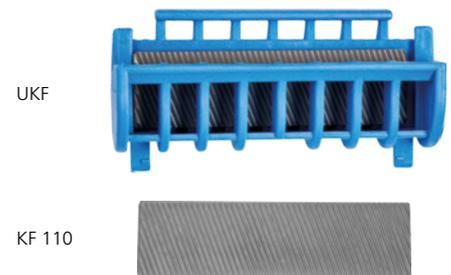
Applications:
work on edges, chamfering, deburring

Ordering notes:

- The universal chamfer file is supplied together with a file blade.
- Spare file blade for universal chamfer file: KF 110 Z2

Advantages:

- The special holder enables easy tool control and exact, right-angled positioning of the chamfer file on the guide rail.
- Also excellent for sharpening ski edges.



Profile	Cut	Cross section [mm]	Replacement file		Description
	2				
					
	EAN 4007220				

Universal chamfer file

UKF	016008	-	KF 110 Z2	1	UKF Z2
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Spare file blade

KF 110	015995	31.0 x 4.7	-	10	KF 110 Z2
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Sharpening files

Three square saw files

Triangular files, tapered to the tip with tang. Cut on three sides and three edges.

Advantages:

- Good stock removal rate.
- Long service life.
- Versatile application.

Materials that can be worked:

- Steels up to 1,200 N/mm²
- Cast steel

Applications:

- Sharpening

Ordering notes:

- Type POS is supplied with ergonomic file handle.
- Available in the versions regular, slim, extra slim, and ultra-slim according to DIN 7262.



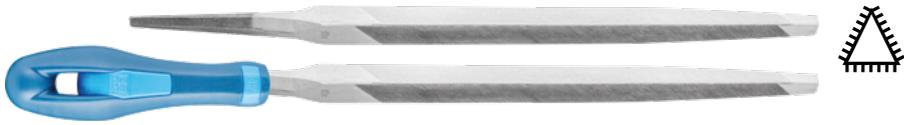
PFERDVALUE:

PFERDERGONOMICS recommends the ergonomic file handle for comfortable work.



Saw files, normal (1232)

PFERDVALUE:



Profile	Length [mm]	Length [inch]	Cut	Cross section [mm]	Matching handle	Incl. handle		Description
			2					
								
			EAN					
			4007220					

Industrial packaging (without handle)

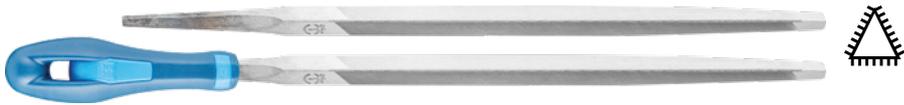
1232	125	5	010310	10.0	FH 3	-	10	1232 125 H2
	150	6	010327	12.0	FH 3	-	10	1232 150 H2
	250	10	010358	18.0	FH 4	-	10	1232 250 H2

POS packaging (with handle)

1232	125	5	542347	10.0	-	FH 3	5	PF 1232 125 H2
	150	6	542354	12.0	-	FH 3	5	PF 1232 150 H2

Saw files, slim (1237)

PFERDVALUE:



Profile	Length [mm]	Length [inch]	Cut	Cross section [mm]	Matching handle	Incl. handle		Description
			2					
								
			EAN					
			4007220					

Industrial packaging (without handle)

1237	100	4	010365	6.0	FH 2	-	10	1237 100 H2
	125	5	010389	7.0	FH 2	-	10	1237 125 H2
	150	6	010396	8.5	FH 3	-	10	1237 150 H2
	175	7	010402	10.0	FH 4	-	10	1237 175 H2
	200	8	010419	12.0	FH 4	-	10	1237 200 H2

POS packaging (with handle)

1237	125	5	542361	7.0	-	FH 2	5	PF 1237 125 H2
	150	6	542378	8.5	-	FH 3	5	PF 1237 150 H2

Sharpening files

Three square saw files

Saw files, extra slim (1238)

PFERDVALUE:



Profile	Length [mm]	Length [inch]	Cut	Cross section [mm]	Matching handle	Incl. handle		Description
			2					
								
			EAN 4007220					

Industrial packaging (without handle)

1238	100	4	010426	5.0	FH 2	-	10	1238 100 H2
	150	6	010457	7.0	FH 2	-	10	1238 150 H2

POS packaging (with handle)

1238	150	6	542408	7.0	-	FH 2	5	PF 1238 150 H2
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Saw files, ultra-slim tapers (1239)



Profile	Length [mm]	Length [inch]	Cut	Cross section [mm]	Matching handle		Description
			2				
							
			EAN 4007220				
1239	125	5	328286	4.7	FH 2	10	1239 125 H2
	200	8	328316	8.0	FH 3	10	1239 200 H2



Sharpening files

Three square saw files

Fine saw file

Dreieckige Feile im Messerprofil mit Angel. Cut auf zwei Seiten und der Schmalkante.



PFERDVALUE:



Profile	Length [mm]	Length [inch]	Cut	Cross section [mm]	Matching handle	Incl. handle		Description
			2					
			EAN 4007220					

Industrial packaging (without handle)

340	110	4 1/2	011157	6.5 x 4.8	FH 2	-	10	340 110 H2
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POS packaging (with handle)

340	110	4 1/2	542415	6.5 x 4.8	-	FH 2	5	PF 340 110 H2
-----	-----	-------	--------	-----------	---	------	---	---------------

Cantsaw file (1230)

Triangular file, tanged. Cut on three sides, non-equilateral triangular shape.



Profile	Length [mm]	Length [inch]	Cut	Cross section [mm]	Matching handle		Description
			2				
			EAN 4007220				
1230	200	8	011171	19.5 x 11.0	FH 4	10	1230 200 H2

Band saw files (1231)

Triangular file, tapered with tang. Cut on three sides, round cut edges. Shape D according to DIN 7262. Suitable for sharpening saw blades.



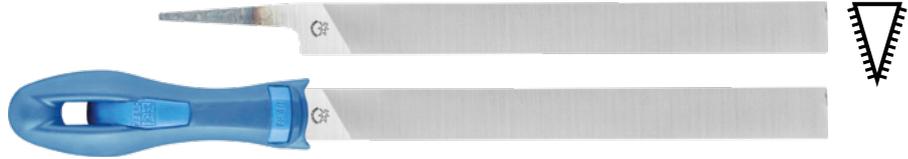
Profile	Length [mm]	Length [inch]	Cut	Cross section [mm]	Matching handle		Description
			2				
			EAN 4007220				
1231	150	6	011096	14.6	FH 3	10	1231 150 H2
	175	7	011102	15.5	FH 4	10	1231 175 H2
	200	8	011119	17.0	FH 4	10	1231 200 H2

Sharpening files

Knife sharpening files

Knife sharpening files (1272)

Triangular file with knife profile, tanged. Cut on two sides and the narrow edge. Shape G according to DIN 7262.



Ordering notes:

- Type POS is supplied with an ergonomic file handle.

PFERDVALUE:



Profile	Length [mm]	Length [inch]	Cut	Cross section [mm]	Matching handle	Incl. handle		Description
			2					
								
			EAN 4007220					

Industrial packaging (without handle)

1272	200	8	010853	20.0 x 6.4 x 1.5	FH 4/1	-	10	1272 200 H2
	250	10	010860	25.0 x 7.9 x 1.75	FH 4/1	-	10	1272 250 H2

POS packaging (with handle)

1272	200	8	542385	20.0 x 6.4 x 1.5	-	FH 4/1	5	PF 1272 200 H2
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Featheredge file

Featheredge file

File with rhomboid cross section with feather edge profile, tanged. Cut on four sides.



Profile	Length [mm]	Length [inch]	Cut	Cross section [mm]	Matching handle		Description
			2				
							
			EAN 4007220				
305	200	8	010884	32.0 x 6.0	FH 5/1	10	305 200 H2



Sharpening files

Mill saw files

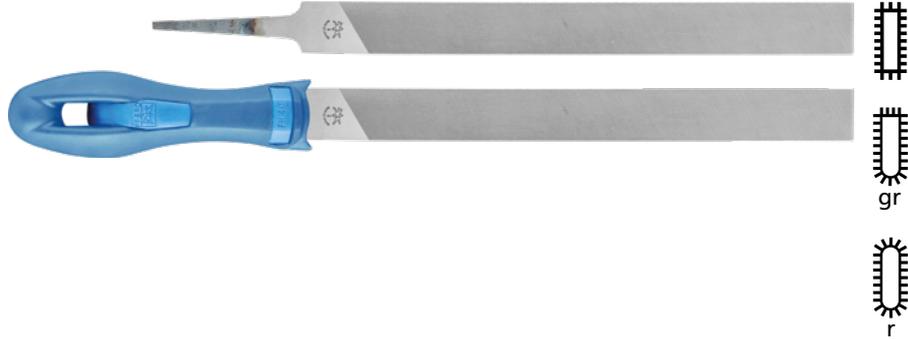
Mill saw files (1212)

Rectangular file, tanged. Available in three versions: With two straight edges (1212), with one round and one straight edge (1212 gr), with two round edges (1212 r) and cut on four sides. Shape E according to DIN 7276.

Ordering notes:

- Type POS is supplied with an ergonomic file handle.

PFERDVALUE:



Profile	Length [mm]	Length [inch]	Cut			Cross section [mm]	Matching handle	Incl. handle		Description
			1	2	3					
						EAN 4007220				

Industrial packaging (without handle)

1212	200	8	010914	20.0 x 3.5	FH 4/1	-	10	1212 200 H2
	250	10	010921	25.0 x 4.5	FH 4/1	-	10	1212 250 H2
	300	12	010938	30.0 x 5.0	FH 5/1	-	10	1212 300 H2

Industrial packaging (without handle) – gr

1212 gr	150	6	010945	16.0 x 3.0	FH 3	-	10	1212 gr 150 H2
	200	8	010952	20.0 x 3.5	FH 4/1	-	10	1212 gr 200 H2
	250	10	010976	25.0 x 4.5	FH 4/1	-	10	1212 gr 250 H2
	300	12	010983	30.0 x 5.0	FH 5/1	-	10	1212 gr 300 H2

POS packaging (with handle) – gr

1212 gr	200	8	542248	20.0 x 3.5	-	FH 4/1	5	PF 1212 gr 200 H2
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Industrial packaging (without handle) – r

1212 r	200	8	011003	20.0 x 3.5	FH 4/1	-	10	1212 r 200 H2
	250	10	011027	25.0 x 4.5	FH 4/1	-	10	1212 r 250 H2
	300	12	011034	30.0 x 5.0	FH 5/1	-	10	1212 r 300 H2

POS packaging (with handle) – r

1212 r	200	8	542255	20.0 x 3.5	-	FH 4/1	5	PF 1212 r 200 H2
	250	10	542279	25.0 x 4.5	-	FH 4/1	5	PF 1212 r 250 H2

Mill saw files, US type 1212 SP ("Mill file")

Rectangular file, tapered with tang. Cut on four sides. Shape E according to DIN 7262.

Applications:

sharpening, deburring, surface work

Ordering notes:

- Please specify the desired cut.



Profile	Length [mm]	Length [inch]	Cut			Cross section [mm]	Matching handle		Description
			1	2	3				
						EAN 4007220			
1212 SP	150	6	011546	-	011560	16.0 x 3.0	FH 3	10	1212 SP 150 H...
	200	8	011577	011584	011591	20.0 x 3.5	FH 4/1	10	1212 SP 200 H...
	250	10	011607	011614	011621	25.0 x 4.5	FH 4/1	10	1212 SP 250 H...
	300	12	011638	011645	011652	30.0 x 5.0	FH 5/1	10	1212 SP 300 H...

Mechanical sharpening of saw chains

Chain saw sharpener CHAIN SHARP HHG

CHAIN SHARP HHG chain saw sharpener

The CHAIN SHARP HHG electric hand-held sharpener is ideally suited to mechanical sharpening of saw chains. The chain saw sharpener from PFERD can be operated using a standard 12-volt car battery. This impressive device is easy to use and achieves uniform sharpening results thanks to its 25°, 30° and 35° angle settings.

Contents:

The CHAIN SHARP HHG set consists of:

- a CHAIN SHARP HHG sharpener with guide plate and 2.1-m, 12-volt connecting cable with connector for cigarette lighters,
- three grinding points with a diameter of 4 mm, 4.8 mm and 5.5 mm,
- an adapter with insulated crocodile clips,
- four collets with 3 mm diameter,
- two keys and
- an insulated locking nut.

Advantages:

- Flexible use on site thanks to the compact device design.
- Easy to use thanks to sharpening angle markings.
- Fast sharpening with precise and uniform sharpening results.
- Long tool life thanks to interchangeable grinding points.

Materials that can be worked:

Steels up to 1,200 N/mm²

Applications:

Sharpening

Recommendations for use:

- Place the grinding point at the correct height.
- Move the sharpener back and forth over the length of the grinding point. You should sharpen away from your body.
- Make sure that the guide plate is resting against the respective top plate.
- Do not sharpen the saw teeth beyond their wear limit.

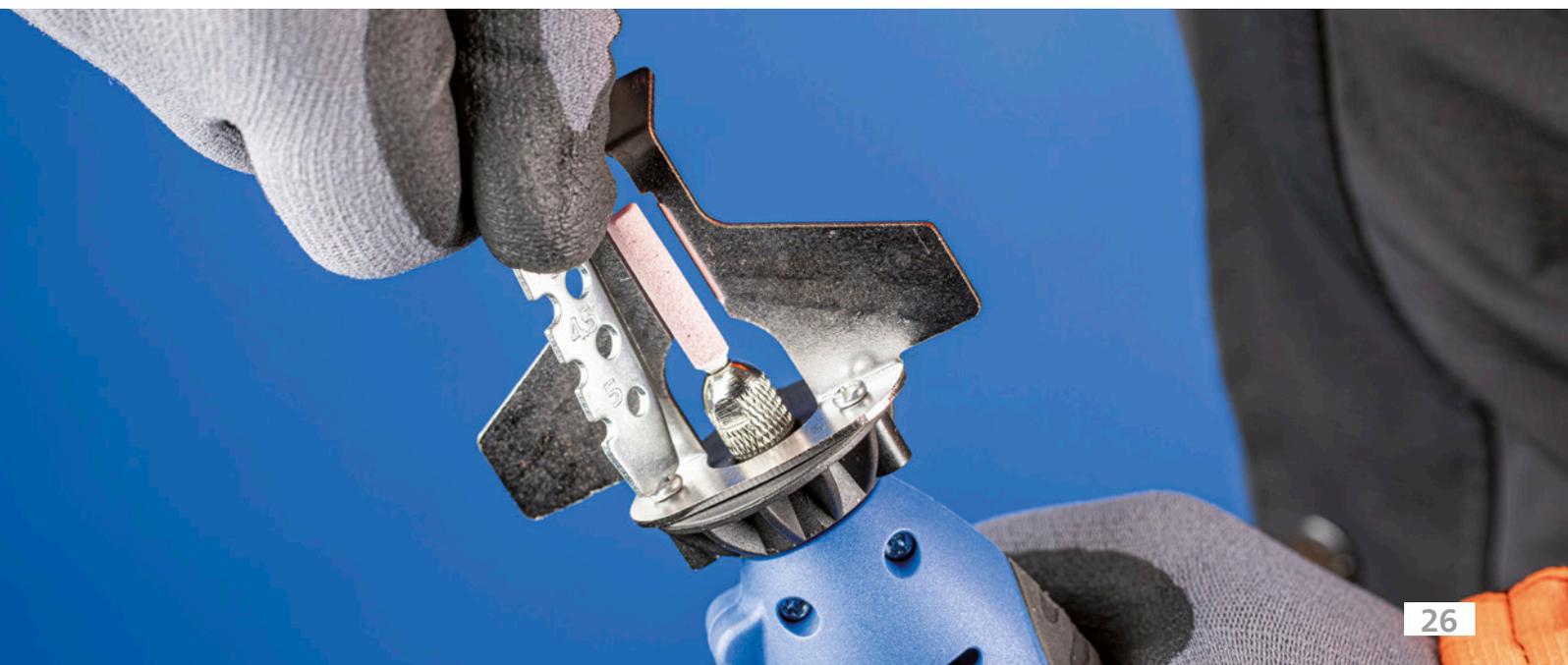
Safety notes:

- The CHAIN SHARP HHG 12 V has been designed exclusively for use as a chain saw sharpener.
- Inspect the tools before use. The tool must have been correctly mounted and must be able to rotate freely. Perform a test run for at least 30 seconds without applying any load. Do not use damaged, misshapen or vibrating tools!
- Before use, always make sure that the guide plate has been securely fastened to the sharpener.
- Use only 12-V direct current batteries (DC). Avoid contact with battery acid.
- Make sure that the power circuit has been fused with a 10-amp fuse.
- Make sure to switch off the CHAIN SHARP HHG 12 V sharpener (OFF) before connecting the battery.



Übersicht Set-Inhalt

Designation	EAN 4007220	Rotational speed [RPM]	Voltage [volts DC]	Power output [watts]	Collet [mm]	Net weight [kg]
CS HHG 12 V	217382	25,000	12	55	3	0.28



Mechanical sharpening of saw chains

Grinding points for saw chains

Grinding points for saw chains

The grinding points for saw chains are outstandingly well suited for mechanical sharpening of saw chains using the PFERD CHAIN SHARP HHG chain saw sharpener.

Advantages:

- Good grinding performance and stock removal rate.
- Cost and time savings due to shorter grinding times.
- Precise sharpening of saw chain teeth due to high dimensional stability.

Applications:

- Sharpening

Recommendations for use:

- Note the recommendations for use and safety information for your sharpener.
 - The following chains can be sharpened:
 - Grinding point dia. 3.8 mm for chain pitch 1/4"
 - Grinding point dia. 4.3 mm for chain pitch 1/4", 3/8" LP*
 - Grinding point dia. 5.0 mm for chain pitch .325"
 - Grinding point dia. 5.5 mm for chain pitch 3/8"
 - Grinding point dia. 5.7 mm for chain pitch 3/8", .404"
 - Grinding point dia. 6.9 mm for depth gauge
- *LP = Low Profile

Matching tool drives:

- Sharpeners

Ordering notes:

- Please select the appropriate grinding point diameter to match your chain.

Safety notes:

- The maximum permitted rotational speed relates to the unsupported shank length of 10 mm.
- For safety reasons, the specified maximum permitted rotational speed must never be exceeded.



Cylindrical mounted point for saw chains

The cylindrical shape ZY is optimized for sharpening saw chains.



D x T [mm]	Grit size	Suitable for chain pitch [inch]	Opt. RPM	Max. RPM		Description
	80					
	EAN 4007220					
Shank dia. 3 x 25 mm [S_d x L₂]						
3.8 x 16	381922	1/4	25,000	62,800	3	CS-G ZY 3,816 3 AWN 80 M5V
4.3 x 16	381946	1/4, 3/8 LP*	25,000	55,400	3	CS-G ZY 4,316 3 AWN 80 M5V
5.0 x 20	381960	.325	25,000	56,100	3	CS-G ZY 5,020 3 AWN 80 M5V
5.5 x 20	381984	3/8	25,000	50,900	3	CS-G ZY 5,520 3 AWN 80 M5V
5.7 x 20	382004	3/8, .404	25,000	49,100	3	CS-G ZY 5,720 3 AWN 80 M5V
6.9 x 20	382028	for depth gauge	25,000	40,500	3	CS-G ZY 6,920 3 AWN 80 M5V

*LP = Low Profile

Note

For more detailed information on mounted points, please refer to the PFERD Tool Manual, Catalogue section 3.



Mechanical sharpening

Grinding discs for saw chains

Grinding discs for saw chains

The grinding discs for saw chains are outstandingly well suited for mechanical sharpening of saw chains using chain sharpeners.

Advantages:

- Good grinding performance and stock removal rate.
- Long tool life.
- Careful grinding of the saw chain teeth.
- Precise sharpening of saw chain teeth due to high dimensional stability.

Applications:

- Sharpening

Recommendations for use:

- Note the recommendations for use and safety information for your sharpener.
 - The following chains can be sharpened:
 - Wheel thickness 3.2 mm for chain pitch 1/4", 3/8" LP*, .325"
 - Wheel thickness 4.7 mm for chain pitch 3/8", .404"
 - Wheel thickness 6.0 mm for depth gauge
- *LP = Low Profile

Matching tool drives:

- Sharpeners

Ordering notes:

- Please select the appropriate wheel thickness to match your chain.

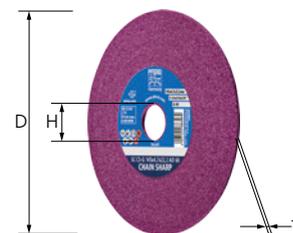
Safety notes:

- The maximum permitted peripheral speed is 35 m/s.
- For safety reasons, the specified maximum permitted rotational speed must never be exceeded.
- Before clamping, the grinding disc must be ring tested to make sure that it does not have any cracks (undamaged grinding discs give a clear tone).



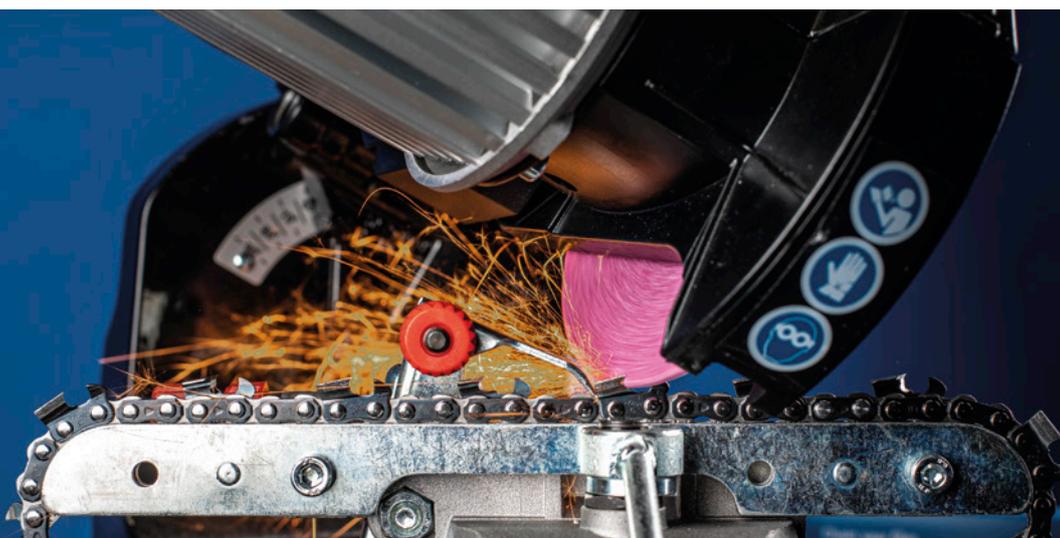
Grinding discs for saw chains

The grinding discs are optimized for sharpening saw chains.



D x T [mm]	H [mm]	Grit size	Suitable for chain pitch [inch]	Max. RPM		Description
		60 EAN 4007220				
Dark-red aluminium oxide (AD)						
145 x 3.2	22.2	382882	1/4, 3/8 LP*, .325	4,600	1	SC CS-G 145x3,2x22,2 AD 60J7V
145 x 4.7	22.2	383070	3/8, .404	4,600	1	SC CS-G 145x4,7x22,2 AD 60J7V
145 x 6.0	22.2	383148	for depth gauge	4,600	1	SC CS-G 145x6,0x22,2 AD 60J7V

*LP = Low Profile



Accessories

File handles

Ergonomic file handles

Ergonomic file handles for comfortable and safe work.

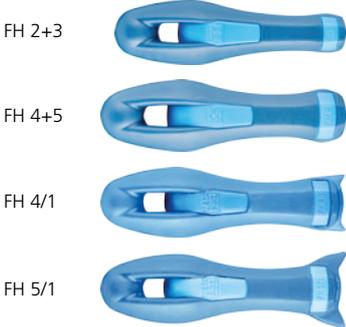
Advantages:

- Protects hands against sharp edges and corners.
- Ergonomic shape with optimized haptics.
- Files do not roll away.
- Soft plastic on the outside with a hard, stable inner part.
- Without plasticizer.

Ordering notes:

- Available in different types and two different packaging units.

PFERDVALUE:



Suitable for file length [mm]	EAN 4007220	Overall length [mm]	Suitable for		Description
100, 125, 150	535714	110	key files	10	FH 2-10
	535721	110	key files	100	FH 2-100
	535738	110	all tangs	10	FH 3-10
	535745	110	all tangs	100	FH 3-100
200, 250	535752	115	profiles three square, square, round, special profiles	10	FH 4-10
	535769	115	profiles three square, square, round, special profiles	100	FH 4-100
	535776	115	profiles hand, flat, half-round	10	FH 4/1-10
	535783	115	profiles hand, flat, half-round	100	FH 4/1-100
300, 350	535790	115	profiles three square, square, round, special profiles	10	FH 5-10
	535806	115	profiles three square, square, round, special profiles	100	FH 5-100
	535813	115	profiles hand, flat, half-round	10	FH 5/1-10
	535820	115	profiles hand, flat, half-round	100	FH 5/1-100

Plastic file handles

Plastic file handles for good guidance and power transmission.

Advantages:

- Wide collar guarantees fatigue-free work and increases safety.
- Good force transmission and control of the file.
- Air chambers help absorb hand moisture.
- File handle made from sturdy plastic.
- Contains no plasticizers.

Ordering notes:

- Available in four different types and two different packaging units.



Suitable for file length [mm]	EAN 4007220	Overall length [mm]	Suitable for		Description
100, 125, 150	015476	90	key files	10	PH 08/10
	301890	90	key files	100	PH 08/100
	015483	90	all tangs	10	PH 09/10
	301906	90	all tangs	100	PH 09/100
200, 250	015490	110	all tangs	10	PH 11/10
	301913	110	all tangs	100	PH 11/100
300, 350	015506	120	all tangs	10	PH 13/10
	301920	120	all tangs	100	PH 13/100

Accessories

Special handles

Wooden handles for chain saw files

The wooden handle for chain saw files has an angular contact surface which maintains a 35° filing angle for accurate, even sharpening of all chainsaw teeth.



Advantages:

- Optimized filing angle ensures precise, even filing.

Suitable for chain saw file diameter [mm]	EAN 4007220	Overall length [mm]		Description
4.8 / 5.16 / 5.5 / 6.3 / 7.0 / 7.9	229750	100	1	HKSF 100/1
	015407	100	10	HKSF 100/10
	015391	100	100	HKSF 100/100

Ergonomic file handle, chain saw gauge

The chain saw gauge supports consistent sharpening results by providing the correct sharpening angle. It is attached to the stud of the ergonomic file handle FH 1 KSF.

FH 1 KSF



KSSL



Ordering notes:

- Please order ergonomic file handle FH 1 KSF separately.
- The chain saw gauge is available in two versions: an angle of 25°/30° and an angle of 30°/35°.

PFERDVALUE:



Suitable for chain saw file diameter [mm]	EAN 4007220	Overall length [mm]		Description
4.0 / 4.5 / 4.8 / 5.16 / 5.5	535707	120	10	FH 1 KSF
	551899	-	10	KSSL 25/30
	536308	-	10	KSSL 30/35

Ergonomic file handle set, chain saw gauge

The set consists of an ergonomic file handle for chain saw files as well as two chain saw gauges: an angle of 25°/30° and an angle of 30°/35°. The chain saw gauge supports consistent sharpening results by providing the correct sharpening angle. It is attached to the stud of the ergonomic file handle FH 1 KSF.

Contents:

- 1 piece each:
 - Ergonomic file handle FH 1 KSF
 - Chain saw gauge KSSL 25/30
 - Chain saw gauge KSSL 30/35

Ordering notes:

- The set is provided in sales-boosting individual packaging.

PFERDVALUE:



Suitable for Chain saw files-ø [mm]	EAN 4007220		Description
4.0 / 4.5 / 4.8 / 5.16 / 5.5	174906	1	SET FH1 KSSL 25/30-30/35

Accessories

Portable vise

Portable vise

A portable vise made of solid steel for sharpening saw chains on the job. It is hammered into a tree stump or trunk and serves the purpose of fixing the guide rail. A better sharpening result can be achieved as the chain saw is prevented from slipping. The chain can be moved freely during sharpening work.



Description	EAN 4007220	
FB	671191	10

File brush

File brush

The file brush is for easy cleaning of clogged files. Comes with a robust handle made from wood and wear-resistant steel wire.



Advantages:

- Easy cleaning.
- Long tool life.

Applications:

cleaning

Length [mm]	Length [inch]	EAN 4007220		Description
232	9.2	015315	5	HBF 10 ST 0,15



Accessories

Protective gloves

SensoGrip protective gloves

SensoGrip protective gloves provide optimum protection with maximum comfort and the best finger flexibility. Viscoelastic pads on the contact surfaces dampen vibrations by 30 % and allow longer working times (according to ISO 5349 parts 1 and 2).

SensoGrip protective gloves are made from robust special nappa leather. They have heat- and spark-resistant aramid seams and provide protection from mechanical injuries caused by stabs, splinters or abrasion. Suitable for those allergic to chrome since they contain no hexavalent chrome. The elasticated wrist provides a skin-tight fit.



Advantages:

- SensoGrip HFS: Optimum hand/finger protection, ideal for grinding, cut-off and welding work.

Ordering notes:

- Available in 3 sizes: M, L and XL.
- Protective gloves are supplied in pairs.
- Please specify the desired glove size.

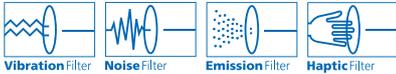
Description	Glove size				Net weight [kg]
	9 (M)	10 (L)	11 (XL)		
	EAN 4007220				
HFS	809273	809280	809297	1	0,250

PFERDVALUE – Your added value with PFERD

Results from the PFERD test laboratories as well as from the product tests by independent testing institutes prove: PFERD tools offer measurable added value.

Discover **PFERDERGONOMICS** and **PFERDEFFICIENCY**:

As part of **PFERDERGONOMICS**, PFERD offers ergonomically optimized tools and tool drives that contribute to greater safety and working comfort, and thus to health protection.



As part of **PFERDEFFICIENCY**, PFERD offers innovative, high-performance tool solutions and tool drives with outstanding added value.



For more information on this topic, please refer to our brochure “**PFERD-VALUE – Your added value with PFERD**”.

