

A person wearing a grey long-sleeved shirt is operating a Mafell groove cutting machine. The machine is black and red, mounted on a wooden workbench. The person's hands are visible, adjusting the machine. The background is a blurred workshop setting.

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Groove cutting machine
NFU 50

Groove cutting machine NFU 50: Versatile, powerful, precise.

Groove cutting machine NFU 50 offers flexibility of use and is an all-rounder capable of executing an enormous range of timber construction tasks. An extensive range of accessories opens up further possibilities for day-to-day work.

CUTTING DEPTH 50 MM (1 15/16 IN.)



The NFU 50's sheer strength and outstanding motive power permits cuts 60 mm (2 3/8 in.) wide and 50 mm (1 15/16 in.) deep.

SUITABLE AS A SKEW NOTCH AND TENON CUTTER



The NFU 50 can also be used as a skew notch and tenon cutter. The online tool for calculating the setting values can be accessed using the following QR code or the link below.



www.mafell.de/berechnungstool

LENGTHWISE GROOVES



Take grooves for service ducts, for instance, which can be machined quickly and efficiently with the expanding groove cutter available as an optional accessory.

GUIDE L FOR NOTCHING

Timber frame construction in particular requires a large number of grooves. The NFU 50 and guide L make the perfect team for this type of work.

Groove cutting machine NFU 50

A wealth of different applications

With its exemplary material and build quality and intelligent practical features, the NFU 50 is a versatile all-purpose machine. It enables you to save time and energy, and invest your working resources instead in getting the job done well.

LENGTHWISE GROOVES

Grooves measuring 22 mm ($\frac{7}{8}$ in.) to 40 mm ($1\frac{9}{16}$ in.) can be produced using the expanding groove cutter available as an optional accessory.

Here's how it's done:

Engage the spindle lock, set the expanding groove cutter to the required width, align the F-type guide rail if using, and set to work.



BIRDSMOUTH JOINTS UP TO 45°

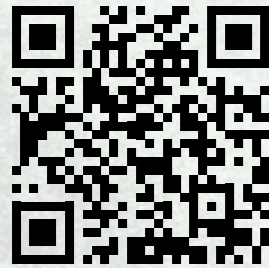
Here's how it's done:

Work out and set the angle and cutting depth, if necessary using our online calculation tool. Place the pair of adapters on the parallel fence, align the carpentry guide rail and make the cut.



www.mafell.de/berechnungstool

TUTORIALS:



<https://nfu50.mafell.de/en/>

NOTCHING WITH GUIDE L

Accurate, quick and easy. Cross groove with guide L.

Here's how it's done:

Set the angle on guide L, position the two stops on the workpiece and cut the notch.



TENONS

Individual tenons can be executed effortlessly with the NFU 50 and guide L.

Here's how it's done:

Set the cutting depth, adjust the angle on guide L and machine the first side of the workpiece. Then complete the second side following the same work stages.



Groove cutting machine NFU 50: Perfection in every detail.

The design of the NFU 50 is characterized by the use of extremely rugged, high-quality and precision-made parts, including the lightweight magnesium die-cast housing and impact-resistant, fiber glass-reinforced plastic components. It also features clever technical details to help you meet the rigors of the job.

DUST EXTRACTION

The rotating 58 mm (2 5/16 in.) hose connector for large volumes of dust can be positioned by means of a locking function.

THE CUPREX HIGH-PERFORMANCE MOTOR

stands for sheer strength and outstanding motive power, and its output is optimized by digital electronics.

DEPTH ADJUSTMENT

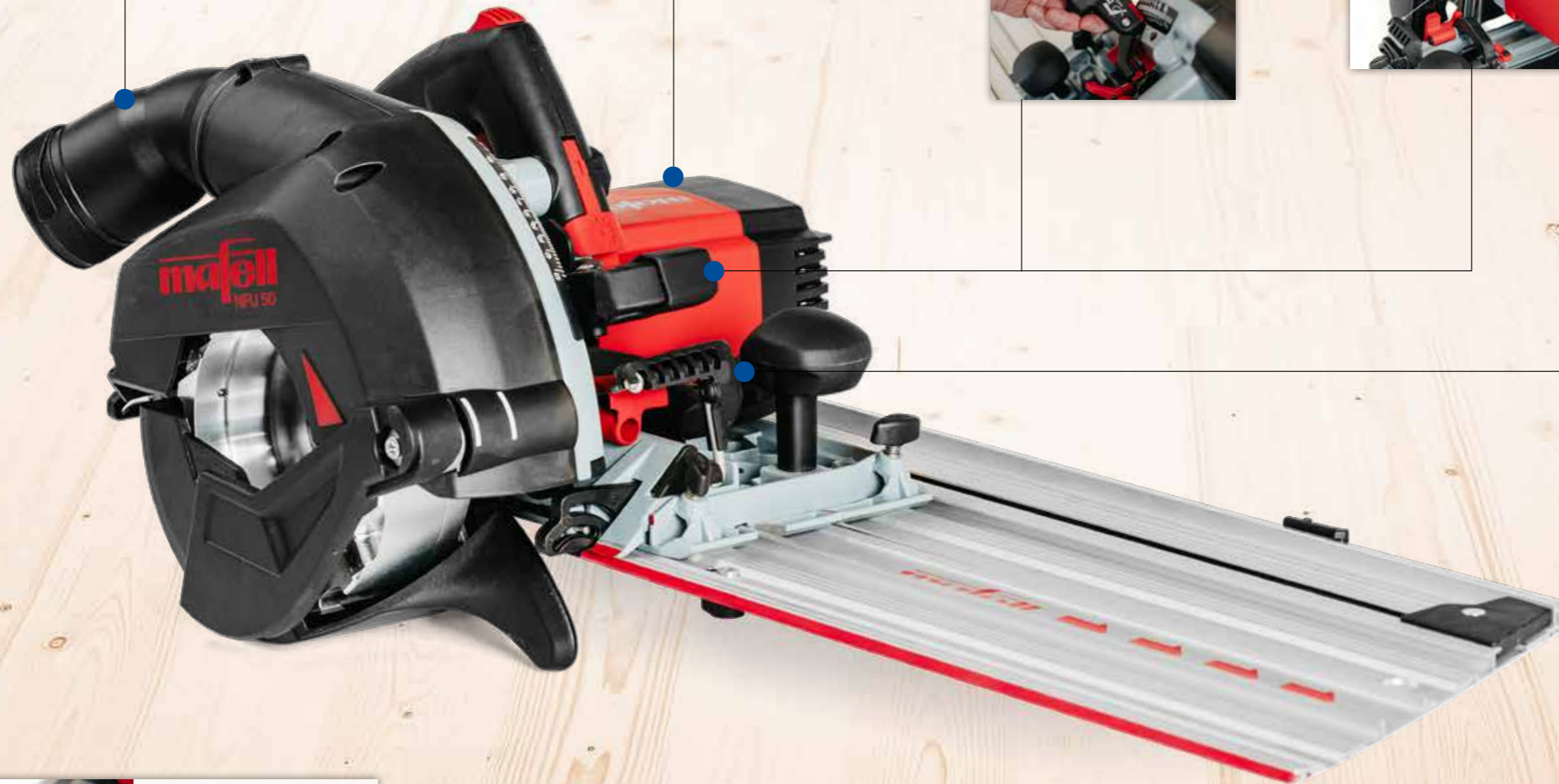
The 2-in-1 functionality allows the cutting depth to be set quickly and easily. Release lock (1), set the cutting depth on the scale, and re-engage the lock.

CUTTING DEPTH LOCKING MECHANISM

The cutting depth can be further secured by means of a locking lever.

SAFETY CONCEPT

The hydraulic brake stops the tool within 3 seconds. The flashing LED lamp indicates to the user that the cutter is still turning.



TILTS THROUGH 45°

Its layout makes the scale easier than ever to read, from 0 to 45°.



DETACHING THE TRACK

The NFU can be removed from the cross-cut track at the single press of a button, allowing its use either freehand or on the guide rail.



REPEAT STOP

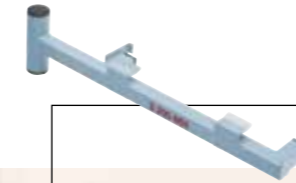
For frequently required angles, the two repeat stops are fixed in place on the underside of guide L.



Groove cutting machine NFU 50 : Perfection in every detail.

EXPANDING GROOVE CUTTER

The groove width can be individually set from 22 mm (7/8 in.) to 40 mm (1 9/16 in.)



MACHINE HOLDER

Machine holder S200-MH provides a safe resting place for the NFU 50 on the high-capacity extractor



POSITION INDICATOR NFU-PA

Using the position indicator, which can be set with reference to the scale, the right edge of the cutter can be indicated.



SIDE FENCE SA 625

Grooves with spacing of 62.5 cm (24 5/8 in) can be repeated as many times as necessary without the need for time-consuming marking.



An extensive range of accessories makes the job easier and speeds up working with the NFU 50. Teamed with the high-capacity extractor S 200, incorporating dust extraction unit S 35 M, it is the perfect partner for timber construction work.



BAYONET CATCH AND KINK PROTECTION

A vertical bayonet catch ensures a secure hose connection. Severe bending of the hose is prevented by the spiral guard.

HIGH-CAPACITY EXTRACTOR

with a maximum capacity of 200 l. The set comprises dust extractor S 35 M (Ref. No. 919701) and the container (Ref. No. 206869).

TUTORIALS:



<https://nfu50.mafell.de/en/>

The accessories illustrated here (with the exception of NFU-PA + SA 625) are not included in the delivery specification of the NFU 50.

Technical data and accessories.



Technical data NFU 50

Nominal voltage	230 V
Nominal power input	2300 W (3.1 hp)
Cutting depth at 0° with guide track	0 - 44 mm (0 in. - 1 3/4 in.)
Cutting depth at 0° without guide track	0 - 50 mm (0 in. - 1 15/16 in.)
Tilting range	0 - 45°
No-load-Speed	5900 rpm
Weight with guide track	9,4 kg (20.7 lbs)
Dimensions (W x L x H) with guide L	370 x 810 x 280 mm (14 9/16 x 31 7/8 x 11 in.)
Cutting length with guide L	370 mm (14 9/16 in.)

Ref. No. 918701

Delivery specification:

1 cutter head	091901
Ø 163 x 60 mm (6 7/16 x 2 3/8 in.)	
1 position indicator NFU-PA	207467
1 parallel fence	207468
1 side fence SA 625	207183
1 guide track L	205310
2 repeat fence	206026
1 allen key SW 6	207496
1 screwdriver Torx T15	093274
1 main cable 10 m (32.8 ft.)	



Guide rail

3.0 m (9.8 ft) (one part)
3.0 m (9.8 ft)
(2 parts + connecting piece)
1.5 m (4.9 ft) extension

Ref. No. 200672
Ref. No. 037037
Ref. No. 036553



Pair of adapters

for parallel fence
Ref. No. 037195



Angle fence F-WA

Ref. No. 205357



Guide rail F

Designation	Length in m	Ref. No.
F 80	0.80 m	204380
F 110	1.10 m	204381
F 160	1.60 m	204365
F 210	2.10 m	204382
F 310	3.10 m	204383



Connecting piece F-VS

for joining two guide tracks
Ref. No. 204363



End caps F-EK

2 pieces
Ref. No. 205400



Non-slip profile F-HP 6,8M

6.8 m long (22.3 ft.)
Ref. No. 204376



Splinter guard F-SS 3,4M

3.4 m long (11.2 ft.)
Ref. No. 204375



Bag for guide rail

F 160
for guide rail up to 1.6 m
(5.3 ft.) long
Ref. No. 204626



Universal guide

Compound miter rail
Ref. No. 202069



Lever clamp F-SZ 180MM

2 pieces, for fixing rail to work
piece
Ref. No. 207770



Machine holder

S200-MH
Ref. No. 207164

Guide track set with bag

2 x F 160 + F-VS + 2 x F-SZ 180MM
+ guide track bag
Ref. No. 204805

Guide rail set with bag

F 80 + F 160 + F-WA + F-VS
+ 2 x F-SZ 180MM
+ guide track bag
Ref. No. 204749



Roller edge guide

K85-UA
Ref. No. 205166



Parallel fence

K85-PA
Ref. No. 205323



Side fence SA 625

Ref. No. 207183



Cutter head

Ø 163 x 60mm
(6 7/16 x 2 3/8 in.)
Reversible knives (12 required)
Ref. No. 091901



Expanding groove cutter

Ø 163 x 22 bis 40mm
(6 7/16 x 7/8 x 1 9/16 in.)
Reversible knives (12 required)
Ref. No. 091899



Reversible knife

14 x 14 x 2 mm
(9/16 x 9/16 x 1/16 in.)
Ref. No. 201927



Extraction hose

Ø 49mm (1 15/16 in.) with hose connector
58mm (2 5/16 in.), Ø 66mm (2 9/16 in.) bayonet
catch, static dissipative 5m (16.4 ft.)
Ref. No. 093730



In order to develop a better tool for carpenters, we at MAFELL often take a special approach: We change our point of view and completely reconceive the tool in essential parts. At the same time, we always keep in mind the future requirements of the woodworking trade.

From this way of thinking, paired with an outstanding material and processing quality, amazing solutions emerge again and again. For example, in terms of functionality and ease of use. It is our claim that you no longer have to think about your tools when doing your work. Simply because we at MAFELL have already done so extensively. After all, we have a common goal: the perfect job. Or in brief:

creating excellence

Your MAFELL authorized dealer: