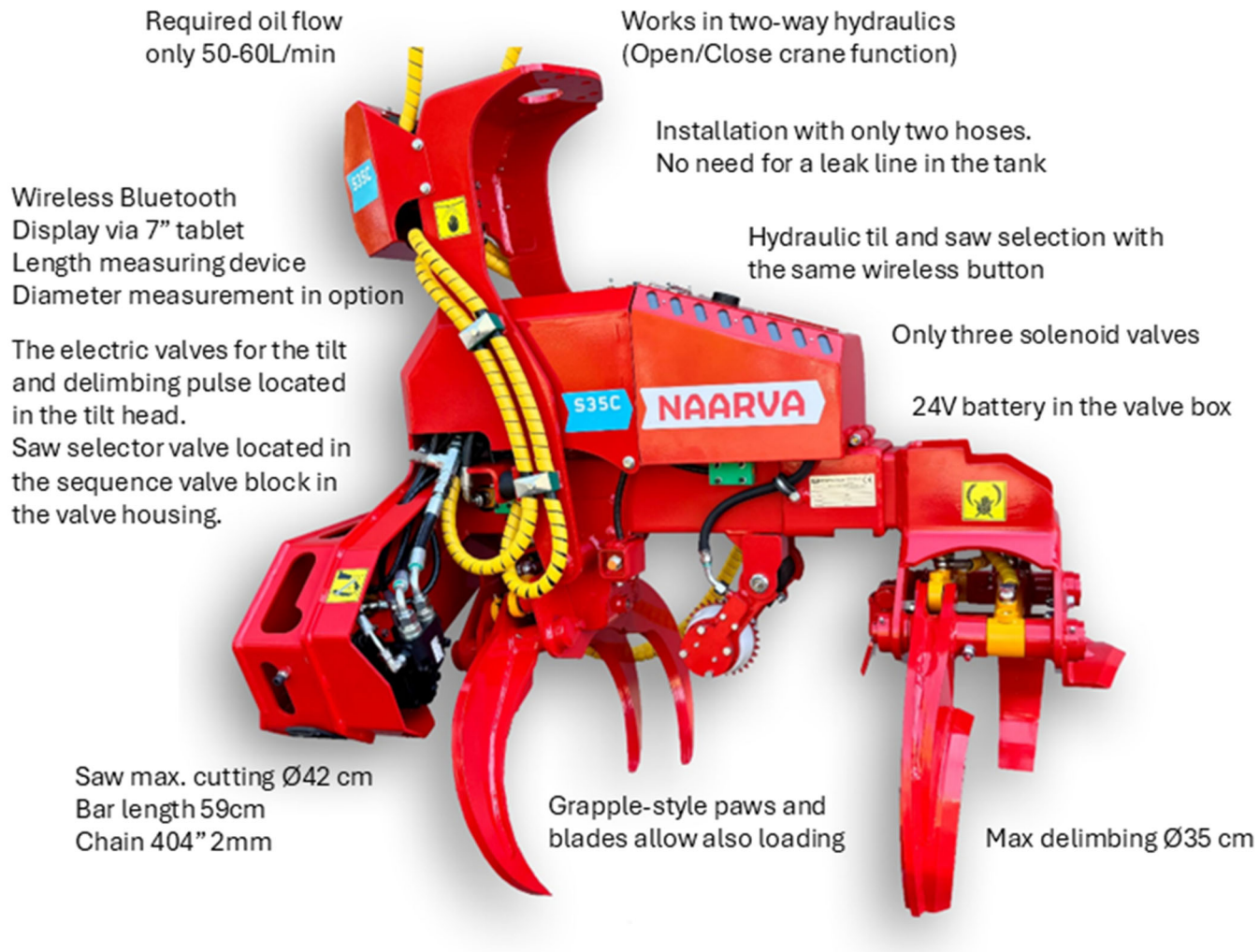
16.9.2025

Offer Attachment – Technical details of Naarva S35C stroke harvester head.



The Naarva S35C saw motor has a displacement of 6 cm3. The optimal saw speed is 10200 rpm, which corresponds to an oil flow of 61 l/min. Short-term maximum speed is 11,200 rpm, corresponding to 67 l/min. The manufacturer states the maximum oil flow rate as 62.4 l/min. The saw can operate with lower oil flow, but the bar speed must be adjusted accordingly. (There is a dedicated control valve for adjusting the saw bar speed in the saw's valve block.).

16.9.2025

Naarva S35C can be installed on cranes with at least 1/2" hoses and Ø16 mm pipes for the grapple closed/open function. The recommended hose size would be 3/4" and pipes Ø22-25 mm.
The grapple open/close valve must allow a flow of 60 l/min without significant pressure loss. The drills for the closed/open function that go through the rotator should be at least Ø9 mm, and preferably Ø12 mm or larger.

The Naarva S35C weighs 340-350 kg. The recommended crane size class is 40 kNm. Minimum 30 kNm.

The Naarva S35C uses the saw motor housing pressure leakage oil for chain lubrication.
A separate chain oil tank and pump is available as an accessory.

Naarva wireless control and Bluetooth measuring device

7" tablet as a measuring device display. Radio control button attached to the crane operating handle.

The Naarva S35C is equipped with a wireless Bluetooth measuring device, which uses a standard 7" – 9" tablet as its display. Any Android or iOS tablet or smartphone can be used as the display.
The free "Crouzet Virtual Display" app is available for download from the App Store or Google Play.

The measuring device software is in the logic unit installed in the harvester head.
Makita XGT 40V 5Ah battery installed in the harvester head supplies 24V via transformer to the measuring unit. A second battery and charger are included in the delivery.

Saw activation and tilt control are operated with a single radio control button, which generates the required electrical signal through the force of the press.
The wireless button does not require power cable or batteries.

16.9.2025

Measurement screen 1.

The measuring device allows for storing eight preset measurements and one adjustable measurement.
The top row of the display shows the measured length. If the stroke harvester is equipped with the optional diameter measurement, the measured diameter will be shown in the upper left corner instead of the word "MEASURED."
The second row displays the target measurement, which is either a preset value or a manually set value copied from the lower row.
The third row shows the adjustable measurement, which can be modified using the touchscreen buttons and saved as a preset.
The bottom row displays sensor data and the selected function (tilt or saw).

In addition to the measurement screen 1, the following screens can be accessed using the ESC button:

- Minimum diameter setting (optional) – the diameter value at which the stroke pauses briefly in the rear position.
- Sensor test – allows checking the functionality of the sensors: Length sensor, Front and rear stroke sensors, Tilt sensor, saw bar home sensor, diameter sensor (if installed as an accessory)
- Measured working time and the total length of intermediate cuts entered since the last reset.

Installation

The Naarva S35C is easy to install in place of a loading grapple using two hydraulic hoses. Flange-type rotators can be mounted directly to the attachment flange using either six or four M16 bolts. For shaft-type rotators, we install a sleeve in the attachment flange to match the customer's rotator.
Although the stroke harvester is pre-adjusted at the factory, it is recommended to perform the initial adjustment according to the user manual to ensure pressure levels match the crane's safety valve settings.

16.9.2025

Operation of the Control and Measuring Device with the Naarva S35C Stroke Harvester

Opening:
The grapple arms and delimbing blades open with the "grapple open" function.
The delimbing head also retracts at the same time.
If you want to prevent the delimbing head from moving, select "SAW" using the wireless button—this opens only the blades and arms.

Tilt Up:
Press the wireless button and activate the "grapple open" function simultaneously to tilt the grapple into the felling position.
The tilt sensor activates the sawing function and disables delimbing.
During lifting, the bottom of the display shows "TILT," and when fully raised, it shows "UP."

Cutting a Standing Tree:
The grapple arms and delimbing blades grip the tree using the "grapple close" function.
When the pressure reaches the set value, the saw starts and performs the cut.
Once the saw bar has passed through the tree, you can perform the felling. When the tree is in a horizontal position, press the 'grapple open' button briefly to return the saw bar to its home position.
You can then start delimbing by first pressing the wireless button and then the "grapple close" button.

Tree Felling:
Pressing the "grapple close" function and the wireless button simultaneously activate the tilt for felling.
For a gentler felling, press only the wireless button.

Delimbing:
Holding the "grapple close" function continuously triggers automatic stroke cycles.
The stroke stops in the front position when the target length set in the measuring device is reached.

Intermediate Cut:
When the stroke movement has stopped, press the wireless button once to select the sawing function.
The bottom of the display shows "SAW."
Once the saw bar has passed through the log, briefly press the "grapple open" button to return the saw bar to its home position, and then press the wireless button once to switch to the delimbing function. Pressing and holding the "grapple close" button will start the delimbing process.

PENTIN PAJA Oy

DOMICILE: Ilomantsi, Finland
BUSINESS ID: 0494834-1
VAT-NUMBER: FI04948341
BANK: OKO PANKKI HELSINKI
SWIFT: OKOYFIHH
IBAN: FI 62 5072 2220 0000 51

JOENSUU FACTORY AND MAIN OFFICE
SALES AND CUSTOMER SERVICE
Pamilonkatu 30
80130 Joensuu, Finland
TEL. +358 13 825 051
E-MAIL : info@pentinpaja.fi

ILOMANTSIN FACTORY
PRODUCTION
Asematie 6A– 6B
82900 Ilomantsi, Finland
TEL. +358 13 825 054

www.naarva.fi

16.9.2025

Ending Delimbing and Dropping the Top:
After all intermediate cuts are completed and you want to drop the top, press the 'grapple close' button until the delimbing head has reached the rear position and starts moving forward. Then press the 'grapple open' button – the blades and grapple arms will open and the delimbing head returns to the rear position.
Next, you can press and hold the wireless button and activate the "grapple open" function – the grapple will tilt upright into the felling position, ready for the next tree.

PENTIN PAJA Oy

DOMICILE: Ilomantsi, Finland
BUSINESS ID: 0494834-1
VAT-NUMBER: FI04948341
BANK: OKO PANKKI HELSINKI
SWIFT: OKOYFIHH
IBAN: FI 62 5072 2220 0000 51

JOENSUU FACTORY AND MAIN OFFICE
SALES AND CUSTOMER SERVICE
Pamilonkatu 30
80130 Joensuu, Finland
TEL. +358 13 825 051
E-MAIL : info@pentinpaja.fi

ILOMANTSIN FACTORY
PRODUCTION
Asematie 6A– 6B
82900 Ilomantsi, Finland
TEL. +358 13 825 054

www.naarva.fi