

NAARVA**S23**

Stroke harvester for tractors and 5-8 ton excavators



Features

- X Felling and delimbing
- X Weight 235 kg
- X Easy installation, no additional hydraulics or electricity.
- X Fast guillotine cutting, 23 cm
- X Controlled with just grapple open/close- valve

Suitable for

- X First thinning
- X Making firewood
- X Energy wood harvesting
- X Integrated harvesting



Lightweight, simple and reasonably priced

Naarva S23 is simple and easy to operate. The required oil flow is only 40 l / min, and installation is easy because additional hydraulics or electricity are not required. All functions are controlled with just grapple open/close- valve. Tilt function is mechanical. The head can be locked in a vertical position with the delimbing stroke. When a tree is cut, the head can be tilted by using the delimbing stroke movement, weight of the tree trunk tilts the head. Delimbing back and forward is done with the grapple open/close- valve. Sequence valves operate grippers and delimbing blades automatically. When the delimbing stroke is in the maximum position and pressure reaches a limit, the cutting blade starts cutting.

Firewood directly after felling



S23 guillotine is designed with decades of experience. Guillotine is strong, reliable and easy to maintain. Cutting blade can be mounted with splitting wedges to make 25-50 cm firewood directly after felling. Wedges are easy to mount and dismount with 3 bolts. Naarva firewood rack can be mounted to three-point linkage of a tractor to hold a firewood bag. Firewood can be made directly to firewood bags after felling.



Model	S23
Weight	235 kg
Delimbing diameter	5-23 cm
Dimensions	Length 91 cm, Width 81 cm, Height 124 cm.
Delimbing length and force	Delimbing stroke 0,5 m. Force 21kN
Delimbing speed	1,1 s / 0,5 m stroke (@55 l/min)
Cutting diameter* and speed**	Max cutting: Ø23 cm Cutting time: 1,7 s
Required pressure	170-200 bar
Required oil flow	40-70 l/min
Control	Grapple open/ close valve
Crane load capacity	Recommended 30 kNm, minimum 25 kNm
Voltage	No electricity required
Warranty	12 months or 1000 hours

All provided values are approximations. The manufacturer reserves the right to make changes in the products. 01/2015

* The max. cutting diameter is approx. 30% lower for hard wood (such as oak and beech). ** Oil flow 55 l/min pressure 170 bar

Accessories

- X Saw cu ng Ø 30 cm
- X Bluetooth length measuring
- X Firewood wedges for guillotine.
- X Stroke adjusting bar for making different length wood 25 50 cm.
- X Extension boom for 5 8 ton excavators
- X Baltrotors high quality rotators and swing dampers

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NAARVA**S23C**

Stroke harvester for tractors and 5-8 ton excavators



Features

- X Felling and delimbing
- X Weight 235-260 kg
- X Easy installation, no additional hydraulics or electricity.
- X Fast saw cutting, 30 cm
- X Controlled with just grapple open/close- valve

Suitable for

- X First thinning
- X Harvesting timber, pulp wood or energy wood



Lightweight and electricity free

Naarva S23C is simple and easy to operate. The required oil flow is only 40 l / min, and installation is easy because additional hydraulics or electricity are not required. All functions are controlled with just grapple open/close- valve. Tilt function is mechanical. When a tree is cut the weight of the tree trunk tilts the head.

Delimbing back and forward is done with the grapple open/close- valve. Sequence valves operate grippers and delimbing blades automatically. When the delimbing stroke is in the maximum position and pressure reaches a limit, the saw starts cutting.

Bluetooth measuring device



Device for wireless length measuring and automatic delimbing. Optional thickness measuring. You can save four pre-set lengths. Device includes a 7" tablet display, two batteries and a charger.

The measuring device itself is located in the harvesting head. Inside a steel casing is a logic control system, a battery and a Bluetooth transmitter. Tablet or a smart phone in the cabin is just a display for the device. You can adjust the cutting length with the tablet on a simple and user-friendly interface.

Model	S23C
Weight	235-260 kg
Delimbing diameter	5-30 cm
Dimensions	Length 91 cm, Width 81 cm, Height 130 cm.
Delimbing length and force	Delimbing stroke 0,5 m. Force 21kN
Delimbing speed	1,1 s / 0,5 m stroke (@55 l/min)
Cutting diameter and speed*	Max cutting: Ø30 cm Cutting time: 1 s
Required pressure	170-200 bar
Required oil flow	40-70 l/min
Control	Grapple open/ close valve
Crane load capacity	Recommended 30 kNm, minimum 25 kNm
Voltage	No electricity required
Warranty	12 months or 1000 hours

* Oil flow 55 l/min pressure 170 bar

Accessories

- X Extension boom package for excavator installations (rotator, link, boom, all required valves)
- X Guillotine cutting as an option, max. cutting 23 cm
- X Baltrotors high quality rotators
- X Links for the rotator

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NAARVA**S25**

A stroke harvester for tractors and 5-8 tn excavators



Features

- X Felling and delimbing
- X Easy installation, no additional hydraulics
- X Effortless and durable guillotine cutting, 25 cm
- X Two stroke movement speeds
- X Radio control option

Suitable for

- X First thinning
- X Firewood timber
- X Energy wood harvesting
- X Integrated harvesting



An economic stroke harvester

The Naarva stroke harvester is a reliable and efficient tool for forest owners and small contractors. It is designed for use in first thinning, production of firewood timber, and energy wood harvesting. Delimbing facilitates integrated harvesting also. With a stroke harvester, the first thinning is completed productively and without damaging the forest. The head is only 80 cm wide in the felling position, which makes it easy to operate in young forests. Radio control also allows for the free rotation of the grapple, which contributed to the ease of working in tight and narrow places such as first-thinning forests.

Guillotine patented Naarva technology

Strong guillotine



When cutting, grippers close around the tree and an 8mm blade made of wear-resistant steel cuts through the tree. The cutting surface is smooth and even because the trees are always cut against the grippers. The guillotine slides along a sliding bar and puts no strain on the other structures of the stroke harvester regardless of the thickness of the cut trees.

The blade is not easily damaged or lose its sharpness, which means that the trees can be cut very close to the ground. Low stumps do not damage the tyres of the tractor and no valuable wood is left in the forest. The maintenance of Naarva stroke harvesters mainly consists of greasing the joints.

Production code	S25
Weight	300 kg
Delimbing diameter	5-25 cm
Width	80 cm
Delimbing force	10kN – 21kN
Delimbing speed	0,5-0,7 m/s
Cutting diameter*, power, and speed**	Max cutting: Ø25 cm Cutting force: 108 kN Cutting time: 1,7s
Required hydraulic pressure	170-200 bar
Required oil flow	40-70 l/min
Warranty	12 months or 1000 hours
Control system	Cable control with 4 buttons
Voltage	12V or 24V
Crane load capacity	Recommended 40 kNm, minimum 30kNm

All provided values are approximations. The manufacturer reserves the right to make changes in the products. 01/2015

* The max. cutting diameter is approx. 30% lower for hard wood (such as oak and beech). ** Oil flow 55 l/min pressure 170 bar

Accessories

- X Radio control with various control options
- X Extension boom for 5-8 ton excavators, 1m reach.
- X Baltrotors rotators
- X Links for the rotator
- X Spare part packages

For more information: www.naarva.fi

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NAARVA**K24**

Felling head for tractors and agricultural cranes



Features

- X Electricity free control
- X Excellent loading properties
- X Quick guillotine cutting, Ø 24 cm
- X Easy to install, no additional hydraulics

Suitable for

- X Harvesting energy wood and small wood
- X First thinning
- X Clearing bushes and road sides



Easy to mount and easy to use

Naarva K24 felling head goes to the place of a loading grapple. It can fell, cut and load trees. It does not require additional hydraulics or electricity. Sequence valves operate cutting and tilt function automatically. The cutting guillotine is maintenance free. Only maintenance required is greasing the nipples.



Model	K24
Weight	2 kg
Grapple opening	60 cm
Cutting	Ø 24 cm* 1,2 s**
Required pressure	170-200 bar
Required oil flow	40-70 l/min
Warranty	12 months or 1000 hours
Control	Grapple open / close function
Voltage	Felling head requires no electricity

* For hard tree species maximum cutting diameter is 30 % smaller ** Oil flow 70 l/min

Accessories

- x Extension boom kit for 5 8 ton excavators, 1,5 meter extension
- x Baltrotors GR46 rotator
- x Link or swing damper for rotator
- x Accumulating grippers

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NAARVA**K25**

A felling head for forwarders, 5-8 ton excavators and truck loader cranes



Features

- x Excellent loading properties
- x efficient guillotine cutting, 25cm
- x Easy installation, no additional hydraulics or hosing
- x Radio control option

Suitable for

- x Felling of single trees
- x Clearing of bushes & roadsides
- x Removal of problem trees
- x Loading



Effortless felling and loading

Naarva K25 is easy to install for example in the place of forwarders own loading grapple and to be used for felling, collecting, cutting and loading of trees, bushes and branches. K25 is also suitable for truck loader cranes for:

- x Removing problem trees in urban areas and residential plots x
- Removing hedges, old poles, and posts
- x Shortening branches
- x Cutting and lifting of trees fallen on power lines, roads, and buildings



Production code	K25
Weight without a rotator	300 kg
Height in felling position	90 cm
Grapple opening	90 cm
Cutting diameter*, force and time**	Max. cutting: Ø 25 cm 95 kN, 1,8 s
Required hydraulic pressure	170-200 bar
Required oil flow	40-90 l/min
Warranty	12 months or 1000 hours
Control system	Cable control with 3 buttons or radio control
Voltage	12V or 24V

All provided values are approximations. The manufacturer reserves the right to make changes in the products. 07/2016

*The max. cutting diameter is approx. 30% lower for hard wood (such as oak and beech). **With 90 l/min oil flow

Features

- x Safe felling, loading and cutting of trees in city areas and parks
- x Easy to mount, operated with a two-directional valve and radio control buttons.
- x Naarva guillotine maximum cutting diameter Ø 32 cm



Versatile harvesting equipment for truck loader cranes

Naarva felling heads provide truck loader cranes with various new working methods:

- removing problem trees in urban areas and residential plots -
- removing hedges, old poles, and posts
- shortening branches
- cutting and lifting of trees fallen on power lines, roads, and buildings

Trees and bushes that have been cut down can be lifted onto the bed of a truck directly, which makes harvesting safe and efficient in areas of restricted access. Thanks to the long extension capacity of the loader crane, all trees can be cut into sections from the top down, regardless of their height.

Safe, robust guillotine cutting



All Naarva felling heads are equipped with an efficient guillotine that cuts the wood with a single blade. The 12 mm thick blade is made of wear-resistant steel. Guillotine is maintenance free. Only maintenance required is greasing the joints. Guillotine is a safe and trouble free device for cutting trees.

Model	K25	K32
Weight	300 kg	500 kg
Max. cutting Ø*	25 cm	32 cm
Cutting force	95 kN @ 180 bar	140 kN @ 200 bar
Height	90 cm	122 cm
Opening	90 cm	90 cm
Required hydraulic pressure and oil	170-200 bar	170-200 bar

*maximum cutting can be smaller with hard wood

- x Naarva radio control
- x Baltrotors rotators and swing damper
- x Custom made boom ends for truck cranes

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NAARVA**E24**

Energy wood head for tractors and agricultural cranes



Features

- X Electricity free control
- X Accumulating grippers
- X Excellent loading properties
- X Quick guillotine cutting, Ø 24 cm
- X Easy to install, no additional hydraulics

Suitable for

- X Harvesting energy wood and small wood
- X First thinning
- X Clearing bushes and road sides



Easy to mount and easy to use

Naarva E24 felling head goes to the place of a loading grapple. It can cut, collect and load trees. It does not require additional hydraulics or electricity. Sequence valves operate cutting, accumulating and tilt function automatically. The cutting guillotine is maintenance free. Only maintenance required is greasing the nipples.



Model	E24
Weight	260 kg
Grapple/ grippers opening	60 cm
Cutting diameter* and speed **	Ø 24 cm 1,2 s
Required pressure	170-200 bar
Required oil flow	40-70 l/min
Warranty	12 months or 1000 hours
Control	Grapple open / close valve
Voltage	Felling head requires no electricity

* For hard tree species maximum cutting diameter is 30 % smaller ** Oil flow 70 l/min

Accessories

- x Extension boom kit for 5 8 ton excavators, 1,5 meter extension
- x Baltrotors GR46 rotator
- x Link or swing damper for rotator
- x Accumulating grippers

For more info on accessories: www.naarva.fi

www.naarva.fi

NAARVA**E25**

An accumulating energy wood head for forwarders, small harvesters and 5-15 ton excavators



Properties

- x Stable handling even with large bundles
- x Excellent loading properties
- x efficient guillotine cutting, 25-28cm
- x Easy installation, no additional hydraulics or hoses
- x Radio control option

Suitable for

- x Energy wood harvesting
- x Small wood harvesting by accumulation
- x Clearing of electricity lines, road sides and field edges



Efficiency for different purposes

The modular structure of the Naarva grapple and the various frame, guillotine, and accumulating grip size options facilitate customisation based on the base machine and the intended purpose. Hydraulics designed for small harvesters in particular are available as an option. In harvester version, hydraulics system is integrated inside of the accumulating unit which makes it possible to control Naarva with harvesters own steering system.

Accumulating gripper options

BASIC ACCUMULATING GRIPPER

- X Wide accumulating gripper for larger tree groups or bushes
- X Efficient for roadside clearing
- X Opening 90 cm
- X Suitable for forwarders and excavators

HARVESTER MODEL

- X Size and properties are similar with basic model
- X Casing for harvester hydraulic equipment is in the accumulating gripper

Guillotine options

STRONG - MAXIMUM CUTTING POWER

- X Traditional Naarva guillotine
- X Two phase cutting:
 1. Grippers close around the tree
 2. Cutting cylinder pushes the blade through the tree
- X Max. cutting Ø25 cm

FAST - PRODUCTIVITY WITH SMALLER TREES

- X New innovative Naarva guillotine
- X Cuts with one stroke:
 1. Grippers close around the tree and force the blade through the wood
- X Max. cutting Ø28 cm

	Strong guillotine, forwarder hydraulics	Strong guillotine, harvester hydraulics	Fast guillotine, harvester hydraulics
Production code	EL25	EH25	EH28
Weight	390 kg	430 kg	490 kg
Height in felling position	95 cm	95 cm	105 cm
Opening of loading grapple/accumulating grippers	90 cm / 90 cm	90 cm / 90 cm	90 cm / 90 cm
Cutting diameter*, force and time**	Max. cutting: Ø 25 cm Cutting force: 95 kN Cutting time: 1,8s		Max. cutting: Ø 28 cm Cutting force: 60 kN Cutting time: 1,4s
Required pressure	170-200 bar		
Required oil flow	50-90 l/min forwarder hydraulics, 50-160 l/min harvester hydraulics		
Warranty	12 months or 1000 hours		
Control system	Cable control with 3 buttons		
Voltage	12V or 24V		

*The max. cutting diameter is approx. 30% lower for hard wood (such as oak and beech). ** With oil flow 70 l/min

All provided values are approximations. The manufacturer reserves the right to make changes in the products. 04/2011.

Accessories

- X Radio control with various transmitter options
- X Extension boom for 8-15 t excavators, also with hydraulic extension boom
- X Flat face quick couplings
- X Rotator FR10 / FR15 / FR21
- X Suitable link for rotator
- X Spare part packages
 - The basic wear and tear part package including seal kits, rubber dumper, valve connectors
 - Wide spare part package including basic package + spare parts for valves and complete hose set

For more information: www.naarva.fi

www.naarva.fi

NAARVA**E32**

An accumulating energy wood head for harvesters and 10-20 ton excavators



Properties

- x Stable handling even with large and high bundles
- x Efficient guillotine cutting, 28 32 cm
- x Suitable for various base machines and steering systems
- x Stump treatment as an accessory

Suitable for

- x Energy wood harvesting by accumulation
- x Small wood harvesting in bundles
- x Clearing of electricity lines, roadsides and field edges



Productivity for professionals

The modular structure of the Naarva grapple and the various frame, guillotine, and accumulating grip size options facilitate customisation based on the base machine and the intended purpose. Naarva E32 is the largest and most efficient accumulating Naarva.

Hydraulic system and controls of Naarva E32 can be easily customised to be compatible with the control system of most base machines. The Naarva control system is also available as an option. Rotator can also be controlled by a valve in the grapple. Both guillotine options can be equipped with an accessory stump treatment equipment

Accumulating gripper options

EXTRA HIGH - FOR LONGER STEMS

- x Stable handling with long stems and bundles
- x Better suitability for sliding booms and knuckle boom cranes.
- x Opening 90 cm

BASIC - LOW STRUCTURE AND LARGE CAPACITY

- x Wide accumulating grip for larger tree groups or bushes
- x Low structure is suitable for parallel cranes
- x Opening 90 cm

Guillotine options

ROBUST - MAXIMUM POWER FOR CUTTING

- x Traditional Naarva guillotine
- x Two phase cutting
 1. Grippers close around the tree
 2. Cutting cylinder pushes the blade through the wood
- x Max. cutting Ø 32 cm

FAST - MORE PRODUCTIVITY

- x New innovative Naarva guillotine
- x Cutting with one movement
 1. Grippers close around the

	Robust guillotine, basic accumulating gripper	Robust guillotine, extra high accumulating gripper	Fast guillotine, basic accumulating gripper	Fast guillotine, extra high accumulating gripper
Production code	E32	EX32	E28	EX28
Weight	560 kg	600 kg	560 kg	600 kg
Height in felling position	122 cm	165 cm	126 cm	169 cm
Opening of loading grapple/ accumulating grippers	90 cm / 90 cm	90 cm / 90 cm	90 cm / 90 cm	90 cm / 90 cm
Cutting diameter*, force and time**	Max cutting: Ø32 cm Cutting force: 140 kN Cutting time: 1,7-2,2 s		Max cutting: Ø28 cm Cutting force: 60 kN Cutting time: 0,8 s	
Required pressure	170-200 bar			
Required oil flow	80-160 l/min			
Warranty	12 months or 1000 hours			
Control system	Base machines own controls or Naarva control system			
Voltage	12V or 24V			

* The max. cutting diameter is approx. 30% lower for hard wood (such as oak and beech). ** With oil flow 160 l/min

Accessories

- X Hydraulic system for one way harvester hydraulics. Hydraulic system for two way hydraulics is also available.
- X Extension boom for 10-20 ton excavators, also hydraulic extension boom with 1,5 m stroke
- X Quick coupling set
- X Suitable link for rotator
- X Hose sets
- X Spare part packages
 - Basic wear and tear part package including rubber dampers, coils, valve connectors, seal kits for cylinders, accumulating gripper springs.
 - Wide spare part package including basic package and spare parts for valves
 - Pro package including wide spare part package and spare cylinders

For more information: www.naarva.fi

NAARVA

EV38 FELLING HEAD

HEAVY DUTY FELLING HEAD FOR EXCAVATORS



Naarva KV38 without collecting grippers

Features

- x Strong 38 cm cutting guillotine. x Weight 990 kg.
- x Accumulating grippers for collecting bundles of trees.
- x Large grip opening 158 cm.
- x Fixed mounting to the place of bucket

Suitable for

- x Cleaning road sides, field edges and ditches.
- x Harvesting small wood.
- x Removing problem trees



EV38 TECHNICAL SPECIFICATION

Model	EV38 (KV38 without accumulation)
Weight	950 kg
Height	90 cm
Grip/upper grippers opening	158 cm / 90 cm
Cutting diameter	Ø 38 cm
Maximum hydraulic pressure	250 bar
Required hydraulic oil flow	80 l/min
Warranty	12 kk
Control	4/3 directional valve

NAARVA**EF28**

Feeding energy wood head for harvesters, 14-20 ton excavators, and combi machines

Designed to meet the most current energy wood and small wood harvesting and handling requirements



Features

- X Efficient multi tree handling, cutting and accumulation
- X Non slipping feeding, delimbing in bunches
- X Quick guillotine cutting, 28 cm
- X Length measuring
- X Reliable hydraulics
- X A simple and cost effective automation system



Suitable for

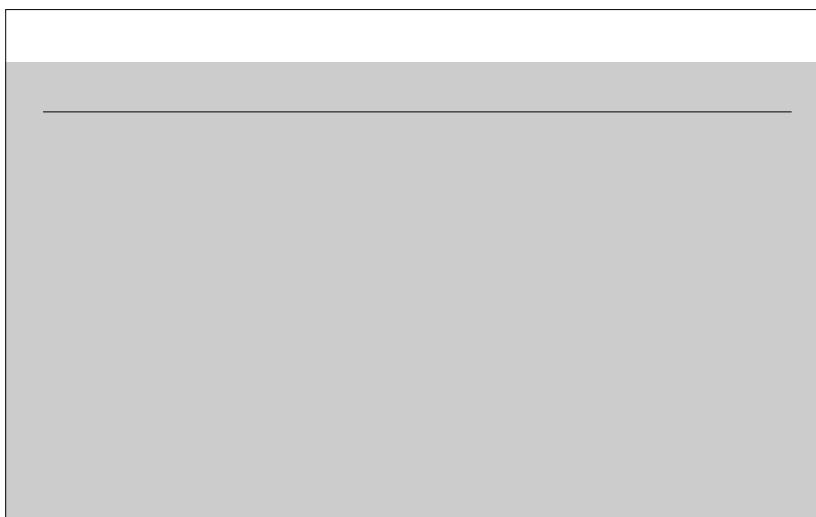
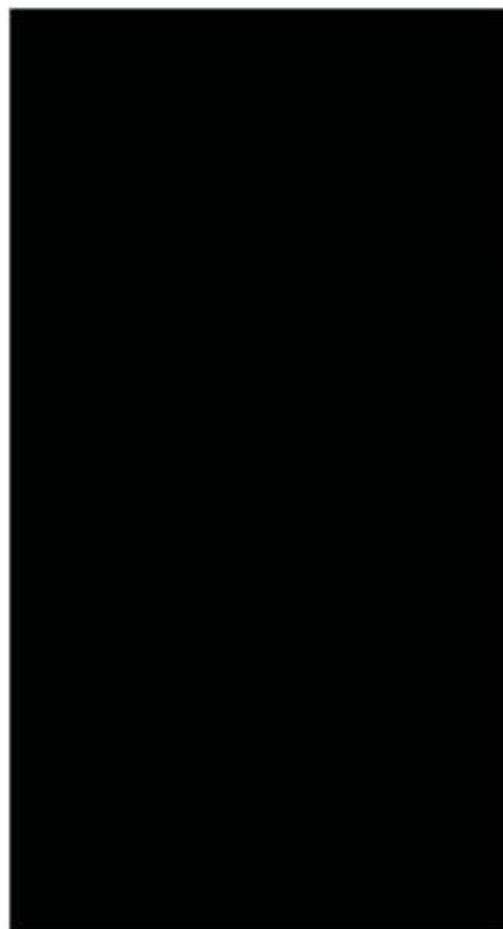
- X Integrated harvesting
- X Energy wood harvesting
- X First thinning

- 1 Reliability and cost-efficiency**
 - X A compact and durable structure, made of high strength steel
 - X Hydraulics and automation designed for integrated harvesting
 - X Economic fuel consumption
- 2 Multi-tree handling & accumulation**
 - X High capacity multi tree handling grippers
 - X Loading grapple type delimbing blades
 - X The feeding rollers open sideways for easier accumulation
- 3 Delimbing**
 - X A very wide opening, 83 cm
 - X The open shape of the upper blade provides perfect operation when delimbing bunches
 - X Delimbing diameter 4 42 cm
- 4 Feeding**
 - X Smooth, non slipping feeding
 - X Low pressure requirements for feeding
 - X Length measuring has been integrated with the feeding
 - X Feeding diameter 2 39 cm
 - X Controlled lifting of the tree
- 5 Cutting**
 - X New, fast guillotine cutting
 - X Max. cutting diameter: 28 cm
 - X Full cutting power is maintained throughout the entire movement.
 - X The cutting surface is clean and even.
 - X Stump treatment is available as an option.

Production code	EF28
Weight	700 kg
Height in felling position	116 cm
Grapple opening	83 cm
Delimbing diameter	4-42 cm
Feeding speed / Feeding force / Feeding diameter	4 m / s 13 kN 2-39 cm
Cutting diameter*, force and time**	Max. cutting: Ø 28 cm Cutting force: 240 kN Cutting time: 0,7 s
Required pressure	240 bar
Required oil flow	170 l / min
Warranty	12 months or 1000 hours
Control system	Harvesters own control system or Naarva-automatic with radio control
Voltage	12V or 24V

All provided values are approximations. The manufacturer reserves the right to make changes in the products. 04/2011

* The max. cutting diameter is approx. 30% lower for hard wood (such as oak and beech). **
With 200 l/min oil flow



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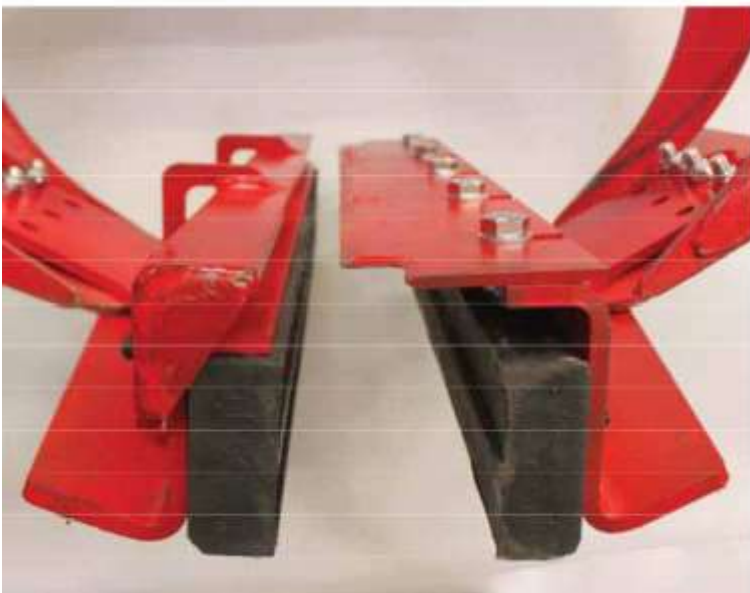


- x Accessory for loading grapple to remove unwanted vegetation
- x Rubber jaws squeeze unwanted vegetation and root them out of the ground
- x Jaws are available with or without a cutting blade
- x Cutting blade cuts the vegetation in addition to uprooting

Get rid of unwanted vegetation

Uprooting jaws are easy to mount and dismount to a loading grapple. Bolt mounting fits all grapples. Cutting blade is also removable.

- x Single treatment clears vegetation permanently
- x Mechanized simple solution for removing weeds, seedlings and bushes



Model	P05	P05G
Cutting blade	N/A	Included
Weight	58 kg	78 kg
Jaw width	76 cm	76 cm
Suitable for	All grapples exl. energy wood grapples	All grapples exl. energy wood grapples
Warranty	12 months	12 months



Uprooter for tractors and 5-8 ton excavators



- x Uprooter is mounted to a tractor loader to the place of the loading grapple
- x Uprooter squeezes the unwanted vegetation between its rubber jaws and roots them out of the ground.
- x Uprooted vegetation does not resprout



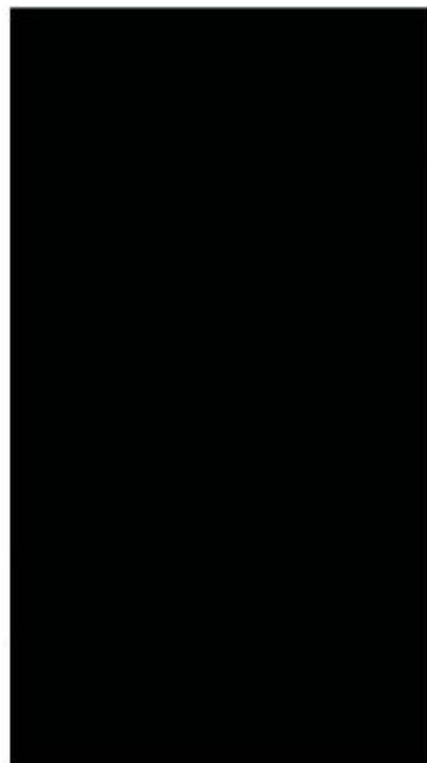
Get rid of roadside vegetation

Uprooter is easy to mount and dismount to the place of a loading grapple. Uprooting is a great way to clean field edges, roadsides and bushes. Powerful jaws can uproot even the biggest bushes.

At uprooted sites the seedlings do not re-sprout. Fewer treatments are required compared to saw cutting.



Model	P16
Weight	270 kg
Height	125 cm
Uprooting area per stroke	1.6 m ²
Rubber jaws opening	125 cm
Required pressure	180 bar
Required oil flow	30-50 l/min
Warranty	12 months or 1000 hours
Control system	Grapple open/close valve from base machine
Voltage	12 V or 24 V



Accessories:

For more info: www.naarva.

www.naarva.fi

NAARVA

Mounding bucket for excavators

Fast mounding with hydraulic turning plate



Mounding before planting

Mounding the soil gives seedlings the greatest chance of survival and the best growth potential.

Bucket is used to invert the soil and then it is compressed with the hydraulic plate. This enables warmer soil temperatures during the growing season and greater nutrient availability for the seedling.

Mounding bucket is equipped with a hydraulic turning plate, which enables faster mounding compared to a regular excavator bucket.

Select wide or narrow model



Narrow model
Plate width 55 cm
Weight 480 kg



Wide model
Plate width 74 cm
Weight 580 kg



MOUNDING BUCKET - TECHNICAL SPECIFICATIONS

Model	Mounding bucket, narrow	Mounding bucket, wide
Weight	480 kg	580 kg
Width of the turning plate	55 cm	74 cm
Height	100 cm	100 cm
Maximum pressure	250 bar	250 bar
Required oil flow	100 l/min	100 l/min
Warranty	12 months or 1000 h	12 months or 1000 h
Control system	Excavator's control system Requires one available valve	Excavator's control system Requires one available valve

Accessories

www.naarva.fi

NAARVA

automatic ESJWF for S23 or S23C



Features

- x Automatic delimbing
- x Enables continuous delimbing when grapple close-function is pressed

Suitable for

- x Naarva S23C or S23 stroke harvester

Automatic delimbing for S23 or S23C harvester

Automatic control makes it easier to operate Naarva S23 and S23C harvesting heads. Driver does not have to manually change the direction of delimbing. Sensor detects when stroke movement is in the far end. It commands a directional valve to change the direction of delimbing movement. Driver can delimb the trunk to desired length by just pressing grapple close-function. When the desired length is reached, driver uses grapple open-function to cut the tree.

Sensors and the directional valve for automatic control are battery powered. Control package includes a charger and two batteries. Driver can always disconnect the battery and operate S23 or S23C manually if required. Control system does not affect normal operation in any way.



TECHNICAL SPECIFICATIONS

Product	Naarva automatic ESJWF with relay
Contents	Control system in protective casing, directional valve, two batteries and a charger, inverter for charger, required sensors
Control system	Relay and a directional valve

NAARVA

automatic control with display



Features

- x Automatic delimbing and cutting to length by counting delimbing strokes
- x You can set desired amount of strokes before cutting
- x Tablet 7" display via Bluetooth connection

Suitable for

- x Naarva S23C or S23 stroke harvester

Wireless control system for harvesting head

Automatic control system is compatible with Naarva S23C or S23 harvesting head.

The control system is located in the harvesting head. Inside a steel casing is a logic control system, a battery and a Bluetooth transmitter.

Tablet in the cabin is just a display for the device. You can adjust the amount of desired delimbing movements with the tablet on a simple and user-friendly interface.



Product	Naarva automatic control with display for S23 or S23C
Cutting length	You can set the amount of delimbing strokes before cutting
Display	Lenovo 7" tablet
Contents	Control system in protective casing, display, two batteries and a charger, inverter for charger, required sensors, directional valve
Control system	Crouzet Millenium 3 programmable logic control

NAARVA

MVFUPPUI measuring device



Features

- x Length measuring, automatic delimbing and cutting to length
- x You can pre-set four different lengths
- x Tablet 7" display via Bluetooth connection

Suitable for

- x Naarva S23C or S23 stroke harvester

Wireless cut-to-length harvesting head

Bluetooth measuring device is compatible with Naarva S23C or S23 harvesting head. Naarva S23C is a simple and lightweight harvesting head for tractors and 5-8 ton excavators.

The measuring device itself is located in the harvesting head. Inside a steel casing is a logic control system, a battery and a Bluetooth transmitter.

Tablet or a smart phone in the cabin is just a display for the device. You can adjust the cutting length with the tablet on a simple and user-friendly interface.



Product	Naarva #MVFUPPUI measuring device
Length measuring	Pulse encoder in the measuring wheel
Display	” tablet
Contents	Control system in protective casing, measuring wheel, display, two batteries and a charger, inverter for charger, required sensors
Control system	Crouzet Millenium 3 programmable logic control



NAARVA

radio control



Features

- x Wireless control for Naarva felling head or stroke harvester

Suitable for

- x Naarva K20, K25, K32, E20, E25, S25, S25R models

Get rid of cables with radio control

Radio package replaces the cable control in Naarva felling head or stroke harvester. Transmitter has 4 on/off buttons. Holder for the transmitter is included in the delivery.

NAARVA TECHNICAL SPECIFICATIONS

Product	Naarva radio control
Contents	Receiver in protective casing, two batteries and a charger, transmitter with 4 buttons, inverter for charger
Voltage	12 V 12 Ah battery

NAARVA

radio control with mini buttons



Features

- x Wireless control for Naarva felling head or stroke harvester
- x Mini buttons in rubber holder that can be fit to a control lever

Suitable for

- x Naarva K20, K25, K32, E20, E25, S25, S25R models

Get rid of cables with radio control

Radio package replaces the cable control in Naarva felling head or stroke harvester. Transmitter has 4 on/off buttons. Mini buttons are especially suitable for forwarders. Mini buttons can be fit to control levers for agronomical use.



Product	Naarva radio control with mini buttons	12/201 5
Contents	buttons and a separate transmitter, inverter for charger Receiver in protective casing, two batteries and a charger, transmitter with 4 mini	RIGHT TO CHANGES
Voltage	12 V, 12 Ah battery	MANUFACTURER

Press buttons in aluminium casing

Optional buttons for radio control. Instead of mini buttons you can have press buttons in aluminium casing.



NAARVA

Firewood rack - bag holder



Firewood directly to bag

- x Simple firewood rack for 3-point linkage of a tractor or skid-steer loaders. x
- Firewood bag is easy to hang to the rack
- x Bag comes off by lowering it to the ground and releasing bag straps from hooks.
- x Splitting standing trees directly to bag with Naarva S23 harvester is the most straight forward method for making firewood



Product	Firewood rack QJQF NPEFM
Weight	150 kg
3-point linkage	CAT 2 or CAT 3
Warranty	12 Months
Height	Adjustable

Naarva videos

VIDEOS OF NAARVA PRODUCTS AVAILABLE IN YOUTUBE:
"NAARVA" OR HOMEPAGE WWW.NAARVA.FI

www.naarva.fi

NAARVA

quick coupling



Features

- x Quick coupling between rotator and felling head or grapple

Suitable for

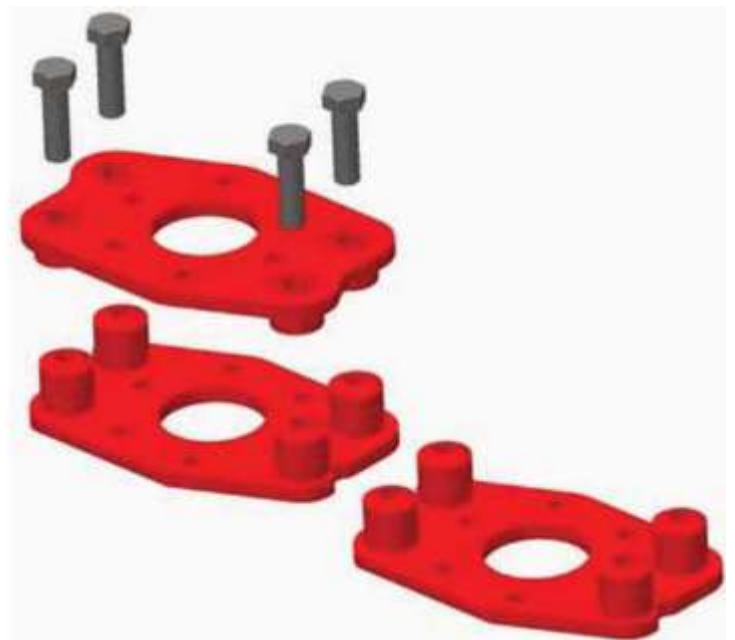
- x Small coupling set for Naarva models up to 400 kg
- x Large coupling set for Naarva models 400-700 kg

Quick switch between grapple and Naarva

Quick coupling set enables quick switch between Naarva and loading grapple. Go from felling to loading in a heartbeat. Easy connecting and 4 bolts for mounting.



Small coupling set



Large coupling set



TECHNICAL SPECIFICATIONS

Product	Naarva small quick coupling	Naarva large quick coupling
Contents	One male part for rotator, female parts for grapple and Naarva. 4 pcs M16x80 (10.9) mounting bolts.	One male part for rotator, female parts for grapple and Naarva. 4 pcs M24X90 mounting bolts.
Rotator mounting	6 holes, 17 mm diameter, 173 mm circle. 4 bolt rotator mounting available on request	6 holes, 17 mm diameter, 173 mm circle
Weight	10 kg	17 kg

NAARVA

S23 guillotine



Features

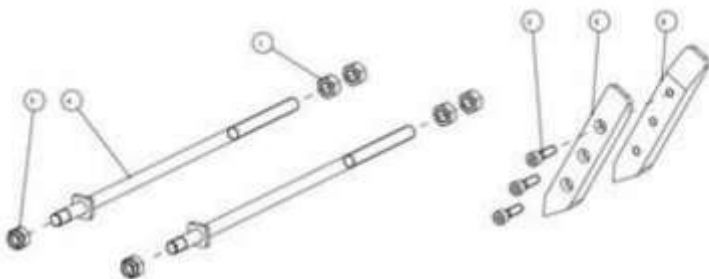
- x Strong, durable cutting up to Ø 23 cm (9'') thick trees.
- x Smooth cutting surface
- x Guillotine blade is care free
- x Firewood splitting wedges as an accessory

Suitable for

- x S23 or S23C harvesting head.
- x Fits directly to the place of S23C saw unit.

Maintenance free felling with guillotine

Guillotine unit fits Naarva S23 and S23C harvesting heads. It can cut up to 23 cm (9'') thick trees. Maximum cutting is 30 % smaller with hard wood species such as oak or beech. Cutting surface is smooth and clean. Maintenance of guillotine only includes daily greasing and sharpening of blade once a month. Guillotine blade can be fit with firewood wedges to split firewood directly after felling. Wedges are mounted with 3 bolts.



Limiting rods for 25-35 cm firewood and wedges.



Guillotine with firewood wedges

NAARVA TECHNICAL SPECIFICATIONS

Product	S23 guillotine cutting unit
Maximum cutting*	Ø 23 cm (9'')
Cutting force and time	108 kN, 1,7 s (oil flow 55 l / min, 170 bar)
Contents	23 cm cutting blade, guillotine frame, Ø 90 mm cylinder, required hydraulic hoses and valves.
Accessories	Firewood wedges for splitting firewood. Limiting rods to limit delimbing stroke for 25 - 35 cm firewood
Weight	90 kg

MANUFACTURER RESERVES RIGHT TO CHANGES 12/2015

Maximum cutting is 30 % smaller with hard wood such as oak and beech.

NAARVA

S23C saw unit



Features

- x Fast saw cutting up to Ø 30 cm (12'') thick trees.

Suitable for

- x S23 or S23C harvesting head.
- x Fits directly to the place of S23 guillotine unit

Fast cutting with S23C saw unit

Saw unit fits Naarva S23 and S23C harvesting heads. It can cut up to 30 cm (11'') thick trees. Saw engine is hydraulic and 5 cl engine runs even with very low oil flow (50 l / min).



NAARVA TECHNICAL SPECIFICATIONS

Product	C30 saw unit for S23C or S23 harvester
Maximum cutting*	Ø 30 cm (12'')
Cutting time	1 s (oil flow 55 l / min, 170 bar)
Contents	18'' saw bar, 2 mm chain with 58 links, saw unit frame, 5 cl saw engine, required hydraulic hoses and valves.
Control	Operated hydraulically from S23 or S23C valve block.
Weight	90 kg

NAARVA

extension boom kit for 5-8 ton excavators



Features

- x Boom with rotator and valves
- x Mounting to the place of bucket. Available with all bucket coupling types.
- x Support foot helps moving around with excavator.

Suitable for

- x 5 - 8 ton excavators

Easy and effortless installation

Extension boom mounts like a digging bucket. It is available with all most common bucket coupling types. Extension boom kit is a complete installation kit ready for use.

Excavator has high pressure. That is why the pressure is reduced with a double safety valve to 170-200 bar. You need two-way hydraulics to control Naarva and the rotator. Naarva harvesters and felling heads require only one two directional valve for control.

Rotator also requires a two-directional valve. Most excavators don't have an extra valve for the control of rotator. Extension boom kit includes a 6-way valve that guides the oil flow to rotator instead of Naarva when a button is pressed.



Baltrotors GR46 rotator



Press button, 6 way valve and double safety valve





TECHNICAL SPECIFICATIONS

Product	JP23 extension boom	JP25 extension boom
Reach	125 cm	156 cm
Total length	204 cm (foot 85 cm, boom 125 cm)	252 cm (foot 103 cm, boom 156 cm)
Weight	200 kg	207 kg
Contents	Boom with support foot, suitable bucket coupling, Baltrotors GR46 rotator and swing damper, 6-way valve and press button for rotator, safety valve	Boom with support foot, suitable bucket coupling, Baltrotors GR46 rotator and swing damper, 6-way valve and press button for rotator, safety valve
Control	1 press button for rotator. Cable must be drawn from boom to cabin.	1 press button for rotator. Cable must be drawn from boom to cabin.
Warranty	12 months	12 months