



NISULA
THE FUTURE OF EFFICIENT LOGGING



NISULA OPTIONAL EQUIPMENT





NISULA FOREST OY

Nisula Forest Oy was established in 1978 with mechanical timber harvesting as its field of business. The company started as a contractor and operated with ten machines. Gradually, the main focus shifted to the manufacturing of forestry machinery.

Our products are the result of decades of experience in both practical harvesting work and product development and design. We have developed forestry machines and accessories since the very beginning. The first forwarder was made for the Company's own use in 1978, a tail processor in 1981, and a grapple processor in 1984. Collaboration with other machine manufacturers started in 1986, when Nisula designed the HN125 motorised crane for Ponsse. A few years later, Nisula designed and made the prototypes for Ponsse's H53 and H73 harvester heads.

At the turn of the millennium, Nisula started collaboration with Partek Forest. The multi-purpose harvester heads designed by Nisula and the company's strong experience in combi machines provided a good basis for collaboration. As the result, Nisula manufactured harvester heads and multi-purpose heads for Valmet forestry machines for several years.

In 2005, Nisula started to build a retail network of its own.



NISULA OPTIONAL EQUIPMENT

EQUIPMENT AND ACCESSORIES THAT FACILITATE WORK

Nisula Forest Oy was established in 1978 with mechanical timber harvesting as its field of business. The company started as a contractor and operated with ten machines. Gradually, the main focus shifted to the manufacturing of forestry machinery. Our products are based on decades' experience in both practical harvesting work and product development. Based on our experiences, we have also developed equipment and accessories that facilitate work in the forest. The Nisula chain holders, track tensioners and hose swivels are well known accessories among forest machinery experts throughout the world.

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PARALLEL CRANES FOR TIMBER HARVESTERS

Nisula parallel cranes (P99, P99T and P100) are made of ultra-strong steel and designed especially for thinning. Their weight/efficiency ratio is excellent. High-quality materials and carefully selected components ensure a high utilisation rate. The perfect motion paths of the booms and carefully designed dimensioning ensure that the head is always at the right height for the operation. The Nisula parallel crane range consists of three different models.

Each model has Nisula's dual swing damper as standard equipment. We offer a 10-metre-reach crane without a boom extension and 10.3 -metre-reach with a hydraulic boom extension. We also offer the Parker L90 valve block for our parallel cranes. The carefully dimensioned valve stems combined with precise crane control make the cranes effortless to use. Each motion can be adjusted separately via the display screen of the measuring device. The NCC control system has a potentiometer adjustment function, which allows easy scaling of the motion speed of the crane between 50 and 100%.



NISULA P99 **MORE REACH WITHOUT HYDRAULIC TELESCOPE**

Thanks to its fixed outer boom, the net lifting capacity of the Nisula P99 parallel crane is excellent in relation to its weight. It is also an ideal choice for lighter thinning harvesters.

TECHNICAL INFORMATION

Weight, kg	1560
Reach, m	10
Hydraulic boom extension	no
Swing torque, gross, kN	25
Lifting torque, gross, kN	130
Lifting capacity	5 m, kg 2100
	8 m, kg 1150
	9,9 m, kg 720



NISULA P99T EXTRA REACH FOR THINNING

The P99T crane is equipped with a hydraulic boom extension enabling 10.3-metre reach. The crane's lifting capacity in relation to the weight is optimum and sufficient for the entire motion range. This ensures effortless harvesting.

TECHNICAL INFORMATION

Weight, kg	1690
Reach, m	10,3
Hydraulic boom extension	yes
Swing torque, gross, kN	31
Lifting torque, gross, kN	130
Lifting capacity, 10m, kg	660



NISULA P100 LIGHT & POWERFUL

Thanks to its fixed outer boom, the net lifting capacity of the Nisula P100 parallel crane is excellent in relation to its weight. It is an ideal choice for thinning harvesters.

TECHNICAL INFORMATION

Weight, kg	1970
Reach, m	10
Hydraulic boom extension	no
Swing torque, gross, kN	30
Lifting torque, gross, kN	130
Lifting capacity	5 m, kg
	8 m, kg
	9,9 m, kg
	3300
	1750
	1030

NISULA PARALLEL CRANES, BENEFITS TO THE CUSTOMER

- High-quality materials ensure an excellent weight/efficiency ratio
- Optimum, easily manageable motion paths also near the machine
- Nisula's dual swing damper as standard equipment
- Efficient motorised swing ensures sufficient swing torque in all conditions
- Three LED lights available as accessory

EXTENSION BOOMS FOR EXCAVATORS

The SB and XB boom solutions by Nisula allow you to convert an excavator for timber harvesting quickly and easily. The fastening point and additional hoses are designed to make the switch from forest improvement work to timber harvesting and vice versa easy. The XB models are provided with a hydraulic extension.



NISULA SB7

The new quick-mount Nisula SB7 boom provides more reach for harvesting. The boom is designed to work together with the Nisula 325H harvester head. The heel of the boom can be used to help the machine move in demanding terrain. The boom is equipped with Nisula's dual swing damper and the fastener requested by the customer.

BENEFITS TO CUSTOMERS

- Easy installation
- The heel of the boom can be used to help the machine move, if need be
- Equipped with high-quality Nisula swing damper
- Suitable for a grapple of 350 kg, max.

TECHNICAL INFORMATION

Weight, kg	60
Extension length, cm	93/118/143
Fits to	Nisula 105E
	Nisula 155E
	Nisula 175E
	Nisula 205E
	Nisula 285E+
	Nisula 325H



NISULA SB13

The new quick-mount Nisula SB13 boom provides more reach for harvesting. The boom is designed to work together with the Nisula 425 and 500 series harvester head. SB13 is perfect choice also with Nisula 285E+ accumulating energy wood head. The heel of the boom can be used to help the machine move in demanding terrain. The boom is equipped with Nisula's dual swing damper and the fastener requested by the customer.

BENEFITS TO CUSTOMERS

- Easy installation
- The heel of the boom can be used to help the machine move, if need be
- Equipped with high-quality Nisula swing damper
- Suitable for a grapple of 850 kg, max.

TECHNICAL INFORMATION

Weight, kg	110
Extension lenght, cm	101/126/151
Fits to	Nisula 205E Nisula 285E+ Nisula 335E+ Nisula 425H/C Nisula 500H/C



NISULA SB20

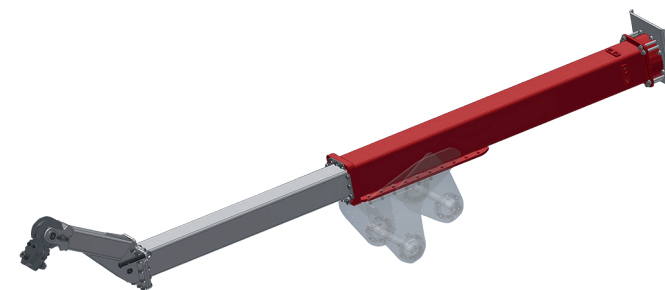
The new quick-mount SB20 boom provides more reach for harvesting. The boom is designed to work together with the Nisula 555 series and with the new 755X harvester head. SB20 is perfect choice also with Nisula 335E+ accumulating energy wood head. The heel of the boom can be used to help the machine move in demanding terrain. The boom is equipped with Nisula's dual swing damper and the fastener requested by the customer.

BENEFITS TO CUSTOMERS

- Easy installation
- The heel of the boom can be used to help the machine move, if need be
- Equipped with high-quality Nisula swing damper
- Suitable for a grapple of 1500 kg, max

TECHNICAL INFORMATION

Weight, kg	190
Extension lenght, cm	130/155/180/205
Fits to	Nisula 335E+ Nisula 555H/C Nisula 755X



NISULA XB20

The XB boom solutions by Nisula allow you to equip an excavator smoothly for timber harvesting. The fastening point and additional hoses are designed to make the switch from forest improvement work to timber harvesting and vice versa easy. The XB model is provided with a hydraulic extension and can be installed either over or under a harvesting boom. XB20 provides more than 2.5 m of additional reach with the hydraulic extension. The dual swing damper provided as standard makes taking the harvester head to a tree effortless. If necessary, the heel of the extension can be used to help the machine travel in the terrain. The XB20 boom solution is designed to be used with Nisula harvester heads.

BENEFITS TO CUSTOMERS

- Protects the harvesting boom of the excavator during harvesting operations
- Good properties for operations near the machine
- Turns round in a small space without swinging the boom

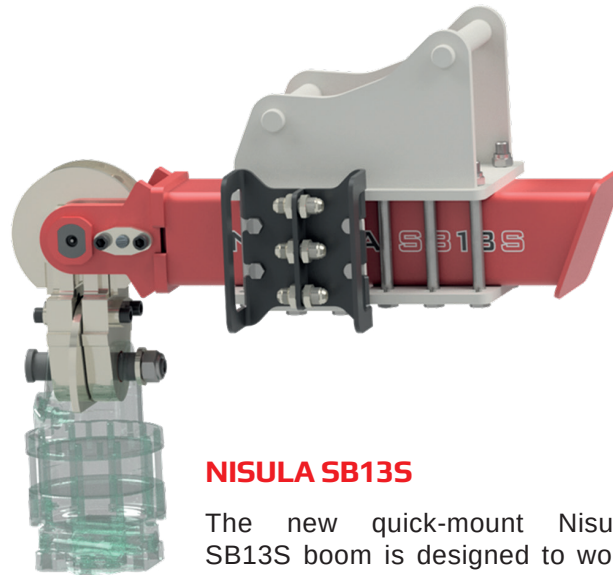
TECHNICAL INFORMATION

Weight, kg	760
Extension lenght, cm	233
Telescope stroke, cm	160
Fits to	Nisula 335E+ Nisula 500H/C Nisula 555H/C



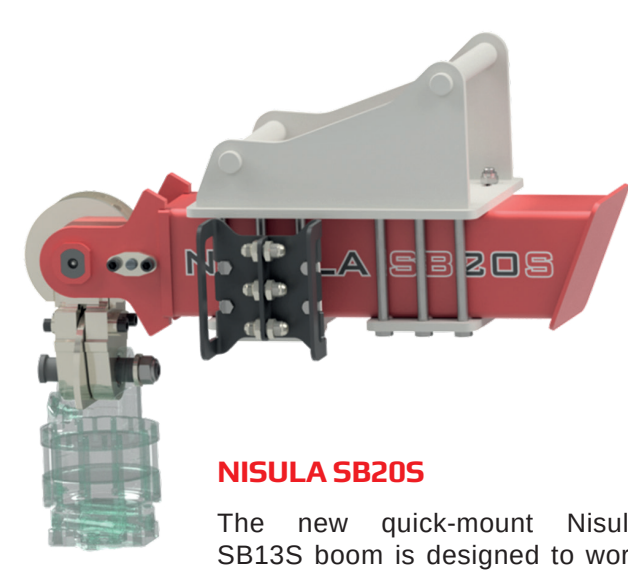
NISULA SB7S

The new quick-mount Nisula SB7S boom is designed to work together with the Nisula 325H harvester head. The boom is equipped with Nisula's dual swing damper and the fastener requested by the customer.



NISULA SB13S

The new quick-mount Nisula SB13S boom is designed to work together with Nisula 425 series harvester heads. The boom is equipped with Nisula's dual swing damper and the fastener requested by the customer.



NISULA SB20S

The new quick-mount Nisula SB13S boom is designed to work together with Nisula 555 series and 755X harvester heads. The boom is equipped with Nisula's dual swing damper and the fastener requested by the customer.

BENEFITS TO CUSTOMERS

- Easy installation
- Equipped with high-quality Nisula swing damper

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TECHNICAL INFORMATION

Weight, kg	30
Extension length, cm	48
Fits to	Nisula 105E Nisula 155E Nisula 175E Nisula 205E Nisula 285E+ Nisula 325H

TECHNICAL INFORMATION

Weight, kg	40
Extension length, cm	48
Fits to	Nisula 205E Nisula 285E+ Nisula 335E+ Nisula 425H/C Nisula 500H/C

TECHNICAL INFORMATION

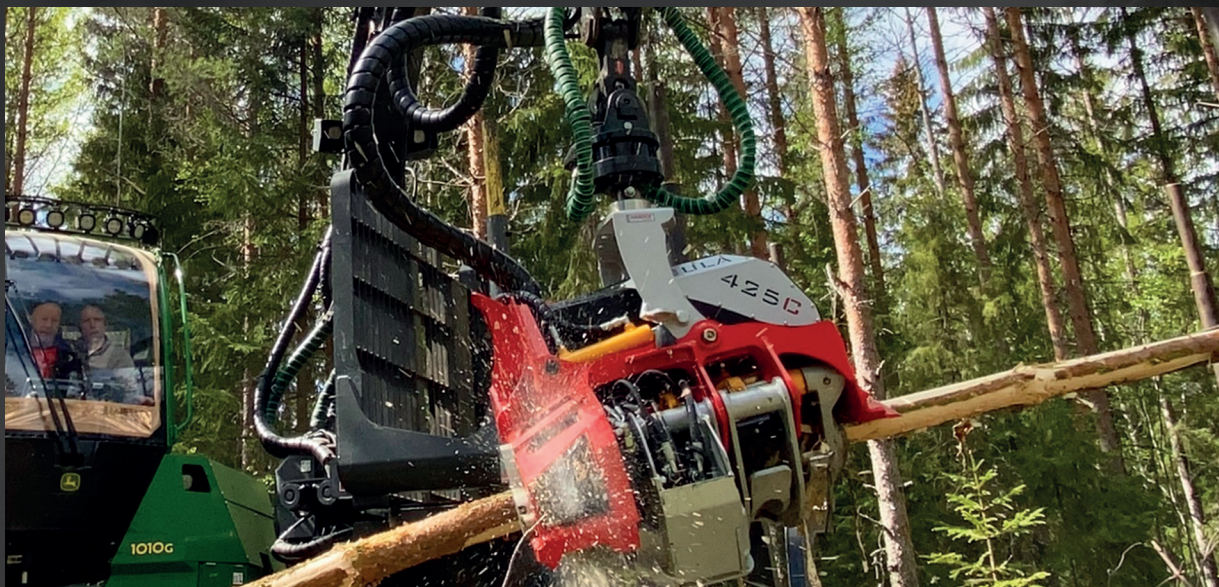
Weight, kg	60
Extension length, cm	51
Fits to	Nisula 335E+ Nisula 555H/C Nisula 755X





SWING DAMPERS

The size of the crane and its purpose of use determine what rotator and what swing damper is suitable for it. When a shaft rotator is used with the adapter flange designed for it, the head can be changed fast and easily.



SINGLE SWING DAMPERS

Nisula swing dampers improve work efficiency, precision and convenience. They efficiently reduce the swing of the harvester head.

Maintains brake power for a long time and is highly cost-effective. The brake power is easy to adjust. Thanks to the disc brake structure, the brake power remains good for a long time and requires little adjustment, making the swing damper practically maintenance-free.

TECHNICAL INFORMATION

	JRK35S	JRK45S	JRK45HD
Weight, kg	19	26,5	37
Boom head's inner width, mm	80(100)	100	140
Fits upper pin Ø, mm	45	45	45
Lower pin (mm)	35	45	45
Rotator's lug distance, mm	80	100	100

DUAL SWING DAMPERS



Nisula's swing damper / boom head packages can be installed on practically all cranes. The dual swing damper maintains brake power for a long time and is highly cost-effective. The brake power is easy to adjust. Thanks to the disc brake structure, the brake power remains good for a long time and requires little adjustment, making the swing damper practically maintenance-free.

Nisula JRKPP dual swing dampers are installed in place of the old boom head. The boom is equipped with a brake integrated in the boom head yoke.

The JRKPP35 and 45 models have four brake pads, two for both motion directions. The 45HD model has four brake pads sideways and two in the motion direction of the boom.

TECHNICAL INFORMATION

	JRKPP35S	JRKPP45S	JRKPP45HD
Weight, kg	35,9	47	72
Rotator's lug distance, mm	80	100	100
Rotator's top pin Ø, mm	35	45	45
Boom head pin Ø, mm	45	45	45
inner width, mm	100	100	140

DUAL SWING DAMPERS FR/BR ROTATORS



The swing damper/boom head packages designed for smaller FR/BR rotators are installed by welding them in place of the old boom heads. This ensures adaptability to practically all cranes.

All models have four brake pads, two for both motion directions.

Thanks to the disc brake structure, brake power remains good for a long time and requires little adjustment, making the swing damper practically maintenance-free.

Nisula's dual swing dampers considerably reduce the swing of the harvester head and thereby make the operations precise and controlled. Work is more productive and the risk of hose damage is reduced.

TECHNICAL INFORMATION

	JRPP7HD	JRPP10HD	JRPP15HD	JRPPBR69
Weight, kg	22	23	23	24
Suitable rotator	FR7	FR10	FR15	BR69
Rotator's top pin Ø, mm	24/25	25	30	30
Suitable adapter	ADFR7	ADFR10	ADFR15	ADFR15

NISULA SWING DAMPERS, BENEFITS TO THE CUSTOMER:

- Disc brake structure
- Excellent brake power maintained for a long time
- Low operating costs
- Easily adjustable brake power
- Made of special steel
- Lubricated bronze alloy bearings
- Hardened pins

CONTROL SYSTEMS

The development of the Nisula NCU3 control systems is based on four decades of experience. The new electronics generation has increased the measuring and counting efficiency of the system. NCU3 controls the harvester head accurately. The simple menu structure makes it easy for operators to find the settings they need.

The hydraulics control has been taken to a new level, allowing fast and accurate feed to the sawing window. Accuracy is excellent in all conditions. There is a separate fuse for the sensors to reduce the risk of damage to them.

With Nisula heads, you do not pay for unnecessary properties. The NCU control systems offer four different alternatives depending on customer needs.



NISULA NCU2 WITH LENGTH MEASUREMENT FUNCTION

Nisula NCU2 is a harvester head control unit equipped with a length measurement function for easy use. NCU2 features stem counters by wood species. Programming the measurements on NCU2 is extremely easy. Just determine the initial lengths for logs and pulp wood, module spacing, for example 30 cm, and the required number of lengths, for example 6. If the initial length is 400 cm, and you press the plus button twice, the stem is automatically fed to 460 cm. Couldn't be easier! NCU2 controls the harvester head in a versatile manner. Cutting to length is accurate and controlled, and the grapple is opened and lifted by pressing one button. This and several other properties make the use of the harvester head easy and fluent. NCU2 is compatible with the Nisula 325 H harvester head.

Nisula NCU2
with length measurement



NISULA NCU3LITE WITH LENGTH AND DIAMETER MEASUREMENT FUNCTION

Nisula NCU3Lite is a control system for measuring both the length and the diameter of the stem. Adding wood species and wood grades into the system is easy. The menu structure is straightforward and easy to use. NCU3Lite is equipped with a 7" monitor. It can be upgraded into a volume measuring NCU3 model.

Nisula NCU3LITE
with length measurement
+ diameter measurement



NISULA NCU3i WITH PRIORITY SCALING FUNCTION

NCU3i is equipped with a larger 7" colour monitor. The operator can easily program the required wood grades and measurements without a complicated price matrix. NCU3i is a good control system for both a new and an older machine. It meets the latest measurement standard requirements.

Nisula NCU3i
with priority scaling function



NISULA NCU3X WITH VALUE AND QUALITY SCALING FUNCTIONS

NCU3X is equipped with a larger 12.1" touch screen. The X-model has value and quality scaling functions and data transfer facility. Thanks to the new electronics generation and increased computing capacity, value and quality scaling is accurate. A new advanced algorithm also adds to the maximisation of performance. As the PC used for reading mapping software and for data transfer is a separate system, the embedded solution guarantees reliability. Possible Windows/PC problems do not halt operations. The harvesting operations do not depend on the PC's computing capacity, either. Therefore forestry companies' software may contain extensive maps and other heavy-duty properties.

Nisula NCU3X
with value and quality scaling functions

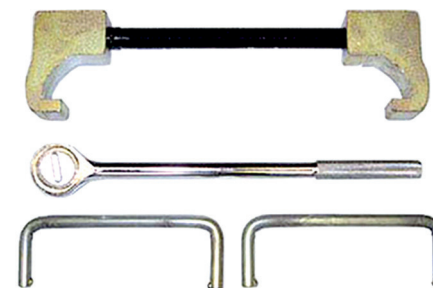
OTHER EQUIPMENT



EASY+ PRE-SELECTION SWITCHES

The new Easy+ (protected design) pre-selection switches designed for the Nisula mini levers provide maximum ergonomics. The programmable pre-selection switches with 12+12 functions are always provided with the mini lever. Thanks to the optimally placed pre-selection switches, you will quickly find an ergonomically suitable working position. The distance between the pre-selection switches and the mini lever can be adjusted easily.

Depending on the control system, the rocker lever can be equipped with manual feeds forward/backward



TRACK TENSIONERS

Track tensioners for Olofsfors, Clark and Kopa tracks.

Model-specific tensioners allow you to tension the tracks easily and safely: tighten just once in the centre of the track. Track tensioners for Clark, Kopa and Olofsfors tracks are available from track retailers.



CHAIN HOLDERS

A chain holder that ensures that the chain stays correctly on the tyre. Functional and durable structure; does not collect dirt on the rim.

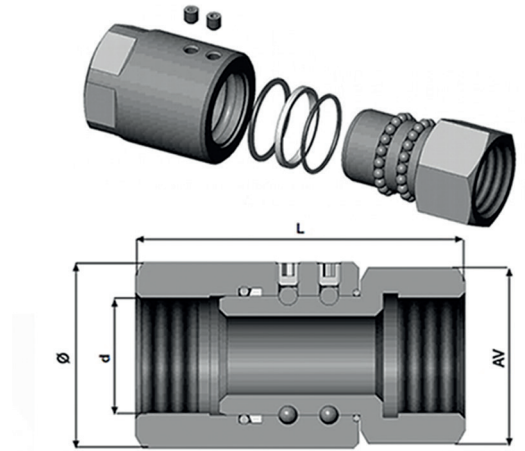


NISULA G22 TIMBER GRAPPLES

The Nisula G22 timber grapple is designed for heavy work. Its loading properties represent the state-of-the-art in the industry. Thanks to the low, wide frame and the frame expansion plates, bundle handling is extremely easy and straightforward. G22 also holds single small stems in a firm grip. The grapple is made of Hardox.

Accessories

Soil grapple	
Width, mm	1000
Volume, l	300
Weight, kg	110



HOSE SWIVELS

As the tempered, bearing-mounted hose swivels allow the hoses move freely and naturally, their useful lives are extended considerably. Typical uses of the hose swivels include the hoses between the crane and the base machine and the crane and the harvester head.

A strong structure and high-quality materials with surface hardening ensure a long useful life. As the structure of the swivel is compact, there is only a short stiff section in the hosing, which extends the hose life. The shortest possible connection is achieved when the hoses have fixed male ends.

SOLD IN PAIRS IN THE FOLLOWING SIZES

34"
28"
26.5" (28L x 26)
24.5"
22.5"

TECHNICAL INFORMATION

Weight, kg	155
Area, m ²	0,22
Max. working pressure, bar	210
Opening, mm	1320
Width, mm	600
Min. grapple closed, mm	65

AVAILABLE IN THE FOLLOWING SIZES

Code	d	L	O	AV
01001	R1"	88	50	41
01005	R3/4"	72	40	36

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NISULA FOREST OY

Korjaamokuja 3
35600 HALLI
FINLAND

Tel: +385 102 892 000
info@nisulaforest.com

PARTS

Tel: +358 10 289 2015
parts.info@nisulaforest.com

SERVICE & TECHNICAL SUPPORT

Tel: +358 10 289 2016
support@nisulaforest.com

www.nisulaforest.com

facebook.com/nisulaforest

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