

▶ ENERGY WOOD HEADS

105E 155E 175E 205E 285E 285E+



NISULA





NISULA E SERIES ENERGY WOOD HEADS

"Why didn't I buy this head earlier? is a frequent comment from our customers after the replacement of a normal grapple to a Nisula energy wood head. Nisula brought its first 150E Energy Wood Head onto the market in 2005. This energy wood head model has raised great interest among our customers and even among other manufactures. The series covers four different size categories for different customer needs. The E-Series energy wood heads are easy to install in the place of a normal timber grapple. 105E, 155E, 175E and 205E do not require electricity or additional hydraulics.



105E | 155E | 175E | 205E

E-SERIES ENERGY WOOD HEADS: OPERATING PRINCIPLE

With the cutting blade attached, small trees can be felled and bundled on the ground or felled and loaded directly on the trailer.

With the cutting blade detached and the tilt mechanically locked, the head can be used like a normal timber grapple to load energy wood or other timber grades.

DETAILS THAT IMPROVE DURABILITY, USABILITY AND RELIABILITY

All the structures of the heads are made of high strength steel. The structures are welded by using special filler metals designed for high strength steel. The shaft sleeves are made of tempered steel and the axles of surface hardened tempered steel.

105E



NISULA 105E

NISULA 105E ENERGY WOOD HEAD FOR SMALL CRANES

Simple structure and a new kind of mechanical tilt (pat.pend.) together with high quality materials ensure a lightweight but durable structure. This allows machines with even small cranes to be used for energy wood harvesting.



USES

- Energy wood harvesting
- Clearing bushes and trees from the edges of fields and forest truck roads
- Maintaining forest parks, felling trees in gardens

SUITABLE BASE MACHINES

- Agricultural tractor with suitable crane
- ATV
- Mini excavator

TECHNICAL INFORMATION

Weight, kg	52
Grapple opening, mm	500
Width, mm (open/closed)	640/460
Height, mm (open/closed)	690/480
Height in felling position, mm	270
Single cut Ø, mm (1 tree)	90-120
Required oil pressure, bar	150-210
Required oil flow, l/min	8+

155E



NISULA 155E

LIGHT ENERGY WOOD HEAD

The new 155E is an updated model of the popular Nisula 150E. In 155E, the shape and blade of the grapple arms have been improved to achieve better cutting efficiency. The colouring of the head is also new. The adjustable block makes it easy to adjust the tilt for various pressure levels. 155E is a cost-effective choice for energy wood harvesting.

The spike-shaped grapple arms ensure that all the grabbed trees get cut by the blade and are not pulled out of the ground. When loading, the head lifts the wood bunches without grabbing dirt or stones, and small branches do not get stuck in the head. Thus, the 155E is an excellent choice for feeding a chipper.



USES

- Energy wood harvesting
- Clearing bushes and trees from the edges of fields and forest truck roads
- Maintaining forest parks, felling trees in gardens

SUITABLE BASE MACHINES

- Agricultural tractor with suitable crane
- Mini excavator

TECHNICAL INFORMATION

Weight, kg	115
Grapple opening, mm	650
Width, mm (open/closed)	840/600
Height, mm (open/closed)	900/580
Height in felling position, mm	380
Single cut Ø, mm (1 tree)	120-150
Required oil pressure, bar	175-210
Required oil flow, l/min	25+

175E



NISULA 175E

ENERGY WOOD HEAD WITH TRADITIONAL STYLE GRAPPLE

175E is equipped with a traditional style grapple to improve the head's loading capabilities. The tip-plated grapple arms direct all the grabbed trees to the blade, which cuts tree groups and bushes fast and efficiently. The tilting action is easily adjustable to different pressure levels by means of an adjustment valve.

in 175EV, the tilt direction can be turned by means of a tilt direction valve, allowing the use of the head for tasks like erecting electricity and other columns. 175EV increases the number of ways harvester heads can be utilised.



USES

- Energy wood harvesting
- Clearing bushes and trees from the edges of fields and forest truck roads
- Clearing thinning sites
- Maintaining forest parks, felling trees in gardens
- Clearing the edges of power lines and removing dangerous trees
- Erection of electricity and other columns (175E)

SUITABLE BASE MACHINES

- Agricultural tractor
- Excavator, 4-7 t
- Truck equipped with a crane
- Small forwarders

TECHNICAL INFORMATION

Weight, kg	183
Grapple opening, mm	765
Width, mm (open/closed)	980/680
Height, mm (open/closed)	1100/760
Height in felling position, mm	520
Single cut Ø, mm (1 tree)	150-180
Required oil pressure, bar	175-210
Required oil flow, l/min	25+

205E



NISULA 205E HEAVY ENERGY WOOD HEAD

With 205E, you can equip e.g. a forwarder for energy wood harvesting easily without major installations or modifications. Just attach the head in the place of the normal grapple, and the machine is ready to harvest energy wood.

The spike-shaped grapple arms ensure that all the grabbed trees get cut by the blade and are not pulled out of the ground. When loading, the head efficiently grabs the wood bunches, and the high pressing power ensures effortless handling of even big bunches. Thanks to the grapple design, the head does not easily grab dirt or stones, nor do branches get stuck in the grapple.

USES

- Energy wood harvesting
- Clearing bushes and trees from the edges of fields and forest truck roads
- Clearing thinning sites
- Clearing the edges of power lines and removing dangerous trees
- Maintaining forest parks, felling trees in gardens

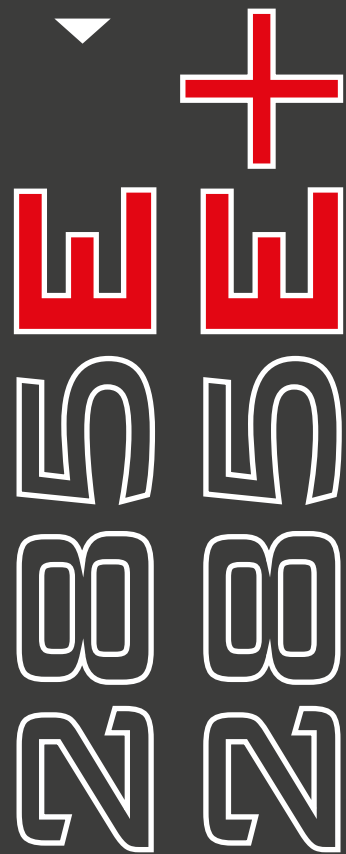
SUITABLE BASE MACHINES

- Forwarder
- Heavy agricultural tractor
- Excavator 6-12 t

TECHNICAL INFORMATION

Weight, kg	295
Grapple opening, mm	860
Width, mm (open/closed)	1120/770
Height, mm (open/closed)	1220/820
Height in felling position, mm	500
Single cut Ø, mm (1 tree)	200+
Required oil pressure, bar	180-250
Required oil flow, l/min	45+





NISULA 285E & 285E+

ACCUMULATING ENERGY WOOD HEAD FOR PROFESSIONAL ENERGY WOOD HARVESTING

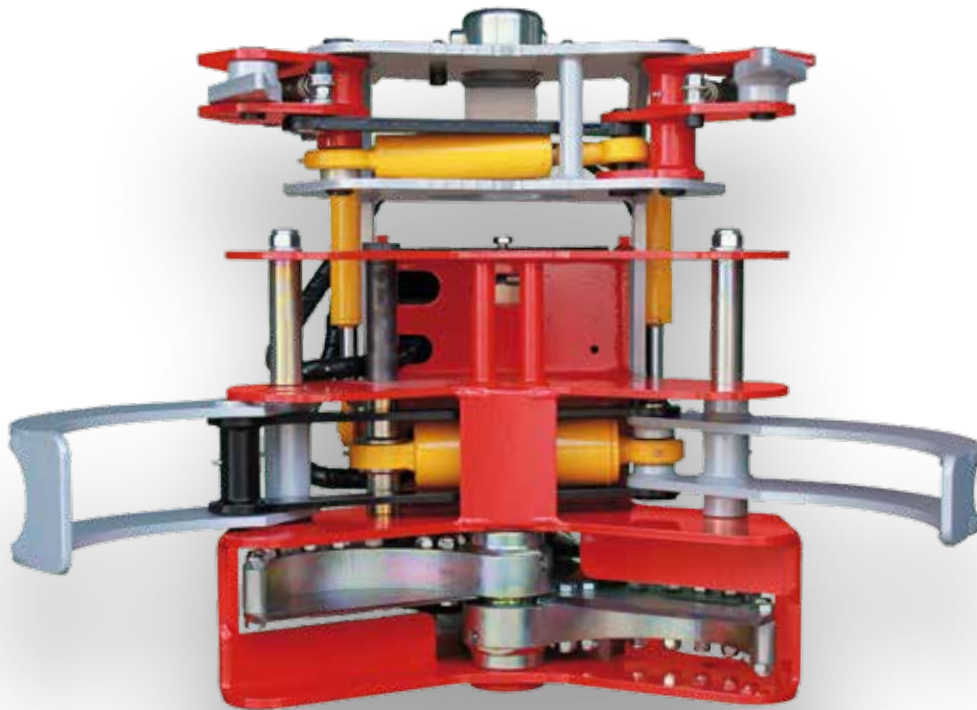
Accumulating energy wood heads are designed for professional small wood harvesting: easy felling, bunching and loading. Depending on the base machine, the whole small wood harvesting process (standing tree to roadside) can be performed without changing the head. Thanks to the structure of the grapple, tree stems and bushes are easy to grip and take to the blades for cutting.

USES

- Energy wood harvesting
- Clearing bushes and trees from the edges of fields and forest truck roads
- Clearing the edges of power lines
- Maintaining forest parks, felling trees in gardens

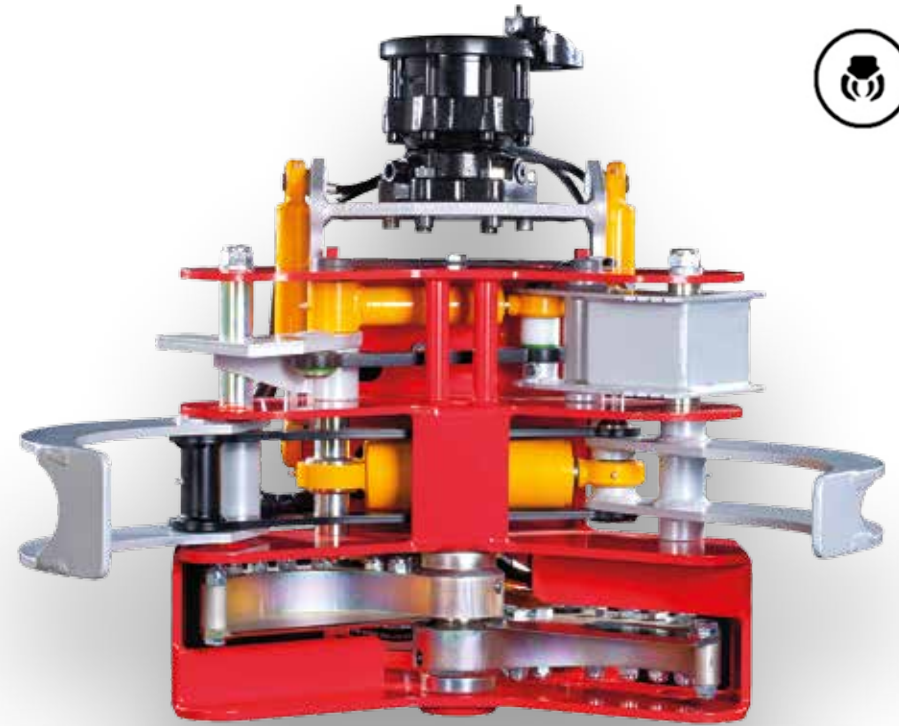
SUITABLE BASE MACHINES

- Forwarders
- Timber loaders mounted with sleeve adapters on an agricultural tractor
- Light harvesters
- Excavators from 7 t up to 12 t



NISULA 285E+

- 285E+ is equipped with an accumulating tilt system, which improves the head's collecting capacity and the handling of bunches.
- ¾" pressure and tanki line is needed and hose for cable protection



NISULA 285E

- Lighter model without a separate accumulating gripper.
- This head is the right choice for smaller cranes in which the head should weigh as little as possible
- ¾" pressure and tanki line is needed and hose for cable protection



TECHNICAL INFORMATION

	285E	285E+
Weight, kg	290	330
Grapple opening, mm	930	930
Cut area Ø mm	280	280
Single cut Ø, mm (1 tree)	180-240	180-240
Required oil pressure, bar	180-210	180-210
Required oil flow, l/min	80-150	80-150

CONTROL SYSTEMS

NCU1

NCU1 is a reliable and easy-to-use unit which automatically controls the hydraulics of the base machine, as well as the harvester head and its functions.

NCU3 ja NCU3X

NCU3 or NCU3X control system when using the harvester head also at the same base machine.

ACCESSORIES

- Stump treatment facility
- Extra valves for the rotator and grapple (propo or on/off)

JRPP
JRPP
JRKPP
JRKPP



ROTATORS AND SWING DAMPERS



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

Our recommendation for lighter cranes is FR10 or FR15 shaft rotator with the Nisula JRPP dual swing damper. For heavier cranes, possible alternatives are flange-mounted Indexator GV6, or with the head change facility Indexator GV6-69 shaft rotator with the Nisula JRKPP35S dual swing damper. With Indexator AV12s or GV12S the suitable swing damper is JRKPP45S dual swing damper. Nisula's dual swing damper makes operations accurate and controlled

Nisula swing dampers, benefits to the customer

- Disc brake structure
- Maintains excellent braking efficiency for a long time
- Low operating costs
- Easily adjustable braking force
- Made of special steel
- Lubricated bronze alloy bearings
- Hardened pins

JRPP10HD-, JRPP15HD-, JRKPP35S and JRKPP45S have four brake pads, two for both motion directions. Thanks to the disc brake structure, braking efficiency remains good for a long time, with little need for adjustments or maintenance.

	JRPP 7	JRPP 10HD	JRPP 15HD	JRKPP 35S
Weight, kg	20	23	23	39,5
Suitable rotator	FR7	FR10	FR15	GV6-
Rotators top pin Ø	24 mm	25 mm	30 mm	35 mm
Suitable adapter	ADFR7	ADFR10-2	ADFR15	ADGV6-69



NISULA WORLDWIDE



Nisula harvester heads are known worldwide for their straightforward solutions, easy maintainability, durability and unique features. Our customers around the world harvest wood daily with different kinds of base machine and harvester head combinations. Welcome to the Nisula family of satisfied customers!





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