

# HYPRO<sup>®</sup>



## HYPRO Product selection

A range of machines designed to appeal equally to contractors as to self-employed forest owners. HYPRO machines combine kindness to nature and environment with high capacity and reliability.



# HYPRO 755 HB Wheel Carried

The wheel carried 755 only adds 200 kg to the tractor hitch. This makes the use of lighter tractors (min. effect 70 hk.) an option.

It is quick and limber with articulated steering, hydraulic stabilizer for ideal stability. It is a fully equipped machine with built in hydraulic system, and a wide angles axle for PTO. Pump and tank are both mounted on the machine.

The machine is operated with EHC Canbussystem with mini joysticks from the tractor cabin. Length and diameter measurements are standard on all 755 models.

The new 0,5 meter longer crane pillar provides increased range and enables the grapple to reach the centre of the processor table. This also provides the possibility to cut and drop trees in the centre of the processor table when using a felling grapple without having to make any repeating grabs on the tree with the grapple to place it correctly.

The machine can be delivered with either rubber- or steel feeder wheels.

The HYPRO tractor processor range

A range of machines designed to appeal equally to contractors and to self-employed forest owners. It goes without saying that HYPRO machines combine kindness to the environment with high capacity and reliability.

## Technical data 755 HB Wheel Carried

Weight incl. hydr. oil .....	2350 kg
Width when folded away ..	2,48 / 2,67 m
Ground clearance .....	50 / 55 cm
Length .....	3,6 m
Hydraulic steering .....	Yes
Cylinders for steering .....	2 pcs
Steering ability .....	+/-25°
Feed rate .....	>3,5m/sec
Tilt angle .....	65°
Slew .....	280°
Crane length .....	7,5 m
Crane slewing radius .....	360°
Min. tractor output .....	70 hp
Min. diameter .....	3 cm
Max delimiting diameter .....	40 cm
Max diameter .....	50 cm
Winch traction force .....	2 ton
Winch rope length .....	50 m
Hydraulic system, variable, load-sensing .....	74cc
Hydraulic flow, rec. ....	max 150 l/min
Hydraulic pressure.....	250 bar
Tank capacity .....	150 litres
PTO speed .....	400-540 rpm



*Hypro 755 HB has hydraulic struts as standard.*

# HYPRO 755



The HYPRO 755 is a generously equipped tractor-processor with a 7 metre crane. Processor and crane both have a working radius of 280 degrees, allowing felling on both sides.

The HYPRO 755 has its own hydraulic system with pump and tank for mounting on the front of the tractor. The hydraulic system is load sensing and variable, giving speed, smoothness and strength.

The HYPRO 755 is also available for fitting to tractors with a built-in variable hydraulic system with the necessary flow and pressure. The machine is operated with EHC Canbussystem with mini joysticks from the tractor cabin. Simply by pressing a button you can choose between crane and processor. Both can be operated with the same levers.

The HYPRO 755 is suitable for thinning operations and for final felling. A remarkable 280° slewing radius and lateral displacement provide ample adjustment to suit the direction of fall of the tree and allow distances of up to 3.3 metres between timber stacks.

The machine has a radio controlled winch which can winch in from both sides. The design of the crane, with a tilting pedestal, gives a low centre of gravity at full reach, as well as compactness when folded. Hypro 755 has hydraulic struts as standard.

If you have a tractor with a reversible driving position, a high level of comfort and a dual controls, fit it with a multifeature HYPRO 755 processor and you'll have a fast, efficient and highly competitive harvesting machine.



*Hydraulic kit mounted in front.*



## Technical data 755

Weight incl. hydr. oil .....	1670 kg
Width when folded away .....	2,0 m
Feed rate .....	>3,5m/sec
Tilt angle .....	65°
Slew .....	280°
Crane length .....	7 m
Crane slewing radius .....	280°
Min. tractor output .....	80 hp
Max diameter .....	50 cm
Max delimiting diameter .....	40 cm
Min. diameter .....	3 cm
Winch traction force .....	2 ton
Winch rope length .....	50 m
Hydraulic system, variable, load-sensing .....	74cc
Hydraulic pressure .....	250 bar
Hydraulic flow, rec. ....	max 150 l/m
Tank capacity .....	130 litres
Engine speed .....	1400-2000 rpm



# HYPRO 450 XL

HYPRO 450 XL has High and Low speed which enables the very high feed rate of 5m/sec. This is a major advantage for first and second thinning.

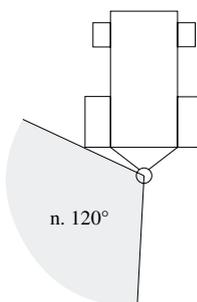
The 450 XL is a versatile, strong, simple and easy-to-manoeuvre tractor processor. It is a highly-valued and popular all-round machine that functions equally impressively in smaller final cuts as in first thinnings. The low speed mode has a feed rate of 3.5 m/sec and a very high starting torque combined with a raw strength for use when processing larger trees.

The machine has a maximum opening diameter of 45 cm and a total delimiting diameter from 40 cm down to 5 cm, it also has a fully hydraulic and very powerful high-speed cutting capacity that cuts without splitting. The processor is equipped with a separate hydraulic system with its own pump and tank where the pump is connected directly to the tractor's power take-off or via a PTO-shaft with the pump mounted on the processor's frame as an alternative design.

HYPRO 450 XL has a double articulated joint as standard, which enables the machine's working position to be moved sideways, with cut timber thus always falling outside the tractor's wheels. It enables timber to be sorted into different piles in the processing stage. This also ensures considerably simpler and effective timber haulage. The machine's hydraulic winch is manoeuvred as standard with professional digital radio equipment but can also be manoeuvred via the valve's hand lever. The winch is always in braked position during winching in and when stopping.

HYPRO 450 XL has a C-373 measuring computer as standard with length measurement, photocells that start and reset the measurement cycle and a separate measuring wheel with a pulse transmitter. Measuring computer MD-320 is available as an optional extra with both length and diameter measurement.

The HYPRO TELESCOPIC CRANE is tailor-made to make work in the area close to the machine easier and more efficient. The crane works regardless of the position of the head. Spreading branch wood is simple, thanks to the slew angle and reach of the crane.



Working area of crane



## CRANE SPECIFICATION

Lengths: ..... 4 m.....6 m  
 Weight: ..... 180 kg.....300 kg  
 Tractive force: ..... 1500 kg  
 Lifting force 2 m: ..... 1200 kg  
 Grapple diameter: max ..... 45 cm

## Technical data 450 XL

Weight incl. hydr. oil ..... 1130 / 1150 kg  
 Length max..... 1,90 m  
 Length min..... 1,50 m  
 Width when folded away ..... 1,60 m  
 Feed rate ..... >3,5m/s / >5m/s  
 Tilt angle ..... 60°  
 Slew ..... 140°  
 Min. tractor output..... 65 hp  
 Max diameter..... 45 cm  
 Max delimiting diameter ..... 40 cm  
 Min. diameter ..... 5 cm  
 Winch traction force ..... 2,2 tons  
 Winch rope length..... 50 m  
 Hydraulic system, load-sensing... 54 cc  
 Hydraulic pressure..... 230 bar  
 Hydraulic flow, rec. .... 85 – 100 l/min  
 Tank capacity..... 100 litres  
 PTO speed ..... 400 - 500 rpm

# HYPRO 300



HYPRO 300 is a rational, quick, three point carried thinning processor which completes its tasks fast despite its small composition and light weight (700kg).

HYPRO 300 has its own hydraulic system where the pump is mounted directly on the tractor. The machine has a load sensing valve which provides a smooth handling experience and flow control possibilities without using throttle functions. Hypro 300 is equipped with a motor in the bottom feed roller and thereby feeds with three feed rollers whereof two are parallel connected. This provides considerably increased feeding power.

This machine does an excellent job with delimiting and cutting dimensions up to 30 cm.

The processor is fitted with a highly powerful and fast cutting saw which cuts so quickly that the log does not have time to drop before the chain has passed through the stem.

It has an integrated hydraulic driven winch for both loading and unloading which is done radio controlled. When stopped the winch is locked in place. The winch can also be maneuvered with hand lever on the operating valve.

Through HYPRO 300's construction trees are carried automatically to its designated position by the winch.

This machine is a good investment, giving you high quality for a low price. It has greater engine efficiency because of its own hydraulic system, which in the long run saves you money. The gearbox of the hydraulic system in the machine provides decreased engine RPM, which also causes reduced consumption of diesel and thereby provides an improved overall cost.



*Hydraulic winch placed in the machine frame, maneuvered via radio or lever. At signal in / out the wire is fed in resp. direction and is always automatically locked at stop.*



*The pump/gear unit is mounted directly on the power shaft of the tractor which gives lighter weight and a more compact montage.*



*The machines control table is placed in a comfortable working height and has easily maneuverable levers, where it also is possible to adjust the speed in both directions individually on all functions. The measuring system is optimal placed for a comfortable use.*



*Height adjustable support legs*

## Technical data 300

Weight incl. Oil.....	ca: 700 kg
Feed rate .....	>3m / sec.
Tilt angle .....	40°
Slew .....	45°
Min. Tractor output .....	50 hp
Max diameter .....	30 cm
Min diameter .....	3 cm
Winch rope length .....	35 m
Winch tractor force .....	1,5 tons
Hydraulic pressure.....	210 bar
Hydraulic flow .....	90 l/min
Oil capacity .....	90 litres
Length .....	1,65 m
Width .....	1,60 m
PTO speed .....	400 - 450 rpm

# HYPRO FG45 Felling Grapple / Energy Felling Grapple



The **HYPRO FG45** felling grapple is ideal for use in the handling of both standing and felled trees. The felling grapple can be mounted on just about any crane with a rotator.

The felling grapple can be used to fell normal-height standing trees with a max. diameter of 30–35 cm, and in favourable conditions it has a cutting capacity for trees with enlarged root bulbs and stunted trees of as much as 45 cm in diameter, which makes it entirely unique in terms of function for its low weight and size.

The FG45 is also available in an energy grapple model. This version is equipped with a special bar that allows the felling of coppiced growth and trees with coarse trunks of up to 35 cm.

The FG45 has a tilt function that automatically tilts the grapple into its felling position when it is fully open. This can be overridden by activating the saw, which causes the grapple to return to its horizontal working mode.

The crane's valve need to be equipped with an extra valve section - an additional function for activating the saw motor. This must be a motor slide type which is open directly to tank in its neutral position.

The versatility of the felling grapple and its hydraulic tilting joint mean that it is easy to get to the tree trunks – and at the right felling angle. This makes the felling operation both simple and very efficient. Its low weight also makes it ideal for use on cranes with a very long reach without negatively affecting stability.



*3D illustration of the FG45 in the down position*



## Technical data FG45

Max. cutting diameter .....	45 cm
Tilt angle .....	100°
Weight including tilting joint .....	169 kg
Hydraulic saw motor ...	5 cm <sup>3</sup> /revolution
Min. oil pressure .....	190 bar
Max. oil pressure .....	250 bar
Min. required oil flow .....	50 l/min
Max. required oil flow .....	80 l/min
Extra hydraulic lines.....	3

# HYPRO FG45FA Felling Grapple / Energy Felling Grapple

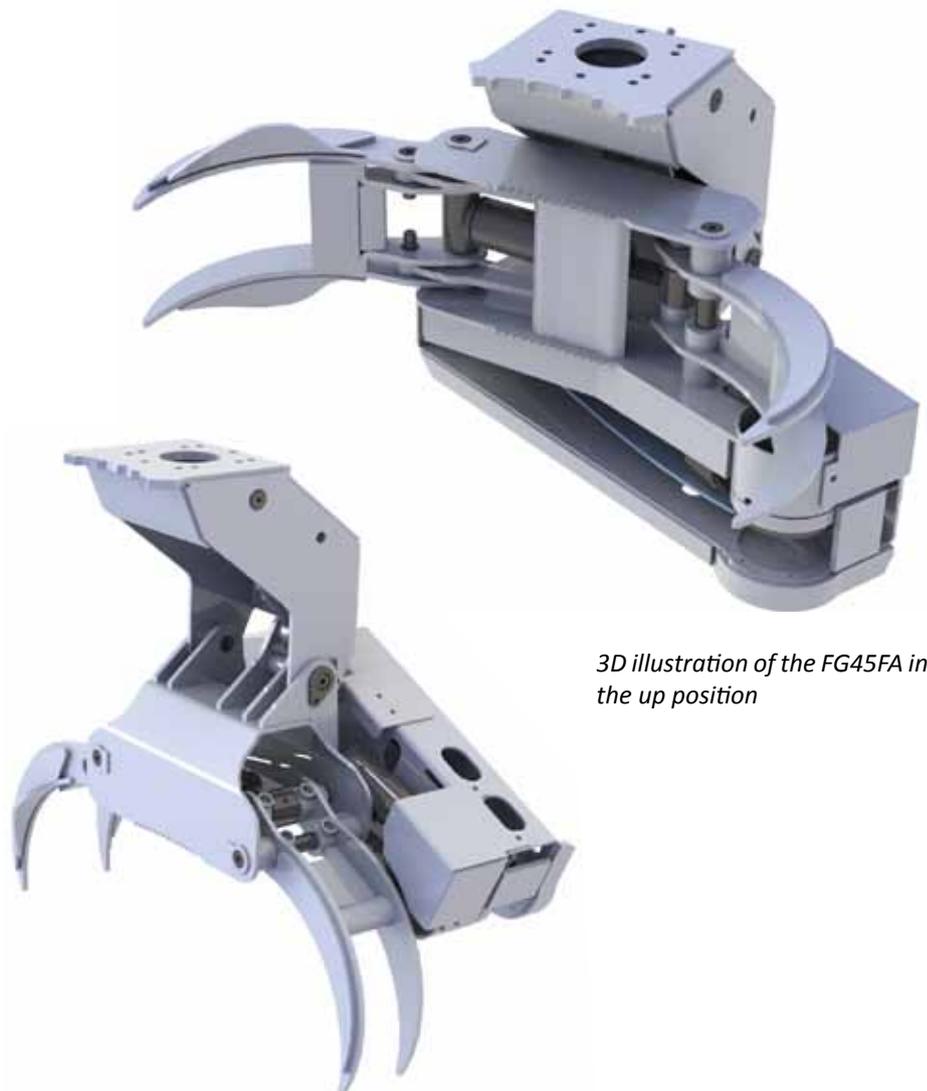
*NEW MODEL! Autocut version*

The **HYPRO FG45FA** felling grapple has been developed for minimal hose routing, low weight and high versatility. If equipped with a suitable three-channel rotator it can freely rotate through 360°.

The felling grapple can be used on just about any crane with a rotator, e.g. on trucks, logging trailers or forwarders. It can be used for felling, cross-cutting, loading and unloading timber and thicket alongside roads, along power line corridors, and in park and urban environments, but also of course in conjunction with HYPRO's tractor processors.

Distinctive features of the HYPRO FG45FA are its fully hydraulic design, with automatic tilt and cross-cutting functions via the "open grapple" and "close grapple" commands, so no additional control system is required in order to operate the felling grapple - just an extra drain line. By means of a hydraulic switch valve, the gripping functions switch over to cutting or tilting following a brief delay. This eliminates the need for multiple valve functions for activating cutting and tilting, while retaining a high level of cutting efficiency. The delay for function switch is adjustable from 0 to 4 seconds. A slightly longer delay is preferable if the grapple is also to be used for loading and unloading felled timber.

Both the cutting and tilt functions are deactivated when the operator releases the control on the joystick. The tilt function and angle for cutting are thereby controllable. Together with the felling grapple's versatility and hydraulic tilting joint, this makes it easy to approach tree trunks or branches at the correct felling angle. The model's strength is in its tried-and-tested, robust yet low-weight construction, and also in its technical innovation, resulting in a highly efficient product that is nevertheless easy to use.



*3D illustration of the FG45FA in the up position*

## Technical data FG45FA

Max. cutting diameter .....	45 cm
Tilt angle .....	100°
Weight including tilting joint .....	179 kg
Hydraulic saw motor ...	5 cm <sup>3</sup> /revolution
Min. oil pressure .....	190 bar
Max. oil pressure .....	250 bar
Min. required oil flow .....	50 l/min
Max. required oil flow .....	80 l/min
Extra hydraulic lines.....	1

*3D illustration of the FG45FA in the down position*

# HYPRO 755 VB

## Trailer-mounted processor



The processor is easy to mount directly onto just about any logging trailer using the trailer's own crane. The machine has three eye bolts, allowing it to be very simply and easily lifted using straps or chains. All hoses and cables do of course have quick-release couplings.



The **HYPRO 755 VB** is a trailer-mounted processor without crane, winch, pump or tank. It has been produced in order to combine a logging trailer with a crane and a processor, resulting in lower ground pressure and a lower purchase price.

The HYPRO 755 VB is a robust tractor processor with an impressive working radius of 280°, allowing processing from both sides of the trailer, which makes for very good adaptation to the tree's direction of felling and also gives a space between timber piles of up to 3,3 m.

The trailer's own hydraulic system is used to operate the processor, as long as there is sufficient pressure and flow. A trailer with hydraulic drive usually has sufficient flow to also power a 755 VB, but if the hydraulic system is not enough, it is simply a matter of installing HYPRO's pump and tank onto the front of the tractor.

### Technical data 755 VB

Weight incl. valve .....	1045 kg
Width when folded away .....	1.9 m
Feed rate .....	>3.5m/sec
Tilt angle .....	65°
Working radius.....	280°
Min. tractor power .....	70 hp
Max. diameter .....	50 cm
Max. delimiting diameter.....	40 cm
Min. diameter .....	3 cm
Oil pressure..... min. 210 - max. 250 bar	
Min. required oil flow .....	100 l/min
Max. required oil flow .....	150 l/min



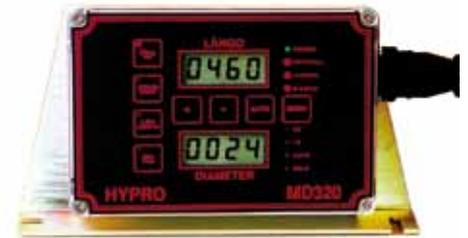
### HYPRO Radio

HYPRO machines are fitted with professional digital radio equipment. They satisfy the strict demands imposed in terms of speed and ultra-safe operation for radio control of winches. The units are our own design, with dual control, emergency stop function and highly impact-resistant casing.



### HYPRO Measuring Equipment

HYPRO has its own specially designed length measuring equipment which is capable of meeting very strict reliability requirements in a tough working environment. The system includes cable fault tracing and calibration features. The large black digits of the display are very easy to read, even in bright sunlight. Photocells automatically set the start point of the measurement and zero the system. No time lost searching for the trunk end.



### HYPRO Measuring Computer MD320

In its basic version, the MD 320 has length and diameter measurement and it can be upgraded for printing of log data as well as with nine pre-set lengths. Printing and pre-set lengths are separate items which are available as optional extras. A printer is included. Tree species breakdown can be provided if required. This simply means pressing a button for pine, spruce, hardwood or miscellaneous.

# HYPRO Forwarder Trailer HV14

*The most stable trailer on the market!*

Standard equipment has three loading bunks. Low placed slewing cylinders and a protective cover gives best overview of the loading area

## Technical data HV14

Loading capacity..... 14 tons  
Loading area..... 3,1 m<sup>2</sup>  
Length.....5,50 m / 6,25 m  
Width ..... 2,38 m  
Length of loading area... 3,8 m / 4,55 m  
Number of bunks, standard ..... 3  
Additional bunks, incl. Lengthening .... 1  
Wheels, reinforced rim..... 500/60x22,5  
Hydraulic disc brakes..... 2  
Hydraulic wheel motor running ..... 2  
Cylinders for beam steering..... 2  
Steering ability ..... +/-48°  
Ground clearance ..... 70 cm  
Weight ..... 2500 kg / 2800 kg



*A Cranab FC53DT with length of 8,5 meters is used as crane option.*



*Bogie with 22° oscillate ability for good manoeuvre capacity at though terrain conditions.*



*Additional bunk with manual telescopic length adjustment.*



*On the HYPRO HV14 you have the option of choosing between robson drive or planetary gear. HYPRO 4WD robson drive provides high drive power and the drive unit is well protected*



*Hydraulic motor drive via planetary gear generates very strong work force. With the drive activated, the hydraulic motor has automatic free rolling up to 40 km/h with the LS-system. The drive device is placed in the rear wheel pair.*



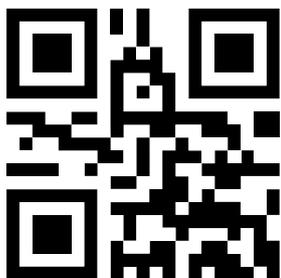
*Debarking Eucalyptus in Brazil.*

**In the industry since 1987 – customers in more than 30 countries**

All our products consist of highest quality components. Our machines have high durability and safety, which means low service and maintenance costs and higher efficiency for our customers.

Through high technical knowledge we have made swift and efficient machines.

Are you looking for professional low impact forestry machines? We got it!



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