

FARMI®

Forest

Made in Finland



Energy



Utilisation, recycling



Landscaping

FARMI DISC CHIPPERS
ENERGY - LANDSCAPING -
UTILISATION - RECYCLING

FARMI - for landscaping and utilisation: CH160, CH160T and CH180

Tree trunks, logging and saw mill waste, saplings, twigs and branches from parks can be chipped and utilised e.g. as surface material for jogging tracks or composted or to cover garden beds or only to decompose to ground

The hydraulic feeder (HF) with one roller gives enough feeding power for CH160HF chipper to handle tree tops, spruce twigs and other branches and small trees until 16 cm diameter.

The CH160T HF is the Chipper with a long discharge chute and with a belt transmission (T) multiplying the speed of the rotor rotation by 2,1. The need of power increases correspondingly.



CH160THF



CH 180-2HF

CH 180HF

The Farmi CH180 chipper is available in two versions. Tractor mounted and PTO driven suitable for tractors of 30 kW. It is ideal for off road chipping. The MCH180 is mounted on its own trailer chassis and is driven by a 31.5 Kw diesel engine. This highly mobile version can easily be towed to site by a car or light truck. Both models have a 180 x 220 mm feed opening and can process material up to 180 mm diameter. The turntable feed hopper enables the operator to feed from the safest or most convenient position. Chip size is adjustable from 10,12 or 14 mm and fitted with the optional twig breakers. The CH180 will produce good quality energy chips.

FARMI - for energy chips for communes, farms etc.: CH260

A double flywheel with and several accessories (breakers) and possibility to adjust the the chip length enables to produce right size and quality of chips for many kind of purposes: for energy, to cover garden beds, for animal bedding and for composting. The most homogeneous chips quality is achieved with high operation revolution, 1000 rpm. It increases productivity and discharge capacity but needs more power from the base machine. The hydraulic feeder with two rollers, upper roller's big diameter and weight and floating roller swing ensure the efficient feeding.



CH260HF-EL -an efficient chipper for loader feeding for any kind of wood material until 26 cm diamater. With this chipper can be chipped as well trunks, whole tree as logging waste and slabs (the chipper in the picture includes a profi kit which is an accessory)

CH260HF-231-HM



CH260HF 231- HM - a profitable multi purpose chipper for manual feeding. The hydr. feeder limits the max. diameter of the wood to 25 cm.

CH260HF-EM



CH260HF-EM -a chipper for manual feeding with electro hydraulical feed control (as CH260HF-EL)

CH260HF-EL



CH260HF Chipper and a Farmi crane together on the tarctor's 3 point linkage

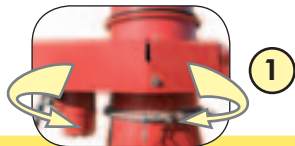
CH380 is a chipper with 4 adjustable knives, chip length (10 – 30 mm), for professional energy chipping. The max. diameter of the tree trunk can be as huge as 38 cm. An effective hydraulic feeder, hydraulic pump unit, hydraulic control for discharge chute, pedal control for feeding and No Stress revolution control are as standard. High operation revolution (PTO 1000 rpm for 10-20 mm chip length and PTO 540 for 20-25 mm chip length) ensures a good output, homogeneous chip quality and excellent discharge capacity for this chipper.



CH380HFC
Conveyor feed



CH380HF

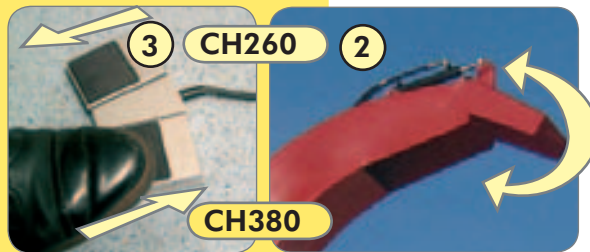


CH260
CH380

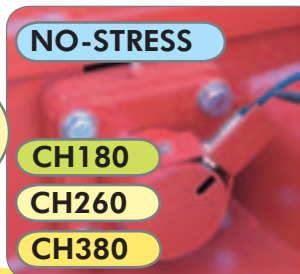


HD
CH160
CH180
CH260
CH380

Profi kit includes Actuator for discharge chute rotation (1), Actuator for discharge chute blow distance (2) and Pedal control (3) for hydraulic feed (only for CH260 and CH380)



CH260
CH380



NO-STRESS
CH180
CH260
CH380

The NO-STRESS –revolution control optimises the chipping performance. This mechanism stops feed if the rotor speed goes under preset value. This option achieves the following benefits: get consistent chips, avoid unnecessary stops of the tractor engine, get a better output, allows the use of a tractor with smaller engine.

HD -Hydraulic Unit enables the operation of the hydraulic feed independent of the tractor hydraulics. This is useful when the tractor's hydraulic is used for example for the grap loader or the chipper is in shared use, the hydraulic unit eliminates the risk of mixing different oil grades used by the tractors. The HD-unit is also necessary with OEM –versions (CH160 and C)

FARMI - Suitable for Many Purposes

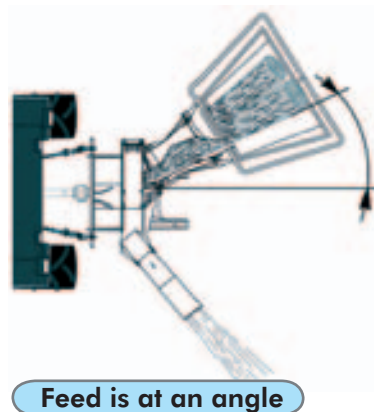
FARMI – chippers are built in three different sizes: CH160/160T, CH260/CH222 and CH380, this allows a suitable chipper for every kind of work – for energy chipping – for landscaping – for soil improvement - for combustion - for industrial – for dry litter etc. Tree trunks, logging and saw mill waste, saplings, twigs and branches from the parks are good raw material for chips and can be chipped with Farmi chipper. As well as waste paper for bedding or recycling purposes, break plastic down into an easily transportable chip form, all can be shredded by a Farmi chipper.

FARMI - Quality – Durability – Productivity and Economy

An agricultural tractor equipped with a good quality FARMI - wood chipper is an economical, effective, productive and mobile chipping unit with access to most difficult working places. The same tractor is can be used as well to transport wood to chipper infeed and chips transported when it is equipped with a grap loader.

FARMI - Wide feeding angle – Small power demand - Low running costs

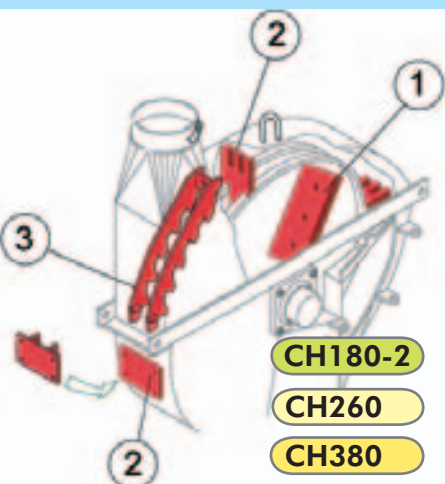
FARMI -chippers have reduced power demand. The trunk is fed into and cut at an angle to the rotor between the knife and anvil. By feeding at an angle the trunk is being pulled in by the knives which enhances operation with a manual infeed hopper. Simply - due to the diagonal feeding good chipping results are reached at lower power demand and less fuel. From the diagonal feeding angle ensures the so-called auto-feeding whereby the chipper can be used without any hydraulic feeding equipment.



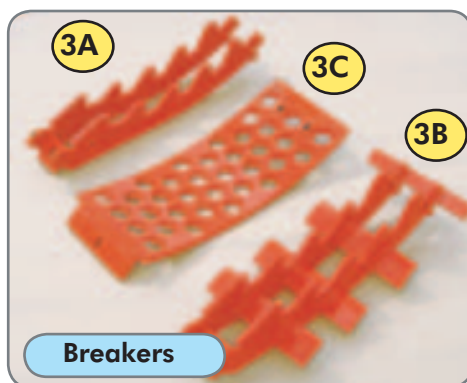
FARMI - Meticulously designed details

Very strong structure – Blades made of special steel – Blades are quick and easy to adjust, service and change - Rotors are mounted on two-row roller bearings, which carry radial as well as axial loads.

FARMI - Consistent Chips with Twig breakers



Chipping in three steps. (CH260/380)



- 3A) Twigbreaker
- 3B) Gross breaker
- 3C) Screen

The primary cut is done by adjustable blades (1) bolted to the rotor. The additional fixed blades of the body and the finger blades of the disc together (2) do the secondary cutting. The chip size is finalised by the twig breaker (3A), gross breaker (3B) or screen (3C), which are located near the exit to the discharge chute.

FARMI F- CH160 OEM and CH260 OEM – chippers have a V-belt pulley instead of a multiple splined shaft, in which case the power source can be either an electric or combustion engine.



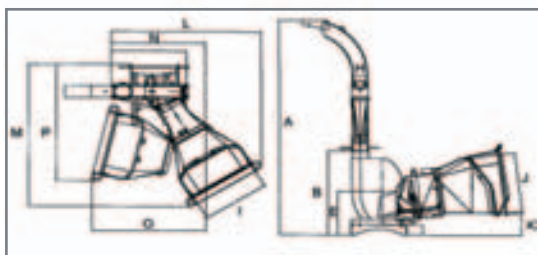
With the upper roller having a large diameter and clearing device, this prevents the material from twisting around the roller. Together with a floating roller swing this ensures smooth and efficient feeding.



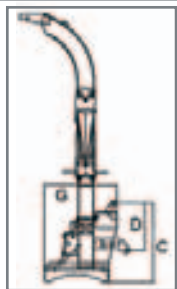
SML232 -mounting base for direct drive electric engine is available for CH260 OEM – chipper. The chipper can be bolted on the same base together with the power unit. Farmi HD –hydraulic unit is needed for possible hydraulic feeder

FARMI - chippers - Technical information and Optional equipment

TECHNICAL INFORMATION	CH160	CH160T	CH180-2 (CH180)	CH260	CH380
Type	single disc chipper	single disc chipper	double/(single) disc chipper	double disc chipper	double disc chipper
Output m³/h	5 - 15	5 - 20	5 - 20	10 - 40 (2-3 ton/h paper)	30 - 70
Thickness of chip mm	13	13	10, 14	7 - 25	10-30 (10-20)
Max timber Ø	160, opening 160x270	160, opening 160x270	180, opening 180x220	260, opening 260x320	380, opening 380x420
Power demand kW	10 - 30	20 - 50	30 - 70	40/70-115	125 - 180
Speed of rotation rpm	(540)/1000	(540)/1000	(540)/1000	(540)/1000	540 /(1000)
Number of knives	2	2	2	2 (3)	4
Rotor rotating	direct	belt transmission, i = 2,1	direct	direct	direct
Power source	tractor / hydraulic motor	tractor	tractor	tractor	tractor
Anchorage	3-point / urban tractor linkage	3-point	3-point	3-point/bolted to base/	3-point
Chipper weight kg	260 - 300, feedhopper	280 - 320, feedhopper	310 feedhopper	690 feedhopper	2300 conveyor feed
	340 - 380 hydraulic feed	360 - 400 hydraulic feed	380 hydraulic feed	830 - 860 hydraulic feed	1970, hydraulic feed
Rotor diameter mm	670	670	670	1050	1460
Rotor weight kg	100	100	100	240	600
Equipment alternatives					
Feed hoppers	F160 (F150) -feed hopper	F160 (F150) -feed hopper	F180 -feed hopper	F250 -feed hopper DF250 -drop hopper	
One roller hydraulic feed	HF160 (U) (manual feed)	HF160 (U) (manual feed)	HF180 (manual feed)		
Two roller hydraulic feed					
- for manual feed, lever control				HF231-HM (U) (HF231, opening 250x260)	
- for manual feed, electr. control				HF260- EM	
- grab loader feed, electr. control				HF260- EL	HF380- EL (standard)
Discharge chute (rotates 360°) (CH380 n. 300°)	standard 1,3 m (LE160) optional 2,3 m (HE160), when min. rpm 1000 r/min)	standard 2,3 m (HE160) optional 1,3 m (LE160)		standard 3,0 m (LE260) optional 3,5 m (HE260) optional 2,4 m	standard 4,1 m (LE380)
Optional equipment					
Pump unit, hydraulic (175 bar) output at 540 rpm	HD11 gear ratio (16/11) 8,6 l / min	HD11 gear ratio (16/11) 14,6 l / min	HD11 gear ratio (16/11) 8,6 l	HD11 gear ratio (30/11) 16,2 l / min	HD38 45 l / min
output at 1000 rpm	16 l / min	27 l / min	16 l	30 l / min	45 l / min
Twig breaker				B260	B380 (standard)
Gross breaker for slab				B260-60	
Screen for plastics				S260	
NO-STRESS (with reverse)	NSH (160-231)	NSH (160-231)	NSH (160-231)	NS260 (HF260 -EM ja -EL)	NS260 (standard)
Hydr.control for discharge chute				optional	RC300 (standard)
Electrical control (8 m cable)				(pedal / hand control) EL/EM	(pedal / hand control)
Pulley model (engine, el-motor)	CH160 OEM (22 - 30 kW)		CH180 OEM (22-30 kw)	CH260 OEM (30 - 75 kW)	
Mount.bed for direct drive engine				SML232	SML 380
With own engine			MCH180F/HF (31,5 kw)		



O & P are transportation dimension
We reserve the right to make changes.



FARMI
Forest

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	Chipper		Feeder		Chipper		Feeder		Chipper		Feeder			
	CH160/ GH160T	F160	HF160/ HF160U	CH180	HF180	CH260	F260	HF231	HF231U	HF260	HF260	CH380	HF380	HFC380
A	1300 / 2300			2360		3000						4115		
B	730			790		1520						1780		
C	900			960		1060						1125		
D	585 / 620			625		620						685		
E	370			430		740						850		
F	730			790		1150						1520		
G	655			710		970						1610		
H	150			150		210						250		
I		700	850		850		870	1040	1040	1040	1230		1280	1340
J		700	810 / 960		750		800	880	880	1250	1230		930	930
K		170	200		170		325	370	370	315	560		175	115
L		1550	2120		1800		2030	2300	2200	2400	2150		2340	2700
M		1680	2360		2200		2040	2190	2040	2630	2170		2000	2500
N			1300		900			1385	1385	1435	1435		2010	2250
O			1685		1500			1430	1400	2000	1500		2010	2250
P			2060		2100			2050		2050	2050		1660	2100