



Technical Data

for Drum Wood Chipping Machines

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Manually Fed Wood Chippers

The manually fed **HEIZOHACK**- wood chippers can break down all wood waste, such as slats, beams, logs, blocks or branches and trunks with a diameter up to a maximum of 300mm or 400mm.

A steel conveyor belt and a pressure roller with welded tongs ensure a powerful and reliable feeding of the material.

The **HEIZOHACK**- wood chippers are equipped with a low drag drum chip rotor. Thereby flawless operation is also possible with low drive performance and the fuel consumption is reduced. The drive can take place using a propeller shaft, via an internal combustion engine (HM 6-300 VM) or via an electro-motor (HM 4/6-300 EM, HM 5/6/8-400 EM).

The hydraulic feed units supply is undertaken via it's the own on-board hydraulic system. An external oil supply is not necessary.

The size of the wood chips can be influenced by the individually adjustable feed speed and the easily exchanged sieve. The ejection of long pieces is prevented by the sieve.

The counterknife can be used quadrilaterally.

The quick exchangeable blades can be re-sharpened when fitted.

The feed table and the ejector spout are foldable and supported by pneumatic shock dampers. Upon request, the ejector spout rotation and the ejector flap adjustment are possible by remote control. The feed speed is adjustable via a flow divider and the direction of the feed elements reversible by the feed safety lever.

The electric controls of the chipping machine have, besides an operator-friendly, load-dependent feed control of the wood feed, also two day counters and an overall operations counter.

The machine is designed solely for manual feeding and is equipped with a feed safety rope.

The tested safety seal is to be observed.





HM 4/6-300 hack Drum Wood Chipper





Picture of HM 6-300

Machine exclusively for manual feeding

Technical Data and Equipment of the Wood Chipping Machine:

Height of Feed: 300 mm

Width of Feed: HM 4-300 - 370 mm

HM 6-300 - 539 mm

Feed: - Pressure roller with

steel teeth (Ø 380 mm)

- Conveyor belt 600 mm long

- In-feed table 900 mm long

Sieve: Standard Mesh 35/40 mm

Drum Ø: 450mm with quick exchangeable blades

Flywheel: 130 kg

Ejector: Manually foldable and rotatable; supported by pneumatic shock dampers

Controls: - Automatic load-dependent feed control

- Two day counters and one overall operating hours counter

- Conveyor belt speed infinitely adjustable

Drive rpm: max. 750 min-1

Drive Power: max. permissible 60 KW / 82 PS

Type of Wood Chipper	Weight without Chassis	Article number
HEIZOHACK HM 4-300	approx. 1.520 kg	04-004-000
HEIZOHACK HM 6-300	approx. 1.740 kg	04-006-000
Chassis:		
Chassis HM 4/6-300 25 km/h no braking device, a trailing axle, long PTO shaft, supporting leg, drawbar, wings and lighting, 04-004-700 with tyres 10/75 - 15.3, height of towing port: approx. 950 mm		
Chassis HM 4/6-300 25 km/h with cable brake, a trailing axle, long PTO shaft, supporting leg, drawbar, wings and lighting, with tyres 10/75 - 15.3, height of towing port: approx. 950 mm		04-004-705



Picture of HM 6-300 EM



HM 4/6-300 EM Drum Wood Chipper

Machine exclusively for manual feeding; for stationary use; electromotor drive

CE

Technical Data and Equipment for the Wood Chipping Machine:

Height of Feed: 300 mm

Width of Feed: HM 4-300 EM - 370 mm

HM 6-300 EM - 539 mm

Feed: - Pressure roller with

steel teeth (Ø 380 mm)

- Conveyor belt 600 mm long

- In-feed table 900 mm long

Sieve: Standard Mesh 35/40 mm

Drum Ø: 450 mm with quick exchangeable blades

Rotor rpm: max. 750 min-1

Flywheel: 130 kg

Ejector: Manually foldable and rotatable; supported by pneumatic shock dampers

Controls: - Automatic load-dependent feed control

- Two day counters and one overall operating hours counter

Conveyor belt speed infinitely adjustableControl panel with star-triangle circuit

- Connection by customer in accordance with DIN-VDE

Type of Wood Chipper	Weight without Base Frame and Electromotor	Article number
HEIZOHACK HM 4-300 EM	approx. 2.100 kg	04-104-000
HEIZOHACK HM 6-300 EM	approx. 2.320 kg	04-106-000
Electromotors:		
Electromotor 45 kW 1.500min-1,V belt drive, Contro (suitable for soft wood chipping Weight with frame: approx. 625	, e.g. spruce)	92-451-001
Electromotor 55kW 1.500min-1,V belt drive, control panel with star-triangle circuit (suitable for chipping with hard wood, e.g. beech) Weight with frame: approx. 680 kg		92-551-001





hack HM 6-300 VM Drum Wood Chipper





Machine exclusively for manual feeding; for mobile use; internal combustion engine

Technical Data and Equipment for the Wood Chipping Machine:

Height of Feed: 300 mm

Width of Feed: 539 mm

Feed: - Pressure roller with

steel teeth (Ø 380 mm)

- Conveyor belt 600 mm long

- In-feed table 900 mm long

Sieve: Standard Mesh 35/40 mm

Drum Ø: 450 mm with quick exchangeable blades

Picture of HM 6-300 VM

Flywheel: 130 kg

Ejector: - Manually foldable; supported by pneumatic shock dampers

- Ejector flap electric adjustment (infinitely variable)

- Ejector spout electric rotatable (infinitely variable)

Controls: - Automatic load-dependent feed controls

- Two day counters and one overall operating hours counter

- Conveyor belt speed infinitely adjustable

Technical Data and Equipment of Chassis and Auxiliary Engine:

Auxillary Engine: Hatz 4M41,

Air-cooled four stroke diesel engine with direct injection 51 KW / 70 HP

Live Ring: 270° rotatable

Chassis: ALKO Tandem-Chassis 80 km/h, inertia broken

Drawbar height adjustable, tyres 225/70 R 14

Hitch: With DIN-Trailer coupling ring and traction ball-shaped coupling

Support load: 100 kg

Type of Wood Chipper	Weight including Chassis and Engine	Article number
HEIZOHACK HM 6-300 VM	approx. 3.500 kg	04-906-000

Sieve:





HM 5/6/8-400 Drum Wood Chipper





Picture of HM 8-400

Machine exclusively for manual feeding

<u>Technical Data and Equipment</u> <u>for the Wood Chipping Machine:</u>

Height of Feed: 400 mm

Width of Feed: HM 5-400 - 451 mm

HM 6-400 - 539 mm HM 8-400 - 708 mm

Feed: - Pressure roller with

steel teeth Ø 450 mm)

- Conveyor belt 600 mm long

- In-feed table 900 mm long Standard Mesh 35/40 mm

Drum Ø: 495 mm with quick exchangeable blades

Flywheel: - HM 5-400 - 300 kg

- HM 6-400 - 300 kg

- HM 8-400 - 400 kg

Ejector: Manually foldable and rotatable; supported by pneumatic shock dampers

Controls: - Automatic load-dependent feed control

- Two day counters and one overall operating hours counter

- Conveyor belt speed infinitely adjustable

Drive rpm: max. 750 min-1

Drive Power: max. permissible at 540 min-1 100KW / 136 HP

max. permissible bei 750 min-1 139KW / 190 HP

Type of Wood Chipper	Weight without Chassis	Article number
HEIZOHACK HM 5-400	approx. 2.430kg	04-205-000
HEIZOHACK HM 6-400	approx. 2.660kg	04-206-000
HEIZOHACK HM 8-400	approx. 3.080kg	04-208-000
Fahrgestelle:		
Chassis HM 5/6/8-400 25 km/h no braking device, a trailing axle, long PTO shaft, supporting leg, drawbar, wings and lighting, with tyres 400/60 - 15.5 up to 40 km/h, height of towing port: approx. 950 mm		04-205-700
Chassis HM 5/6/8-400 25 km/h cable handbrake, a trailing axle, long PTO shaft, supporting leg, drawbar, wings and lighting, with tyres 400/60 - 15.5 up to 40 km/h, height of towing port: approx. 950 mm		04-205-705
Chassis HM 5/6/8-400 40 km/h with spring-loaded pneumatic brake 3,5 t, a trailing axle, long PTO shaft, supporting leg, drawbar, wings and lighting, with tyres 400/60 - 15.5 up to 40 km/h, height of towing port: approx. 950 mm		04-205-711





HM 5/6/8-400 EM Drum Wood Chipper

Machine exclusively for manual feeding; for stationary use; Electromotor drive



Technical Data and Equipment for the Wood Chipping Machine:

Height of Feed: 400 mm

Width of Feed: HM 5-400 - 451 mm

HM 6-400 - 539 mm HM 8-400 - 708 mm

Feed: - Pressure roller with

steel teeth (Ø 450 mm)

- Conveyor belt 600 mm long

- In-feed table 900mm long

Sieve: Standard Mesh 35/40mm

Drum Ø: 495 mm with quick exchangeable blades

Flywheel: - HM 5-400 - 300 kg

- HM 6-400 - 300 kg - HM 8-400 - 470 kg

Ejector: Manually foldable and rotatable; supported by pneumatic shock dampers

Controls: - Automatic load-dependent feed controls

- Two day counters and one overall operating hours counter

- Conveyor belt speed infinitely adjustable

- Control panel with star-triangle button

- Connection by customer in accordance with DIN-VDE

Type of Wood Chipper	Weight without Base frame and Electromotor	Article number
HEIZOHACK HM 5-400	approx. 2.950 kg	04-305-000
HEIZOHACK HM 6-400	approx. 3.170 kg	04-306-000
HEIZOHACK HM 8-400	approx. 3.550 kg	04-308-000
Flange-Mounted Motors:		
Electromotor 45 kW 1.500min-1,V belt drive, Control panel with star-triangle button (suitable for soft wood chipping, e.g. spruce) Weight with frame: approx. 625 kg		92-451-001
Electromotor 55 kW 1.500min-1,V belt drive, control panel with star-triangle button (suitable for chipping with hard wood, e.g. beech) Weight with frame: approx. 680 kg		92-551-001





Accessories for Manually Fed Drum Wood Chippers HM 4/6-300, HM 5/6/8-400



Wood Chipping Machine Accessories / Chassis:	Article number
PTO shaft with freewheeling	04.004.700
instead of the PTO shaft with shear pin (higher price)	04-004-708
Exchange blades	04-004-204-090
Ejector tower electric rotatable, infinitely variable	04-004-005
Ejector flap electric adjustment, infinitely variable	04-004-006
Ejector tower hydraulically height adjustable HM 300/400 Ejection height from approx.2,90 m to 4,10 m, adjustable via double acting hydraulic cylinder, activity by hand pump Attention: The tested safety seal is not applicable	E04-110-580
In feed table lifting cylinder, to be connected to tractor hydraulics Attention: The tested safety seal is not applicable	93-830-300
RAL special paint(higher price per colour)	04-004-010
Trailer coupling ring Ø 50 mm, rigid Instead of the rigid trailer coupling ring Ø 40 mm (higher price)	98-050-009
Hitch , height of towing port 500 mm Additional part is required to retrofit the existing traction facility to lower hitch. (up to max. 25 km/h), Weight 60 kg Attention: The tested safety seal is not applicable	04-004-505
Additional Sieves HM 4-300:	
HM 4-300 25/25 mm (great decrease in performance)	E04-004-520
HM 4-300 35/40 mm	E04-004-532
HM 4-300 50/50 mm	E04-004-525
Additional Sieves HM 6-300:	F04 000 F00
HM 6-300 25/25 mm (great decrease in performance)	E04-006-522
HM 6-300 35/40 mm HM 6-300 50/50 mm	E04-006-521 E04-006-525
Additional Sieves HM 5-400:	L04-000-323
HM 5-400 25/25 mm (great decrease in performance)	E04-005-621
HM 5-400 35/40 mm	E04-005-629
HM 5-400 50/50 mm	E04-005-625
Additional Sieves HM 6-400:	
HM 6-400 25/25 mm (great decrease in performance)	E04-006-622
HM 6-400 35/40 mm	E04-006-634
HM 6-400 50/50 mm	E04-006-625
Additional Sieves HM 8-400:	
HM 8-400 25/25 mm (great decrease in performance)	E04-008-622
HM 8-400 35/40 mm	E04-008-620
HM 8-400 50/50 mm	E04-008-629
Further Sieves upon Enquiry	





Crane Fed Wood Chipping Machines

With the crane fed **HEIZOHACK** wood chippers all wood waste, such as slats, beams, logs, blocks or branches and trunks with a diameter up to a maximum of 500mm and parts of trees up to 800mm x 1 000mm (using HM 14-800 K) can be processed with relatively little power needed. This is achieved by the large flywheel mass in the ejector blower.

The **HEIZOHACK**- wood chippers are equipped with a low drag drum chip rotor. Thereby flawless operation is also possible with low drive performance and the fuel consumption is reduced. The drive can take place via a PTO shaft.

A steel conveyor belt and a pressure roller with welded spikes ensures a powerful and reliable feed of the material. The feed is supported therefore by the front end in-feed roller at the end of the in-feed table and by the optionally available conveyor belt, which is integrated into the in feed table.

The size of the chipped wood can be influenced by the individually adjustable feed speed and by the easily exchangeable sieve. The ejection of end pieces is prevented by the sieve.

The counterknife can be used bilaterally.

The quick exchangeable blades can be re-sharpened when fitted.

The supply of the hydraulic feed units is undertaken by the on-board hydraulics system. Secondary consumers such as the ejector tower, in-feed table, crane (if fitted), etc. are supplied by the hydraulics system of the traction machine.

The electrical controls of the wood chipper has, besides an operator-friendly, load-dependent feed regulation, also two day counters and an overall operating hours counter. The feed speed is adjustable the direction of all feed elements reversible.

The drive of all functions is undertaken via the remote control cable, which must be fitted in the driver cabin.

Upon request radio controls can be fitted.

With the HM 14-800 KL, **Heizomat** offers a special designed powerful and professional wood chipper, set up on a 440HP Mercedes Benz Actros 3344 AK Euro 5 with 6x6 wheel drive.

All functions are to be operated directly from the air-conditioned driver cabin.

In addition, the supplementary functions, such as in-feed table, ejector spout swivel and rotation and also the ejector flap can be controlled by remote control. This is among other things particularly helpful in the filling of containers by a second man.

The powerful wood feed is achieved by a pressure roller, a conveyor belt, a front end in-feed roller at the end of the in-feed table and additionally by a conveyor belt integrated into the in-feed table.

All feed devices are hydraulically driven.

The rotor drive is undertaken via a highly elastic V belt transmission unit, which is driven by the load-carrying gearbox-independent supplementary drive (NMV) with maximum motor torque of the Mercedes Actros.

The HEIZOMAT lorry chipper has an Epsilon Palfinger M70F101 set-up crane.





HM 8-500 K Drum Wood Chipper

CE

Machine exclusively for crane feeding

Technical Data and Equipment for the Wood Chipping Machine:

Height of Feed: 500 mm Width of Feed: 708 mm

Feed: - Pressure roller with

steel teeth (Ø 800 mm)

- Conveyor belt 900 mm long

- In-feed table 1.500 mm long



Picture of HM 8-500 K without crane

Feed Flap: - Hydraulically foldable

- Front end roller at the in-feed table

- Optionally with conveyor belt

Sieve: Standard Mesh 35/40mm

Drum Ø: 495 mm with quick exchangeable blades

Flywheel: 1.000 kg

Ejector: - Hydraulically foldable, adjustable for height and rotatable

(Ejecting height approx. 3.35 m up to 4.25 m; depending on chassis

and tyres)

- Hydraulic ejector flap adjustment

Controls: - Automatic load-dependent feed controls

- Two day counters and one overall operating hours counter

- Feed speed infinitely variable

- Feed direction reversible

- Remote Control with 10 m cable and control panel for all functions

Drive: PTO shaft and V belt transmission

Drive rpm: max. 1.000 min-1

Drive Power: max. permissible 170 KW / 230 PS





HM 8-500 K Drum Wood Chipper

CE

Type of Wood Chipper	Weight without Chassis	Article number
HEIZOHACK HM 8-500 K	approx. 6.000kg	04-408-000
Chassis:		
Chassis 40km/h a trailing axle, spring-loaded pneumatic brake, PTO, supporting leg,. Drawbar and trailer coupling ring Ø40 mm, wings and lighting, without tyres, with ABE Permissible total weight: 9.000 kg Height of towing port: 500 mm Weight: 1.000 kg		
Tyres:		
Tyres 385/55 R22.5 up to 80 km/h, Road tyres 98-385-225		98-385-225
Tyres 400/55 R22.5 up to 40 km/h, Off-road tyres		98-400-225
Tyres 500/45 R22.5 up to 40 km/h; Off-road tyres (only for chassis 04-310-715, not for crane set-up HM 8-500K) Vehicle width: approx. 2,80 m 98-500-225		98-500-225







Wood Chipping Machine Accessories / Chassis:	Article number
In-feed table with conveyor belt HM 8-500 K	04-508-200
Freewheeling PTO shaft	
instead of the PTO shaft with shear pin (higher price)	04-004-708
Exchange blades	04-004-204-090
Automatic trailer coupling - maximum trailing load 8.000kg - including two compressed air connections (04-114-652) - only for tandem axle trailer	04-114-651
Hydraulic connection with coupling to rear of the chipper (per connection)	04-004-641
Ball hitch K80, 160x160 M20 by Scharmüller instead of the rigid trailer coupling ring (higher price)	98-080-001
Trailer coupling ring Ø 50mm, rotatable instead of the rigid trailer coupling ring (higher price)	98-056-001
RAL special paint (Higher price per colour)	04-004-010
Foot pedal for feed direction for reverse of all feed elements	04-003-910
Foot pedal feed roller for raising /lowering the upper feed roller	04-003-911
Camera with screen at the ejector spout Brigade type	04-003-912
Reversing camera with screen Brigade type	04-003-913
Camera at the ejector spout and camera for reversing with screen Brigade type	04-003-914
Headlight at the ejector bend Halogen headlight	04-003-915
Additional Sieves:	
HM 8-500 K 25/25 mm (great decrease in performance)	04-008-087
HM 8-500 K 35/40 mm	04-008-088
HM 8-500 K 50/50 mm	04-008-085
HM 8-500 K 45/60 mm with stop bars (G30)	E04-008-634
HM 8-500 K 60/80 mm with stop bars (G50)	E04-008-631
HM 8-500 K 80/80 mm with stop bars	E04-008-635
Further Sieves upon Enquiry	







Radio Control T60:	Article number
Radio Control T60	
Functions: - Raise/lower ejector spout - Right/left rotation of ejector spout - Raise/lower ejector spout adjustment - Raising/lowering of in-feed table ATTENTION: without speed adjustment of the pressure roller and conveyor belt	
Consisting of: Hand-held transmitter: MIDI System T60 Push-buttons: 1 stepped Housing: IP 65 Dimensions: 113 x 66 x 35 mm (with clip)	04-414-915-120
Receiver: Standard T60; 8 Relay outputs Changeover contact: potential -free, 8A Operating voltage: 12V DV, 24V AC/DC Housing: IP 65 Dimensions: 125 x 175 x 75 mm High-Flex Antenna (flexible) 1/4 shaft, about 170 mm	







Kesla Patu 305 Crane:	Article number
Kesla Patu 305 single extender (HM 8-500 K; set-up behind for the Wood Chipping Machine)	
Only in connection with: - A- Frame (98-014-001)	
Crane Accessories Required: see under Crane Accessories	
Inclusive: - Rotator GV6RF - Rotator joint for GV6RF, with swing brake	
Technical Details: Lifting torque, gross (4 m): 59,0 kNm	
Lifting torque, net (4 m): 46,0 kNm Maximum range: 6,9 m	98-305-018
Lifting capacity at 4,0 m boom without grab: 1.170 kg Boom swivel moment: 16,0 Nm	30-303-010
Swivel angle: 380° Rotator swivel moment: 1.080 Nm	
Operating pressure set: 190,0 bar	
Recommended discharge capacity: 70 – 100 l/min Oil Supply: via tractor (LS)!	
Total Weight: 1.260 kg	
Rotator swivel moment: 1.080 Nm Swivel angle: unlimited	
Joint: with swing brake	
Weight of the grab equipment including rotator and joint: 143 kg	







Crane Accessoires:	Article number
PVRE joystick control	
for crane	
	04-039-621
with Danfoss Proportional Valves PVG 32/8	04-039-021
(6 proportional, 2 black and white)	
Prof1 joystick control	
for crane	
with Denfers Prepartional Values DVC 22/9	
with Danfoss Proportional Valves PVG 32/8 (6 proportional, 2 black and white, 8x on/off)	
(o proportional, 2 black and write, ox on/on)	
Special Functions:	04-039-625
- Raise/lower ejector spout	
- Right/left rotation of ejector spout	
- Raise/lower ejector spout adjustment	
- Raising/lowering of in-feed table	
Energy log grab F15E Kesla	
for use with Patu 305 and 305 T cranes	
Grab surface: 0,12 m ²	98-029-001
Operating Pressure: 175 bar	00 020 001
Force of Pressure 10,7 kN	
Weight: 127 kg	
A Frame Wood Chinner	
A-Frame Wood Chipper	
for crane set-up for the Wood Chipping Machine HM 8-500 K,	
including piping without hydraulic control	
Tholading piping without flydraulic control	
Technical Data of a possible crane:	98-014-001
	33 311 331
maximum crane weight: 1.300 kg	
maximum lifting capacity of the crane at 5m: 1.000 kg	
maximum crane length: 7,00 m	





HM 10-500 K Drum Wood Chipper

Machine exclusively for crane feeding



<u>Technical Data and Equipment</u> for the Wood Chipping Machine:

Height of Feed: 800 mm

Trunk Diameter: max. 500 mm

Width of Feed: 877 mm

Feed: - Pressure roller with

steel teeth (Ø 800 mm)

- Conveyor belt 900 mm long

- In-feed table 1.500 mm long



Picture of HM 10-500 K without crane

Feed Flap: - Hydraulically foldable

- Front end roller at the in-feed table

- Optional with conveyor belt

Sieve: Standard Mesh 45/60with stop bars

Drum Ø: 495 mm with quick exchangeable blades

Flywheel: 1.000 kg

Ejector: - Hydraulically foldable, adjustable for height and rotatable

(Ejecting height approx. 3,35 m up to 4,79 m; depending on chassis

and tyres)

- Hydraulic ejector flap adjustment

Controls: - Two day counters and one overall operating hours counter

- Automatic load-dependent feed controls

- Feed speed infinitely variable

- Feed direction reversible

- Remote Control with 10 m cable and control panel for all functions

Drive: PTO shaft and V belt transmission

Drive rpm: max. 1.000 min-1

Drive Power: max. permissible 170 KW / 230 PS





HM 10-500 K Drum Wood Chipper

CE

Type of Wood Chipper	Weight without Chassis	Article number
HEIZOHACK HM 10-500 K	approx. 6.500kg	04-410-000
Chassis / Tandem Chassis:		
Chassis 40 km/h		
a trailing axle, spring-loaded pr drawbar and trailer coupling rin without tyres, with ABE Permissible total weight: 9.000 Height of towing port: 500 mm Weight: 1.000 kg		04-310-715
Tandam Chassis 40/60 km/h		
Tandem-Chassis 40/60 km/h (dependent on the tyres) two axles, dual line pneumatic drawbar and trailer coupling rin without tyres (max. speed to be Permissible total weight: 15.00 Height of towing port: 1.000 mr Weight: 3.700 kg Tandem-Chassis 80 km/h	e considered), with ABE	04-212-610
(Only in connection with Tyres; 98-385-225) two axles, dual line pneumatic braking unit, PTO, supporting leg, drawbar and trailer coupling ring Ø40 mm, wings and lighting, without tyres (max. speed to be considered), with ABE), with individual TÜV tests Permissible total weight: 15.000 kg Height of towing port: 1.000 mm Weight: 3.800 kg		04-310-720
Drawbar for crane set-up Extended and reinforced design (only tandem chassis)	n specially for crane set-up	04-414-730
Tyres:		
Tyres 385/55 R22.5 up to 80 k		98-385-225
Tyres 400/55 R22.5 up to 40 k		98-400-225
Tyres 500/45 R22.5 up to 40 k (only for chassis 04-310-715, n Vehicle width: approx. 2,80 m	m/h; Off-road tyres ot for crane set-up HM 8-500K)	98-500-225
Tyres 560/45 R22.5 up to 60 k (only for tandem chassis 04-21 Vehicle width: approx. 2,98 m		98-560-225







Wood Chipping Machine Accessories / Chassis:	Article number
In-feed table with conveyor belt HM 10-500 K	04-410-200
Freewheeling PTO shaft instead of the PTO shaft with shear pin (higher price)	04-004-708
Exchange blades	04-004-204-090
Automatic trailer coupling - Maximum trailing load 8.000kg - including two compressed air connections (04-114-652) - only for tandem axle trailer	04-114-651
Hydraulic connection with coupling to rear of the chipper (per connection)	04-004-641
Ball hitch K80, 160x160 M20 by Scharmüller instead of the rigid trailer coupling ring (higher price)	98-080-001
Trailer coupling ring Ø 50mm, rotatable instead of the rigid trailer coupling ring (higher price)	98-056-001
RAL special paint (Higher price per colour)	04-004-010
Foot pedal of feed direction for reverse for all feed elements	04-003-910
Foot pedal feed roller for raising /lowering the upper feed roller	04-003-911
Camera with screen at the ejector spout Brigade type	04-003-912
Reversing camera with screen Brigade type	04-003-913
Camera at the ejector spout and camera for reversing with screen Brigade type	04-003-914
Headlight at the ejector bend Halogen headlight	04-003-915
Additional Sieves:	
HM 10-500 K 35/40 mm	E04-010-621
HM 10-500 K 50/50 mm Hardox with stop bars	04-010-639
HM 10-500 K 45/60 mm Hardox with stop bars(G30)	04-010-083
HM 10-500 K 60/80 mm Hardox with stop bars(G50)	04-010-086
HM 10-500 K 100/100 mm Hardox with stiffening	04-010-088
Further Sieves upon Enquiry	







Radio Control T60:	Article number
Radio Control T60	
Functions: - Raise/lower ejector spout - Right/left rotation of ejector spout - Raise/lower ejector spout adjustment - Raising/lowering of in-feed table ATTENTION: without speed adjustment of the pressure roller and conveyor belt	
Consisting of: Hand-held transmitter: MIDI System T60 Push-buttons: 1 stepped Housing: IP 65 Dimensions: 113 x 66 x 35 mm (with clip)	04-414-915-120
Receiver: Standard T60; 8 Relay outputs Changeover contact: potential -free, 8A Operating voltage: 12V DV, 24V AC/DC Housing: IP 65 Dimensions: 125 x 175 x 75 mm High-Flex Antenna (flexible) 1/4 shaft, about 170 mm	







Palfinger Epsilon C60F86 Crane: Article nun	nber
Palfinger Epsilon C60F86 double crane extender	
(HM 10-500 KT and HM 14-800 KT)	
Only in connection with:	
- Drawbar for crane set-up (04-414-730)	
- Crane console for crane set-up (04-014-651)	
- Hydraulically foldable support legs (04-414-749)	
Crane Accessories Required: see under Crane Accessories	
Claire Accessories Required. See under Claire Accessories	
Inclusive: - Rotator GV6RF	
- Rotator shaft for GV6RF	
Technical Details:	00
Lifting torque, gross: 82,0 kNm	
Lifting torque, net: 61,0 kNm	
Maximum range: 8,60 m	
Lifting capacity at 4,0 m boom without grab: 1.510 kg	
Lifting capacity for 8,0 m boom without grab: 7.510 kg	
Boom swivel moment: 20,0 Nm	
Swivel angle: 425°	
Operating pressure set: 200.0 bar	
Recommended discharge capacity: 80 -100 l/min	
Oil Supply: via tractor (LS)!	
Total Weight: 1.130 kg	
Total Weight: 1.150 kg	
Politinger Engilen M70E96 double grope extender	
Palfinger Epsilon M70F86 double crane extender (HM 10-500 KT and HM 14-800 KT)	
(HIVI 10-300 KT aliu HIVI 14-000 KT)	
Only in connection with:	
- Drawbar for crane set-up (04-414-730)	
- Crane console for crane set-up (04-414-730)	
- Hydraulically extendable support legs (04-414-750)	
- Trydradilically exteridable support legs (04-414-750)	
Crane Accessories Required: see under Crane Accessories	
<u></u>	
Inclusive: - Rotator G121	
- Rotator joint for G121, with swing brake	
98-306-0	00
Technical Details:	
Lifting torque, gross: 102,0 kNm	
Lifting torque, net: 68,0 kNm	
Maximum range: 8,60 m	
Lifting capacity for 4,0 m boom without grab: 1.700 kg	
Lifting capacity for 8,0 m boom without grab: 800 kg	
Boom swivel moment: 26,0 Nm	
Swivel angle: 385°	
Operating pressure set: 215,0 bar	
Recommended discharge capacity: about 100 l/min	
Oil Supply: via tractor (LS)!	
Total Weight: 1.470 kg	







Palfinger Epsilon M70F101 Kran:	Article number
Palfinger Epsilon M70F101 double crane extender	
(HM 10-500 KT and HM 14-800 KT)	
Only in connection with:	
- Drawbar for crane set-up (04-414-730)	
- Crane console for crane set-up (04-014-651)	
- Hydraulically extendable support legs (04-414-750)	
Inclusive: - Rotator G121	
- Rotator joint for G121, with swing brake	
Technical Details:	98-306-100
Lifting torque, gross: 102,0 kNm Lifting torque, net: 65,0 kNm	
Maximum range: 10,1 m	
Lifting capacity for 4,0 m boom without grab: 1.610 kg	
Lifting capacity for 8,0 m boom without grab: 760 kg	
Boom swivel moment: 26,0 Nm	
Swivel angle: 385°	
Operating pressure set: 215,0 bar Recommended discharge capacity: about 100 l/min	
Oil Supply: via tractor (LS)!	
Total Weight: 1.560 kg	
3	
Kesla Patu 305T Crane:	
Kesla Patu 305T double crane extender	
(HM 10-500 KT and HM 14-800 KT)	
Only in connection with:	
- Drawbar for crane set-up (04-414-730)	
- Crane console for crane set-up (04-014-651)	
- Hydraulically foldable support legs (04-414-749)	
Crane Accessories Required: see under Crane Accessories	
Claire Accessories Required.	
Inclusive: - Rotator GV6RF	
- Rotator joint for GV6RF, with swing brake	
Table to d Baratta	98-305-000
<u>Technical Details:</u> <u>Lifting torque, gross (4 m):</u> 59,0 kNm	
Lifting torque, net (4 m): 42,0 kNm	
Maximum range: 8,50 m	
Lifting capacity for 4,0 m boom without grab: 1.050 kg	
Boom swivel moment: 16,0 Nm	
Swivel angle: 380°	
Operating pressure set: 190,0 bar Recommended discharge capacity: 70 – 100 l/min	
Oil Supply: via tractor (LS)!	
Total Weight: 1.370 kg	







Wood Chipping Machine Accessories / Chassis:	Article number
PVRE joystick control for crane	04-039-621
with Danfoss Proportional Valves PVG 32/8 (6 proportional, 2 black and white)	04-039-021
Prof1 joystick control for crane	
with Danfoss Proportional Valves PVG 32/8 (6 proportional, 2 black and white, 8x on/off)	04.000.005
Special Functions: - Raise/lower ejector spout - Right/left rotation of ejector spout - Raise/lower ejector spout adjustment - Raising/lowering of in feed table	04-039-625
F15E Kesla energy log grab (for Patu 305 and 305 T cranes)	
Grab surface: 0.12 m² Operating Pressure: 175 bar Force of Pressure 10.7 kN Weight: 127 kg	98-029-001
F20E Kesla energy log grab (for Epsilon C60 F86 and M70F86)	
Grab surface: 0.18 m² Operating Pressure: 230 bar Force of Pressure 15,3 kN Weight: 160 kg	98-305-020
Crane console on the drawbar (HM 10-500 KT or HM 14-800 KT)	04-014-651
Only in connection with drawbar for crane set-up 04-414-730	31311331
Support legs hydraulically foldable (HM 10-500 KT or HM 14-800 KT)	04-414-749
including piping, without hydraulic controls	
Support legs hydraulically extendable (HM 10-500 KT or HM 14-800 KT)	04-414-750
including piping, without hydraulic controls	





hack HM 14-800 K Drum Wood Chipper

Machine exclusively for crane feeding

CE

<u>Technical Data and Equipment</u> for the Wood Chipping Machine:

Height of Feed: 800 mm

Trunk Diameter: 550 mm

Width of Feed: 1.215 mm

Feed: - Pressure roller with

steel teeth (Ø 800 mm)

- Conveyor belt 900 mm long

- In-feed table 1.500 mm long



Picture of HM 14-800 KT with Crane

Feed Flap: - Hydraulically foldable

- Front end roller at the in-feed table

- Optional with conveyor belt

Sieve: Standard Mesh 45/60 mm with stop bars Drum Ø: 500 mm with quick exchangeable blades

Flywheel: 1.000 kg

Ejector: - Hydraulically foldable, adjustable for height and rotatable

(Ejecting height 3,35 m up to 4,79 m; depending on chassis

and tyres)

- Hydraulic ejector flap adjustment

Controls: - Two day counters and one overall operating hours counter

- Automatic load-dependent feed controls

- Feed speed infinitely variable

- Feed direction reversible

- Remote Control with 10 m cable and control panel for all functions

Drive: PTO shaft and V belt transmission

Drive rpm: max. 1000 min-1

Drive Power: max. permissible 220 KW / 300 PS







Type of Wood Chipper	Weight without Chassis	Article number
HEIZOHACK HM 14-800 K	approx. 7.600 kg	04-414-000
Chassis / Tandem Chassis:		
Chassis 40 km/h		
a trailing axle, spring-loaded pr drawbar and trailer coupling rin without tyres, with ABE Permissible total weight: 9.000 Height of towing port: 500 mm Weight: 1.000 kg		04-310-715
T 0 : 10/00 //		
drawbar and trailer coupling rin without tyres (max. speed to be Permissible total weight: 15.000 Height of towing port: 1.000 mr Weight: 3.700 kg	considered), with ABE	04-212-610
drawbar and trailer coupling rin without tyres (max. speed to be with individual TÜV tests Permissible total weight: 15.000 Height of towing port: 1.000 m Weight: 3.800 kg	oraking unit, PTO, supporting leg, g Ø40 mm, wings and lighting, considered), with ABE),	04-310-720
Drawbar for crane set-up Extended and reinforced design (only tandem chassis)	n specially for crane set-up	04-414-730
Tyres:		
Tyres 385/55 R22.5 up to 80 k	m/h, Road tyres	98-385-225
Tyres 400/55 R22.5 up to 40 k		98-400-225
Tyres 500/45 R22.5 up to 40 k (only for chassis 04-310-715, n Vehicle width: approx. 2,80 m	m/h; Off-road tyres ot for crane set-up HM 8-500 K)	98-500-225
Tyres 560/45 R22.5 up to 60km (only for tandem chassis 04-21 Vehicle width: approx. 2,98 m		98-560-225







Wood Chipping Machine Accessories / Chassis:	Article number
In-feed table with conveyor belt HM 14-800 K	04-414-200
	31111200
Freewheeling PTO shaft instead of the PTO shaft with shear pin (higher price)	04-004-708
Exchange blades	04-004-204-090
Automatic trailer coupling - Maximum trailing load 8.000 kg - including two compressed air connections (04-114-652) - only for tandem axle trailer	04-114-651
Hydraulic connection with coupling to rear of the chipper (per connection)	04-004-641
Ball hitch K80, 160x160 M20 by Scharmüller instead of the rigid trailer coupling ring (higher price)	98-080-001
Trailer coupling ring Ø 50 mm, rotatable instead of the rigid trailer coupling ring (higher price)	98-056-001
RAL special paint (Higher price per colour)	04-004-010
Foot pedal for feed direction for reverse for all feed elements	04-003-910
Foot pedal feed roller for raising /lowering the upper feed roller	04-003-911
Camera with screen at the ejector spout Brigade type	04-003-912
Reversing camera with screen Brigade type	04-003-913
Camera at the ejector spout and camera for reversing with screen Brigade type	04-003-914
Headlight at the ejector bend Halogen headlight	04-003-915
Additional Sieves:	
HM 14-800 K 35/40 mm	E04-014-620
HM 14-800 K 50/50 mm Hardox with stop bars	E04-014-634
HM 14-800 K 45/60 mm Hardox with stop bars(G30)	04-014-619
HM 14-800 K 60/80 mm Hardox with stop bars(G50)	E04-014-638
HM 14-800 K 100/100 mm Hardox with stiffening	04-014-100-1
Further Sieves upon Enquiry	







Radio Control T60:	Article number
Radio Control T60	
Functions: - Raise/lower ejector spout - Right/left rotation of ejector spout - Raise/lower ejector spout adjustment - Raising/lowering of in-feed spout ATTENTION: without speed adjustment of the pressure roller and conveyor belt	
Consisting of: Hand-held transmitter: MIDI System T60 Push-buttons: 1 stepped Housing: IP 65 Dimensions: 113 x 66 x 35 mm (with clip)	04-414-915-120
Receiver: Standard T60; 8 Relay outputs Changeover contact: potential -free, 8A Operating voltage: 12V DV, 24V AC/DC Housing: IP 65 Dimensions: 125 x 175 x 75 mm High-Flex Antenna (flexible) 1/4 shaft, about 170 mm	







Palfinger Epsilon C60F86 Crane:	Article number
Palfinger Epsilon C60F86 double crane extender	
(HM 10-500 KT and HM 14-800 KT)	
Only in connection with:	
- Drawbar for crane set-up (04-414-730)	
- Crane console for crane set-up (04-014-651)	
- Hydraulically foldable support legs (04-414-749)	
ς, ,	
Crane Accessories Required: see under Crane Accessories	
Inclusive: - Rotator GV6RF	
- Rotator shaft for GV6RF	
	00,000,000
Technical Details:	98-306-200
Lifting torque, gross: 82,0 kNm	
Lifting torque, net: 61,0 kNm	
Maximum range: 8,60 m	
Lifting capacity at 4,0 m boom without grab: 1.510 kg	
Lifting capacity for 8,0 m boom without grab: 720 kg	
Boom swivel moment: 20,0 Nm	
Swivel angle: 425°	
Operating pressure set: 200.0 bar	
Recommended discharge capacity: 80 -100 l/min	
Oil Supply: via tractor (LS)!	
Total Weight: 1.130 kg	
Palfinger Epsilon M70F86 Crane:	
Palfinger Epsilon M70F86 double crane extender	
(HM 10-500 KT and HM 14-800 KT)	
((1111 10 000 101 and 1111 14 000 101)	
Only in connection with:	
- Drawbar for crane set-up (04-414-730)	
- Crane console for crane set-up (04-014-651)	
- Hydraulically extendable support legs (04-414-750)	
- Hydraulically exteridable support legs (04-414-750)	
Crane Accessories Required: see under Crane Accessories	
Orane Accessories Required.	
Inclusive: - Rotator G121	
- Rotator joint for G121, with swing brake	
- Rotator John 101 0 121, with 3 wing branc	98-306-000
Technical Details:	90-300-000
Lifting torque, gross: 102,0 kNm	
Lifting torque, net: 68,0 kNm	
maximum range: 8,60 m	
Lifting capacity for 4,0 m boom without grab: 1.700 kg	
Lifting capacity for 8,0 m boom without grab: 800 kg	
Boom swivel moment: 26,0 Nm	
Swivel angle: 385°	
Operating pressure set: 215,0 bar	
Recommended discharge capacity: about 100 l/min	
Oil Supply: via tractor (LS)!	
Total Weight: 1.470 kg	







Palfinger Epsilon M70F101 Kran:	Article number
Palfinger Epsilon M70F101 double crane extender	
(HM 10-500 KT and HM 14-800 KT)	
Only in connection with:	
- Drawbar for crane set-up (04-414-730)	
- Crane console for crane set-up (04-014-651)	
- Hydraulically extendable support legs (04-414-750)	
Inclusive: - Rotator G121	
- Rotator joint for G121, with swing brake	
Technical Details:	98-306-100
Lifting torque, gross: 102,0 kNm Lifting torque, net: 65,0 kNm	
Maximum range: 10,1 m	
Lifting capacity for 4,0 m boom without grab: 1.610 kg	
Lifting capacity for 8,0 m boom without grab: 760 kg	
Boom swivel moment: 26,0 Nm	
Swivel angle: 385°	
Operating pressure set: 215,0 bar Recommended discharge capacity: about 100 l/min	
Oil Supply: via tractor (LS)!	
Total Weight: 1.560 kg	
3	
Kesla Patu 305T Crane:	
Kesla Patu 305T double crane extender	
(HM 10-500 KT and HM 14-800 KT)	
Only in connection with:	
- Drawbar for crane set-up (04-414-730)	
- Crane console for crane set-up (04-014-651)	
- Hydraulically foldable support legs (04-414-749)	
Crane Accessories Required: see under Crane Accessories	
Claire Accessories Required.	
Inclusive: - Rotator GV6RF	
- Rotator joint for GV6RF, with swing brake	
Table to d Baratta	98-305-000
<u>Technical Details:</u> <u>Lifting torque, gross (4 m):</u> 59,0 kNm	
Lifting torque, net (4 m): 42,0 kNm	
Maximum range: 8,50 m	
Lifting capacity for 4,0 m boom without grab: 1.050 kg	
Boom swivel moment: 16,0 Nm	
Swivel angle: 380°	
Operating pressure set: 190,0 bar Recommended discharge capacity: 70 – 100 l/min	
Oil Supply: via tractor (LS)!	
Total Weight: 1.370 kg	







Wood Chipping Machine Accessories / Chassis:	Article number
PVRE joystick control for crane	04-039-621
with Danfoss Proportional Valves PVG 32/8 (6 proportional, 2 black and white)	04-039-021
Prof1 joystick control for crane	
with Danfoss Proportional Valves PVG 32/8 (6 proportional, 2 black and white, 8x on/off)	
Special Functions: - Raise/lower ejector spout - Right/left rotation of ejector spout - Raise/lower ejector spout adjustment - Raising/lowering of in-feed table	04-039-625
F15E Kesla energy wood grab (for Patu 305 and 305 T cranes)	
Gripper surface: 0.12 m ² Operating Pressure: 175 bar Force of Pressure 10.7 kN Weight: 127 kg	98-029-001
F20E Kesla energy wood grab (for Epsilon C60 F86 and M70F86)	
Gripper surface: 0.18 m² Operating Pressure: 230 bar Force of Pressure: 15,3 kN Weight: 160 kg	98-305-020
Crane console on the drawbar (HM 10-500 KT or HM 14-800 KT)	04-014-651
Only in connection with drawbar for crane set-up 04-414-730	
Support legs hydraulically foldable (HM 10-500 KT or HM 14-800 KT) including piping, without hydraulic controls	04-414-749
Support legs hydraulically extendable (HM 10-500 KT or HM 14-800 KT)	04-414-750
including piping, without hydraulic controls	





HM 14-800 KL

Machine exclusively for crane feeding

Powerful professional Wood Chipper set up on a **Mercedes Benz Actros 3344**



Technical Data and Equipment for the Wood Chipping Machine: HM 14-800 KL

Height of Feed: 800 mm Trunk Diameter: 550 mm Width of Feed: 1.215 mm

Feed: - Conveyor belt; length 900 mm

- Pressure roller with steel teeth; Ø 800 mm

- Conveyor belt integrated into the in-feed table; length 900 mm

- Front end roller at the in-feed table

Sieve: Standard Mesh 45/60 mm with stop bars Drum Ø: 495 mm with quick exchangeable blades

Flywheel: 1.000 kg





HM 14-800 KL hack Drum Wood Chipper



Machine exclusively for crane feeding

Technical Data and Equipment for the Wood Chipping Machine: HM 14-800 KL

- Hydraulically foldable wood chipper in-feed table
- Hydraulic ejector tower rotation and hydraulic ejector flap adjustment
- Hydraulic, rotatable ejector spout, adjustable ejecting height from 3.80m up to 5.30m
- Four hydraulic support legs
- Remote Control in the drivers cabin, with control panel for all functions for the Wood Chipping Machine
- Controls: Two overall counters and one day operating hours counter
 - Automatic load-dependent rpm regulation of the feed
 - Feed speed infinitely variable
 - Feed direction reversible
- With highly elastic V belt transmission unit
- High speed direct drive via the lorry engine (NMV)
- Camera for reversing at the rear of the vehicle and camera on ejector spout;
 Monitor in the driver cabin; Brigade type
- Radio Control T60 for raising/lowering ejector spout, ejector spout rotation right/left, raising/lowering ejector flap, raising/lowering in-feed table
- Halogen headlight 4 x on the driver's cabin, 1 x on the ejector tower, 4 x on the loading crane
- Joystick controls Prof1 with additional functions
- Foot pedal pressure roller; for raising/lowering the pressure roller
- Foot pedal of feed movements backwards; for reversing the rotation movement of all feed devices
- Rotatable seat in the driver's cabin
- Automatic hitch coupling: made by Ringfeder; bolt diameter 50 mm

Technical Details of the Crane Set-up: Palfinger Epsilon M70F101

Lifting torque gross: 102,0 kNm
Lifting torque net: 65,0 kNm
Maximum range: 10,10 m

Lifting capacity for 10,00 m;

Without boom and gripper: 540 kg
Extender swivel torque: 26,0 Nm
Swivel angle: 385°
Total Weight: 1.560 kg





HM 14-800 KL Drum Wood Chipper

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Machine exclusively for crane feeding

Technical Details Energy Wood Gripper: KESLA Patu F20E

Grab Surface: 0,18 m²
Operating Pressure: 230 bar
Force of Pressure 15,3 kN
Weight: 160 kg

Technical Details of the Lorry: Mercedes-Benz ACTROS 3344 AK 6X6

Drive Power: 323 KW / 440 PS Lorry engine rpm: 1.300 – 1.600 min-1

Exhaust standard: Euro 5 Track: 2,00 m

Tyres: Front Axle 385/65 R22.5

Rear Axle 315/80 R22.5

Type of Wood Chipper	Total Weight	Article Number
HEIZOHACK HM 14-800 KL	approx. 23.500kg	04-814-000
Additional Sieves:		
HM 14-800 K 35/40 mm		E04-014-620
HM 14-800 K 50/50 mm Hardox with stop bars		E04-014-634
HM 14-800 K 45/60 mm Hardox with stop bars (G30)		04-014-619
HM 14-800 K 60/80 mm Hardox with stop bars (G50)		E04-014-638
HM 14-800 K 100/100 mm Hardox with stiffeners		04-014-100-1
Further Sieves upon Enquiry		

HEIZOMAT Gerätebau- Energiesysteme GmbH





Maicha 21			
D-91710 Gunzenhausen			
Customer:	<u>Order:</u>		
			
			
Model:			
Description of Article:	Article Number:	Number:	Page
Remarks:			
Place, Date:	Sigi	nature:	



General Terms and Conditions of the Firm Heizomat Gerätebau- Energiesysteme GmbH

1. Area of Application

1.1 Our deliveries, services and offers are performed exclusively on the basis of the General Terms and Conditions. Deviations from our General Terms and Conditions only become part of the contract if these deviating terms and conditions are recognised and confirmed by us in writing. Incidentally, deviating terms and conditions of our contractual partners do not obligate us; inclusion in a contractual relationship is herewith expressly objected to.

2. Offers/Acceptance of Orders

- 2.1 The offers made by Heizomat are not binding.
 - An order placed with Heizomat is considered to have been accepted first with the despatch of the written order by Heizomat Gunzenhausen with the order number issued by Heizomat Gunzenhausen
- 2.2 An order placed with Heizomat is considered to have been accepted first with the despatch of the written order by Heizomat Gunzenhausen with the order number issued by Heizomat Gunzenhausen.
- 2.3 The purchaser remains bound to his order until Heizomat responds. If he receives within a commensurate period no order confirmation, he can request this by setting an extension in time of 14 days, otherwise he withdraws the order.

3. Prices

- 3.1 Our prices are to be understood as prices in Euros ex works excluding packaging and transport insurance, plus the respective valid statutory VAT.
- 3.2 For contracts concerning deliveries of goods and other services, i.e. fitting and repair jobs for non-traders, we are bound for 4 months to the prices agreed with the purchaser in writing from the date of the conclusion of the contract. If it is envisaged that the delivery or the services will not have been completed in 4 months after conclusion of the contract, in the event of changes in the at that time decisive conditions the respective valid pricelist is applicable: For price increases only then if these are commensurate in relation to the changes.

4. Delivery Period/Time of Performance and Transfer of Risks

- 4.1 The delivery and assembly deadlines named by us are not binding insofar as something else was not expressly agreed in writing.
- 4.2 Delivery and performance delays due to force majeure (e.g. war, fire, strike, operational disruptions on the vendor's suppliers' premises or on ours etc.) and unforeseen public authority measures entitle us to postpone the delivery or service by the duration of the impediment plus a commensurate preparatory period or withdraw from the contract due to the unfulfilled part either in full or in part. The right to the performance of partial deliveries is expressly conceded. Such events do not substantiate delays due to a lack of blame.
- 4.3 In as far as the delay lasts more than three months, our contractual partner is entitled, after a commensurate setting of an extension period of a further three weeks, to withdraw from the contract with respect to the part of the contract still to be fulfilled. The to that date already complete partial performance is to be remunerated.
- 4.4 The risk is transferred to the purchaser with the despatch of the goods from the works or from the warehouse. If the despatch is delayed by the purchaser, the risk is transferred from the day the despatch is made ready. The despatch is performed upon the account and at the risk of the purchaser. Despatch regulations are to be consigned with the order. For transport damage, no liability is accepted.

5. Duty To Cooperate of the Purchaser

- 5.1 The purchaser is obliged to create all the required construction-side pre-requisites for the installation of the performance (annex) to be made by us before the assembly date notified to us at his expense. If the purchaser does not fulfil this obligation, the dates given us for delivery/performance/assembly and completion/commissioning are no longer applicable.
- 5.2 The purchaser is obliged, at his expense, to provide machines/material resources at the assembly location, in order to ensure proper unloading of the delivered unit. The purchaser is obliged to ensure at his expense the pre-requisites for a proper approach to the assembly location with lorries, crane(s) etc.. The purchaser provides at his expense assembly power on the building site. The same applies to proper water supplies to be provided for the construction.
- 5.3 The purchaser is obliged in the event of interaction or caused by the dependence of existing aggregates and new aggregates to be installed by us that it is ensured that the compatibility between existing units and new units delivered by us is technically smooth. If errors or damage occur which can be put down to the fact that the existing units and aggregates provided by the purchaser are not compatible with those units and aggregates to be delivered and assembled by us, liability by us is excluded.
- 5.4 As part of the duty to cooperate, the purchaser is obliged to preliminary performance obligations for the provision of suitable and unpolluted work conditions for the Heizomat assembly staff. Included here are, in particular, the emptying of bunkers, disposal of shavings and other materials and the replacement stocking of raw, work and auxiliary materials included shavings, which previously had been transported away at the expense of the purchaser, as part of the tasks which we had to perform on the premises of the purchaser.

6. Notice of Defects/Guarantee

- 6.1 Notice of defects due to obvious defects are to be notified in writing, without culpable delay, at the latest, however, within one calendar week after receipt of the goods. If the purchaser is a legal entity under public law, public law special assets or a merchant for whom the object of the contract belongs to the operation of a business, this applies due to every identifiable defect and the complaint about it due to incomplete or wrong delivery. Otherwise the guarantee is excluded. For delivery and installation of heating units, what applies in particular are the respective attached sheet to the delivery note and the inspection and handover report. The purchaser recognises with his signature on the attached sheet and the inspection and handover report the absence of defects and contractual and planned performance of the heating unit including the control cabinet and auxiliaries at the point in time of the signature.
- 6.1.1 Also defects not recognised are to be complained about in writing immediately after they have been noticed.
- 6.2 The guarantee for our goods and services runs for one year, if the purchaser is not a consumer (equatable with commercial usage). For final consumers the statutory guarantee period of two years applies. For used goods the guarantee period comes to 1 year, if the purchaser is a final consumer. If the purchaser is not a final consumer, the sale of used goods is made excluding all material defects liability.

- 6.2.1 A reference to technical standards does not represent warranty.
- 6.2.2 If the elimination of defects finally fails even after repeated reworking, the purchaser can demand a reduction in price or remuneration or rescission of the contract.
- 6.2.3 As part of the guarantee, replaced parts become owned by us.
- 6.2.4 The guarantee is excluded:
 - a) Resulting from depreciation (wear-and tear)
 - b) If the delivery object has been altered so much that the cause of the defect can no longer be identified or if the purchaser himself undertakes installation and repairs on defective. parts or has them performed or if the purchaser disregards the valid maintenance and conditions regulations for the delivered object and the defect is thus caused.
- 6.2.5 The guarantee is further dependent on the fact that the delivered goods (unit) has been properly serviced and operated.
- 6.2.6 If unsuitable heating or size reduction materials are used for any form of wood chipping machines, i.e. for example, the inclusion of, in particular, metallic foreign matter, all guarantee claims are invalid. This also applies if the cause of the malfunction of the defect is that unsuitable heating material has led to excessive contamination of the heating unit.

7. Liability of the Firm Heizomat

7.1 The firm Heizomat is liable, irrespective of Section 6 for damages – for whatever legal reason – only if a promised characteristic is absent or to the extent that you or your legal representatives or your agents are at fault. The liability of the legal representatives, agents or other company employees of Heizomat towards a purchaser is, except in cases of intent or gross negligence, excluded. The vendor's suppliers are not our vicarious agents.

8. Retention of Title

- 8.1 All our deliveries and services, including assembly, take place under retention of title. Ownership is transferred to the purchaser, when he has settled all his liabilities resulting from his business relationship with us. This also applies if the purchase price for a certain goods delivery designated by our purchasers has been paid. The retained ownership applies in the case of an open invoice, where appropriate, as security for our balance claim. If bills of exchange or cheques are given in payment, the encashment without reserve applies first as settlement. Processing take places for us excluding acquisition of title in accordance with § 950 of the German Civil Code without obligating us. The processed good serves as our security in the amount of the value of the invoice of the processed reserved goods. If our (joint) ownership is erased by connection, it is herewith agreed that the (joint) ownership of the uniform matter is transferred to us proportionate to the value. The purchaser holds our (joint) ownership in safe custody.
- 8.2 In the event of access of third parties to our (joint) ownership, the purchaser will point out our ownership right and immediately notify us in writing of this access. This applies, in particular, to distraints, collateral assignment, and mortgage liability etc. pp. Costs and damages are borne by the purchaser.
- 8.3 In the event of behaviour in violation of the contract by the purchaser, in particular, payment delays, we are entitled to take back the goods delivered by us (unit) at the expense of the purchaser and where appropriate, to demand assignment of the claims for restitution of the purchaser against third parties.
 8.4 The purchaser is obliged, as long as our ownership of the delivered goods exists (unit) to
- 8.4 The purchaser is obliged, as long as our ownership of the delivered goods exists (unit) to insure the same against loss, value reduction, damage, theft and transport risks. Claims under the insurance contract in damage instances are to be assigned to us on account of payment. Our (joint ownership) continues to exist also in the event of a sale by the purchaser in the relationship to the purchaser/entrepreneur.
- 8.5 If the value of the existing securities exceeds the secured claims altogether by more than 20 %, we are obliged upon request by the customer to that extent to release securities of our choice.

9. Condition of Payment

- 9.1 Payable within 10 days from the date of the invoice with 2 % discount or in 30 days net, in as far as nothing else was listed in our order confirmation or invoice. If the deadline is overrun, the usual bank rates of interest and expenses are to be borne in full. Changes require the written confirmation of Heizomat Gunzenhausen.
- 9.2 If the purchaser does not meet his payment obligations at all or not properly, in particular, in the event that a cheque on account of performance handed over is not honoured or the purchase stops payments or if other circumstances become known, which cast doubt on the creditworthiness of the purchaser, we are entitled to make the full remaining amount owed to us due immediately. In addition we are entitled in these case to demand an advance payment or security (e.g. bank guarantee).
- 9.3 The offsetting with disputed or not legally valid counter-claims is excluded. For business people in these cases also no right of retention can be asserted.
- 9.4 The deduction of discount can only be effectively agreed individually in accordance with Sub-Section 9.1. A deduction of discount by the purchaser is only possible if not other claims are due against him.
- 9.5 By delays in payment, interest on arrears can be asserted. These are for final consumers at 5 % above the respective basic rate of interest, for companies and business people at 8 % above the respective basic rate of interest of the European Central Bank. The firm Heizomat is entitled to demand higher rates of interest on other legal grounds.

10. Design Changes

- 10.1 We reserve the right to undertake design changes at any time, insofar as this matches the technical requirements. An obligation on this point does not exist.
- 11. Place of Jurisdiction and Place of Fulfilment, Separability
- 1.1 For all claims resulting from the business relationship with full business people, including bills of exchange and cheque claims, the exclusive place of jurisdiction is the civil court responsible for Gunzenhausen. The same place of jurisdiction applies if the purchaser has no general place of jurisdiction in Germany, after conclusion of the contract moves his place of residence or usual place of residence outside Germany or his place of residence or usual place of feesidence or usual place of the submission of the legal action is not known.
- 1.2 The place of fulfilment for all services and deliveries to be made from contracts is Gunzenhausen.