



HSM[®]

Great Products, Great People.

OPERATING MANUAL SHREDDER



HSM[®] Powerline FA 500.3

english


1.990.999.110 E – 02/2018



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1 Basic safety instructions

The danger sign  and the signal words **DANGER**, **WARNING** or **CAUTION** and a text on a grey background alert you to the risk of serious to life-threatening injuries.

DANGER

identifies an immediate danger. If not avoided, it **will** result in death or severe injuries.

WARNING

identifies a possibly dangerous situation. It **could** result in death or severe injuries.

CAUTION

identifies a possibly dangerous situation. It **could** result in light or minor injuries.

NOTICE is used when property damage may occur by failure to comply.

Note indicates information for the effective operation of the machine without risk of danger.

Safety instructions



Before using the machine for the first time, read the operating manual, and keep it for later use and to pass on to any subsequent users. Observe all safety instructions onto the machine.

Dangerous for children and others!



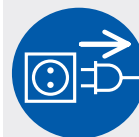
The machine may not be used by persons (including children under 16 years of age) with limited physical, sensory or mental capabilities or with a lack of experience and knowledge, unless they are supervised by a responsible person or are instructed by them on the use of the machine. Do not leave the document shredder switched on when it is unattended.

- Only operate this machine in accordance with the instructions outlined in “Proper use”.
- When the machine is not in use, it must be shut down and secured against unauthorised use. To do so, you can secure the mains switch with a padlock when it is in the off position.
- It is prohibited to operate one only machine of a combination-version machine. The safety distances are only guaranteed with the combined document shredder and HSM press.
- Do not remove or modify safety devices which guarantee the safe operation of the machine. In particular, safety devices must not be removed or disabled. No platforms or other raised surfaces may be placed near the shredder if they encroach on the specified safety clearances.



Dangerous mains voltage!

Improper handling of the machine can lead to an electric shock.



Switch the shredder off if it is damaged or not working correctly or before relocating or cleaning it and disconnect it from the mains.



Risk of injury from sharp blades!

Do not put the document shredder into operation until the loading tray is fitted. The safety distance to the cutting unit is not observed. Never reach into the paper feed.



Danger of injury by splinters!

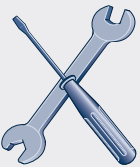
Wear protective goggles when destroying diskettes, CDs and hard credit cards.



Risk of injury from being pulled in!

Keep long hair, loose articles of clothing, ties, scarves, jewellery, etc. away from feed opening. Material with the tendency to form loops, e.g. tapes, strapping material, etc. must not be shredded.

- Check the machine and cable regularly for damage.
- Only use the machine in a dry room indoors.
- Make sure that no water gets into the shredder. Do not immerse the power cable or the power plug in water. Never touch the power plug with wet hands.
- Never pull the plug out of the socket using the power cable. Always pull out the plug directly.

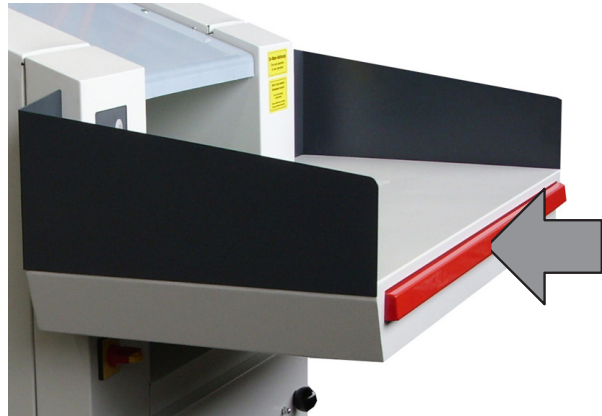


Maintenance and service tasks may only be performed by HSM customer service and service engineers of our dealers.

Operating controls for your safety

Emergency stop switch bar

In the event of danger, press the emergency stop switch bar immediately.



This switches off the shredder, and stops the cutting block and feed belt.

Main switch



In the event of danger, turn the main switch to "0".

You can secure the main switch in this position with a padlock to prevent restarting.

2 Proper use, warranty

The shredder is exclusively designed for destroying paper and cardboard, as well as store cards, credit cards, CDs, USB sticks and floppy disks. The sturdy cutting unit is resistant to staples and paper clips. You can also shred whole files in machines with cutting widths of 6 x 40 - 53 mm, 7.5 x 40 - 80 mm and 10.5 x 40 - 76 mm.

The document shredder is supplied as a single or combined machine (with a HSM baling press). Please observe the applicable instructions in the operating manual.

Our general business conditions are applicable. We provide a one year warranty for the document shredder. The warranty period is 6 months when used in multiple shifts. This warranty excludes wear, damage due to improper handling, natural depreciation, and actions taken by third parties.

3 Overview



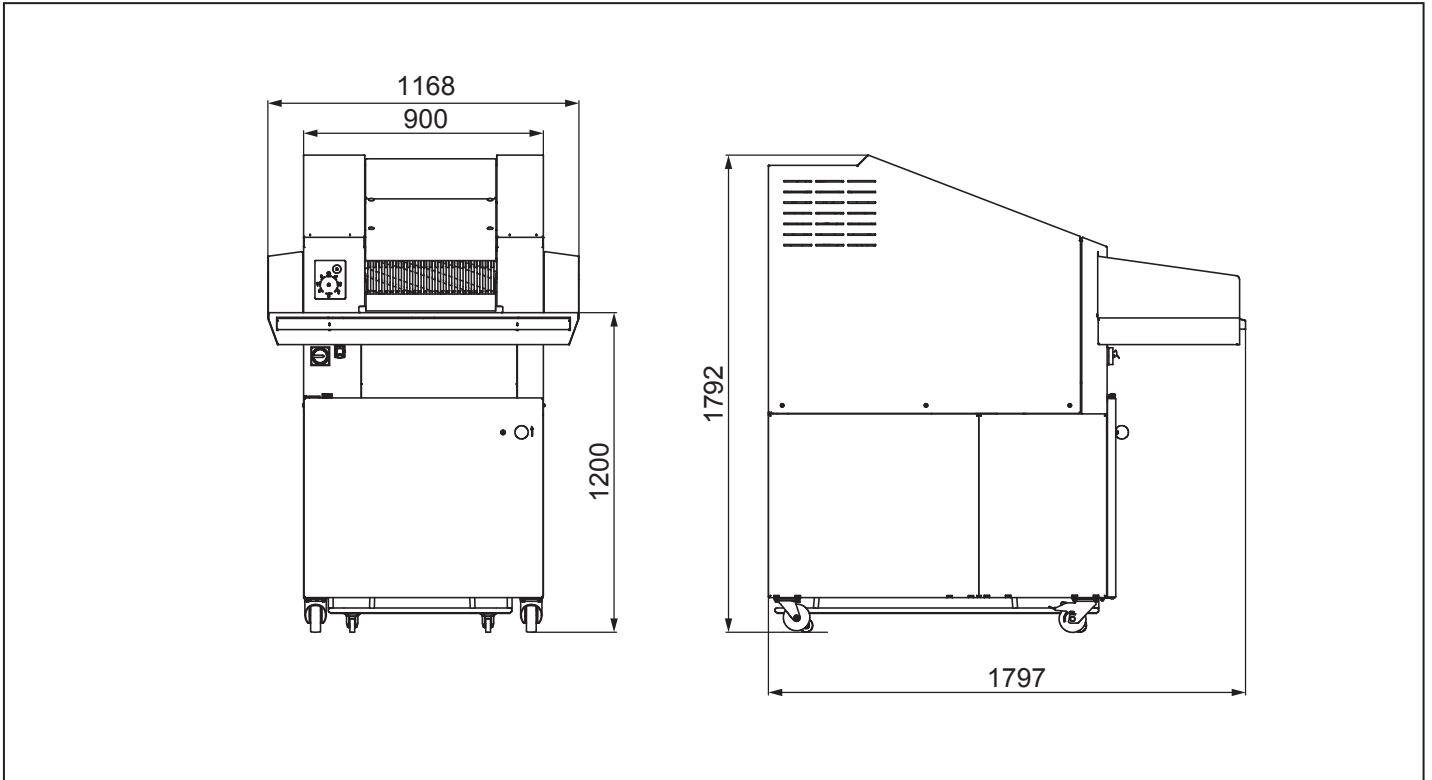
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HSM	© HSM GmbH + Co. KG Austraße 1-9 82009 Frickingen / Germany Made in Germany	CE
Modell	Spannung	
Masch.-Nr.	Nennstrom	
Seriennummer	Leistung	
Schnittbreite	Baujahr	

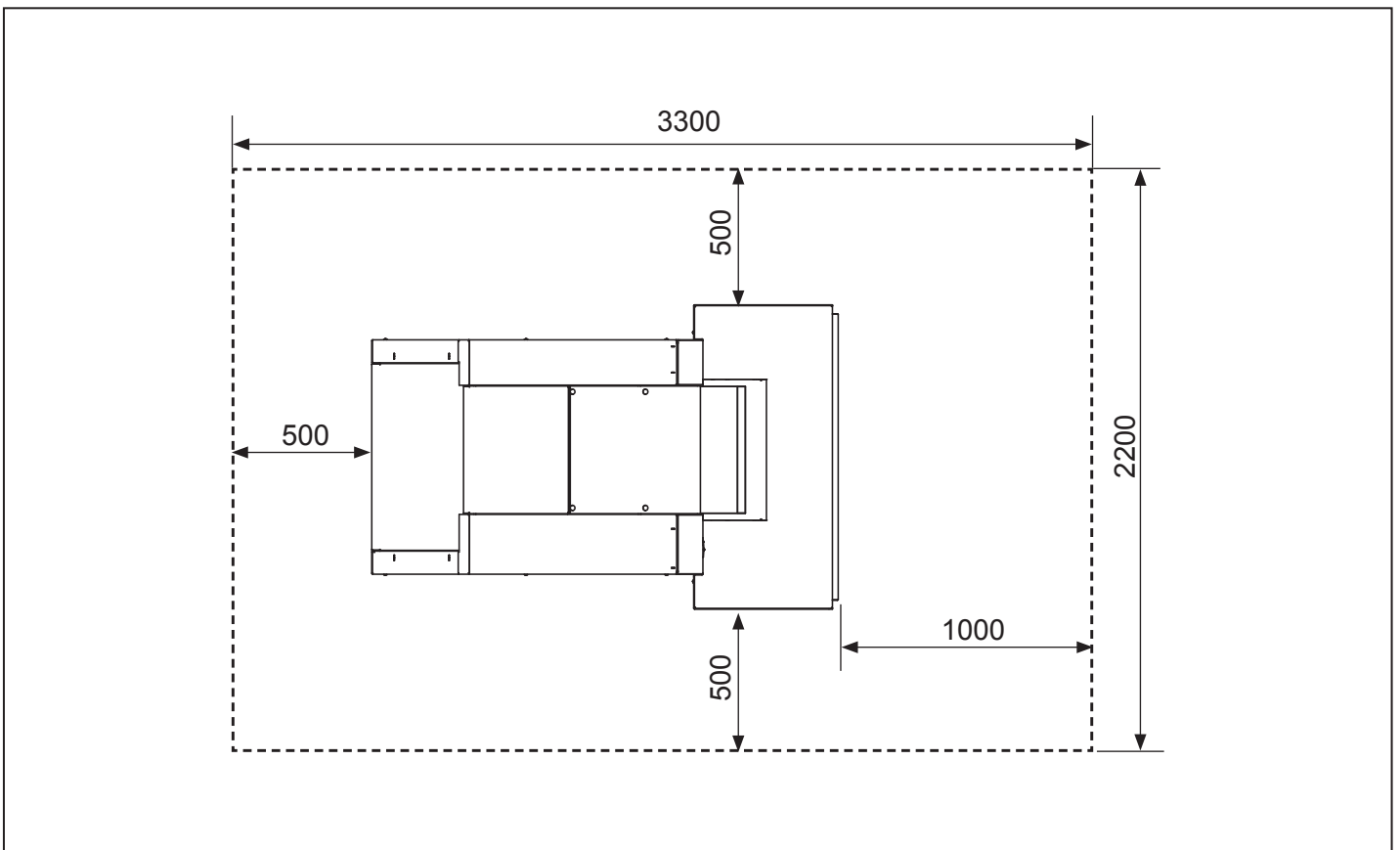


- 1 Main switch
- 2 Safety instructions
- 3 Operating and display elements
- 4 Emergency stop switch bar
- 5 Loading tray
- 6 Intake conveyor
- 7 Braking swivel castors
- 8 Nameplate
- 9 Oil reservoir opening
- 10 Option: Discharge conveyor belt for solo machines

4 Dimensions



HSM FA 500.3



Space requirements for operation and maintenance

5 Transportation, installation

WARNING Danger of injury during transport

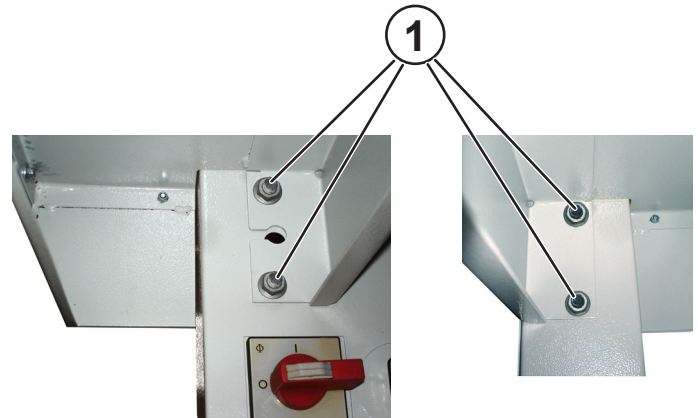
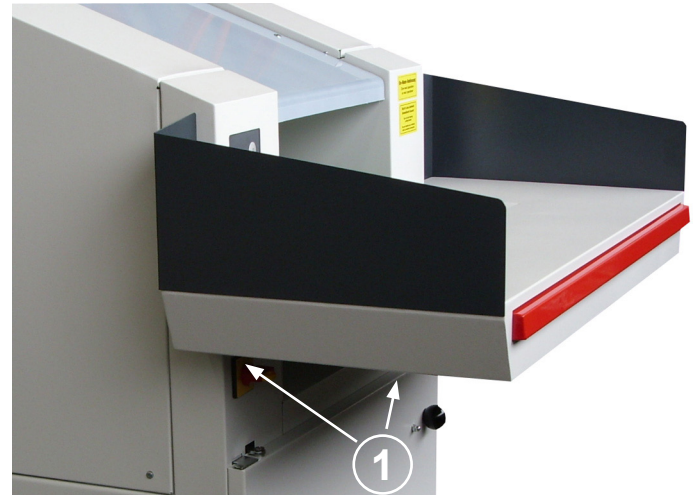


Unsuitable transport equipment can lead to crushing injuries if the document shredder overturns. The transport device (e.g. hand pallet truck) must be correspondingly rated for the weight of the machine (see "Technical data"). Observe the high center of gravity of the shredder.

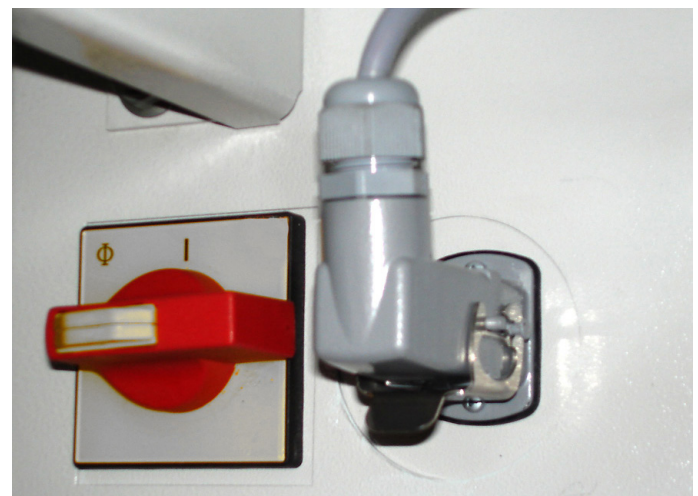
- Place the pallet with the shredder in its packaging on a smooth, level surface.
- Observe the instructions for unpacking.
- If you need to move the shredder through narrow doors, you can wait until it is at its final location before fitting the loading tray. Without the tray, the machine is only 900 mm wide.
- The shredder may only be placed in dry rooms on a hard, level floor – not on carpets. The floor load on each roller is approximately 250 kg.
- The machine should be positioned so that the plug is easily accessible and the ventilation slots are free. The machine must be connected to a power source which meets the specifications on the nameplate. Make sure the power cable is unobstructed and that nobody can tread on it.

Mount the loading table onto the unit:

- Attach the table using the M 10 nuts (1).

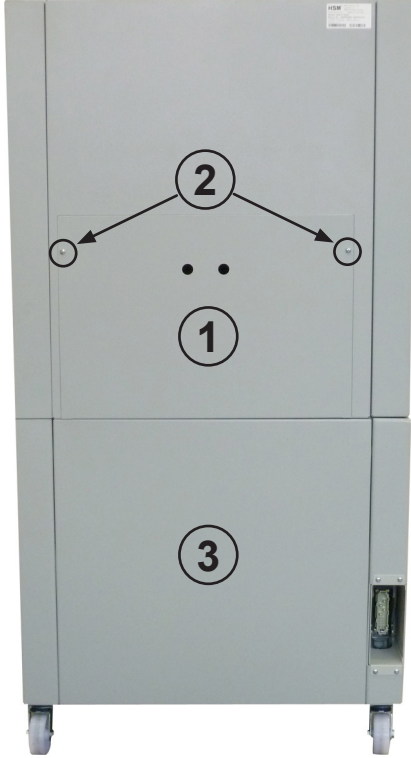


- Insert the plug (connection for emergency stop switch bar) into the socket next to the main switch and turn it to stop.



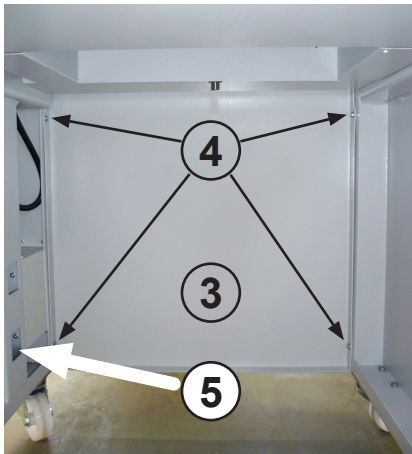
Discharge conveyor belt assembly

The solo version of the document shredder is also available with a discharge conveyor belt as an optional extra. If your machine is equipped with one, then the document shredder and the conveyor belt can be combined.

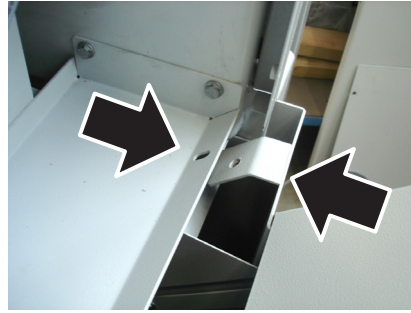
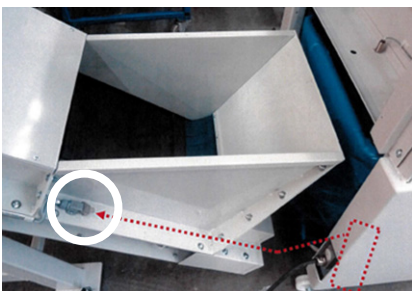


Remove the lid (1) on the rear side of the document shredder. To do this, remove the screws (2).

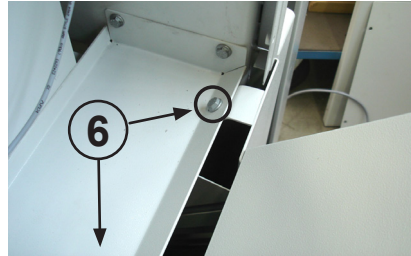
The plate (3) was only installed as a transport lock. Remove the plate by undoing the bolted joints (4). Complete this task from the inside of the document shredder. Extricate at this opportunity the plug for conveyor connection from the side beam (5).



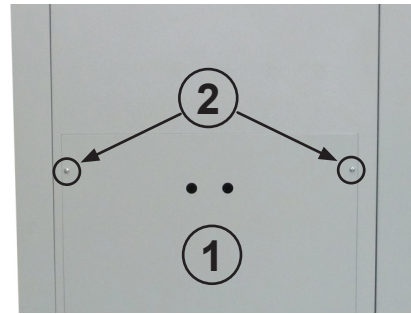
Connect the power plug of the conveyor belt using the coupling of the document shredder.



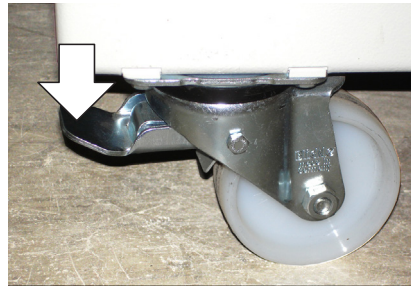
Push the conveyor belt onto the document shredder.



Secure the connection using the screws (6).



Attach the lid (1) using the screws (2).



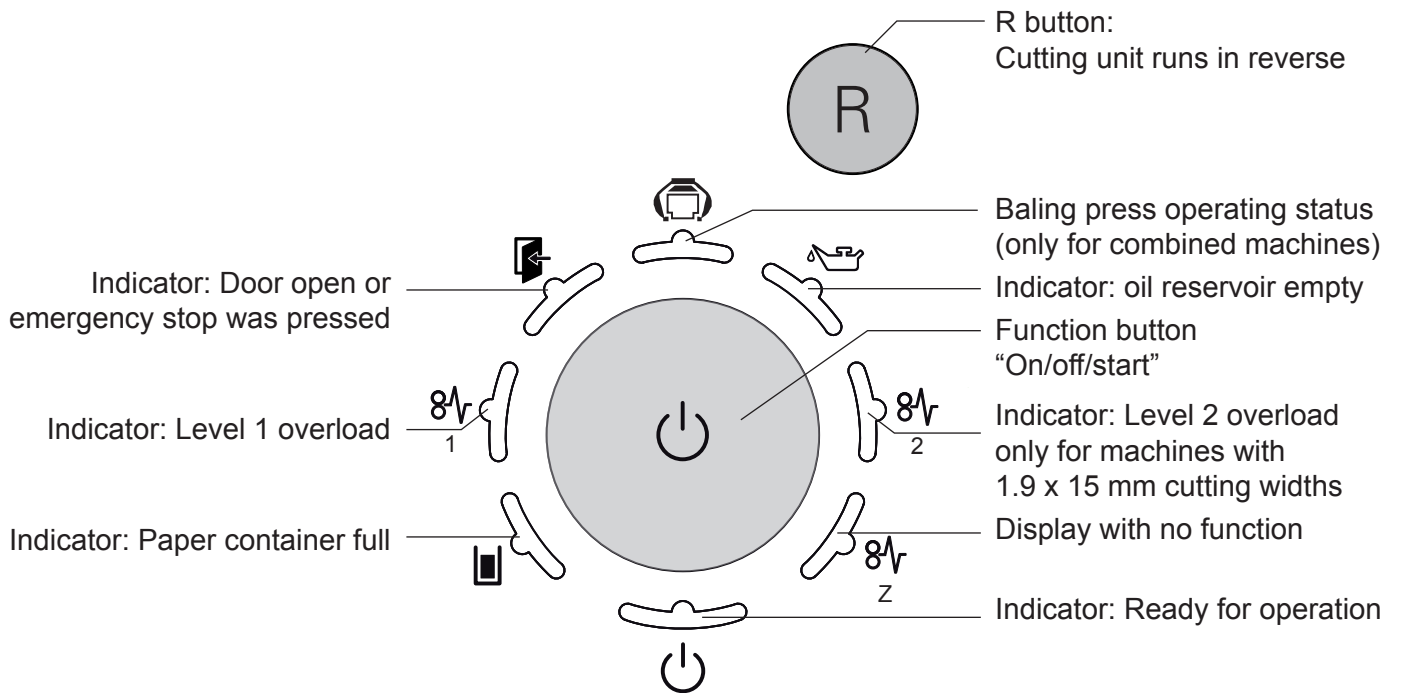
- Lock the front castors by pressing down the brake lever.

- Insert the machine's power plug into the connection socket.

NOTICE

Extension cables are not permitted.

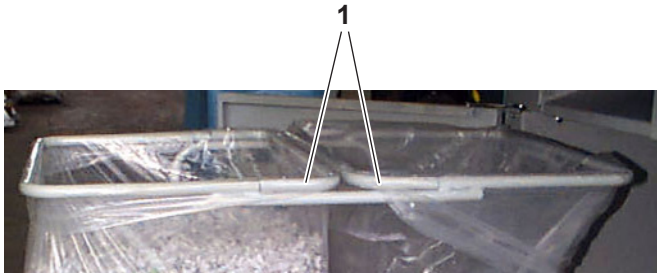
6 Operating and display elements



7 Start-up

Attaching the waste bag (Solo version)

- Open the front door and pull out the waste trolley.
- Put in a new waste bag and fold it approximately 20 cm over the top frame tube. When using a two-chamber system, make sure that there is also around 20 cm of plastic foil below the brackets (1).
- Push in the waste trolley and close the front door.



Inspecting the safety devices

WARNING

Danger of injury due to faulty safety devices

Check that the safety devices are working properly:

- At the start of each shift
- After any maintenance or repair work

Do not start the machine until you have checked the safety devices and found them to be in perfect working order. If any defect arises during operation stop the machine immediately and make sure it is corrected.

Danger of injury due to sharp blades



Do not put the document shredder into operation until the loading tray is fitted. The safety distance to the cutting unit is not observed.



Danger of injury from pinched fingers between feed belt and loading table

- Check that the loading table is installed and bolted on securely.
- Put the document shredder into operation on a trial basis to test the safety devices (see point 8).

Note If an error message lights up (such as “Door open”), first rectify the error.

NOTICE The feed belt can run in reverse if the phase wires in the power plug are incorrectly connected.

- Turn off the main switch immediately and pull out the power plug!
- Have an electrician change two of the three phase wires.

Checking the emergency stop control

- Press the emergency stop switch bar while the machine is running.



▶ The shredder must switch off immediately. The cutting block and the feed belt must stop.



▶ The indicator “Emergency stop was pressed” must light up.

The machine will only start again once you have pulled out the emergency stop button again.

Inspecting the door switch

- Open the front door.

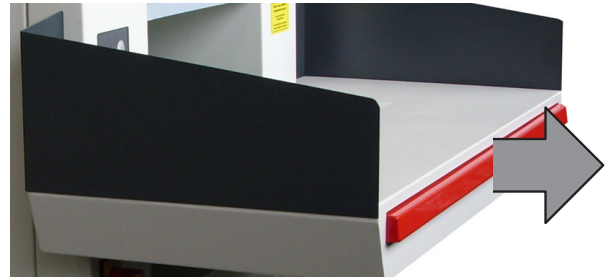


- ▶ The indicator "Door open" must light up.
- ▶ The cutting block and feed belt must stop.

After you close the door, the display should go out and you can start the machine again by pressing the start button.

8 Shredding material

- Activate the emergency stop control by pushing the switch bar away from the machine.



- Turn the main switch to the I position.



- ▶ The green "Ready for operation" LED lights up.



- Press the start button.
- ▶ Cutting block and feed belt start up.



Place the material to be shredded on the loading tray and then place batches on the feed belt.

If material that is not supposed to be shredded is mistakenly placed onto the belt, never attempt to pull it out.



- Press the start button again.
- ▶ The drive stops.



- Press the R-button.
- ▶ The cutting block and feed belt run in reverse.



- You can now remove the material from the belt and start the shredder again by pressing the start button.

Note

If the cutting unit is running in the shredding direction, you can stop it by pressing the R button.

Waste bag full



▶ The indicator “Paper container full” lights up. The shredder switches off automatically.



- Press the reverse button for approx. 3 seconds.
- ▶ Part of the material is pulled back into the apparatus.
- Open the front door and shake the waste trolley.

▶ The cut material spreads in the cut material sack and does not fall into the interior of the shredder.

• Pull the waste trolley out and change the cut material sack.



• Push the trolley back in and start the shredder again by pressing the start button.

Stopping the shredder



- Press the start button again.
- ▶ The cutting block and feed belt stop.
- ▶ The shredder switches to standby mode.

Switching off the shredder



- Turn the main switch on the paper shredder to **0**. You can secure the main switch in this position using a padlock.

9 Malfunctions

Check the following before calling customer service:

- Is the power plug connected?
- Is the shredder switched on?
- Is the front door closed?
- Is the waste bag full?
- Is there a paper jam in the shredder?
- Has the motor been overloaded?

Paper jam (excessive paper feed)



- ▶ “Overload” display (level 1 or level 2 – depending on the machine model) lights up.
- ▶ The cutting block automatically runs in reverse for several seconds. Then the cutting unit switches off.



CAUTION

Danger of injury due to sharp blades



The blade rollers can still cause injuries even while they are not running. Do not reach into the cutting apparatus!

NOTICE

Do not alternately press the “Forwards” and “Reverse” buttons to remove the blockage. This will damage the shredder.



- Take out the pile of paper.
- Press the start button and put less paper on the feed belt.

Electric motor overheated



- ▶ “Overload” display flashes.
- ▶ The shredder switches off automatically.
- Let the motor cool down for 20 – 30 minutes.



- Press the start button.

Door open or emergency stop was pressed



- ▶ The indicator lights up.
- ▶ The shredder switches off automatically.
- Close the front door and activate the emergency stop control by pushing the switch bar away from the machine.



- Press the start button.

Oil reservoir empty



- ▶ “Oil reservoir empty” display lights up.
- Fill the reservoir with cutting apparatus oil.
order no. 1.235.997.501 for 5 l container
- ▶ The “Oil reservoir empty” signal is automatically deactivated after the reservoir is filled.

Note

The shredder remains operational even when the oil reservoir is empty.

Automatic reversing

If the document shredder runs in the shredding direction for a long period without a reverse operation, then reverse is activated automatically after 4 hours of operation. The cutting apparatus and feed belt run in reverse for a short period. The machine then switches off.



- Press the start button in order to start up again.

Note for machines with 1.9 x 15 mm cutting widths

Machines with the safety level P-5 contain a two-level cutting unit with 2 drives.

After starting the document shredder, level 2 starts initially and about 1 second later level 1 starts in the shredding direction. The drives are separately monitored for possible overload by two rotation sensors. For level 1 overload, the drive is stopped and after a delay of approx. 0.5 seconds is switched into reverse for approx. 3 seconds. Level 2 runs in the shredding direction again.

“Level 1 overload” message with illuminated red LED. After reversing, the drive remains switched off. The overload display disappears and the cutting unit starts running in the shredding direction again when the start button is pressed.

If it is not restarted – by pressing the start button – within approx. 5 seconds, then level 2 is also automatically switched off.

For level 2 overload, both drives are switched off and are switched to reverse for approx. 4 seconds firstly for level 1 and then level 2.

Message: red “Level 2 overload” LED.

After reversing, the drives remain switched off.

The overload display disappears and the drives start running in the shredding direction again when the start button is pressed.

In some unfortunate circumstances (if the machine has been running for a long time at peak performance), the blockage might not be cleared even if the machine has been restarted and the cutting units must be started up again by pressing the start button.

10 Maintenance

Cleaning the shredder:

- Switch off the shredder and disconnect the power plug.
- Only use a soft cloth and mild soapy water for cleaning. Never use scouring agent, cleaning fluid, petroleum or thinners.

WARNING



Risk of injury by being pulled in and crushing!

Only carry out inspections and maintenance work on the shredder once the machine is at a standstill. Turn the main switch to "0" and secure it from being switched on with a pad-lock.

CAUTION



Risk of injury from sharp blades!

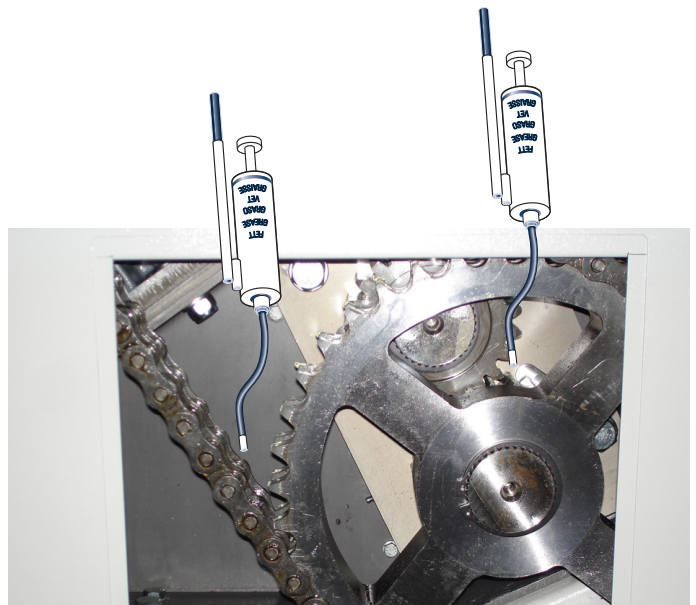
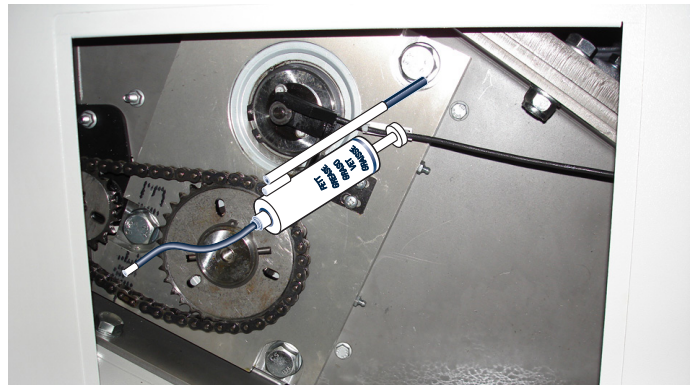
Cutting injuries are also possible even when the shredder is in idle. Always wear protective gloves when you are working in the area of the cutter rolls.

Greasing the drive chains and cogs (twice yearly)

- Remove the inspection flaps (1) in the left and right side plates. Take out the Allen screws (2).

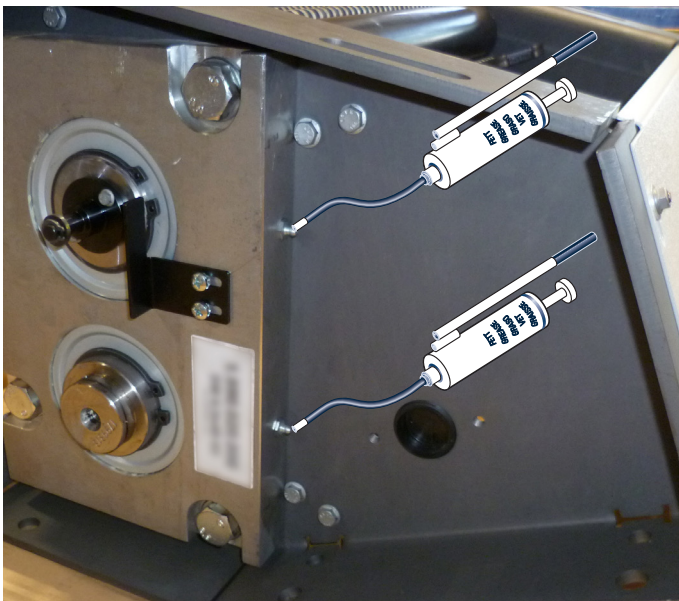
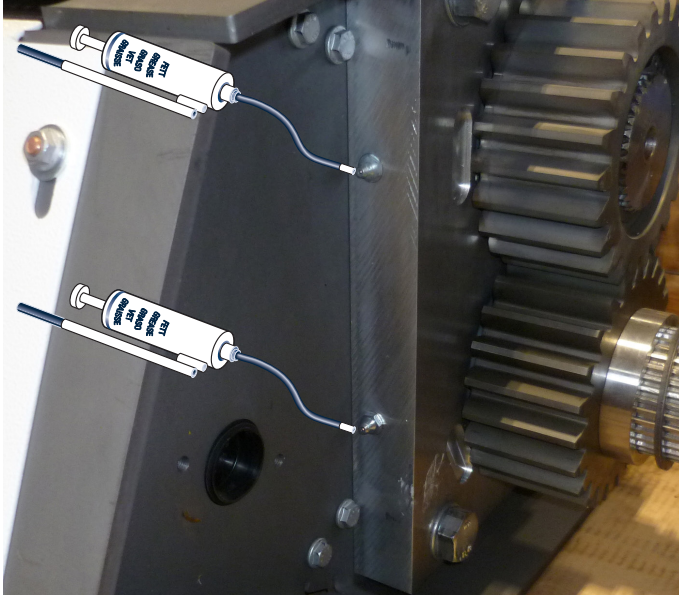


- Grease the cogs and the drive chains from the motor to the cutting apparatus, the cutting block to the feed belt and the cutting block to the regulating roller.
Recommended lubricating grease: K2K in accordance with DIN 51502/DIN 51825
- Mount the inspection flaps onto the unit again.



Greasing the spherical roller bearings (2 x annually)

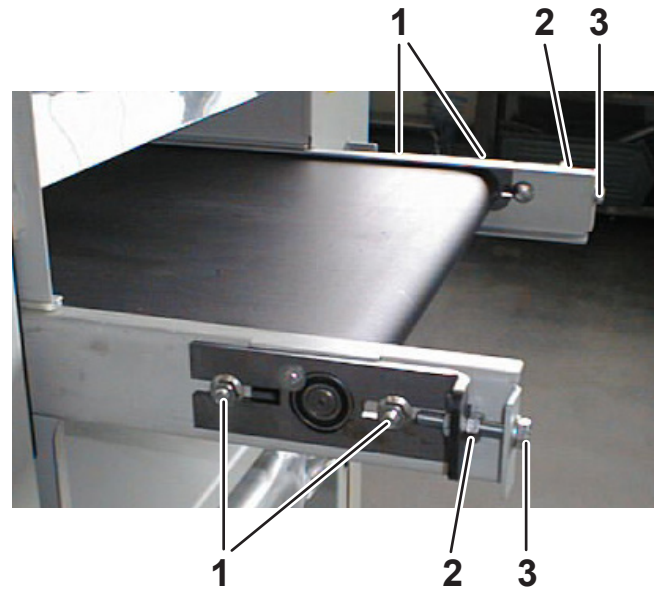
- Two spherical roller bearings are each installed in the left and right bearing block for storing the cutting shafts. Lubricate the bearing via the grease nipples in both bearing blocks.



Tightening the feed belt

The feed belt should not slip when loaded with material.

- Switch off the shredder.



- Loosen the hex nuts (1) on the left and right sides of the snub roller.
- Loosen the lock nuts (2) of the tensioning bolts (3).
- Tighten the feed belt **evenly** using the tensioning bolts.

NOTICE Only tighten the feed belt until it stops slipping.

The feed belt bearing may be damaged if it is tightened too much.

- Tighten the hex nuts on the snub roller and the lock nuts on the tensioning bolts again.

NOTICE You must check that the feed belt runs straight.

Switch on the shredder and let it run for 10 minutes. During this time, the feed belt must run in the middle of the snub roller. If it slips to the left or right edge, you must alter the setting of the snub roller.

Checking the feed belt for wear

The surface of the feed belt can become worn after long periods of use. If you can see the fabric inlay in the belt, it must be replaced. Please notify our customer service.

Dirt drawer on the discharge conveyor belt



Empty the drawer on the discharge conveyor belt regularly if your document shredder is equipped with this type of conveyor belt (optional extra).

Cleaning the conveyor-belt area (monthly)

- Remove the covers on both sides. The cleaning openings in the conveyor-belt covers are now accessible.
- Blow out the conveyor-belt area with compressed air or use a vacuum cleaner to remove the dirt particles.

11 Disposal / Recycling

Dispose of the machine in an environmentally sound way at the end of its service life. Observe the current regulations when doing this. As legislation is subject to ongoing changes, we request that you contact your local authorities at the appropriate time. As the manufacturer, HSM would be glad to advise you on the disposal of your old machine.

12 Scope of supply, accessories

- Machine on pallet with a wooden frame, strapped with packing tape and packed in foil
- 5 waste bags, order no. 6.205.595.000 (Solo version)
- Special cutting block oil
5 l container with spout, order no. 1.235.997.501
- Operating manual

13 Technical data

Cutting type	Cross cut				
Cut size (mm)	10.5 x 40 - 76	7.5 x 40 - 80	6 x 40 - 53	3.9 x 40	1.9 x 15
Safety level DIN 66399	P-2, O-2, T-2, E-2	P-3, O-2, T-3, E-2	P-3, O-2, T-3, E-2	P-4, O-3, T-4, E-3 F-1	P-5, O-4, T-5, E-4, F-2
Cutting capacity (sheets), DIN A4, 70 g/m ² 80 g/m ²	600 - 650 510 - 550	500 - 550 425 - 470	400 - 450 340 - 380	200 - 240 180 - 200	120 - 130 90 - 100
Weight (Solo version)	883 kg	905 kg			1060 kg
Rated power	7.5 kW				5.5 + 4 kW
Effective width	500 mm				
Cutting speed	210 mm/s				
Ambient conditions in transport, storing and operation: Temperature Relative humidity Height above sea-level (MSL)	-10 °C to +40 °C max. 90 %, without condensation max. 2,000 m				
Dimensions W x D x H (mm)	1170 x 1795 x 1795				
Sound pressure level emissions	75 dB(A)				
Volume of the shredded paper container	2 x 265 l				

Rated power	7.5 kW				
Power supply	3 x 400 V, 50 Hz	3 x 380 V, 60 Hz	3 x 220 V, 60 Hz	3 x 208 V, 60 Hz	3 x 200 V, 50-60 Hz
Rated current	16 A	16 A	27 A	33 A	33 A
Fuse	32 A gG/gI/C/K	32 A gG/gI/C/K	32 A gG/gI/C/K	50 A gG/gI/C/K	50 A gG/gI/C/K

Rated power	7.5 kW				
Power supply	3 x 230 V, 50 Hz				
Rated current	29 A				
Fuse	50 A gG/gI/C/K				

Rated power	5.5 + 4 kW				
Power supply	3 x 400 V, 50 Hz	3 x 380 V, 60 Hz	3 x 220 V, 60 Hz	3 x 208 V, 60 Hz	3 x 200 V, 50-60 Hz
Rated current	22 A	22 A	36 A	44 A	44 A
Fuse	32 A gG/gI/C/K	32 A gG/gI/C/K	50 A gG/gI/C/K	50 A gG/gI/C/K	50 A gG/gI/C/K

EU declaration of conformity

The manufacturer HSM GmbH + Co. KG, Austrasse 1 - 9, 88699 Frickingen / Germany hereby declares that the machine document shredder **HSM Powerline FA 500.3** corresponds to the health and safety requirements of the following EU directives listed below due to its conception and design of the version in which it was put into circulation by us:

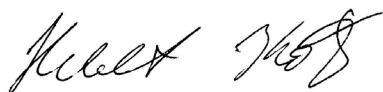
Machinery directive 2006 / 42 / EC
EMC directive 2014 / 30 / EU

Applied standards and technical specifications:

EN 349	EN 953	EN 1037	EN 1088
EN ISO 12100	EN 13849-1	EN ISO 13850	EN ISO 13857
EN 60204-1	EN 61000-3-2	EN 61000-3-3	EN 61000-6-2
EN 61000-6-4	EN 62061		

Authorised representative for the compilation of technical documentation: Hubert Kötzingler, HSM GmbH + Co. KG

Frickingen, 21.4.2016



ppa. Hubert Kötzingler - Chief Technical Officer (CTO)

HSM GmbH + Co. KG

Austraße 1-9
88699 Frickingen / Germany

Tel. +49 7554 2100-0
Fax +49 7554 2100 160
info@hsm.eu
www.hsm.eu

Gratis Hotline
DE, AT, BE, NL, LU, IT
Tel. 00800 44 77 77 66
Fax 00800 44 77 77 67

HSM (UK) Ltd.

14 Attwood Road / Zone 1
Burntwood Business Park
Burntwood ▪ Staffordshire
WS7 3GJ
United Kingdom

Tel. +44 1543 272-480
Fax +44 1543 272-080
info@hsmuk.co.uk
www.hsm.eu

HSM France SAS

Parc de Genève
240, Rue Ferdinand Perrier
69800 Saint-Priest
France

Tél. +33 472 210580
Fax +33 472 517481
France@hsm.eu
www.hsm.eu

HSM of America LLC

419 Boot Road
Downingtown, PA 19335
USA

Tel. +1 484 237-2308
+1 800 613-2110
Fax +1 484 237-2309
customerservice@hsm.us
info@hsm.us
www.hsm.us

**HSM Técnica de Oficina y
Medioambiente, España, S.L.U.**

C/Tona
Nave nº 15 "El Lago"
Pol. Ind. Monguit
08480 L'Ametlla del Vallès
Barcelona
Spain

Tel. +34 93 8617187
Fax +34 93 8463417
Spain@hsm.eu
www.hsm.eu

HSM Polska SP. z o.o.

ul. Emaliowa 28
02-295 Warszawa
Poland

Tel. +48 22 862 2369
Fax +48 22 862 2368
Handlowy@hsm.eu
www.hsm.eu

The logo consists of the letters 'HSM' in a bold, red, sans-serif font. A small registered trademark symbol (®) is located to the upper right of the 'M'. A red diagonal line is positioned to the left of the 'H'.

Great Products, Great People.