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USER GUIDE

UGG044-0116

NCM Series Granulators

Please record your equipment's model and serial number(s) and the date you received it in the spaces provided.

It's a good idea to record the model and serial number(s) of your equipment and the date you received it in the User Guide. Our service department uses this information, along with the manual number, to provide help for the specific equipment you installed.

Please keep this User Guide and all manuals, engineering prints and parts lists together for documentation of your equipment.

Date:

Manual Number: UGG044-0116

Serial Number(s):

Model Number(s):

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Introduction

Note! All users must study the instruction manual before installing, operating or maintaining the machine.

This instruction manual contains instructions how to install, operate and maintain the standard versions of the Conair NCM-series granulators, Model number NCM1, NCM2, NCM3 and NCM-4.

The performance of your supplied machine may vary from the standard machines described in this instruction manual. In event of any questions, please contact Conair at 1-800-458-1960.

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General rules, Safety

Conair designs granulators, shredders, guillotines and accessory equipment for processing injection moulded, blow moulded or extruded plastics. The machines are designed and adapted to the type of plastic residue that the customer has specified before order.

The machines are manufactured in accordance to the state of the art and legal safety regulations, guidelines and standards, which demand a very low safety risk. However, if the machines are incorrectly operated, unexpected dangers can arise. Therefore, it is very important that all instructions are carefully observed and attended to. All users must study the instruction manual before installing, operating or maintaining the machine. In event of any questions, please contact Conair service at 1-800-458-1960.

Danger! DO NOT feed the machine with explosive material or material contaminated with explosive or easily ignited substances. It is not permissible to feed the machine with wood products, household or garden waste, pharmaceutical products or substances which present a health danger, unless a written approval has been obtained from Conair. If any materials are processed that are not contractually agreed upon, Conair is absolved of any liability and guarantee for safety and functioning of the machine.

Danger! No modifications or alterations to Conair's products are permitted unless written approval has been obtained from Conair. This is to prevent injury, to maintain the warranty, and to guarantee that Conair can fully assume product liability. If any modifications are made, Conair is absolved of any liability and guarantee for safety and functioning of the machine.

Symbols on the machine

Danger! Risk of cutting or pinch injuries! This symbol is placed anywhere there is a risk of cutting or pinch injuries.

Danger! Dangerous voltage! This symbol is placed on electrical cabinet hatches and on any junction boxes.

Request! All users must study the instruction manual before installing, operating or maintaining the machine.

Symbols in the instruction manual

Danger! Personal injury! This symbol is used to indicate risk of personal injury. The symbol inside the triangle may have different appearances, depending on the type of danger.

Danger! Machinery damage! This symbol is used to indicate risk of machinery damage.

Information! This symbol is used to highlight useful information.

Safety rules, during installation

- The machine must be installed by authorized, trained personnel.
- The instruction manual must be carefully observed to avoid personal injury and machinery damage.
- The machine must be installed and connected to other equipment so that the entire installation complies with the stipulations of the Machinery Directive 2006/42/EC.

Risk of machinery damage

- If incorrect material is fed into the machine.
- If the plastic damper between the transmission couplings is worn.
- If the knives' tightening screws are tightened with incorrect tightening torque.
- If the knife clearance is wrong.
- If the knives are worn.
- If the scrapers are worn.
- If the instructions in the instruction manual are not followed accurately.

Safety rules, During start and operation

- The instruction manual must be carefully observed to avoid personal injury and machinery damage.
- National environmental and employee safety regulations must be followed.
- The machine must be installed in accordance with this instruction manual.
- All covers must be installed.
- All hatches to electrical cabinet, transmission and pneumatics (if supplied) must be closed and locked. The key must be kept by the personnel responsible for the machine's service and safety.
- The granule bin must be closed.
- The hopper must be closed.
- The funnel must be installed.
- All safety switches must be installed.
- All star knobs must be screwed in until they stop moving.
- All outer safety equipment such as protective screens, bars, covers, plates, nets etc must be installed.
- Body with casters: The casters must be locked.

- Be very careful. The machine contains knives. Risk of cutting or pinch injuries!
- Never place any part of your body into any opening. Risk of cutting or pinch injuries!
- Use ear defenders. Risk of loud, damaging noise!
- Use protective goggles. Risk of granulate splashing!
- Do not tread on the machine.

Safety rules, During service

- The instruction manual must be carefully observed to avoid personal injury and machinery damage.
- National environmental and employee safety regulations must be followed.
- First aid and eye shower must be within reach.
- Daily service and daily checks may be done by the operator. All other service and inspections must be done by authorized, trained personnel.
- Always work alone when service actions is performed.
- Use protective goggles and gloves.
- The machine must be stopped.
- The machine must be disconnected from the mains before electrical repairs or electrical installing is began.
- Granulator with electrical cabinet “Basic”: The machine’s emergency stop must be locked with a padlock. Never insert any part of your body into any opening, unless the emergency stop is locked with a padlock.
- Granulator with electrical cabinet “Extended” or “Advanced”: The machine’s main switch must be locked in position “0”. Never insert any part of your body into any opening, unless the main switch is locked in position “0”.

- Be very careful – When opening and closing the machine. Risk of cutting or pinch injuries! When the cutter housing’s upper frame is opened, it must be manually locked by a piece of wood.
- Be very careful – When the machine is opened the knives are accessible. The knives are sharp, and they may cause personal injuries even when they are not rotating. Risk of cutting or pinch injuries!
- Be very careful – When pulling the rotor or the rotor pulley manually. Risk of cutting or pinch injuries!
- Be very careful – When cleaning. Granulate and plastic residue can make the floor slippery.
- Be very careful – When working on high level. Only use specially installed and fastened steps, stairs and platforms. It is not permissible to remove any outer safety equipment such as protective screens, bars, nets etc.
- After service / check is done all covers must be reinstalled. All hatches to electrical cabinet, transmission and pneumatics (if supplied) must be closed and locked. The key must be kept by the personnel responsible for the machine’s service and safety.

Technical specifications

General data, Supplied machine:

Fill in correct information, so that the data corresponds with the machine sign on your supplied machine:

Machine type: .....

Serial number: ..... Manufacturing year: .....

Motor: ..... V ..... Hz ..... kW Electrical circuit diagram: .....

General data, Conair NCM-series:

Mark the correct alternatives, so that the data corresponds with your supplied machine:

Model number: ☐ NCM1 ☐ NCM2 ☐ NCM3 ☐ NCM4

Additional suffix: ..... ☐ -AV

Motor power: ..... ☐ 0.75 kW ☐ 1.5 kW ☐ 2.2 kW

Rotor speed: ..... ☐ 25 rpm

Width, Cutter housing: ..... ☐ 228x172 mm (NCM1) ☐ 228x265 mm (NCM2) ☐ 228x359 mm (NCM3) ☐ 228x453 mm (NCM4)

Weight*: ..... ☐ 210 kg (NCM1, 0.75 kW) ☐ 220 kg (NCM1, 1.5 kW) ☐ 230 kg (NCM1, 2.2 kW)
..... ☐ 220 kg (NCM2, 0.75 kW) ☐ 240 kg (NCM2, 1.5 kW) ☐ 260 kg (NCM2, 2.2 kW)
☐ 330 kg (NCM3, 1.5 kW) ☐ 330 kg (NCM3, 2.2 kW)
☐ 370 kg (NCM4, 1.5 kW) ☐ 390 kg (NCM4, 2.2 kW) ☐ 750 kg (NCM4-Twin, 2.2 kW)
*The weight varies dependent on; hopper size, type of cutter housing, type of rotor, motor size, enclosure etc.

Sound level, Idle operation*: ..... ☐ <80 dBA
*The specified sound level is dependent on granulator size, capacity, temperature etc.

Fixed knives: ..... ☐ 2 pcs (NCM1) ☐ 3 pcs (NCM2) ☐ 4 pcs (NCM3) ☐ 5 pcs (NCM4)

Scrapers: ..... ☐ 2 pcs (NCM1) ☐ 3 pcs (NCM2) ☐ 4 pcs (NCM3) ☐ 5 pcs (NCM4)

Rotating knife segments: ..... ☐ 2 pcs (NCM1) ☐ 3 pcs (NCM2) ☐ 4 pcs (NCM3) ☐ 5 pcs (NCM4)

Rotating feed hook: ..... ☐ 1 pcs (NCM1) ☐ 2 pcs (NCM2) ☐ 3 pcs (NCM3) ☐ 4 pcs (NCM4)

Masher: ..... ☐ 2 pcs (NCM4)

Options: ..... ☐ IMD-system ☐ Level switch, Paddle type ☐ Level switch, Capacitive type ☐ Masher ☐ ABS-system ☐ Hours counter ☐ Airveyor

Personnel responsible for the machine's service and safety

Name: ..... Phone: .....

Name: ..... Phone: .....

Overview, NCM

The performance of your supplied machine may vary from the standard machines described in this instruction manual. In event of any questions, please contact Conair's service line at 1-800-458-1960.

Funnel ..... (1)

Flap(s) ..... (2)

Hopper ..... (3)

Electrical cabinet "Basic" ..... (4)

Star knob, Hopper ..... (5)

Switch key, Hopper ..... (6)

Safety switch, Hopper ..... (7)

Upper frame, Cutter housing ..... (8)

Handle, Cutter housing's upper frame ..... (9)

Fixed knives ..... (10)

Scrapers ..... (11)

Rotating feed hook ..... (12)

Rotating knives ..... (13)

Gear motor ..... (14)

Transmission cover ..... (15)

Body ..... (16)

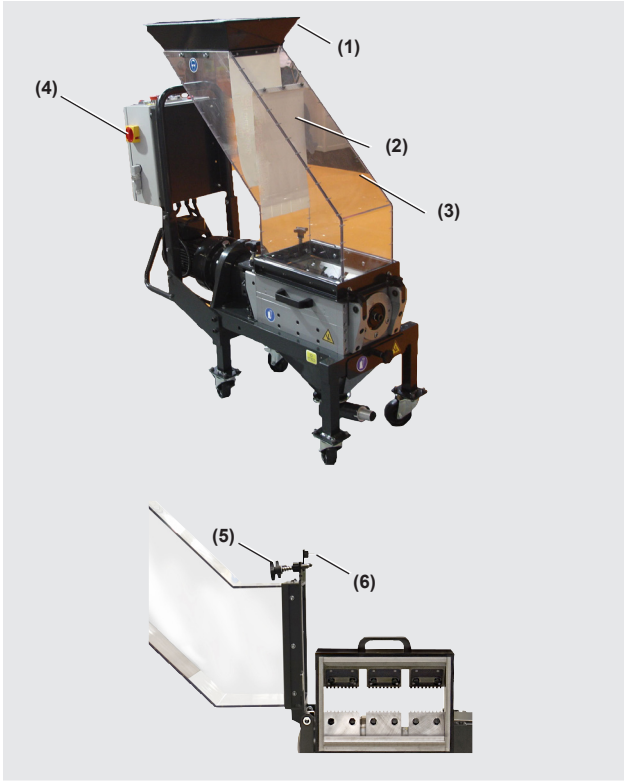
Casters ..... (17)

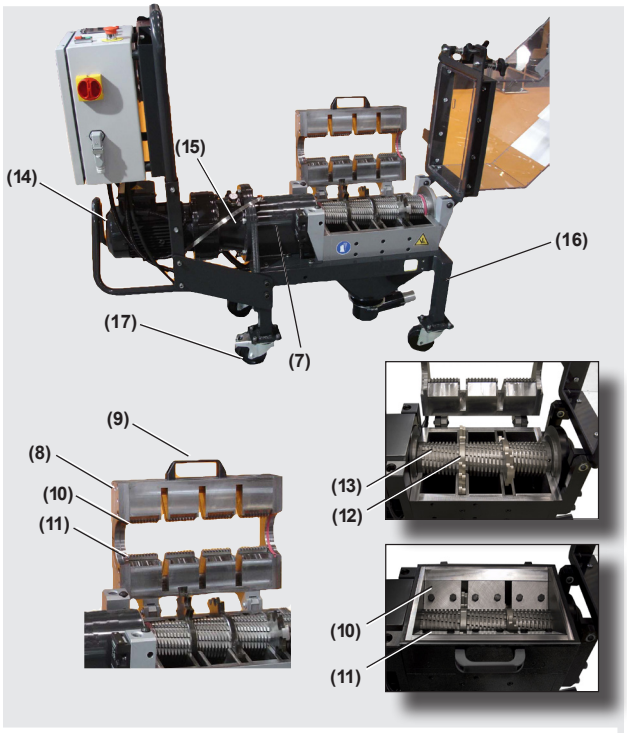
Star knob, Granule bin ..... (18)

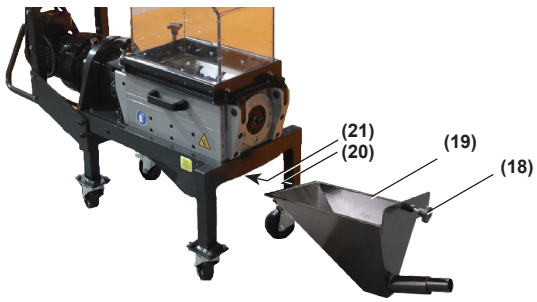
Granule bin ..... (19)

Switch key, Granule bin ..... (20)

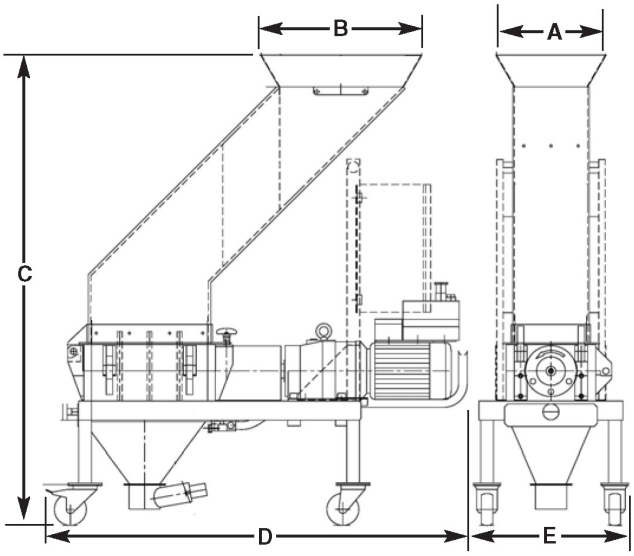
Safety switch, Granule bin ..... (21)

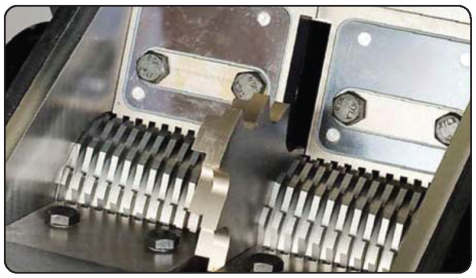






Layout





Cutter wheel (multi-toothed) and large crusher blades

MODELS	NCM-1	NCM-2	NCM-3	NCM-4
Performance characteristics				
Maximum throughput* lb/hr {kg/hr}	up to 11{5}	up to 20 {9}	up to 30 {14}	up to 40 {18}
Cutting chamber opening in. {mm}	9 x 6.7 {223 x 172}	9 x 10.4 {228 x 265}	9 x 14.1 {228 x 359}	9 x 17.8 {228 x 453}
Motor power Hp {kW}	1 {0.75}	3 {2.2}	3 {2.2}	3 {2.2}
Crusher blades	1	2	3	4
Cutter wheel segments	2	3	4	5
Dimensions inches {mm}				
A - Hopper opening width	13.5 {342	13.5 {342}	13.5 {342}	13.5 {342}
B - Hopper opening depth	13.4 {340}	17.6 {448}	19.8 {502}	27.0 {691}
C - Height	50.2 {1,275}	52.1 {1,325}	58.0 {1,473}	57.7 {1,466}
D - Overall depth	36.4 {925}	50.2 {1,276}	54.0 {1,370}	57.6 {1,466}
E - Width	19.0 {485}	19.0 {485}	19.0 {485}	19.0 {485}

SPECIFICATION NOTES:

* Throughputs are provided as a capacity guideline only. Throughput will be greater or lesser than the values shown according to the shape, size, thickness and properties of the material to be cut.

Consult Conair for a material test or help determining the correct granulator model for your application.

Specifications may change without notice. Check with a Conair representative for the most currentinformation.

OPTIONS

- Integrated metal detection - protects machine from damage or metal contamination
- Automatic reversing system is available for reversing the rotation of the rotor to easily clear any material obstruction

FEATURES

- Infeed hopper specifically designed for beside-the-press manual or robot-fed loading
- No sizing screen (screenless)
- Clear-view hopper design allows the operator to see the material being processed
- Emergency stop button
- Energy saving low horsepower
- Uniform granule size
- Heavy-duty construction
- No special tools are required to open the granulator
- D2 crusher blades and cutting wheels
- Re-sharpenable blades and cutting wheels
- Quiet operation (70 to 80 dB)
- Multiple safety interlocks prevent injury by restricting access to the granulator while operating
- Compact and mobile, caster mounted base saves valuable floor space and provides greater versatility

Function

Conair NCM-series

Conair NCM-series granulators are low speed granulators, designed to granulate, injection moulded or blow moulded plastic residue, directly adjacent to an injection moulding or a blow moulding machine.

The function of the granulator can be described as follows:

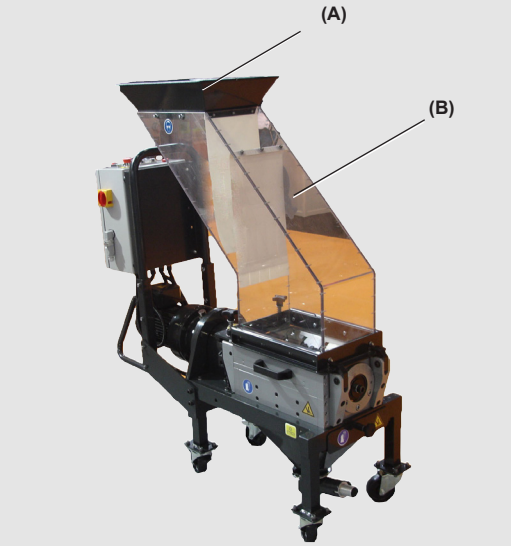
1. The plastic residue, which must be free from metal and contamination, is fed into the granulator's funnel.
2. The plastic residue falls through the hopper and down into the cutter housing.

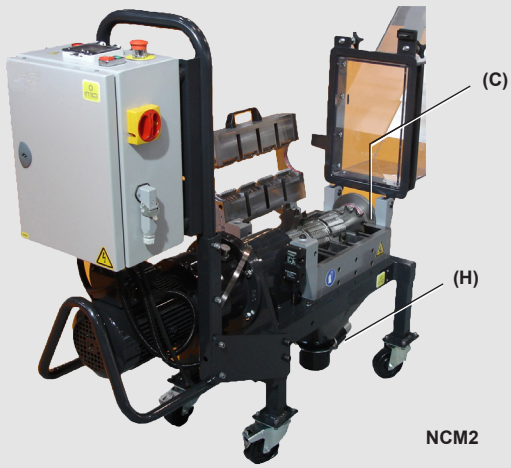
Information! The granulator can be provided with an Masher-system. The Masher-system is pushing the plastic residue down to the cutter housing.

3. The cutter housing contains fixed knives and a rotor. Rotating knife segments are mounted on the rotor. The rotor is also provided with one or several rotating feed hooks. The plastic residue is caught by the rotating feed hook(s) and granulated (cut up) between the rotating knife segments on the rotor and the fixed knives in the cutter housing. The cutter housing is also provided with scrapers. The scrapers prevent finished granulate from rejecting. Rotating knife segments, rotating feed hooks, fixed knives and scrapers must be reversed, grinded or replaced as necessary.

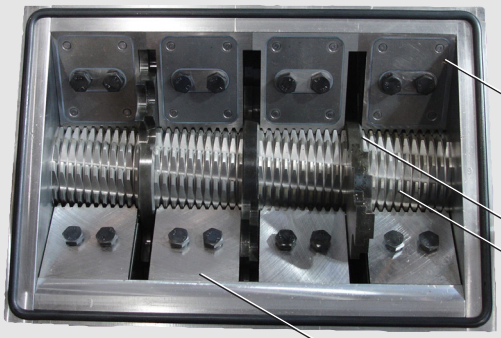
Important! The granulator must never be used with blunt knives. Blunt knives cause abnormal wear and damages the granulator.

4. The size of the granulate (the cut up plastic residue) is determined by the comb size of the knives and the scrapers. The knives and scrapers can easily be changed to give the required granulate size.
5. The granulate passes through the cutter housing down to the granule bin, which collects the finished granulate.
6. The granule bin can be emptied manually or by means of an airveyor.





NCM2



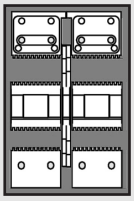
NCM3

(A) = Funnel
(B) = Hopper
(C) = Cutter housing
(D) = Rotating knife segments
(E) = Rotating feed hook
(F) = Fixed knives
(G) = Scrapers
(H) = Granule bin

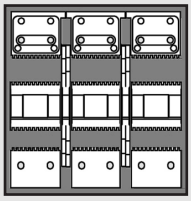
Function

Suffix 1, 2, 3 and 4

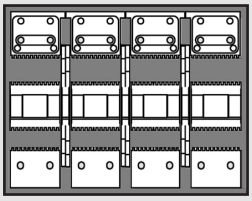
The suffix 1, 2, 3 and 4 refers to the numbers of rotating feed hooks in the cutter housing.



NCM1



NCM2

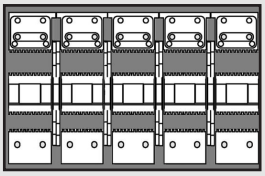


NCM3

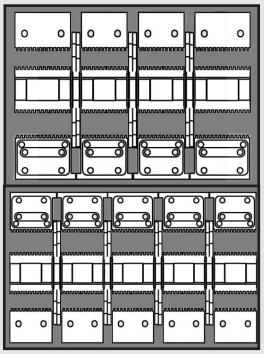
Additional suffix -AV

A granulator with additional suffix -AV is provided with an airveyor. The airveyor empties the granule bin with a pulse of compressed air. The compressed air pulse is controlled by a pause-pulse relay. The pause-pulse relay is adjustable. The pause-pulse relay must be adjusted to correspond to the delivered granulator's size, screen hole dimension and volume of plastic material that are to be granulated.

>Page 7:10 "Adjust the pause-pulse relay, Airveyor".



NCM4



NCM4-Twin

Cutter housing

The cutter housing is designed and adapted to the type of plastic residue that the customer has specified before order. >Page 9:21-9:24 “Cutter housing”.

The cutter housing’s upper frame can be opened to facilitate cleaning and maintenance.
>Page 6:2 “Open the cutter housing”.

Note! When the cutter housing’s upper frame is opened, it must be manually locked by a piece of wood.

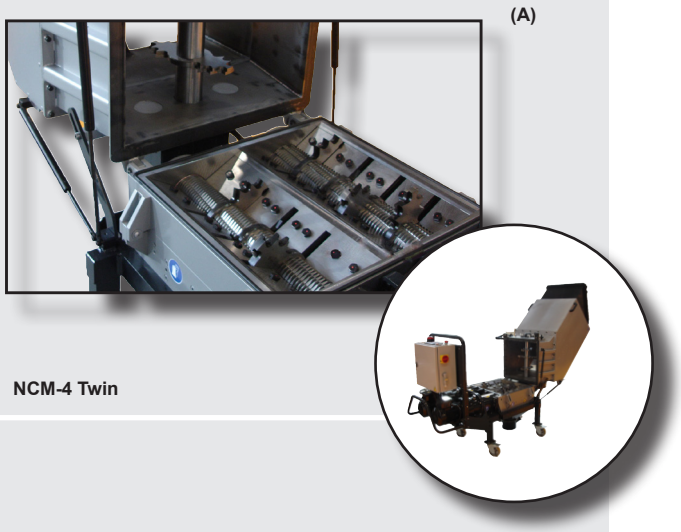
A granulator with additional suffix “Twin” is provided with a doubled cutter housing.
>Page 2:8 “Additional suffix Twin”.

Sealings

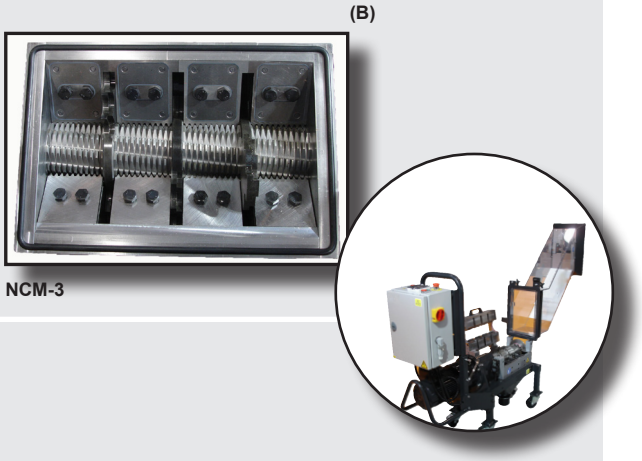
There is one sealing in each short block of the cutter housing. The left sealing is a left-hand threaded and the right sealing is right-hand threaded. The reversed thread deflects fed material and prevent it from penetrating the bearings.

The sealings must be regularly checked and replaced as necessary. >Page 9:25 “Rotor”.

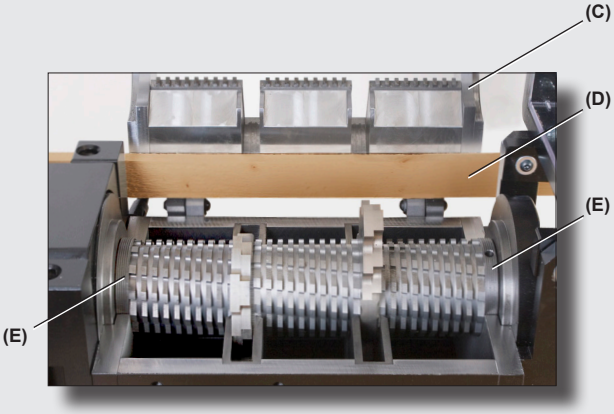
Note! The left and the right sealing must not be mixed up. If the left and the right sealing are mixed up, the granulator might get seriously damaged during operation, due to the material leaking into the bearings.



NCM-4 Twin



NCM-3



(A) = Cutter housing, NCM4-Twin
(B) = Cutter housing, NCM3
(C) = Cutter housing’s upper frame
(D) = Piece of wood
(E) = Sealing

Fixed knives

The fixed knives are installed in the cutter housing. The cutter housing can be provided with 2, 3, 4, 5 or 9 fixed knives, depending on the type of the cutter housing.
>Page 2:9 “Cutter housing”.
>Page 2:8 “Suffix 1, 2, 3 and 4”.

The fixed knives are fixed with washers and tightening screws. >Page 7:15 “Install the fixed knives and the scrapers”.

The fixed knives are available in two different comb sizes. The comb size of the knives and the comb size of the scrapers affects the quality of the finished granulate.
>Page 9:26-9:28 “Fixed knives”.

The fixed knives are reversible. This means that the fixed knife has two cutting edges and can be reversed once before grinding or discarding is necessary. The granulator must never be used with blunt knives. Blunt knives cause abnormal wear and damages the granulator.
>Page 7:17 “Grind the fixed knives”.

The fixed knives can be provided with IMD technology.
>Page 2:25 “IMD-system”.

Note! Fixed knives with IMD technology are reversible, but not grindable.

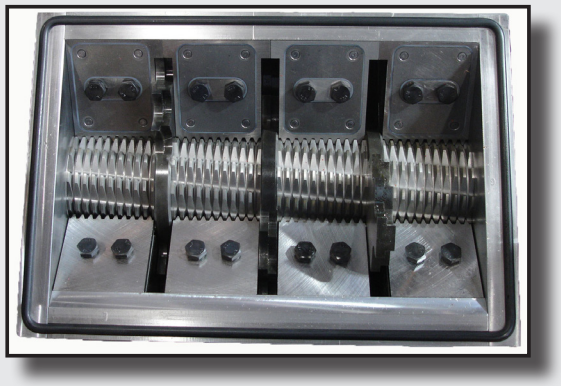
Scrapers

The scrapers are installed in the cutter housing on the opposite side of the fixed knives. The scrapers prevent finished granulate from rejecting. The scrapers are fixed with washers and tightening screws. >Page 7:15 “Install the fixed knives and the scrapers”.

The scrapers are available in two different comb sizes. The comb size of the knives and the comb size of the scrapers affects the quality of the finished granulate.
>Page 9:26-9:28 “Scrapers”.

The scrapers are reversible. This means that the scrapers can be reversed once before grinding or discarding is necessary. >Page 7:17 “Grind the scrapers”.

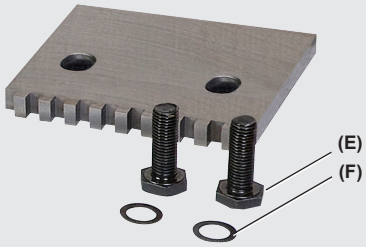
(A)



(B)

(C)

(D)

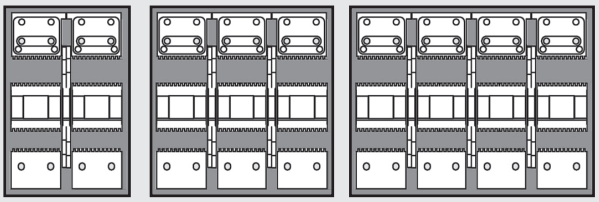


(A) = Cutter housing
(B) = Fixed knife
(C) = Fixed knives with IMD technology
(D) = Scraper
(E) = Tightening screw
(F) = Washer

Rotor

The rotor is designed and adapted to the type of plastic residue that the customer has specified before order.
>Page 9:25 “Rotor”.

The Rotor(s) can be controlled by means of an “ABS-system”.
>Page 2:28 “General rules, ABS-system”.
>Page 2:29 “Automatic ABS, Rotor”.
>Page 2:30 “Timed ABS, Rotor”.



NCM1 NCM2 NCM3

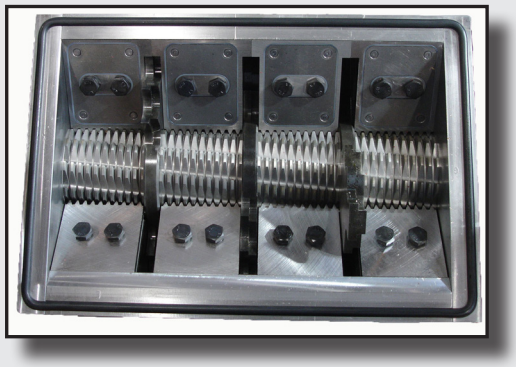
Rotating knife segments

Rotating knife segments are mounted on the rotor. The rotor can be provided with 2, 3, 4, 5 or 9 segments of rotating knife segments, depending on type of cutter housing.
>Page 2:9 “Cutter housing”.

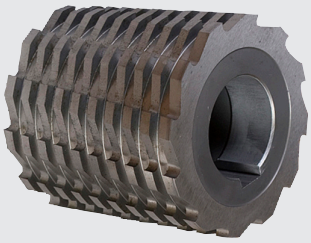
The rotating knife segments must be replaced or grinded as necessary. The granulator must never be used with blunt knives. Blunt knives cause abnormal wear and damages the granulator.

> Page 9:26-9:28 “Rotating knife”.
> Page 7:14 “Install the rotating knife segments and the rotating feed hook(s)”.
> Page 7:16 “Grind the rotating knife segments”.

(A)



(B)



Rotating feed hook(s)

The rotor is provided with one or several rotating feed hooks. The rotating feed hook(s) is/are mounted between the rotating knife segments. The rotor can be provided with 1, 2, 3, 4 or 7 rotating feed hooks depending of type of cutter housing.
>Page 2:9 “Cutter housing”.

The rotating feed hook(s) is/are reversible. This means that the rotating feed hook(s) can be reversed once before discarding is/are necessary.

> Page 9:26-9:28 “Rotating feed hook(s)”.
> Page 7:14 “Install the rotating knife segments and the rotating feed hook(s)”.

(C)

(A) = Cutter housing
(B) = Rotating knife segment
(C) = Rotating feed hook

Masher-system

The granulator can be provided with an Masher-system. Note! Masher-system is only optional in model NCM4.

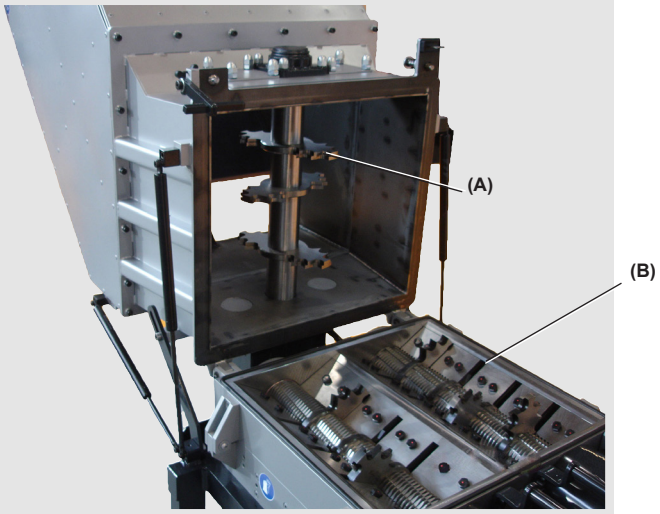
The Masher-system, which is installed inside the hopper, pushes the plastic residue down to the cutter housing.

When granulating bulky plastic residue a Masher-system increases the efficiency considerably.

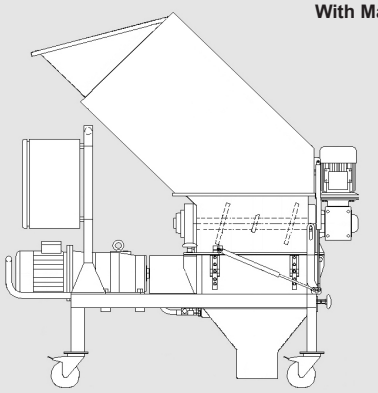
The Masher-system is controlled by means of an “ABS-system”.

>Page 2:28 “General rules, ABS-system”.
>Page 2:31 “Automatic ABS, Masher-system”.
>Page 2:32 “Timed ABS, Masher-system”.

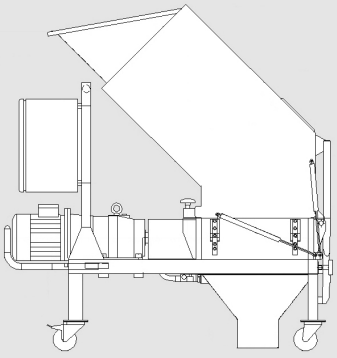
NCM4
With Masher-system



NCM4
With Masher-system



NCM4
Without Masher-system



(A) = Masher-system
(B) = Cutter housing

Transmission

Gear motor

The granulator is driven by an electrical gear motor.

Optional motor power: 0.75 kW, 1.5 kW or 2.2 kW. Motor power and motor frequency are specified on the motor's machine plate.

The gear motor is filled with oil. In normal operation, the oil does not need to be refilled / changed. If refilling / changing of oil should be necessary, use the type of oil specified on the gear motor's type plate.

The oil level in the gear motor must be checked regularly.
>Page 7:9 "Check the transmission".
>Page 9:31-9:33 "Transmission".

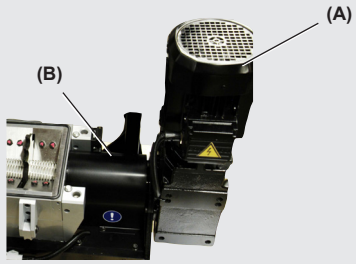
Coupling

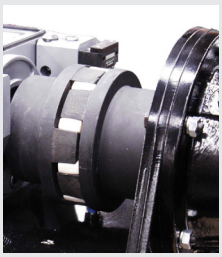
The coupling inside the transmission is provided with a plastic damper. The plastic damper must be regularly checked and replaced as necessary.
>Page 7:9 "Check the transmission".
>Page 9:25 "Rotor".

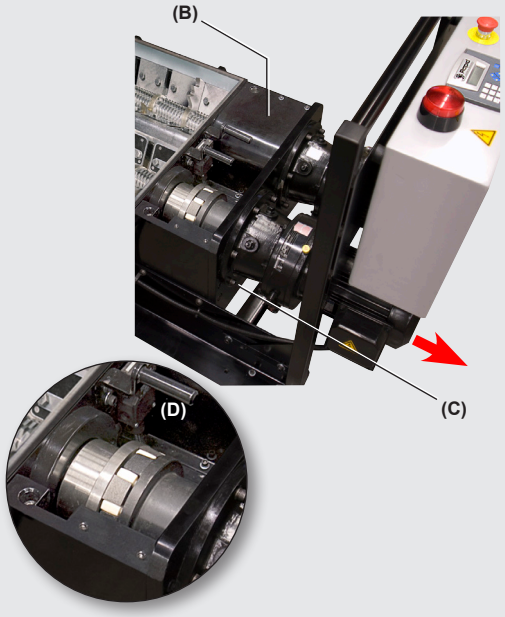
Bearings

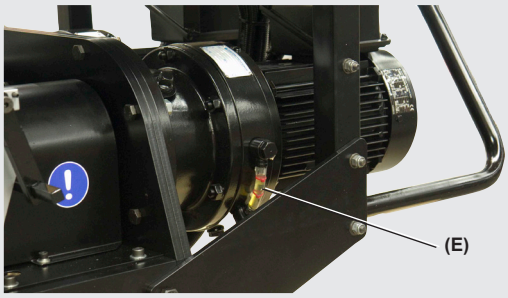
All bearings in the granulator are lubricated for life and must not be re-greased. >Page 9:25 "Rotor".

Note! If material get into the bearing housing, the material might melt and cause serious or irreparable damage to the bearings. There is one sealing in each short block of the cutter housing. The left sealing is a left-hand threaded and the right sealing is right-hand threaded. The reversed thread deflects fed material and prevent it from penetrating the bearings. The sealings must be regularly checked and replaced as necessary. >Page 2:9 "Sealings".









(A) = Gear motor
(B) = Transmission cover
(C) = Tightening screws
(D) = Plastic damper, Transmission
(E) = Oil level device (NCM4-Twin)

Safety equipment

General rules, Safety equipment

Inside the machine, sharp knives are rotating. For this reason, there is safety equipment which is intended to prevent access to hazardous components during operation.

The safety equipment must not be changed or modified under any circumstances. If any part of the safety equipment is changed or left out, the machine can be dangerous to use.

The safety equipment must be checked regularly. No part of the safety equipment may be replaced by components other than spare parts supplied by Conair.

If any part of the safety equipment is changed or left out, Conair's responsibility under the Machinery Directive ceases to apply.

The safety equipment consists of:

- Funnel. >Page 2:15.
- Hopper. >Page 2:15.
- Flap(s). >Page 2:15.
- Granule bin. >Page 2:16.
- Protective covers. >Page 2:16.
- Main switch.* >Page 2:18.
- Emergency stop. >Page 2:18.
- Safety switch. >Page 2:17.
- Star knob. >Page 2:17.

Note! All these parts must be installed during start and operation.

In addition, the key for the electrical cabinet, transmission and pneumatic cabinets (if supplied), is part of the safety equipment. The key must be kept by the personnel responsible for the machine's service and safety.

* A granulator with electrical cabinet "Extended" or "Advanced" is provided with a main switch.

Safety equipment

Funnel, Hopper

The funnel and the hopper prevent access to hazardous components during operation. The funnel must be installed during start and operation. The hopper must be closed during start and operation.

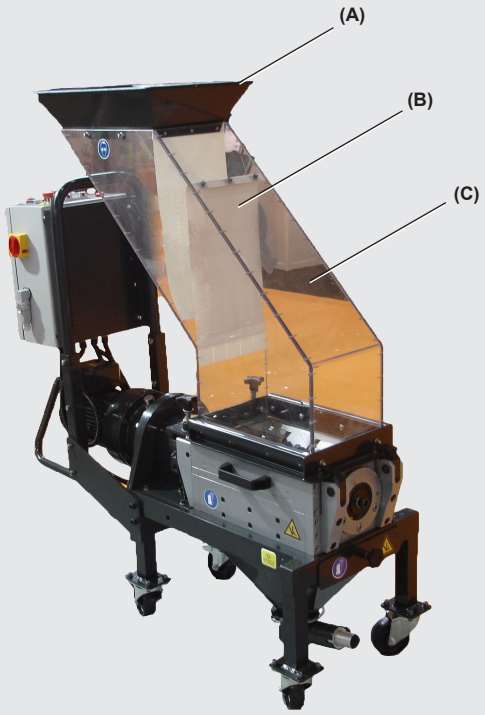
The hopper is designed and adapted to the type of plastic residue that the customer has specified before order. >Page 9:2-9:8 “Hopper”.

Flap(s)

The flap(s) prevents fed material from rejecting. The flap(s) also prevents half-finished granulate from stenching out of the inlet. The flap(s) must be installed during start and operation.

The flap(s) must be regularly checked and replaced as necessary. The flap(s) is/are designed and adapted to the type of plastic residue that the customer has specified before order. >Page 9:2-9:8 “Hopper”.

NCM2



(A) = Funnel
(B) = Flap(s)
(C) = Hopper

Safety equipment

Granule bin

The granule bin collects the finished granulate. The granule bin must be closed during start and operation.

The granule bin is designed and adapted to the type of plastic residue that the customer has specified before order. >Page 9:29-9:30 “Granule bin”.

The granule bin can be provided with a level switch (option). >Page 2:27 “Level switch, Granule bin”.

The granule bin can be provided with an airveyor (option). >Page 2:8 “Additional suffix -AV”.

(A) = Granule bin, NCM1
(B) = Granule bin, NCM4-Twin

Protective covers

After service / check is done all covers must be reinstalled.

Key to the electrical cabinet

All hatches to electrical cabinet, transmission and pneumatics (if supplied) must be closed and locked during start and operation. The key must be kept by the personnel responsible for the machine’s service and safety.

Safety equipment

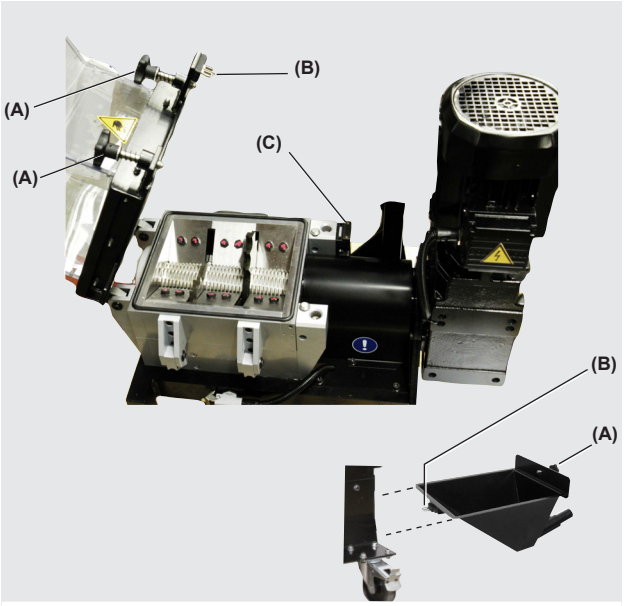
Safety switch

The machine can be provided with several safety switches. The safety switch(es) must be checked regularly.
>Page 7:2 “Check the safety equipment”.
>Page 9:36-9:37 “Safety”.

The safety switch stops the machine if its switch key is disconnected.

To be able to start the machine, the switch key must be installed inside the safety switch.

The design and location of safety switches can vary. Examples of where safety switches might be located can be seen in the images on the right. The electrical circuit diagram shows the number of safety switches installed in the supplied machine.



Star knob

The machine can be provided with several star knobs. The star knob has a screw with a very long thread. The thread is so long because it has to take such a long time to unscrew the star knob that the rotor will have time to stop completely.

The star knob(s) must be checked regularly. A star knob with worn screw must be replaced with a new original screw supplied by Conair.

>Page 7:2 “Check the safety equipment”.
>Page 9:36-9:37 “Safety”.

Some star knobs may be provided with a safety switch. If such a star knob is unscrewed during operation its safety switch will stop the machine. To be able to start the machine, the star knob(s) must be screwed in until they stop moving.

The design and location of star knobs can vary. Examples of where star knobs might be located can be seen in the images on the right.

(A) = Star knob
(B) = Switch key
(C) = Safety switch

Main switch

Note! A granulator with electrical cabinet “Extended” or “Advanced” is provided with a main switch. The granulator’s main switch must be locked in position “0” during service.

The main switch cuts all 3 phases of the supply voltage. The design and location of the main switch can vary. Refer to the electrical circuit diagram.

Emergency stop(s)

The emergency stop stops the machine in case of emergency. The machine can be provided with several emergency stops. The emergency stop(s) must be checked regularly. >Page 7:1 “Check the emergency stop(s).

The design and location of the emergency stop(s) can vary. The electrical circuit diagram shows the number of emergency stop(s) installed in the supplied machine.

Note! A granulator with electrical cabinet “Basic” is provided with a padlock bracket at the emergency stop. The granulator’s emergency stop must be locked with a padlock during service.

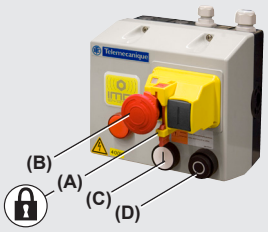
Electrical cabinet, Operating panel

The machine’s control knobs are found on an operating panel. The design and location of the operating panel(s) and the knob(s) can vary. Refer to the electrical circuit diagram.

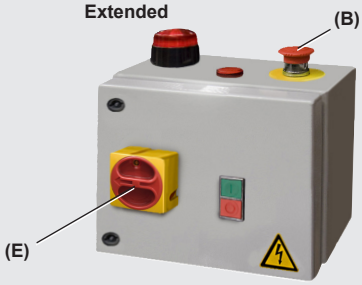
Type of operating panel and type of electrical cabinet, depends on motor power and whether any optional equipments have been selected.

Examples of optional electrical cabinets:
- Basic
- Extended
- Advanced

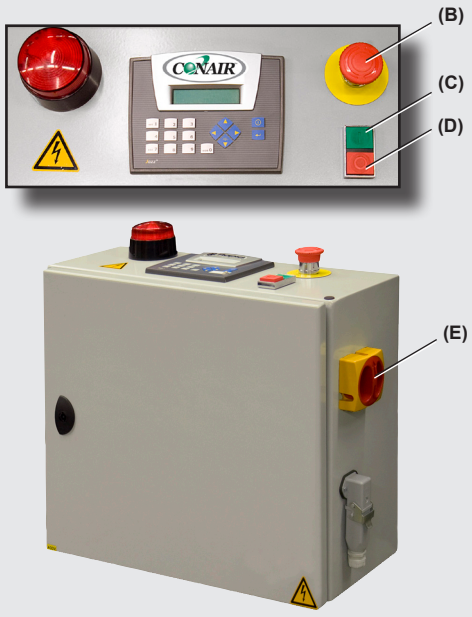
Basic



Extended



Advanced



(A) = Padlock bracket, Emergency stop
(B) = Emergency stop
(C) = Start-button
(D) = Stop-button
(E) = Main switch
(F) = Display

Advanced, Status messages

General rules, “Level 0” and “Level 1” messages

The messages on a granulator with electrical cabinet “Advanced” are divided in two security levels; “Level 0” and “Level 1”.

“Level 0” messages are used when the rotors and the Masher-system are to be manually reversed. “Level 0” messages are also used to view the granulator’s settings. >Page 2:20 “Level 0” messages.

“Level 1” messages are used when the granulator’s settings are to be changed and when the counters are to be viewed or reset. >Page 2:21–2:22 “Level 1” messages.

To access “Level 1” a password must be entered. >Page 7:5 “Start Level 1”.

Information! Press the edit-buttons “Left” or “Right” to jump from one message to another.

Information! Press the edit-button “MOD” to view a cursor.

Information! Press the OK-button to accept entered values / parameters.

Advanced

(A) = Edit-button “Left”
(B) = Edit-button “Right”
(C) = Edit-button “MOD”
(D) = OK-button

"Level 0" messages

At "Level 0" the following messages appear on the display of electrical cabinet "Advanced":

(A) This message shows that "Timed ABS" is selected and that the granulator is ready to be started.*,**

(B) This message shows that "Automatic ABS" is selected and that the granulator is ready to be started.*,**

(C) This message shows that "Automatic ABS" is selected and that the granulator is running.*

(D) In this message, Masher 1 can be manually reversed by pressing the OK-button.

(E) In this message, Masher 2 can be manually reversed by pressing the OK-button.

(F) In this message, Rotor 1 can be manually reversed by pressing the OK-button.

(G) In this message, Rotor 2 can be manually reversed by pressing the OK-button.

(H) This message shows the preset time that determines how long the rotor will operate in forward going direction.***

(J) This message shows the preset time that determines how long the Masher-system will operate in forward / backward going direction.***

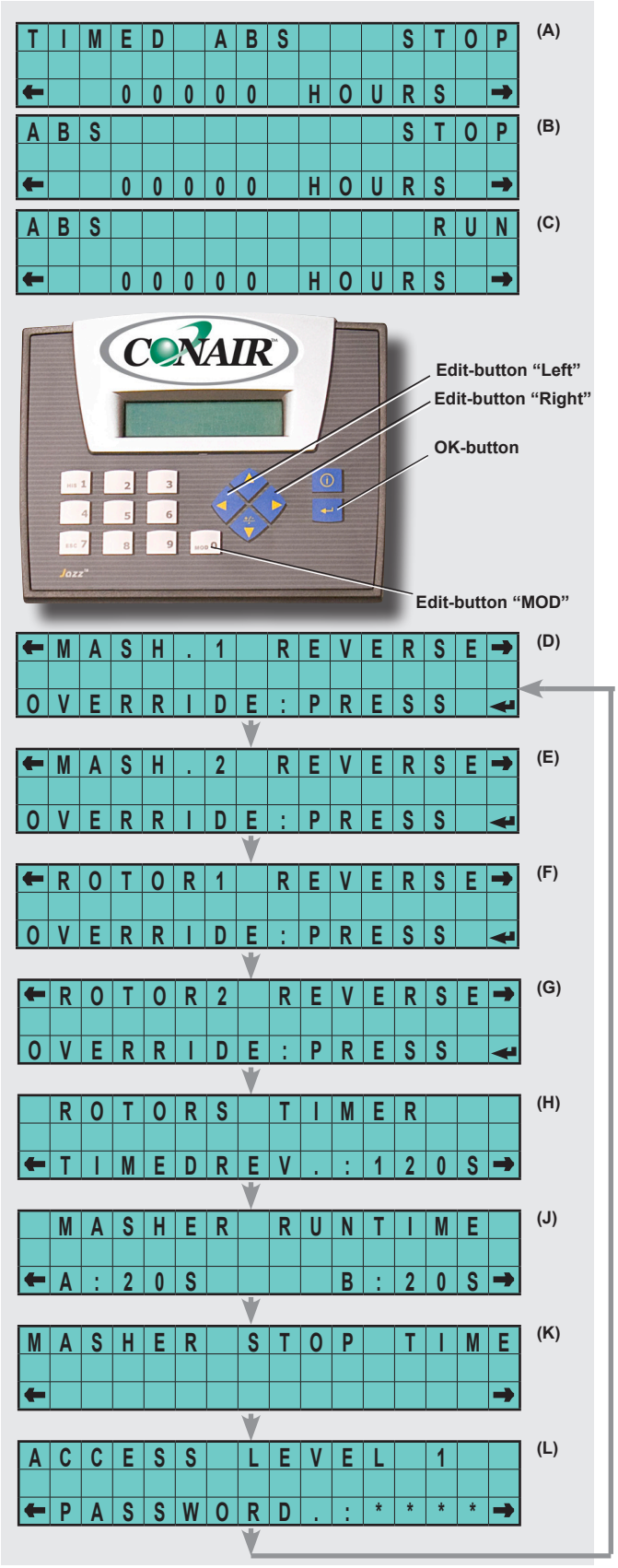
(K) This message shows the stop time that determines how long the Masher-system is standstill before changing direction.***

(L) In this message "Level 1" can be initiated by entering a password. >Page 7:5 "Start Level 1".

* >Page 5:1 "Start the granulator".

** >Page 7:5 "Select ABS mode, Advanced".

*** Note! This message is visible even when "Timed ABS" isn't selected, but the rotor and the Masher-system will only reverse according to timed cycles when "Timed ABS" is selected".



Advanced, Status messages

“Level 1” messages

At “Level 1” the following messages appears on the display of electrical cabinet “Advanced”:

(A) This message shows that current ABS mode is “Timed ABS”. In this message the ABS mode can be changed.*

(B) This message shows that current ABS mode is “Automatic ABS”. In this message the ABS mode can be changed.*

(C) In this message it is possible to change the preset time that determines how long the rotor will operate in forward going direction.**,***

(D) In this message it is possible to change the preset time that determines how long the Masher-system will operate in forward/backward going direction.**,***

(E) In this message it is possible to change the preset time that determines how long the Masher-system will stand still before changing direction.**,***

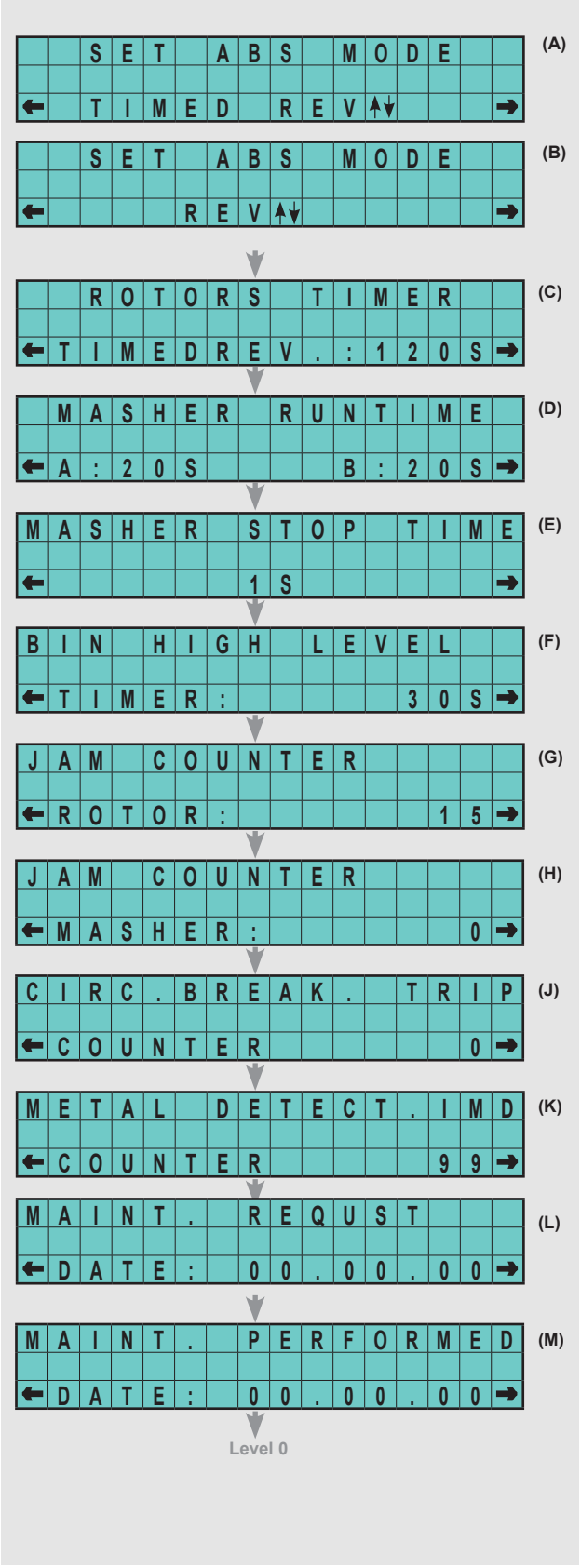
(F) In this message it is possible to change the preset time that determines how long the granulator will operate before it shall stop due to overloaded granule bin. Note! The level switch can be adjusted. >Page 7:9 “Adjust the level switch”.

(G) This message shows how many times the Masher-system has been reversed due to stuck plastic residue. The counter can be reset.**

* >Page 7:6 “Select ABS mode, Advanced”.

** >Page 7:8 “Adjust the ABS settings, Advanced”.

***Note! This message is visible even when “Timed ABS” isn’t selected, but the rotor and the Masher-system will only reverse according to timed cycles when “Timed ABS” is selected”.



Advanced, Status messages

“Level 1” messages

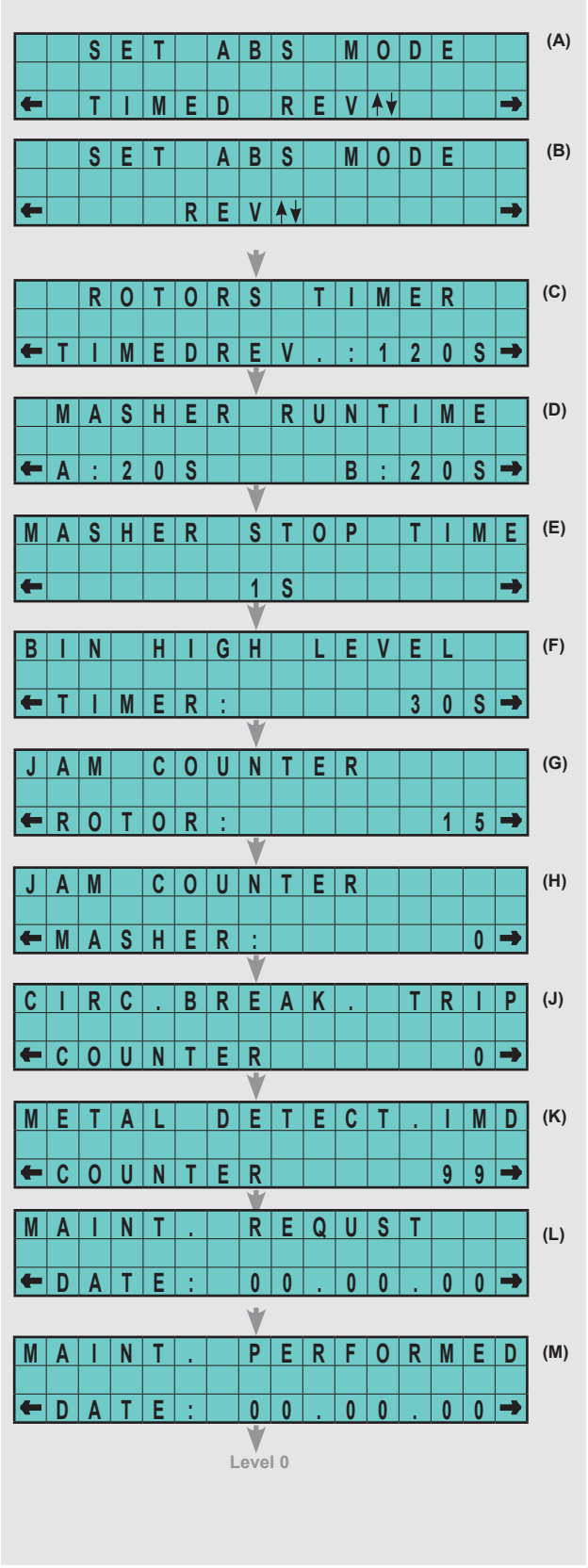
(H) In this message it is possible to change the preset time that determines how long the Masher-system will operate in backward going direction, in case the Masher-system has been stopped due to stuck plastic residue. >Page 7:8 “Adjust the ABS settings, Advanced”,****

(J) This message shows how many times the overload protection has tripped. The counter can be reset.*

(K) This message shows how many times the IMD-system has stopped the granulator due to metal detection. The counter can be reset.*

(L) Whenever a thorough inspection is requested the current date and year are automatically recorded in this message.**,***

(M) After performing a thorough inspection, year and date must be entered in this message.**,***



* >Page 7:8 “Adjust the ABS settings, Advanced”.

** >Page 7:14 “Thorough inspection”.

*** >Page 7:14 Reset “Maintenance request”.

**** Note! This message is visible even when “Timed ABS” isn’t selected, but the rotor and the Masher-system will only reverse according to timed cycles when “Timed ABS” is selected”.

Advanced, Fault messages

The following fault messages may appear on the display of electrical cabinet “Advanced”:

(A) The hopper is opened.
Service actions: Close the hopper. Re-start the granulator.
>Page 6:4 “Close the hopper”.
>Page 5:1 “Start the granulator”.

(B) The granule bin is opened.
Service actions: Close the granule bin. Re-start the granulator.
>Page 6:3 “Close the granule bin”.
>Page 5:1 “Start the granulator”.

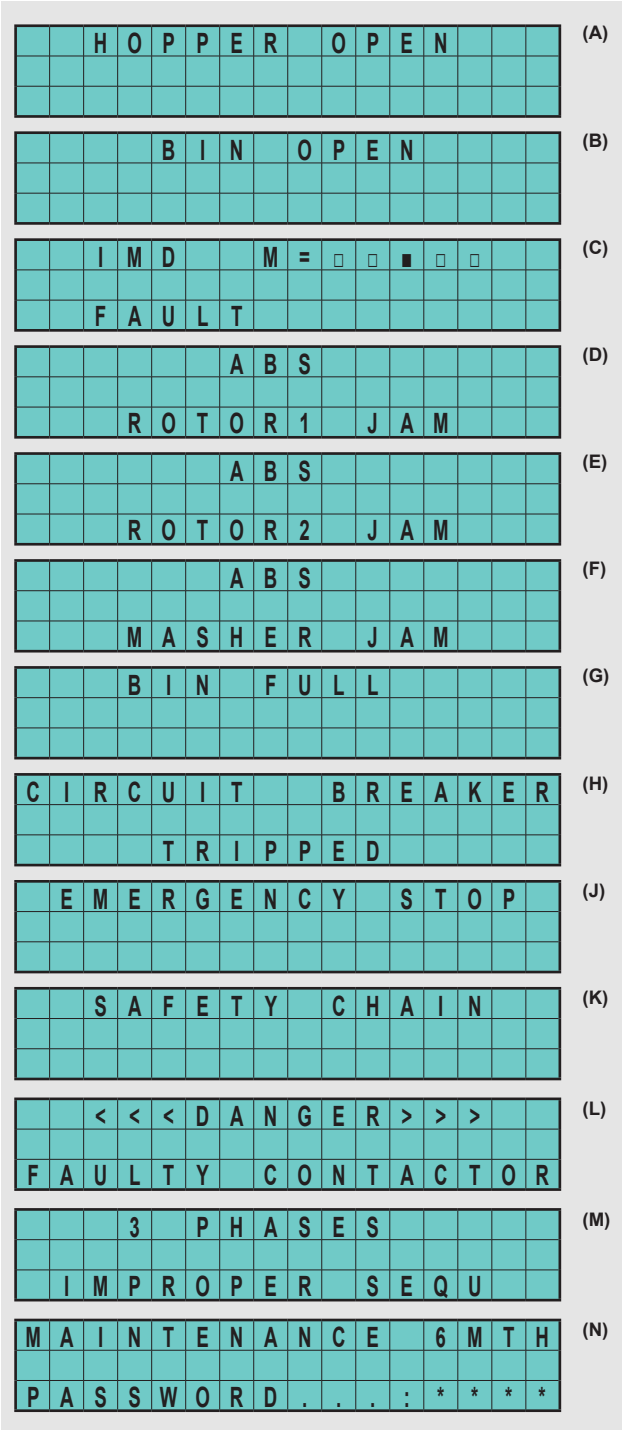
(C) The IMD-system has stopped the granulator. The scraper that has detected metal is shown as black on the display.
Service actions: Clean the granulator. Re-start the granulator.
>Page 7:10 “Clean the granulator”.
>Page 5:1 “Start the granulator”.
>Page 2:25 “General rules, IMD-system”.

(D)–(F) The ABS-system has stopped the granulator. Rotor 1, Rotor 2 or Masher-system are stuck.
Service actions: Clean the granulator. Re-start the granulator.
>Page 7:10 “Clean the granulator”.
>Page 5:1 “Start the granulator”.
>Page 2:28 “General rules, ABS-system”.

(G) The level switch has stopped the granulator / the optional equipment.
Service actions: Empty the granule bin. Re-start the granulator.
>Page 7:10 “Clean the granulator”.
>Page 5:1 “Start the granulator”.
>Page 7:7 “Adjust the level switch”.

(H) The granulator ’s overload protection has tripped since the granulator has been overloaded.
Service actions: Reset the overload protection.
>Page 2:26 “Overload protection”.

(J) The emergency stop is activated.
Service actions: Close the granulator. Reset the emergency stop(s).
>Page 6:3 “Close the granulator”.
>Page 5:1 “Start the granulator”.



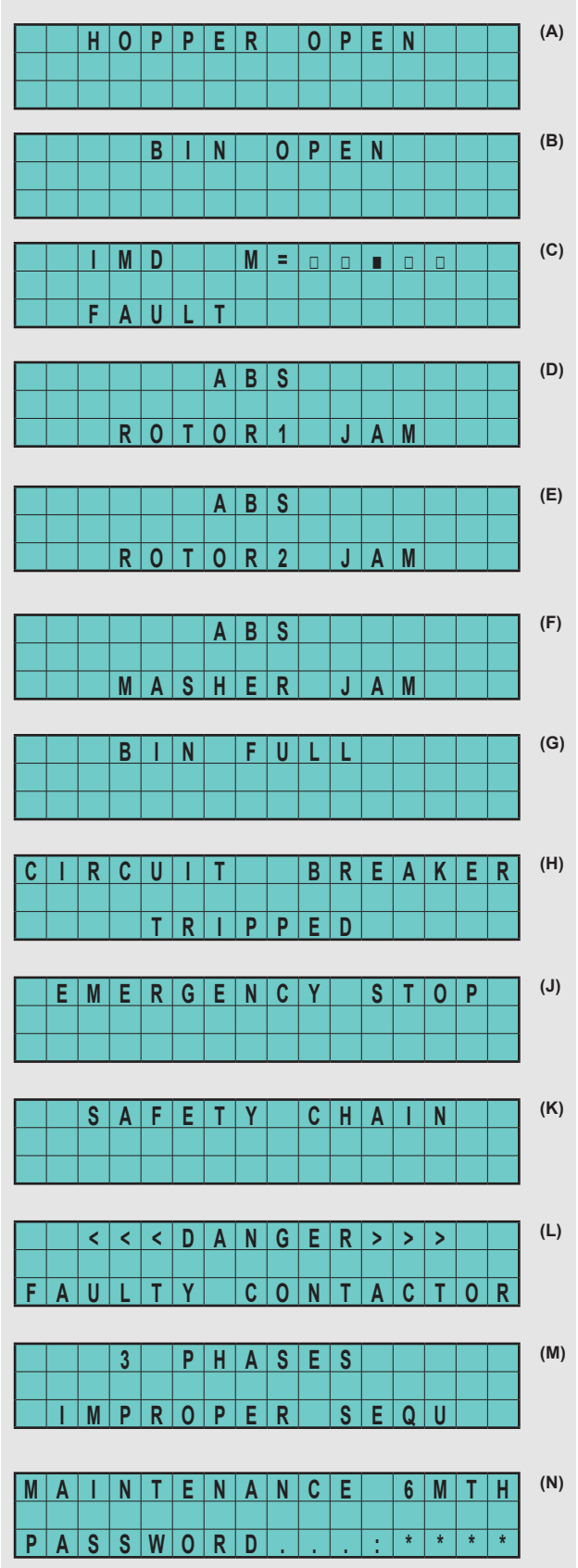
Advanced, Fault messages

(K) The safety chain interlock is opened.
Service actions: Stop the granulator. Contact the personnel responsible for the machine's service and safety.
>Page 5:1 "Stop the granulator".
>Page 2:1 "Personnel responsible for the machine".

(L) The motor's contactor is locked in a closed position.
Service actions: Contact the personnel responsible for the machine's service and safety.

(M) The motor's rotating direction is wrong.
Service actions: Switch over two incoming phases.
>Page 4:4 point 6 a–d "Actions before first start.

(N) The granulator has operated 4.400 hours since last thorough inspection.
Service actions: Execute a thorough inspection.
>Page 7:13 "Thorough inspection".
>Page 7:13 Reset "Maintenance request".



IMD-system

General rules, IMD-system

The granulator can be provided with an IMD-system “Integrated Metal Detection”. A granulator with IMD-system is immediately stopped as any metal contamination is detected in the cutter housing. IMD-System is optional.

The sensitivity of the IMD-system is adjustable.
The sensitivity is adjusted in different ways depending on type of electrical cabinet.
>Page 7:5 “Adjust the IMD-system”.

Metal detection is indicated and reset in different ways depending on type of electrical cabinet.
>Page 2:18 “Electrical cabinet, Operating panel”.

Note! Before resetting the IMD-system and before restarting the machine, the reason why the IMD-system tripped must be determined. Clean the machine thoroughly to prevent the IMD-system from immediate tripping when restarting the machine.

Basic

Metal detection is indicated by the red warning lamp. The IMD-system is reset by pressing the reset button.

Note! Red light can also indicate that the overload protection has tripped.
>Page 2:26 “Overload protection, Motor”.

Extended

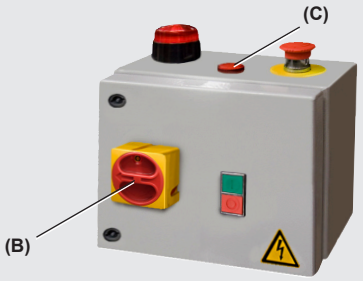
Metal detection is indicated by the red warning lamp. The IMD-system is reset by putting the main switch in position “Off”, thereafter clean the machine and finally put the main switch back in position “On”.

Advanced

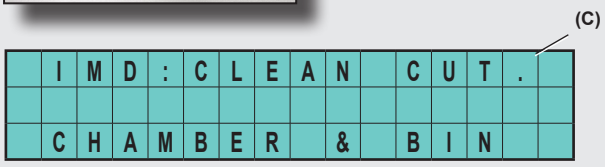
Metal detection is indicated by the red warning lamp and a fault message on the operating panel. On the display it is shown which scraper has detected metal, see figure to the right. The IMD-system is reset by putting the main switch in position “Off”, thereafter clean the machine and finally put the main switch back in position “On”.

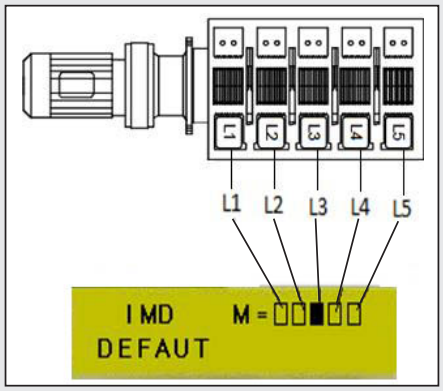
Basic

Extended



Advanced





(A) = Reset button
(B) = Main switch
(C) = Metal detection. Clean the granulator.

Overload protection, Motor

General rules, Overload protection

The machine can be provided with several overload protections. The overload protection(s) is/are installed inside the electrical cabinet. The electrical circuit diagram shows the number of overload protections installed in the supplied machine.

The overload protection trips if the granulator or any optional equipment is overloaded.

Overload is indicated and reset in different ways depending on type of electrical cabinet. >Page 2:18 “Electrical cabinet, Operating panel”.

Note! Before resetting an overload protection and before restarting the machine, the reason why the overload protection tripped must be determined. Take necessary actions (for example clean the machine) to prevent the overload protection from immediate tripping when restarting the machine.

Basic

Overload is indicated by the red warning lamp. The overload protection is reset by pressing the reset button.

Note! Red light can also indicate metal detection. >Page 2:25 “IMD-system”.

Extended

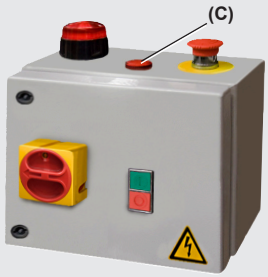
Overload is indicated by the red warning lamp. The overload protection is reset by turning the reset knob inside the electrical cabinet.

Advanced

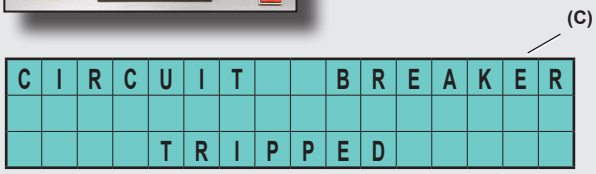
Overload is indicated by the red warning lamp and a fault message on the display. The overload protection is reset by turning the reset knob inside the electrical cabinet.

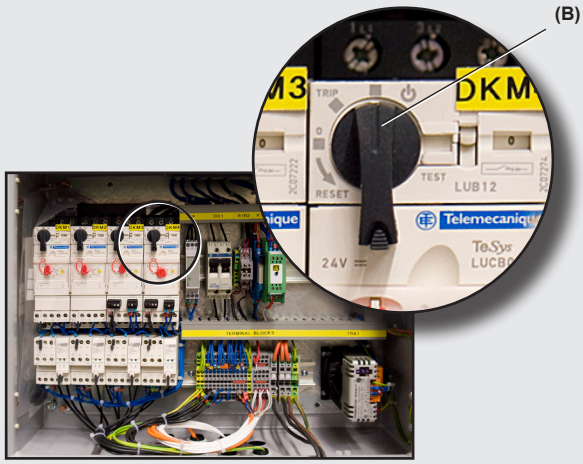
Basic

Extended



Advanced





(A) = Reset button, Basic
(B) = Reset knob, Extended / Advanced
(C) = The overload protection has tripped

Level switch, Granule bin

General rules, Level switch

The granule bin can be provided with a level switch. Level switch is optional. The level switch monitors the granulate level in the granule bin. As the granulate level gets too high, the level switch takes one or several of the below listed actions:

- Stops the granulator.
- Stops optional feed equipment.
- Shows a fault message on the display on the electrical cabinet.
- Lights up a warning lamp (option).
- Starts up a siren (option).
- Resets the level switch and restarts the granulator and/ or the feed equipment as the granulate level in the granule bin has sunk.

The electrical circuit diagram specifies the actual function of the level switch in the supplied machine.

Note! Level switch is only optional on granulator with electrical cabinet “Extended” or “Advanced”. >Page 2:18 “Electrical cabinet, Operating panel”.

Level switch, Capacitive type

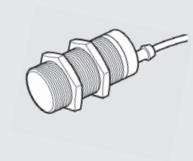
A level switch of capacitive type, is provided with a sensor that senses non electrically conductive material. If the granulate level gets too high, the sensor activates the level switch.

The capacitive level switch’s sensitivity can be adjusted from 2 to 16 mm. On delivery the capacitive level switch’s sensitivity is set to 16 mm.
>Page 7:7 “Adjust the level switch”.

Level switch, Paddle type

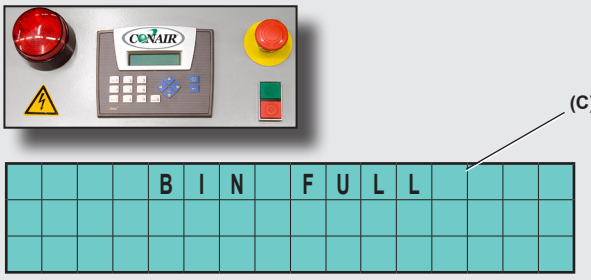
A level switch of paddle type is provided with rotating paddles. When the granulator is started the paddles starts rotating. If the granulate level gets too high, the paddles will stop rotating. As the paddles stands still, the level switch is activated.

The sensitivity has 3 positions, high, medium and low.
>Page 7:7 “Adjust the level switch”.



Extended

Advanced



(A) = Level switch, Capacitive type
(B) = Level switch, Paddle type
(C) = To much granulate in granule bin

ABS-system

General rules, ABS-system

The granulator can be provided with an ABS-system “Anti Blocking System”. ABS-system is optional.

Note! ABS-system is only optional on granulator with electrical cabinet “Advanced”.

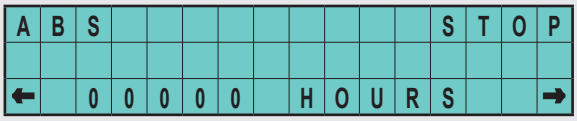
The ABS-system controls the operation of the rotor.
>Page 2:11 “Rotor”.
>Page 2:29 “Automatic ABS, Rotor”.
>Page 2:30 “Timed ABS, Rotor”.

If the granulator is provided with an optional “Masher-system”, the ABS-system also controls the operation of the Masher-system.
>Page 2:12 “Masher-system”.
>Page 2:31 “Automatic ABS, Masher-system”.
>Page 2:32 “Timed ABS, Masher-system”.

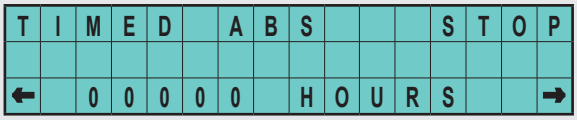
The ABS-system can operate in two modes “Automatic ABS” (automatic reversal) or “Timed ABS” (timed reversal). The desired mode is selected in different ways depending on type of electrical cabinet. >Page 7:5 “General rules, Adjust the ABS settings”.

If the granulator is provided with the electrical cabinet “Advanced”, the ABS-system enables the operator to manually reverse the rotor at any time (and the Masher-system if supplied).
>Page 5:2 “Manual reversal of the rotors and/or the Masher-system”.

Advanced



(A)



(B)

(A) = “Automatic ABS” is selected
(B) = “Timed ABS” is selected

ABS-system

Automatic ABS, Rotor

"Automatic ABS" = Automatic reversal.

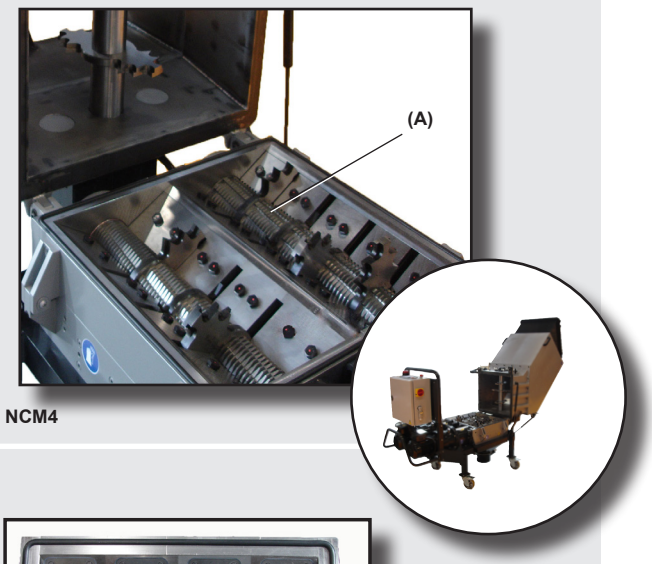
A granulator with ABS-system is provided with a sensor. In "Automatic ABS" mode, the sensor monitors if the rotor is rotating or if it stands still.

In case the rotor stops due to stuck plastic residue, the sensor will give signal to automatically reverse the rotor. Brief operation in reverse allows the stuck plastic residue to be released.

After a brief operation in reverse the ABS-system automatically restarts the rotor's forward going operation. The rotor's forward going operation continues until the next time the rotor get stuck.

Note! A preset, not adjustable, period of time must expire between three reversals. If the sensor gives signal to reverse the rotor a third time after two quite recent reversals, the ABS-system will automatically shut down the granulator. (If the rotor gets stuck and stops three times in a row during a short period of time, it is most likely that all three stoppings have been caused by the same plastic piece. Such a plastic piece must be removed manually.)

Note! The "Automatic ABS" function should not trip to often – maximum once every five minutes! If the function "Automatic ABS" trips too often, this could indicate that the knives are blunt or that the granulator is too small for the task at hand.



NCM4

NCM3

(A) = Rotor

ABS-system

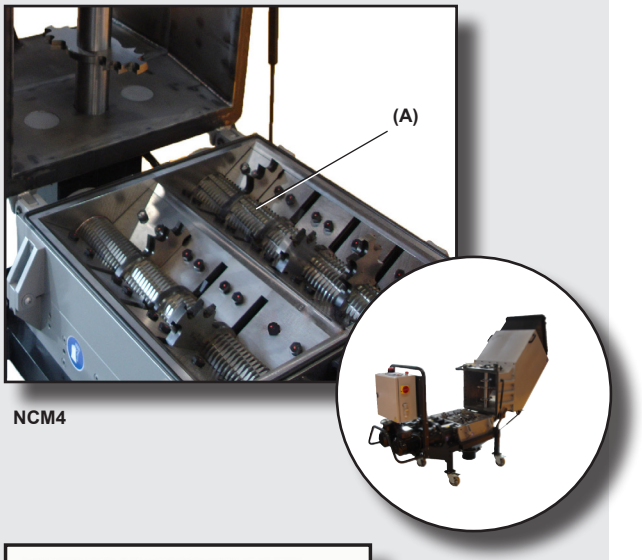
Timed ABS, Rotor

"Timed ABS" = Timed reversal.

A granulator with ABS-system is provided with a timing relay. In "Timed ABS" mode the timing relay gives signal to reverse the rotor according to timed cycles (whether the rotor is stuck or not).

The timing relay's cycle times can be adjusted. The timing relay is adjusted in different ways depending on type of electrical cabinet.
>Page 7:6 "Adjust the timing relay, Advanced".

Note! The sensor, described in the text "Automatic ABS, Rotor" on page 2:29, works even when "Timed ABS" mode is selected.



NCM4

NCM3

(A) = Rotor

ABS-system

Automatic ABS, Masher-system

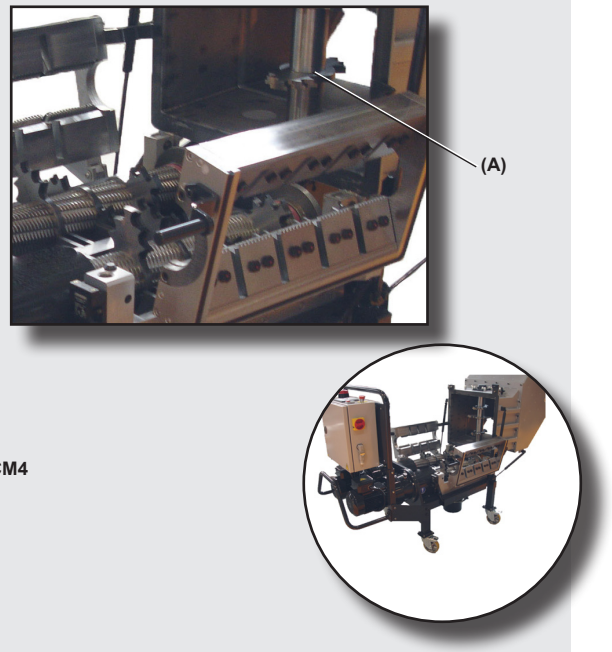
"Automatic ABS" = Automatic reversal.

A granulator with Masher-system is provided with an additional overload protection. In "Automatic ABS" mode, the overload protection will give signal to automatically reverse the Masher-system, in case the Masher-system is overloaded due to stuck plastic residue.

Brief operation in reverse allows the stuck plastic residue to be released.

After a brief operation in reverse the ABS-system automatically restarts the Masher-system's forward going operation. The Masher-system's forward going operation continues until the next time the Masher-system get stuck.

Note! A preset, not adjustable, period of time must expire between three reversals. If the overload protection gives signal to reverse the Masher-system a third time after two quite recent reversals, the ABS-system will automatically initiate "Program 2". >Page 2:33 "Program 2, Masher-system".



NCM4

(A) = Masher-system

ABS-system

Timed ABS, Masher-system

“Timed ABS” = Timed reversal.

A granulator with ABS-system is provided with a timing relay. In “Timed ABS” mode the timing relay gives signal to reverse the Masher-system according to timed cycles (whether the Masher-system is stuck or not). The Masher-system’s timed ABS cycle is called “Program 1”.

Program 1, Masher-system

The operation of “Program 1” can be described as follows:

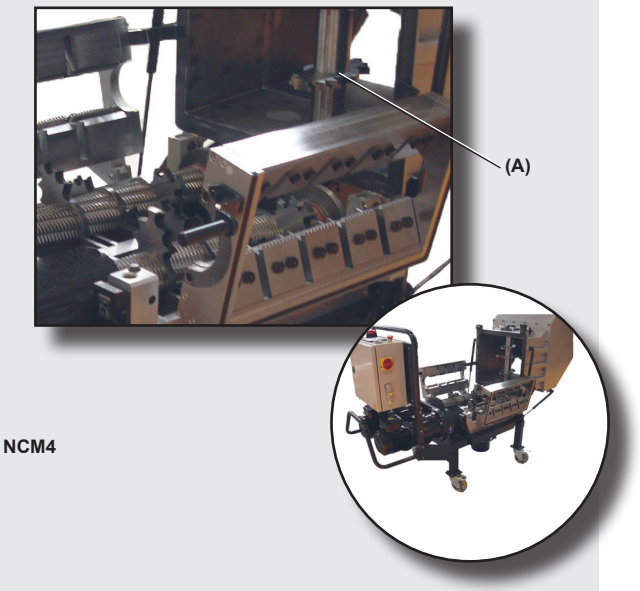
1. Forward going operation for XX seconds.
2. Masher-system stopped for XX seconds.
3. Backward going operation for XX seconds.
4. Masher-system stopped for XX seconds.

The timing relay’s cycle times can be adjusted.
>Page 7:6 “Adjust the timing relay, Advanced”.

The Masher-system will continue repeating point 1–4 over and over again, until the Masher-system gets stuck and stops three times in a row during a short period of time.

If the Masher-system gets stuck and stops three times in a row during a short period of time, the ABS-system will automatically initiate “Program 2”.

>Page 2:33 “Program 2, Masher-system”.



NCM4

(A) = Masher-system

ABS-system

Program 2, Masher-system

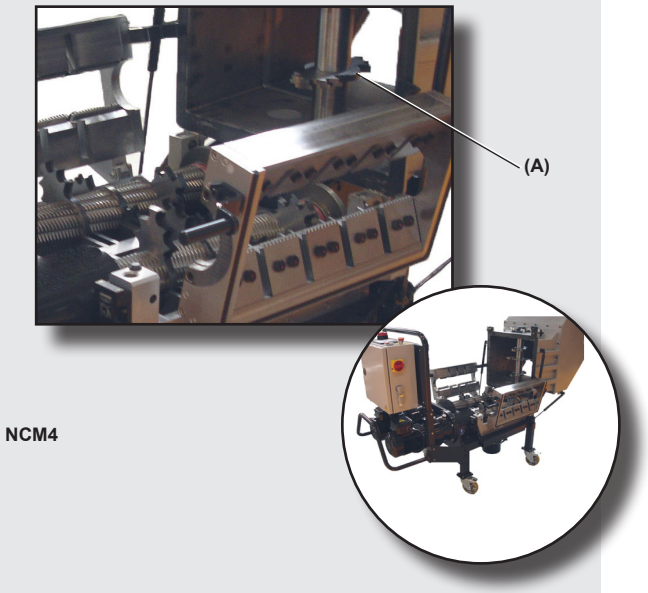
Operation in accordance with “Program 2” decreases the stress on the Masher-system and gives the rotor time to empty the cutter housing.

The operation of “Program 2” can be described as follows:

1. Masher-system stops for 15 seconds.
2. Masher-system re-starts and operates in backward going direction for 5 seconds.
3. Masher-system stops for 15 seconds.
4. Masher-system re-starts and operates in backward going direction for 5 seconds (if the rotor also is stuck it too will reverse at this stage).
5. Masher-system stops for 15 seconds.
6. Masher-system re-starts and operates in forward going direction for 10 seconds.
7. Masher-system stops for 15 seconds.
8. Masher-system exits “Program 2”.

Note! When “Automatic ABS” mode is selected:
After exiting “Program 2” the Masher-system will operate in forward going direction, until the Masher-system gets stuck and stops three times in a row during a short period of time.

Note! When “Timed ABS” mode is selected:
After exiting “Program 2” the Masher-system will automatically initiate “Program 1”.
>Page 2:32 “Program 1, Masher-system”.



NCM4

(A) = Masher-system

Transport / Lift

General rules, Transport / Lift

The machine must only be transported / lifted by trained personnel. All instructions must be observed to avoid personal injury and machinery damage.

Transport

1. If the machine will be transported exposed to weather and wind: Treat all components that could rust with a rust preventer. Wrap the machine in plastic foil.
2. If the machine will be transported a longer distance or on uneven ground: Fix the machine to a transport pallet with tension straps. Transport / lift the pallet with a fork lift.
3. Machine with casters: If the machine will be transported a shorter distance on even, dry ground: Transport the machine with its casters.

Lift the granulator

Lift the granulator with lifting straps:

1. Open the hopper. >Page 6:2 “Open the hopper”.
2. Remove the granule bin.
   >Page 6:3 “Open granule bin”.
3. Install the lifting strap under the body and motor to prevent the granulator from overbalancing when lifted. Make sure that the lifting strap that goes under the body also goes behind the hindge and handle. Refer to the upper figure on the right.

Note! Make sure that the lifting strap has sufficient capacity to lift the granulator.

Note! Make sure that the lifting straps will not slip when lifting.

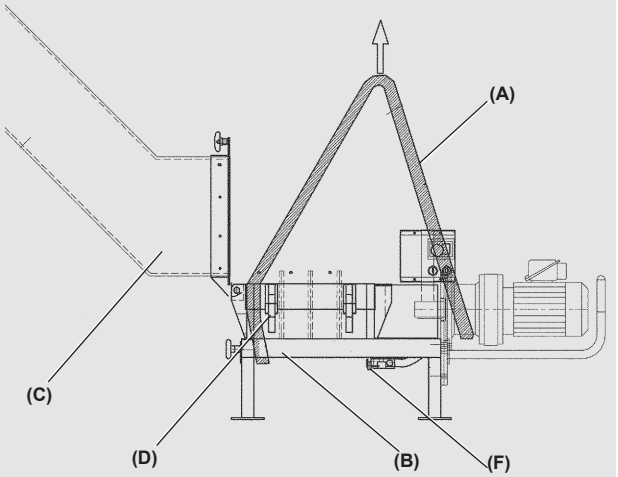
Lift the granulator with a fork lift:

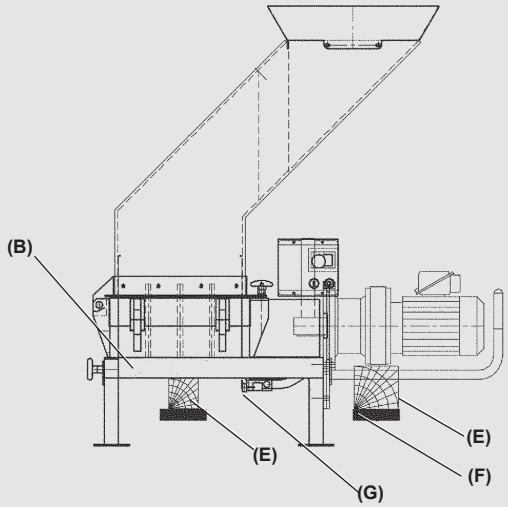
1. Close the hopper
2. Remove the granule bin.
3. Insert the forks as shown in figure on the right. Use pieces of wood to make sure that the granulator is lifted horizontal. The wood pieces should rest on the body and on the motor

Note! Make sure that the machine will not overbalance when lifted.

Note! Check that no cables or any parts of the safety equipment are pinched when lifting.

Information! For information about machine weight, refer to page 2:1 “Technical specifications”.





(A) = Lifting strap
(B) = Body
(C) = Opened hopper
(D) = Handle / Hinge
(E) = Piece of wood
(F) = Forks
(G) = Caution, fragile part

Actions before first start

General rules, Installing

1. Read page 1:2 “Safety rules, During installing”.
2. Read all of chapter 4 before installation is started.
3. Sign the completed installation, in the end of this chapter.

Reception inspection

1. Check the dispatch note to ensure that the delivery is complete.
2. Check that the machine has not been damaged during transport. Any damage must be reported to the forwarding agent.

Put the machine in its working place

1. Refer to layout for required working space. >Page 2:5–2:6 “Layout”.
2. Transport / lift the machine to its working area. >Page 3:1 “Transport / Lift”.
3. Check that the machine stands horizontal and steady.
4. Lock the casters.

Remove the rust preventer

Un-painted components are treated with rust preventer before delivery and transport. Remove the rust preventer before operating the machine.

1. Read page 7:10 “Clean the granulator”.
2. Clean following parts inside and outside: Hopper *, Cutter housing, Rotor, Knives, Granule bin. Use a low aromatic alkaline degreaser or a gentle solvent. Wipe clean with lint-free rags.

* Important! Do not use solvents or strong detergents when cleaning a plexiglass hopper!

Actions before first start

Check the knife clearance

1. Check the knife clearance. >Page 7:15 point 5.

Technical specifications

1. Fill in correct information, on page 2:1 “General data, Supplied machine”, so that the data corresponds with the machine sign on your supplied machine.
2. Mark the correct alternatives, on page 2:1 “General data, Conair NCM-series”, so that the data corresponds with your supplied machine.
3. Sign the personnel responsible for the machine’s service and safety, on page 2:1.

Electrical connection

General rules, Electrical connection

1. Read page 4:1 “General rules, Installing”.
2. The machine must be disconnected from the mains before electrical repairs or electrical installing is began.
3. The machine must be installed in accordance to EN ISO 13849-1 and EN 60204. This means, among other, that all cables must be installed so that they will not get damaged during operation.
4. All electrical service, must be done by authorized, trained personnel. No modifications or alterations of the basic electrical settings are permissible unless a written approval has been obtained from Conair’s head office. Refer to the electrical circuit diagram.
5. When replacing electrical components, only use original spare parts supplied by Conair.

Emergency stop

1. Read page 4:3 “General rules, Electrical connection”.
2. Check that the supplied emergency stop is within reach at all positions in the machine’s workplace.
3. If the supplied emergency stop is not accessible from all positions in the workplace, the machine must be provided with further emergency stops.

   In event of any questions, please contact Conair’s service line at 1-800-458-1960.

Connect the granulator to the mains

1. Read page 4:3 “General rules, Electrical connection”.
2. Check the phase sequence of the electric mains with a phase sequence display. The granulator is connected for a right-hand turning field. The electric circuit diagram specifies the connection voltage (Volt) and fuse size (Ampere).
3. Connect the granulator to the mains.

Checks immediately after first start

1. Check that all actions in page 4:1–4:3 are done.

2. Check that all parts of the safety equipment are installed. >Page 2:14 “Safety equipment.”

3. Close the granulator. >Page 6:3.

4. Start the granulator. >Page 5:1.

5. Check that the rotating direction of the granulator’s motor corresponds to the arrow on the motor.

   If the rotating direction is wrong:
   a) Stop the granulator. >Page 5:1.
   b) Read page 4:3 “General rules, Electrical connection”.
   c) Switch over two incoming phases.
   d) Start the granulator. >Page 5:1.

6. Optional equipment, IMD-system:
   Check that the IMD settings are satisfying. Adjust as necessary. >Page 7:4 “Adjust the IMD-System”.

7. Optional equipment, ABS-system:
   Check that the ABS settings are satisfying. Adjust as necessary. >Page 7:5 “Adjust the ABS-System”.

8. Optional equipment, Level switch:
   Check that the level switch’s setting is satisfying. Adjust as necessary.
   >Page 7:7 “Adjust the level switch”.

9. Optional equipment, Airveyor:
   Check that the pause-pulse relay’s setting is satisfying. Adjust as necessary. >Page 7:8.

10. Check the emergency stop(s). >Page 7:1.

11. Check the safety equipment. >Page 7:2.

12. Check the knife clearance. >Page 7:15 point 5.

Checks 40 hours after first start

1. Stop the granulator. > Page 5:1.
2. Check the knife sharpness and the knife clearance. >Page 7:15 point 5.
3. Check the tightening torque of the fixed knives and the scrapers. Tightening torque 85 Nm. >Page 7:15 figure (B) and (E).
4. Check the tightening torque of the rotor shaft. Tightening torque 544 Nm. >7:14 figure (C).

Installing complete

The machine has been installed and checked in accordance with the instructions in chapter 4.

Date: ..... / ..... 20 .....

Name:.....

Start the granulator

1. Read page 1:3 “Safety rules, During start and operation”.
2. Read page 2:18 “Electrical cabinet, Operating panel”, “Main switch” and “Emergency stop(s)”.
3. Check that there is no material in hopper or cutter housing.

Important! The granulator must not be started if there is material left in the hopper and cutter housing. When starting, remaining material may brake the rotor and overload the motor. The overload protection will trip and the granulator will stop.

4. Granulator with electrical cabinet “Extended” or “Advanced”:
   Put the main switch in position “1”.
5. Granulator with electrical cabinet “Basic”:
   Unlock the emergency stop’s padlock.
6. Reset the emergency stop(s).
7. Reset the IMD-system. / Reset the overload protection.
   >Read page 2:25 “IMD-system”.
   >Read page 2:26 “Overload protection, Motor”.
8. Start the granulator. Press the start-button.
9. The granulator is started.

Information! If the granulator or optional equipment does not start once the above points have been attended to, read page 7:18 “Fault tracing”.

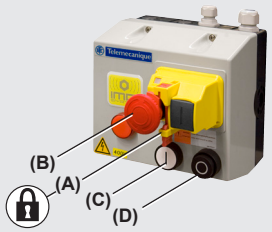
Stop the granulator

1. Read page 2:18 “Electrical cabinet, Operating panel”, “Main switch” and “Emergency stop”.
2. Stop feeding material. Wait until all material have been fully granulated.

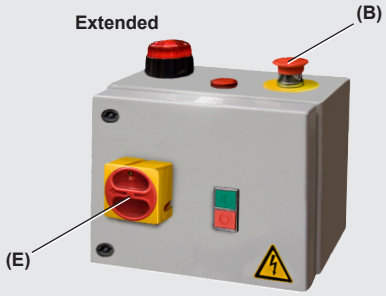
Important! Never stop the granulator until all material in hopper and cutter housing have been fully granulated.

3. Stop the granulator. Press the stop-button.
4. Press the emergency stop(s).
5. Granulator with electrical cabinet “Basic”:
   Lock the emergency stop with a padlock.
6. Granulator with electrical cabinet “Extended” or “Advanced”:
   Lock the main switch in position “0”.
7. The granulator is stopped.

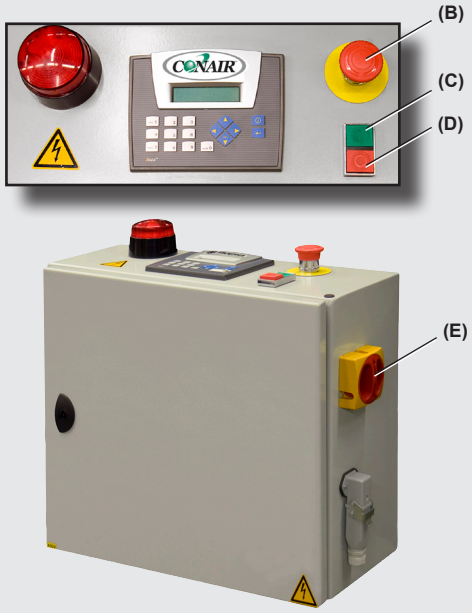
Basic



Extended



Advanced



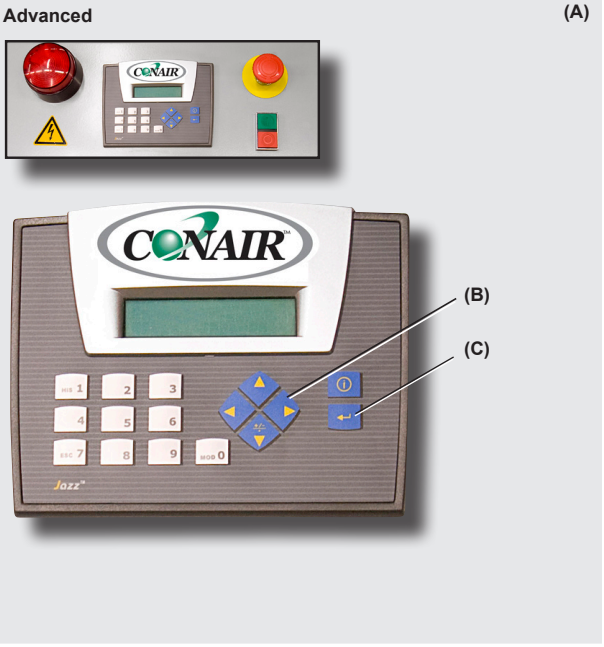
(A) = Padlock bracket, Emergency stop
(B) = Emergency stop
(C) = Start button
(D) = Stop-button
(E) = Main switch
(F) = Display

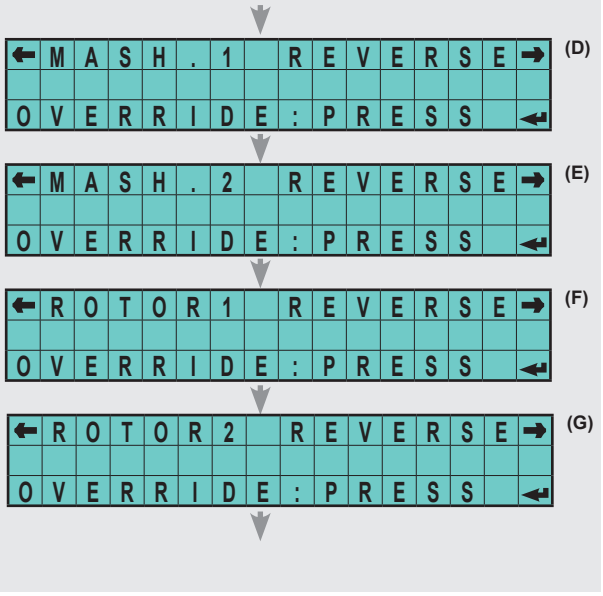
Manual reversal of the rotors and/or the Masher-system

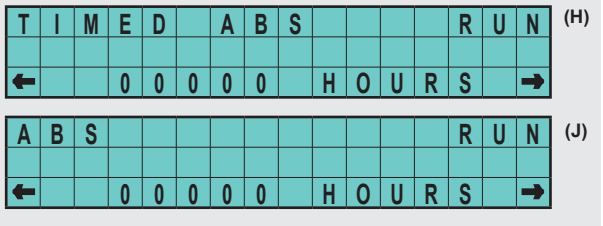
Information! If the granulator is provided with the electrical cabinet “Advanced”, the ABS-system enables the operator to manually reverse the rotor at any time (and the Masher-system if supplied).

Note! The following instructions only applies to a granulator with electrical cabinet “Advanced”:

1. Read page 1:3 “Safety rules, During start and operation”.
2. Start the granulator. >Page 5:1.
3. Press the edit-button “Right” until the desired message appears. >Page 2:22 figure (D)–(G).
3. Press the OK-button. Note! The rotor / the Masher-system will keep reversing as long as the OK-button is depressed.
4. After the reversal is completed, press the edit-button “Right” until the message “Timed ABS” or “ABS” appears. Refer to figure (H) or (J).







(A) = Electrical cabinet “Advanced”
(B) = Edit-button “Right”
(C) = OK-button
(D) = Manual reversal, Masher 1
(E) = Manual reversal, Masher 2
(F) = Manual reversal, Rotor 1
(G) = Manual reversal, Rotor 2
(H) = “Timed ABS” is selected
(J) = “Automatic ABS” is selected

Open the granulator

General rules, Open the granulator

1. Read page 1:4 ”Safety rules, During service”.
2. Stop the granulator. >Page 5:1.

Open the transmission

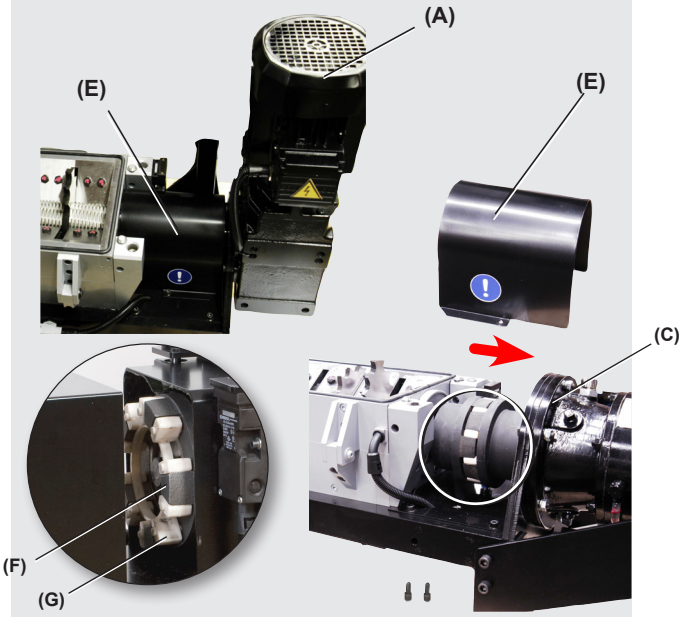
1. Read page 6:1 “General rules, Open the granulator”.
2. Read page 2:13 “Transmisson”.
3. Remove the transmission cover.

4. Separate the transmission couplings:

NCM1, NCM2, NCM3, NCM4 slide system (Option):

Information! The transmission couplings can easily be separated / re-assembled, since the gear motor slides on two rails. The rails are optional for NCM1, NCM2, NCM3 and NCM4.

a) Unscrew the tightening screws. >Figure (C).
b) Separate the couplings by pulling out the gear motor.



(A) = Gear motor
(B) = Eye bolt, Gear motor
(C) = Tightening screws, Gear motor (NCM1, NCM2, NCM3, NCM4)
(D) = Tightening screws, Gear motor (NCM4-Twin)
(E) = Transmission cover
(F) = Transmission coupling
(G) = Plastic damper

Open the granulator

Open the hopper

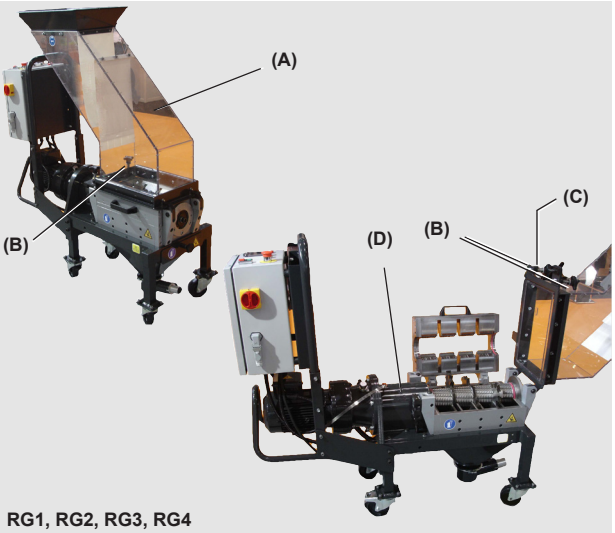
1. Read page 6:1 “General rules, Open the granulator”.
2. Read page 2:15 “Funnel, Hopper”.
3. Read page 2:17 “Safety switch” and “Star knob”.
4. Unscrew the hopper’s star knob(s).
5. Release the switch key from the safety switch.
6. Open / fold the hopper backwards.

   Note! Hold the hopper while opening / closing it, so it does not fall uncontrolled.
7. The hopper is opened.

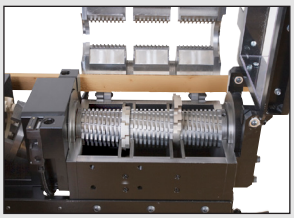
Open the cutter housing

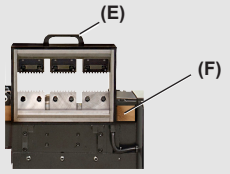
1. Read page 2:9 “Cutter housing”.
2. Open the hopper. >Page 6:2.
3. Open / fold up the cutter housing’s upper frame.

   Note! Hold the handle while opening / closing the cutter housing’s upper frame, so it does not fall uncontrolled.
4. Lock the cutter housing’s upper frame by a piece of wood. Check that the cutter housing’s upper frame stays in the upper position.
5. The cutter housing is opened.



RG1, RG2, RG3, RG4



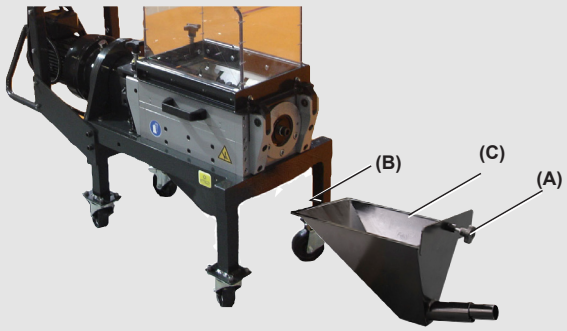


(A) = Hopper
(B) = Star knob, Hopper
(C) = Switch key, Hopper
(D) = Safety switch, Cutter housing
(E) = Handle, Cutter housing’s upper frame
(F) = Piece of wood, Cutter housing’s upper frame

Open the granulator

Open the granule bin

1. Read page 6:1 “General rules, Open the granulator”.
2. Read page 2:16 “Granule bin”.
3. Read page 2:17 “Safety switch” and “Star knob”.
4. Unscrew the granule bin’s star knob. Release the switch key from the safety switch.
5. Remove the granule bin.
6. The granule bin is opened.



RG1, RG2, RG3, RG4

Close the granulator

General rules, Close the granulator

1. Read page 1:4 “Safety rules, During service”.
2. Check that there are no tools or other foreign objects in the granulator.
3. Check that all surfaces which are going to touch are clean before closing. Clean as necessary.

Close the granule bin

1. Read page 6:3 “General rules, Close the granulator”.
2. Read page 2:16 “Granule bin”.
3. Read page 2:17 “Safety switch” and “Star knob”.
4. Install the granule bin.
5. Fit the switch key into the safety switch.
6. Tighten the granule bin’s star knob.
7. The granule bin is closed.

(A) = Star knob, Granule bin
(B) = Switch key, Granule bin
(C) = Granule bin

Close the granulator

Close the cutter housing

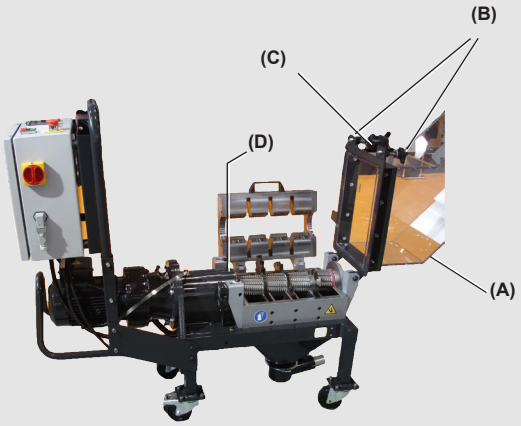
1. Read page 6:3 “General rules, Close the granulator”.
2. Read page 2:9 “Cutter housing”.
3. Remove the piece of wood that locks the cutter housing’s upper frame.
4. Close / fold down the cutter housing’s upper frame.

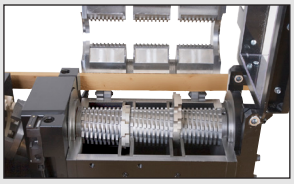
   Note! Hold the handle while opening / closing the cutter housing’s upper frame, so it does not fall uncontrolled.
5. The cutter housing is closed.

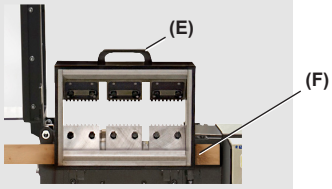
Close the hopper

1. Read page 6:3 “General rules, Close the granulator”.
2. Read page 2:15 “Funnel, Hopper”.
3. Read page 2:17 “Safety switch” and “Star knob”.
4. Close the cutter housing. >Page 6:4.
5. Close / fold the hopper forwards.

   Note! Hold the hopper while opening / closing it, so it does not fall uncontrolled.
6. Fit the switch key into the safety switch.
7. Tighten the hopper’s star knob(s).
8. The hopper is closed.







(A) = Hopper
(B) = Star knob, Hopper
(C) = Switch key, Hopper
(D) = Safety switch, Cutter housing
(E) = Handle, Cutter housing’s upper frame
(F) = Piece of wood, Cutter housing’s upper frame

Close the granulator

Close the transmission

1. Read page 6:3 “General rules, Close the granulator”.
2. Read page 2:13 “Transmission”.
3. Install the plastic damper.

4. Re-assemble the transmission couplings:

NCM1, NCM2, NCM3, NCM4 slide system (option)

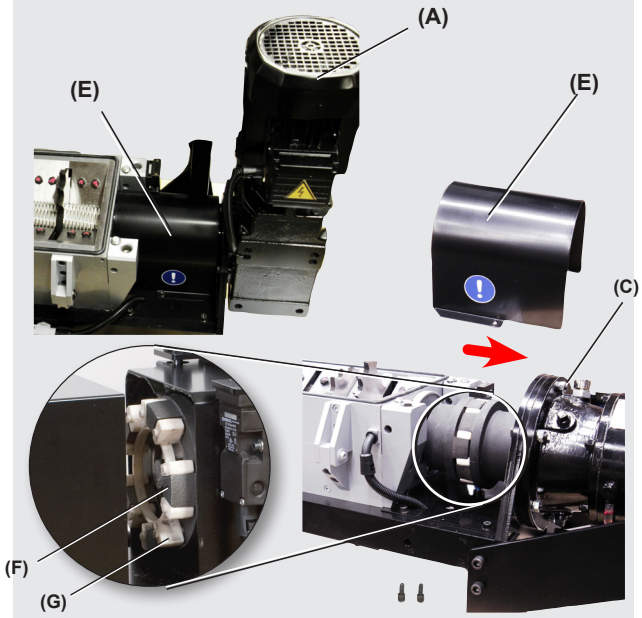
Information! The transmission couplings can easily be separated / re-assembled, since the gear motor slides on two rails. The rails are optional for NCM1, NCM2, NCM3 and NCM4.

a) Re-assemble the couplings by pushing back the gear motor. Align the couplings.

b) Tighten the tightening screws. Tightening torque 98 Nm.

5. Install the transmission cover.

6. The transmission is closed.



(A) = Gear motor
(B) = Eye bolt, Gear motor
(C) = Tightening screws, Gear motor (NCM1, NCM2, NCM3, NCM4)
(D) = Tightening screws, Gear motor (NCM4-Twin)
(E) = Transmission cover
(F) = Transmission coupling
(G) = Plastic damper

General rules, Service

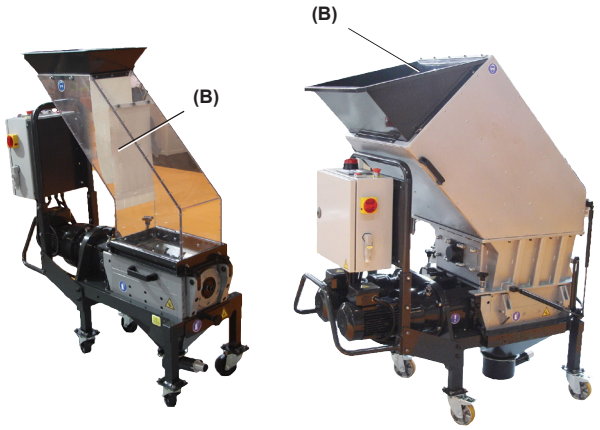
1. Read page 1:4 “Safety rules, During service”.
2. Check / maintain the machine in accordance with the service schedule.
3. Always sign inspections / service in a service report. Copy the original service report, sign the copy and save it in a separate service binder.
   >Page 8:1-8:4 “Service report”.

Check the emergency stop(s)

1. Read page 7:1 “General rules, Service”.
2. Read page 2:18 “Emergency stop(s)”.
3. Check the emergency stop(s):
   a) Start the granulator. >Page 5:1.
   b) Stop feeding material. Wait until all material have been fully granulated.
   c) Press the emergency stop. Check that the granulator stops. If the granulator stops, the emergency stop can be reset and the granulator can be operated again.
   d) Danger! If the granulator continues working, although the emergency stop has been pressed, the granulator must be stopped manually at once. >Page 5:1. There is a serious risk of personal injury! Contact the personnel responsible for the machine’s service and safety.

Check the flap(s)

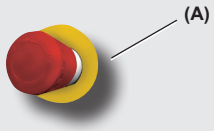
1. Read page 7:1 “General rules, Service”.
2. Read page 2:15 “Flap(s)”.
3. Check the flap(s). Change as necessary.



Service schedule

Interval	Done by	Check
Once every day	Operator	• Emergency stop(s) • Flap(s) • Cleaning**
Once every week	Trained personnel	• Electrical components • Safety equipment • ABS-system* • IMD-system* • Level switch* • Air veyor* • Cleaning**
Once every month	Trained personnel	• Knife sharpness • Knife clearance
Once every 6th month	Trained personnel	• Transmission • Lubrication • Oil level

* Options
** > Page 7:10 point 2 “Clean the granulator”.



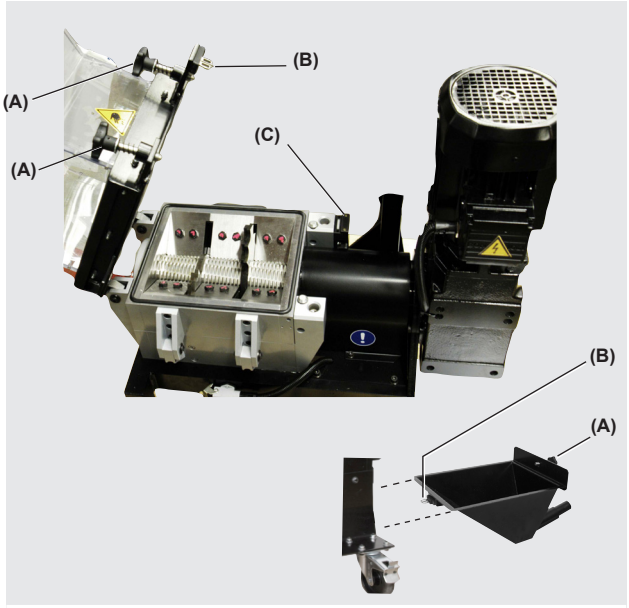
(A) = Emergency stop
(B) = Flap(s)

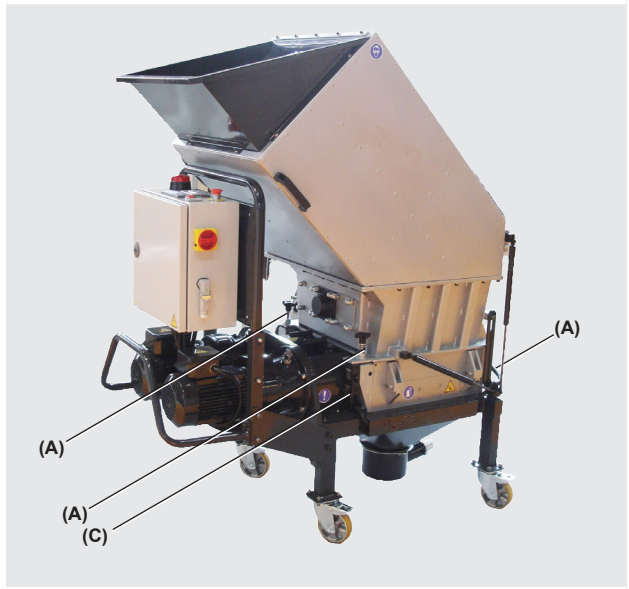
Check the safety equipment

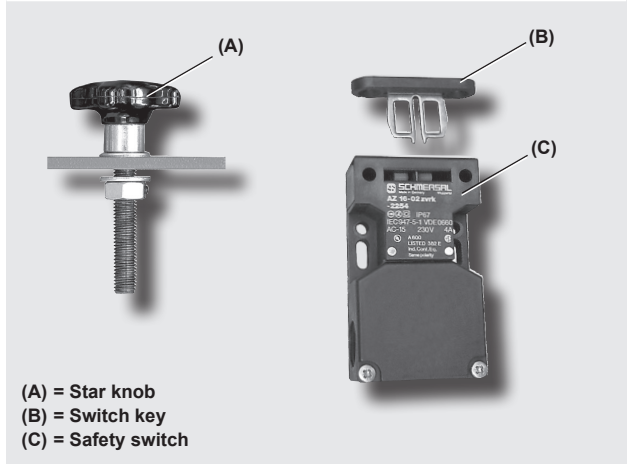
1. Read page 7:1 “General rules, Service”.
2. Read page 2:14 “General rules, Safety equipment”. Check that all parts of the safety equipment are installed.
3. Read page 2:17 “Safety switch” and “Star knob”.
4. Check that the safety switch(es) is/are functioning. Check one safety switch at the time:
5. Safety switch, Hopper:
   a) Start the granulator. >Page 5:1.
   b) Stop feeding material. Wait until all material have been fully granulated.
   c) Unscrew the hopper’s star knob. Release the switch key from the safety switch. >Page 6:2 “Open the hopper”.
   d) Check that the granulator stops. If the granulator stops, the safety switch(es) is/are functioning and the granulator can be operated again.

⚠ Danger! If the granulator continues working, although the switch key has been released from the safety switch, the granulator must be stopped manually at once. >Page 5:1. There is a serious risk of personal injury! Contact the personnel responsible for the machine’s service and safety.

   e) Tighten the hopper’s star knob. >Page 6:4 “Close the hopper”.
6. Safety switch, Granule bin:
   a) Repeat point 5 a–b and then proceed to point 6 b.
   b) Unscrew the granule bin’s star knob. Release the switch key from the safety switch. Remove the granule bin. >Page 6:3 “Open the granule bin”.
   c) Repeat point 5 d and the proceed to point 6 d.
   d) Tighten the granule bin’s star knob. >Page 6:3 “Close the granule bin”.





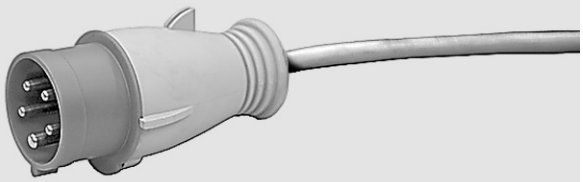


(A) = Star knob
(B) = Switch key
(C) = Safety switch

SERVICE

Check the electrical components

1. Read page 7:1 “General rules, Service”.
2. Read page 4:3 “General rules, Electrical connection”.
3. Check all the cables. If there are any damaged or loose cables, connectors or components, authorized personnel must be called at once to do repairs.



Store the granulator

1. Treat all components that could rust with rust preventer for long-term rust protection.
2. Store the machine in a dry area with even temperature.
3. Rotate the rotor manually every 3 months.

Adjust the IMD-System

General rules, Adjust the IMD-System

Metal detection is indicated and reset in different ways depending on type of electrical cabinet.
>Page 2:18 “Electrical cabinet”.
>Page 2:25 “IMD-system”.

When the machine is thoroughly cleaned and reset according to the instructions in page 2:25, the IMD alarm should cease.

The sensitivity of the IMD-system is adjustable.

Basic, Extended, Advanced

1. Read page 7:4 “General rules, Adjust the IMD-System”.
2. Adjust the IMD-system’s sensitivity. The sensitivity is adjusted by a potentiometer. The potentiometer is situated inside the electrical cabinet. Turn the potentiometer clockwise to increas the sensitivity.

(A) = Potentiometer, IMD-system
(B) = Current IMD setting
(C) = “Shift”-button
(D) = OK-button
(E) = Edit-button “Right”
(F) = Edit-button “Up”
(G) = Edit-button “Down”

Adjust the ABS-system

Select ABS mode, Advanced

The following instructions only applies to a granulator with electrical cabinet “Advanced”.
>Page 2:18 “Electrical cabinet, Operating panel”.

1. Read page 7:5 “General rules, Adjust the ABS-system”.
2. Stop the granulator. >Page 5:1 point 1–2.
3. Start “Level 1”. >Page 7:6.
4. Select ABS mode: The ABS mode is selected by changing the current setting on the display on top of the electrical cabinet. Refer to figure (F) or (G).
   a) Change the values / the parameters by pressing the edit-buttons “Up” or “Down”.
   b) Confirm by pressing the OK-button.
5. Press the edit-button “Right” until “Level 1” is terminated and the “Level 0” message “Timed ABS” or “ABS” appears. Refer to figure (H) or (J).

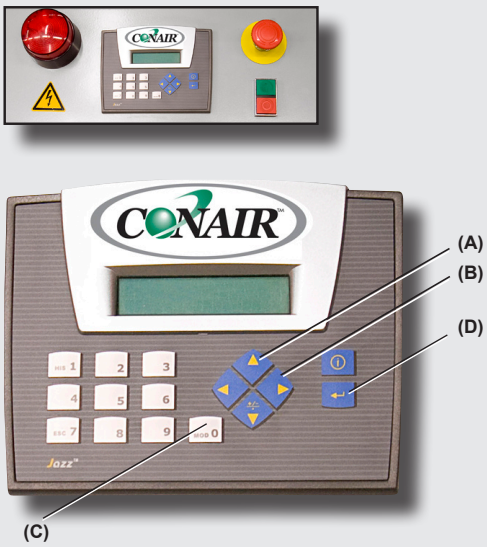
Start “Level 1”

The following instructions only applies to a granulator with electrical cabinet “Advanced”:

1. Read page 2:19–2:22 Advanced, “Level 0” and “Level 1” messages
2. Stop the granulator. >Page 5:1 point 1–2.
3. Press the edit-button “Right” until the password message appears. Refer to figure (E).
4. Press the edit-button “MOD”.
5. Enter the password (1212).
6. Confirm by pressing the OK-button.
7. “Level 1” is initiated and a message appears. Refer to figure (F) or (G).

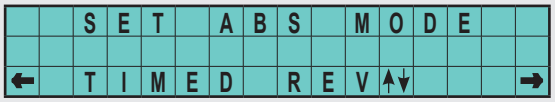
(A) = Edit-button “Up”
(B) = Edit-button “Right”
(C) = Edit-button “MOD”
(D) = OK-button
(E) = Password message, Level 0
(F) = Level 1, “Timed ABS” is selected
(G) = Level 1, “Automatic ABS” is selected
(J) = Level 0, “Timed ABS” is selected
(H) = Level 0, “Automatic ABS” is selected

Advanced

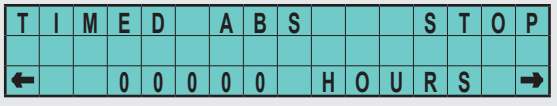


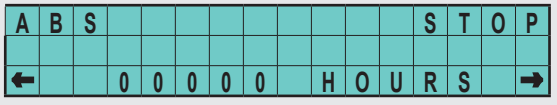
Level 0

Level 1



Level 0





Adjust the ABS-system

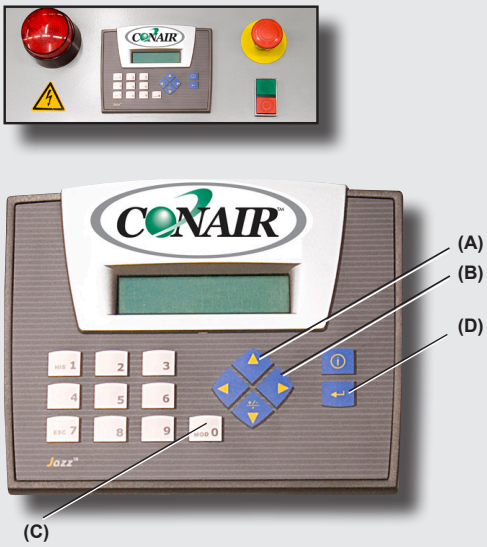
Adjust the timing relay, Advanced

1. Read page 7:5 “General rules, Adjust the ABS-system”.
2. Read page 2:30 “Timed ABS, Rotor”.
3. Read page 2:32 “Timed ABS, Masher-system”.
4. Check that “Timed ABS” is selected. Refer to figure (E). >Page 7:5 “Select ABS mode, Advanced”.
5. Adjust the timing relay: >Page 7:6 point 2–4 “Adjust the ABS settings”.

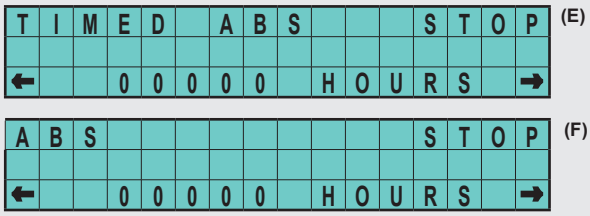
Adjust the ABS settings, Advanced

1. Read page 7:5 “General rules, Adjust the ABS-system”.
2. Adjust the ABS settings:
   a) Stop the granulator. >Page 5:1 point 1–2.
   b) Start “Level 1”. >Page 7:5.
   c) Press the edit-button “Right” until the desired “Level 1” message appears. >Page 2:21–2:22 “Level 1” messages.
   d) Press the edit-button “MOD”.
   e) A cursor appears.
   f) Change the values / the parameters by pressing the edit-buttons “Up” or “Down”.
   g) Accept entered values / parameters by pressing the OK-button.
3. Repeat point 2 above until all ABS settings that are to be changed are changed.
4. When all setting are changed: Press the edit-button “Right” until “Level 1” is terminated and the “Level 0” message “Timed ABS” or “ABS” appears. Refer to figure (E) or (F).

Advanced



Level 0



(A) = Edit-button “Up”
(B) = Edit-button “Right”
(C) = Edit-button “MOD”
(D) = OK-button
(E) = Level 0, “Timed ABS” is selected
(F) = Level 0, “Automatic ABS” is selected

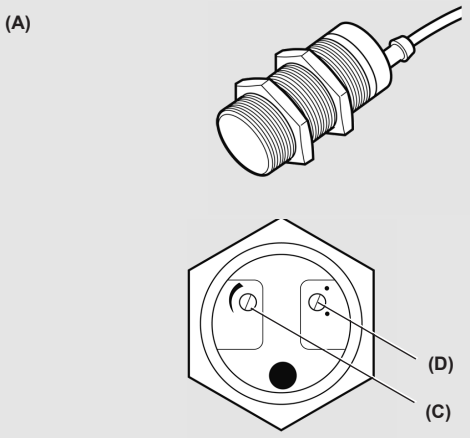
Adjust the level switch

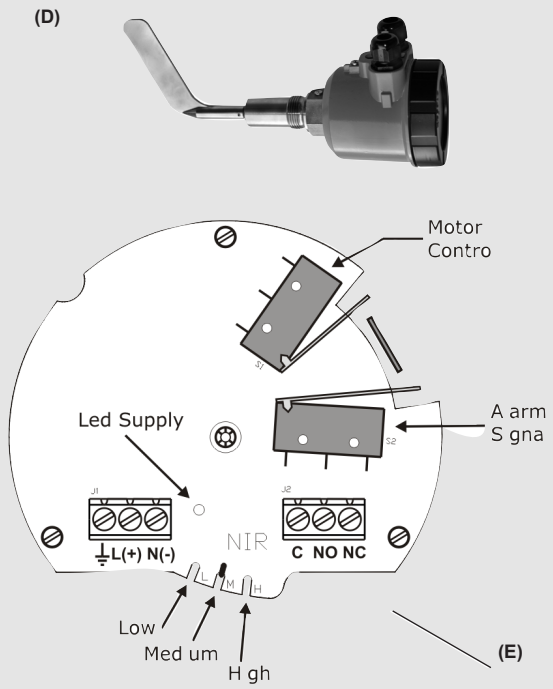
1. Read page 7:1 “General rules, Service”.
2. Read page 2:27 “Level switch, Granule bin”.
3. Open the granule bin. >Page 6:3.
4. Adjust the level switch’s sensitivity.

   Level switch, Capacitive type:
   a) Adjust the adjusting screw.

   Note! Do not adjust the function screw. If the function screw is changed, the level switch’s function will be inversed. That is, the level switch will alarm when the granulate level is low.

   Level switch, Paddle type:
   a) Unscrew the level switch’s cover.
   b) Adjust the spring.
   c) The level switch has 3 positions of sensibility: High, medium and low.
   d) Close the level switch’s cover.
5. Close the granule bin. >Page 6:3.





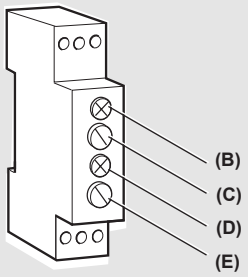
(A) = Level switch, Capacitive type
(B) = Adjusting screw
(C) = Function screw
(D) = Level switch, Paddle type
(E) = Level switch, Paddle type

Adjust the pause-pulse relay, Airveyor

1. Read page 7:1 “General rules, Service”.
2. Read page 2:8 “Additional suffix -AV”.
3. Set the working time “Ton”:
   a) Select the time interval. Put the white “Ton” knob in the desired position.
   b) Select the time factor. Put the blue “Ton” knob in the desired position.
4. Set the pause time “Toff”:
   a) Select the time interval. Put the white “Toff” knob in the desired position.
   b) Select the time factor. Put the blue “Toff” knob in the desired position.

Example:
- Working time “Ton”:
  Time interval = 10 sec, Time factor = 5
- Pause time “Toff”:
  Time interval = 1 min, Time factor = 2

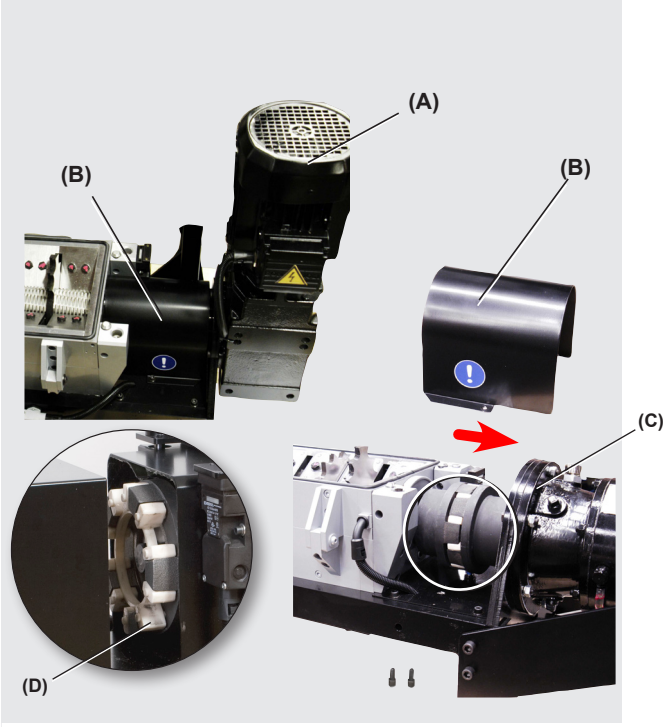
The settings in the example means:
The airveyor will be switched on for (10 sec x 5 =) 50 seconds and will pause for (1 min x 2 =) 2 minutes.

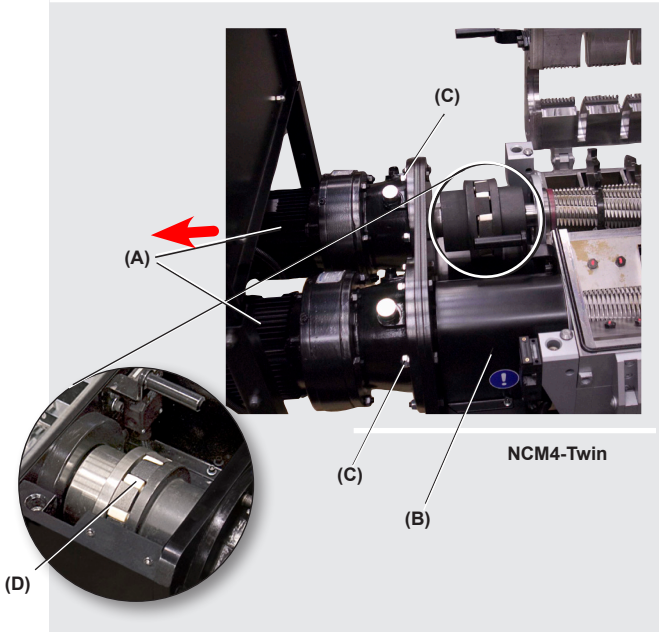


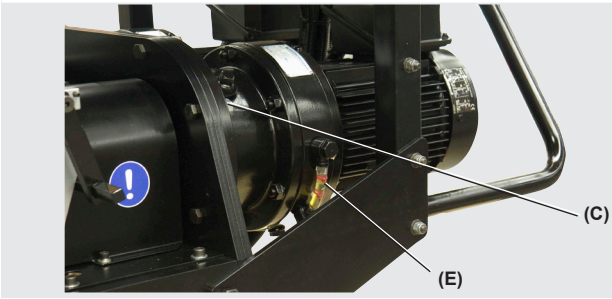
(A) = Pause-pulse relay, Airveyor
(B) = Time interval, Working time “Ton”
(C) = Time factor, Working time “Ton”
(D) = Time interval, Pause time “Toff”
(E) = Time factor, Pause time “Toff”

Check the transmission

1. Read page 7:1 “General rules, Service”.
2. Read page 2:13 “Transmission”.
3. Check the oil level in the gear motor. If refilling / changing of oil should be necessary, use Mieral oil EP ISO VG 220 or an equivalent.
4. Open the transmission.
   >Page 6:1 “Open the transmission”.
5. Check the condition of the plastic damper. Change as necessary.
6. Close the transmission.
   >Page 6:5 “Close the transmission”.







(A) = Gear motor
(B) = Transmission cover
(C) = Tightening screws
(D) = Plastic damper, Transmission
(E) = Oil level device (NCM4-Twin)

Clean the granulator

1. Read page 7:1 “General rules, Service”.
2. When granulating material that generates dust:
   – Clean the granulator’s parts once every day or at least once every week.

   In normal operation:
   – Clean the granulator’s parts at colour change or at least once every 300 hours.
3. Open the granulator. >Page 6:1–6:3.
4. Clean the granulator parts. Use a vacuum cleaner. Clean following parts inside and outside: Funnel, Hopper*, Flap(s), Cutter housing and Granule bin.

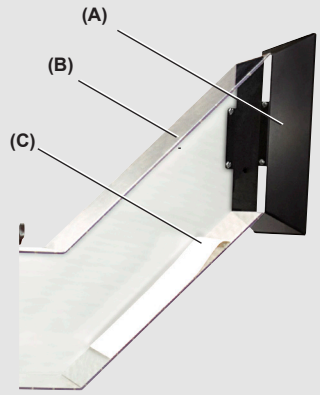
Important! Do not use compressed air and a blow gun, since granulate and plastic residue could be blown into safety switches. Granulate and plastic residue can make the floor slippery.

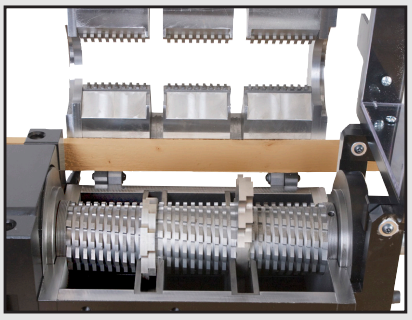
* Important! Do not use solvents or strong detergents when cleaning a PC hopper!

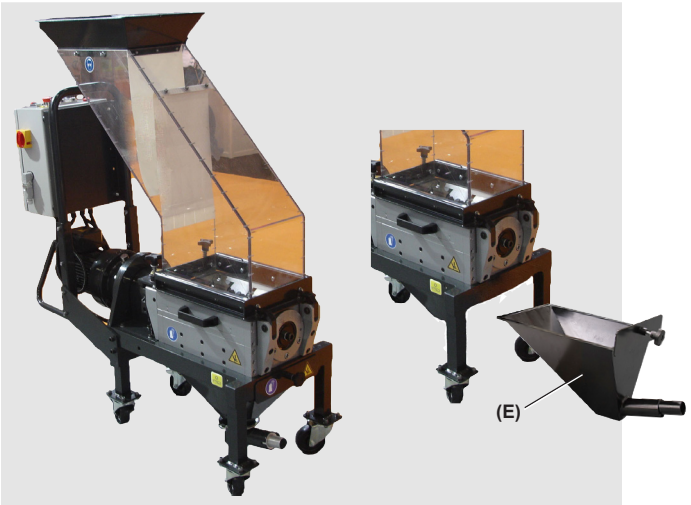
5. Close the granulator. >Page 6:3–6:5.

Important! If the rotor is stuck, rotate the rotor in the reverse direction, if necessary tap carefully with a piece of wood. Never use any metal object when trying to release the rotor.

Important! If the hopper, cutter housing and/or granule bin are filled with compact, melt plastic residue, Conair’s service line at 1-800-458-1960 must be contacted for service.







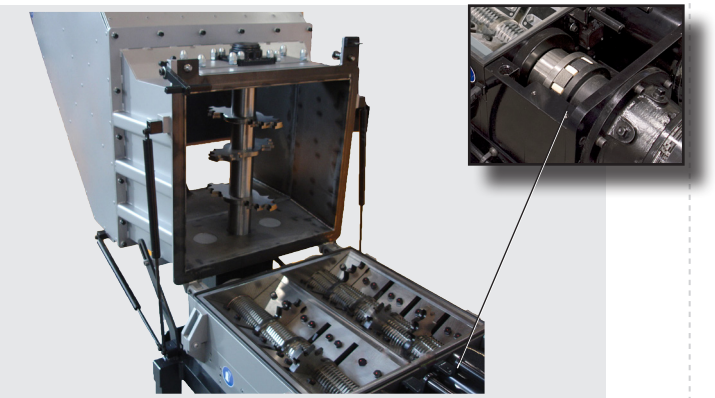
(A) = Funnel
(B) = Hopper
(C) = Flap(s)
(D) = Cutter housing
(E) = Granule bin

Thorough inspection

Make a thorough inspection of the entire installation once every 6 month. Check the granulator and (if supplied) the optional equipment.

1. Read page 7:1 “General rules, Service”.
2. Execute the inspections specified in the service schedule in the column “Once every day”. >Page 7:1 “Service schedule”.
3. Execute the inspections specified in the service schedule in the column “Once every week”. >Page 7:1 “Service schedule”.
4. Execute the inspections specified in the service schedule in the column “Once every month”. >Page 7:1 “Service schedule”.
5. Execute the inspections specified in the service schedule in the column “Once every 6th month”. >Page 7:1 “Service schedule”.
6. Make a general inspection. Check that there are no loose parts, screws, nuts or components on the machine. Check the tightening torque on important machine parts. Check the wear on all internal and external machine parts. Also check machine parts which not normally are subjected to wear.

Note! When replacing machinery parts, only use original spare parts supplied by Conair. In event of any questions, please contact Conair’s service line at 1-800-458-1960.

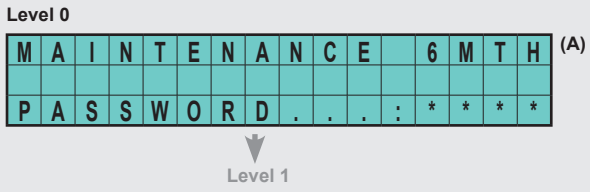


Reset “Maintenance request”

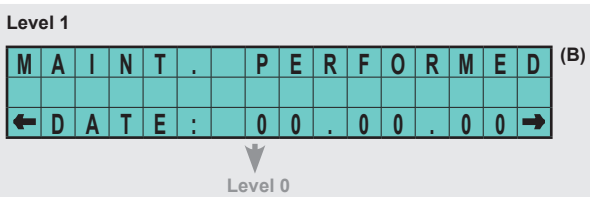
On a granulator with electrical cabinet “Advanced” a message appears on the display every 4.400 hours of operation. Refer to figure (A).

The message is reset as follows:

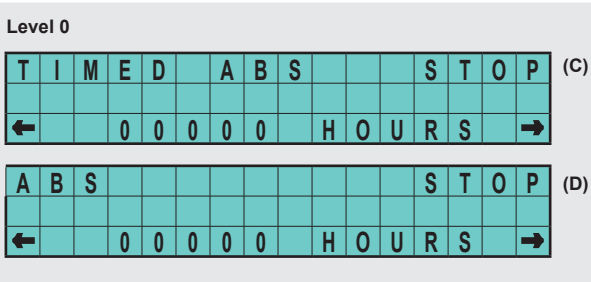
1. Execute a thorough inspection. >Page 7:11.
2. Start “Level 1”. >Page 7:6.
3. Confirm that a thorough inspection has been executed.
   a) Press the edit-button “Left” until the message “Maintenance performed” appears. Refer to figure (B).
   b) Press the edit-button “MOD” to view a cursor.
   c) Enter the date of the performed maintenance.
   d) Confirm by pressing the OK-button.
4. Press the edit-button “Right” until “Level 1” is terminated and the “Level 0” message “Timed ABS” or “ABS” appears. Refer to figure (C) or (D).



(A)



(B)



(C)

(D)

(A) = “Maintenance request”
(B) = “Maintenance performed”
(C) = Level 0, “Timed ABS” is selected
(D) = Level 0, “Automatic ABS” is selected

Knives

General rules, Knives

1. Read page 7:1 “General rules, Service”.
2. Read page 2:9 “Cutter housing”.
3. Read page 2:10 “Fixed knives” and “Scrapers”.
4. Read page 2:11 “Rotor”, “Rotating knife segment segments” and ”Rotating feed hook(s)”.
5. All screws and nuts that are sealed with red paint, are permanently set and glued. These screws and nuts must under no circumstances be unscrewed, tightened or changed.
6. Knife sharpness and knife clearance must be checked regularly. The granulator must never be used with blunt knives. Blunt knives cause abnormal wear and damages the granulator.
7. Every second time tightening screws are unscrewed they must be replaced with new ones.
8. Every time washers are unscrewed they must be replaced with new ones.
9. When replacing knives, scrapers, feed hook(s), tightening screws and washers, only use original spare parts supplied by Conair.
10. The rotor can rotate by itself. Always lock the rotor’s position with a piece of wood while changing the knives.
11. When the cutter housing’s upper frame is opened, it must be manually locked by a piece of wood.
12. Respect specified tightening torques. Use a torque wrench.
13. Respect specified measures.

If any of the above listed rules are left unattended, Conair’s responsibility under the Machinery Directive ceases to apply.

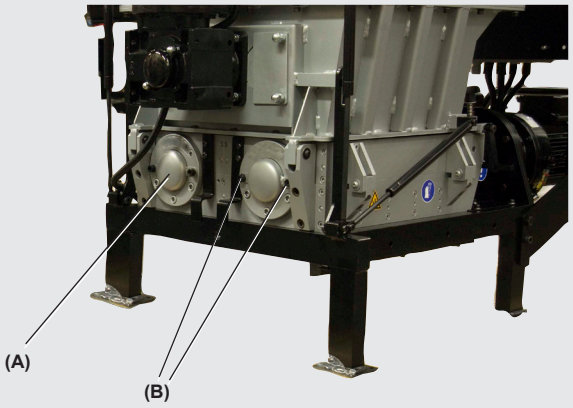
Knives

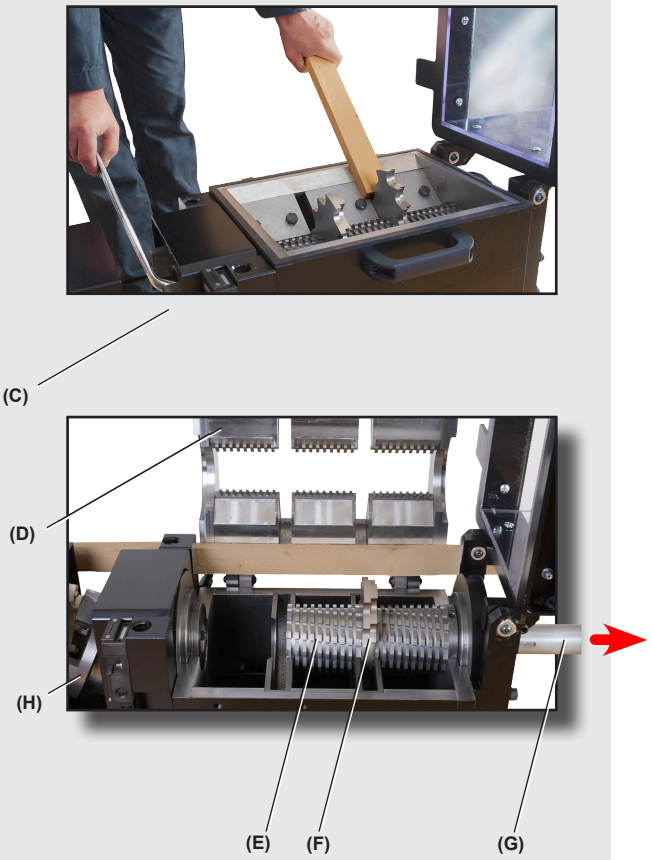
Remove the rotating knife segments and the rotating feed hook(s)

1. Read page 7:12 “General rules, Knives”.
2. Open the hopper. >Page 6:2.
3. Remove the rotor shaft’s cover. Refer to figure (A). Unscrew the cover’s tightening screws.
4. Open the transmission. >Page 6:1.
5. Unscrew the rotor shaft’s tightening screw. Refer to figure (C). Rotate the rotor to an appropriate position. Keep the rotor still while unscrewing / tightening the rotor shaft, by locking one of the rotating feed hooks with a piece of wood. Refer to figure on the right.
6. Remove the rotor shaft’s tightening screw and washer.
7. Lay the coupling down. Refer to figure (H).
8. Open / fold up the cutter housing’s upper frame. >Page 6:2 “Open the cutter housing”.
9. Pull out the rotor shaft. Refer to figure (G). Pull out a little bit at the time and at the same time remove the rotating knife segments / the rotating feed hook(s).

⚠ Note! Hold the rotating knife / the feed hook while pulling out / pushing in the rotor shaft, so that the rotating knife / the rotating feed hook does not fall uncontrolled.

10. Repeat point 9 until all rotating knife segments and feed hook(s) have been removed.





(A) = Cover, Rotorshaft
(B) = Tightening screw, Cover
(C) = Tightening screw, Washer, Rotorshaft
(D) = Cutter housing’s upper frame
(E) = Rotating knife segment
(F) = Rotating feed hook
(G) = Rotor shaft
(H) = Coupling

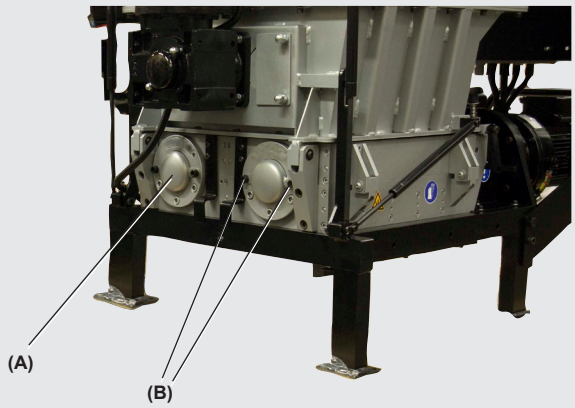
Knives

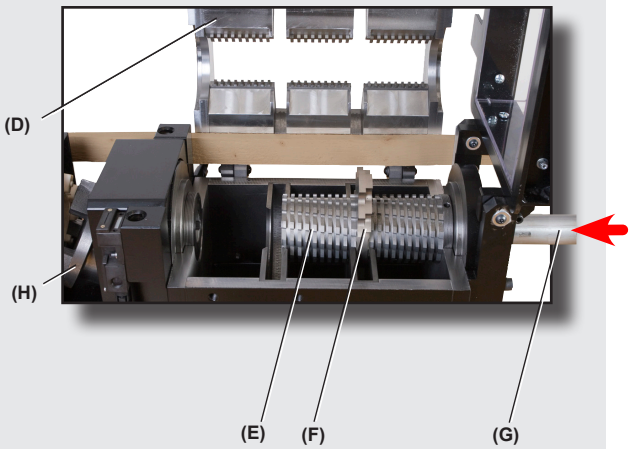
Install the rotating knife segments and the rotating feed hook(s)

1. Remove the rotating knife segments and the rotating feed hook(s). >Page 7:13.
2. Check the knife sharpness. Grind or replace the rotating knife segments / the rotating feed hook(s) as necessary. >Page 7:16 “Grind the rotating knife segments”.
3. Install the rotating knife segments and the rotating feed hook(s). Push in the rotor shaft. Refer to figure (G). Push in a little bit at the time and at the same time install the rotating knife segments / the rotating feed hook(s).

⚠ Note! Hold the rotating knife / the feed hook while pulling out / pushing in the rotor shaft, so that the rotating knife / the rotating feed hook does not fall uncontrolled.

4. Close / fold down the cutter housing’s upper frame. >Page 6:4 “Close the cutter housing”.
5. Re-install the coupling.
6. Install the rotor shaft’s washer and tightening screw. Refer to figure (C). Tighten the tightening screw. Tightening torque 544 Nm. Keep the rotor still while unscrewing / tightening the rotor shaft, by locking one of the rotating feed hooks with a piece of wood. Refer to figure on the right.
7. Close the transmission. >Page 6:5.
8. Install the rotor shaft’s cover. Refer to figure (A). Tighten the cover’s tightening screws. Tightening torque 69 Nm.





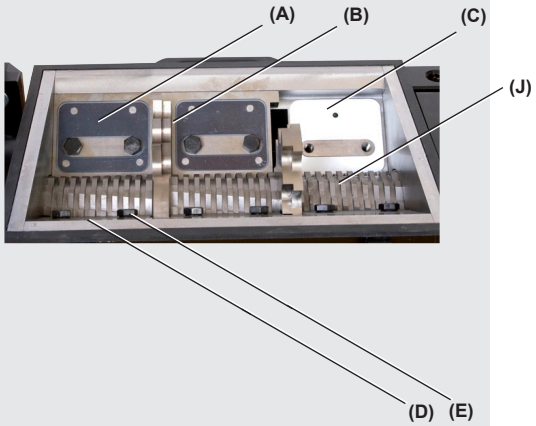
(A) = Cover, Rotorshaft
(B) = Tightening screw, Cover
(C) = Tightening screw, Washer, Rotorshaft
(D) = Cutter housing’s upper frame
(E) = Rotating knife segment
(F) = Rotating feed hook
(G) = Rotorshaft
(H) = Coupling

Knives

Remove the fixed knives and the scrapers

1. Read page 7:12 “General rules, Knives”.
2. Open the hopper. >Page 6:2.
3. Unscrew the fixed knife’s / the scraper’s tightening screws. Remove the washers and the fixed knife / the scraper.
4. Repeat point 3 until all fixed knives / scrapers have been removed.

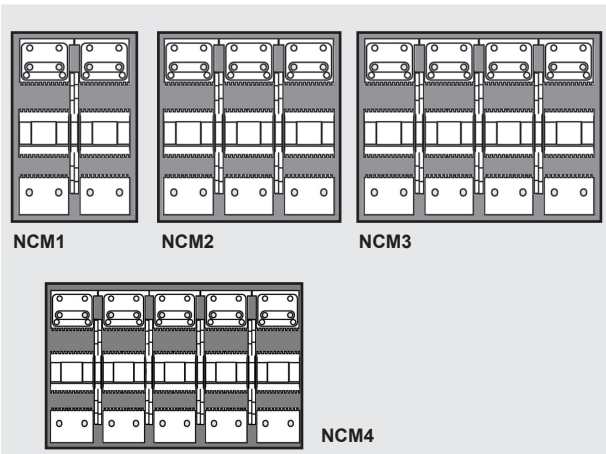
Note! Fixed knives with IMD technology have insulator plates installed under the knives. Do not remove the insulator plates.

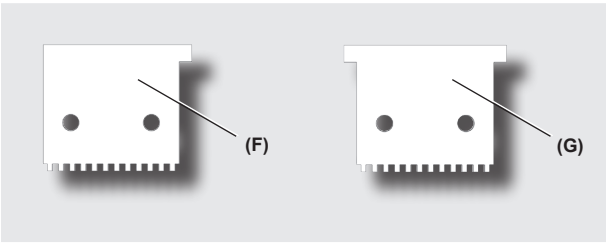


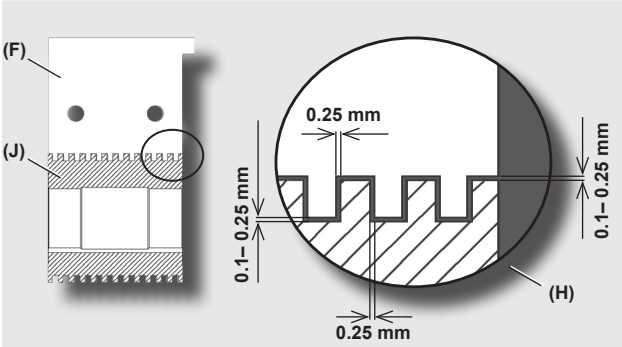
Install the fixed knives and the scrapers

1. Remove the fixed knives and the scrapers. >Page 7:15.
2. Check the knife sharpness. Grind or replace the fixed knives / the scrapers as necessary. >Page 7:17 “Grind the fixed knives”.
3. Check that the knife seat is clean.
4. Install the washers and the fixed knife / the scraper. Tighten the fixed knife’s / the scraper’s tightening screws. Tightening torque 85 Nm.

   Note! The fixed knives called “Side” must be installed in the outer ends of the cutter housing. The fixed knives called “Centre” must be installed in the middle of the cutter housing. The fixed knives called “Side” and the fixed knives called “Centre” must not be mixed up when installing the knives. Refer to figure (F) and (G).
5. Check the knife clearance. Put a feeler gauge between the fixed knife / the scraper and the rotating knife. Put the feeler gauge alternately to the right, to the left and in the middle. Correct knife clearance is 0.1–0.25 mm. Refer to figure (H).
6. Repeat point 3–5 until all fixed knives / scrapers have been installed.
7. Close the hopper. >Page 6:4.





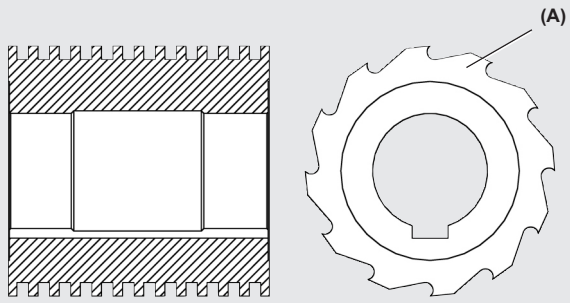


(A) = Fixed knife with IMD technology
(B) = Tightening screw, Fixed knife
(C) = Insulator plate, Fixed knife with IMD technology
(D) = Scraper
(E) = Tightening screw, Scraper
(F) = Fixed knife “Side”
(G) = Fixed knife “Centre”
(H) = Knife clearance
(J) = Rotating knife segment

Knives

General rules, Grind the knives

1. Read page 7:12 “General rules, Knives”.
2. Always begin grinding the worst and most blunt knife.
3. Grind the knives with accurate precision. Respect specified measures.
4. Always cool the knives during grinding. Grind slowly. Make sure that no heat is developed. Knives that are overheated when grinded, loose their hardness, strength and durability. Knives that have been burned or quenched blue, are irreparable and must be discarded.
5. A surface grinder with magnetic table and a grinding fixture ensures that the cutting angles and the relief angles becomes correct.



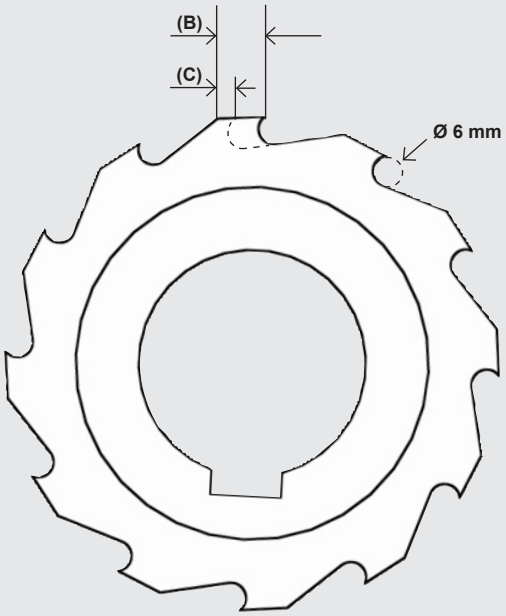
Grind the rotating knife segments

1. Read page 7:16 “General rules, Grind the knives”.
2. Grind the rotating knife. Refer to figure on the right. Grind until all irregularities have disappeared.
3. Measure the rotating knife’s cutting head after grinding.

Note! If the rotating knife’s cutting head is less than 4.5 mm, the rotating knife must be discarded and replaced by a new rotating knife. (The cutting head on a new rotating knife is 9.5 mm).

5. Repeat point 2–5 until all rotating knife segments have been grinded.

Note! All rotating knife segments must be grinded equally to maintain the rotor balance. All rotating knife segments must have the same measure and weight (within a gramme).



(A) = Rotating knife segment

(B) = Length,
Cutting head, New rotating knife: 9.5 mm

(C) = Minimum length,
Cutting head, Grinded rotating knife: 4.5 mm

Knives

Grind the fixed knives

Information! The fixed knives are reversible. This means that the fixed knife has two cutting edges and can be reversed once before grinding or discarding is necessary.

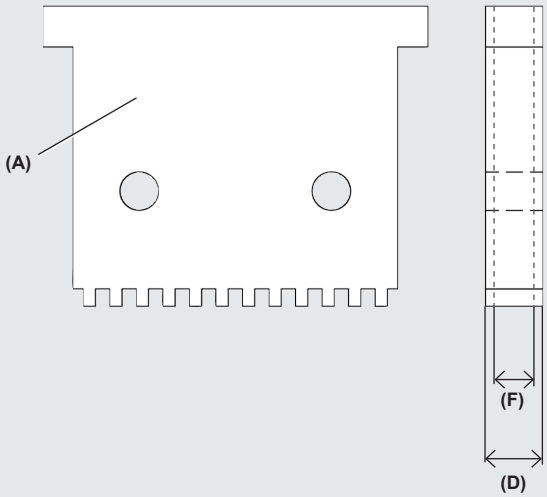
Note! Fixed knives with IMD technology are reversible, but not grindable.

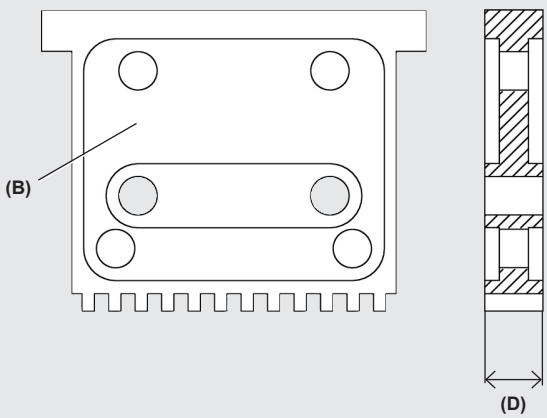
1. Read page 7:16 “General rules, Grind the knives”.
2. Sharpen the fixed knife’s cutting edges by grinding the knife’s top coat. Use a surface grinder. Grind until all irregularities have disappeared.
3. Repeat point 2 until all fixed knives have been grinded on one side.
4. Measure the knives’ thickness after grinding.
5. Select the most thin knife.
6. Grind the other side of the fixed knife.
7. Remove the knife but keep the settings on the surface grinder.
8. Measure the knife’s thickness after grinding.

Note! If the fixed knife’s thickness is less than 10 mm, the fixed knife must be discarded and replaced by a new fixed knife.

9. Repeat point 6–8 until all fixed knives have been grinded on the other side.

Note! Grind all fixed knives equally. All fixed knives must have the same measure and weight (within a gramme).

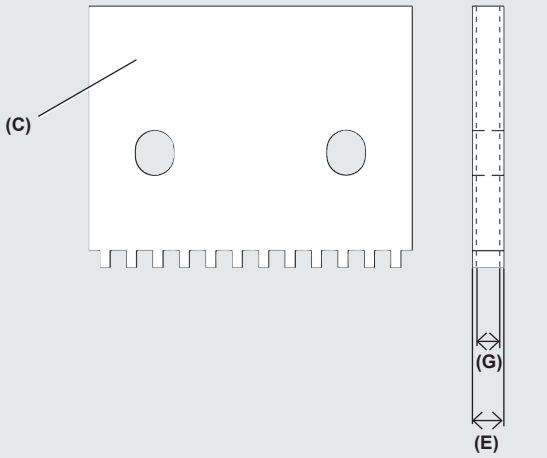




Grind the scrapers

The scrapers are reversible and grindable. The scrapers are grinded in the same way as the fixed knives, accept from the fact that the scraper’s minimum thicknes is 8 mm.

Note! If the scraper’s thickness is less then 8 mm, the scraper must be discarded and replaced by a new scraper.



(A) = Top coat, Fixed knives
(B) = Fixed knife with IMD technology, Not grindable!
(C) = Top coat, Scraper
(D) = Thickness, New fixed knife: 18 mm
(E) = Thickness, New scraper: 10 mm
(F) = Minimum thickness, Grinded fixed knife: 10 mm
(G) = Minimum thickness, Grinded scraper: 8 mm

Fault tracing

Fault	Probable cause	Actions taken
The granulator or any optional equipment does not start or stops unexpectedly.	Granulator with electrical cabinet "Advanced": A fault message must be attended to.	1. Reset the fault message. >Page 2:23 "Advanced, Fault messages".
	The emergency stop is activated	1. Reset the emergency stop(s). >Page 5:1.
	The granulator / the optional equipment is/are not connected to the mains.	1. Connect the granulator to the mains. >Page 4:3.
	The main switch is in position "0".	1. Put the main switch in position "1". >Page 5:1.
	Granule bin, hopper and/or optional equipment are not properly closed, or their safety switch(es) / star knob(s) is/are open.	1. Close the granulator. >Page 6:3. 2. Check that all safety switches / star knobs are properly installed. >Page 2:17 "Safety switch" , "Star knob".
	The IMD-system has stopped the granulator. (IMD-system is optional)	1. Clean the granulator. >Page 7:10. 2. Check the knife sharpness and the knife clearance. >Page 7:16 point 5. 3. Reset the IMD-system. >Page 2:25
	The ABS-system has stopped the granulator. (ABS-system is optional)	1. Read page 2:29 "Automatic ABS, Rotor". 2. Clean the granulator. >Page 7:10. 3. Re-start the granulator. >Page 5:1.
	The granulator's overload protection has tripped since the granulator has been overloaded.	1. Reset the overload protection. >Page 2:26 "Overload protection, Motor". Before restart: 2. Clean the granulator. >Page 7:10. 3. Check the transmission. >Page 7:9 4. Check the knife sharpness and the knife clearance. >Page 7:16 point 5.
	The level switch has stopped the granulator or the optional equipment. or The level switch's mains plug is disconnected.	1. Empty the granule bin. >Page 7:10. Before restart: 2. Check the level switch. >Page 7:7. 3. Connect the mains plug on the level switch.
The rotor still rotates even if the hopper is opened.	The safety equipment is not functioning.	1. Check the safety equipment. >Page 7:2.
Noise from the granulator.	The plastic damper is worn.	1. Check the transmission. >Page 7:11
The granulator or any optional equipment does not start after normal fault tracing.		1. Press the emergency stop(s). 2. Lock the emergency stop with a padlock, or Lock the main switch in position "0". 3. Contact the personnel responsible for the machine's service and safety. 4. In event of any questions, please contact Conair's service line at 1-800-458-1960.

Service actions, Once every day

Day ...... / ..... 20 ..... Sign:............	☐ Emergency stop(s), Approved	☐ Flap(s), Approved
Day ...... / ..... 20 ..... Sign:............	☐ Emergency stop(s), Approved	☐ Flap(s), Approved
Day ...... / ..... 20 ..... Sign:............	☐ Emergency stop(s), Approved	☐ Flap(s), Approved
Day ...... / ..... 20 ..... Sign:............	☐ Emergency stop(s), Approved	☐ Flap(s), Approved
Day ...... / ..... 20 ..... Sign:............	☐ Emergency stop(s), Approved	☐ Flap(s), Approved
Day ...... / ..... 20 ..... Sign:............	☐ Emergency stop(s), Approved	☐ Flap(s), Approved
Day ...... / ..... 20 ..... Sign:............	☐ Emergency stop(s), Approved	☐ Flap(s), Approved
Day ...... / ..... 20 ..... Sign:............	☐ Emergency stop(s), Approved	☐ Flap(s), Approved
Day ...... / ..... 20 ..... Sign:............	☐ Emergency stop(s), Approved	☐ Flap(s), Approved
Day ...... / ..... 20 ..... Sign:............	☐ Emergency stop(s), Approved	☐ Flap(s), Approved
Day ...... / ..... 20 ..... Sign:............	☐ Emergency stop(s), Approved	☐ Flap(s), Approved
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Day ...... / ..... 20 ..... Sign:............	☐ Emergency stop(s), Approved	☐ Flap(s), Approved
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Day ...... / ..... 20 ..... Sign:............	☐ Emergency stop(s), Approved	☐ Flap(s), Approved
Day ...... / ..... 20 ..... Sign:............	☐ Emergency stop(s), Approved	☐ Flap(s), Approved
Day ...... / ..... 20 ..... Sign:............	☐ Emergency stop(s), Approved	☐ Flap(s), Approved
Day ...... / ..... 20 ..... Sign:............	☐ Emergency stop(s), Approved	☐ Flap(s), Approved
Day ...... / ..... 20 ..... Sign:............	☐ Emergency stop(s), Approved	☐ Flap(s), Approved
Day ...... / ..... 20 ..... Sign:............	☐ Emergency stop(s), Approved	☐ Flap(s), Approved
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Day ...... / ..... 20 ..... Sign:............	☐ Emergency stop(s), Approved	☐ Flap(s), Approved
Day ...... / ..... 20 ..... Sign:............	☐ Emergency stop(s), Approved	☐ Flap(s), Approved
Day ...... / ..... 20 ..... Sign:............	☐ Emergency stop(s), Approved	☐ Flap(s), Approved
Day ...... / ..... 20 ..... Sign:............	☐ Emergency stop(s), Approved	☐ Flap(s), Approved
Day ...... / ..... 20 ..... Sign:............	☐ Emergency stop(s), Approved	☐ Flap(s), Approved
Day ...... / ..... 20 ..... Sign:............	☐ Emergency stop(s), Approved	☐ Flap(s), Approved
Day ...... / ..... 20 ..... Sign:............	☐ Emergency stop(s), Approved	☐ Flap(s), Approved
Day ...... / ..... 20 ..... Sign:............	☐ Emergency stop(s), Approved	☐ Flap(s), Approved
Day ...... / ..... 20 ..... Sign:............	☐ Emergency stop(s), Approved	☐ Flap(s), Approved

Service actions, Once every week

Week ...... 20..... Sign:..................	☐ Safety equipment, Approved.	☐ Electrical components, Approved.
Week ...... 20..... Sign:..................	☐ Safety equipment, Approved.	☐ Electrical components, Approved.
Week ...... 20..... Sign:..................	☐ Safety equipment, Approved.	☐ Electrical components, Approved.
Week ...... 20..... Sign:..................	☐ Safety equipment, Approved.	☐ Electrical components, Approved.
Week ...... 20..... Sign:..................	☐ Safety equipment, Approved.	☐ Electrical components, Approved.
Week ...... 20..... Sign:..................	☐ Safety equipment, Approved.	☐ Electrical components, Approved.
Week ...... 20..... Sign:..................	☐ Safety equipment, Approved.	☐ Electrical components, Approved.
Week ...... 20..... Sign:..................	☐ Safety equipment, Approved.	☐ Electrical components, Approved.
Week ...... 20..... Sign:..................	☐ Safety equipment, Approved.	☐ Electrical components, Approved.
Week ...... 20..... Sign:..................	☐ Safety equipment, Approved.	☐ Electrical components, Approved.
Week ...... 20..... Sign:..................	☐ Safety equipment, Approved.	☐ Electrical components, Approved.
Week ...... 20..... Sign:..................	☐ Safety equipment, Approved.	☐ Electrical components, Approved.
Week ...... 20..... Sign:..................	☐ Safety equipment, Approved.	☐ Electrical components, Approved.
Week ...... 20..... Sign:..................	☐ Safety equipment, Approved.	☐ Electrical components, Approved.
Week ...... 20..... Sign:..................	☐ Safety equipment, Approved.	☐ Electrical components, Approved.
Week ...... 20..... Sign:..................	☐ Safety equipment, Approved.	☐ Electrical components, Approved.
Week ...... 20..... Sign:..................	☐ Safety equipment, Approved.	☐ Electrical components, Approved.
Week ...... 20..... Sign:..................	☐ Safety equipment, Approved.	☐ Electrical components, Approved.
Week ...... 20..... Sign:..................	☐ Safety equipment, Approved.	☐ Electrical components, Approved.
Week ...... 20..... Sign:..................	☐ Safety equipment, Approved.	☐ Electrical components, Approved.
Week ...... 20..... Sign:..................	☐ Safety equipment, Approved.	☐ Electrical components, Approved.
Week ...... 20..... Sign:..................	☐ Safety equipment, Approved.	☐ Electrical components, Approved.
Week ...... 20..... Sign:..................	☐ Safety equipment, Approved.	☐ Electrical components, Approved.
Week ...... 20..... Sign:..................	☐ Safety equipment, Approved.	☐ Electrical components, Approved.
Week ...... 20..... Sign:..................	☐ Safety equipment, Approved.	☐ Electrical components, Approved.
Week ...... 20..... Sign:..................	☐ Safety equipment, Approved.	☐ Electrical components, Approved.
Week ...... 20..... Sign:..................	☐ Safety equipment, Approved.	☐ Electrical components, Approved.
Week ...... 20..... Sign:..................	☐ Safety equipment, Approved.	☐ Electrical components, Approved.
Week ...... 20..... Sign:..................	☐ Safety equipment, Approved.	☐ Electrical components, Approved.
Week ...... 20..... Sign:..................	☐ Safety equipment, Approved.	☐ Electrical components, Approved.
Week ...... 20..... Sign:..................	☐ Safety equipment, Approved.	☐ Electrical components, Approved.
Week ...... 20..... Sign:..................	☐ Safety equipment, Approved.	☐ Electrical components, Approved.
Week ...... 20..... Sign:..................	☐ Safety equipment, Approved.	☐ Electrical components, Approved.
Week ...... 20..... Sign:..................	☐ Safety equipment, Approved.	☐ Electrical components, Approved.

Service actions, Once every month

Month .... 20 .... Sign:..

Rotating knife segment: ☐ Existing knives, Approved. ☐ Knives, Grinded. ☐ Knives, Replaced.

Fixed knife: ☐ Existing knives, Approved. ☐ Knives, Grinded. ☐ Knives, Replaced.

Scrapers: ☐ Existing scrapers, Approved. ☐ Scrapers, Grinded. ☐ Scrapers, Replaced.

Month .... 20 .... Sign:..

Rotating knife segment: ☐ Existing knives, Approved. ☐ Knives, Grinded. ☐ Knives, Replaced.

Fixed knife: ☐ Existing knives, Approved. ☐ Knives, Grinded. ☐ Knives, Replaced.

Scrapers: ☐ Existing scrapers, Approved. ☐ Scrapers, Grinded. ☐ Scrapers, Replaced.

Month .... 20 .... Sign:..

Rotating knife segment: ☐ Existing knives, Approved. ☐ Knives, Grinded. ☐ Knives, Replaced.

Fixed knife: ☐ Existing knives, Approved. ☐ Knives, Grinded. ☐ Knives, Replaced.

Scrapers: ☐ Existing scrapers, Approved. ☐ Scrapers, Grinded. ☐ Scrapers, Replaced.

Month .... 20 .... Sign:..

Rotating knife segment: ☐ Existing knives, Approved. ☐ Knives, Grinded. ☐ Knives, Replaced.

Fixed knife: ☐ Existing knives, Approved. ☐ Knives, Grinded. ☐ Knives, Replaced.

Scrapers: ☐ Existing scrapers, Approved. ☐ Scrapers, Grinded. ☐ Scrapers, Replaced.

Month .... 20 .... Sign:..

Rotating knife segment: ☐ Existing knives, Approved. ☐ Knives, Grinded. ☐ Knives, Replaced.

Fixed knife: ☐ Existing knives, Approved. ☐ Knives, Grinded. ☐ Knives, Replaced.

Scrapers: ☐ Existing scrapers, Approved. ☐ Scrapers, Grinded. ☐ Scrapers, Replaced.

Service actions, Once every 6th month

Date .... / .... 20 .... Sign:..

Transmission: ☐ Plastic damper, Approved. ☐ Plastic damper, Replaced.

Gear motor: ☐ Oil, Approved. ☐ Oil, Refilled. ☐ Oil, Changed.

Other remarks

Date .... / .... 20 .... Sign:. ....

Other remarks: ....

....

Date .... / .... 20 .... Sign:. ....

Other remarks: ....

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Date .... / .... 20 .... Sign:. ....

Other remarks: ....

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Date .... / .... 20 .... Sign:. ....

Other remarks: ....

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Date .... / .... 20 .... Sign:. ....

Other remarks: ....

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Date .... / .... 20 .... Sign:. ....

Other remarks: ....

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Date .... / .... 20 .... Sign:. ....

Other remarks: ....

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Date .... / .... 20 .... Sign:. ....

Other remarks: ....

....

Date .... / .... 20 .... Sign:. ....

Other remarks: ....

....

General rules, Spare parts

Note! When replacing machinery parts, only use original spare parts supplied by Conair. Spare parts orders should be sent to Conair's service line at 1-800-458-1960. The following must be specified when spare parts are ordered:

- Serial number according to the machine's type plate.
- Machine type according to the machine's type plate.
- Manufacturing year.
- GB-detail, Specification, Article No and Q (Quantity) according to this spare part catalogue.

The performance of your supplied machine may vary from the standard machines described in this instruction manual. In event of any questions, please contact Conair's service line at 1-800-458-1960.

Overview

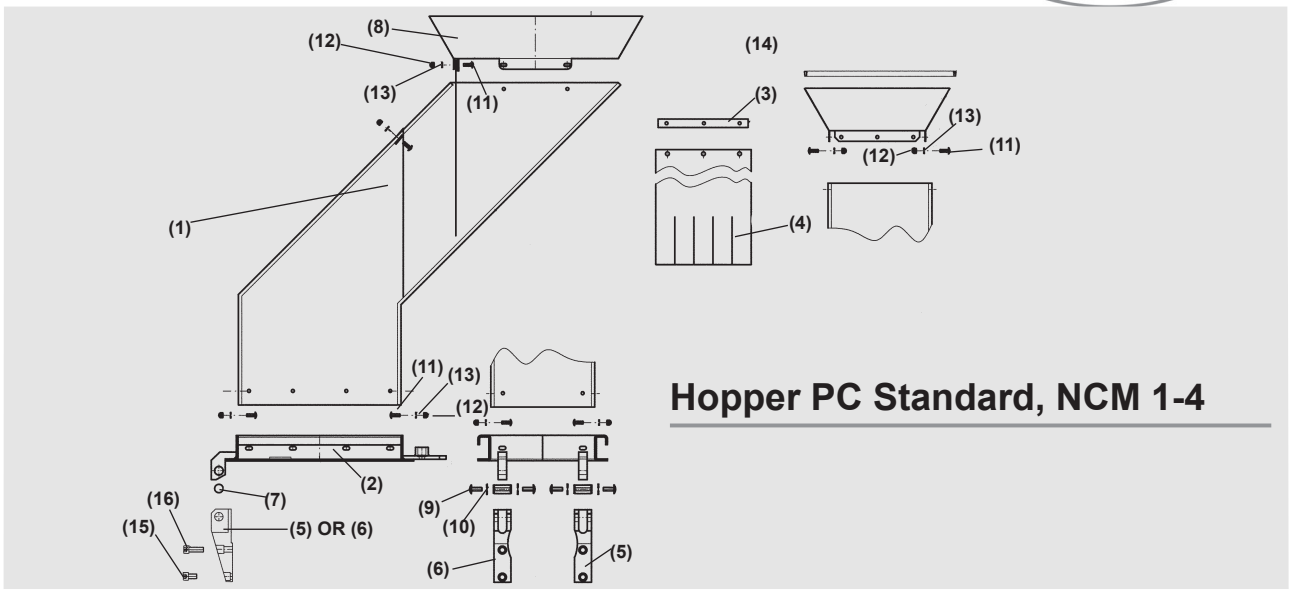
Hopper 9:2–9:8
Masher..... 9:9-9:20
Cutter housing 9:21–9:24
Rotor 9:25
Knives 9:26–9:28
Granule bin..... 9:29-9:30
Transmission 9:31-9:33
Body 9:34-9:35
Safety 9:36-9:37

Designations in the spare part catalogue

P	SE	DE	FR	GB-DETAIL	SPECIFICATION	Art No	Q	M	V
1	SKRUV	SCHRAUBE	VIS	SCREW	SHS MC6S 5X14	838151	5	60	
					SHS MC6S 5X14 HARDENED	832257*	5	60	
					SHS MC6S 6X20	834521	10	90	
					SHS MC6S 6X20 HARDENED	834522*	10	90	
2	MUTTER	MUTTER	ÉCROU	NUT		9-40213	9	XX	-S

P = Position number Art No = Article number Q = Quantity M = Model number V = Variant

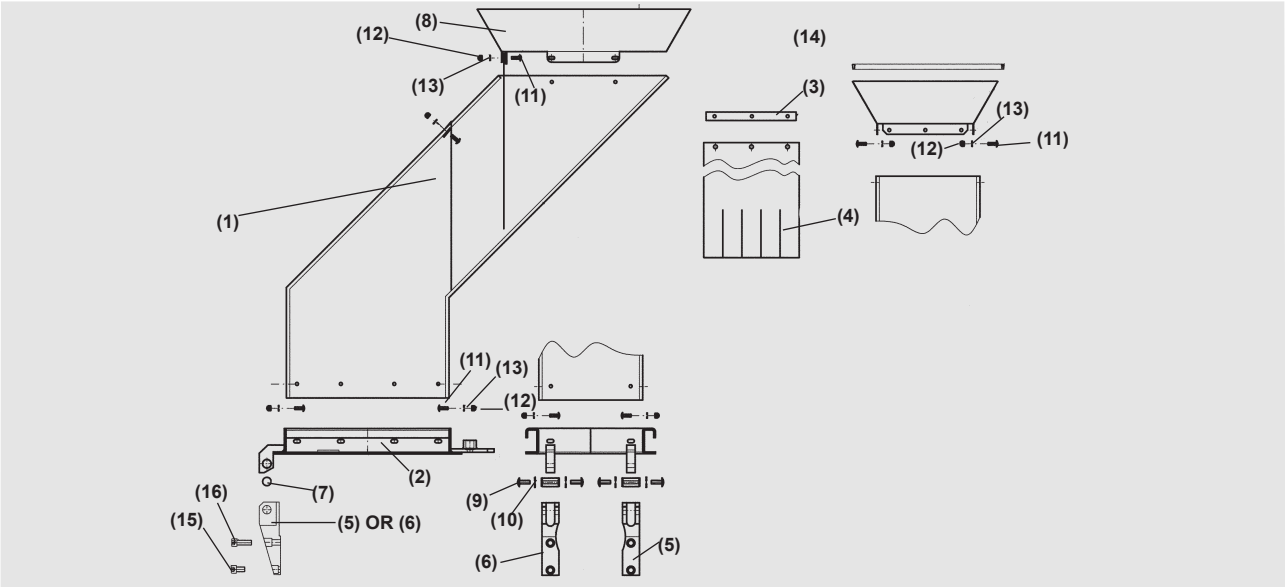
If anything has been specified in the M "Model No" column, the item only applies to that model No.
If anything has been specified in the V "Variant" column, the item only applies to that machinery variant.



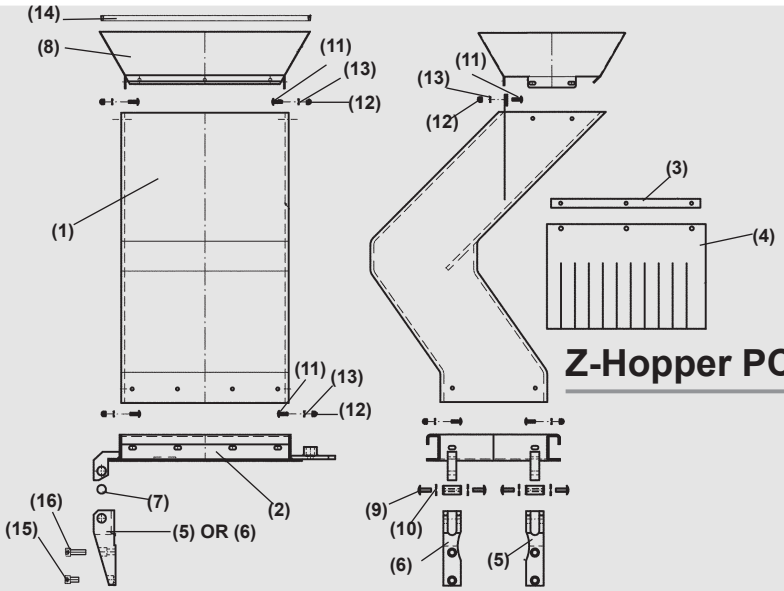
Hopper PC Standard, NCM 1-4

P	SE	FR	DE	GB - DETAIL	SPECIFI-CATION	ART NO	Q	M	V
1	INMATNING	GOULOTTE PC	TRICHTER	HOPPER TOP PC TYPE C	PC 8 MM	8B003091	1		
						8B002488	1		
						8B003414	1		
						8B008003	1		
2	INMATNINGS-RAM	CADRE DE GOULOTTE PC	TRICHTERRAHMEN	HOPPER FRAME	S235	8B002652	1		
						8B001793	1		
						8B000723	1		
						8B002653	1		
3	KLAFFHÅL-LARE	PLAT DE BAVETTE	KLAPPE HALTER	FLAP HOLDER HOPPER C	ALU30X3	8B000929/5	2		
						8B004202	2		
4	KLAFFAR	BAVETTE	KLAPPE	FLAP	S235	8B003093	2		
						8B003098	2		
						8B003936	2		
						8B004202	2		
5	AXEL	CHAPE	ACHSE	HINGE HOPPER	S235	8B005150	1		
6	AXEL	CHAPE	ACHSE	HINGE HOPPER	FLG 250	8B005151	1		
7	AXEL	AXE DE CHAPE	ACHSE	SHAFT HINGE	S235	8B200651	2		
8	TRATT	ENTONNOIR	EING.TRICHTER	FUNNEL	12.9	8B000334	1		
						8B003097	1		
						8B000337	1		
						8B008004	1		
9	SKRUV	VIS	SCHRAUBE	SCREW SHS K6S 8X20	12,9	9-40162	4		
10	BRICKA	RONDELLE	SCHEIBE	WASHER BRB 8,4 FZB		9-40162	4		
11	SKRUV	VIS	SCHRAUBE	SCREW K6S NV5 M6X20 GULK	12.9	9-94464	16		
						9-94464	20		
						9-94464	22		
						9-94464	22		

Hopper PC Standard, NCM 1-4



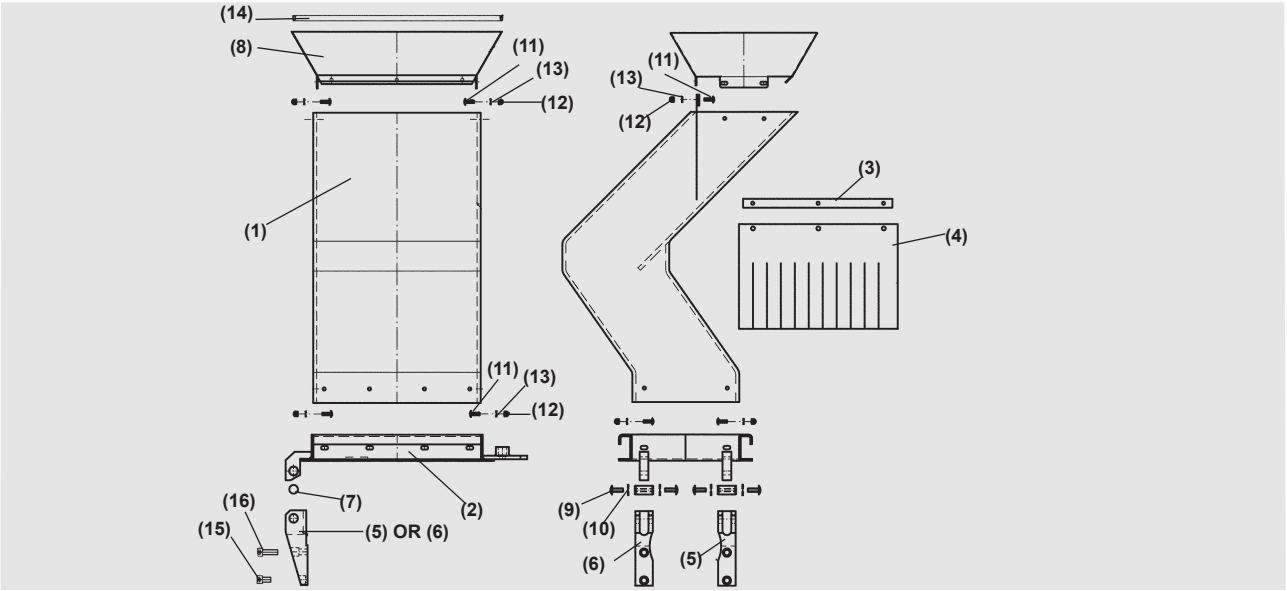
P	SE	FR	DE	GB - DETAIL	SPECIFI-CATION	ART NO	Q	M	V
12	MUTTER	ÉCROU	MUTTER	NUT LOC-KING M 6		9-40316	16		
						9-40316	20		
						9-40316	22		
						9-40316	22		
13	BRICKA	RONDELLE	SCHEIBE	WASHER BRB 6,7X14X1,5 FZB		9-94466	16		
						9-94466	20		
						9-94466	22		
						9-94466	22		
14	LIST	JOINT D'ENTONNOIR	DICHTUNG	FUNNEL SEAL 4610028-SVA		9-70062	1,7		
15	SKRUV	VIS	SCHRAUBE	SCREW SHS MC6S 12X20	12.9	9-40236	2		
16	SKRUV	VIS	SCHRAUBE	SCREW SHS MC6S 12X35	12.9	9-40075	2		



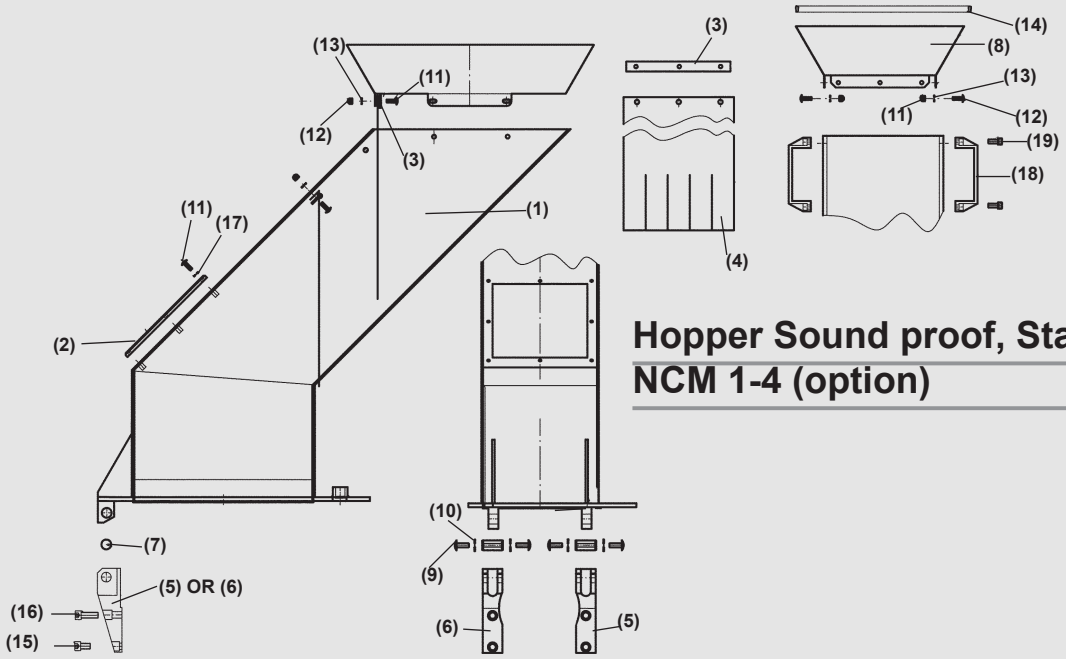
Z-Hopper PC, NCM 1-4 (option)

P	SE	FR	DE	GB - DETAIL	SPECIFI-CATION	ART NO	Q	M	V
1	INMATNING	GOULOTTE PC	TRICHTER PC	HOPPER TOP PC TYPE B	PC 8 MM	8B190011	1		
						8B190021	1		
						8B190031	1		
						8B190041	1		
2	INMATNING-SRAM	CADRE DE GOULOTTE PC	TRICHTERRAHMEN	HOPPER FRAME	S235	8B002652	1		
						8B001793	1		
						8B000723	1		
						8B002653	1		
3	KLAFFHÅL-LARE	PLAT DE BAVETTE	KLAPPE HALTER	FLAP HOLDER HOPPER B	ALU 20X3	8B000929/1	1		
						8B000929/2	1		
						8B000929/3	1		
						8B000929/4	1		
4	KLAFFAR	BAVETTE	KLAPPE	FLAP	PLASTIC CLOTH	8B000850	1		
						8B000851	1		
						8B000852	1		
						8B000853	1		
5	AXEL	CHAPE DE GOULOTTE	ACHSE	HINGE HOPPER	S235	8B005150	1		
6	AXEL	CHAPE DE GOULOTTE	ACHSE	HINGE HOPPER	S235	8B005151	1		
7	AXEL	AXE DE CHAPE	ACHSE	SHAFT HINGE	FGL 250	8B200651	2		
8	TRATT	ENTONNOIR	EING. TRICHTER	FUNNEL	S235	8B000341	1		
						8B000342	1		
						8B000343	1		
						8B000344	1		
9	SKRUV	VIS	SCHRAUBE	SCREW SHS K6S 8X20	12.9	9-40662	1		
10	BRICKA	RONDELLE	SCHEIBE	WASHER BRB 8,4 FZB		9-40162	4		
11	SKRUV	VIS	SCHRAUBE	SCREW K6S MÖBEL NV5 M6X20 GULK	12.9	9-94464	13		
						9-94464	17		
						9-94464	19		
						9-94464	19		

Z-Hopper PC, NCM 1-4 (option)



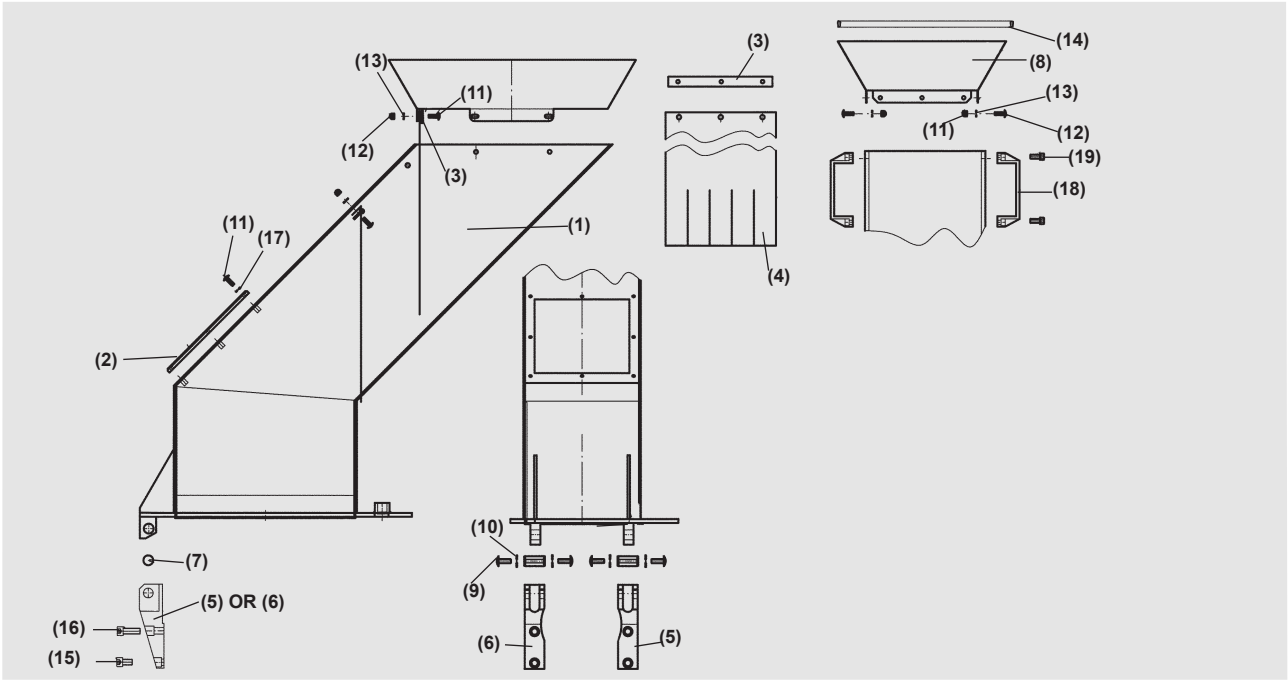
P	SE	FR	DE	GB - DETAIL	SPECIFI-CATION	ART NO	Q	M	V
12	MUTTER	ÉCROU	MUTTER	NUT LOC-KING M 6		9-40316	13		
						9-40316	17		
						9-40316	19		
						9-40316	19		
13	BRICKA	RONDELLE	SCHEIBE	WASHER BRB 6,7X14X1,5 FZB		9-94466	13		
						9-94466	17		
						9-94466	19		
						9-94466	19		
14	LIST	JOINT D'ENTONNOIR	DICHTUNG	FUNNEL SEAL 4610028-SVA		9-70062	1,7		
15	SKRUV	VIS	SCHRAUBE	SCREW SHS MC6S 12X20	12.9	9-40236	2		
16	SKRUV	VIS	SCHRAUBE	SCREW SHS MC6S 12X35	12.9	9-40075	2		



Hopper Sound proof, Standard, NCM 1-4 (option)

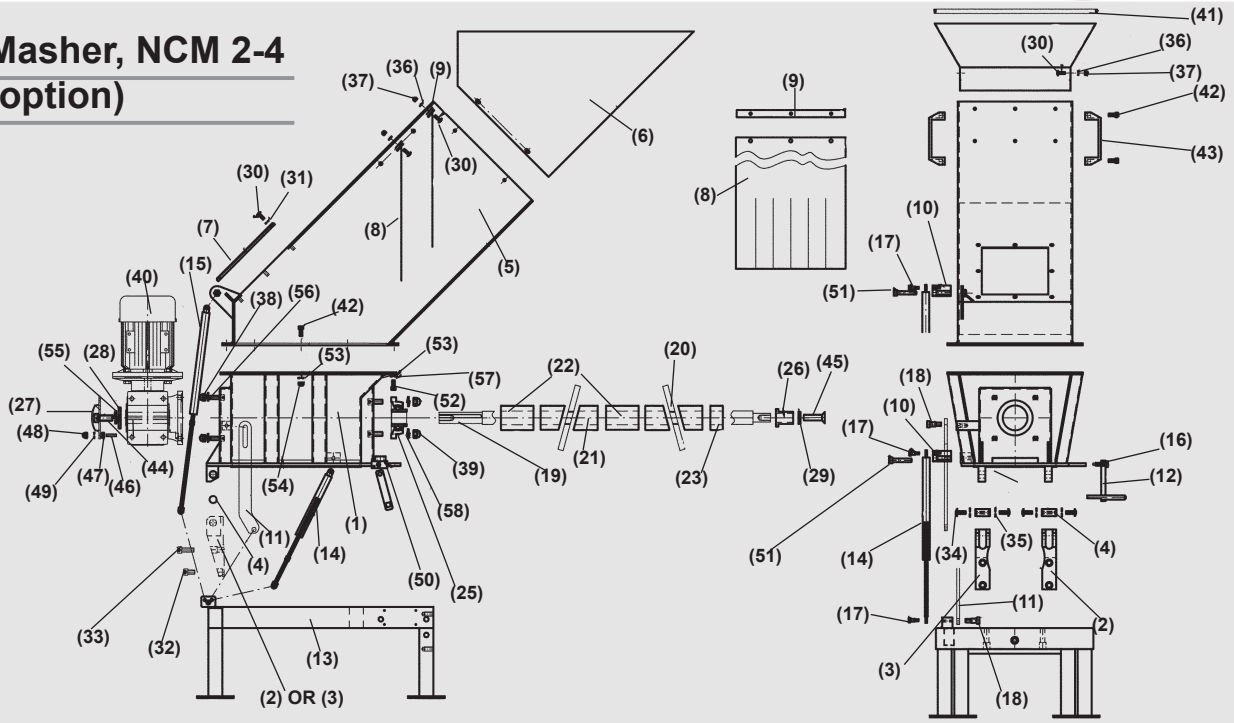
P	SE	FR	DE	GB - DETAIL	SPECIFI-CATION	ART NO	Q	M	V
1	INMATNINIG	GOULOTTE INSONORISÉE	TRICHTER	HOPPER TOP ENCLOSURE	S235	8B004743	1		
						8B003690	1		
						8B003200	1		
						8B004069	1		
2	FÖNSTER	HUBLOT DE GOULOTTE ACIER	FENSTER	WINDOW	PC 8 MM	8B003697	1		
						8B000929/5	1		
						8B000337	1		
						8B000929/5	1		
3	KLAFFHÅL-LARE	PLAT DE BAVETTE	KLAPPE HALTER	FLAP HOLDER HOPPER C	ALU 20X3	8B000929/5	2		
						8B003097	2		
						8B000929/5	2		
						8B003697	2		
4	KLAFFAR	BAVETTE	KLAPPE	FLAP	PLASTIC CLOTH	8B003093	2		
						8B003098	2		
						8B003697	2		
						8B004202	2		
5	AXEL	CHAPE DE GOULOTTE	ACHSE	HINGE HOPPER	S235	8B005150	1		
						8B003697	1		
						8B003936	1		
						8B005150	1		
6	AXEL	CHAPE DE GOULOTTE	ACHSE	HINGE HOPPER	S235	8B005151	1		
						8B005150	1		
						8B005150	1		
						8B005151	1		
7	AXEL	AXE DE CHAPE	ACHSE	SHAFT HINGE	FGL 250	8B200651	2		
						8B005151	2		
						8B005151	2		
						8B008004	2		

Hopper Sound proof, Standard, NCM 1-4 (option)



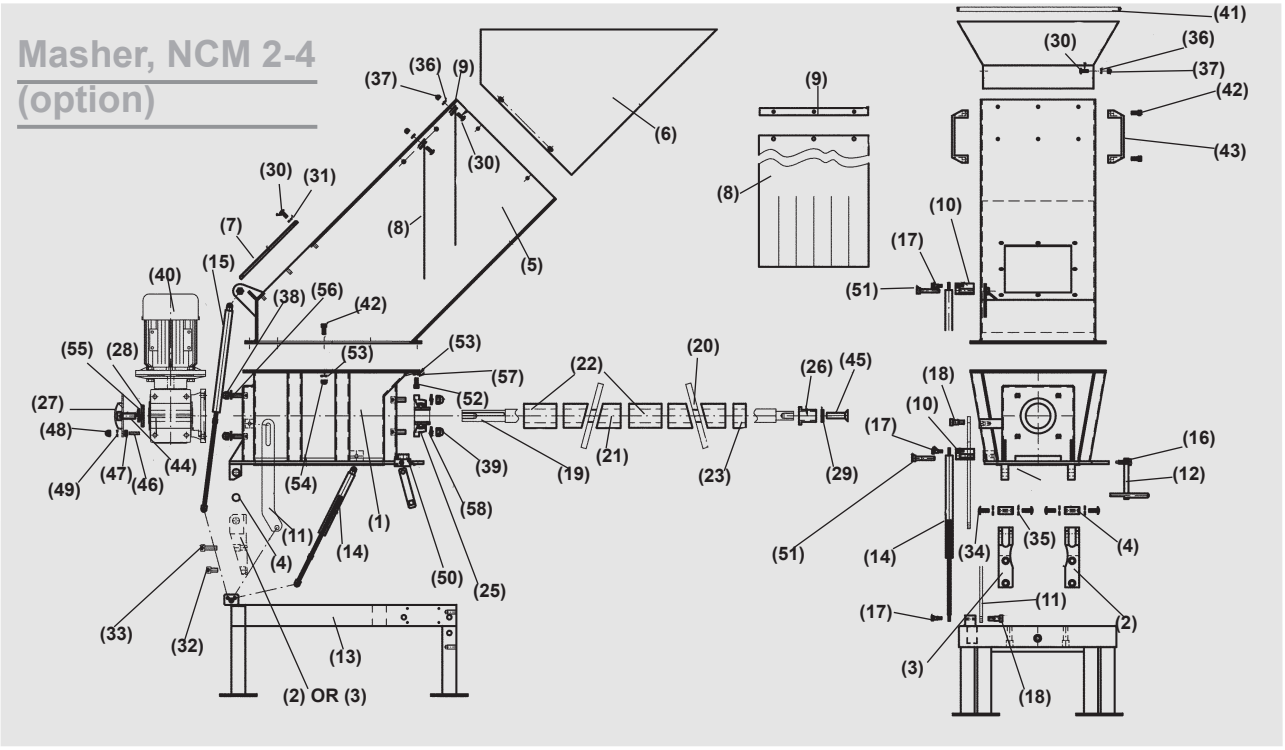
P	SE	FR	DE	GB - DETAIL	SPECIFI-CATION	ART NO	Q	M	V
8	TRATT	ENTONNOIR	EING. TRICHTER	FUNNEL	S235	8B000334	1		
						8B200651	1		
9	SKRUV	VIS	SCHRAUBE	SCREW SHS K6S 8X20	12.9	9-40662	4		
						9-40075	4		
10	BRICKA	RONDELLE	SCHEIBE	WASHER BRB 8,4 FZB		9-40162	8		
						9-40097	8		
11	SKRUV	VIS	SCHRAUBE	SCREW K6S MÖBEL NV5 M6X16 FZB	12.9	9-94463	10		
						9-40162	10		
12	MUTTER	ÉCROU	MUTTER	NUT LOC-KING M 6		9-40316	10		
						9-40236	10		
13	BRICKA	RONDELLE	SCHEIBE	WASHER BRB 6,7X14X1,5 FZB		9-94466	10		
						9-40316	10		
14	LIST	JOINT D'ENTONNOIR	DICHTUNG	FUNNEL SEAL 4610028-SVA		9-70062	1,7		
15	SKRUV	VIS	SCHRAUBE	SCREW SHS MC6S 12X20	12.9	9-40236	2		
16	SKRUV	VIS	SCHRAUBE	SCREW SHS MC6S 12X35	12.9	9-40075	2		
17	BRICKA	RONDELLE	SCHEIBE	WASHER POLYAMID 6,4X 18X1,5	NYLON	9-94465	8		
18	HANDTAG	POIGNÉE	GRIFF	HANDLE CLAMP WN 130 132-M8	PA	9-91984	2		
19	SKRUV	VIS	SCHRAUBE	SCREW SHS MC6S 8X25	12.9	9-40097	4		

Masher, NCM 2-4 (option)



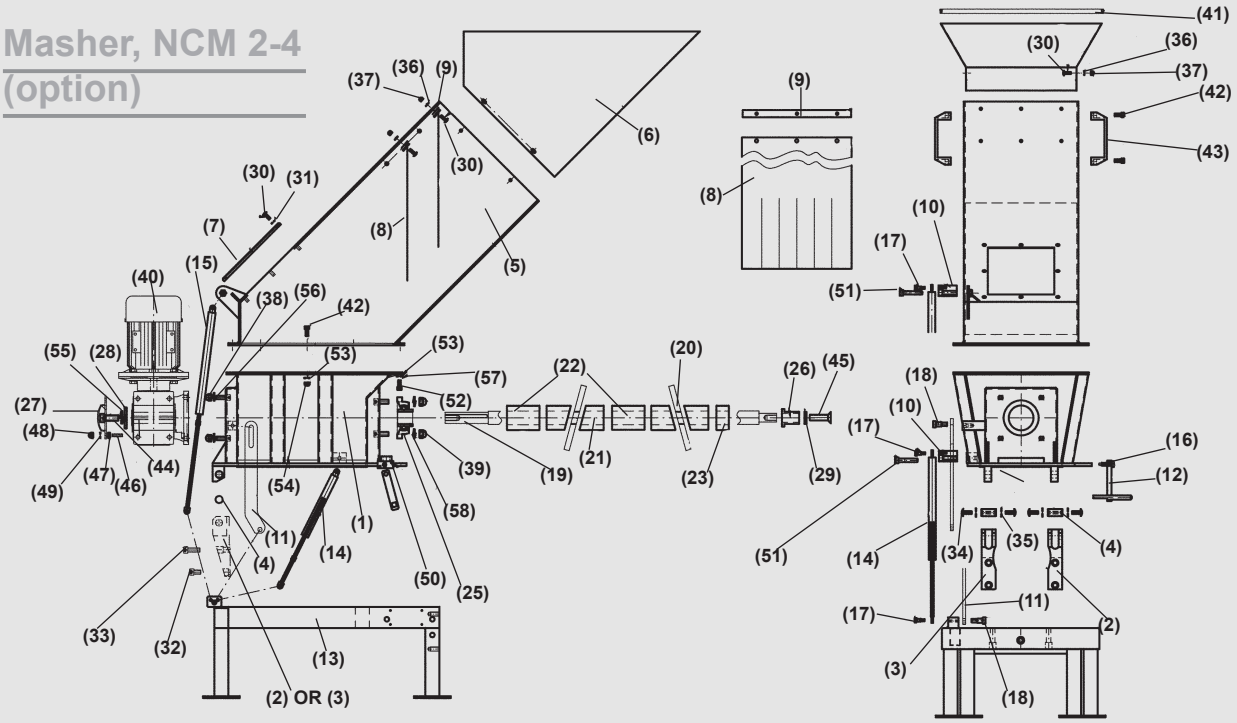
P	SE	FR	DE	GB - DETAIL	SPECIFI-CATION	ART NO	Q	M	V
1	FÖRMATAR-HUS	MODULE MASHER	ZUFÜHRER	HOUSE MASHER	S235	8B006030	1		
						8B006206	1		
						8B006222	1		
2	AXEL	CHAPE DE GOULOTTE	ACHSE	HINGE HOPPER	S235	8B005150	1		
3	AXEL	CHAPE DE GOULOTTE	ACHSE	HINGE HOPPER	S235	8B005151	1		
4	AXEL	AXE DE CHAPE	ACHSE	SHAFT HINGE	S235	8B200651	1		
5	INMATNING	GOULOTTE DE MASHER	TRICHTER	HOPPER ABS MASHER	S235	8B006630	1		
						8B006629	1		
						8B006223	1		
6	TRATT	ENTONNOIR	EING. TRICHTER	FUNNEL MASHER	S235	8B006632	1		
						8B006631	1		
						8B006224	1		
7	FÖNSTER	HUBLOT DE GOULOTTE	FENSTER	WINDOW	PC	8B003697	1		
8	KLAFF	BAVETTE	KLAPPE	FLAP	CLOTH	8B006655	2		
						8B006654	2		
						8B006633	2		
9	KLAFFHÅL-LARE	PLAT DE MAINTIENT BAVETTE	KLAPPE HALTER	FLAP HOLDER	ALU 20X3	8B006638	2		
10	FJÄDER-FÄSTE	EXENTRIQUE VERIN	GASFEDERHALTER	GAS JACK HOLDER	S235	8B004102	2		
11	ANSLUTNING	BIELLETTE	ANSCHLUSS	ROD	S235	8B005115	1		
12	SÄKERHETS-DEL	BUTÉE ANTI-PINCE-MENT	SICHERUNG	SICHERHEIT	S235	8B003293	1		

Masher, NCM 2-4 (option)



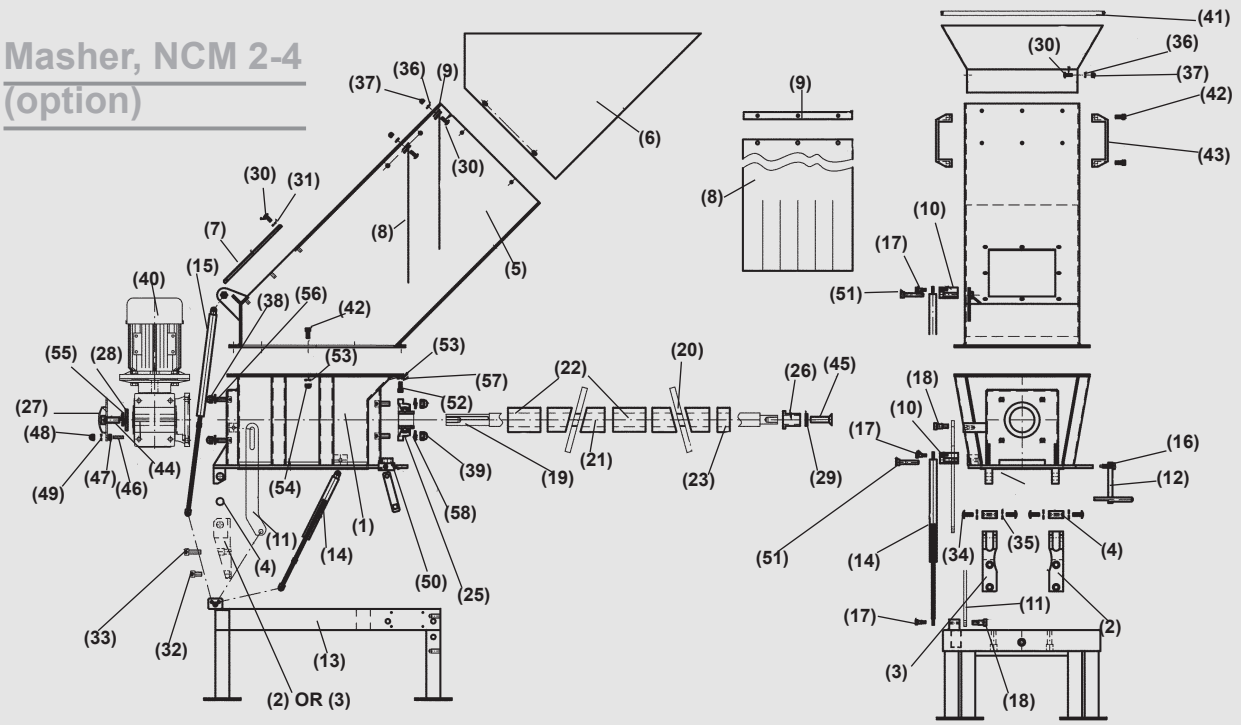
P	SE	FR	DE	GB - DETAIL	SPECIFICATION	ART NO	Q	M	V
13	STATIV	CHÂSSIS POUR MASHER	GESTELL	STAND MASHER	S235	8B009498	1		
						8B009499	1		
						8B009500	1		
14	GASFJÄDER	VERIN D'OUVERTURE	GASFEDER	GAS SPRING	14320510/500N	9-94402	1		
					14100610/600N	9-94399	1		
					14110810/800N	9-94394	2		
15	GASFJÄDER	VERIN D'OUVERTURE	GASFEDER	GAS SPRING	14110510/500N	9-94392	1		
					14100610/600N	9-94393	1		
					-	-	-		
16	SKRUV	VIS	SCHRAUBE	WELLE SCREW, FITTING BOLT	6X8X16	9-50789	1		
17	SKRUV	VIS	SCHRAUBE	WELLE SCREW, FITTING BOLT	6X8X12	9-50786	4		
18	SKRUV	VIS	SCHRAUBE	WELLE SCREW, FITTING BOLT	10X12X20	9-50790	2		
19	AXEL	ARBRE MASHER	ACHSE	SHAFT MASHER	S235	8B003331	1		
						8B002861	1		
						8B002019	1		
20	LUTANDE KROK	COUTEAU	MESSESHAKEN	INCLINED HOOK	C45 E	8B007167	3		
21	DISTANS	ENTRETOISE INCLINÉE	DISTANZHALTER	INCLINED SPACER	S235	8B007168	2		
						8B007168	4		
						8B007168	6		

Masher, NCM 2-4 (option)



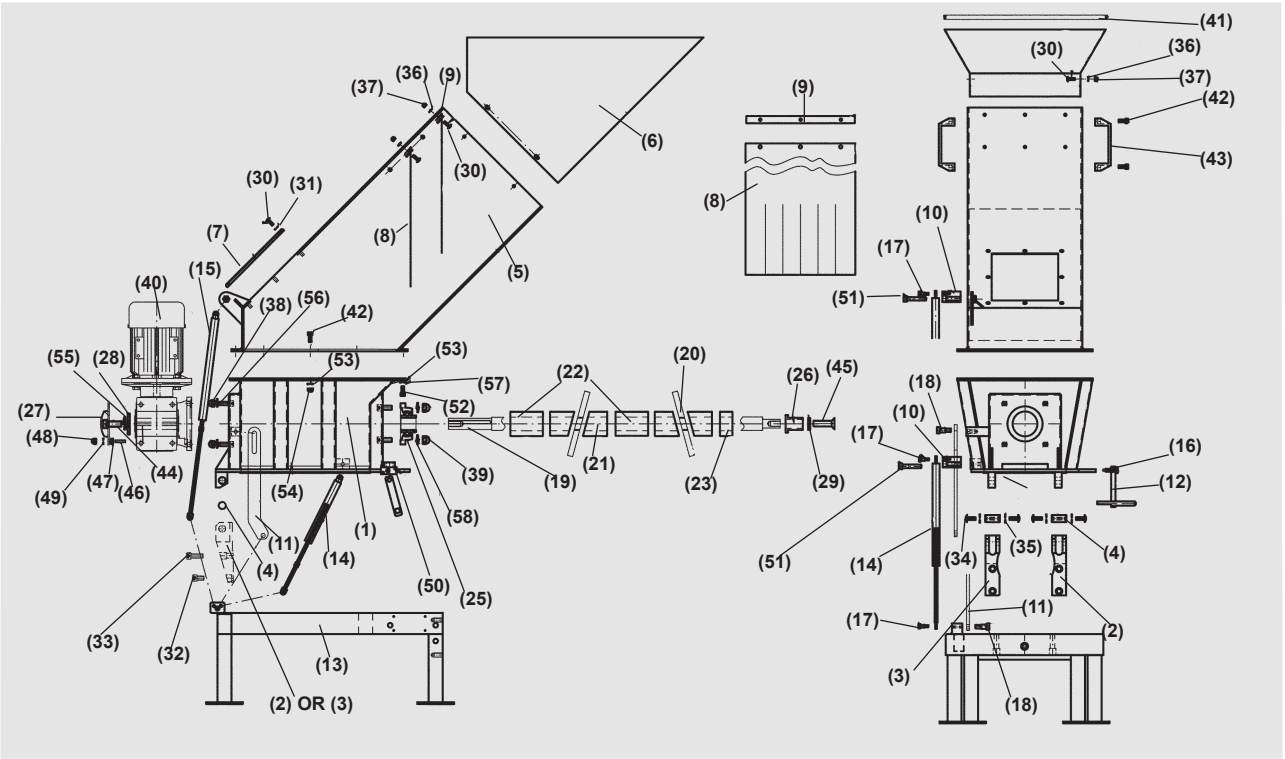
P	SE	FR	DE	GB - DETAIL	SPECIFI-CATION	ART NO	Q	M	V
22	DISTANS	ENTRETOISE	DISTANZHALTER	SPACER, S235	L102,5	8B006449/6			
					L78	8B006449/1			
					L78	8B006449/1			
23	DISTANS	ENTRETOISE	DISTANZHALTER	SPACER L35,5	S235	8B006449/8			
						8B006449/8			
						8B006449/8			
24	DISTANS	ENTRETOISE	DISTANZHALTER	SPACER, L63	S235	8B006449/7			
						-			
25	LAGER	PALIER	LAGER	BEARING BOX UCF 207	ENGJS 400.12	9-94504			
26	DISTANS	BAGUE ÉPAULÉE	DISTANZHALTER	WELLE SPACER	S235	8B004648			
27	SKYDD	CABOCHON	DECKEL	COVER END SHAFT	S235	8B204225			
28	BRICKA	RONDELLE	SCHEIBE	WASHER D=60/16,1-6 COUPLING	S235	8B000572			
29	BRICKA	RONDELLE	SCHEIBE	WASHER COUPLING	S235	8B003141			
30	SKRUV	VIS	SCHRAUBE	SCREW K6S MÖBEL NV5 M6X16 FZB	12.9	9-94463			
31	BRICKA	RONDELLE	SCHEIBE	WASHER POLYAMID 6,4X 18X1,5	NYLON	9-94465			
32	SKRUV	VIS	SCHRAUBE	SCREW SHS MC6S 12X20	12.9	9-40236			
33	SKRUV	VIS	SCHRAUBE	SCREW SHS MC6S 12X35	12.9	9-40075			
34	SKRUV	VIS	SCHRAUBE	SCREW SHS K6S 8X20	12.9	9-40662			
35	BRICKA	RONDELLE	SCHEIBE	WASHER BRB 8,4 FZB		9-40162			
36	BRICKA	RONDELLE	SCHEIBE	WASHER BRB 6,4 FZB		9-40169			

Masher, NCM 2-4 (option)



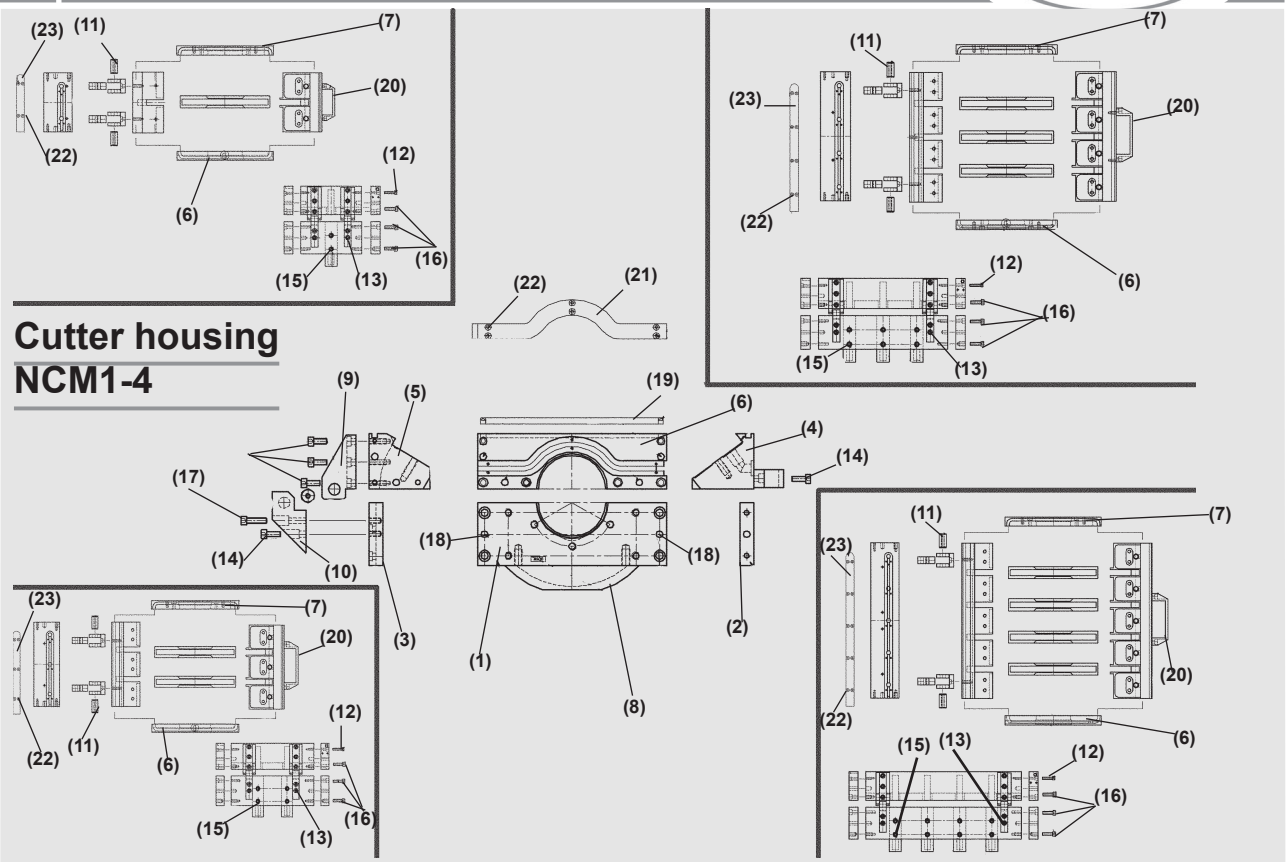
P	SE	FR	DE	GB - DETAIL	SPECIFI-CATION	ART NO	Q	M	V
37	MUTTER	ÉCROU	MUTTER	NUT LOC-KING M 6		9-40316	10		
38	MUTTER	ÉCROU	MUTTER	NUT LOC-KING M 10		9-40015	4		
39	MUTTER	ÉCROU	MUTTER	NUT LOC-KING M 12		9-40059	4		
40	MOTOR	MOTEUR	MOTOR	GEAR MOTOR ROSSI		9-94433	1		
41	LIST	JOINT D'ENTONNOIR	DICHTUNG	FUNNEL SEAL 4610028-SVA	NITRILE	9-70062	1		
42	SKRUV	VIS	SCHRAUBE	SCREW SHS MC6S 8X25	12.9	9-40097	14		
						9-40097	16		
						9-40097	18		
43	HANDTAG	POIGNÉE	GRIFF	HANDLE CLAMP WN 130 132-M8	PU	9-91984	2		
44	SKRUV	VIS	SCHRAUBE	SCREW SHS MC6S 16X40 12.9	12.9	9-41002	1		
45	SKRUV	VIS	SCHRAUBE	SCREW SHS MF6S 16X40	12.9	9-40537	1		
46	SKRUV	VIS	SCHRAUBE	GRUB SCREW SK6SS 8X30	12.9	9-40172	2		
47	MUTTER	ÉCROU	MUTTER	NUT M6M M 8 FZB		9-40045	2		
48	MUTTER	ÉCROU	MUTTER	NUT LOC-KING M 8		9-40317	2		
49	BRICKA	RONDELLE	SCHEIBE	WASHER SCHNORR BR.M8 OBEH		9-94539	2		
50	SPÄNNSTIFT	GOUPILLE ELAS-TIQUE	SPANNSTIFT	SPRING PIN FRP 4 X 20		9-50046	2		
51	SKRUV	VIS	SCHRAUBE	SCREW SHS MC6S 10X55	12.9	9-40293	2		
52	SKRUV	VIS	SCHRAUBE	SCREW SHS MC6S 8X20	12.9	9-40070	2		

Masher, NCM 2-4 (option)



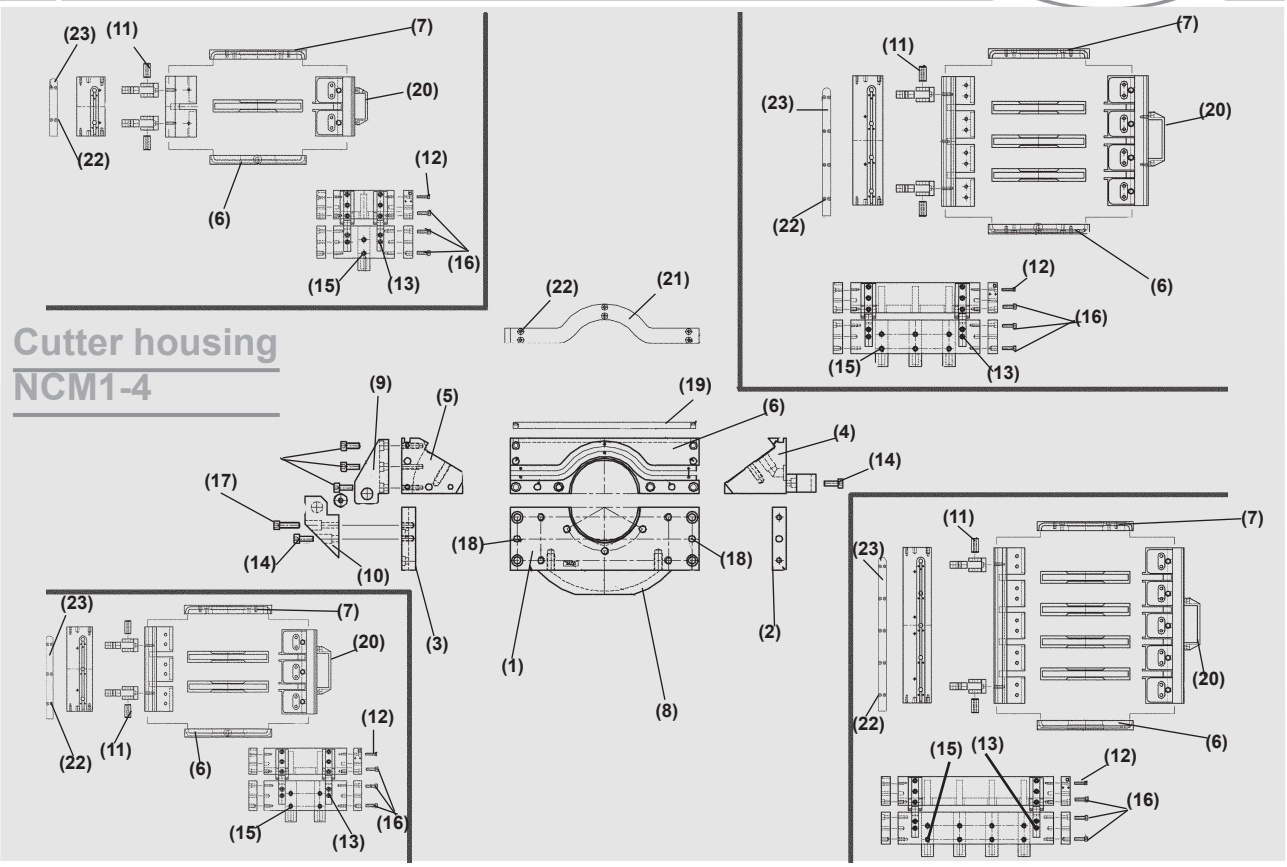
P	SE	FR	DE	GB - DETAIL	SPECIFI-CATION	ART NO	Q	M	V
53	BRICKA	RONDELLE	SCHEIBE	WASHER BRB 8,4 FZB		9-40162	20		
						9-40162	28		
						9-40162	30		
54	MUTTER	ÉCROU	MUTTER	NUT LOC-KING M 8		9-40317	10		
						9-40317	12		
						9-40317	14		
55	BRICKA	RONDELLE	SCHEIBE	WASHER FBB 16,2		9-40133	1		
56	BRICKA	RONDELLE	SCHEIBE	WASHER FBB 10,2		9-40198	4		
57	BRICKA	RONDELLE	SCHEIBE	WASHER FBB 8,1		9-94540	2		
58	BRICKA	RONDELLE	SCHEIBE	WASHER FBB 12,2		9-94541	2		

Cutter housing
NCM1-4



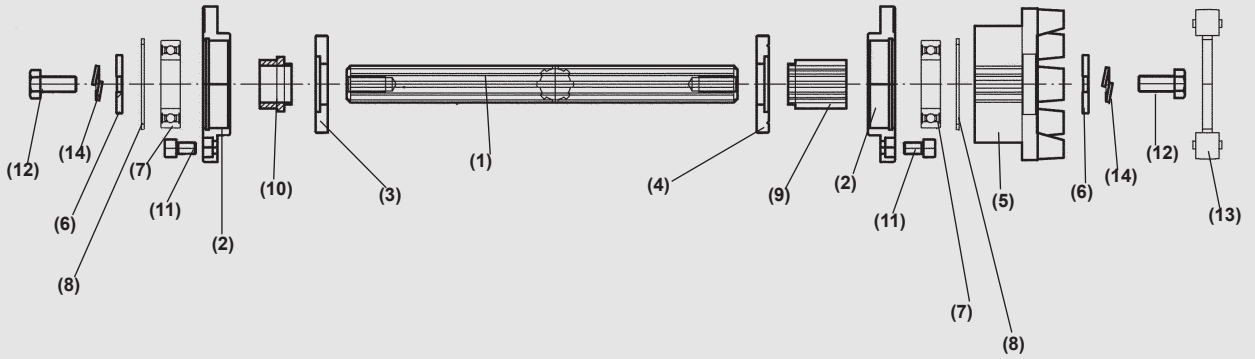
P	SE	FR	DE	GB - DETAIL	SPECIFI-CATION	ART NO	Q	M	V
1	UNDRE SIDA	FLANC INFERIEUR	UNTERSEITE	LOWER SIDE	S355	8B007913	2		
2	FRAMSIDA	CÔTÉ AVANT	VORDERDEITE	FRONT SIDE	C45 E	8B007927	1		
						8B007919	1		
						8B007914	1		
						8B007935	1		
3	BAKSIDA	CÔTÉ ARRIÈRE	RÜCKSEITE	REAR SIDE	C45 E	8B007928	1		
						8B007920	1		
						8B007915	1		
						8B007936	1		
4	FÄST FAST KNIV	PORTE PEIGNE	MESSERHALTER FESTSTEHENDES MESSER	HOLDER FIXED KNIFE	S355 JO	8B007924	1		
						8B007916	1		
						8B007903	1		
						8B007932	1		
5	FÄSTE AVSKRA-PARE	PORTE CONTREPEIGNE	MESSERHALTER GEGENMESSER	HOLDER SCRAPPER	S355 JO	8B007926	1		
						8B007918	1		
						8B007904	1		
						8B007934	1		
6	ÖVRE VÄ SIDA	FLANC SUP, COTÉ PALIER	OBERE LINKE SEITE	UPPER LEFT SIDE	S355 JO	8B008063	1		
7	ÖVRE HÖ SIDA	FLANC SUP, DROIT	OBERE RECHTE SEITE	UPPER RIGHT SIDE	S355 JO	8B007905	1		
8	GUID	AUGE DE COUTEAU	LENKER	GUID KNIFE HOOK	ENGJS 400.12	8B200094	2		
9	AXEL, ÖVRE	CHARNIÈRE MOBILE DE BLOC	OBERE ACHSE	HINGE UPPER	E355	8B000478	2		
10	AXEL, NEDRE	CHARNIÉRE FIXE DE BLOC	UNTERE ACHSE	HINGE LOWER	E355	8B200101	2		
11	AXEL	AXE DE CHAPE	ACHSE	SHAFT HINGE	ENGJS 400.12	8B200651	2		
12	SKRUV	VIS	SCHRAUBE	SCREW SHC 6X30	12.9	9-40077	4		

Cutter housing
NCM1-4



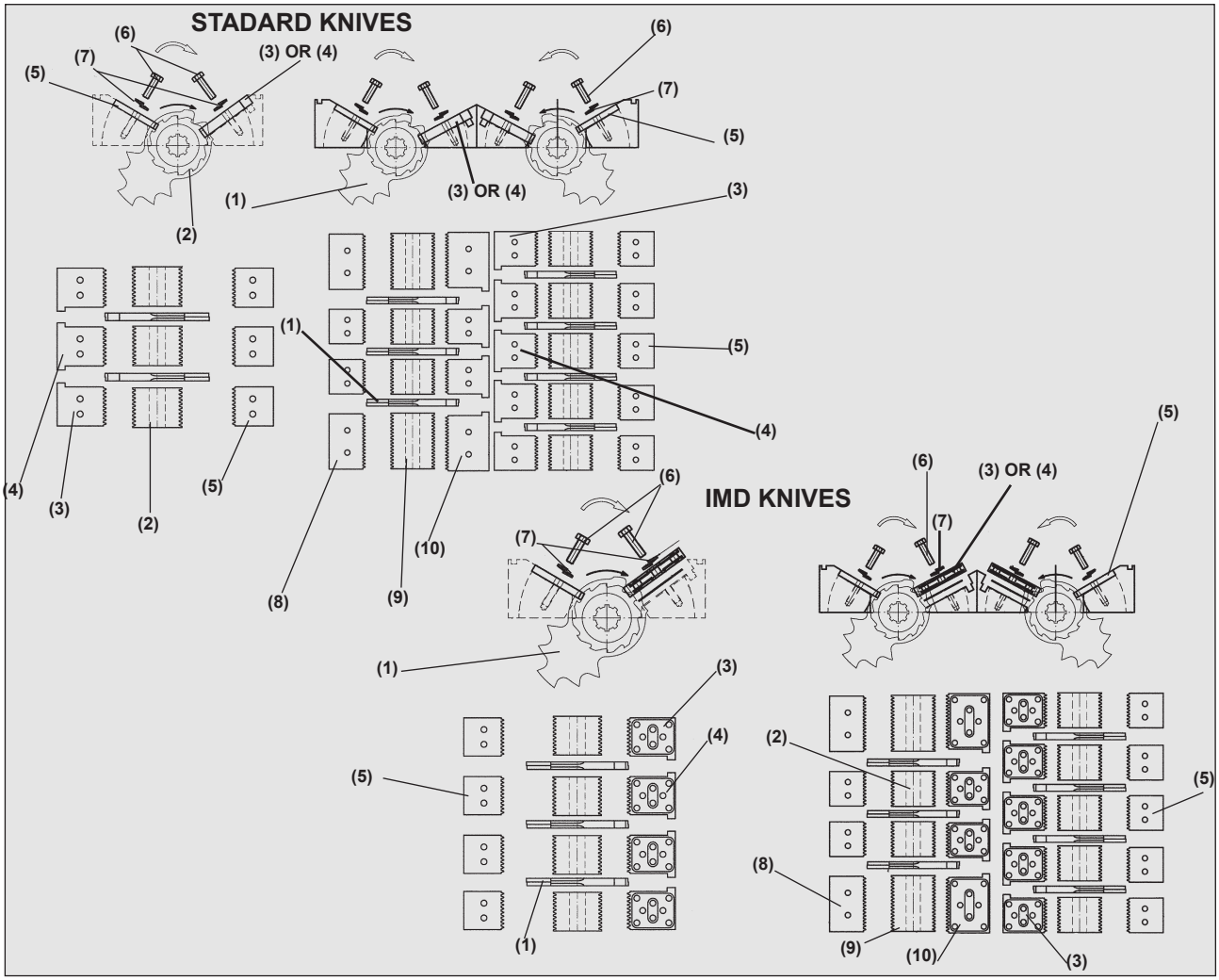
P	SE	FR	DE	GB - DETAIL	SPECIFI-CATION	ART NO	Q	M	V
13	SKRUV	VIS	SCHRAUBE	SCREW SHC LOWER 8X12	12.9	9-94420	2		
14	SKRUV	VIS	SCHRAUBE	SCREW SHC 8X20	12.9	9-40070	4		
15	SKRUV	VIS	SCHRAUBE	SCREW SHC LOWER 8X20	12.9	9-40604	8		
							10		
							12		
							14		
16	SKRUV	VIS	SCHRAUBE	SCREW SHC 8X30	12.9	9-40007	16		
17	SKRUV	VIS	SCHRAUBE	SCREW SHC 8X35	12.9	9-40126	2		
18	STIFT	GOUPILLES	STIFT	PIN 10X40		9-94361	1		
19	LIST	JOINT DE BLOC	LEISTE	SEAL NR 44	NITRILE	9-94419	1		
20	HANDTAG	POIGNÉE PLASTIQUE	GRIFF	HANDEL	94	9-94364	1		
					132	9-91984	1		
							1		
							1		
21	SKYDD	CABOCHON	DECKEL	COVER ELECTRIC CABLE	S235	8B007928	1		
22	SKRUV	VIS	SCHRAUBE	SCREW FHC 4X10		922-22-G14	10		
							12		
							14		
							16		
23	SKYDD	CABOCHON	DECKEL	COVER ELECTRIC CABLE	S235	922-22-G1	1		
						922-22-G2	1		
						922-22-G3	1		
						922-22-G4	1		

Rotor



P	SE	FR	DE	GB - DETAIL	SPECIFICA-TION	ART NO	Q	M	V
1	AXEL	ARBRE DE ROTOR	ACHSE	ROTOR SHAFT FLUTED	40 CND 8	8B000770-G1-1	1		
						8B000770-G2-1			
						8B000770-G3-1			
						8B000770-G4-1			
						8B000770-G4-1	2		
2	LAGERHUS	PALIER	LAGER GEHÄUSE	BEARING HOUSING	ENGJS 400.12	8B200083	2		
							4		
3	TÄTNING	PARE POUSSIERE ÉPAULÉ	DICHTUNG	SEALING	ENGJS 400.12	8B200620	1		
							2		
4	TÄTNING	PARE-POUSSIERE	DICHTUNG	SEALING DRIVING SIDE "G"	ENGJS 400.12	8B200621	1		
							2		
5	KOPPLING	DEMI ACCOUP-PLEMANT D45 COTÉ BLOC	KUPPLUNG	COUPLING ROTOR	ENGJS 400.12	8B000574	1		
							2		
6	BRICKA	RONDELLE BOUT D'ARBRE	SCHEIBE	WASHER D=60/16,1-6 COUPLING	40 CND8	8B000572	2		
							4		
7	LAGER	ROULEMENT	LAGER	BEARING 6210 - 2 RS		9-94405	2		
							4		
8	SPÅRRING	CIRCLIPS	FÜHRUNGSRING	RETAINING RING SGH 90		9-94362	2		
							4		
9	HYLSA	MANCHON	HÜLLE	SLEEVE	XC 38	8B200631	1		
							2		
10	AXELHYLSA	MANCHON ARBRE	ACHENHÜLLE	SLEEVE WELLE	XC 38	8B200632	1		
							2		
11	SKRUV	VIS	SCHRAUBE	SCREW SHS MC6S 12X20	12.9	9-40236	6		
							12		
12	SKRUV	VIS	SCHRAUBE	SCREW SHS MC6S 16X40 12.9	12.9	9-41002	2		
							4		
13	GUMMI DÄMPARE	ARMIRTISSEUR EN CAOUTC	GUMMIDÄMPFER	RUBBER CROSS	COFLEX C65 HYTREL	8B002236	1		
							2		
14	BRICKA	RONDELLE	SCHEIBE	WASHER FBB 16,2		9-40133	2		
							4		

Knives NCM 1-4

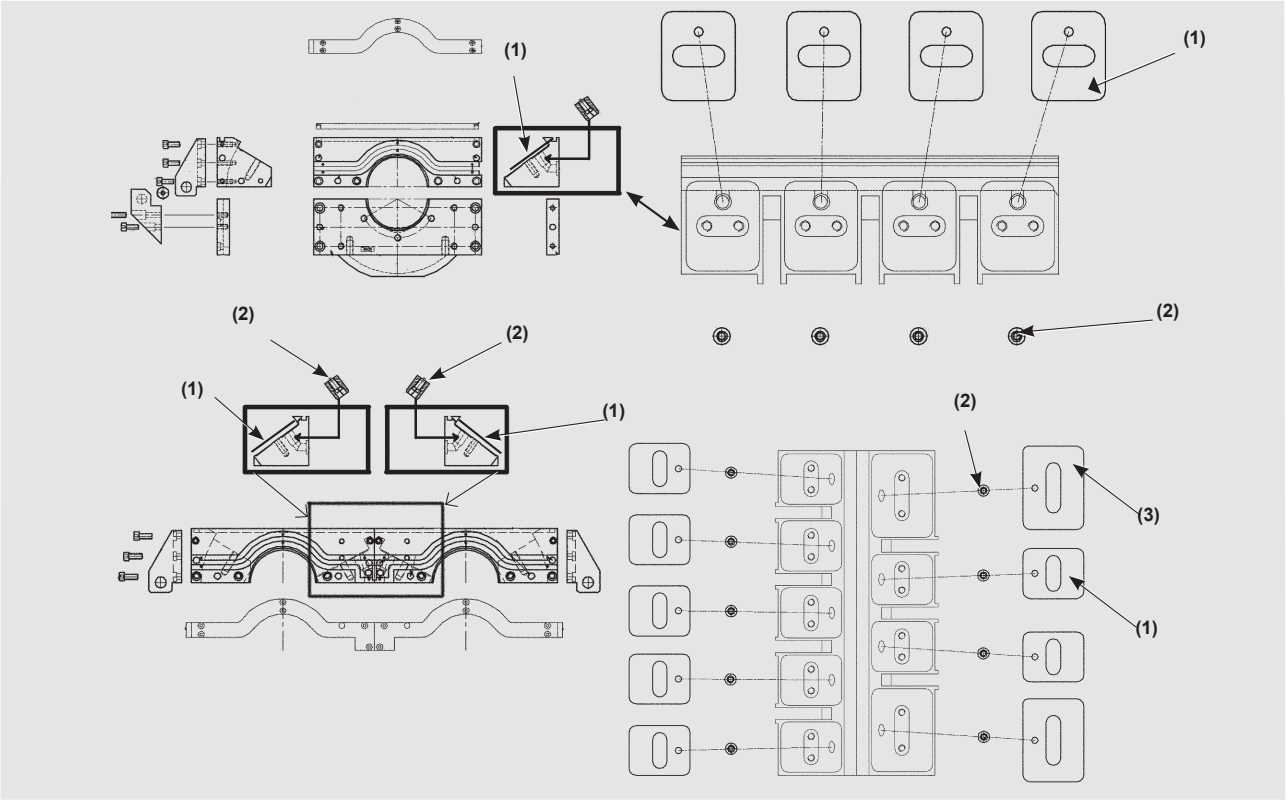


P	SE	FR	DE	GB - DETAIL	SPECIFI-CATION	M	V
1	MATARKROK	COUTEAU D248	MESSERHAKEN	KNIFE ROT FEEDING HOOK D=248			
2	ROTERANDE KNIV	ROULEAU COUTEAU	ROTIERENDES MESSER	KNIFE ROT			
3	FAST KNIV SIDA	PEIGNE REVERSIBLE LATÉRAL	SEITLICHES WEND-BARES MESSER	KNIFE FIXED SIDE			S
	FAST IMD-KNIV SIDA	PEIGNE IMD LATERAL	SEITLICHES MESSER IMD	MESSER FIXED SIDE IMD			IMD
4	FAST KNIV MITT	PEIGNE REVERSIBLE CENTRAL	FESTSTEHENDES MESSER MITTE	KNIFE FIXED CENTER			S
	FAST IMD-KNIV MITT	PEIGNE IMD CENTRAL	MESSER MITTE IMD	MESSER FIXED CENTER IMD			IMD
5	AVSKRAPARE	CONTREPEIGNE	GEGENMESSER	SCRAPPER			
6	SKRUV	VIS	SCHRAUBE	SCREW HHS M6S 10X35 10.9			
7	BRICKA	RONDELLE	SCHEIBE	WASHER SCHNORR BR.M10 FORM S			

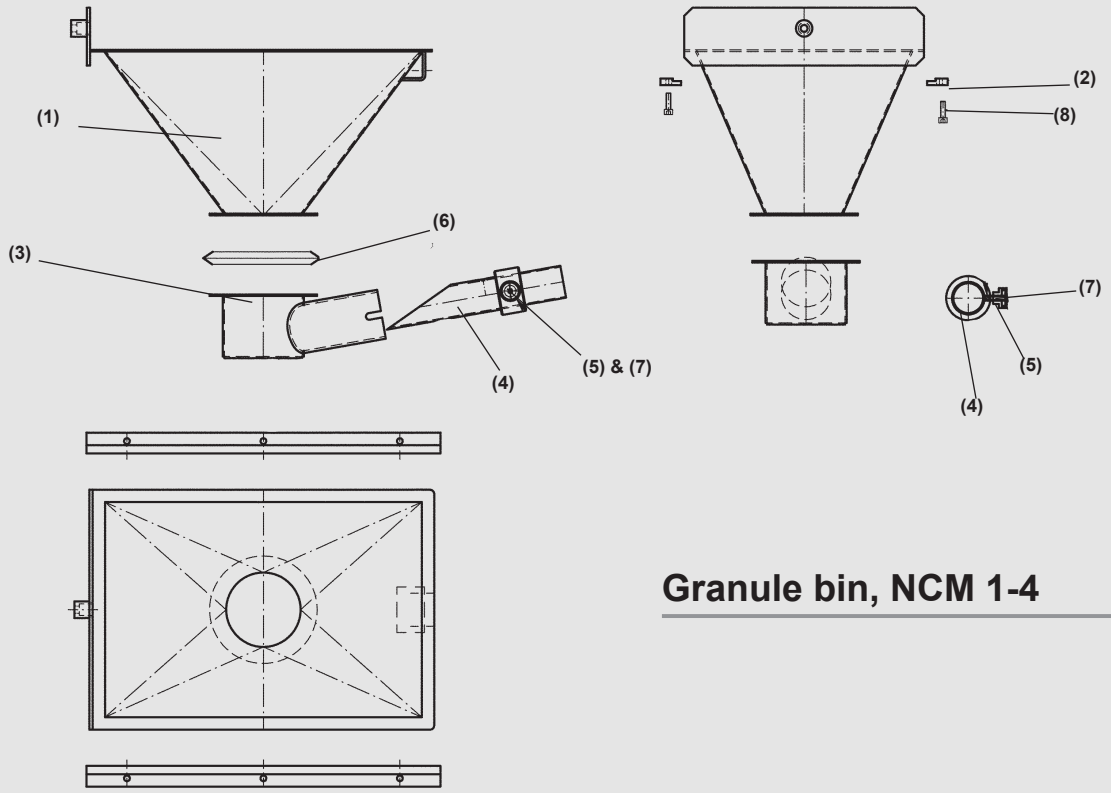
Knives NCM 1-4

P	ARTIKELNUMMER								Q	M	V
	TPZ 5	TPZ 6	TPZ8	TPZ10 (ONLY TWIN)	TPZ 5 HA	TPZ 6 HA	TPZ 8 HA	TPZ 10 HA (ONLY TWIN)			
1	8B200248	8B200248	8B200248	8B200248	8B200248	8B200248	8B200248	8B200248	1		
									2		
									3		
									4		
									7		
2	8B200169	8B200167	8B200156	8B200090	8B200169	8B200167	8B200156	8B200090	2		
									3		
									4		
									5		
									7		
3	8B008038	8B008036	8B008040	8B008673/1	8B008038	8B008036	8B008040	8B008673/1	2		S
	8B008255-1	8B007900-1	8B008258-1	8B200091	8B008255-1	8B007900-1	8B008258-1	8B200091	2		IMD
4	8B008037	8B008035	8B008039	8B008672/1	8B008037	8B008035	8B008039	8B008672/2	0		S
									1		S
									2		S
									3		S
									5		S
	9-40976	9-40976	9-40976	8B008675-1	9-40976	9-40976	9-40976	8B008675-1	0		IMD
									1		IMD
									2		IMD
									3		IMD
									5		IMD
5	8B008041/3	8B007902/3	8B008042/3	8B008678/3	8B008041/2	8B007902/2	8B008042/2	8B008678/2	2		
									3		
									4		
									5		
									7		
6	9-40976	9-40976	9-40976	-	9-40976	9-40976	9-40976	-	8		
									12		
									16		
									20		
	9-94410	9-94410	9-94410	9-94410	9-94410	9-94410	9-94410	9-94410	36		
7	9-40978	9-40978	9-40978	9-40978	9-40978	9-40978	9-40978	9-40978	8		
									12		
									16		
									20		
									36		
8	8B008251/3	8B007944/3	8B008252/3	8B008679/3	8B008251/2	8B007944/2	8B008252/2	8B008679/2	2		
9	8B200549	8B200534	8B200550	8B200091	8B200549	8B200534	8B200550	8B200091	2		
10	8B008247/1	8B008246/1	8B008248/1	8B008672/1	8B008247/1	8B008246/1	8B008248/1	8B008672/1	2		S
	8B008256-1	8B007943-1	8B008259-1	8B008677-1	8B008256-1	8B007943-1	8B008259-1	8B008677-1	2		IMD

Connection Cutter housing and IMD knives, NCM 1-4 (option)

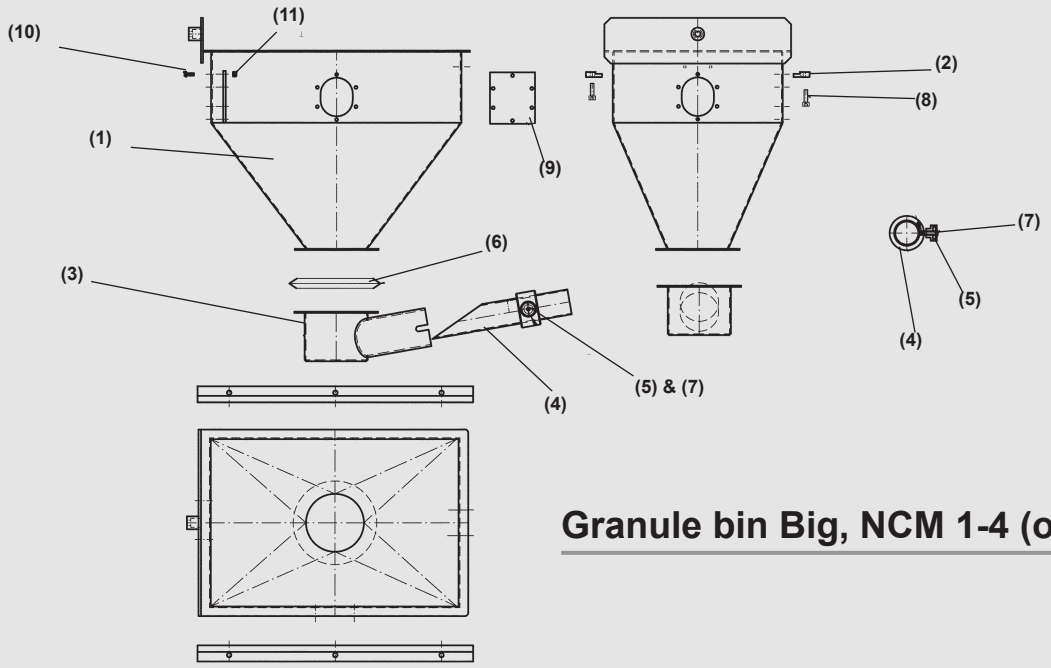


P	SE	FR	DE	GB - DETAIL	SPECIFICATION	ART NO	Q	M	V
1	ISOLERINGS-PLATTA	PLAQUE ISOLANTE SUR PORTE PEIGNE	ISOLIERPLATTE AUF MESSER-HALTER	ISOLATION SHEET ON FIXED KNIFE HOLDER		928-01-R14	2		
							3		
							4		
							5		
						927-01-RT	7		
2	ISOLERINGSDEL	PLOT ISOLANTE	ISOLIERSTÜCK	ISOLATION PLOT		8B009761	2		
							3		
							4		
							5		
							9		
3	ISOLERINGS-PLATTA, SIDA	PLAQUE ISOLANTE SUR PORTE PEIGNE, BORD	SOLIERPLATTE AUF MESSER-HALTER SEITE	ISOLATION SHEET ON FIXED KNIFE HOLDER, SIDE		928-03-RT	2		



Granule bin, NCM 1-4

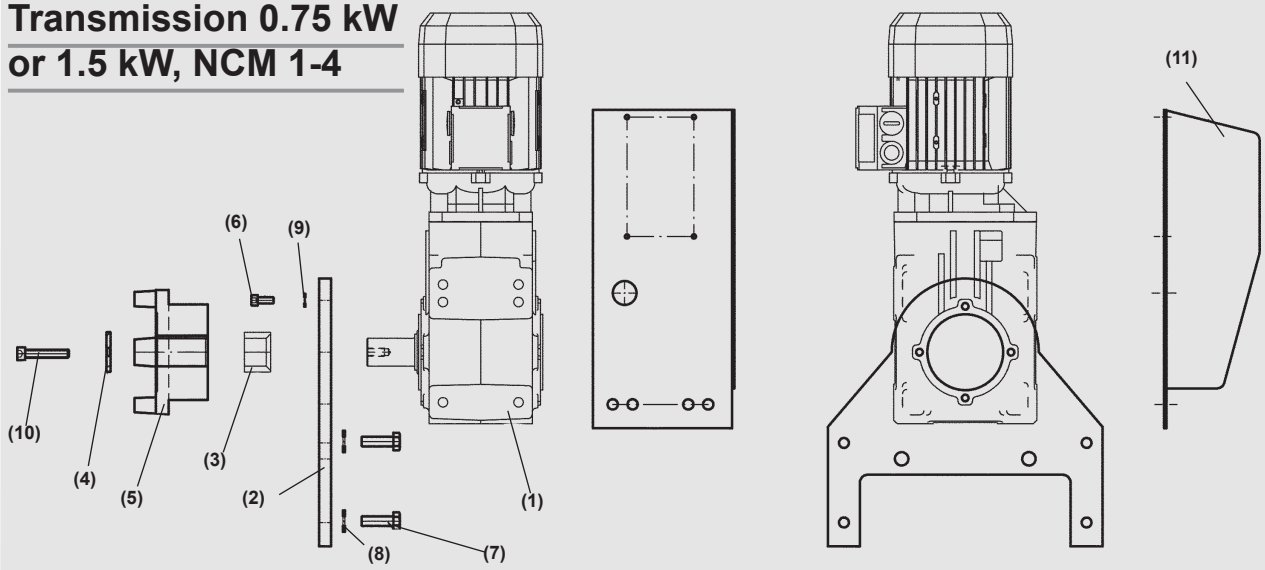
P	SE	FR	DE	GB - DETAIL	SPECIFI-CATION	ART NO	Q	M	V
1	GRANULATLÅDA	TRÉMIE	MAHLGUTKASTEN	GRANULE BIN		8B500211	1		
						8B500212			
						8B500213			
						8B200814			
						8B006079			
2	GLIDSKENA	GLISSIERE	GLEITSCHIENE	SLIDE		8B200811	2		
						8B200812			
						8B200813			
						8B200814			
3	UTLOPP	POT D'ASPIRATION	AUSGANG MAHLGUTKASTEN	GRANULE BIN OUTLET		8B190701	1		
						8B001668			
4	UTLOPPSRÖR	CANNE D'ASPIRATION	AUSLASSROHR	SUCTION PIPE D=38		8B190702	1		
						8B006589			
5	MUTTER	ÉCROU	MUTTER	NUT KNURLED LN26 A2 24-M6		9-94365	1		
						9-94365			
6	BULTKOPPLING	COLLIER DE SERRAGE	BOLZEN KUPP-KUNG	BOLT COUPLING JB120		9-93533	1		
						9-92926			
7	SKRUV	VIS	SCHRAUBE	SCREW K6S MÖBEL NV5 M6X26 FZB		9-94548	1		
						9-40803			
8	SKRUV	VIS	SCHRAUBE	SCREW SHS MC6S 6X16		9-40039	6		



Granule bin Big, NCM 1-4 (option)

P	SE	FR	DE	GB - DETAIL	SPECIFI-CATION	ART NO	Q	M	V
1	GRANU-LATLÅDA, STOR	TRÉMIE GRAND MODELE	MAHLGUTAS	GRANULE BIN		8B190721	1		
						8B001149			
						8B001150			
						8B001151			
						8B005306			
2	GLIDSKENA	GLISSIERE	GLEITSCHIENE	SLIDE		8B200811	2		
						8B200812			
						8B200813			
						8B200814			
3	UTLOPP	POT D'ASPIRATION	AUSGANG MAHLGUTKAS-TEN	GRANULE BIN OUTLET		8B190701	1		
						8B001668			
4	UTLOPPSRÖR	CANNE D'ASPIRATION	AUSLASSROHR	SUCTION PIPE D=38		8B190702	1		
						8B006589			
5	MUTTER	ÉCROU	MUTTER	NUT KNURLED LN26 A2 24-M6		9-94365	1		
6	BULTKOPPLING	COLLIER DE SERRAGE	BOLZEN KUPPLUNG	BOLT COUPLING JB120		9-93533	1		
						9-92926			
7	SKRUV	VIS	SCHRAUBE	SCREW K6S MÖBEL NV5 M6X26 FZB		9-94548	1		
						9-40803			
8	SKRUV	VIS	SCHRAUBE	SCREW SHS MC6S 6X16		9-40039	6		
9	FÖNSTER	FENETRE	FENSTER	WINDOW GRANULE BIN	150X70X4	8B000875	2		
					80X70X4	8B000876			
10	SKRUV	VIS	SCHRAUBE	SLOTTED SCREW MFS 4X12 CS		9-40332	16		
11	MUTTER	ÉCROU	MUTTER	NUT LOC-KING M 4 LOW DIN 985		9-40315	16		

Transmission 0.75 kW or 1.5 kW, NCM 1-4

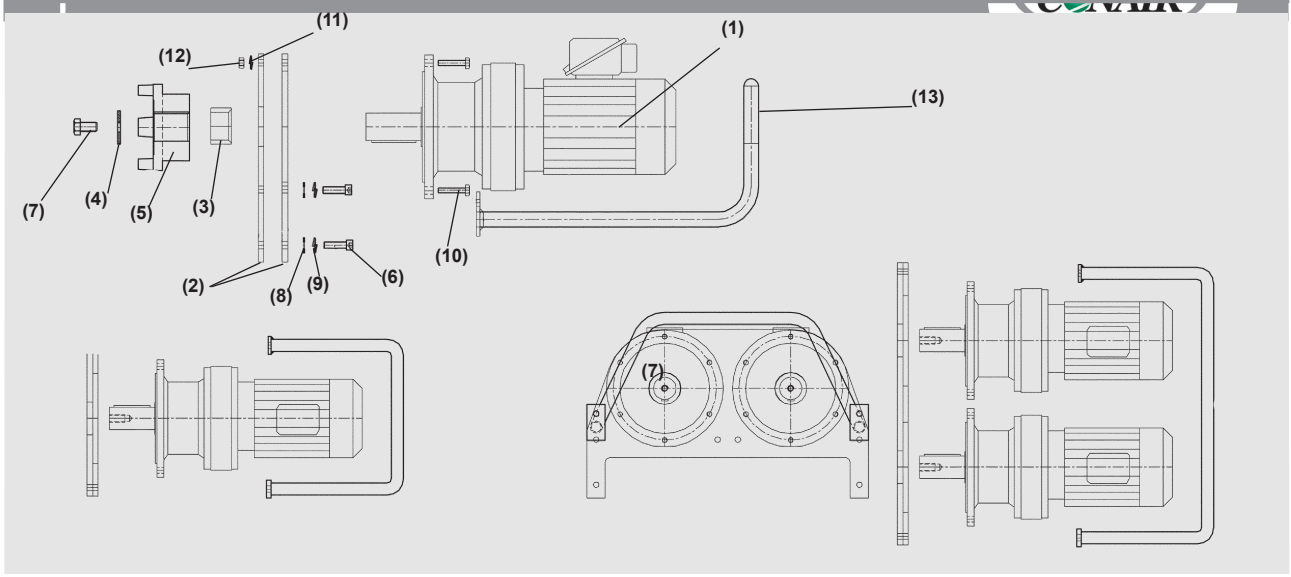


P	SE	FR	DE	GB - DETAIL	SPECIFI-CATION	ART NO	Q	M	V
1	MOTOR	MOTEUR	MOTOR	GEAR MOTOR BONFIG-LIOLI	SE BELOW*	9-94359	1	ALL	0,75
						9-94360			1,5
2	FÄSTE	PLAQUE SUPPORT	BEFESTIGUNG	MOTOR MOUNTING BRACKET		8B009898	1	ALL	0,75
						8B009897			1,5
3	DISTANS	ENTRETOISE	DISTANZHALTER	DISTANCE D=50/35.1-28		8B009852	1	ALL	0,75
						8B009553			1,5
4	BRICKA	RONDELLE	SCHEIBE	WASHER D=50/10,2-5		8B002268	1	ALL	0,75
						8B009687			1,5
5	KOPPLING	DEMI-ACCOUPLE-MENT	KUPPLUNG	COUPLING MOTOR		8B009823	1	ALL	0,75
						8B000575/1			1,5
6	SKRUV	VIS	SCHRAUBE	SCREW SHS MC6S 8X25		9-40097	4	ALL	0,75
						9-40285			1,5
7	SKRUV	VIS	SCHRAUBE	SCREW HHS M6S 12X50		9-40056	8	ALL	
8	BRICKA	RONDELLE	SCHEIBE	WASHER BRFB 13 X 24 X 2,5		9-40816	4	ALL	0,75
						9-40816	8		1,5
9	BRICKA	RONDELLE	SCHEIBE	WASHER BRB 8,4 FZB		9-40162	4	ALL	0,75
	MEDRÄKNAD I P8	VOIR P8	SIEHE P8	INCLUDED IN (PUNKT) P8		SEE P8	-		1,5
10	SKRUV	VIS	SCHRAUBE	SCREW SHS MC6S 10X50		9-40003	1	ALL	0,75
	MEDRÄKNAD I P7	VOIR P7	SIEHE P7	INCLUDED IN (PUNKT) P7		SEE P 7	-		1,5
11	FÄSTE NÖD-STOPP	SUPPORT BCP	NOT-AUSSC-HALTER	BRACKET EMERGENCY STOP		8B009554	1	ALL	
(0,75 = MOTOR 0,75 KW) (1,5 = MOTOR 1,5 KW)									

DIFFERENT MOTOR TYPES:
200-219 V, 50 HZ 200-230 V, 60 HZ 220-240 V, 50 HZ 380 V, 60 HZ 380-420 V, 50 HZ 440-480 V, 60 HZ 575 V, 60 HZ

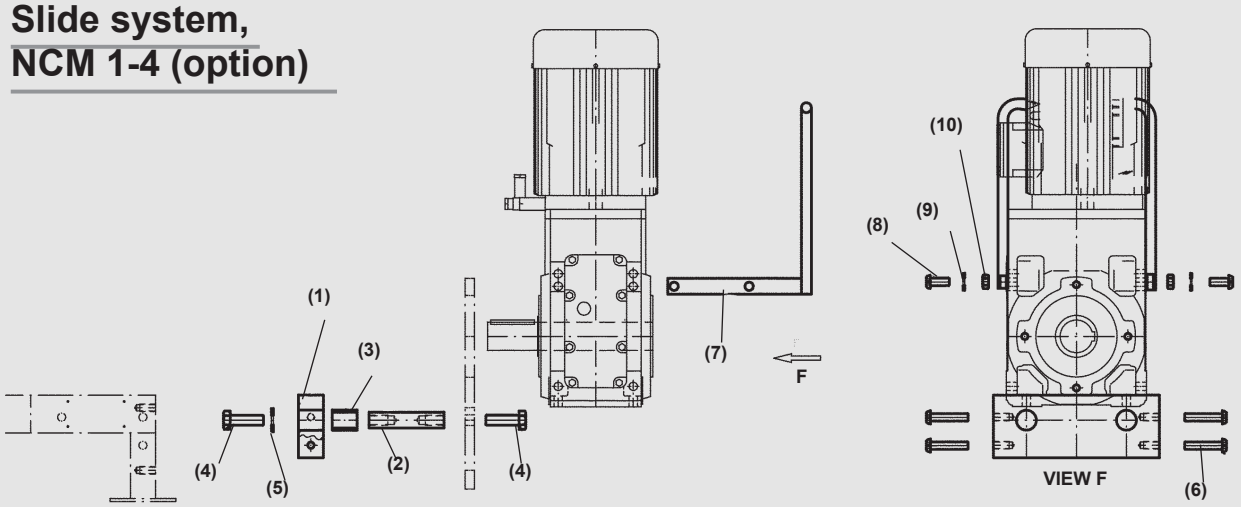
EVERY TYPE EXIST WITH 0,75 KW ODER 1,5 KW

Transmission Sumitomo 2.2 kW, NCM 1-4



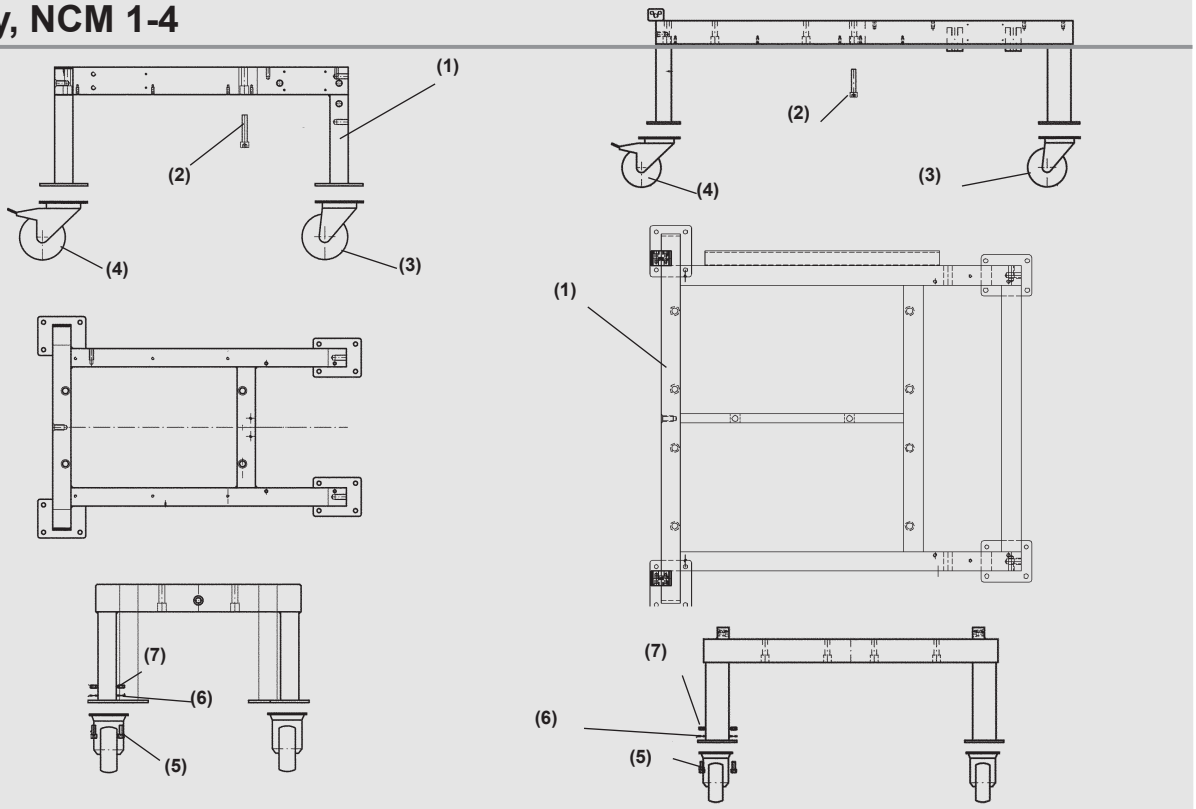
P	SE	FR	DE	GB - DETAIL	SPECIFI-CATION	ART NO	Q	M	V
1	MOTOR	MOTEUR	MOTOR	GEARMOTOR SUMITOMO CHVMS33 6145 E I=59 23.8 RPM 2,2 KW 4P, 230/240 V 50 HZ		932-01-RA	1		
2/1	FÄSTE	PLAQUE SUPPORT	BEFESTIGUNG	MOTOR MOUNTING BRACKET SIDE GEARMO-TOR		932-02/1-R14	1		
						932-02/1-RT			
2/2	FÄSTE	PLAQUE SUPPORT	BEFESTIGUNG	MOTOR MOUNTING BRACKET SIDE ABDECK-UNG		932-02/2-R14	1		
						932-02/2-RT			
3	DISTANS	ENTRETOISE	DISTANZHALTER	DISTANCE D=65/50,1-37	S235	932-03-RA	1		
							2		
4	BRICKA	RONDELLE	SCHEIBE	WASHER D16XD60X6	S235	8B000572	1		
							2		
5	KOPPLING	DEMI-ACCOUPLE-MENT	KUPPLUNG	KUPPLUNG MOTOR D50	ENGJS 400.12	8B009946	1		
							2		
6	SKRUV	VIS	SCHRAUBE	SCREW SHS MC6S 12X40	S235	9-40050	4		
							6		
7	SKRUV	VIS	SCHRAUBE	SCREW HHS M6S 16X30	12.9	9-40427	1		
							2		
8	BRICKA	RONDELLE	SCHEIBE	WASHER BRB 12,0		9-40640	4		
							6		
9	BRICKA	RONDELLE	SCHEIBE	SCHEIBE GROWER 12		9-94541	4		
							6		
10	SKRUV	VIS	SCHRAUBE	SCREW SHS MC6S 10X40	12.9	9-40906	6		
				SCREW SHS MC6S 10X50		932-10-RT	12		
11	BRICKA	RONDELLE	SCHEIBE	WASHER FBB 10,2		9-40198	6		
							12		
12	MUTTER	ÉCROU	MUTTER	NUT H10		932-12-RA	6		
							12		
13	HANDTAG	POIGNÉE	GRIFF	HANDEL		932-13-RA	1		

Slide system, NCM 1-4 (option)



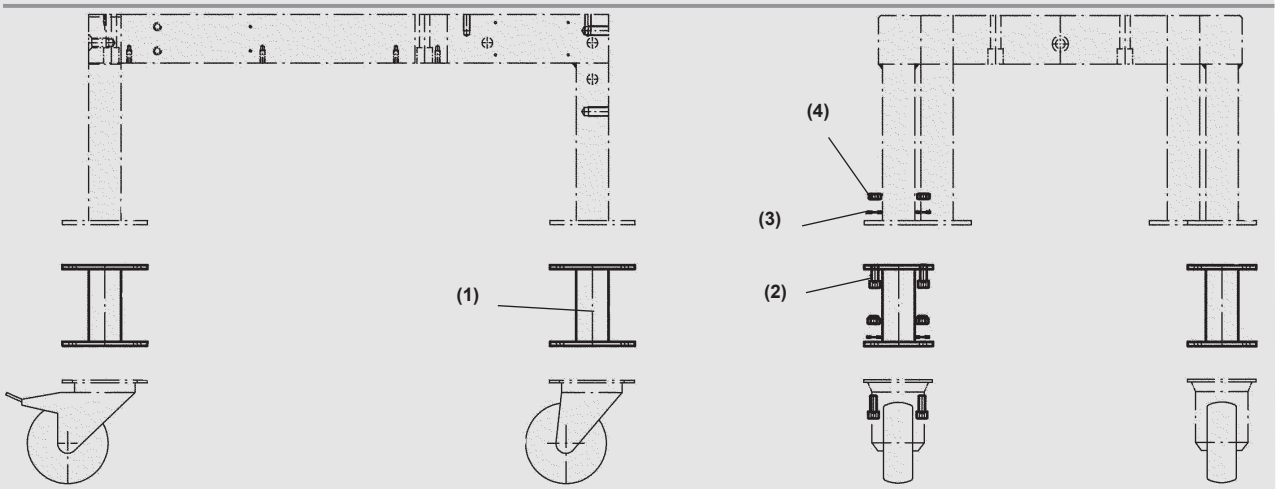
P	SE	FR	DE	GB - DETAIL	SPECIFI-CATION	ART NO	Q	M	V
1	FÄSTE	TRAVERSE AR DE CHASSIS	BEFESTIGUNG	SUPPORT SLIDE	S235	8B009784	1		
2	AXEL	ARBRE	ACHSE	SHAFT SLIDE	E335	8B009602	2		
3	DISTANS	BAGUE	DISTANZHALTER	DISTANCE D=32/25,2-40	BP25	8B009714	2		
4	SKRUV	VIS	SCHRAUBE	SCREW HHS M6S 16X30		9-40427	4		
5	BRICKA	RONDELLE	SCHEIBE	WASHER BRB 17,0		9-40035	2		
6	SKRUV	VIS	SCHRAUBE	SCREW SHS MC6S 12X60		9-40048	4		
7	HANDTAG	POIGNÉE	GRIFF	HANDLE MOTOR 0,75KW	S235	8B009853	1		0,75
						8B009854			1,5
8	SKRUV	VIS	SCHRAUBE	SCREW SHS MC6S 8X20		9-40070	4		
9	BRICKA	RONDELLE	SCHEIBE	WASHER BRB 8,4 FZB		9-40162	4		
10	MUTTER	ÉCROU	MUTTER	NUT LOC-KING M 8		9-40317	4		
(0,75 = MOTOR 0,75 KW) (1,5 = MOTOR 1,5 KW)									

Body, NCM 1-4

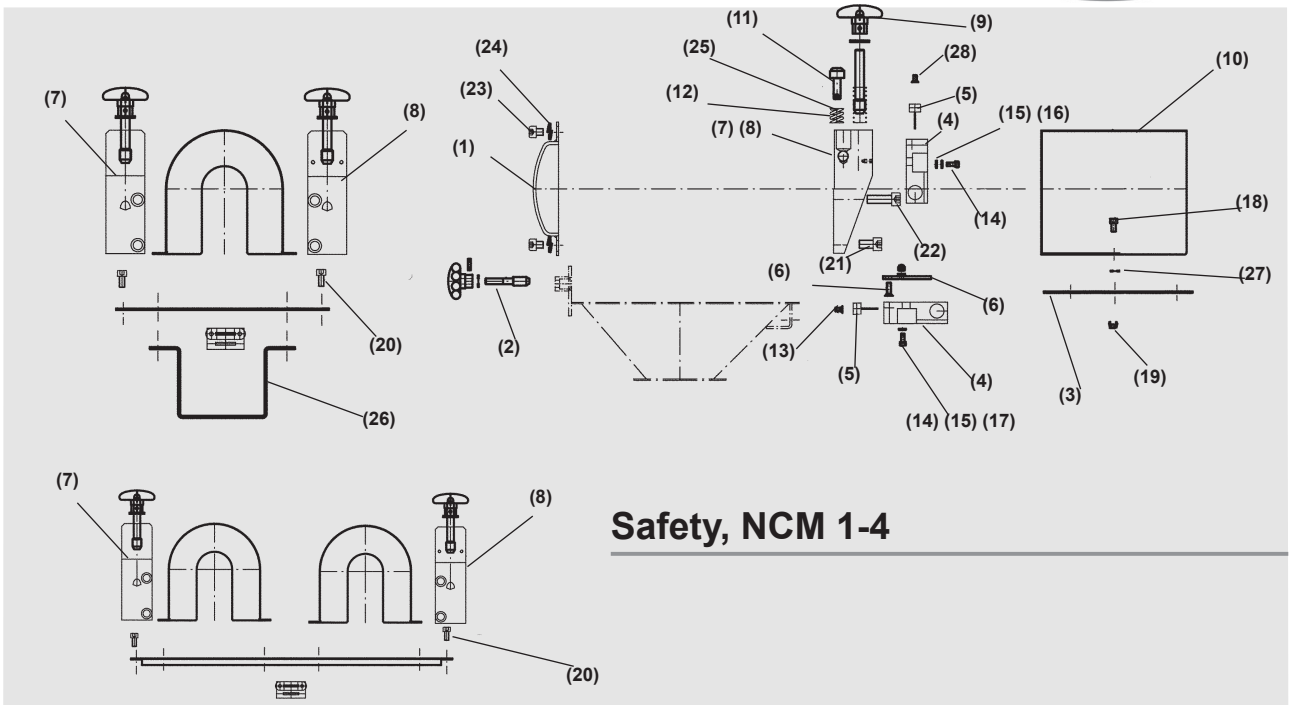


P	SE	FR	DE	GB - DETAIL	SPECIFI-CATION	ART NO	Q	M	V
1	STATIV	CHASSIS	GESTELL	STAND ACP SLIDE		8B009780	1		
						8B009781			
						8B009782			
						8B009783			
						8B000210			
2	SKRUV	VIS	SCHRAUBE	SCREW SHS MC6S 12X60		9-40048	4		
							10		
3	HJUL	ROULETTE	RAD	CASTOR 3370POR100P62		9-94418	2		
						934-03-RT			
4	HJUL LÅSBAR	ROULETTE	LAUFROLLE MIT BREMSE	CASTOR 3377POR100P62 BRAKE		9-94417	2		
						934-04-RT			
5	SKRUV	VIS	SCHRAUBE	SCREW SHS MC6S 8X20		9-40070	16		
6	BRICKA	RONDELLE	SCHEIBE	WASHER BRB 8,4 FZB		9-40162	16		
7	MUTTER	ÉCROU	MUTTER	NUT LOC-KING M 8		9-40317	16		

Body extension, NCM 1-4 (option)

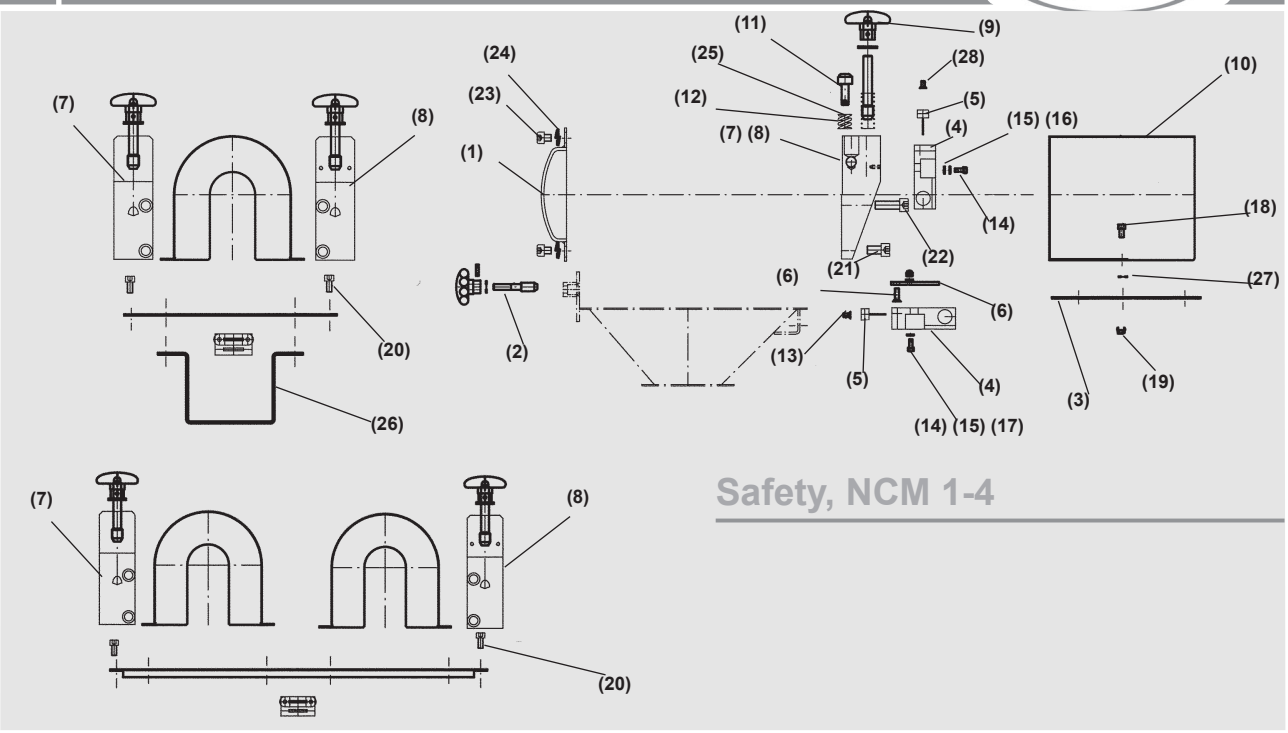


P	SE	FR	DE	GB - DETAIL	SPECIFI-CATION	ART NO	Q	M	V
1	FÖRLÄNGNING BEN	RÉHAUSSE	BEIN-VERLÄNGERUNG	EXTENSION LEG, S235	H=190	8B001206	4		
					H=190	8B001206			
					H=100	8B001208			
					H=100	8B001208			
					H=100	8B002870			
2	SKRUV	VIS	SCHRAUBE	SCREW SHS MC6S 8X20	12.9	9-40070	16		
3	BRICKA	RONDELLE	SCHEIBE	WASHER BRB 8,4 FZB	12.9	9-40162	16		
4	MUTTER	ÉCROU	MUTTER	NUT LOC-KING M 8		9-40317	16		



Safety, NCM 1-4

P	SE	FR	DE	GB - DETAIL	SPECIFI-CATION	ART NO	Q	M	V
1	SKYDD	CABOCHON BOUT D'ARBRE	DECKEL	PROTECTION ROTOR	E335	8B204220	1		
							2		
2/1	SKRUV	VIS DE FERMETURE TREMIE	SCHRAUBE	BREAKING SCREW BIN	42CRM04	8B201110	1		
2/2	STJÄRNVRED	POIGNÉE	STERNGRIFF	STAR KNOB GN 6336.1 E 50-M8		9-94366	1		
2/3	BRICKA	RONDELLE	SCHEIBE	WASHER BRB 8,4 FZB		9-40162	1		
2/4	SPÄNNSTIFT	GOUPILLE ELASTIQUE	SPANNSTIFT	SPRING PIN FRP 4 X 16		9-94376	1		
3	SKYDD	PLAQUE SOUS CARTER	DECKEL	PROTECTION LOWER COUPLING	S235	8B200461	1		
						8B000272	1		
4	BRYTNYCKEL	BLOC DE SÉCU	SICHERUNGS-BLOCK	SICHERHEIT SWITCH AZ16-03ZVK-M16		9-94409	2		
5	NYCKEL	CLÉ	SCHLÜSSEL	KEY OPERATOR CLAMP SCH B3		9-11575	1		
6	FÄSTE	SUPPORT SÉCU TRÉMIE	BEFESTIGUNG	BRACKET SWITCH GRANULE BIN	S235	8B500110	1		
7	FÄSTE	FERMETURE GAUCHE	BEFESTIGUNG	BRACKET BREAKING SCREW	E335	8B005277	1		
8	FÄSTE	FERMETURE DROITE POUR SÉCU	BEFESTIGUNG	BRACKET BREAKING SCREW SWITCH	E335	8B005276	1		
9/1	SKRUV	VIS DE FERMETURE GOULOTTE	SCHRAUBE	BREAKING SCREW HOPPER	42CRM04	8B001521	2		
9/2	STJÄRNVRED	POIGNÉE	STERNGRIFF	STAR KNOB GN 6335.1 E63-M12		9-50532	2		
9/3	BRICKA	RONDELLE	SCHEIBE	WASHER BRB 13,0		9-40155	2		
9/4	SPÄNNSTIFT	GOUPILLE ELASTIQUE	SPANNSTIFT	SPRING PIN FRP 4 X 20		9-50046	2		
							4		
9/5	FJÄDER	RESSORT DE FERMETURE	FEDER	SPRING CLOSING SCREW D18X50X1,		-	0		
						9-94377	4		



Safety, NCM 1-4

P	SE	FR	DE	GB - DETAIL	SPECIFI-CATION	ART NO	Q	M	V
10	SKYDD	CARTER ACP	DECKEL	PROTECTION UPPER COUPLING	S235	8B001630	1		
11	LYFTANDE DEL	POUSSOIR	STÖPSEL	LIFTING DEVICE	E335	8B001522	2		
12	FJÄDER	RESSORT	FEDER	COMPRESSION SPRING	D=19/11,8-312.9	8B002233	2		
13	SKRUV	VIS	SCHRAUBE	SCREW SHS MF6S 5X12 10.9	12.9	9-40922	4		
14	SKRUV	VIS	SCHRAUBE	SCREW SHS MC6S 5X25	12.9	9-40250	4		
15	BRICKA	RONDELLE	SCHEIBE	WASHER BRB 5,3 FZB		9-40243	6		
16	BRICKA	RONDELLE	SCHEIBE	WASHER FBB 5,1		9-40181	2		
17	MUTTER	ÉCROU	MUTTER	NUT LOC-KING M 5		9-40267	2		
18	SKRUV	VIS	SCHRAUBE	SCREW SHS MC6S 6X20		9-40104	2		
19	MUTTER	ÉCROU	MUTTER	NUT CAR SMG M6-8		9-94535	2		
20	SKRUV	VIS	SCHRAUBE	SCREW SHS MC6S 8X16	12.9	9-40032	4		
21	SKRUV	VIS	SCHRAUBE	SCREW SHS MC6S 12X20	12.9	9-40236	4		
22	SKRUV	VIS	SCHRAUBE	SCREW SHS MC6S 12X35	12.9	9-40075	4		
23	SKRUV	VIS	SCHRAUBE	SCREW SHS K6S 10X12	12.9	9-40810	2		
24	BRICKA	RONDELLE	SCHEIBE	WASHER SCHNORR BR. M10 FORM S		9-40978	2		
25	SPÄNNSTIFT	GOUPILLE ELASTIQUE	SPANNSTIFT	SPRING PIN FRP 4 X 20		9-50046	2		
26	SKYDD	CABOCHON	DECKEL	PROTECTION ABS	S235	8B005584			
27	BRICKA	RONDELLE	SCHEIBE	SCHEIBE BRB 6,4 FZB		9-40169			
28	NYCKEL	CLÉ	SCHLÜSSEL	KEY W DUST KIT SCHMERSAL		9-11004	1		

We're Here to Help

Conair has made the largest investment in customer support in the plastics industry. Our service experts are available to help with any problem you might have installing and operating your equipment. Your Conair sales representative also can help analyze the nature of your problem, assuring that it did not result from misapplication or improper use.

Additional manuals and prints for your Conair equipment may be ordered through the Customer Service or Parts Department for a nominal fee. Most manuals can be downloaded free of charge from the product section of the Conair website. www.conairgroup.com

How to Contact Customer Service

To contact Customer Service personnel, call:

✎ **NOTE:** Normal operating hours are 8:00 am - 5:00 pm (EST). After hours emergency service is available at the same phone number.

You can commission Conair service personnel to provide on-site service by contacting the Customer Service Department.

Before You Call...

If you do have a problem, please complete the following checklist before calling Conair:

- ❒ Make sure power is supplied to the equipment.
- ❒ Make sure that all connectors and wires within and between control systems and related components have been installed correctly.
- ❒ Check the troubleshooting guide of this manual for a solution.
- ❒ Thoroughly examine the instruction manual(s) for associated equipment, especially controls. Each manual may have its own troubleshooting guide to help you.
- ❒ Check that the equipment has been operated as described in this manual.
- ❒ Check accompanying schematic drawings for information on special considerations.

Equipment Guarantee

Conair guarantees the machinery and equipment on this order, for a period as defined in the quotation from date of shipment, against defects in material and workmanship under the normal use and service for which it was recommended (except for parts that are typically replaced after normal usage, such as filters, liner plates, etc.). Conair's guarantee is limited to replacing, at our option, the part or parts determined by us to be defective after examination. The customer assumes the cost of transportation of the part or parts to and from the factory.

Performance Warranty

Conair warrants that this equipment will perform at or above the ratings stated in specific quotations covering the equipment or as detailed in engineering specifications, provided the equipment is applied, installed, operated and maintained in the recommended manner as outlined in our quotation or specifications.

Should performance not meet warranted levels, Conair at its discretion will exercise one of the following options:

- Inspect the equipment and perform alterations or adjustments to satisfy performance claims. (Charges for such inspections and corrections will be waived unless failure to meet warranty is due to misapplication, improper installation, poor maintenance practices or improper operation.)

- Replace the original equipment with other Conair equipment that will meet original performance claims at no extra cost to the customer.

- Refund the invoiced cost to the customer. Credit is subject to prior notice by the customer at which time a Return Goods Authorization Number (RGA) will be issued by Conair's Service Department. Returned equipment must be well crated and in proper operating condition, including all parts. Returns must be prepaid.

Purchaser must notify Conair in writing of any claim and provide a customer receipt and other evidence that a claim is being made.

Warranty Limitations

Except for the Equipment Guarantee and Performance Warranty stated above, Conair disclaims all other warranties with respect to the equipment, express or implied, arising by operation of law, course of dealing, usage of trade or otherwise, including but not limited to the implied warranties of merchantability and fitness for a particular purpose.