



MAGNATTACK
WHEN RELIABILITY MATTERS

Magnattack[®] Magnetic Separators Product Manual

Installation, Operating, Cleaning and Safety Instructions

International Support

16 Prince of Wales Avenue
Unanderra NSW 2526 Australia

ABN 59 171 188 983
Phone +61 2 4272 5527
magnets@magnattackglobal.com
www.magnattackglobal.com

United States Support

14250 Judicial Road
Burnsville, MN 55306 USA

Phone +1 630-994-3310
usamagnets@magnattackglobal.com
www.magnattack.com

Table of Contents

Safety in Handling Magnets	3
Safety Instructions	5
General Installation Instructions	6
Pressure Pipeline Separator (PPS) Installation, Operation and Cleaning Instructions	7
Emulsion & Slurry Pipeline Separator (ESPS) Installation, Operation and Cleaning Instructions	8
Rapidclean® Installation, Operating and Cleaning Instructions	10
Rapidclean® Installation, Operating and Cleaning Instructions - Drawer Model	11
Rapidclean® Installation, Operating and Cleaning Instructions - Tubular Model	16
Rapidclean® Installation, Operating and Cleaning Instructions - Rotary Model	20
Rapidclean® Magnetic Separator Replacement/Spare Parts	24
Rapidclean® Cleaning Tool Wiper Assembly Procedure	26
Mag-Ram® Self-Cleaning Magnetic Separator Installation, Operating and Cleaning Instructions	27
Mag-Ram® Self-Cleaning Magnetic Separator Controls - Type 5	36
Mag-Ram® Self-Cleaning Magnetic Separator Replacement/Spare Parts	40
Bullnose/Round Nose Plate Magnet Installation, Operating and Cleaning Instructions	42
Dual Round/Round Nose Plate Magnet Installation, Operating and Cleaning Instructions	43
Flat Face Plate Magnet Installation, Operating and Cleaning Instructions	44
Spherical Pneumatic Transfer Magnet Installation, Operating and Cleaning Instructions	45
Spherical Pneumatic Transfer Magnet Replacement/Spare Parts	50
Powder Transfer Magnetic Separator Installation, Operating and Cleaning Instructions	51
HACCP Certificate	52
Emulsion & Slurry Pipeline Separator USDA Dairy-Grade Certificate - Dairy-Grade Models Only	54
Round Pipe Separator USDA Dairy-Grade Certificate - Dairy-Grade Models Only	56
Rapidclean® Magnetic Separator USDA Dairy-Grade Certificate - Dairy-Grade Models Only	57
Rapidclean® Magnetic Separator Alliance Seal Certificate - Dairy-Grade Only	58
Rapidclean® Magnetic Separator Door Seal Certificate - Dairy-Grade Only	59
Rapidclean® Magnetic Separator Adhesive Sealants Certificate - Dairy-Grade Only	60
Mag-Ram® Self-Cleaning Magnetic Separator USDA Dairy-Grade Certificate - Dairy-Grade Models Only	66
Mag-Ram® Self-Cleaning Magnetic Separator Cylinder - USDA Dairy-Grade Certificate	67
Mag-Ram® Self-Cleaning Magnetic Separator Polyurethane Seals - USDA Dairy-Grade Certificate	68
Mag-Ram® Self-Cleaning Magnetic Separator Garlock Gylon Compliance Statement	69
Mag-Ram® Self-Cleaning Magnetic Separator FDA EPDM Rubber Sheet	70
Spherical In-Line Pneumatic Transfer Magnet Permabond Engineering Adhesives	72
Spherical In-Line Pneumatic Transfer Magnet Silicone Rubber FDA 21 Test	75
Sanitary Powder Transfer Magnet Separator USDA Dairy-Grade Certificate - Dairy-Grade Models Only	76
Magnet Validation Brochure	77
Magnattack Magnet Warranty Statement	79
USA Terms and Conditions for Supply of Goods or Services	80
AU Terms and Conditions for Supply of Goods or Services	85

Safety in Handling Magnets

CAUTION

Magnet Information Warning Sheet - M21.798

This warning must be read before handling or operating a permanent magnet or magnetic assembly.

In some circumstances, strong permanent magnets or magnetic assemblies can be dangerous and may cause injury or inconvenience to persons or property.

ACCIDENTAL INJURIES CAUSED BY HANDLING PERMANENT MAGNETS

- Magnets can fly together or to steel objects causing severe pinching or lacerations to the skin.
- Magnets can shatter on impact causing eye injury. Eye protection must be worn when handling.
- Children must not be permitted to handle or play with magnets.
- Avoid flame or heating, grinding, or cutting of magnets. These procedures carry a risk of oxygen absorption and possible shattering. Enclosed magnets may explode if heated.



OTHER HEALTH CONSIDERATIONS

Long-term daily handling of permanent magnets may represent a health risk. These health risks are discussed in *British Pre-Standard No. 50166-1* or *University of California San Diego Magnetic Safety guidelines*. We conclude from this Standard that there is usually no danger to operators occasionally cleaning or handling magnets with static magnetic field levels up to 20,000 gauss or 2 Tesla. A fact sheet ICNIRP 'Guidelines On Limits Of Exposure To Static Magnetic Fields' can also be referred to on this subject.

However, as a general precaution, we recommend:

- Avoid unnecessary handling and uninformed handling/assembly of magnets.
- Avoid long-term close body contact with strong magnets.
- Keep strong magnets away from the head, eyes, heart, and trunk.
- Continuous daily exposure should not exceed 2,000 gauss or 0.2 tesla.
- Maximum one-off exposure should not exceed 20,000 gauss or 2 tesla.
- Persons with cardiac pacemakers, other sensitive devices implanted in the body, or metallic prosthetic implants must not handle or come into proximity of magnets. A medical opinion from a specialist must be sought before such persons handle magnets or come into close contact with magnets or magnetic fields.
- Persons with cardiac pacemakers **MUST NOT** allow magnets within proximity of their chest or be in an environment above .5mt (5 gauss).
- As a general guide, **persons with cardiac pacemakers should not come closer than 12" / 300mm from the working or field throwing face of magnets** such as small plate magnets, grate magnets, probe magnets, magnet bars, spherical magnets, etc.



Note: There are other magnets such as suspension magnets, magnetic drums, pulleys, overband and cross belt magnets, etc which could require the minimum distance to be up to 2 metres. When in doubt a gauss chart should be undertaken.

Safety in Handling Magnets (Continued)

CAUTION

DAMAGE TO ELECTRONIC EQUIPMENT

Permanent magnets can cause damage to electronic equipment including, but not limited to:

- Smart Cards including credit cards, phone and gift cards
- Computer equipment, laptops, tablets, cell phones, smart watches & cameras
- Video, cassette, and audio tapes



Close contact can erase stored information. Keep magnets away from electronic equipment.

Note: *Magnattack® Global can advise on the insulation of vulnerable items.*

TRANSPORT OF MAGNETS - 'DANGEROUS GOODS'

- Strong magnets may affect navigation instruments in an aircraft.
- If air-freighting magnets, please advise freight agents, airlines and consult your Dangerous Goods Management Authority. Magnets should usually be road-freighted if possible, and your freight company must be provided with a copy of this 'Safety and Handling Magnets' sheet.
- We can advise on or provide special insulation packaging that satisfies transport regulations.

DISCLAIMER

Please note this sheet is presented without prejudice and with the compliments of Magnattack® Global.

We specifically remind you that it is your responsibility, under the Workplace Health & Safety Act, to undertake a risk assessment, review the SOP in the light of the risk assessment, make any modifications to reflect how the equipment is used at your workplace and then adequately train those people who are going to use the machine.

This document is not intended to provide comprehensive safety instructions, but to provide safety guidelines in the interests of our valued customers. You must consult the appropriate authorities as to the proper use of magnets. Please also refer to Magnattack® Global 'Terms and Conditions of Sale' which is available upon request.



Safety Instructions

- Refer to the Safety Data Sheet M21.798 (page 3 in this manual) on safety in handling magnets.
- No persons with pacemakers, medical implants, or prosthetics should remove, clean, or come within 300mm/12" of the magnets.
- Observe safety instructions on labels affixed to magnetic separator. Contact Magnattack® Global for replacements when legibility becomes poor.
- Observe instructions on safety warning stickers included in this manual. Contact Magnattack® Global for replacements when legibility becomes poor.
- Never weld or apply flame heat on a magnet as it may explode resulting in serious injury or death.
- **Caution:** Only handle, remove, carry, or clean 1 magnet probe at a time.
- Keep magnets probes away from each other and away from magnetic surfaces at all times.
- If taking magnet probes to a remote cleaning location, it is recommended to use a sanitary cart designed with an opening in which to place the magnet. Always keep magnet probes separate from each other. Remove only 1 magnet at a time from the sanitary cart and reinstall before removing another magnet. **Note:** Magnattack Global technicians can discuss an appropriate cart to meet your needs. The cart should include a contaminated side separated from a sanitized side.
- Sharp fragments may be held tightly to the magnets. Take care not to cut fingers during cleaning.

Safety Warning Stickers/Signs

Please attach the provided safety warning stickers in the vicinity of this magnet installation.

For additional stickers/signs, please contact Magnattack® Global.



Code # SST-80120-ITE
(Not to size)



Code # SST-210150-PM
(Not to size)

General Installation Instructions

The following general installation instructions are an overview of proper procedure when installing a Magnattack Magnetic Separator. Please reference the individual product sections for more specific product installation instruction.

FINAL MAGNET INSTALLATION

Definition: as defined in HACCP International Food Safety Standard 0909MAGSEP 2-2021, final magnets *“are magnetic separation devices which are designed to be installed at the last possible point in a food handling process. This will be immediately preceding a process step which will render it un-flowable or immediately before the packaging process”*.

If this magnet is a final magnet, it must be installed in the correct position (as specified on the New Magnet Validation Supply Sheet RD-01 in this manual) to provide adequate protection to food products.

Most pipeline and inline type magnet units can be installed vertically, horizontally, or in a sloping position. This will not affect performance. Grate and static type magnets are best installed in a vertical section of pipeline or duct/chute where the product flows downwards through the magnet

It is important that final magnets be installed downstream of pumps, augers, and other processing equipment which may generate ferromagnetic material such as work-hardened stainless-steel fines. Final magnets should be installed upstream of metal detectors and x-ray equipment.

ESSENTIAL/CONTRIBUTING MAGNET INSTALLATION

An essential or contributing magnet is a magnet installed upstream of a final magnet to protect machinery, contributing to product security, and preventing overload of contaminants on final magnets.

NOTICE TO RESELLERS AND MAGNATTACK PARTNERS

While Dairy-Grade equipment supplied within the United States is USDA-Accepted, no additional markings or references to USDA is permitted. **This is a USDA requirement.** Any additional etching or markings on the equipment is not permitted without permission by Magnattack.

General Operating and Cleaning Instructions

Cleaning of the manually cleaned RE80® magnet systems should be conducted outside of the product stream to allow easy collection of fragments for analysis and for a full inspection of magnet probes prior to the return into the product stream. Cleaning outside of the product stream greatly reduces re-contamination risks and risks to food safety. Please refer to the individual product sections for more specific information about operating and cleaning instructions.

Pressure Pipeline Separator (PPS) Installation, Operating and Cleaning Instructions

INSTALLATION OF A PRESSURE PIPELINE SEPARATOR

Important: One magnet should be vertical and at a right angle to the pipeline.

Install in liquid lines only.



CLEANING FREQUENCY

Cleaning frequency should be determined by the customer in relation to their metal fragment contaminant collection. Magnets should be frequently cleaned to remove collected magnetic fragments.

We recommend that the frequency of cleaning be such that any build-up of magnetic material, dust, dirt, and food debris on the surface of the magnet is prevented from achieving a depth greater than 1 mm.

CLEANING METHOD

Product stream must be locked-out prior to cleaning.

The line may be flushed before cleaning with CIP liquid solutions, if applicable to the individual application.

1. Isolate product line and ensure pipeline pressure is nil.
2. Remove magnet fittings (usually Triclover or BSM; and dependent on your region).
3. Remove magnet probes from the housing and, if possible, hang up using the handle eyelet hook. Avoid banging or scaping of magnets probes on concrete, steelwork, or other magnets.
4. Clean off the collection of magnetics using the method most suited to your application. This may be wiping, washing or removing by gently picking off the metal pieces by hand (not, be careful of sharp pieces that may cause injury).
5. After probes are cleaned, return to the housing ensuring that seals are in place, and tighten fittings or clamps.
6. Re-lock, if lock is fitted.

Important: Sharp metal pieces may be held tightly to the magnet. Please take care not to cut your hands when cleaning magnets. Wear gloves when possible.

Verification/re-validation is recommended at 12-month intervals. This services is endorsed by HACCP International (refer to the certificate included with this manual) which satisfies food industry and regulatory requirements operating under a HACCP System to International Food Safety Standard 0909MAGSEP 2-2021. Active Magnetic Research Pty Ltd or HACCP International can provide copies of this Magnet Standard. **Failure to re-check magnet strengths every 12 months by a certified technician may jeopardize warranty.** To schedule a re-check or re-occurring validation of your magnets, please contact the Magnattack validations department for assistance.

Emulsion & Slurry Pipeline Separator (ESPS) Installation, Operating and Cleaning Instructions

INSTALLATION OF AN EMULSION & SLURRY PIPELINE MAGNETIC SEPARATOR

Important: One magnet should be vertical and at a right angle to the pipeline.

Install in liquid lines only.



CLEANING FREQUENCY

Cleaning frequency should be determined by the customer in relation to their metal fragment contaminant collection. Magnets should be frequently cleaned to remove collected magnetic fragments.

We recommend that the frequency of cleaning be such that any build-up of magnetic material, dust, dirt, and food debris on the surface of the magnet is prevented from achieving a depth greater than 1 mm.

CLEANING METHOD

Product stream must be locked-out prior to cleaning.

The line may be flushed before cleaning.

1. Isolate product line and ensure pipeline pressure is nil.
2. Remove magnet fittings (usually Triclover or BSM).
3. Remove magnet probes from the housing and, if possible, hang up using the handle hook. Avoid banging or scraping of magnets probes on concrete, steelwork, or other magnets.
4. Clean off the collection of magnetics.
5. After probes are cleaned, return to the housing ensuring that seals are in place, and tighten fittings or clamps.
6. Re-lock, if lock is fitted.

Important: Sharp metal pieces may be held tightly to the magnet. Please take care not to cut your hands when cleaning magnets. Wear gloves when possible.

Verification/re-validation is recommended at 12-month intervals. This services is endorsed by HACCP International (refer to the certificate included with this manual) which satisfies food industry and regulatory requirements operating under a HACCP System to International Food Safety Standard 0909MAGSEP 2-2021. Active Magnetic Research Pty Ltd or HACCP International can provide copies of this Magnet Standard. **Failure to re-check magnet strengths every 12 months by a certified technician may jeopardize warranty.** To schedule a re-check or re-occurring validation of your magnets, please contact the Magnattack validations department for assistance.

NOTICE TO RESELLERS AND MAGNATTACK PARTNERS

While Dairy-Grade equipment supplied within the United States is USDA-Accepted, no additional markings or references to USDA is permitted. **This is a USDA requirement.** Any additional etching or markings on the equipment is not permitted without permission by Magnattack.

Emulsion & Slurry Pipeline Separator (ESPS) Cleaning Instructions - **SWIFT-CLEAN MODEL ONLY**

CLEANING METHOD

Option 1 - Removing the probes from the housing.

Product stream must be locked-out prior to cleaning.

The line may be flushed before cleaning.

1. Isolate product line and ensure pipeline pressure is nil.
2. Remove magnet fittings (usually Triclover or BSM).
3. Remove magnet probes from the housing and, put in a location that is suitable for cleaning. Avoid banging or scraping of magnets probes on concrete, steelwork, or other magnets.
4. Clean off the collection of magnetics by lifting the Swift-Clean handle completely to the end of its travel so the magnets latch in their Swift-Clean position magnetically. Ensure metal collections drop off the magnet. Washing or wiping clean may be necessary depending on the product and metal collections.
5. After probes are cleaned, push Swift-Clean handles back down and ensure the pins sit in the lowest position in the 'Z-lock' fitting. Return the housing, ensuring that the seals are in place. Tighten the fittings or clamps.
6. Re-lock, if lock is fitted.

Option 2 - Cleaning in Place

1. Isolate product line and ensure pipeline pressure is nil.
2. Once the product is stopped, and before flushing, lift the Swift-Clean handle completely to the end of its travel so the magnets latch in their Swift-Clean position magnetically.
3. After flushing, push Swift-Clean handles back down and ensure the pins sit in the lowest position in the 'Z-lock' fitting.
4. Re-lock, if the lock is fitted.

Important: Sharp metal pieces may be held tightly to the magnet. Please take care not to cut your hands when cleaning magnets. Wear gloves when possible.

Verification/re-validation is recommended at 12-month intervals. This services is endorsed by HACCP International (refer to the certificate included with this manual) which satisfies food industry and regulatory requirements operating under a HACCP System to International Food Safety Standard 0909MAGSEP 2-2021. Active Magnetic Research Pty Ltd or HACCP International can provide copies of this Magnet Standard. **Failure to re-check magnet strengths every 12 months by a certified technician may jeopardize warranty.** To schedule a re-check or re-occurring validation of your magnets, please contact the Magnattack validations department for assistance.

NOTICE TO RESELLERS AND MAGNATTACK PARTNERS

While Dairy-Grade equipment supplied within the United States is USDA-Accepted, no additional markings or references to USDA is permitted. **This is a USDA requirement.** Any additional etching or markings on the equipment is not permitted without permission by Magnattack.

Rapidclean® Installation, Operating and Cleaning Instructions

FOR RAPIDCLEAN DRAWER, ROTARY AND TUBULAR MAGNETIC SEPARATORS UNLESS OTHERWISE NOTED

INSTALLATION OF RAPIDCLEAN GRATE/DRAWER MAGNETS

Installation of Rapidclean® units are typically the responsibility of the client's engineering department. For assistance or questions, please contact a Magnattack® Global technician.

Rapidclean® units are manufactured with standard top and base square flange dimensions. Additional flanges or transitions can be manufactured upon request.

For standard Rapidclean® units, headroom provision is required to swing the magnet assembly over onto the door pivot. This is required to enable sufficient room for the cleaning process.

Important: Rapidclean® units should be installed in a vertical drop-chute application only.



CLEANING OF RAPIDCLEAN GRATE MAGNETS

The Rapidclean® units are a manual-clean grate magnet designed to clean outside of the product stream. This allows for a full inspection of the bars before they are returned to the product stream, for easy collection of fragments for analysis. Cleaning outside of the product stream greatly reduces re-contamination risks. Rapidclean® Cleaning Tools enable safe and efficient cleaning. All units are supplied with a vibrator retrofit mounting option. This omits a high-frequency buzz into the bars to assist with difficult-to-flow products.

CLEANING FREQUENCY

Cleaning frequency should be determined by the customer in relation to their metal fragment contaminant collection. Magnets should be frequently cleaned to remove collected magnetic fragments and to avoid blockage.

We recommend that the frequency of cleaning be such that any build-up of magnetic material, dust, dirt, and food debris on the surface of the magnet is prevented from achieving a depth greater than 1 mm.

Verification/re-validation is recommended at 12-month intervals. This services is endorsed by HACCP International (refer to the certificate included with this manual) which satisfies food industry and regulatory requirements operating under a HACCP System to International Food Safety Standard 0909MAGSEP 2-2021. Active Magnetic Research Pty Ltd or HACCP International can provide copies of this Magnet Standard. **Failure to re-check magnet strengths every 12 months by a certified technician may jeopardize warranty.** To schedule a re-check or re-occurring validation of your magnets, please contact the Magnattack validations department for assistance.

NOTICE TO RESELLERS AND MAGNATTACK PARTNERS

While Dairy-Grade equipment supplied within the United States is USDA-Accepted, no additional markings or references to USDA is permitted. **This is a USDA requirement.** Any additional etching or markings on the equipment is not permitted without permission by Magnattack.

Rapidclean® Installation, Operating and Cleaning Instructions - DRAWER MODEL ONLY

RAPIDCLEAN CLEANING METHOD

Product stream must be locked-out prior to cleaning.

Important: If the Rapidclean® has two separate drawers (pre-2005 models and special multi-drawer units), pull out only one (1) drawer at a time at its stop position for cleaning. Complete the cleaning of the first drawer and return to its operating position before withdrawing the second drawer.

1. Unlock the Rapidclean® unit door by removing the retaining thumb screws.
2. Using the de-latching handle, slide the magnet assembly out from the housing until it rests on the stop pins located on the slide arms. This is to prevent the magnet assembly from coming away from the housing unit.
3. Swing the magnet assembly up and over to rest on its stops.
4. Ensure the magnet assembly is far enough out to prevent fragments from entering the door during the cleaning operation. We recommend using a cover plate when the system is under aspiration during magnet cleaning or if safer/otherwise required. An alternative to using a cover plate, the magnet assembly can be cleaned in its extended position.
5. If you have a Rapidclean® Cleaning Tray, position it underneath the magnet bars so that the collected fragments drop into the tray. Retaining the fragments will allow you to analyze and record the sources and types of contamination.
6. Clean the Rapidclean® bars:
 - a. Cleaning Method 'A' (preferred): push the Rapidclean® Magnet Cleaning Tool to the cone ends of the magnet bars and twist slightly so the wings of the Magnet Cleaning Tool wipe away any remaining fragments that may be sitting on the top of the structural cones. A few fragments may remain on the withdrawal of the cleaning tool. This is normal. Repeat this process for all the magnet bars until fragments have been removed. You may use a cleaning cloth to wipe away the last of the fragments if required. This method is preferred as it eliminates unhygienic hand contact and reduces the risk of hand injury caused by sharp metal fragments.
 - b. Alternate Cleaning Method 'B': using a clean cloth, wipe the fragments from the cone end to the open end of the magnet bars, then pinch off the fragments that remain on the magnet ends.
7. After cleaning is complete, swing the magnet drawer back into the stop position and insert it into the housing.
8. Securely re-lock the door and replace the thumb screws.

Any product that has caked as a hardened coating on the surface of the bars should be removed with a scouring pad. This ensures the contact surface is stainless steel.

Rapidclean® Installation, Operating and Cleaning Instructions - DRAWER MODEL ONLY

RAPIDCLEAN CLEANING METHOD



Please note: Rapidclean® units are manufactured to suit customers' individual requirements, hence the instructions/photographs may not exactly depict the Rapidclean® unit you have purchased. Please contact the Magnattack® team should you have any questions regarding the operation or cleaning of your magnets.

VARIABLE CENTER ADJUSTMENTS (if applicable)

Two people may be required for this task.

- Open the magnet assembly and swing out/over to the stop position.
- Using the variable center adjustment tool supplied, position on the end of the bars and loosen enough to adjust the bars up and down on the mounting plate seals.
- Re-tighten once the position is selected.
- Clean thoroughly and return magnet assembly to the housing.

CLEANING OF HOUSING INTERIOR/EXTERIOR

Two people may be required for this task.

- Door assembly can be removed to clean slides and runners.
- Blow out drawer slides occasionally as needed.
- Dismantle annually or as necessary to clean all surfaces of the slides and housing, specifically when handling sticky or hygroscopic materials.
- As the end of the rapid clean drawer slide rail is made from magnetic stainless steel, there is a possibility it may discolor with time, especially if caustic or acidic wash down chemical or foam is used. If this is an issue, please contact Magnattack for instructions to rectify.

Rapidclean® Installation, Operating and Cleaning Instructions - DRAWER MODEL ONLY

MAINTENANCE INSTRUCTIONS

- Avoid temperatures over 80°C/175°F (RE80® Magnetics) or over 150°/302°F (RE80® HT Magnetics).
- Avoid prolonged immersion in water/detergent.

DOOR BUSHES

- Replace pivot bushes when worn.

DOOR SEAL REPLACEMENT

- Remove old seal.
- Clean seal groove.
- Press in the new seal with the join at the top center. Do not over-stretch - press in and stretch only as much as required.



Rapidclean® Cleaning Instructions - DRAWER MODEL ONLY

Step 1

Ensure area is clear and product stream is isolated to safely open the magnet unit.



Step 2

Undo the 2 knobs on each side of the door to access the magnet.



Step 3

Pull out the magnet drawer.



Step 4

Inspect the top of the magnet bar elements for contamination.



Step 5

Hold the top bars and fold over the housing.



Rapidclean® Cleaning Instructions - DRAWER MODEL ONLY



Step 6

Inspect the bottom of the magnet bar elements. This is the area where contamination is usually retained.



Step 7

Prepare for cleaning well away from the magnet door area to prevent contaminants re-entering product stream. A blanking cover plate is available, if necessary, eg. vacuum pressure.



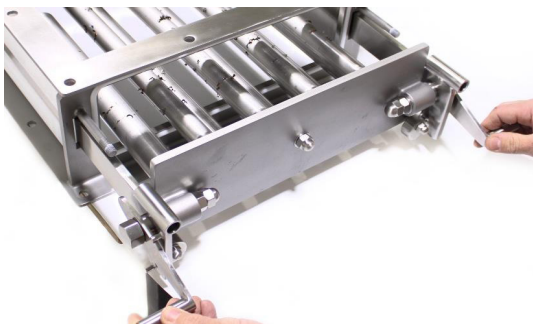
Step 8

Use the cleaning tool to clean each bar magnet by sliding the Rapidclean® cleaning tool over each bar to the base to remove the retained contaminants.



Step 9

The contaminants will fall off the magnet bars as they are wiped to the base. Ensure you use a tray or a bag to collect the fragments. A certified Lab Test Magnet can be used to further separate contamination fragments for analysis.



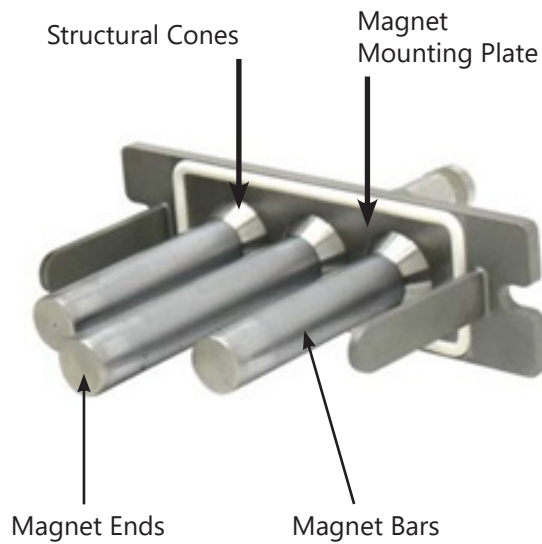
Step 10

Fold the magnet drawer over and return it to the Rapidclean® housing. Replace the knobs and ensure the door is sealed.

NOTE: For Swing-Away models, follow procedures from Step 3 after opening the door to step 9. Then close the door and secure. Wear gloves when possible.

Verification/re-validation is recommended at 12-month intervals. This services is endorsed by HACCP International (refer to the certificate included with this manual) which satisfies food industry and regulatory requirements operating under a HACCP System to International Food Safety Standard 0909MAGSEP 2-2021. Active Magnetic Research Pty Ltd or HACCP International can provide copies of this Magnet Standard. **Failure to re-check magnet strengths every 12 months by a certified technician may jeopardize warranty.** To schedule a re-check or re-occurring validation of your magnets, please contact the Magnattack validations department for assistance.

Rapidclean® Installation, Operating and Cleaning Instructions - TUBULAR MODEL ONLY



Rapidclean® Cleaning Tool

NOTICE TO RESELLERS AND MAGNATTACK PARTNERS

While Dairy-Grade equipment supplied within the United States is USDA-Accepted, no additional markings or references to USDA is permitted. **This is a USDA requirement.** Any additional etching or markings on the equipment is not permitted without permission by Magnattack.

Rapidclean® Installation, Operating and Cleaning Instructions - TUBULAR MODEL ONLY



Step 1

Ensure area is clear and product stream is isolated to safely open the magnet unit.



Step 2

Prepare for cleaning well away from the magnet door area to prevent contaminants re-entering product stream. A blanking cover plate is available, if necessary, eg. vacuum pressure.



Step 3

Pull out the magnet drawer.

NOTICE TO RESELLERS AND MAGNATTACK PARTNERS

While Dairy-Grade equipment supplied within the United States is USDA-Accepted, no additional markings or references to USDA is permitted. **This is a USDA requirement.** Any additional etching or markings on the equipment is not permitted without permission by Magnattack.

Rapidclean® Installation, Operating and Cleaning Instructions - TUBULAR MODEL ONLY

Step 4

Place magnet in cleaning station:

1. Housing mounted

OR

2. Bench mounted cleaning station for cleaning away from opening.

Inspect the bottom of the magnet bar elements. This is the area where contamination is usually retained.

Prepare for cleaning well away from the magnet door area to prevent contaminants from re-entering the product stream. Blanking cover plate is available, if necessary, eg. vacuum pressure.



Step 5

Use the cleaning tool to clean each bar magnet by sliding the Rapidclean® cleaning tool over each bar to the base to remove the retained contaminants.



Rapidclean® Installation, Operating and Cleaning Instructions - TUBULAR MODEL ONLY



Step 6

The contaminants will fall off the magnet bars as they are wiped to the base. Ensure you use a tray or a bag to collect the fragments. A certified Lab Test Magnet can be used to further separate contamination fragments for analysis.



Step 7

Return the magnet drawer back into the Rapid clean® housing. Replace the knobs and ensure the door is sealed.

Wear gloves when possible.



Verification/re-validation is recommended at 12-month intervals. This services is endorsed by HACCP International (refer to the certificate included with this manual) which satisfies food industry and regulatory requirements operating under a HACCP System to International Food Safety Standard 0909MAGSEP 2-2021. Active Magnetic Research Pty Ltd or HACCP International can provide copies of this Magnet Standard. **Failure to re-check magnet strengths every 12 months by a certified technician may jeopardize warranty.** To schedule a re-check or re-occurring validation of your magnets, please contact the Magnattack validations department for assistance.

Rapidclean® Installation, Operating and Cleaning Instructions - ROTARY MODEL ONLY

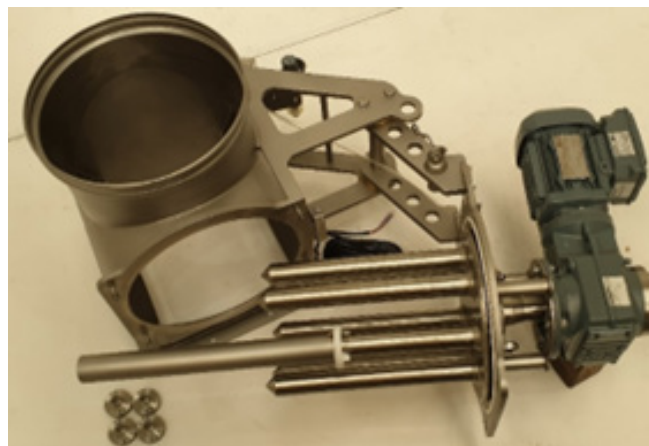
RAPIDCLEAN CLEANING METHOD

Product stream must be locked-out prior to cleaning.

1. Unlock the door by removing the retaining thumb screws.
2. Swing the magnet assembly out from the housing until it lines up with the stop pins located on the side arms. This is to prevent the magnet assembly from moving while cleaning.
3. Clean the Rapidclean® bars:
 - a. Cleaning Method 'A' (preferred): push the Rapidclean® Magnet Cleaning Tool to the cone ends of the magnet bars and twist slightly so the wings of the Magnet Cleaning Tool wipe away any remaining fragments that may be sitting on the top of the structural cones. A few fragments may remain on the withdrawal of the cleaning tool. This is normal. Repeat this process for all the magnet bars until fragments have been removed. You may use a cleaning cloth to wipe away the last of the fragments if required. This method is preferred as it eliminates unhygienic hand contact and reduces the risk of hand injury caused by sharp metal fragments.
 - b. Alternate Cleaning Method 'B': using a clean cloth, wipe the fragments from the cone end to the open end of the magnet bars, then pinch off the fragments that remain on the magnet ends.
7. After cleaning is complete, swing the magnet drawer back into the stop position and insert it into the housing.
8. Securely re-lock the door and replace the thumb screws.

Any product that has caked as a hardened coating on the surface of the bars should be removed with a scouring pad. This ensures the contact surface is stainless steel.

Please contact the Magnattack team if you have any questions regarding the operation or cleaning of your magnets.



NOTICE TO RESELLERS AND MAGNATTACK PARTNERS

While Dairy-Grade equipment supplied within the United States is USDA-Accepted, no additional markings or references to USDA is permitted. **This is a USDA requirement.** Any additional etching or markings on the equipment is not permitted without permission by Magnattack.

Rapidclean® Installation, Operating and Cleaning Instructions - ROTARY MODEL ONLY

CLEANING OF HOUSING INTERIOR/EXTERIOR

- Door assembly can be removed to clean.
- Dismantle annually or as necessary to clean all surfaces of the slides, specifically when handling sticky or hygroscopic materials.

MAINTENANCE INSTRUCTIONS

- Avoid temperatures over 80°C/175°F (RE80® Magnetics) or over 150°/302°F (RE80® HT Magnetics).
- Avoid prolonged immersion in water/detergent.

DOOR SEAL REPLACEMENT

- Remove old seal.
- Clean seal groove.
- Press in the new seal with the join at the top center. Do not over-stretch - press in and stretch only as much as required.

ELECTRICAL

- By licensed electrician, in accordance with customer specification.

VIBRATORS (if applicable)

No maintenance is recommended. Contact the manufacturer to replace vibrators in the event of damage or failure. Use white Teflon Loctite on the bolt connection when fitting or replacing the vibrator at the oscillator mount point.

NOTICE TO RESELLERS AND MAGNATTACK PARTNERS

While Dairy-Grade equipment supplied within the United States is USDA-Accepted, no additional markings or references to USDA is permitted. **This is a USDA requirement.** Any additional etching or markings on the equipment is not permitted without permission by Magnattack.

Rapidclean® Cleaning Instructions - ROTARY MODEL ONLY

Step 1

Ensure area is clear and product stream is isolated to safely open the magnet unit.



Step 2

Remove the lockout pin.



Step 3

Unscrew the knobs on each corner. Open the door of the magnet. Examine bars for contamination.



Step 4

Use the Rapidclean® Cleaning Tool to clean the magnetic bars. Rapidclean® Cleaning Tool pictured to the right.

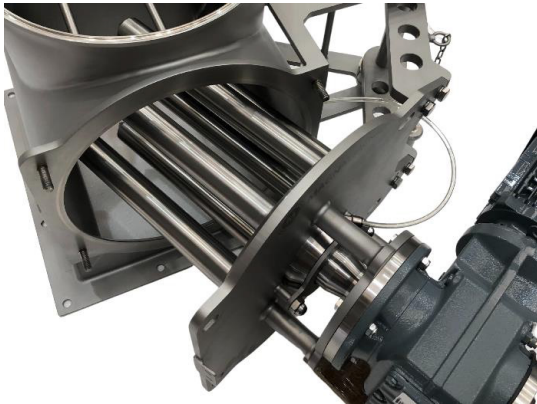


Rapidclean® Cleaning Instructions - ROTARY MODEL ONLY



Step 5

The contaminants will fall off the magnet bars as they are wiped to the base. Ensure you use a tray or a bag to collect the fragments. A certified Lab Test Magnet can be used to further separate contamination fragments for analysis.



Step 6

Close door, screw on the knobs and return the lockout pin.



Wear gloves when possible.

Verification/re-validation is recommended at 12-month intervals. This services is endorsed by HACCP International (refer to the certificate included with this manual) which satisfies food industry and regulatory requirements operating under a HACCP System to International Food Safety Standard 0909MAGSEP 2-2021. Active Magnetic Research Pty Ltd or HACCP International can provide copies of this Magnet Standard. **Failure to re-check magnet strengths every 12 months by a certified technician may jeopardize warranty.** To schedule a re-check or re-occurring validation of your magnets, please contact the Magnattack validations department for assistance.



Rapidclean® Magnetic Separator Replacement/Spare Parts

Cleaning Tools and Accessories	Part #	Image
Magnet Cleaning Tool 240 & 300 models (355mm OAL)	RCCT-240300-2535	
Magnet Cleaning Tool 240 & 300 models (355mm OAL)	RCCT-240300-35	
Magnet Cleaning Tool 240 & 300 models (355mm OAL)	RCCT-240300-25	
Magnet Cleaning Tool 360 & 420 models (465mm OAL)	RCCT-360420-2535	
Magnet Cleaning Tool 360 & 420 models (465mm OAL)	RCCT-360420-35	
Magnet Cleaning Tool 360 & 420 models (465mm OAL)	RCCT-360420-25	
Magnet Cleaning Tool 520 models (575mm OAL)	RCCT-520-2535	
Magnet Cleaning Tool 520 models (575mm OAL)	RCCT-520-35	
Magnet Cleaning Tool 520 models (575mm OAL)	RCCT-520-25	
Cleaning Tool Wiper Holder - 25mm/1"	CP25	
Cleaning Tool Wiper Holder - 25mm/1"	CP35	
Cleaning Tool Wiper Seal - 25mm/1"	PRW25 - Dairy	
Cleaning Tool Wiper Seal - 35mm/1.5"	PRW35 - Dairy	
Cleaning Tool Housing Bracket - 25/35mm (1/1.5")	CTB25/35	
Hand-Held Scoop Tray - All Size Units	RCT	
Bolt-on Scoop Tray & Contamination Canister - all size units	RCT-C	
Complete Cleaning Kit - All Size Units (includes cleaning tool, housing bracket, bolt-on scoop tray & contamination canister)	CCR-AS	

Cleaning Tools and Accessories	Part #	Details
Spare FDA Door Seal	DS-124	Sold per metre
Door Plate Bushes	RCPB	2 required per unit
Door Slides UHMWPE - 230/240	RC25	Sold per pair
Door Slides UHMWPE - 290/300	RC24	Sold per pair
Door Slides UHMWPE - 350/360	RC23	Sold per pair
Door Slides UHMWPE - 410/420	RC22	Sold per pair
Door Closure Magnets	DCM-RC	Sold per pair

Note: Please specify Rapidclean Model Number and Serial Number when ordering spare parts.

Rapidclean® Magnetic Separator Replacement/Spare Parts

Replacement Magnet Bars			
Food Grade Part Number	Food Grade Duraslik Part Number	USDA Dairy Grade Part Number	USDA Dairy Grade Dura Slik Part Number
RCBFG-240-25	RCBFGDS-240-25	RCBUSDA-240-25	
RCBFG-300-25	RCBFGDS-300-25	RCBUSDA-300-25	
RCBFG-360-25	RCBFGDS-360-25	RCBUSDA-360-25	
RCBFG-420-25	RCBFGDS-420-25	RCBUSDA-420-25	
RCBFG-520-25	RCBFGDS-520-25	RCBUSDA-520-25	
RCBFG-240-35	RCBFGDS-240-35	RCBUSDA-240-35	
RCBFG-300-35	RCBFGDS-300-35	RCBUSDA-300-35	
RCBFG-360-35	RCBFGDS-360-35	RCBUSDA-360-35	
RCBFG-420-35	RCBFGDS-420-35	RCBUSDA-420-35	
RCBFG-520-35	RCBFGDS-520-35	RCBUSDA-520-35	

Abbreviations
FG = Food Grade
FGDS = Food Grade Duraslik
USDA = Dairy Grade



Pneumatic Piston Vibrators	Part #	
Mount Size M8	FPLF - 12 - S	<p>Food grade, non-lubricated, low noise and low air usage</p>
Mount Size M8	FPLF - 12 - M	
Mount Size M8	FPLF - 12 - L	
Mount Size M10	FPLF - 18 - S	
Mount Size M10	FPLF - 18 - M	
Mount Size M10	FPLF - 18 - L	
Mount Size M10	FPLF - 18 - L	
Mount Size M12	FPLF - 25 - S	
Mount Size M12	FPLF - 25 - M	
Mount Size M12	FPLF - 25 - L	
Mount Size M12	FPLF - 35 - S	
Mount Size M12	FPLF - 35 - M	
Mount Size M12	FPLF - 35 - L	

Rapidclean® Cleaning Tool Wiper Assembly Procedure

Step 1

Firstly, place the RED Wiper Seal in the White HDPE wiper seal housing.



Step 2

Place the Wiper Housing assembly on to the cleaning tool flange and place in the two M5 Hex Head Screws through the holes.



Step 3

Place an M5 Hex Nut at the end of the Hex Head Screws and proceed to wind down until there is a 1-1.5mm gap between the hex nut and the wiper housing, then place the M5 Dome Nut and wind down until it meets the hex nut and lock tighten together (each in opposing directions) – Please note, a 1mm gap must be left between the Hex Nut and the Wiper Housing to ensure the RED Wiper Seal has enough movement to find its optimum seating position when cleaning a Rapidclean Bar.



Mag-Ram® Self-Cleaning Magnetic Separator Installation, Operating and Cleaning Instructions

FINAL MAGNET INSTALLATION

Definition: as defined in HACCP International Food Safety Standard 0909MAGSEP 2-2021, final magnets “are magnetic separation devices which are designed to be installed at the last possible point in a food handling process. This will be immediately preceding a process step which will render it un-flowable or immediately before the packaging process”.



If this magnet is a final magnet, it must be installed in the correct position (as specified on the New Magnet Validation Supply Sheet RD-01 in this manual) to provide adequate protection to food products.

The Mag-Ram unit must be installed horizontally. The magnet position must optimize product contact, so it is distributed evenly across all magnet elements. The product flow must be in a vertical fall, central to the magnet area, ensuring it is not concentrated on the magnet ends of wiper seals. The reject chute must be configured so the contaminants are free flowing away from the magnet to ensure there is no risk of blockage.

Final magnets must be installed downstream of pumps, augers, and other processing equipment which may generate ferromagnetic material such as work-hardened stainless-steel fines. Final magnets should be installed upstream of metal detectors and x-ray equipment.

ESSENTIAL MAGNET INSTALLATION

An essential magnet is a magnet installed upstream of a final magnet to protect machinery, contributing to product security, and preventing overload of contaminants on final magnets.

INSTALLATION OF A MAG-RAM SELF-CLEANING MAGNETIC SEPARATOR

Qualified riggers should arrange the installation of the Mag-Ram. Four lifting points have been provided. (refer to image #1).

Important: To avoid damage, it may be necessary to disconnect exhaust air lines and then completely remove the top inspection cover (image #2) over the magnetics collection chamber as these fittings are higher than the flanges. If attempting to position the housing between two existing flanges, failure to follow this procedure during such installation could result in impact and damage to the fittings and/or cylinders.

Important: Cylinders should always be in a horizontal orientation.

A suitable gasket or sealant should be used to prevent product leakage between the top and base flanges, including the magnetics off-chute.

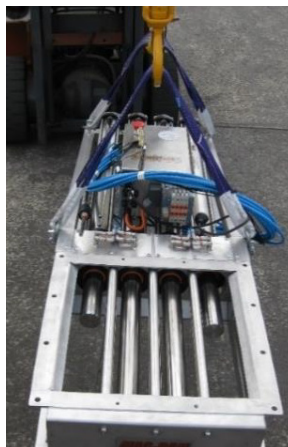


Image #1 - Lifting Points

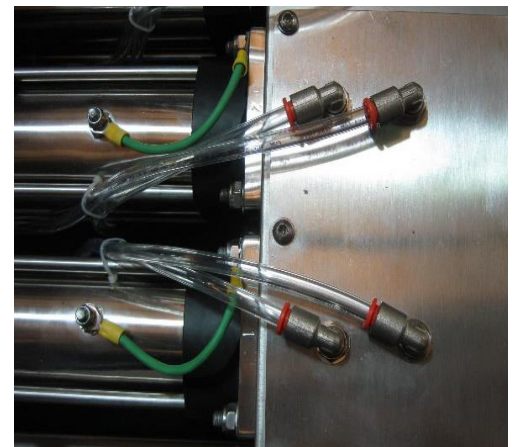


Image #2 - Inspection Cover

Mag-Ram® Self-Cleaning Magnetic Separator Installation, Operating and Cleaning Instructions

IMPORTANT INSTALLATION REQUIREMENT: CONTAMINATION CHUTE

To avoid the potential buildup of magnetics and material/product inside the contaminants chamber, the discharge chute **MUST** remain open. **DO NOT** close or seal the chute.

It is recommended that the chute be either: always open, feeding the contaminants to a separate container or piped to the floor below to another collection point (if there is adequate space available).

The product MUST NOT be allowed to accumulate and back up into the contaminants chamber.

Sealing of Contaminants Chute for Sanitary Reasons

If the chamber must be sealed for sanitary reasons, the contaminants chamber should be adequately piped to a collection point and vented to avoid pressure buildup during cleaning.

Failure to provide an adequate discharge chute may result in seals being forced off the ends of the Rams causing both seal and Ram end damage, or serious damage to the Ram cylinders.

Please note that damage as a result of insufficient discharge is not covered by the Warranty.



An example of an overloaded contaminants chamber



Example of directing the contaminants to a separate container.



Example of contaminant discharge piped to a separate collection point.

Mag-Ram® Self-Cleaning Magnetic Separator Installation, Operating and Cleaning Instructions

AIR SUPPLY

Adequate dry filtered air is to be supplied for the correct operation of the Mag-Ram system such that will be capable of maintaining 50-100 PSI operating pressure.

If necessary, speed is to be limited by suitable exhaust needle-type throttle valves (customer-supplied) to minimize the travel speed. A higher than specified travel speed will damage the turning mechanism.

- Maximum recommended travel speed of each ram – 18 cm/second
- Minimum recommended travel speed of each ram – 15 cm/second

LUBRICATION

Do not use airline lubricants.

Pistons and seals are pre-packed with high-performance food-grade grease. The special grease may be adversely affected by other lubricants.

FEED CONDITIONS

The system is designed for materials of <20mm lump size and small magnetics such as rust, magnetic stone, and magnetic fines. Occasional tramp iron up to 20mm will be separated. Large tramp iron should be separated by screening upstream and by installing plate magnet/s in the downstream chutes and/or other suitable locations.

The Mag-Ram system is not designed to separate large tramp iron. Avoid the impact of large magnetic and non-magnetic materials on the Mag-Ram. This may cause damage to the Ram and its magnetics.

NOTICE TO RESELLERS AND MAGNATTACK PARTNERS

While Dairy-Grade equipment supplied within the United States is USDA-Accepted, no additional markings or references to USDA is permitted. **This is a USDA requirement.** Any additional etching or markings on the equipment is not permitted without permission by Magnattack.

Mag-Ram® Self-Cleaning Magnetic Separator Installation, Operating and Cleaning Instructions

The Mag-Ram Magnetic Separator has an automatic self-cleaning operation. With the use of the Magnattack Control Box or the customers' controls, the magnetic Rams are retracted into the cleaning chamber, which then removes the collected metal contaminates before the Ram is reintroduced to the product stream.

CLEANING FREQUENCY

Cleaning frequency should be determined by the customer in relation to their metal fragment contaminant collection. Magnets should be frequently cleaned to remove collected magnetic fragments.

We recommend that the frequency of cleaning be such that any build-up of magnetic material, dust, dirt, and food debris on the surface of the magnet is prevented from achieving a depth greater than 1 mm.

When a manual pneumatic spring return valve is supplied, the rams are normally in their extended cleaning position. When the valve is operated against the spring, the rams retract for cleaning.

Variable parameters incorporated in standalone control box – as determined by the amount of magnetics in the product.

CLEANING SEQUENCE

- Recommended – 1 ram at a time.
- Otherwise as by customer requirement – e.g., all rams after each batch.

NOTICE TO RESELLERS AND MAGNATTACK PARTNERS

While Dairy-Grade equipment supplied within the United States is USDA-Accepted, no additional markings or references to USDA is permitted. **This is a USDA requirement.** Any additional etching or markings on the equipment is not permitted without permission by Magnattack.

Mag-Ram® Self Cleaning Magnetic Separator Installation, Operating and Cleaning Instructions

SERVICING OF THE MAG-RAM AND CYLINDERS INCLUDING THE VALIDATION OF CALIBRATED MAGNETIC STRENGTH

Unless special training has been arranged with the manufacturer's technicians, all servicing should be carried out at the Magnattack® Global facility.

Spare cylinder/Ram assemblies for standard models are stocked for prompt dispatch. Non-standard assemblies are a minimum 3-4 weeks delivery from order. It is recommended a spare assembly be purchased for all units, but especially for special non-standard models.

A spare cylinder/Ram assembly can be provided if required to avoid production delays and enable any Ram assembly to be returned for factory service in a protective packing box. If a spare cylinder is ordered, it is provided in a box similar to the image on this page and is insulated where applicable to allow safe transport by air without the need to declare it as dangerous goods. The boxed Mag-Ram® cylinder assembly, for air freight, will have been tested under and to satisfy IATA Packing Instruction 902.



Protective Packaging Box

All Rams are validated more than 11,000 gauss at the time of supply. Refer to the validation certificates included in this manual.

Verification/re-validation is recommended at 12-month intervals. This service is endorsed by HACCP International (refer to the certificate included in this manual) which satisfies food industry and regulatory requirements operating under a HACCP System to International Food Safety Standard 0909MAGSEP 2-2021. Active Magnetic Research Pty Ltd or HACCP International can provide copies of this Magnet Standard.

At the time of magnet verification, each Ram will be checked for abrasive wear and the results included in the Verification Report. All cylinders/Ram actions will be checked manually onsite at the time of verification. If the purchasing company operates other magnets these could be economically verified at the same time within the scope of the service. Approximately 1 hour is required to access the equipment and complete the verification and inspection of one Mag-Ram® unit.

Standard costs are available for the service which is carried out by AMR Consulting, Magnattack® Global, or approved service agents.

Verification/re-validation is recommended at 12-month intervals. This services is endorsed by HACCP International (refer to the certificate included with this manual) which satisfies food industry and regulatory requirements operating under a HACCP System to International Food Safety Standard 0909MAGSEP 2-2021. Active Magnetic Research Pty Ltd or HACCP International can provide copies of this Magnet Standard. **Failure to re-check magnet strengths every 12 months by a certified technician may jeopardize warranty.** To schedule a re-check or re-occurring validation of your magnets, please contact the Magnattack validations department for assistance.

Mag-Ram® Self Cleaning Magnetic Separator Installation, Operating and Cleaning Instructions

For continuous duty application, the Ram cylinder assemblies should be returned to the manufacturer or licensed service agents at least every 2 (two) years. This procedure should be planned to avoid delays in the availability of the service exchange Ram/cylinder assembly. Where an exchange spare is not held by the customer, a down period should be planned so that the Ram can be serviced and returned before the completion of the down period.

PROCEDURE #1 -

REMOVING A RAM/CYLINDER ASSEMBLY FROM THE MAG-RAM HOUSING

1. Identify the Ram number to be removed (this number is stamped on the rear and front stainless-steel end cap plates).
2. Remove the top inspection cover (image #2) to allow access to the wiper/plate assembly.
3. Return the Ram to its retracted position and where applicable remove the SS wiper seal housing from the end of the Ram (image #4).
4. Disconnect the earth strap (the earth strap is fitted for Zone 21 or dust explosive environments) from the cylinder plate connection stud. Undo the remaining attachment nuts. Retain all nuts and earth washer for re-assembly (image #5).
5. Remove the bracket from the frame at the back of the cylinder (image #6).
6. Remove airline connection tubes from the cylinder.
7. Caution! Two operators may be needed to remove the Ram cylinder assembly carefully. Avoid dropping or any impact on the Ram end or cylinder wall. A third operator is useful to remove the external wiper off the Ram end and out through the top access opening. Otherwise, it may fall off into the magnetics chute as the cylinder is removed.
8. Carefully place the cylinder in a protective packaging box. POA from Mag-nattack® Global if required.
9. Caution! Avoid placing the Ram/cylinder assembly on steel benches or another Ram/cylinder assembly. The outside of the cylinder must not be dented!

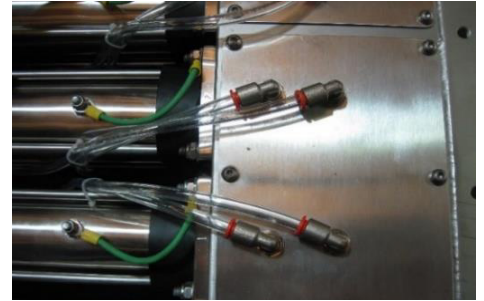


Image #2 - Inspection Cover



Image #4 - Stainless Steel Wiper Housing



Image #5 - Earth strap/attachment nuts



Image #6 - Cylinder bracket

Mag-Ram[®] Self Cleaning Magnetic Separator Installation, Operating and Cleaning Instructions

PROCEDURE #2 -

ATTACHING A RAM/CYLINDER ASSEMBLY TO THE MAG-RAM HOUSING

1. Carefully refit the Ram/cylinder assembly to the studs on the housing with the rear bracket supported on the frame. Two people may be needed to avoid bumping or dropping the cylinder in any way.
2. Replace the external wiper assembly (ensuring the lip of the wiper is facing outwards) through the top inspection hatch after attaching the cylinder end plate to the housing studs.
3. Torque upfront attachment nuts to 30 ft. lbs. using an extension socket and suitable torque wrench. Loosely tighten the back bracket to the frame bolt ensuring that the Ram is parallel when at its extended position. The back endplate should be bolted to the end bracket at about the mid-slot position (image #6). If the Ram correctly extends, the seal plate will fully cover and seal the entry hole between the product and magnetics chamber, when the Ram is extended.
4. If not sealing completely:
 - a. Slight left/right sideways adjustment can be affected before tightening the nut. Fix the back bracket to the frame. Tighten the nut to approximately 30 ft. lbs. (image #6).
 - b. Slight up/down adjustment can be made by loosening the back bracket to the back plate nut and moving the cylinder up or down in the bracket slot. When corrected, tighten to 25 ft. lbs (image #7).
5. Re-attach cylinder airline connection tubes
6. Check continuity between housing and magnet bar as depicted in image #8



Image #6 - Cylinder Bracket



Image #7 - Bracket Slow Adjustment

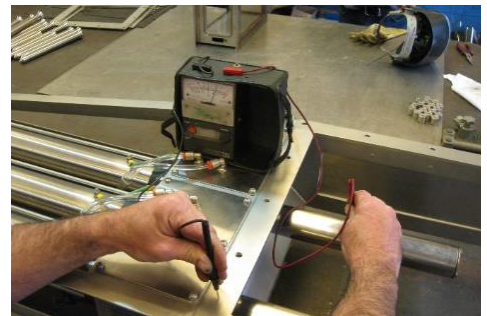


Image #8 - Continuity Test

Mag-Ram[®] Self Cleaning Magnetic Separator Installation, Operating and Cleaning Instructions

PROCEDURE #3 -

REMOVING AND REPLACING WIPER ASSEMBLY WITHOUT REMOVING RAM/ CYLINDER ASSEMBLY

1. Remove the appropriate top cover to access the external wiper assembly (image #4).

2. Return the Ram to its retracted position which will now allow the wiper plate assembly to be removed from the Ram end and taken out through the top cover opening. Note, for dairy models, simply pry the seal assembly off the end of the Ram. For non-dairy units, undo the two bolts at the end of the Ram, remove the retainer cap and slide off the complete seal assembly.

3. Push the edges of the seal so it comes out of the stainless-steel ring assembly. Note: when replacing the wiper plate assembly, ensure the lip of the wiper is facing outwards. Only use the original wiper plate, or new, or exchange assemblies. Refer spare parts listing.

4. To replace the white closing seal, simply pull on the edge of the seal remove it from the groove around the circumference of the stainless-steel seal ring assembly and replace it with a new seal.

5. Ensure the surface where the closing seal contacts is completely clean with no stuck debris on the housing surface to ensure a tight and effective seal. Note: critical to ensure no dust leakage into the magnetics chamber.



Image #4 - Stainless steel wiper housing

CAUTION! Isolate the air supply and discharge air from the line before accessing the magnetics chamber.

Mag-Ram® Self Cleaning Magnetic Separator Installation, Operating and Cleaning Instructions

PROCEDURE #4 -

FITTING AND REMOVAL OF A BLANKING PLATE (if applicable)

Should the Mag-Ram® be removed and not immediately replaced with a spare, a blanking plate can be fitted in its place using the following procedure. Blanking plate assemblies (image # 9) are available from Magnattack® Global (refer to Spare Parts list).

To fit a blanking plate:

First, ensure all Rams are retracted and locked out, then;

1. Refer to the blank plate photo sheet.
2. Take only the closure (1) and stem (2) as an assembly and ensure these two items are tightly screwed together.
3. Fully remove the appropriate top cover plate (photo #1)
4. Pass the closure assembly stem through the mount plate hole in the housing wall then position the closure disc towards the entry aperture to be closed off, leaving about 20 mm clearance.
5. Wind on the mounting plate (3) via its central tapped hole until it touches the studs.
6. Push the mounting plate onto studs, ensuring the closure assembly disc is not yet touching the hole to be blanked off.
7. Tighten the four mounting plate nuts.
8. Assemble lock nut (4) to past the spanner flats (5)
9. Wind in stem using spanner flats (5) until the hole is tightly sealed.
10. Tighten lock nut (4)

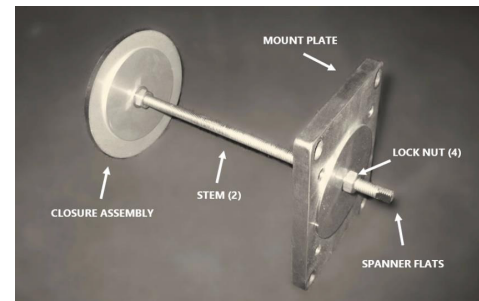


Image #9 - Blanking plate

To remove a blanking plate:

First, ensure all Rams are retracted and locked out, then;

1. Take off the lock nut (4) and back off the stem (2) using spanner flats (5)
2. Remove mount plate nuts.
3. Pull the mounting plate (3) off the studs; unwind the mounting plate off the stem (2)
4. CAUTION! Prevent closure/stem assembly from dropping down the chute when removing the mounting plate (3)
5. Pass the closure/stem assembly disc first up and out of the top inspection hatch.

Exhaust Air Utilization Nozzles (Optional)

Front nozzles are supplied fitted and adjusted to direct exhaust air from retraction strokes to minimize entry of product into the magnetics chamber.

The back nozzles are adjusted to prevent residual magnetic on top of the non-magnetic portion of Ram from re-entering the product zone on extension stroke.

Note: In some circumstances the blast of air is too severe, causing dust problems. A kit is available to modify this blast.

Mag-Ram® Self Cleaning Magnetic Separator Controls - Type 5

CONTROL BOX

The Mag-Ram® control box is custom-designed to get the best control of your Mag-Ram® separators. This unit allows for stand-alone operation, using time cycles or manual operation, through to automatic operation from a central PLC, with a remote contact input to control operation and a relay contact output to signal operational status and any alarm situations.

CONNECTIONS

The function of the Mag-Ram® control box is to operate the individual rams of the Mag-Ram® unit automatically in a sequential manner, at either preset time intervals or whenever manually commanded to do so via a push button on the front of the unit, or a remote relay contact.

During the operation, the unit will check for fault conditions and report them on the front display panel, as well as open an alarm relay contact for remote alarm connections. There are connectors on the Mag-Ram® control box for 24VDC power, air solenoid outputs, sensor inputs and remote control, the connections are as follows:

BOTTOM PANEL

SENSOR INPUTS

Each sensor connects to the screw terminals with the positive (Brown) wire to the left. The Inputs for each ram go in sequence from Left to Right, the first two terminals being for Ram 1, the second pair for Ram 2 etc. up to a Max of 10 Rams.

With Ram 10 and the Remote enable sharing the same inputs, only 9 Rams can be used, if the Remote enable function is required.



REMOTE ENABLE

Any short circuit between these terminals will enable the unit to start. The unit will continue to operate so long as these terminals remain closed. Opening the circuit will turn the unit off. (Controlled by Parameter 7)

ON/OFF

These terminals are for the connections to the two push buttons installed on the front panel of the box. These buttons are used to turn the unit on and off whenever the Remote Enable feature is not enabled. Once the system is running, whether in manual or remote operation, pressing the button connected to the ON terminal will instigate a cleaning cycle.

Mag-Ram® Self Cleaning Magnetic Separator Controls - Type 5

TOP PANEL

240VDC

This is the 24V supply for the controller and the solenoid valves. This connector is the power supply for the Mag-Ram® controller and also supplies the power for the air solenoids.

Note: the +VE terminal is on the left as viewed in this picture



REMOTE ALARM

These terminals are connected to a relay contact which opens whenever a fault condition is detected, this is for remote alarm applications such as a PLC control. Once the fault is reset on the front control panel the relay contacts will close and reset the alarm. The relay contacts are rated for 24VDC, 0,5A.

RAM CONNECTIONS

The DB25 connector on the top of the box is for the connection to the air solenoids to control the rams. On this connector, pin 25 is the common 24VDC supply to the solenoid block, and pins 1–9 are the outputs to activate the individual rams 1–9 respectively. This connector matches, pin for pin, the similar DB25 connector on the solenoid block.

PLC SETUP

For remote operation from a PLC, the unit must be set up for remote control, to do this set Parameter 2 to ON. The Remote input terminals are an Opto-Isolated input that supplies 24V on one terminal and an Opto-isolator on the other. Bridging the 2 terminals together will turn on the Opto-isolator and trigger the controller. Taking a pair of wires from these terminals to a relay output on your PLC will provide the remote ON/OFF operation.

The Relay output on the top plate is a simple relay contact, these contacts are closed whenever the unit is in normal operation, which means whenever the unit is operating and there are no fault conditions. If the unit is operating and the relay contacts open it means that a fault condition has been detected, visually checking the front panel of the unit will further identify the fault that triggered the alarm.

Once the fault has been rectified the operator should press the 'Reset' button on the front panel, this will restore the relay contact to your PLC.

If a fault condition is detected and the alarm is triggered, the unit does not shut the system down, it will continue to operate the other Rams on the system until it is reset.

Mag-Ram® Self Cleaning Magnetic Separator Controls - Type 5

FRONT PANEL

PARAMETER SETTINGS

Each sensor connects to the screw terminals with the positive (Brown) wire to the left. The Inputs for each ram go in sequence from Left to Right, the first two terminals being for Ram 1, the second pair for Ram 2 etc. up to a Max of 10 Rams.

With Ram 10 and the Remote enable sharing the same inputs, only 9 Rams can be used, if the Remote enable function is required.

In order, they are:

1. Timer Operation

This sets the operation mode of the controller, ON sets the Timer mode ON, and Off turns it off so that the unit will only do a clean cycle when manually told to do so, CON is a continuous mode where the unit will start a new cleaning cycle as soon as the last cleaning cycle has finished. Adding time to the Delay function (4) below can make this a slower continuous process if required.

2. Remote Operation

This allows the unit to be started and stopped automatically from a remote device, allowing the unit to be incorporated into the upstream process line. In this mode, the normal Start and Stop buttons are disabled, although manual or automatic cycling options are available. Set 1 to turn this feature off, or 2 to enable it.

3. Number of Rams

Set the number of cylinders attached to the system. The maximum for this unit is 8, but you can elect to use any number less than this.

4. Ram Delay

This is the time interval between opening the valve to extend one ram and closing the valve to retract the next.

5. Hours Set

Set the Hours for the time interval between cycles in Timer Operation. The unit adds together both the hours and minutes to generate the cycle time.

6. Minutes Set

Set the Minutes for the time interval between cycles in Timer Operation. The unit adds together both the hours and minutes to generate the cycle time.

7. Minimum Stroke

This is the minimum time in which the Ram can retract, this will help to identify any Rams that were not fully extended on the previous cycle.

8. Maximum Stroke

This is the maximum time by which the ram should have retracted, should the ram not have fully retracted by this time an alarm will be set.

9. Ram Reversal

This parameter is used when the Rams need to be left out by default. If the Rams are connected to the air supply so that they are out when the power is off, then set this parameter to ON for correct operation. The default is OFF1 where the rams are retracted by default.

10. Factory Preset

Set this parameter to ON and the unit will revert to its factory settings the next time power is cycled. The default for this parameter is OFF.



Mag-Ram[®] Self Cleaning Magnetic Separator Controls - Type 5

Any of these parameters can be set at any time, even when the unit is in service and operating.

Firstly, in the Parameter set area, press the button marked PARAM, the display will then show the first parameter and the value. Pressing the PARAM button allows you to cycle through the parameters to check the values. By pressing the + or – buttons the value can be increased or decreased to the required value. Pressing the PARAM button again will increment to the next parameter and show the value as before. Once all the parameters have been set, pressing the SET button will store the value you have selected before going back to the previous operation. Pressing the STOP button will cancel the changes you have made and if the selected parameters have not been stored, and no buttons are pressed for 15 seconds, the unit will return to the previous operation WITHOUT storing any of the parameter changes that have just been made.

OPERATION

START will begin the sequence by extending all the rams and starting the countdown timer to the next cycle.

STOP will retract all the rams and stop the countdown timer; the display will then show READY TO START.

At any time, pressing SET will initiate a cleaning cycle and reset the timer.

If the remote operation is selected (Parameter 2) then this operation is controlled via the remote input instead of the START and STOP buttons.

FAULTS

Should a fault occur, the unit will continue to operate as if no fault had occurred, but the output relay will open, and the display will show a fault condition instead of the countdown timer. There are only 2 fault conditions:

01 – Ram retracted faster than the minimum time set in parameter 4.

02 – Ram retracted slower than the maximum time set in parameter 5.

In a fault condition, the display will show the fault on the display and the ram that caused the faults. After physically checking the unit, pressing the RESET button will clear the alarm, reset the remote alarm condition, and return the screen to the countdown mode.






CONTROL SYSTEM & OPERATIONS FAULTS (if applicable)

The control system must ensure all the Rams remain extended in between cycle times.

The time setting between cleaning cycles should not be more than 0.5 kgs of magnetic contaminants to be collected along each Ram. If a large amount of contamination accumulates on the Rams, it may fall back into the product stream.

Do not cycle clean more than is essential. Excessive maintenance can occur if the machine cycles continuously.

Mag-Ram® Self Cleaning Magnetic Separator Replacement/Spare Parts

Spare Ram/Cylinder Assembly		
Traveling Seal Kit - Standard	Part #	Image
Urethane Seal (MR18-D)	MR19189C	
Rod Wiper (MR19)		
Seal Plate (MR9C-D)		
Traveling Wiper Seal - Standard	Part #	Image
Rod Wiper	MR19	
Traveling Closing Seal - Standard	Part #	Image
Urethane Seal	MR18-D	
Minor Cylinder Repair Kit - Standard	Part #	Image
U Cup (MR20) x 1	MNR51	
Wiper (MR21) x 1		
Back Up (MR22) x 2		
O-Ring 2x147mm N70 Nitrile (MR23) x 2		
U Cup/Piston HRU 18.2.50.18 Nitrile (MR24) x 2		
Dairy Grade Red FDA Wiper (MR19-D) x 1		
Major Cylinder Repair Kit - Standard	Part #	Image
All minor cylinder repair kit inclusions, plus:	MJR51	
Spider Ring (MR11)		
Bearing - Manual (MR14)		
Spider Roller (MR11B) x 2		
Spider Assembly Pin (MR11A) x 2		
Clutch Support (MR10)		
Sensor and Sensor Clamp	Part #	Image
Sensor, Reed, T7 Square, 2 Wire, 2.5m Length	W095414	
Sensor Bracket, Reed Switch, T-Slot	SMBZ-8-32/100	

Mag-Ram® Self Cleaning Magnetic Separator Replacement/Spare Parts

Spare Ram/Cylinder Assembly		
		
Dairy Grade Traveling Seal Kit - Standard	Part #	Image
Urethane Seal - Dairy Grade (MR18-D)	MR19-D1-TS	
Rod Wiper - Dairy Grade (MR19-D1-TS)		
Seal Plate - Dairy Grade (MR9C-D)		
Dairy Grade Traveling Wiper Seal - Standard	Part #	Image
Rod Wiper - Dairy Grade	MR19-D1-TS	
Dairy Grade Traveling Closing Seal - Standard	Part #	Image
Urethane Seal - Dairy Grade	MR18-D	
Dairy Grade Minor Cylinder Repair Kit - Standard	Part #	Image
U Cup (MR24-B) x 1	MNR51-D	
Dairy Grade Red FDA Wiper (MR19-D) x 2		
O-Ring 2.147mm N70 Nitrile (MR23) x 2		
Back Up 575.33 x 2 Required (MR22) x 2		
U Cup/Piston HRU 18.2.50.18 Nitrile (MR24) x 2		
Dairy Grade Major Cylinder Repair Kit - Standard	Part #	Image
All minor cylinder repair kit inclusions, plus:	MJR51-D	
Spider Ring (MR11) x 1		
Bearing - Manual (MR14) x 1		
Spider Roller (MB11B) x 2		
Spider Assembly Pin (MR11A) x 2		
Clutch Support (MR10) x 1		
Dairy Grade Sensor and Sensor Clamp	Part #	Image
Sensor, Festo 2 Wire Proximity Sensor	SDBT-MS-20NL-ZN-E-5-LE-EX6	
Sensor Bracket, Reed Switch, T-Slot	SMBZ-8-32/100	

Bullnose/Round Nose Installation, Operating and Cleaning Instructions

INSTALLATION OF A BULLNOSE/ROUND NOSE PLATE MAGNET SYSTEM

Installation of Bullnose/Round Nose Plate Magnet Systems is typically the responsibility of the client's engineering department. For assistance or questions, please contact a Magnattack® Global technician.



Bullnose Plate Magnet units are manufactured with standard square flange dimensions. Additional flanges or transitions can be manufactured upon request. The Bullnose Plate Magnet is also available as a stand-alone unit for the client to integrate into an existing system. These will be provided with internal threads to support the magnet. The client must ensure that magnet support adequately supports the weight of the magnet.

For standard Bullnose Plate Magnet units, headroom provision is required to swing the magnet assembly out from the side of the housing. This is required to enable sufficient room for the cleaning process.

BULLNOSE PLATE MAGNET CLEANING METHOD

Product stream must be locked-out prior to cleaning.

Important: If the Bullnose Plate Magnet System is designed to swing down to access plate and bar for manual cleaning.

1. Unlock the Bullnose Plate Magnet System door by removing the retaining thumb screws.
2. Swing down for cleaning access.
3. Ensure the magnet assembly is far enough out to prevent fragments from entering the door during the cleaning operation.
4. After cleaning is complete, swing the magnet door back into the stop position and insert into the housing.
5. Securely re-lock the door and replace thumb screws.

Any product that has caked as a hardened coating on the surface of the bars should be removed with a scouring pad or non-magnetic scraper. This ensures the contact surface is clean for maximum separation efficiency.

For all Bullnose/Round Nose plate systems installed under conveyor discharges, simply wipe clean and remove larger pieces of metal contamination with a gloved hand to avoid injury.

Verification/re-validation is recommended at 12-month intervals. This services is endorsed by HACCP International (refer to the certificate included with this manual) which satisfies food industry and regulatory requirements operating under a HACCP System to International Food Safety Standard 0909MAGSEP 2-2021. Active Magnetic Research Pty Ltd or HACCP International can provide copies of this Magnet Standard. **Failure to re-check magnet strengths every 12 months by a certified technician may jeopardize warranty.** To schedule a re-check or re-occurring validation of your magnets, please contact the Magnattack validations department for assistance.

Dual Bullnose/Round Nose Plate Magnet Installation, Operating and Cleaning Instructions

INSTALLATION OF A DUAL BULLNOSE/ROUND NOSE PLATE MAGNET SYSTEM

Installation of DRN Plate Magnet Systems is typically the responsibility of the client's engineering department. For assistance or questions, please contact a Magnattack® Global technician.

DRN Plate Magnet units are manufactured with standard top and base square flange dimensions. Additional flanges or transitions can be manufactured upon request.



For standard DRN Plate Magnet units, headroom provision is required to swing the magnet assembly out from the side of the housing. This is required to enable sufficient room for the cleaning process.

Important: DRN Plate Magnet units should be installed in vertical drop-chute applications only. DRN Plate Magnet units are not suitable for horizontal or sloping lines.

DRN PLATE MAGNET SYSTEM CLEANING METHOD

Product stream must be locked-out prior to cleaning.

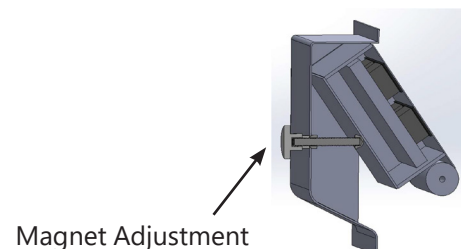
Important: If the DRN Plate Magnet System has two separate hinged doors that de-latch and swing down to access plate and bar for manual cleaning.

1. Unlock the DRN Plate Magnet System door by removing the retaining thumb screws
2. Swing down for cleaning access.
3. Ensure the magnet assembly is far enough out to prevent fragments from entering the door during the cleaning operation.
4. After cleaning is complete, swing the magnet door back into the stop position and insert into the housing.
5. Securely re-lock the door and replace thumb screws.

Any product that has caked as a hardened coating on the surface of the bars should be removed with a scouring pad or non-magnetic scraper. This ensures the magnet contact surface is maintained.

PLATE AND PRODUCT FLOW ADJUSTMENT

Magnets should be adjusted to a position that provides the best product to magnet contact as possible related to product flowability. This is actioned by winding the magnet adjustment knob in or out accordingly. Once adjusted to the correct position, tighten locking nut firmly.



Verification/re-validation is recommended at 12-month intervals. This services is endorsed by HACCP International (refer to the certificate included with this manual) which satisfies food industry and regulatory requirements operating under a HACCP System to International Food Safety Standard 0909MAGSEP 2-2021. Active Magnetic Research Pty Ltd or HACCP International can provide copies of this Magnet Standard. **Failure to re-check magnet strengths every 12 months by a certified technician may jeopardize warranty.** To schedule a re-check or re-occurring validation of your magnets, please contact the Magnattack validations department for assistance.

Flat Face Plate Magnet Installation, Operating and Cleaning Instructions

INSTALLATION OF A FLAT FACE PLATE MAGNET SYSTEM

Installation of Flat Face Plate Magnet Systems is typically the responsibility of the client's engineering department. For assistance or questions, please contact a Magnattack® Global technician.

Flat Face Plate Magnet units are manufactured with standard square flange dimensions. Additional flanges or transitions can be manufactured upon request.

For standard Flat Face Plate Magnet units, headroom provision is required to swing the magnet assembly out and down from the side of the housing. This is required to enable sufficient room for the cleaning



FLAT FACE PLATE MAGNET SYSTEM CLEANING METHOD

Product stream must be locked-out prior to cleaning.

1. Unlock the Plate Magnet by removing the retaining thumb screws or latch.
2. Swing down for cleaning access.
3. Ensure the magnet assembly is far enough out to prevent fragments from entering the door during the cleaning operation.
4. After cleaning is complete, swing the magnet door back into the stop position and insert into the housing.
5. Securely re-lock the door and replace thumb screws/fixings.

Any product that has caked as a hardened coating on the surface of the bars should be removed with a scouring pad or non-magnetic scraper. This ensures the magnet contact surface is maintained.

Verification/re-validation is recommended at 12-month intervals. This services is endorsed by HACCP International (refer to the certificate included with this manual) which satisfies food industry and regulatory requirements operating under a HACCP System to International Food Safety Standard 0909MAGSEP 2-2021. Active Magnetic Research Pty Ltd or HACCP International can provide copies of this Magnet Standard. **Failure to re-check magnet strengths every 12 months by a certified technician may jeopardize warranty.** To schedule a re-check or re-occurring validation of your magnets, please contact the Magnattack validations department for assistance.

Spherical In-Line Pneumatic Transfer Magnet Installation, Operating and Cleaning Instructions

INSTALLATION OF A SPHERICAL IN-LINE PNEUMATIC TRANSFER MAGNET

- The Spherical In-Line Pneumatic Transfer Magnet is to be installed in dry products only. Not intended for use in liquid product lines.
- Not intended for highly abrasive products.
- Install vertically unless the unit has been specially modified to suit horizontal transfers.
- Mount the Spherical Magnet in the pipeline so that the cone is pointing opposite to the direction of flow.
- The mounting position should normally be such as will allow removal of the Sphere from the housing from a conveniently accessible position.



The Cone

- Most installations will use the aerodynamic nose cone. Ensure this is on moderately tight using a small spanner on the nose nut. **Note:** This is held on by a hardened grub screw. Normally the cone does not come loose in service.
- It is recommended that the cone is regularly checked during the cleaning operation to ensure it has remained tight.
- **CAUTION:** Do not overtighten or the grub screw may snap. (**NOTE:** Newer models are fully welded)
- If vibration tends to loosen the cone in operation, it can be prevented by using a Loctite product on the grub screw, such as Loctite 222.
- A further measure can be a 20mm band of Sikaflex 11FC which is applied to the under lip of the cone after thorough cleaning of both surfaces.
- This product will cure to a food-grade gasket. 24 hours should elapse before placing the Sphere in service.
- Screw the cone on as per above while the Sikaflex is still uncured. (Curing will take some time due to the absence of air). Excess can be wiped off with a rag dampened with water.

The Safety Lanyard

- Attach the safety lanyard to one of the flange holes or to some part of suitable structure or bracketry in such a manner that the Sphere can be removed from the housing and placed on the cleaning station without damage.
- The lanyard is also to prevent pilfering or accidental dropping of the magnet.

The Cleaning Station

- This is designed to make cleaning of this very powerful magnet easier.
- Attach to the housing using one of the flange holes so that the position is convenient and accessible for cleaning.

NOTICE TO RESELLERS AND MAGNATTACK PARTNERS

While Dairy-Grade equipment supplied within the United States is USDA-Accepted, no additional markings or references to USDA is permitted. **This is a USDA requirement.** Any additional etching or markings on the equipment is not permitted without permission by Magnattack.

Spherical Pneumatic Transfer Magnet Installation, Operating and Cleaning Instructions

The RE80® Spherical Pneumatic Transfer Magnet is a manual-clean inline magnetic separator. Cleaning is conducted outside of the product stream to allow easy collection of fragments for analysis and for a full inspection of magnet probes prior to the return into the product stream. Cleaning outside of the product stream greatly reduces re-contamination risks and risks to food safety.

CLEANING FREQUENCY

Cleaning frequency should be determined by the customer in relation to their metal fragment contaminant collection. Magnets should be frequently cleaned to remove collected magnetic fragments.

We recommend that the frequency of cleaning be such that any build-up of magnetic material, dust, dirt, and food debris on the surface of the magnet is prevented from achieving a depth greater than 1 mm.

CLEANING METHOD

Product stream must be locked-out prior to cleaning.

The line may be flushed before cleaning.

DO NOT submerge in liquid or cleaning fluid, wash under water or high-pressure clean, OR clean with detergent or caustic.

1. Remove safety lock, undo the Tri-clamp, remove the magnet sphere out of its locator and tip downward so the sphere and cone assembly will fit out the opening as removed.
2. Place assembly on the cleaning station with nose cone pointing up.
3. Brush or blow any excess non-magnetic product from the magnet element
4. Wipe, brush or otherwise move magnetics down to the sharp polyurethane edge.
5. Reverse the assembly so the nose cone is pointing down into the cleaning station.
6. Wipe, brush or otherwise move the contaminants over the sharp polyurethane edge and down the sides of the cleaning station until they are sufficiently far from the magnet to drop off.
7. Once all products and contaminants have been removed, you may wipe the elements with alcohol (or similar) or a lint-free cloth.
8. Replace the assembly in the housing, check gasket is in position, and tighten clamp and lock.

Important: Sharp metal pieces may be held tightly to the magnet. Please take care not to cut your hands when cleaning the magnets.

NOTICE TO RESELLERS AND MAGNATTACK PARTNERS

While Dairy-Grade equipment supplied within the United States is USDA-Accepted, no additional markings or references to USDA is permitted. **This is a USDA requirement.** Any additional etching or markings on the equipment is not permitted without permission by Magnattack.

Spherical Pneumatic Transfer Magnet Installation, Operating and Cleaning Instructions

CLEANING METHOD

Product stream must be locked-out prior to cleaning.

The line may be flushed before cleaning.

DO NOT submerge in-liquid or cleaning fluid, wash under water or high-pressure clean, OR clean with detergent or caustic.

1. Remove safety lock, undo the Tri-clamp, remove the magnet sphere out of its locator and tip downward so the sphere and cone assembly will fit out the opening as removed.
2. Place assembly on the cleaning station with nose cone pointing up.
3. Brush or blow any excess non-magnetic product from the magnet element
4. Wipe, brush or otherwise move magnetics down to the sharp polyurethane edge.
5. Reverse the assembly so the nose cone is pointing down into the cleaning station.
6. Wipe, brush or otherwise move the contaminants over the sharp polyurethane edge and down the sides of the cleaning station until they are sufficiently far from the magnet to drop off.
7. Once all products and contaminants have been removed, you may wipe the elements with alcohol (or similar) or a lint-free cloth.
8. Replace the assembly in the housing, check gasket is in position, and tighten clamp and lock.

Important: Sharp metal pieces may be held tightly to the magnet. Please take care not to cut your hands when cleaning the magnets.



Spherical Pneumatic Transfer Magnet Installation, Operating and Cleaning Instructions



Step 1

Check that the magnet is safe to open. Equipment isolated.



Step 2

Remove the sphere and observe the entire surface area of the magnet element. Unlike bar magnet assemblies, there are no hidden surfaces that may harbor dangerous fragments.



Step 3

Check for unusual traces of contamination.



Step 4

Place it in the cleaning station to prepare for cleaning. Most of the contaminants will be retained on the back of the sphere, in the low pressure zone out of the direct impact of the product flow.

Spherical Pneumatic Transfer Magnet Installation, Operating and Cleaning Instructions

Step 5

The contamination fragments will be wiped down from the magnet using the cleaning brush or sanitary wipes.



Step 6

Contaminants can be collected for further analysis using a tray or the certified RE80 Lab Test Magnet Kit - refer to part # LTM-25. Ensure magnet surface is clean and all powder residue is removed.



Step 7

Return the magnet to the housing. Check location pin is aligned while placing inside.



Step 8

Fasten the clamp outside and check that it is sealed.



Verification/re-validation is recommended at 12-month intervals. This services is endorsed by HACCP International (refer to the certificate included with this manual) which satisfies food industry and regulatory requirements operating under a HACCP System to International Food Safety Standard 0909MAGSEP 2-2021. Active Magnetic Research Pty Ltd or HACCP International can provide copies of this Magnet Standard. **Failure to re-check magnet strengths every 12 months by a certified technician may jeopardize warranty.** To schedule a re-check or re-occurring validation of your magnets, please contact the Magnattack validations department for assistance.

Spherical Pneumatic Transfer Magnet Replacement/Spare Parts

Name	Part #	Image
<p>Cleaning Station Kit</p>	<p>MCS100 MCS150</p>	
<p>Cleaning Station Poly Rubber Support Ring (to suit cleaning station kit)</p>	<p>CSPR-100 CSPR-150</p>	
<p>Silicone Magnet Cleaning Tool (FDA Approved)</p>	<p>MGCT</p>	
<p>6" Triclover No. 1 EPDM Seal</p> <p>4" Triclover No. 2 EPDM Seal</p>	<p>105</p> <p>106</p>	

Sanitary Powder Transfer Magnet Separator Installation, Operating and Cleaning Instructions

The RE80® HT Sanitary Powder Transfer Magnet Separator is a manual-clean inline magnetic separator. Cleaning is conducted outside of the product stream to allow easy collection of fragments for analysis and for a full inspection of magnet probes prior to the return into the product stream. Cleaning outside of the product stream greatly reduces re-contamination risks and risks to food safety.



CLEANING FREQUENCY

Cleaning frequency should be determined by the customer in relation to their metal fragment contaminant collection. Magnets should be frequently cleaned to remove collected magnetic fragments.

We recommend that the frequency of cleaning be such that any build-up of magnetic material, dust, dirt, and food debris on the surface of the magnet is prevented from achieving a depth greater than 1 mm.

CLEANING METHOD

Product stream must be locked-out prior to cleaning.

The line may be flushed before cleaning.

1. Isolate product line and ensure pipeline pressure is nil.
2. Remove magnet fittings (usually Triclover or BSM).
3. Remove magnet probes from the housing and, if possible, hang up using the handle hook. Avoid banging or scraping of magnet probes on concrete, steelwork, or other magnets.
4. Clean off the collection of magnetics.
5. After probes are cleaned, return to the housing ensuring that seals are in place, and tighten fittings or clamps.
6. Re-lock, if lock is fitted.

Important: Sharp metal pieces may be held tightly to the magnet. Please take care not to cut your hands when cleaning magnets. Wear gloves when possible.

NOTICE TO RESELLERS AND MAGNATTACK PARTNERS

While Dairy-Grade equipment supplied within the United States is USDA-Accepted, no additional markings or references to USDA is permitted. **This is a USDA requirement.** Any additional etching or markings on the equipment is not permitted without permission by Magnattack.

HACCP Certificate

HACCP INTERNATIONAL

eliminate the hazard - reduce the risk



This is to certify that

*Magnattack® Global and
Magnattack® Global USA LLC*

Final Magnetic Separation Equipment (FZP)

Food Zone Classification: FZP (Food Zone Primary)

(Limited to the products listed on the
Certification Statement)

are certified as suitable and effective aids to
manufacturing in food handling facilities operating a

HACCP based Food Safety Programme

noting the conditions of the certification statement

in accordance with the requirements of
HACCP International's Food Safety
Certification System

 Issued by
 Approved

16 February 2024

Issue Date

19 November 2025

Expiry Date

This certificate belongs to HACCP International and must be returned upon demand. All products and services to which
this certificate refers are evaluated prior to reissue.

HACCP INTERNATIONAL: No. 3 Ridgewest Building, 1 Ridge Street, North Sydney, NSW 2060, Australia
www.haccp-international.com



For certificate verification
and food zone
classification details

Certificate Number

I-PE-178-MG-1a-12

HACCP Certificate

HACCP INTERNATIONAL
eliminate the hazard - reduce the risk

Certification Statement I-PE-178-MG-1a-12

Magnattack® Global and
Magnattack® Global USA LLC

Certificate Expiry Date 19 November 2025

Final Magnetic Separation Equipment (FZP)

Food Zone Classification: FZP (Food Zone Primary)
Magnattack® Emulsion & Slurry Pipeline Separator (JASANZ)
Magnattack® Liquid Pressure Pipeline Separator (JASANZ)
Magnattack® Mag-Ram® Magnetic Separator (JASANZ)
Magnattack® Powder Transfer Magnet (JASANZ)
Magnattack® Rapidclean® Grate Magnetic Separator (JASANZ)
Magnattack® Rotary Grate Magnet Element (JASANZ)
Magnattack® Round Pipe Separator (JASANZ)

HACCP International certifies these Magnattack® Global RE80® Rare Earth devices as an aid to manufacturing for food handling facilities operating a HACCP based Food Safety Programme.

Licence Commencement 20 November 2023

Certificate Issue Date 16 February 2024 

HACCP International's evaluation and certification is strictly confined to matters of food safety or the operation of a HACCP based Food Safety Programme. Whilst all reasonable care is taken by HACCP International in its evaluation of the product(s) or services(s) described herein, HACCP International does not guarantee that every food safety risk in every application has been identified. No guarantee is offered or implied in the issuing of this statement.

Licence Agreement

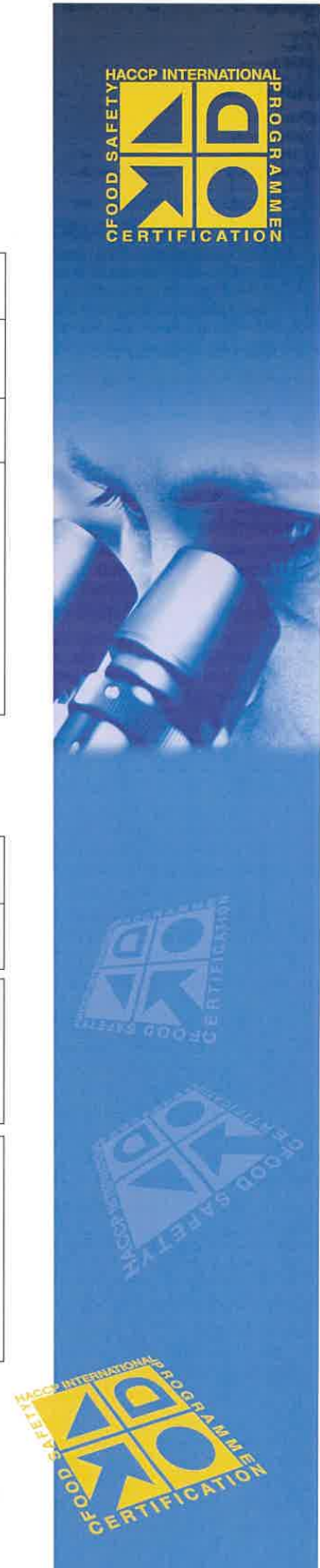
Magnattack® Global is licensed to use the HACCP International certification mark, in accordance with HACCP International's Certification Trade Mark Rules and Conditions in All Regions (Global) in respect of the products listed above, for a period of 24 months from the licence commencement date Magnattack® Global is in receipt of the HACCP International Pty Ltd Certification Trade Mark Rules and Conditions v3.0 and agrees to abide by the conditions therein.

Licensee's Signature:  Date: 27.2.2024

HEAD OFFICE : No. 3 Ridgewest Building, 1 Ridge Street, North Sydney, NSW 2060 Australia

T : +61 2 9956 6911 www.haccp-international.com ABN : 98 138 356 359

REGIONAL OFFICES : FIJI • HONG KONG • INDIA • JAPAN • SINGAPORE • UK • USA



Emulsion & Slurry Pipeline Separator USDA Dairy-Grade Certificate - DAIRY-GRADE MODELS ONLY

**UNITED STATES DEPARTMENT OF AGRICULTURE
MARKETING AND REGULATORY PROGRAM
AGRICULTURAL MARKETING SERVICE**

EQUIPMENT ACCEPTANCE CERTIFICATE

Firm: Magnatack Global USA LLC
14250 Judicial Rd
Burnsville, MN 55306

Model Designation: Separation Equipment - Magnetic
ESPS-2-4-2-51- D, ESPS-2.5-4-2-51-D, ESPS-3-5-2-63-D,
ESPS-4-6-2-63-D

January 8, 2024
Date of Issuance

January 7, 2028
Date of Expiration



U.S. Department of Agriculture
Marketing and Regulatory Program
Agricultural Marketing Service
Dairy Grading Branch
1400 Independence Ave., SW
Washington, DC 20250-0230

The issuance of this form is based on U.S. Department of Agriculture, Dairy Grading Branch, Equipment Design Review Section, evaluation of the equipment listed above for compliance with:

USDA Guidelines of the Sanitary Design and Fabrication of Dairy Processing Equipment (2022)

This form does not limit USDA's responsibility to take appropriate action in cases in which evidence of non-compliance, improper maintenance, or non-sanitary conditions have been observed.



United States Department of Agriculture



DA-151 (05/17) Destroy previous editions.

Emulsion & Slurry Pipeline Separator USDA Dairy-Grade Certificate - MEAT & POULTRY GRADE MODELS ONLY

**UNITED STATES DEPARTMENT OF AGRICULTURE
MARKETING AND REGULATORY PROGRAM
AGRICULTURAL MARKETING SERVICE**

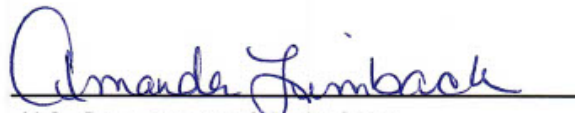
EQUIPMENT ACCEPTANCE CERTIFICATE

Firm: Magnattack Global USA LLC
550 Albion Ave
Schaumburg, IL 60193

Model Designation: Separation Equipment - Magnetic
ESPS-2-4-2-51, ESPS-2.5-4-2-51, ESPS-3-5-2-63, ESPS-4-6-2-63

January 8, 2023
Date of Issuance

January 7, 2027
Date of Expiration



U.S. Department of Agriculture
Marketing and Regulatory Program
Agricultural Marketing Service
Dairy Grading Branch
1400 Independence Ave., SW
Washington, DC 20250-0230

The issuance of this form is based on U.S. Department of Agriculture, Dairy Grading Branch, Equipment Design Review Section, evaluation of the equipment listed above for compliance with:

NSF/ANSI/3-A SSI-14159-1-2019 (Hygiene Requirements for the Design of Meat and Poultry Processing Equipment)

This form does not limit USDA's responsibility to take appropriate action in cases in which evidence of non-compliance, improper maintenance, or non-sanitary conditions have been observed.



United States Department of Agriculture



DA-161 (05/17) Destroy previous editions.

Round Pipe Separator USDA Dairy-Grade Certificate - DAIRY-GRADE MODELS ONLY

UNITED STATES DEPARTMENT OF AGRICULTURE
MARKETING AND REGULATORY PROGRAM
AGRICULTURAL MARKETING SERVICE

EQUIPMENT ACCEPTANCE CERTIFICATE

Firm: **Magnattack™ Global**
16 Prince of Wales Avenue
Unanderra, New South Wales 2526
Australia


Model Designation: **Magnets – Sanitary**
MAGNATTACK™ RE80™: Round Pipe Separator 1.5/2.5/1/25,
1.5/2.5/2/25, 2/2.5/1/25, 2/2.5/2/25, 2/3/1/35, 2.5/3/1/35, 2.5/3/2/35,
2.5/4/1/51, 3/4/1/51, 3/4/2/51, 3/5/1/63, 4/5/1/63, 4/5/2/63 (With Tri-Clamp
or Butt Weld Process Connections)

August 19, 2025

Date of Issuance

August 18, 2030

Date of Expiration


U.S. Department of Agriculture
Marketing and Regulatory Program
Agricultural Marketing Service
Dairy Grading Branch
1400 Independence Ave., SW
Washington, DC 20250-0230

The issuance of this form is based on U.S. Department of Agriculture, Dairy Grading Branch, Equipment Design Review Section, evaluation of the equipment listed above for compliance with:

USDA Guidelines for the Sanitary Design and Fabrication of Dairy Processing Equipment (February 2022)

This form does not limit USDA's responsibility to take appropriate action in cases in which evidence of non-compliance, improper maintenance, or non-sanitary conditions have been observed.



United States Department of Agriculture



DA-161 (05/17) Destroy previous editions.

Rapidclean® Magnetic Separator USDA Dairy-Grade Certificate - DAIRY-GRADE MODELS ONLY

UNITED STATES DEPARTMENT OF AGRICULTURE
MARKETING AND REGULATORY PROGRAM
AGRICULTURAL MARKETING SERVICE

EQUIPMENT ACCEPTANCE CERTIFICATE

Firm: **Magnattack™ Global**
16 Prince of Wales Avenue
Unanderra, New South Wales 2526
Australia


Model Designation: **Magnets – Sanitary**
MAGNATTACK™ RE80™; RAPIDCLEAN™ 230/240/25 S, 230/240/35 S,
230/240/35/25, 290/300/25 S, 290/300/35 S, 290/300/35/25, 350/360/25 S,
350/360/35 S, 350/360/35/25, 410/420/25 S, 410/420/35 S, 410/420/35/25,
510/520/25 S, 510/520/35 S, 510/520/35/25

August 19, 2025

Date of Issuance

August 18, 2030

Date of Expiration


U.S. Department of Agriculture
Marketing and Regulatory Program
Agricultural Marketing Service
Dairy Grading Branch
1400 Independence Ave., SW
Washington, DC 20250-0230

The issuance of this form is based on U.S. Department of Agriculture, Dairy Grading Branch, Equipment Design Review Section, evaluation of the equipment listed above for compliance with:

USDA Guidelines for the Sanitary Design and Fabrication of Dairy Processing Equipment (February 2022)

This form does not limit USDA's responsibility to take appropriate action in cases in which evidence of non-compliance, improper maintenance, or non-sanitary conditions have been observed.



United States Department of Agriculture



DA-161 (05/17) Destroy previous editions.



Certificate of Conformance

Customer: Consolidated Bearing Co
Customer reference: IW101MOD50X63
Alliance Sealing Job Number: BI1WG73190
Customer Specification: Polyurethane

Materials:

Compound(s): C-HPU
Generic description: Polyurethane
Material Batch number(s): -N/6/3/D
Material cure date: 2/11
Shelf Life Expiration Date: 5-7 Years
Hardness 57 ± 3 Shore D

Product Specification

This document certifies that the above mentioned parts have been manufactured in accordance with the customer specification provided and to Alliance Sealing internal works procedures.

The Material is approved for food contact in accordance with FDA CFR 21-177.2600

A handwritten signature in black ink, appearing to read 'J Hawley', is positioned above the 'Checked by:' field.

Checked by:

Date: 20/07/2014

Alliance Sealing Pty Ltd
3 The Crescent,
Kingsgrove NSW 2280
PH: 02 9947 9200
FAX: 02 9150 9192
Email: sales@alliancesealing.com.au

ADVANCED SEALING TECHNOLOGIES

Innovative Polymer Technologies for Advanced Sealing Solutions
ABN 98 060 652 935

CERTIFICATE OF CONFORMITY

WHITE SILICONE CORD

Customer	MULTICOMP
Order No.	STRB 060212
Invoice No.	7092
Invoice Date	20 FEBRUARY 2012
Description	SILICONE EXTRUSION
Quantity	250 mtrs
Grade	40 SDH
Colour	WHITE
FDA Compliance	21 CFR 177.2600

This is to certify that the goods listed above have been manufactured, inspected and tested to conform in all respects with the manufacturer's Quality System which has been certified to meet Quality Standard ISO9001:2008 and the goods conform with the requirements of the order.

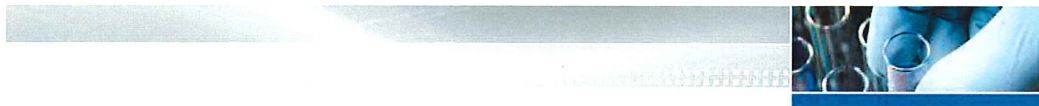
The above goods have been manufactured using materials and methods which comply with the FDA Code of Regulation 21 CFR 177.2600 "Rubber articles intended for repeated use in contact with food" and have been deemed to meet the above Specification in the Code of Regulations.

The finished products also comply with the RoHS directive issued by the European Union.

John C Sheil
Technical Manager



Technical Data Sheet



RTV100 Series

RTV102, RTV103, RTV106, RTV108, RTV109, RTV112, RTV116, RTV118 Adhesive Sealants

Description

RTV102, RTV103, RTV106, RTV108, RTV109, RTV112, RTV116 and RTV118 one-component, ready-to-use adhesive sealants are extremely versatile. They cure to a tough, durable, resilient silicone rubber on exposure to atmospheric moisture at room temperature. Acetic acid vapors are released from the sealant surface as a by-product of cure.

RTV102, RTV103, RTV108 and RTV109 sealants are standard strength paste consistency products which can be applied to vertical and overhead surfaces where pourable/self-leveling sealants are not practical.

RTV112 and RTV118 sealants are self-leveling products which are preferable to paste-consistency sealants when flow into small crevices and hard-to-reach places is desired.

RTV106 sealant is paste-consistency sealant. RTV116 sealant is a self-leveling sealant. Both RTV106 and RTV116 sealants are standard strength high-temperature sealants.

Since all these sealants utilize a moisture cure system, they must not be used in thicknesses of greater than 6mm (1/4 in.).

Where section depths exceed 6mm (1/4 in.), Momentive Performance Materials one component, addition cure or two-component silicone rubber compounds are recommended.

Key Features and Benefits

- One-component products
- Capability to cure at room temperature and ambient humidity
- Self adhesion properties
- Low temperature flexibility
- High temperature performance
- Excellent weatherability and ozone and chemical resistance
- Excellent electrical insulation properties

Typical Physical Properties

Uncured Properties	RTV102 RTV103 RTV108 RTV109	RTV106	RTV116	RTV112 RTV118
Consistency	Paste	Paste	Self leveling	Self leveling
Color	RTV102: White RTV103: Black	Red	Red	RTV112: White

Rapidclean[®] Magnetic Separator Adhesive Sealants Certificate - Dairy-Grade Only

RTV100 Series

	RTV108: Translucent RTV109: Aluminum			RTV118: Translucent
Viscosity, poises	–	–	250	200
Application Rate, (g/min)	400	400	–	–
Specific Gravity	1.05	1.07	1.09	1.05
Tack-Free Time, minutes	20	20	30	20
Cured Properties⁽¹⁾	RTV102 RTV103 RTV108 RTV109	RTV106	RTV116	RTV112 RTV118
Mechanical:				
Tensile Strength, kg/cm ² (lb/in ²)	28 (400)	26 (375)	25 (350)	23 (325)
Elongation, %	450	400	350	325
Hardness, Shore A	30	30	20	25
Tear Strength, kg/cm (lb/in)	8 (45)	7 (40)	–	–
Shear Strength, kg/cm ² (lb/in ²) ⁽²⁾	14 (200)	14 (200)	7 (125)	7 (100)
Peel Strength, kg/cm (lb/in) ⁽³⁾	7 (40)	7 (40)	3 (25)	3 (15)
Electrical:				
Dielectric Strength, kv/mm (v/mil)	20 (500)	20 (500)	16 (400)	16 (400)
Dielectric Constant @ 60 Hz	2.8	2.8	2.8	2.8
Dissipation Factor @ 60 Hz	0.001	0.001	0.001	0.001
Volume Resistivity, ohm-cm	3x10 ¹⁵	3x10 ¹⁴	2x10 ¹⁴	6x10 ¹⁴
Thermal:⁽⁴⁾				
Brittle Point, °C (°F)	-60 (-75)	-60 (-75)	-60 (-75)	-60 (-75)
Maximum continuous operating temperature, °C (°F)	204 (400)	260 (500)	260 (500)	204 (400)
Maximum intermittent operating temperature, °C (°F)	260 (500)	315 (600)	315 (600)	260 (500)
Additional Information:⁽⁴⁾				
Linear Shrinkage, %	1.0	1.0	1.0	1.0
Thermal Conductivity, cal/sec/cm ² , °C/cm	0.0005	0.0005	0.0005	0.0005
(Btu/hr/ft ² , °F/ft)	(0.12)	(0.12)	(0.12)	(0.12)

Rapidclean[®] Magnetic Separator Adhesive Sealants Certificate - Dairy-Grade Only

Coefficient of Expansion cm/cm, °C	27x10 ⁻⁵	27x10 ⁻⁵	27x10 ⁻⁵	27x10 ⁻⁵
(in/in, °F)	(15x10 ⁻⁵)	(15x ⁻⁵)	(15x ⁻⁵)	(15x ⁻⁵)

- (1) Cure time 3 days at 25°C (77°F) / 50% relative humidity.
 (2) At 100% cohesive failure.
 (3) At 100% cohesive failure using 1 in. x 8 in. stainless steel screen at 180° pull angle.
 (4) Information is provided for customer convenience only. These properties are not tested on a routine basis.

Potential Applications

Product	Features	Potential Applications	UL	Food Contact
RTV102 (White) RTV103 (Black) RTV108 (Translucent) RTV109 (Aluminum)	General purpose pastes	General purpose bonding, sealing, electrical insulation, formed-in-place gaskets. Can be applied to vertical or overhead surfaces.	File 36952	FDA 21 CFR 177.2600, USDA, NSF International Std. No. 51
RTV106 (Red)	High temperature paste	Sealing heating elements, gasketing, electrical insulation, and other critical bonding and sealing applications where parts must perform at high temperatures. Can be applied to vertical or overhead surfaces.	File 36952	FDA 21 CFR177.2600, USDA, NSF International Std. No. 51
RTV116 (Red)	High temperature	Thin section potting, filling small surface voids, self leveling protective coating, electrical insulation where high temperature performance is required.	File 36952	FDA 21 CFR 177.2600, USDA, NSF International Std. No. 51
RTV112 (White) RTV118 (Translucent)	General purpose	Electrical insulation, thin section potting, self leveling protective coatings. Will flow into small crevices and hard to reach places.	File 36952	FDA 21 CFR 177.2600, USDA, NSF International Std. No. 51

These sealants were not designed for and should not be used for applications intended for permanent implantation into the human body.

These sealants are not for use in delicate electrical and electronic applications in which corrosion of copper, brass or other sensitive metals is undesirable.

Patent Status

Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute a permission, inducement or recommendation to practice any invention covered by any patent, without authority from the owner of the patent.

Rapidclean[®] Magnetic Separator Adhesive Sealants Certificate - Dairy-Grade Only

Product Safety, Handling and Storage

Customers should review the latest Material Safety Data Sheet (MSDS) and label for product safety information, safe handling instructions, personal protective equipment if necessary, and any special storage conditions required for safety. MSDS are available at www.momentive.com or, upon request, from any Momentive Performance Materials (MPM) representative. **For product storage and handling procedures to maintain the product quality within our stated specifications, please review Certificates of Analysis, which are available in the Order Center.** Use of other materials in conjunction with MPM products (for example, primers) may require additional precautions. Please review and follow the safety information provided by the manufacturer of such other materials.

Processing Recommendations

Surface Preparation

RTV102, RTV103, RTV106, RTV108, RTV109, RTV112, RTV116 and RTV118 sealants will bond to many clean surfaces without the aid of primers. These surfaces typically include many metals, glass, ceramic, silicone rubber and some rigid plastics. These adhesive sealant products will also produce fair bonds to organic rubber and to some flexible plastics not containing fugitive plasticizers (which migrate to the surface, impairing adhesion). An evaluation should be made to determine bond strength for each specific application. For difficult-to-bond substrates, use of a primer is suggested. Primers SS4004, SS4044 and SS4179 are recommended for use with these sealants. Complete information and usage instructions for these primer products are contained in a separate product data sheet.

Where adhesion is required, surfaces should be thoroughly cleaned with a suitable solvent such as naphtha or methyl ethyl ketone (MEK) to remove dirt, oil and grease. The surface should be wiped dry before applying the adhesive sealant.

When solvents are used, proper safety precautions must be observed.

Application and Cure Time Cycle

Paste-consistency products may be applied directly to clean or primed substrates. Where broad surfaces are to be mated, the sealant should be applied in a thin, less than 6mm (1/4 in.) diameter, bead or ribbon around the edge of the surface to be bonded.

Flowable products may be applied to clean or primed substrates by pouring directly from the original container or dipping. These products will self-level on a surface, filling small crevices and surface voids. Depth of potted sections should not exceed 6mm (1/4 in.).

The cure process begins with the formation of a skin on the exposed surface of the sealant and progresses inward through the material. At 25°C (77°F) and 50% relative humidity, RTV102, RTV103, RTV106, RTV108, RTV109, RTV112 and RTV116 sealants will form a surface skin which is tack-free to the touch in 15 to 30 minutes. Once the tack-free skin has begun to form, further tooling of the adhesive sealant is not advisable.

Higher temperatures and humidity will accelerate the cure process low temperatures and low humidity will slow the cure rate.

As the adhesive sealant cures, acetic acid vapors are released from the sealant surface. The odor of acetic acid will completely disappear when curing is completed.

A 3mm (1/8 in.) section of adhesive sealant will cure through in approximately 24 hours at 25°C (77°F) and 50% R.H. Since cure time increases with thickness, use of these adhesive sealants should be limited to section thicknesses of 6mm (1/4 in.) or less.

Bond Strength Development

In addition to the effects of temperature and relative humidity, development of maximum bond strength will depend on joint configuration, degree of confinement, sealant thickness and substrate porosity. Normally, sufficient bond strength will develop in 12 to 24 hours to permit handling of parts. Minimum stress should be applied to the bonded joint until full adhesive strength is developed. Eventually the adhesive strength of the bond will exceed the cohesive strength of the silicone rubber sealant itself. Always allow maximum cure time available for best results.

PACKAGING AND DISPENSING

RTV adhesive sealants from Momentive Performance Materials are supplied ready-to-use in collapsible aluminum squeeze tubes, caulking cartridges and in bulk containers.

Collapsible aluminum tubes may be squeezed by hand or with the aid of mechanical wringers which allow more complete removal of material from the tube. Air-operated dispensing guns may also be used with aluminum tubes and offer the advantages of improved control and faster application for production line use. The sealant may be dispensed from caulking cartridges by using simple mechanical caulking guns or air-operated guns. Air-operated

Rapidclean[®] Magnetic Separator Adhesive Sealants Certificate - Dairy-Grade Only

guns will allow greater control and application speed. Both tubes and cartridges are easy to use, can be put into production quickly and require minimal capital investment.

Note: Do not exceed 45 psig when used in air-powered caulking guns.

Bulk containers require a larger initial investment in dispensing equipment, but offer the most economical packaging for volume production. Bulk dispensing systems are air-operated extrusion pumps coupled to hand or automated dispensing units. Pumps which are specifically designed for pumping one-component RTV silicone rubber have TEFLON® seals, packings and lined hoses to prevent moisture permeation and pump cure problems.

CLEAN UP AND REMOVAL

Before curing, solvent systems such as naphtha or methyl ethyl ketone (MEK) are most effective. Refer to solvent use warnings in the section on surface preparation.

After cure, selected chemical strippers which will remove the silicone rubber are available from other manufacturers. Specific product information may be obtained on request.

Limitations

Customers must evaluate Momentive Performance Materials products and make their own determination as to fitness of use in their particular applications.

Specifications

FDA STATUS

RTV102, RTV103, RTV106, RTV108, RTV109, RTV112, RTV116 and RTV118 sealants are compositionally compliant with the requirements of 21 CFR 177.2600 – Rubber articles intended for repeated use and have been found, through testing of a representative sample, to meet the extractives limitations in 21 CFR 177.2600(e) and/or (f).

Note: It is the responsibility of the user to determine that the final product complies with the extractive limitations and other requirements of 21 CFR 177.2600 under their specific manufacturing procedures.

BIOCOMPATIBILITY STATUS

- A representative sample of RTV 108 has passed USP Class VI (United States Pharmacopoeia USP 23, National Formulary 18, 1995).
- A representative sample of RTV 118 has passed USP Class VI (United States Pharmacopoeia USP 23, National Formulary 18, 1995).

USDA STATUS

RTV102, RTV103, RTV106, RTV108, RTV109, RTV112, RTV116 and RTV118 sealants may be used on equipment which may contact edible products in official establishments operating under the Federal meat and poultry products inspection program. See USDA letter of Authorization.

NSF INTERNATIONAL STATUS

NSF International lists RTV102, RTV103, RTV106, RTV108, RTV109, RTV112, RTV116 and RTV118 sealants under NSF International Standard No. 51 (Plastic Materials and Components for Use in Food Equipment), as satisfactory for use on food contact surfaces.

UL STATUS

RTV102, RTV103, RTV106, RTV108, RTV109, RTV112, RTV116 and RTV118 silicone rubber adhesive sealants are recognized by Underwriters Laboratories, Inc., under their Component Recognition Program (UL File No. E-36952).

MILITARY SPECIFICATION

MIL-A-46106

Rapidclean[®] Magnetic Separator Adhesive Sealants Certificate - Dairy-Grade Only

Group I	Type I	General Purpose Paste: RTV102, RTV103, RTV108, RTV109
	Type II	General Purpose Flowable: RTV112, RTV118
Group III	Type I	High Temperature Paste: RTV106
	Type II	High Temperature Flowable: RTV116

Testing for referenced MIL Spec is performed in accordance with current Momentive Performance Materials quality test methods, laboratory conditions, and procedures, frequency and sampling, which are not necessarily identical with the methods, conditions, procedures, frequency and sampling stated or referenced in the listed specification. Any certification will be limited to listed properties and will not imply or state conformity to any other aspect of the referenced specification, including but not limited to marking, packaging, bar coding, testing, or sampling. Contact Momentive Performance Materials for a comparison review.

From automotive to healthcare, from electronics to construction, products from Momentive Performance Materials Inc. are practically everywhere you look. We are a global leader in silicones and advanced materials with a 70+ year heritage of innovation and being first to market – with performance applications that improve everyday life. By knowing our customers' needs and creating custom technology platforms for them, we provide science based solutions to help customers increase performance, solve product development issues and engineer better manufacturing processes.

Contact Information

For product prices, availability, or order placement, contact our customer service by visiting www.momentive.com/Contacts

For literature and technical assistance, visit our website at: www.momentive.com

Momentive and the Momentive logo are trademarks of Momentive Performance Materials Inc.

DISCLAIMER

The information provided herein was believed by Momentive Performance Materials Inc. (collectively with its subsidiaries, "Momentive") to be accurate at the time of preparation or prepared from sources believed to be reliable, but it is the responsibility of the user to investigate and understand other pertinent sources of information, to comply with all laws and procedures applicable to the safe handling and use of the product, and to determine the suitability of the product for user's intended application or use. All products supplied by Momentive are subject to Momentive's standard terms and conditions of sale. **MOMENTIVE MAKES NO WARRANTY, EXPRESS OR IMPLIED, CONCERNING THE PRODUCT OR THE MERCHANTABILITY OR FITNESS THEREOF FOR ANY PURPOSE OR CONCERNING THE ACCURACY OF ANY INFORMATION PROVIDED BY MOMENTIVE**, except that the product shall conform to Momentive's specifications. Nothing contained herein constitutes an offer for the sale of any products.

Mag-Ram® Magnetic Separator USDA Dairy-Grade Certificate - DAIRY-GRADE MODELS ONLY

**UNITED STATES DEPARTMENT OF AGRICULTURE
MARKETING AND REGULATORY PROGRAM
AGRICULTURAL MARKETING SERVICE**

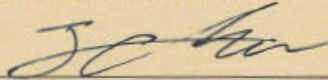
EQUIPMENT ACCEPTANCE CERTIFICATE

Firm: **Magnattack™ Global**
16 Prince of Wales Avenue
Unanderra, New South Wales 2526
Australia

Model Designation: **Magnets – Sanitary**
*MAGNATTACK™ RE80™; MAG-RAM™ 230/240/2/51-D, 230/240/3/51-D,
230/240/5/51-D, 240/300/2/51-D, 240/300/3/51-D, 290/300/3/51-D, 290/300/5/51-D,
300/360/3/51-D, 300/360/5/51-D, 350/360/3/51-D, 350/360/5/51-D, 360/420/3/51-D,
360/42/5/51-D, 410/420/4/51-D, 410/420/7/51-D, 420/480/4/51-D, 420/480/7/51-D,
510/520/5/51-D, 510/520/9/51-D, 520/580/5/51-D, 520/580/9/51-D*

August 19, 2025
Date of Issuance

August 18, 2030
Date of Expiration



U.S. Department of Agriculture
Marketing and Regulatory Program
Agricultural Marketing Service
Dairy Grading Branch
1400 Independence Ave., SW
Washington, DC 20250-0230

The issuance of this form is based on U.S. Department of Agriculture, Dairy Grading Branch, Equipment Design Review Section, evaluation of the equipment listed above for compliance with:

USDA Guidelines for the Sanitary Design and Fabrication of Dairy Processing Equipment (February 2022)

This form does not limit USDA's responsibility to take appropriate action in cases in which evidence of non-compliance, improper maintenance, or non-sanitary conditions have been observed.



United States Department of Agriculture



DA-161 (05/17) Destroy previous editions.

Mag-Ram® Magnetic Separator Cylinder USDA Food-Grade Certificate



DuPont Chemicals & Fluoroproducts
Chestnut Run Plaza 702
4417 Lancaster Pike
Wilmington, DE 19805

May 8, 2012

Krytox® Replacement Product

Dear Krytox® Performance Lubricants Customer,

In order to streamline our product offering, we have made the following name changes to several of our H-1 food grade rated lubricants.

The composition of the products listed below has not changed nor has the manufacturing process methods or ingredients. In addition, the same NSF registration number still applies to these products as did their predecessors. Products with the old name cannot be ordered after June 30th, 2012.

Old FG name	New Krytox® name	NSF Registration #	Listing type
Krytox® FG 20	GPL 203	123951	H-1
Krytox® FG 22	GPL 205	124004	H-1
Krytox® FG 24	GPL 206	123998	H-1
Krytox® FG 26	XHT-SX	124005	H-1
Krytox® FG 30	GPL 223	124003	H-1
Krytox® FG 32	GPL 225	124002	H-1
Krytox® FG 34	GPL 226	124000	H-1
Krytox® FG 35	XHT-AC	135326	H-1
Krytox® FG 36	XHT-ACX	123999	H-1
Krytox® FG 40	GPL 105	124010	H-1
Krytox® FG 45	XHT 500	124009	H-1
Krytox® FG 50	XP 1A5	124008	H-1
Krytox® FG 10	VPF 1506	123393	H-1
Krytox® FG 12	VPF 1514	123949	H-1
Krytox® FG 15	VPF 1525	123950	H-1

Our other lubricants with NSF H-1 listings are unchanged with the same names and registration numbers. All of the lubricants still maintain the Kosher certification.

We truly value your business and continued interest in the Krytox® performance lubricants products. Please contact your current supplier of Krytox® Performance Lubricants if you have additional questions.

Sincerely,

Yutaka Kamai
North America Product & Market Manager – Krytox® Performance Lubricants

Mag-Ram[®] Magnetic Separator Polyurethane Seals USDA Dairy-Grade Certificate



Certificate of Conformance

Customer: Consolidated Bearing Co
Customer reference: IW101MOD50X63
Alliance Sealing Job Number: BI1WG73190
Customer Specification: Polyurethane

Materials:

Compound(s): C-HPU
Generic description: Polyurethane
Material Batch number(s): -N/6/3/D
Material cure date: 2/11
Shelf Life Expiration Date: 5-7 Years
Hardness 57 ± 3 Shore D

Product Specification

This document certifies that the above mentioned parts have been manufactured in accordance with the customer specification provided and to Alliance Sealing internal works procedures.

The Material is approved for food contact in accordance with FDA CFR 21-177.2600

A handwritten signature in black ink, appearing to read 'J. Hawley', is positioned above the 'Checked by:' field.

Checked by:

Date: 20/07/2014

Alliance Sealing Pty Ltd
3 The Crescent,
Kingsgrove NSW 2280
PH: 02 9947 9200
FAX: 02 9150 9192
Email: sales@alliancesealing.com.au

Mag-Ram® Magnetic Separator Garlock Gylon Compliance Statement



an EnPro Industries company

1600 Division Street
Palmyra, New York 14522
Phone: 315-597-8011
800-448-6800
Fax: 315-597-3030
www.garlock.com

November 18, 2015

COMPLIANCE STATEMENT

Garlock Gylon® Style 3540 and Style 3545

This is to certify the following:

Garlock Gylon® Styles 3540 and 3545 conform to both the Ingredient and Extract requirements of Food and Drug Administration Regulation 21 CFR 177.1550, "Perfluorocarbon Resins - Substances for Use as Basic Components of Single and Repeated Use Food Contact Surfaces". Additives in these Styles are approved for use in contact with food under 21 CFR 181.1 and 21 CFR 182.1217.

Garlock Gylon® Styles 3540 and 3545 have been tested by Iuvo Bioscience per the United States Pharmacopeia (USP) testing protocols <87> and <88>. The material was found to meet the requirements of USP <87> Biological Reactivity Tests, In Vitro; Elution Test, in accordance with USP 38 - NF 33, First Supplement. The materials were also found to meet the requirements of USP 38-NF 33, General Chapter <88> for Class VI designation at a temperature extraction of 121°C for one hour.

No Animal Derived Ingredients (ADIs) are used in the composition or in the process of manufacturing Garlock Gylon® Style 3540 and 3545. We can therefore state that Garlock Gylon® Styles 3540 and 3545 are Transmissible Spongiform Encephalopathy (TSE) Free.

No Phthalates are intentionally added to Garlock Gylon® Styles 3540 and 3545, nor are disclosed as contaminants in any of the raw materials. Please note that we have not specifically analyzed these Styles for the presence of such chemicals. However, based on our current knowledge of the raw materials and process in their manufacturer, we have no reason to expect that any these substances would be present at any appreciable level, if at all

Michael P. McNally
Senior Chemist



Sheet Rubber

White (FDA) EPDM Rubber Sheet

Reglin White (FDA) EPDM is a premium grade 65 Duro food grade UV resistant rubber sheet.

FEATURES

Reglin White (FDA) EPDM Rubber Sheet is made from a premium EPDM rubber compound and will display high temperature and good chemical resistance to both acids and alkalis.

Reglin White (FDA) EPDM Rubber Sheet is tested and conforms to FDA 21 CFR 177.2500 "Rubber articles intended for repeated use". This makes it suitable for contact with dry, aqueous and fatty foods as defined by the FDA.

White (FDA) EPDM has good ozone/UV resistance making it weather resistant and suitable for outdoor use. It has good physical properties including mechanical strength.

EPDM exhibits outstanding water resistance. It is suitable for prolonged exposure to aquatic environments and will not deteriorate when submerged in fresh or sea water. It is compatible with hot water and steam.



TECHNICAL INFORMATION

Polymer	EPDM	
Polymer Content	100%	
Colour	White	
Specific Gravity	1.25	ASTM D297
Hardness	65° ± 5° Shore A	ASTM D2240
Tensile Strength	9 MPa (min)	ASTM D412
Elongation @ Break	350% (min)	ASTM D412
Abraction	275 mm ² (max) @ 10N	ASTM D5963
Temperature Range	-25°C to +110°C	
Tear Strength	20 N/mm (min)	ASTM D624

03 9761 5440

www.reglinrubber.com.au

Mag-Ram[®] Magnetic Separator FDA EPDM Rubber Sheet



Sheet Rubber

AVAILABLE SIZES

Reglin stock White (FDA) EPDM Rubber Sheet in a range of standard thicknesses and roll sizes. It can also be supplied in cut lengths, strips, pads and a wide variety of custom cut shapes and gaskets to suit your application requirements.

PART NO.	SIZE	WEIGHT (PER L/M)
WEPDM01.01400	1mm x 1400mm (10 L/M Rolls)	2 kgs
WEPDM01.5	1.5mm x 1200mm (10 L/M Rolls)	2.5 kgs
WEPDM03	3mm x 1200mm (10 L/M Rolls)	5 kgs
WEPDM04.5	4.5mm x 1200mm (10 L/M Rolls)	7.5 kgs
WEPDM06	6mm x 1200mm (10 L/M Rolls)	10 kgs
WEPDM10	10mm x 1200mm (10 L/M Rolls)	15.5 kgs

STANDARDS

White (FDA) EPDM conforms with FDA 21 CFR 177.2600.

As stated in FDA CFR 21.177.2600. In accordance with good manufacturing practise finished rubber articles intended for repeated use in contact with food shall be thoroughly cleansed prior to their first use in contact with food.



03 9761 5440

www.reglinrubber.com.au

Spherical In-Line Pneumatic Transfer Magnet Permabond Engineering Adhesives



Wessex Business Park
Wessex Way
Colden Common
Hampshire SO21 1WP
United Kingdom
Tel +44 (0)1962 711 661
Fax +44 (0)1962 711 662
www.permabond.com

9 September 2020

To whom it may concern.

Permabond Engineering Adhesives Ltd. is pleased to confirm that all the raw materials used in the formulation of Permabond **ET5145** part **A** and **B**, are listed in the FDA code of Federal Regulation Title 21 CFR 175 (Indirect Food Additives: Adhesives and Components of Coatings). Entries appear in either Subsection 105 Adhesives, Subpart B – Substances for use only as components of adhesive, and/or Subsection 300 Resinous and polymeric coatings, Subpart C – Substance for Use as Components in Coatings.

We trust this will provide the information you require but please contact us if you need any further details.

Yours sincerely,

A handwritten signature in blue ink, appearing to read "Monika Bagińska".

Monika Bagińska
Regulatory Compliance Manager

Spherical In-Line Pneumatic Transfer Magnet Permabond Engineering Adhesives Technical Data Sheet



PERMABOND® ET5145

Two-Part Epoxy

Technical Datasheet

Features & Benefits

- Adhesion to a wide variety of substrates
- Full cure at room temperature
- FDA Compliant formulation
- High shear and peel strength
- Good impact strength

Description

PERMABOND® ET5145 is a 1:1 mixable epoxy adhesive. It has excellent resistance to impact and vibration and is ideal for structural bonding of metal, wood, composites and certain plastics. ET5145 is high strength and has excellent environmental durability. It is suitable for applications where cured product is to come into contact with food or beverage.

Permabond ET5145 has been specifically formulated to meet the requirements of:

- FDA 175.105 and 175.300

Physical Properties of Uncured Adhesive

	ET5145A	ET5145B
Chemical composition	Epoxy Resin	Polyamine Hardener
Appearance	White	Ivory
Viscosity @ 25°C	20rpm: 50,000-80,000 mPa.s (cP) 2rpm: 200,000-300,000 mPa.s (cP)	20rpm: 100,000-200,000 mPa.s (cP) 2rpm: 250,000-400,000 mPa.s (cP)
Specific gravity	1.3	1.3

Typical Curing Properties

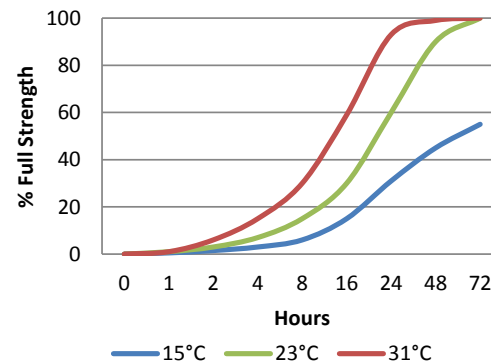
Mix ratio by volume	1:1
Maximum gap fill	2 mm 0.08 in
Usable / pot life @23°C 1+1g	50-80 mins
Handling time @23°C	3-5 hours
Working strength	@23°C: 16 hours @60°C: 30 minutes
Full cure	@23°C: 72 hours @60°C: 1 hour

Typical Performance of Cured Adhesive

Shear strength (mild steel)* (ISO4587)	19-21 N/mm ² (2800 -3000 psi)
Peel strength (aluminium) (ISO4578)	30-50 N/25mm (7-11 PIW)
Hardness (ISO868)	75-85 Shore D
Glass transition temperature Tg	40-50°C (104-122°F)
Dielectric strength	15-25 kV/ mm

*Strength results will vary depending on the level of surface preparation and gap.

Strength Development



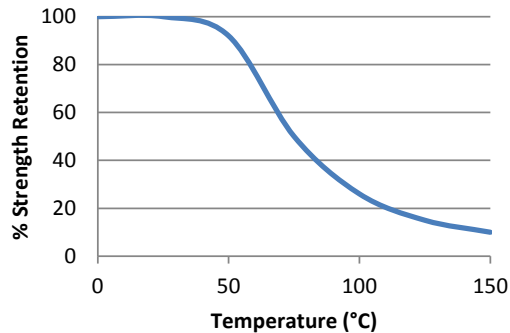
Graph shows typical strength development of bonded components. An increase of 8°C in temperature will halve the cure time. Lower temperatures will result in a slower cure time.

The information given and the recommendations made herein are based on our research and are believed to be accurate but no guarantee of their accuracy is made. In every case we urge and recommend that purchasers before using any product in full-scale production make their own tests to determine to their own satisfaction whether the product is of acceptable quality and is suitable for their particular purpose under their own operating conditions. THE PRODUCTS DISCLOSED HEREIN ARE SOLD WITHOUT ANY WARRANTY AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED.

No representative of ours has any authority to waive or change the foregoing provisions but, subject to such provisions, our engineers are available to assist purchasers in adapting our products to their needs and to the circumstances prevailing in their business. Nothing contained herein shall be construed to imply the non-existence of any relevant patents or to constitute a permission, inducement or recommendation to practice any invention covered by any patent, without authority from the owner of this patent. We also expect purchasers to use our products in accordance with the guiding principles of the Chemical Manufacturers Association's Responsible Care® program.

Spherical In-Line Pneumatic Transfer Magnet Permabond Engineering Adhesives Technical Data Sheet

Hot Strength



"Hot strength" shear strength tests performed on mild steel. Fully cured specimens conditioned to pull temperature for 30 minutes before testing at temperature.

ETS145 can withstand higher temperatures for brief periods (such as for paint baking and wave soldering processes) providing the joint is not unduly stressed. The minimum temperature the cured adhesive can be exposed to is -40°C (-40°F) depending on the materials being bonded.

Additional Information

This product is not recommended for use in contact with strong oxidizing materials. Information regarding the safe handling of this material may be obtained from the safety data sheet.

Users are reminded that all materials, whether innocuous or not, should be handled in accordance with the principles of good industrial hygiene.

This Technical Datasheet (TDS) offers guideline information and does not constitute a specification.

Storage & Handling

Storage Temperature	5 to 25°C (41 to 77°F)
---------------------	------------------------

Surface Preparation

Surfaces should be clean, dry and grease-free before applying the adhesive. Use a suitable solvent (such as acetone or isopropanol) for the degreasing of surfaces. Some metals such as aluminium, copper and its alloys will benefit from light abrasion with emery cloth (or similar), to remove the oxide layer.

Directions for Use

- Dual cartridges:
 - Insert the cartridge into the application gun and guide the plunger into the cartridge.
 - Remove the cartridge cap and dispense material until both sides are flowing.
 - Attach the static mixer to the end of the cartridge and begin dispensing the material.
- Apply material to one of the substrates.
- Join the parts. Parts must be joined within 50-80 minutes of mixing the two epoxy components.
- Large quantities and/or higher temperature will decrease the usable life or pot life.
- Apply pressure to the assembly by clamping for 5 hours or until handling strength is obtained.
- Full cure will be obtained after 72 hours at 25°C (77°F). Heat can be used to accelerate the curing process.

Video Links

Surface preparation:

<https://youtu.be/8CMOMP7hXjU>



Two-part epoxy directions for use:

<https://youtu.be/GRX1RyknYqC>



www.permabond.com

• UK: 0800 975 9800

• General Enquiries: +44 (0)1962 711661

• US: 732-868-1372

• Asia: + 86 21 5773 4913

info.europe@permabond.com

info.americas@permabond.com

info.asia@permabond.com

The information given and the recommendations made herein are based on our research and are believed to be accurate but no guarantee of their accuracy is made. In every case we urge and recommend that purchasers before using any product in full-scale production make their own tests to determine to their own satisfaction whether the product is of acceptable quality and is suitable for their particular purpose under their own operating conditions. THE PRODUCTS DISCLOSED HEREIN ARE SOLD WITHOUT ANY WARRANTY AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED.

No representative of ours has any authority to waive or change the foregoing provisions but, subject to such provisions, our engineers are available to assist purchasers in adapting our products to their needs and to the circumstances prevailing in their business. Nothing contained herein shall be construed to imply the non-existence of any relevant patents or to constitute a permission, inducement or recommendation to practice any invention covered by any patent, without authority from the owner of this patent. We also expect purchasers to use our products in accordance with the guiding principles of the Chemical Manufacturers Association's Responsible Care® program.

Spherical In-Line Pneumatic Transfer Magnet Silicone Rubber FDA 21 Test



广东聚合有机硅材料有限公司

Guangdong Polysil Co., LTD.

Product Instruction

【Product Name】: High temperature vulcanization silicone rubber

【Item No】: 9X3U series

【Description】: ◎Mold release resistance, structural performance, processing performance

◎High performance.

◎Complies with the RoHS/FDA environmental protection requirements

【Performance Data】: ◎ 2, 5- Dimethyl-2, 5-di (butyl peroxy) hexane, 0.5%,
170°C×10min (mold pressing)

MODEL NO		923U	933U	943U	953U	963U	973U	983U
PERFORMANCE	Unit							
ITEM								
Appearance		translucent	translucent	translucent	translucent	translucent	translucent	translucent
Plasticity		130-160	140-165	170-200	210-240	240-270	285-320	320-350
Density	g/cm ³	1.06	1.08	1.11	1.15	1.18	1.22	1.24
Hardness	Shore A	18-22	28-32	38-42	48-52	58-62	68-72	78-82
Tensile Strength	M Pa	≥4	≥6.0	≥7.5	≥7.5	≥7.5	≥7	≥6.5
Elongation	%	≥700	≥600	≥480	≥400	≥280	≥240	≥100
Tear Strength	KN/m	≥10	≥10	≥10	≥12	≥12	≥10	≥8
Compression Set	%	≤7	≤6	≤4	≤4	≤4	≤4	≤4
Linear Shrinkage	%	3.6-4.0	3.5-3.9	3.4-3.8	3.3-3.7	3.2-3.6	3.1-3.5	2.9-3.3

【Application】: ◎Industrial products: remote control keys, seals, and other miscellaneous items.

◎Sports: diving, swimming cap.

地址: 广东省中山市火炬开发区沙边工业区沿江西路

TEL: 0760-23898189

FAX: 0760-85331651

Sanitary Powder Transfer Magnet USDA Dairy-Grade Certificate - DAIRY-GRADE MODELS ONLY

UNITED STATES DEPARTMENT OF AGRICULTURE
MARKETING AND REGULATORY PROGRAM
AGRICULTURAL MARKETING SERVICE

EQUIPMENT ACCEPTANCE CERTIFICATE

Firm: **Magnattack™ Global**
16 Prince of Wales Avenue
Unanderra, New South Wales 2526
Australia

Model Designation: **Magnets – Sanitary**
*MAGNATTACK™ RE80™; Powder Transfer Magnet™ 3/2/51-D,
4/2/63-D, 5/2/76-D, 230/240/25 S, 6/2/100-D (With Tri-Clamp or
Butt Weld Process Connections)*

August 19, 2025
Date of Issuance

August 18, 2030
Date of Expiration



U.S. Department of Agriculture
Marketing and Regulatory Program
Agricultural Marketing Service
Dairy Grading Branch
1400 Independence Ave., SW
Washington, DC 20250-0230

The issuance of this form is based on U.S. Department of Agriculture, Dairy Grading Branch, Equipment Design Review Section, evaluation of the equipment listed above for compliance with:

USDA Guidelines for the Sanitary Design and Fabrication of Dairy Processing Equipment (February 2022)

This form does not limit USDA's responsibility to take appropriate action in cases in which evidence of non-compliance, improper maintenance, or non-sanitary conditions have been observed.



United States Department of Agriculture



DA-161 (05/17) Destroy previous editions.



AMR Magnet
Validations are
endorsed by HACCP
International

Magnet Testing & Validation Services

P. +61 2 4272 5756
E. info@amrconsulting.co
W. www.amrconsulting.co

Magnets play an important role in the safety of finished products and should be included in every food safety program to assist with removing the physical hazard of metal fragments from product streams.

Insufficient metal fragment controls leave your company at risk of contamination in final food products, consumer complaints, food recall, financial loss, and legal implications.

AMR Magnet Audits & Validation Reports allow you to minimize these risks by helping you understand the status of your magnets and highlighting areas of improvement required to increase foreign metal fragment control.



AMR Magnet Validations = Reduced Risk!

Who is AMR?

We are a small team of highly trained technicians with extensive experience in metal fragment control design, testing, and analysis. We specialize in magnet testing and magnet validations for the food industry.

Our team works closely with clients across North America, Australia & New Zealand to help them gain control over foreign metal fragments and reduce risk of contamination in their final product.



More than a simple strength test...

The strength of your magnets, although important, is not the only factor that determines their effectiveness.

AMR Magnet Validation Reports go above and beyond a simple strength test. They contain detailed and accurate information including;

- Informative inspection reports on each magnet
- Expert advice on controlling hazards and reducing metal contamination risks
- Recommendations for new and upgraded magnetic separation systems, where required.

In compliance with the HACCP International Food Safety Standard 0909MAGSEP 1-2010, AMR use currently calibrated gauss meters to obtain magnet strength, rather than outdated and often inaccurate pull test methods.



AMR Reports are valuable in...

Ensuring magnetic separators;

- Are designed to current industry standards
- Are of a specified strength
- Are installed correctly and in appropriate locations
- Provide maximum product stream coverage

Helping food industry clients;

- Reduce risks of metal contamination in final product
- Protect sensitive processing equipment
- Reduce consumer complaints, brand name damage, food recall, and financial loss
- Prepare for upcoming plant audits and inspections
- Comply to stringent QA and industry standards



I don't know of anyone else on the planet who have the insight and knowledge of food industry magnets and metal contamination control that AMR and their partners do.

- **US Food Safety Auditor**

AMR came in and did a complete capability study on their magnets in our operation which help us prioritize which magnets we need to relocate, repair, or replace... all the way from "on the cat" down to "recommended". In addition, they also let us know which magnets don't need changing and already comply.

- **Reliability Engineer, major US-based confectionary company.**

AMR Reports are amazing. They show us exactly what we need to know and what our auditors need to know regarding our magnets and metal fragment controls.

- **Quality Assurance, Australian spice manufacturer.**



AMR's range of services include:

- ✓ HACCP International certified magnet validations and metal fragment control risk assessments.
- ✓ Calibration of gauss/tesla meters and test magnets traceable to an accredited laboratory.
- ✓ Supply of calibrated test magnets & validation kits.
- ✓ Consulting services for metal fragment control in raw materials, ingredients and final products.
- ✓ R&D magnetic separator design and devices to prototype stage.

Ready to reduce your metal contamination risks and increase food safety?

We're here to help. Whether you need further information, have queries, or would like a quote for your next magnet validation, please contact the AMR team.

P. Australia +61 2 4272 5756

P. USA +1 630 994 3310

E. info@amrconsulting.co

W. www.amrconsulting.co

AMR Magnet
Validations are
certified by HACCP
Int'l recognised



What is involved?

STEP 1 Onsite Magnet Strength Test and Inspection

A trained technician will conduct the initial magnet audit and collect essential data on each magnet at your site. A risk assessment will be conducted where unprotected risk areas are identified and where magnetic separators should be considered. Testing time is minimal, and we align with your production schedule to minimize disruption.

STEP 2 AMR Magnet Validation Report

Following the audit, the data will be reviewed by our metal fragment control experts in accordance with relevant food industry standards. This data will be collated into a comprehensive AMR Magnet Validation Report and supplied to you. The Report includes a detailed analysis on all existing magnets, identifies areas where action is required to reduce risk, and provides recommendations for rectification. The Report will also include confirmation of locations where current magnet protection is adequate and no action is required.

STEP 3 Report Review & Action Plan

A technician will regroup with your team to review the report and provide a corrective action plan to close the gaps and enhance your food safety controls. Magnattack Global will support as a consultant associate to ensure that the final outcome = full compliance.

STEP 4 Plan Implementation

Magnattack technicians will work with your team on a quality, engineering, and production basis to provide replacement magnetic separation systems unique to your individual needs. This will ensure long-term solutions are implemented that have a positive ROI and a positive impact on food safety and risk reduction.

STEP 5 Ongoing Support

AMR and Magnattack technicians work with your team to re-evaluate your magnets on an annual cycle and provide ongoing assistance to maintain foreign metal fragment control. This will assist you in the early detection of potential issues, prior to escalation of metal contamination complaints or recalls.



Magnattack Global technicians are certified Magnet Testing Agents for AMR in North America, Australia, and New Zealand.

www.magnattack.com

www.magnattackglobal.com

Magnattack Magnet Warranty Statement

FOR PRESSURE PIPELINE, MAGNET FILTER AND OTHER LIQUID MAGNETS ONLY

THE WARRANTY COMMENCES ON THE DATE NOTED ON SUPPLY DATE ON THE VALIDATION CERTIFICATE.

- 1) Magnetic Strength Retention Warranty = 1 Year within tolerance of specified strength.
- 2) Stainless Steel Housings Warranty = 1 Years.

The above applies only to MAGNATTACK® RE80™ & RE80™HT magnetic equipment used in normal wear and tear production conditions and not subject to excessive abrasion, heat, corrosion, thermal shock, welding, abuse, adverse electric fields. Unauthorized disassembly voids warranty.

Magnets should properly be validated by a trained technician using currently calibrated gauss testing equipment every 12 months to avoid warranty being compromised.

Detailed guarantee conditions are available on request. Refer also MAGNATTACK® Global standard Terms & Conditions for Supply of Goods or Services.

Please Note: No warranty on seals, gaskets, or wear items.

DISCLAIMER

Due to variables beyond Magnattack's control, Magnattack Global will not guarantee 100% of metal fragments being removed from processing streams or products when using Magnattack magnetic separation equipment.

NOTICE TO RESELLERS AND MAGNATTACK PARTNERS

While Dairy Grade equipment supplied within the United States is USDA accepted, No additional markings or references to USDA is permitted. **This is a USDA requirement.** Any additional etching or markings on the equipment is not permitted without permission by Magnattack.

U.S.A. Terms & Conditions for Supply of Goods or Services

SPECIAL NOTE

Magnattack® Global are the manufacturers and suppliers of very specialized magnetic and associated equipment. We are not able to enter into contracts based exclusively on some customer's terms and conditions of purchase (which terms and conditions of purchase may be quite acceptable to other suppliers of conventional goods and services).

Whilst Magnattack® Global aims to secure the best possible results for its valued customers, 100% separation efficiency cannot be achieved or guaranteed.

This is because the effectiveness of magnets can vary due to factors beyond our control. These factors may include partial demagnetization over time, variations in flow or variations of additives and moisture contents in materials processing. Other variables can be space restrictions, budget limitations and the degree of magnetic susceptibility of the magnetic contamination. These factors affect the degree in which a protective installation can be ideal and for how long the ongoing degree of separation efficiency is maintained.

In consideration of our accepting your purchase order, you agree to accept our terms and conditions in this Special Note and the Terms & Conditions set out below (and that those terms and conditions will prevail over the terms and conditions attached to your purchase order to the extent of any inconsistency). We request that you acknowledge and agree by return. On receipt of the acknowledgment and agreement or, if we have not heard to the contrary from you within 7 days of your receiving this Special Note, you will be deemed to have provided this acknowledgment and agreement. Only then will we commence processing your order and the delivery date will be appropriately adjusted.

The purchaser understands that indemnities are limited to the extent of cover the seller's present insurances provide, and on the basis that the buyer carries out its own risk assessment in relation to the product's suitability and safety in the particular circumstances of use intended. Seller shall have no liability to the buyer to the extent such claims, demands, losses, and expenses are due to the negligence or misconduct of buyer, its employees, agents, officers, and directors. Buyer further agrees to indemnify, defend, and hold seller harmless, from any claims, demands, causes of action, liabilities or damages including attorney's fees, arising from, or relating to any claim arising from buyer's modification or any other change being incorporated by buyer or at buyer's direction, to the products.

These Terms and Conditions govern the Goods and Services including the deliverables to be provided by the Supplier as described in the Quotation or Form to which these Terms and Conditions are attached. These Terms and Conditions form part of the engagement of the Supplier by the Customer and supersede all prior terms and conditions of engagement.

DEFINITIONS: In these terms and conditions, the following words have the following meanings:

1.1 Agreement means these terms and conditions for the supply of Goods and/or Services by Supplier and any attached Quotation or Form.

1.2 United States Consumer Law means federal or state statutes, codes, regulations or any other ordinances monitored or supervised by any governmental agency in the United States, including, but not limited to, federal and state Departments of Consumer Affairs.

1.3 Claim means any claim by any third person for loss or damage to any property, injury to or death of any person or economic loss arising out of or relating to any or all of the Goods or Services or any delay or failure in supplying the Goods or Services.

1.4 Confidential Information of a party means the following information in any form:

(a) Information and material, in tangible or intangible form (including, but not limited to, intellectual property, trade

secrets, developments, discoveries, inventions, ideas, and theories as it relates to the technical, operating, business, marketing, and financial information) and certain other confidential or proprietary information and trade secrets not generally known to the public;

(b) The business, operations, systems, services, and know-how of Manufacturer or Supplier, including, but not limited to, any and all intellectual property, technical data, design, software, including source code, object code, pseudo-code, algorithms and flow diagrams, know-how, standard forms and documents developed and/or used by Manufacturer or Supplier, and literature distributed by Manufacturer or Supplier relating in any manner to marketing, promoting, selling and distributing the Goods and Services not generally known to the public;

1.5 Consequential Loss means any loss or damage suffered by a party or any other person that is indirect or consequential, including but not limited to loss of revenue, income, business, profits, goodwill, credit, business reputation, use, interest or opportunity; or damage to credit rating or denial of opportunity.

U.S.A. Terms & Conditions for Supply of Goods or Services

1.6 Consumer Warranty means a warranty or guarantee the User may have under federal and state laws from the Manufacturer or Supplier; or other rights in relation to the supply of goods or services by Manufacturer or Supplier that cannot lawfully be excluded.

1.7 Customer or User means the person(s), business entity(ies) or organization(s) named in the attached Quotation or Form.

1.8 Dispute means a dispute arising out of or relating to this Agreement, including without limitation, a dispute about the breach, termination, validity or subject matter of this Agreement, or a claim in equity or in tort relating to the performance or non-performance of this Agreement.

1.9 Fee means the total amount payable for Services in accordance with the attached Quotation or Form.

1.10 Force Majeure Event affecting a party means anything outside the party's reasonable control, including without limitation, labor dispute or shortage, materials shortage, fire, flood, drought, storm, lightning, act of God, peril of sea or air, explosion, sabotage, accident, embargo, civil commotion, act of war and war.

1.11 Goods means all the goods described in the Quotation or Form the Supplier is required to supply under this Agreement.

1.12 Intellectual Property Rights means all intellectual property rights, including without limitation:

(a) any documentation, material, report, process, procedure, methodology, research or software brought to the engagement by Supplier or developed or created as a result of or in the course of the engagement or provision of the Services;

(b) patents, copyright, rights in circuit layouts, plant breeder's rights, registered designs, trademarks and the right to have confidential information kept confidential; and

(c) any application or right to apply for registration of any of those rights. Price means the price for Goods described in Supplier's current price list or in any Quotation or Form.

1.13 Quotation or Form means the attached document prepared by Supplier for the supply of Goods or Services to Customer, as varied in writing by the parties from time to time.

1.14 Security Interest means:

(a) any security for the payment of money or performance of obligations of this Agreement or Quotation or Form attached hereto including a mortgage, charge, lien, pledge, trust or power, or title retention agreement;

(b) any document to grant or create anything referred to in either paragraphs (a) or (b) of this definition and any other thing which gives a creditor priority to any other creditor with respect to any asset or an interest in any asset.

1.15 Services means all the services described in the Quotation or Form the Supplier is required or offers to supply under this Agreement.

1.16 Supplier means MAGNATTACK® Global USA, LLC, an Illinois limited liability company and/or MAGNATTACK® Global, an Australian company.

1.17 Manufacturer means Supplier or Supplier's Affiliate Company, ACTIVE MAGNETICS RESEARCH PTY LTD., an Australian limited company.

2. AGREEMENT DOCUMENTS

2.1 Agreement consists of:

(a) this document; and

(b) any Quotation or Form attached hereto.

2.2 If there is an inconsistency between one or more terms in the Agreement and terms stated on any Quotation or Form attached hereto, the terms in the Quotation or Form will govern to the extent of the inconsistency.

2.3 No Customer document including without limitation, any purchase terms or consignment note or receipt or delivery docket,

forms part of or varies this Agreement.

2.4 This Agreement supersedes all prior representations and agreements between the parties.

2.5 If the parties want to vary this Agreement, they must do so in writing signed by both parties.

2.6 Any report or advice provided to a Customer in the course of providing the Service is personal to Customer and non-transferable.

3. SUPPLY OF GOODS OR SERVICES

3.1 Supplier must supply the Goods or Services to Customer in accordance with this Agreement, including without limitation, any Quotation or Form.

3.2 An order placed by Customer under this Agreement will not be effective unless it is accepted by Supplier which may be by supply of all or part of the Goods or Services ordered.

3.3 Supplier may refuse to accept an order, or part of an order, placed by Customer without giving reasons.

3.4 Supplier may cancel the supply of Goods or Services at any time before the delivery of any instalment of the Goods or Services by written notice to Customer. Supplier is not liable for any loss arising from such cancellation.

3.5 Customer may not without Supplier's consent cancel an order after Supplier has accepted the order. If Supplier consents to the cancellation of an order, Customer will be liable for any costs incurred by Supplier up to the time of cancellation.

3.6 Magnattack reserves the right, in its sole discretion, to change the price of any Purchase Order not shipped to the Customer within 120 days of the PO Acceptance Date. PO Acceptance Date shall mean that date that Magnattack sends to the Customer, via email, its acceptance of the Customer's Purchase Order.

4. PLACEMENT OF ORDERS

4.1 Customer must sign any order it places with Supplier. Customer may make an order by phone if Customer confirms the order in writing.

5. DELIVERY

5.1 Unless otherwise stated in any Quotation or Form, the Price for Goods does not include delivery fees.

5.2 If Customer requests, Supplier will arrange for delivery of the Goods to Customer's premises (or any other location) notified to Supplier. Customer bears all risk and cost of any delivery Supplier arranges. Supplier will arrange delivery, as agent only, on behalf of Customer.

5.3 Customer must accept the deliverables (as specified in the Quotation or Form) which conform to the requirements of the Quotation or Form. Customer will promptly give Supplier notification of any non-conformance of the deliverables with such requirements (Non-conformance), and Supplier will have a reasonable period of time, based on the severity and complexity of the Non-conformance, to correct the Non-conformance. If Customer fails to promptly notify Supplier of any Non-conformance, then the deliverables will be considered accepted by Customer.

5.4 Supplier will not be liable for:

(a) any loss of or damage to the Goods; or

(b) any delay in delivery, non-delivery or mis-delivery of the Goods that arises in any way in relation to the delivery of Goods arranged by Supplier under Clause 5.2.

5.5 Customer must pay any delivery fee for Goods supplied as well as any insurance premium or deductible for damage to Goods during delivery. Fees for delivery may be high because airfreighting of magnetic materials requires special packaging and insulating of Goods.

5.6 Any reference in Quotation or Form to "Delivery time" means that period starting when Supplier receives Customer's order, approved dimensions and all information Supplier needs to

U.S.A. Terms & Conditions for Supply of Goods or Services

complete manufacture and, where applicable, installation.

5.7 If Customer orders quantities of different Goods for various locations, Customer must give Supplier a prioritized list showing the desired delivery dates for each item before Supplier will confirm a delivery schedule

6. RISK AND TITLE TO GOODS

6.1 Risk in Goods passes to Customer when those Goods are placed onto a vehicle at Supplier's location or delivered by Supplier to Customer's location.

6.2 Supplier will not be liable for:

(a) any loss of or damage to Goods; or

(b) any delay in delivery, non-delivery or mis-delivery of Goods occurring after Goods have been placed onto a vehicle at Supplier's location or delivered by Supplier to Customer's location, whether or not any liability asserted against Supplier arises in contract, tort, or bailment.

6.3 Supplier is not a common carrier and accepts no liability as a common carrier.

6.4 Supplier's rights under this Section secure:

(a) Supplier's right to receive the Price of the Goods; and

(b) all other amounts owing to Supplier under this

Agreement and any other agreement.

6.5 All payments received from Customer must be applied in accordance with This Agreement or any Quotation of Form attached thereto by Supplier:

(a) Until full payment in cleared funds is received by Supplier from Customer, legal title and property in all Goods supplied under this Agreement or any Quotation of Form attached thereto remains in Supplier and does not pass to Customer;

(b) Customer must not sell or otherwise dispose of Goods or services provided by Manufacturer or Supplier except in the ordinary course of Customer's business; and

(c) In addition to any rights Supplier may have under any governmental or agency statute, regulation or ordinance, Supplier may, without advance notice, enter any location where it suspects Goods to which Supplier still has legal title and ownership, and User is more than ninety (90) days past due for payment of Goods, may be located and remove them without committing a trespass, even though they may have been attached to other goods or land not the property of Supplier, and for this purpose Customer indemnifies and holds Supplier harmless to enter such location, and from and against all losses suffered or incurred by Supplier as a result of exercising its rights under this Section.

6.6 If Customer resells Goods to which Supplier still holds legal title and ownership, Supplier is entitled to the proceeds of the resale.

6.7 Customer warrants that it does not intend to use Goods or Services provided by Manufacturer or Supplier predominantly for personal, domestic or household purposes.

7. VARIATION TO GOODS OR SERVICES

7.1 If User wishes to vary Goods or Services provided by Manufacturer or Supplier, including without limitation, extending the time for delivery of Goods or completion of Services, User must first obtain express advance written approval to do so from Supplier. Supplier will not deliver any Goods or commence any Services until the parties have agreed in advance and in writing to the scope and Price or Fee for those Goods or Services.

8. PAYMENT

8.1 Unless otherwise stated in a Quotation or Form, prior to delivery or pick up, Customer must pay Supplier:

(a) for standard/ready-made Goods;

(b) for any Goods which the Supplier custom builds for Customer holding a credit account with Supplier, and/or which

Supplier imports for Customer holding a credit account with Supplier, valued at \$20,000 or higher, on the following terms: 35% of total Price as a non-refundable deposit at the time of Order; any mutually agreed progress payment, if any; and within no more than seven (7) days of the date of the Deposit invoice for Price of Goods; and

(c) for Services – the Fee, including without limitation, the cost of the technician's time, travel, and accommodations for User location site visits, if any, no more than seven (7) days of the date of the final invoice of the Fee for Services.

8.2 Customer may only return Goods to Supplier for which a final invoice has been issued, pursuant to Section 14 of this Agreement, or any Manufacturer's Equipment Warranty.

8.3 If Supplier extends credits to Customer for goods or Services, pursuant to any Quotation or Form attached to this Agreement, and Customer breaches said terms and conditions of said credit extension, or returns Goods in breach of Section 8.2 above, Customer must pay to Supplier additional fees, including, without limitation, 15% of Price for said Goods as a restocking fee, 10% of Fees for Services already rendered, as well as any shipping, handling or delivery fees and insurance premiums or deductible incurred by Supplier in supplying the Goods or Services to Customer.

8.4 In addition to the applicable Price for Goods and/or the Fee for Services, Customer must pay applicable goods and services tax and any other tax or charge which may be required by legislation from time to time.

8.5 Standard payment terms (unless stated otherwise in these Terms and Conditions or by Supplier in writing) for all orders (standard/ready-made and Custom), are 35% Deposit Net 7 days, and balance Net 30 days from shipment date of the Goods. Provided, however, that Customer Order or Standard/ready-made order more than \$5,000, will not be released to production until the Engineering Drawings are signed and Deposit Payment is received, as applicable.

8.6 Standard payment terms for non-account customers are 50% due with order placement or signed contract, and 50% due before shipment of Goods.

9. CONFIDENTIAL INFORMATION AND INTELLECTUAL PROPERTY

9.1 Customer acknowledges that:

(a) Supplier owns all Confidential Information and Intellectual Property Rights as defined in Section I above, in relation to the Goods or Services provided by Manufacturer or Supplier (whether alone or with Customer or its employees); and

(b) this Agreement does not transfer to Customer any rights in and to any Intellectual Property Rights in any material created by Supplier or its employees in relation to the Goods or Services.

9.2 It is a condition of this Agreement that the Goods must not be given to third parties or reproduced in any form or reverse-engineered without Supplier's advance written permission.

10. CONFIDENTIALITY

10.1 User: may use Confidential Information or Intellectual Property of Manufacturer or Supplier solely for the purposes of this Agreement and any Quotation or Form attached hereto;

10.2 Except as permitted under Section 10.1(c) and subject to Section 10.3, User must keep confidential all Confidential Information of manufacturer or Supplier; and

10.3 User may disclose Confidential Information of Manufacturer or Supplier to any outside third parties only with the advance written approval of Supplier (whose approval must not be unreasonably withheld);

U.S.A. Terms & Conditions for Supply of Goods or Services

(a) to persons who:

(i) are aware and agree that the Confidential Information of Supplier must be kept confidential; and

(ii) either have a need to know (and only to the extent that each has a need to know), or have been specifically approved by Supplier, or as required by law or stock exchange regulation.

10.4 Even though information is the Confidential Information of Supplier, Customer is not obliged to comply with Clause 10.1 in relation to that Confidential Information if:

(a) the Confidential Information becomes public knowledge during this Agreement; or

(b) Customer became aware of that Confidential Information from a third person, in circumstances where there was no breach of any obligation of confidence.

11. INSTALLATION

11.1 Customer or its nominated contractor will install all Goods unless the Quotation or Form states otherwise or Supplier otherwise agrees in writing to supply installation services on the terms of this Agreement.

11.2 If requested by Customer, Supplier will provide installation, maintenance and servicing instructions with or before the delivery of the Goods.

12. CUSTOMER INQUIRIES AND RELIANCE'S AS TO GOODS

12.1 Customer acknowledges that generally, magnetic separator and metal detectors Goods or equipment cannot be 100% efficient.

12.2 Manufacturer and Supplier, their employees, agent's representatives, and contractors provide consultation, information and advice reflective of Manufacturer's or Supplier's experience. Any recommendations which Manufacturer or Supplier gives to Customer are provided for informational purposes only, and Manufacturer and Supplier do not warrant the complete accuracy of any consultation information or advice they provide to Customer.

12.3 Customer must make its own inquiries in relation to the capability and appropriateness of Goods for a particular purpose. Upon specific request, Manufacturer or Supplier will assist Customer or User with tests of Goods at the sole cost of Customer.

13. EQUIPMENT SAFETY

13.1 General safety instructions regarding handling and safety of the Equipment and Goods are included in the Equipment and Goods, and also as stated in Manufacturer's and Supplier's Safety Rules Form regarding Goods attached to this Agreement and incorporated herein by this reference.

13.2 OSHA Safety Requirements.

(a) Supplier has included a copy of any required or necessary Occupational Health & Safety (OSHA) assessments for any and all Goods as they are to be used in a specific work environment with the Goods for the Customer.

(b) Supplier also has included a copy of any particular or additional safety or any other recommendations which arise from the OSHA assessment as stated above and provide a copy of these additional OSHA requirements or recommendations to its customers with the Goods.

(c) Goods are for industrial use only and Customer must acquaint itself before use with the safety rules and instructions, and the hazards of using, handling and installing Goods.

(d) Customer must follow and cause any User of Goods to acquaint itself with and follow appropriate safety precautions and any and all safety instruction sheets and labels applicable to Goods purchased. Additional or replacement Safety Rules or safety instruction labels normally supplied with the Goods are available from Supplier upon request. Customer

must request these of Supplier in writing if for any reason they are missing, lost or illegible.

14. LIABILITY AND INDEMNITY

14.1 Supplier is not liable and Customer will indemnify and hold Supplier harmless for any and all misapplication of Goods where Customer has not engaged Supplier for any and all installation, application and technical assistance where there is doubt or concern as to the suitability of any and all use of the Goods expressed either by Customer or any of its users.

14.2 With the exception of the return of Goods as stated in above, Supplier, and its employees, agents, representatives and contractors, are not liable for and Customer will indemnify and hold Supplier harmless against any and all losses, damages, expenses and costs that any Party may sustain or incur as a result, whether directly or indirectly, of any Claim by Customer or its users, whether or not Customer has been negligent or breached its Agreement with its users.

14.3 In addition to any applicable legislation, this Agreement states: the entire liability of each party to the other; and the extent of each party's liability for any Claim.

14.4 To the extent permitted by law, the liability of Supplier in respect of any breach of or failure to comply with any Consumer Guarantee is limited, at the option of Supplier, to any one or more of the following:

(a) In the case of Goods, to:

(i) the replacement of the Goods or the supply of equivalent Goods;

(ii) the repair of the Goods;

(iii) the payment of the cost of replacing the Goods or of acquiring equivalent Goods; or

(iv) the payment of the cost of having the Goods repaired.

(b) In the case of Services, to:

(i) the supplying of the Services again; or

(ii) the payment of the cost of having Services supplied again

14.5 Customer acknowledges that it will insure for all its liability under this Agreement.

14.6 This Agreement applies even in circumstances arising from a fundamental breach of contract or breach of a fundamental term.

15. FORCE MAJEURE EVENT

15.1 If a party is wholly or partially precluded from complying with its obligations under this Agreement by Force Majeure Event affecting that party, then that party's obligations to perform in accordance with this Agreement will be suspended for the duration of the delay arising out of the Force Majeure Event.

15.2 As soon as possible after a Force Majeure Event arises, the party affected by it must notify the other party of the Force Majeure Event and the extent to which the notifying party is unable to perform its obligations under this Agreement.

16. TERMINATION.

16.1 Supplier may immediately terminate this Agreement on the following grounds

16.2 Upon discovery of any voluntary sale or transfer of Customer or the majority of Customer's assets to a third party.

16.3 Any material breach by Customer that cannot be cured.

16.4 Customer's failure to cure or remedy any material breach within no less than twenty (20) days of service of the written Notice of Breach by Supplier

16.5 Upon discovery that Customer:

(a) ceases, or threatens to cease, to carry on all or substantially all of its business or operations;

(b) is declared or becomes bankrupt or insolvent, and is unable

U.S.A. Terms & Conditions for Supply of Goods or Services

to pay its debts as they fall due;

(c) enters into a general assignment of its indebtedness or a scheme of arrangement or composition with its creditors; or

(d) takes or suffers any similar or analogous action in consequence of its then current debt.

16.6 Upon discovery that a trustee, manager, administrator, administrative receiver, receiver, inspector, or any similar officer or authorized individual, has been appointed under any judicial or non-judicial governmental agency-approved proceeding in relation to the whole or any part of Customer's assets or business.

16.7 Upon discovery that an order was made or a resolution was passed for the corporate dissolution or liquidation of Customer (other than for the purpose of a voluntary, solvent amalgamation or reconstruction approved by the appropriate private group or judicial tribunal).

16.8 The terms and conditions of this Agreement and any attachments, Quotations or Forms attached hereto will survive and inure to any sales of Goods ordered prior to the termination date, but not yet delivered or picked up as of said date.

17. DISPUTE RESOLUTION

17.1 Any dispute under the Agreement or related to this Agreement and any and all attachments hereto shall be decided by binding arbitration in the County and State where Supplier is located, in accordance with an agreed-upon independent private mediation/arbitration service.

17.2 The Award of Arbitrator shall be filed and confirmed as Judgment with the State Court in the County of jurisdiction.

17.3 The Prevailing Party in any proceeding regarding the terms and conditions of this Agreement shall be entitled to reimbursement of its legal fees and costs, including, reasonable attorneys' fees, by the other Party.

18. GOVERNING LAW.

18.1 This Agreement has been entered into in the County and State of Supplier's location, and shall be governed by, construed and enforced in accordance with the laws of that County and State.

19. REPRESENTATIONS AND WARRANTIES.

19.1 Customer represents and warrants that it has the right to enter into and perform this Agreement in accordance with the terms herein.

19.2 Customer represents and warrants that it has carefully read this Agreement and know the contents thereof and that it signs the same freely and voluntarily; it relies solely upon its own

judgment, belief and knowledge, and/or the advice and recommendations of its own counsel, and it has not been influenced to any extent whatsoever in executing the same by any representations or statements covering any matters made by Manufacturer or Supplier.

20. ASSIGNMENT OF RIGHTS/SUCCESSORS AND ASSIGNS.

20.1 This Agreement cannot be assigned, in whole or in part, to any outside third party. Any portion of the terms and conditions can be mutually agreed, in writing and executed by all parties, to be assigned to an outside third party, and will be considered an addendum to this Agreement.

20.2 This Agreement shall be binding upon and inure to the benefit of the Parties hereto and their respective heirs, representatives, successors, and permissible assigns.

21. WAIVER AND AMENDMENT.

21.1 Supplier, at its discretion, shall have sole authority to waive any breach of this Agreement, which, if granted, is not valid unless it is in writing by Supplier. Waiver of any one breach of any provision hereof shall not be deemed to be a waiver of any other breach of the same on any other provision hereof. This Agreement may be amended only by a written agreement executed by all Parties at the time of the modification.

22. MISCELLANEOUS

22.1 In the event that any covenant, condition, or other provision herein contained is held to be invalid, void, or illegal by any court of competent jurisdiction, the same shall be deemed severable from the remainder of this Agreement and shall in no way affect, impair or invalidate any other covenant, condition or other provision herein contained. If such condition, covenant, or other provision shall be deemed invalid due to its scope or breadth, such covenant, condition, or other provision shall be deemed valid to the extent of the scope or breadth permitted by law.

22.2 This Agreement cannot be assigned, in whole or in part, to any outside third party. Any portion of the terms and conditions can be mutually agreed, in writing and executed by all parties, to be assigned to an outside third party, and will be considered an addendum to this Agreement.

22.3 This Agreement shall be binding upon and inure to the benefit of the Parties hereto and their respective heirs, representatives, successors, and permissible assigns.

AU Terms & Conditions for Supply of Goods or Services

SPECIAL NOTE

Magnattack® Global are the manufacturers and suppliers of very specialized magnetic and associated equipment. We are not able to enter into contracts based exclusively on some customer's terms and conditions of purchase (which terms and conditions of purchase may be quite acceptable to other suppliers of conventional goods and services).

Whilst Magnattack® Global aims to secure the best possible results for its valued customers, 100% separation efficiency cannot be achieved or guaranteed.

This is because the effectiveness of magnets can vary due to factors beyond our control. These factors may include partial demagnetization over time, variations in flow or variations of additives and moisture contents in materials processing. Other variables can be space restrictions, budget limitations and the degree of magnetic susceptibility of the magnetic contamination. These factors affect the degree in which a protective installation can be ideal and for how long the ongoing degree of separation efficiency is maintained.

In consideration of our accepting your purchase order, you agree to accept our terms and conditions in this Special Note and the Terms & Conditions set out below (and that those terms and conditions will prevail over the terms and conditions attached to your purchase order to the extent of any inconsistency). We request that you acknowledge and agree by return. On receipt of the acknowledgment and agreement or, if we have not heard to the contrary from you within 7 days of your receiving this Special Note, you will be deemed to have provided this acknowledgment and agreement. Only then will we commence processing your order and the delivery date will be appropriately adjusted.

The purchaser understands that indemnities are limited to the extent of cover the seller's present insurances provide, and on the basis that the buyer carries out its own risk assessment in relation to the product's suitability and safety in the particular circumstances of use intended. Seller shall have no liability to the buyer to the extent such claims, demands, losses, and expenses are due to the negligence or misconduct of buyer, its employees, agents, officers, and directors. Buyer further agrees to indemnify, defend, and hold seller harmless, from any claims, demands, causes of action, liabilities or damages including attorney's fees, arising from, or relating to any claim arising from buyer's modification or any other change being incorporated by buyer or at buyer's direction, to the products.

These Terms and Conditions govern the Goods and Services including the deliverables to be provided by the Supplier as described in the Quotation or Form to which these Terms and Conditions are attached. These Terms and Conditions form part of the engagement of the Supplier by the Customer and supersede all prior terms and conditions of engagement.

1. DEFINITIONS: In these terms and conditions, the following words have the following meanings:

1.1 The agreement means these terms and conditions for the supply of Goods or Services by the Supplier and any attached Quotation or Form.

1.2 Australian Consumer Law means schedule 2 of the Competition and Consumer Act 2010 (Cth); any equivalent state or territory legislation; or any other applicable consumer laws in a jurisdiction outside of Australia.

1.3 Claim means any claim by any third person for loss or damage to any property, injury to or death of any person or economic loss arising out of or relating to any or all of the Goods or Services, any delay or failure in supplying the Goods or Services.

1.4 Confidential Information of a party means the following information in any form:

(a) all confidential information (including without limitation, trade secrets, and confidential know-how) relating to

that party or a related body corporate (as that term is used in the Corporations Act) to that party from time to time;

(b) of which the other party becomes aware, both before and after the Goods or Services are supplied to the Customer. Confidential Information of the Supplier includes any Quotation or Form, and any specifications, product information, and drawings of the Supplier.

1.5 Consequential Loss means any loss or damage suffered by a party or any other person that is indirect or consequential, including but not limited to loss of revenue, loss of income, loss of business, loss of profits, loss of goodwill or credit, loss of business reputation, loss of use, loss of interest, damage to credit rating or loss or denial of opportunity.

1.6 Consumer Guarantee means a right or guarantees the Customer may have under the Australian Consumer Law or other rights in relation to the supply of goods or services that cannot lawfully be excluded.

AU Terms & Conditions for Supply of Goods or Services

1.7 Customer means the person(s), company (ies), firm(s) or organization(s) named in the attached Quotation or Form.

1.8 Dispute means a dispute arising out of or relating to this Agreement, including without limitation, a dispute about the breach, termination, validity or subject matter of this Agreement, or a claim in equity or in tort relating to the performance or non-performance of this Agreement.

1.9 Fee means the total amount payable for Services in accordance with the attached Quotation or Form.

1.10 Force Majeure Event affecting a party means anything outside the party's reasonable control, including without limitation, labour dispute or shortage, materials shortage, fire, flood, drought, storm, lightning, act of God, peril of sea or air, explosion, sabotage, accident, embargo, civil commotion, act of war and war.

1.11 Goods mean all the goods described in the Quotation or Form which the Supplier is required to supply under this Agreement.

1.12 Intellectual Property Rights means all intellectual property rights, including without limitation.

(a) any documentation, material, report, process, procedure, methodology, research or software brought to the engagement by the Supplier or developed or created as a result of or in the course of the engagement or provision of the Services.

(b) patents, copyright, rights in circuit layouts, plant breeder's rights, registered designs, trademarks, and the right to have confidential information kept confidentially; and

(c) any application or right to apply for registration of any of those rights. Price means the price for Goods described in the Supplier's current price list or in any Quotation or Form.

PPS Law means:

(a) the PPSA;

(b) any regulation made pursuant to the PPSA; and

(c) any other legislation or regulation made to implement or contemplated by, any PPSA Law referred to in paragraph (a) or (b).

PPSA means the Personal Properties Securities Act 2009 (Cth).

1.13 Quotation or Form means the attached document prepared by the Supplier for the supply of Goods or Services to the Customer, as varied in writing by the parties from time to time.

1.14 Security Interest means:

(a) any security for the payment of money or performance of obligations including a mortgage, charge, lien, pledge, trust or power, or title retention arrangement.

(b) a security interest as defined in the PPSA; or

(c) any document to grant or create anything referred to in either paragraph (a) or (b) of this definition and any other thing which gives a creditor priority to any other creditor with respect to any asset or an interest in any asset. Secured Moneys means the amounts referred to in clause 6.4.

1.15 Services mean all the services described in the Quotation or Form which the Supplier is required to supply under this Agreement.

1.16 Supplier means WJB Nominees Pty Ltd & RJ Baker Holdings Pty Ltd & KR Baker Nominees Pty Ltd ABN 59 171 188 983 trading as "Magnattack® Global", "Magnet Sales Australia" and "Multicomp".

2. AGREEMENT DOCUMENTS

2.1 This Agreement consists of:

(a) this document; and

(b) any Quotation or Form.

2.2 If there is an inconsistency between one or more terms in this document and terms stated on any Quotation or Form, the terms in the Quotation or Form will govern to the extent of the inconsistency.

2.3 No Customer document, including without limitation, any purchase terms or consignment note or receipt or delivery docket, forms part of or varies this Agreement.

2.4 This Agreement supersedes all prior representations and agreements between the parties.

2.5 If the parties want to vary this Agreement, they must do so in writing signed by both parties.

2.6 Any report or advice provided to a Customer in the course of providing the Service is personal to the Customer and non-transferable.

3. SUPPLY OF GOODS OR SERVICES

3.1 The Supplier must supply the Goods or Services to the Customer in accordance with this Agreement, including without limitation, any Quotation or Form.

3.2 An order placed by the Customer under this Agreement will not be effective unless it is accepted by the Supplier which may be by supply of all or part of the Goods or Services ordered.

3.3 The Supplier may refuse to accept an order, or part of an order, placed by the Customer without giving reasons.

3.4 The Supplier may cancel the supply of Goods or Services at any time before the delivery of any instalment of the Goods or Services by written notice to the Customer. The Supplier is not liable for any loss arising from such cancellation.

3.5 The Customer may not without the Supplier's consent cancel an order after the Supplier has accepted the order. If the Supplier consents to the cancellation of an order, the Customer will be liable for any costs incurred by the Supplier up to the time of cancellation.

4. PLACEMENT OF ORDERS

4.1 The Customer must sign any order it places with the Supplier. A Customer may make an order by phone if the Customer confirms the order in writing.

5. DELIVERY

5.1 Unless otherwise stated in any Quotation or Form, the Price for Goods does not include delivery fees.

5.2 If the Customer requests, the Supplier will arrange for delivery of the Goods to the Customer's premises (or any other location) notified to the Supplier. The Customer bears all risk and cost of any delivery the Supplier arranges. The Supplier will arrange delivery, as agent only, on behalf of the Customer.

5.3 The Customer must accept the deliverables (as specified in the Quotation or Form) which conform to the requirements of the Quotation or Form. The Customer will promptly give the Supplier notification of any non-conformance of the deliverables with such requirements (Non-conformance), and the Supplier will have a reasonable period of time, based on the severity and complexity of the Non-conformance, to correct the Non-conformance. If the Customer fails to promptly notify the Supplier of any Non-conformance, then the deliverables will be considered accepted by the Customer.

5.4 The Supplier will not be liable for:

(a) any loss of or damage to the Goods; or

(b) any delay in delivery, non-delivery or mis delivery of the Goods that arises in any way in relation to the delivery of Goods arranged by the Supplier under Clause 5.2.

5.5 The Customer must pay any delivery fee for Goods supplied as well as any insurance premium or deductible for damage to Goods during delivery. Fees for delivery may be high because airfreighting of magnetic materials requires special packaging and insulating of Goods.

5.6 Any reference in Quotation or Form to "Delivery time" means that period starting when the Supplier receives the Customer's order, approved dimensions, and all information the Supplier needs to complete manufacture and, where applicable, installation.

AU Terms & Conditions for Supply of Goods or Services

5.7 If the Customer orders quantities of different Goods for various locations, the Customer must give the Supplier a prioritised list showing the desired delivery dates for each item before the Supplier will confirm a delivery schedule.

6. RISK AND TITLE TO GOODS

6.1 Risk in Goods passes to the Customer when those Goods are put onto a vehicle at the Supplier's premises.

6.2 The Supplier will not be liable for:

- (a) any loss of or damage to the Goods; or
- (b) any delay in delivery, non-delivery or mis delivery of the

Goods occurring after the Goods have been placed on a vehicle at the Supplier's premises whether or not any liability asserted against the Supplier arises in contract, tort, or bailment.

6.3 The Supplier is not a common carrier and accepts no liability as a common carrier.

6.4 The Supplier's rights under this clause 6 secure:

- (a) the Supplier's right to receive the Price of the Goods; and
- (b) all other amounts owing to the Supplier under this Agreement and any other agreement.

6.5 All payments received from the Customer must be applied in accordance with section 14(6)(c) of the PPSA.

6.6 Until full payment in cleared funds is received by the Supplier of the Secured Moneys:

- (a) legal title and property in all Goods supplied under this Agreement remains in the Supplier and does not pass to the Customer;
- (b) the Customer must not sell or otherwise dispose of Goods except in the ordinary course of the Customer's business; and

(c) in addition to any rights the Supplier may have under Chapter 4 of the PPSA, the Supplier may, without notice, enter any premises where it suspects the Goods may be located and remove them without committing a trespass, even though they may have been attached to other goods or land not the property of the Supplier, and for this purpose the Customer irrevocably licenses the Supplier to enter such premises and also indemnifies the Supplier from and against all losses suffered or incurred by the Supplier as a result of exercising its rights under this clause.

6.7 If the Customer resells the Goods before they have been paid for, the Supplier is entitled to the proceeds of the resale.

6.8 The Customer warrants that it does not intend to use the Goods predominantly for personal, domestic, or household purposes.

7. VARIATION TO GOODS OR SERVICES

7.1 If the parties want to vary the Goods or Services, including without limitation, extending the time for delivery of the Goods or completion of the Services, they must do so by a document signed by both parties. The Supplier will not deliver any Goods or start work on any varied Services until the parties have agreed in writing the scope and Price or Fee for those varied Goods or Services.

8. PAYMENT

8.1 Unless otherwise stated in a Quotation or Form, the Customer must pay to the Supplier;

- (a) for ready-made (non-imported) Goods – COD;
- (b) for Goods which the Supplier custom builds for the Customer and/or which the Supplier imports for the Customer – when the Customer places the order a non-refundable deposit/progress payment of 30% of the Price and thereafter any further agreed progress payment and the balance of the Price within 7 days of the date of the relevant invoice for that payment in respect of those Goods; and

(c) for Services – the Fee, including without limitation, the cost of the technician's time, travel, and accommodation for the site visit within 7 days of the date of the invoice for those Services.

8.2 The Customer may only return Goods for which an invoice has been issued, if first agreed with the Supplier or if Clause 14.3(a) applies.

8.3 If the Customer does not pay for Goods when they are delivered COD, or returns Goods under Clause 8.2, the Customer must pay to the Supplier a restocking fee in the amount of 15% of the Price for those Goods as well as any delivery fee and insurance premium or deductible incurred by the Supplier in supplying the Goods to the Customer.

8.4 In addition to the applicable Price for Goods and/or the Fee for Services, the Customer must pay applicable goods and services tax and any other tax or charge which may be required by legislation from time to time.

9. INTELLECTUAL PROPERTY

9.1 The Customer acknowledges that:

- (a) the Supplier owns all Intellectual Property Rights in all material created by the Supplier, in relation to the Goods or Services (whether alone or with the Customer or its employees); and
- (b) this Agreement does not transfer to the Customer any rights in and to any Intellectual Property Rights in any material created by the Supplier or its employees in relation to the Goods or Services.

9.2 It is a condition of this Agreement that the Goods must not be given to third parties or reproduced in any form or re-engineered without the Supplier's written permission.

10. CONFIDENTIALITY

10.1 The Customer:

- (a) may use Confidential Information of the Supplier solely for the purposes of this Agreement;
- (b) except as permitted under clause 10.1(c) and subject to clause 10.3, must keep confidential all Confidential Information of the Supplier; and
- (c) may disclose Confidential Information of the Supplier only with the prior written approval of the Supplier (whose approval must not be unreasonably withheld):
 - (i) to persons who:
 - (A) are aware and agree that the Confidential Information of the Supplier must be kept confidential; and
 - (B) either have a need to know (and only to the extent that each has a need to know), or have been specifically approved by the Supplier, or
 - (ii) as required by law or stock exchange regulation.

10.2 Even though information is the Confidential Information of the Supplier, the Customer is not obliged to comply with Clause 10.1 in relation to that Confidential Information if:

- (a) the Confidential Information becomes public knowledge during this Agreement; or
- (b) the Customer became aware of that Confidential Information from a third person, in circumstances where there was no breach of any obligation of confidence.

10.3 PPSA Confidentiality:

- (a) Except if section 275(7) of the PPSA applies, the parties agree not to disclose any information of the kind referred to in section 275(1) of the PPSA that is not publicly available.
- (b) The Customer agrees not to authorise the disclosure of any information as contemplated under section 275(7) (c) of the PPSA.

11. INSTALLATION

11.1 The Customer or its nominated contractor will install all Goods unless the Quotation or Form states otherwise or the Supplier otherwise agrees in writing to supply installation services on the terms of this Agreement.

11.2 If requested by the Customer, the Supplier will provide installation, maintenance, and servicing instructions with or before

AU Terms & Conditions for Supply of Goods or Services

the delivery of the Goods.

12. CUSTOMER RELIES ON OWN INQUIRIES

12.1 The Customer acknowledges that magnetic separators and metal detectors cannot be 100% efficient.

12.2 The Supplier, its employees and representatives provide advice reflective of the Supplier's experience. Any recommendations which the Supplier gives to the Customer are provided for information purposes only, hence the Supplier does not warrant the accuracy of any information or advice it provides to the Customer.

12.3 The Customer must make its own inquiries in relation to the appropriateness of the Goods for a particular purpose. If the Customer requests, the Supplier will assist with tests of the Goods at the cost of the Customer.

13. SAFETY

13.1 The Goods are for industrial use only and the Customer must acquaint itself before use with the hazards of using, handling, and installing the Goods.

13.2 The Customer must follow and cause the user of the Goods to acquaint itself with and follow appropriate safety precautions and the safety instruction sheets and labels applicable to the Goods purchased. Additional or replacement safety instruction sheets and labels to those normally supplied with the Goods are available on request. The Customer must request these of the Supplier in writing if for any reason they are missing, lost or illegible.

14. LIABILITY

14.1 In addition to any applicable legislation, this Agreement states:

- (a) The entire liability of each party to the other; and
- (b) The extent of each party's liability for any Claim.

14.2 With the exception of Consumer Guarantees, the Supplier excludes:

- (i) any term, condition or warranty that may otherwise be implied by custom, law, or statute;
- (ii) any liability for loss caused by the negligence of the Supplier; and
- (iii) any liability for Consequential Loss.

14.3 To the extent permitted by law, the liability of the Supplier in respect of any breach of or failure to comply with any Consumer Guarantee is limited, at the option of the Supplier, to any one or more of the following:

(a) In the case of Goods, to:

- (i) the replacement of the Goods or the supply of equivalent Goods;
- (ii) the repair of the Goods;
- (iii) the payment of the cost of replacing the Goods or of acquiring equivalent Goods; or
- (iv) the payment of the cost of having the Goods repaired.

(b) In the case of Services, to:

- (i) the supplying of the Services again; or
- (ii) the payment of the cost of having the Services supplied again.

14.4 Except where clause 14.3 applies, the Customer bears all liability for any Claim, and the Customer acknowledges that it will insure for all its liability under this Agreement.

14.5 This Agreement applies even in circumstances arising from a fundamental breach of contract or breach of a fundamental term.

15. INDEMNITY

15.1 The Customer indemnifies:

(a) the Supplier, its employees, agents and subcontractors against all losses, damages, expenses, and costs (on a full indemnity basis and whether incurred by or awarded against any of them) that any of them may sustain or incur as a result, whether directly or

indirectly, of any Claim, even in circumstances where the Supplier has been negligent or breached this Agreement; and

(b) the Supplier against all losses, damages, expenses and costs on a full indemnity basis that the Supplier may sustain or incur as a result, whether directly or indirectly, from any breach of this Agreement by the Customer.

16. FORCE MAJEURE EVENT

16.1 If a party is wholly or partially precluded from complying with its obligations under this Agreement by Force Majeure Event affecting that party, then that party's obligations to perform in accordance with this Agreement will be suspended for the duration of the delay arising out of the Force Majeure Event.

16.2 As soon as possible after a Force Majeure Event arises, the party affected by it must notify the other party of the Force Majeure Event and the extent to which the notifying party is unable to perform its obligations under this Agreement.

17. PPS LAW

17.1 If the Supplier determines that a PPS Law applies to this Agreement or any Goods or Services supplied under this Agreement, then the Customer must promptly upon request from the Supplier:

(a) do anything (including obtaining consents, or agreeing such variations, amendments or supplements to this Agreement as may be required by the Supplier) for the purposes of:

(i) ensuring that any Security Interest created under, or provided for by, this Agreement attaches to the collateral that is intended to be covered by that Security Interest, is enforceable, perfected, maintained and otherwise effective; and any Security Interest created under, or provided for by, this Agreement has the priority contemplated by this Agreement; or

(ii) enabling the Supplier, to prepare and register a financing statement or financing change statement; or

(iii) enabling the Supplier to exercise any of its powers in connection with any Security Interest created under, or provided by, this Agreement; and

(b) provide any information requested by the Supplier in connection with this Agreement to enable it to exercise any of its powers or perform its obligations under the PPS Law.

17.2 Anything that is required by the Supplier to be done under this clause 17 must be done by the Customer at its own expense. The Customer agrees to reimburse the costs of the Supplier in connection with any action taken by the Supplier under or in connection with this clause 17.

17.3 The Customer agrees that:

(a) the Supplier is under no obligation to dispose of or retain any secured property it seizes within a reasonable time, under section 125 of the PPSA;

(b) following a default, the Customer has no rights to redeem the secured property under section 142 of the PPSA; and

(c) following a default, the Customer has no rights to reinstate this Agreement under section 143 of the PPSA.

17.4 The Supplier does not need to give the Customer any notice under the PPSA (including a notice of a verification statement) unless the notice is required by the PPSA and that requirement cannot be excluded.

17.5 The Customer waives its rights to receive:

(a) a notice of the Supplier's proposal to remove PPSA personal property which has become an accession under section 95 of the PPSA;

(b) a notice of the Supplier's proposal to seize proceeds of collateral in the form of an account, chattel paper and a negotiable instrument under section 121(4);

(c) a notice of the Supplier's proposal to dispose of any

AU Terms & Conditions for Supply of Goods or Services

PPSA personal property under section 130 of the PPSA;

(d) a notice of the Supplier's proposal to retain PPSA personal property under section 135 of the PPSA;

(e) details of the amounts paid to other secured parties in a statement of account provided by the Supplier under section 132(3) (d) of the PPSA;

(f) a statement of account under section 132(4) of the PPSA; and

(g) a copy of, or notice of, any verification statement confirming registration of a financing statement or a financing change statement relating to any Security Interest under, or provided for by, this Agreement.

17.6 The terms account, attaches, chattel paper, collateral, financing change statement, financing statement, negotiable instrument, perfected, purchase money security interest and verification statement as used in this clause 17 have the meaning given to them in the PPSA.

18. DISPUTE RESOLUTION

18.1 Neither party may start arbitration or court proceedings (except proceedings seeking interlocutory relief) in respect of a Dispute unless it has first complied with this clause.

18.2 A party claiming that a Dispute has arisen must notify the other party in writing.

18.3 Within 7 working days after a notice is given under clause 18.2 each party must nominate in writing to the other party an employee authorised to settle the Dispute on its behalf.

18.4 During the 20-working day period after a notice is given under clause 18.2 (or if the parties agree a longer period, that longer period) each party's nominee must use his or her best efforts to resolve the Dispute.

18.5 If a Dispute is not resolved within the time allowed in clause 18.4, the Dispute must be referred:

(a) for mediation, in accordance with the Australian Commercial Disputes Centre (ACDC) Mediation Guidelines; and

(b) to a mediator agreed by the parties, or if the parties do not agree on a mediator, a mediator nominated by the then current chief executive officer of ACDC or the CEO of ACDC's nominee (or if no such person is available or willing to nominate a mediator, by the then President of the Law Society of New South Wales).

18.6 The Customer must not withhold payment for Goods or Services supplied that are not the subject of a Dispute.

18.7 The Supplier will continue to supply those Goods or Services ordered that are not the subject of a Dispute, unless otherwise agreed in writing by the parties.

19. ARBITRATION

19.1 Each party agrees that any Dispute not settled under clause 18 must be settled by binding arbitration under arbitration rules agreed in writing by the parties (or, if the parties fail to agree on rules within a reasonable time, under UNCITRAL Arbitration Rules (Rules)).

19.2 Unless the Rules require otherwise:

(a) the appointing and administering body will be the Australian Centre for International Commercial Arbitration;

(b) the arbitration will be:

(i) by 1 arbitrator appointed in accordance with the Rules;

(ii) in English;

(iii) in Sydney; and

(c) under substantive New South Wales law.

20. TERMINATION

20.1 The Supplier may terminate this Agreement:

(a) if the Customer breaches any term of this Agreement and fails to remedy the breach within 14 days after receiving notice requiring it to do so; and

(b) with immediate effect by giving notice to the Customer, if a liquidator or receiver or receiver and manager or any other administrator of the Customer's business or assets is appointed or if the Customer enters into any composition with its creditors.

20.2 The Customer may terminate this Agreement if the Supplier breaches any term of this Agreement and fails to remedy the breach within 14 days after receiving written notice requiring it to do so.

21. AFTER TERMINATION

21.1 Promptly after termination, the Customer must pay the Supplier for all Goods or Services supplied up to and on termination.

21.2 On termination, each party (first party) must return to the other party all Confidential Information of that other party in material form (including without limitation, those parts of all notes and other records of the first party containing Confidential Information of the other party) in the first party's possession or control.

21.3 At any time after termination of this Agreement a party must not:

(a) use or disclose to any person any Confidential Information of the other party;

(b) record any Confidential Information of the other party into any form (including without limitation, machine readable form); or

(c) sell or otherwise transfer any Confidential Information of the other party.

22. SUB-CONTRACTORS

22.1 The Supplier may subcontract the performance of any of its obligations under this Agreement.

23. GOVERNING LAW

23.1 This Agreement is governed by New South Wales law, and each party agrees to submit to the jurisdiction of the courts in that State.

24. CLAUSE HEADINGS HAVE A LIMITED PURPOSE

24.1 Headings are for ease of reading only and do not affect the interpretation of this Agreement.

DANGER

HIGH POWERED MAGNETS

CAUTION

HIGH POWERED MAGNETS IN THIS AREA



**PERSONS WITH CARDIAC PACEMAKERS OR
IMPLANTABLE CARDIOVERTER DEFIBRILLATORS (ICDs)
MUST STAY OUT OF THIS VICINITY.**

Persons with certain metallic, electronic, magnetic, or mechanical devices,
implants, or objects may not enter this area. **Serious injury may result.**



For more information, please contact Magnattack® Global
AU & INT'L + 61 2 4272 5527
USA + 1 630 994 3310
EMAIL magnets@magnattackglobal.com



International Support

16 Prince of Wales Avenue
Unanderra NSW 2526 Australia

ABN 59 171 188 983
Phone +61 2 4272 5527
magnets@magnattackglobal.com
www.magnattackglobal.com

United States Support

14250 Judicial Road
Burnsville, MN 55306 USA

Phone +1 630-994-3310
usamagnets@magnattackglobal.com
www.magnattack.com