

Pneumatic Chip Conveyance

Chip Removal

and Handling Systems



Pneumatic Chip Removal - A modern solution...

Traditional Collection Methods

- Labor Intensive and Cumbersome
- Health and Safety Hazardous
- Environmental Pollution Risk
- Loss of Production Time
- Loss of Expensive Cutting/Cooling Fluids
- High Traffic Movement

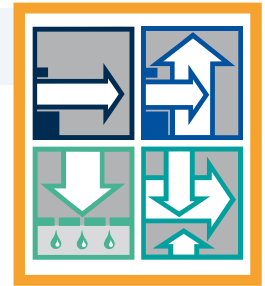


The Mayfran Alternative

- Automated collection
- Reduced health and safety risk
- Compact design
- Modular and expandable
- Environmentally friendly
- Energy efficient
- Rapid large distance transfer



... for an old problem



Blowing Systems

the lower cost alternative

- Suitable for most pre-processed chip types
- Cost effective chip transfer
- Suitable for linear multiple machine connections
- Energy efficient design
- Final collection vessel can be filled without the requirement of intermediate equipment
- Blowing fan and main power requirements are located internally with machining equipment



Suction Systems

the universal alternative

- Suitable for most pre-processed chip types
- Suitable for large machine shop layouts with multiple machine connections
- Flexible design allows for machine relocation and production facility expansion
- Overhead pipework runs provide cleaner working floor space
- Reduced health and safety risk
- Quick release collection hoppers allow for easier maintenance and machine isolation

Chip Blowing Systems and Components



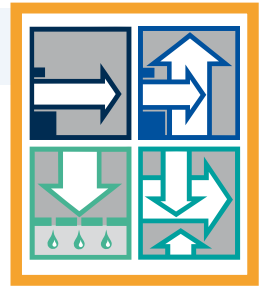
Supplied in flanged or clamp lengths, long radius bends to reduce friction, various materials of construction are available to suit chip type. Surface finish to customer specification.



Rotary Airlock to allow product input without air leakage. Supplied with flexible blade tips to cope with the risk of tramp parts. Heavy cast iron version available for high wear applications.



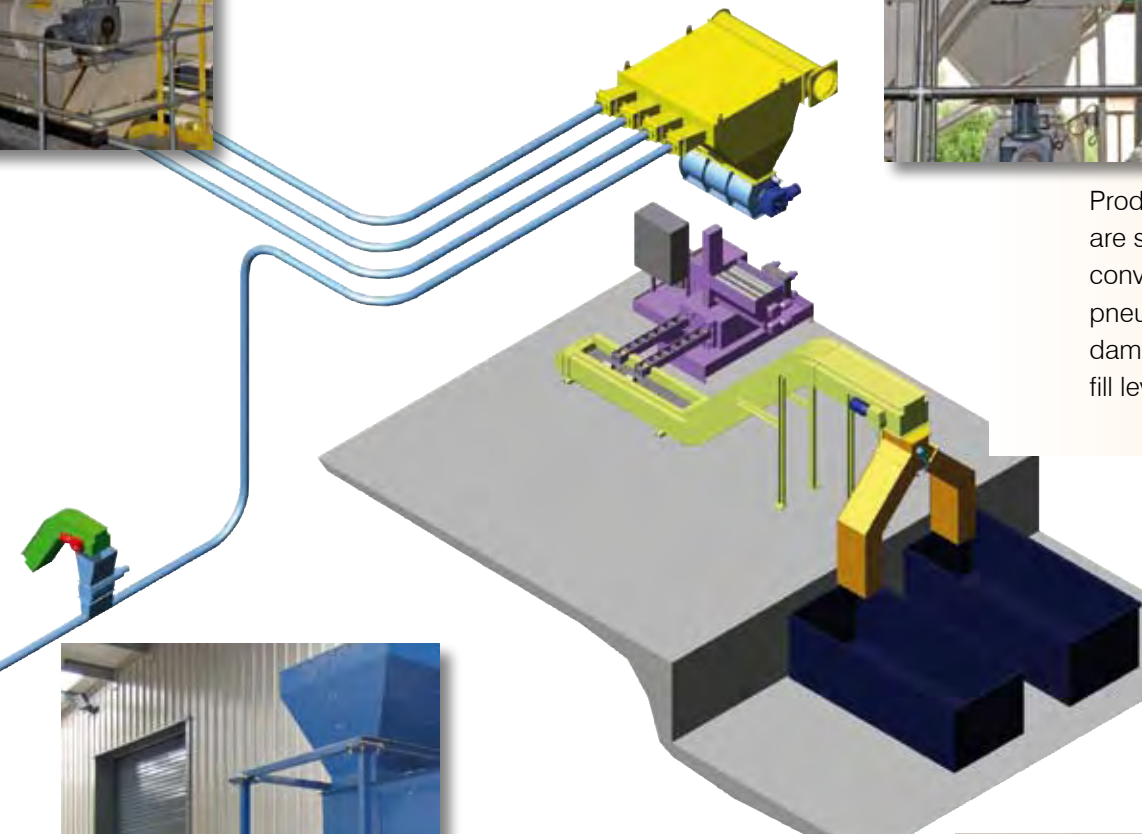
Heavy duty centrifugal type fan units housed in attenuated enclosure and having energy efficient drives and automatic run and standby changeover facilities.



Air separator of compact design, ideal for areas of restricted head room. Suitable for multiple systems, with easy clean filter screens, access panels and powder coat finish.



Product feed chutes that are suitable for multiple conveyors. Available with pneumatic diverters, sound dampening liners and bin fill level sensing devices.



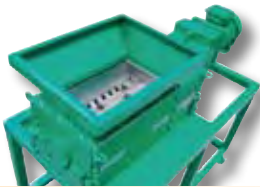
Briquetter unit with hydraulic power pack, inlet feed screw and PLC control. Available in a wide range of sizes to suit variety of volumes and materials.



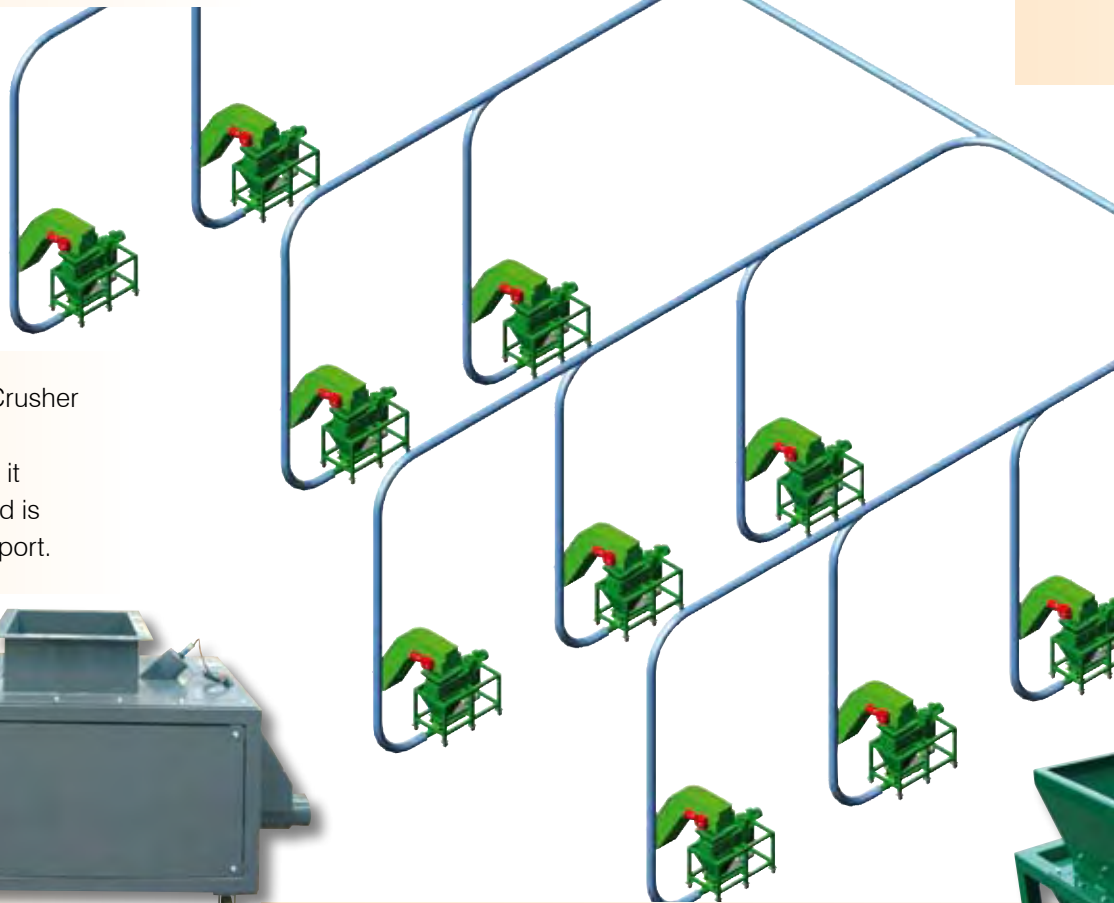
Chip briquettes reduce low weight, high volume materials. Bricks can be collected in chip skips reducing transport costs.

Chip Suction Systems and Components

Supplied in flanged or clamped format to suit application. Long radius, low friction bends manufactured from various materials to suit chip material and type. Powder coated to client choice, hot dip galvanized option for outdoor applications.



Optional MA Type, single shaft Crusher with auto tramp part ejection. The unit crushes bushy chips as it leaves the machine conveyor and is graded for safe pneumatic transport.

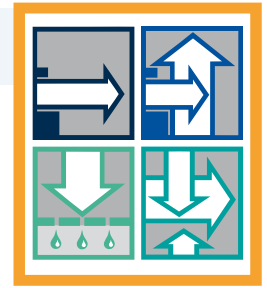


Low volume, high pressure extraction systems would have the purpose made vacuum station. The chips are collected in an intermediate tank designed in such a way as not to bridge and the chip is fed into the vacuum system by a worm gear. Sensors ascertain the fill level of chips in the vacuum station and signal the vacuum system to empty once the fill level has been reached.



Purpose made collection hopper complete with cross flow silencer, auto shut off and sequencing dampers, level sensing, support frame with heavy duty castors and quick release "Cup and Ball" type connection. Unit can be disconnected and pulled clear in case of breakdown or maintenance.

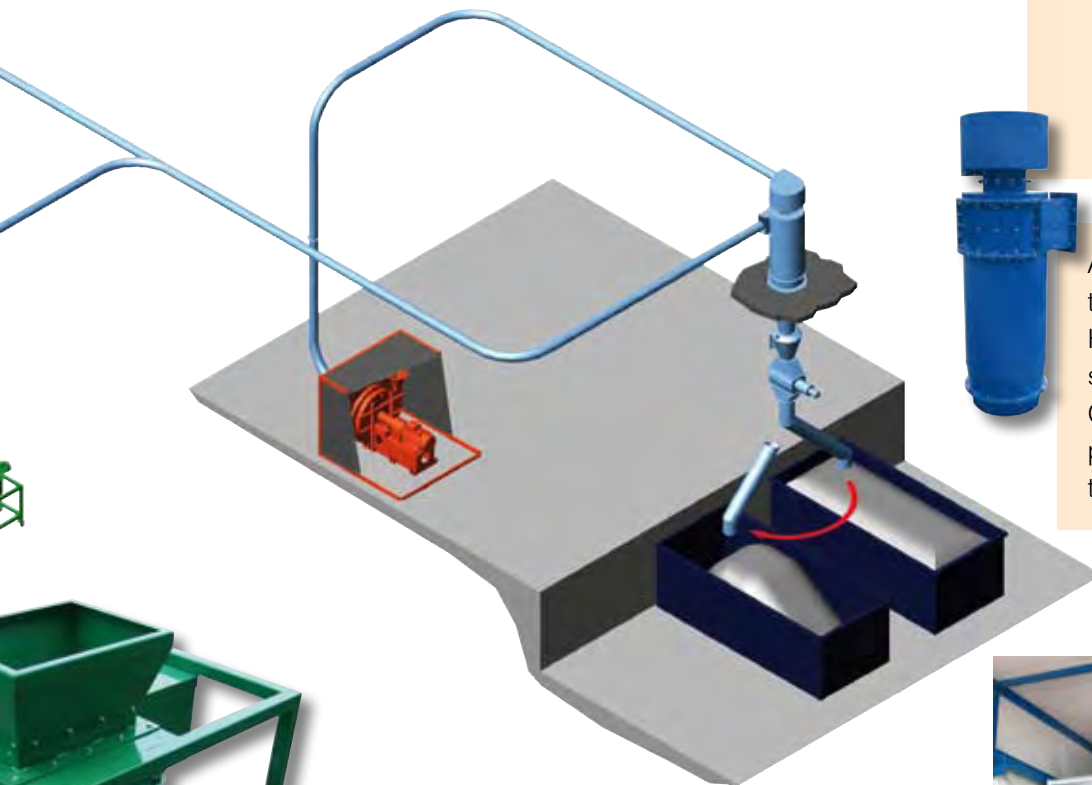




High pressure centrifugal fan unit positioned on clean side of cyclone to eliminate wear. Complete with energy efficient drives, attenuated enclosure and standby formats.



Low volume, high pressure extraction systems would have high pressure extraction fan set or side channel blower depending on design characteristics. The product and air are separated in a filter cyclone with the initial coarse particle separation taking place in the main chamber and the secondary air is passed through a filter cartridge and product is deposited via the rotary valve located at the base of the unit.



Air separation cyclone manufactured in heavy gauge mild steel. High velocity, sectional construction for ease of assembly. Complete with removable wear plates and product level sensing to suit the application.



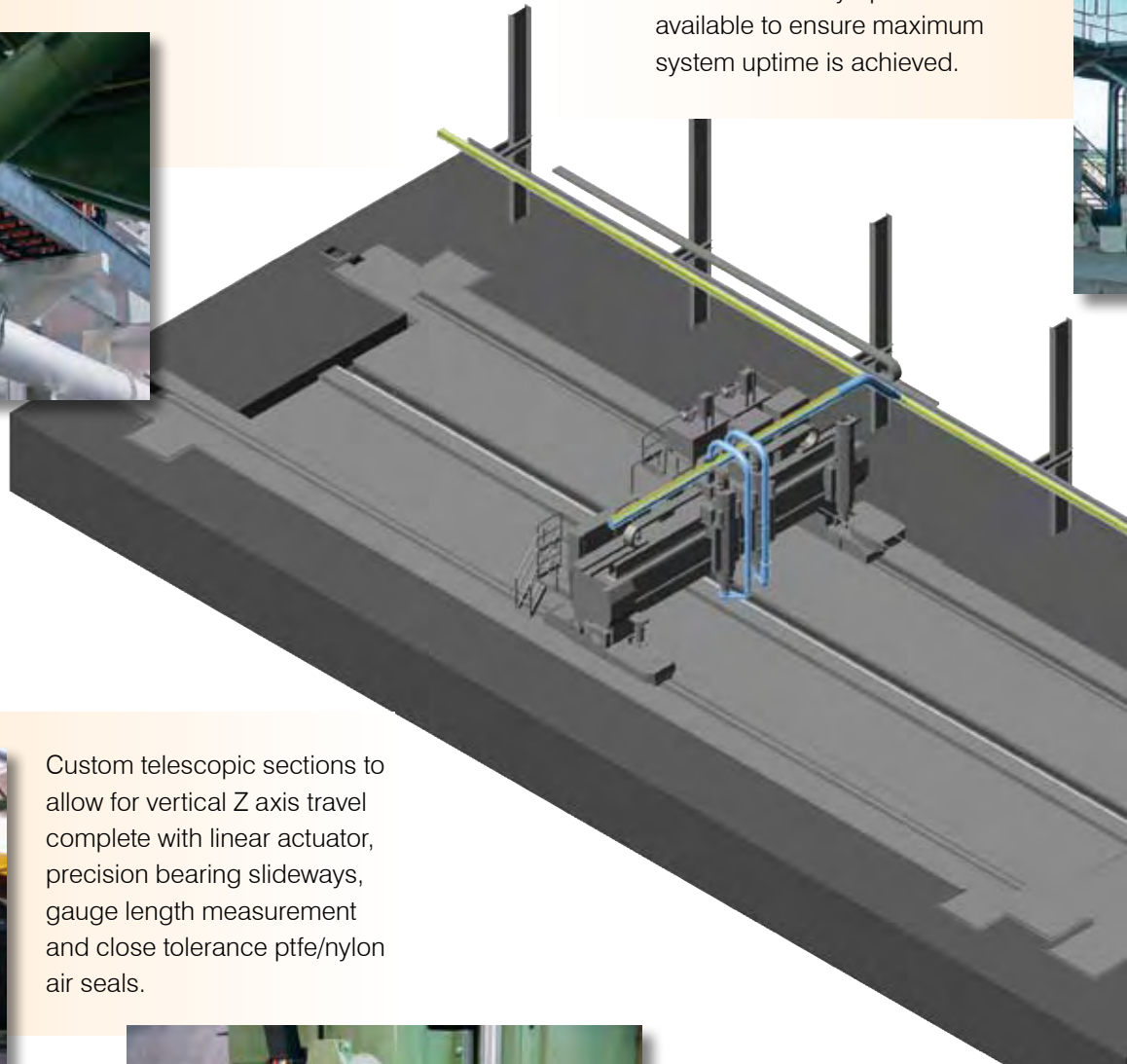
Rotational feed chute, complete with laser level sensing, rotational drive motor and gear box, radial proximity sensors and product discharge baffle.



Chip Handling solution for large Component Gantry Milling System

Purpose made multi-ply, self lubricating lip seal complete with spring steel support fingers to enable machine to travel in both X and Y axis without loss of air.

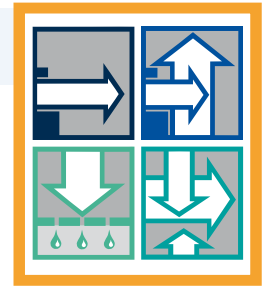
Chip transfer system to deliver chip from air separator to various collection devices. Run and standby options are available to ensure maximum system uptime is achieved.



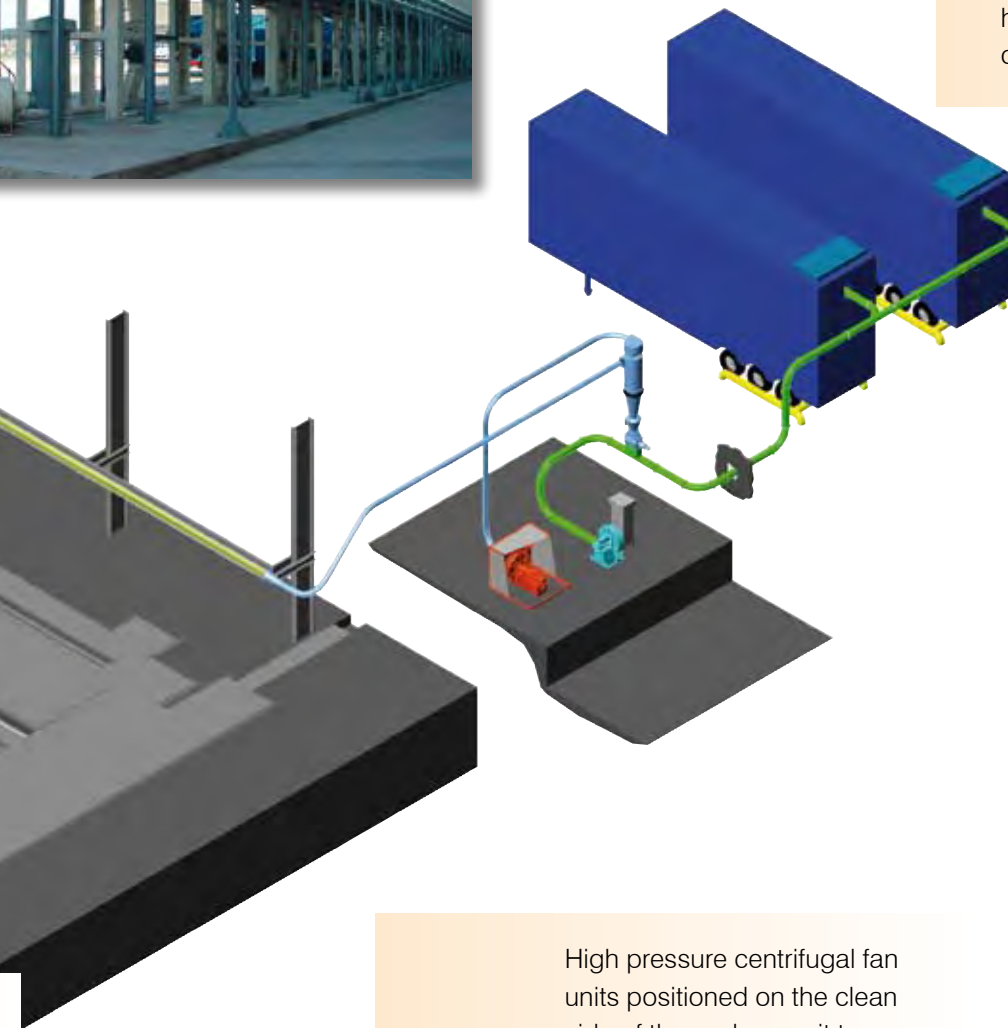
Custom telescopic sections to allow for vertical Z axis travel complete with linear actuator, precision bearing slideways, gauge length measurement and close tolerance ptfe/nylon air seals.



Tailor made extraction hoods, having a 360 degree annular design, complete with auto opening for tool changing, wear resistant quick release skirts, coolant spray nozzles and quick release removal flanges.



Bulk filling trailers are one of the options available for chip collection. Comprising of reverse onto fill pipework the system has auto fill sensors, trailer changeover diverters, docking steelwork.



High pressure centrifugal fan units positioned on the clean side of the cyclone unit to eliminate impeller wear. Complete with energy efficient drives, attenuated enclosure and run/standby option.



Air separation cyclone unit having a heavy duty mild steel construction complete with removable wear liners to suit applications. High velocity, high efficiency design, sectional construction for ease of installation and available with product level and blockage sensing.

Chip Processing Systems

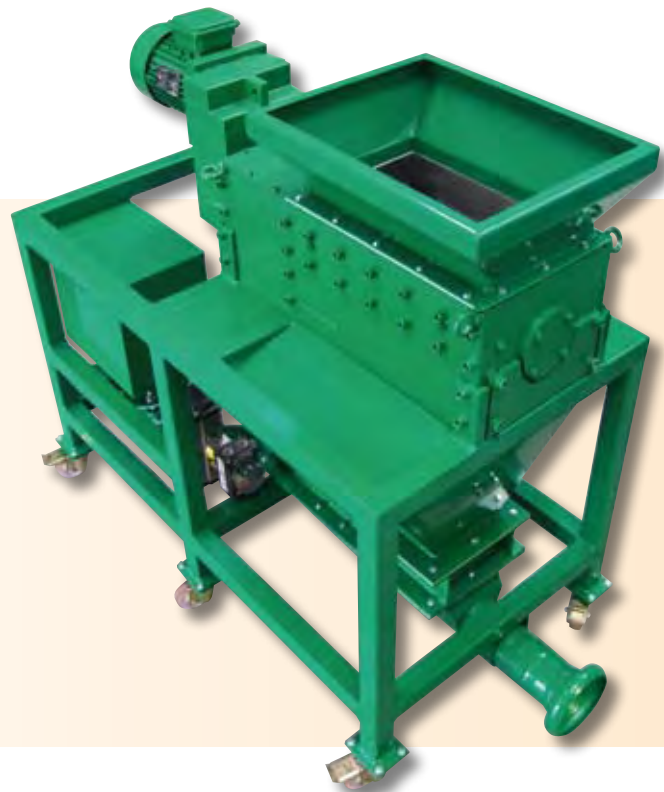


Centrifuging Systems

- Centrifuging of chips at source integrated into a swarf blowing system
- Installation features:
 - Centrifuge by-pass diverter
 - VBU 2000 Centrifuge
 - Airflow isolation slide damper
 - Rotary valve
 - Blowline inlet connection

Crushing Systems

- Suction system hopper incorporating optional MA Type Mayfran crusher
- Features:
 - MA3 Crusher
 - Purpose made mobile support frame
 - Feed hopper
 - Auto-slide and sequencing valves
 - Level Sensing
 - Quick release "Cup and Ball" duct connection



Components



Processing Systems

- Briquetting unit on aerospace materials
- Features:
 - Feed chute with by-pass diverter
 - Screw feed hopper
 - Hydraulic power pack
 - In-feed magazine
 - Main compression ram
 - Twin briquette out-feed chutes

Drainage Systems

- Electro-Hydraulic lifting equipment
- Features:
 - Coolant drainage system for environmental pollution reduction
 - Designed specifically for lifting of skips and trailers
 - Collection system for coolant re-use
 - Floor guides for easy trailer loading



Worldwide on your side



Mayfran International (Inc.)

P.O. Box 43038
Cleveland, OH 44143 U.S.A.
Tel.: (440) 461-4100
Fax: (440) 461-5565
info@mayfran.com



Mayfran International B.V.

P.B. 31032, Edisonstraat 7
6370 AA Landgraaf/Netherlands
Tel.: +31 4 55 32 92 92
Fax: +31 4 55 32 93 00
info@mayfran.eu
www.mayfran.eu



Tsubakimoto Mayfran Inc.

5001, Ohno, Tsuchiyama-cho, Koka-shi,
Shiga 528-0235/Japan
Tel.: +81 7 48 67 10 01
Fax: +81 7 48 67 10 97
www.mayfran.co.jp



Mayfran CZ s.r.o.

Trojská 14
180 00 Praha 8/Czech Republic
Tel.: +420 241 48 51 31
Fax: +420 241 48 51 32
sales@mayfran.eu
www.mayfran.cz



Mayfran GmbH

Hüttenstraße 7
D-52068 Aachen/Germany
Tel.: +49 2 41 93 87 20
Fax: +49 2 41 17 50 80
sales@mayfran.eu
www.mayfran.de



Niederlassung Süd

Richthofenstraße 32
D-73312 Geislingen/Steige
Tel.: +49 7 33 19 55 30
Fax: +49 7 33 19 55 355
sales@mayfran.eu



Korea Mayfran

72-1, Onsoo-dong
Kuro-ku 152-120, Seoul/Korea
Tel.: +82 26 11 58 86
Fax: +82 26 86 25 21
www.mayfran.co.kr



Miven Mayfran

P.O. Box 59 Karwar Road,
Hubli-580 024/India
Tel.: +91 8 36 30 36 77
Fax: +91 8 36 30 32 65
www.mivenmayfran.com



Mayfran U.K. Ltd.

Unit 38 Bradley Fold Trading Estate
Bradley Fold Road, Radcliffe, Bury BL2 6RT
United Kingdom
Tel.: +44 12 04 36 64 69
Fax: +44 12 04 36 68 40
www.mayfran.co.uk



Mayfran France S.A.R.L.

Centre D'Affaires, Paris-Nord
Immeuble l' Ampère,
F-93153 Le Blanc Mesnil Cedex/Frankreich
Tel.: +33 1 48 65 78 00
Fax: +33 1 48 65 66 55
www.mayfran.fr



Mayfran China

Mayfran (Shanghai) Trading Co., Ltd.
Room 520, Leader Tower,
1189, Wuding West Road,
Shanghai 200042/China
Tel.: +86 21 62 49 31 85
Fax: +86 21-62 49 69 21
rshum@mayfran.com.cn
www.mayfran.com.cn

