

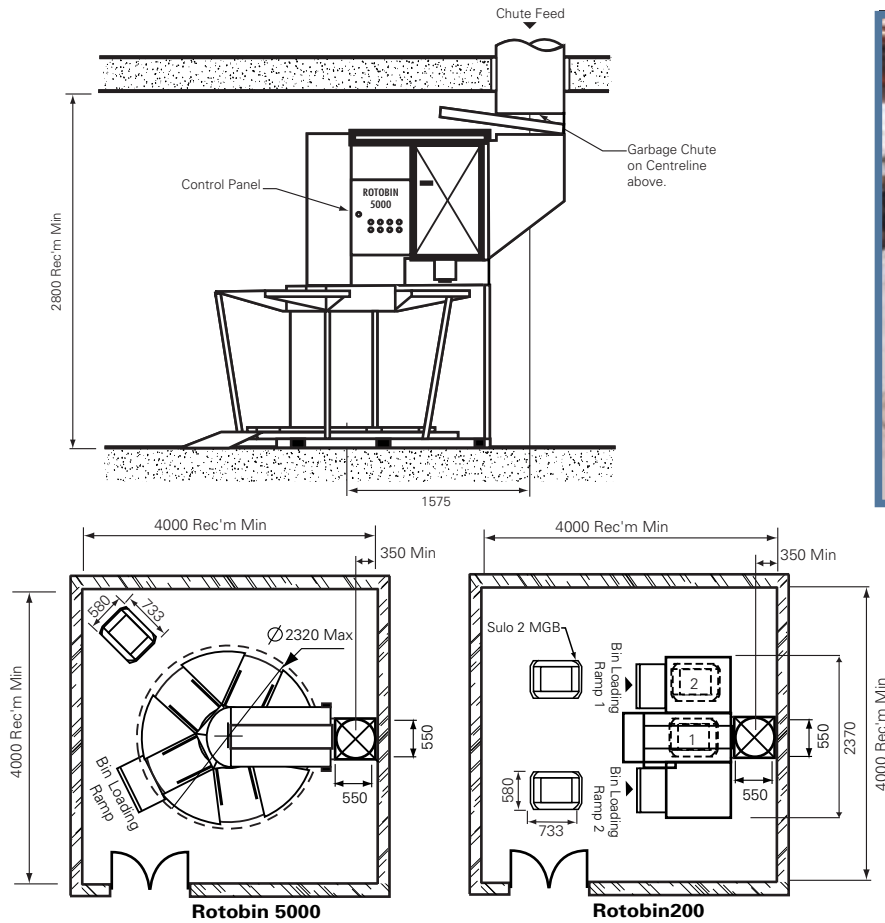
JD MACDONALD SOLUTIONS

LINEN AND GARBAGE

CHUTES

AND COMPACTION SYSTEMS





ROTOBIN

AN ECONOMICAL SOLUTION TO WASTE MANAGEMENT

Rotobin is a cost effective and reliable, fully automated compactor, specifically designed to improve waste management in new and existing residential buildings. When integrated with a garbage chute, Rotobin saves the high cost of floor-to-floor manual garbage collection. As the bin is filled, a photoelectric beam activates the compactor ram, achieving a compaction ratio 3:1. When the bin is full, the compactor base will automatically rotate or traverse one position, bringing an empty bin under the chute. It is entirely automatic in operation, apart from the loading and unloading of standard 240 litre wheeled bins for council collection.

SPECIFICATIONS

	ROTOBIN 5000	ROTOBIN 200
Number of bins	5	2
Maximum Capacity	3600 Litres	1440 Litres
Bin Volume	240 Litres	240 Litres
Ram Face	410mm x 350mm	410mm x 350mm
Ram Diameter	52mm	52mm
Maximum System Pack Pressure	7 MPa	7 MPa
Hydraulic Cylinder Pack Force	15 kN	15 kN
Ram Pack Pressure	100 kPa	100 kPa
Compact Cycle Time	85 seconds	85 seconds
Base Rotation Time (one station)	3-5 seconds	3-5 seconds
Compaction Ratio	3:1 (adjustable)	3:1 (adjustable)
Hydraulic Motor Power	0.56 kW	0.56 kW
Hydraulic Motor Speed	1420 RPM	1420 RPM
Machine Height	2500mm	2500mm
Minimum Required Room Height	2800mm	2800mm
Maximum Machine (Diametre-Width)	2320mm	2370mm

CONTROL

The Rotobin is equipped with a control panel mounted to the outside of the machine. (Machine may be operated manually.)

POWER

The machines require the supply of primary voltage 240V AC / single phase, 10 amp, 50Hz. The machines can either be hard wired or plugged into a standard 3 pin GPO.

GARBAGE CHUTES



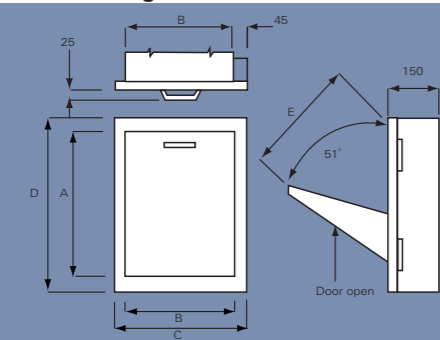
Materials Chutes are available in 1.6mm Zinalume, Stainless Steel and Galvabond.

Door Intakes

Fire rated doors (FR) are high quality stainless steel, self closing, hydraulic, hand operated and bottom hinged. They carry a two hour fire rating label and have a fire resistance level (FRL) of NA/120/30 for Australian Standard 1530.4 - 1990. A hydraulic check ensures a smooth quiet close and makes opening the door easier. The purpose of the chute (garbage) is embossed in 26mm high letters in the Stainless Steel trim across the top of the door.

size	A	B	C	D	E
381 x 457	470	394	508	584	330 FR
533 x 457	470	546	660	584	330 FR
610 x 610	622	622	737	737	450 FR
360 x 340	350	325	430	410	230NFR

Bottom-hinged Door-face dimensions



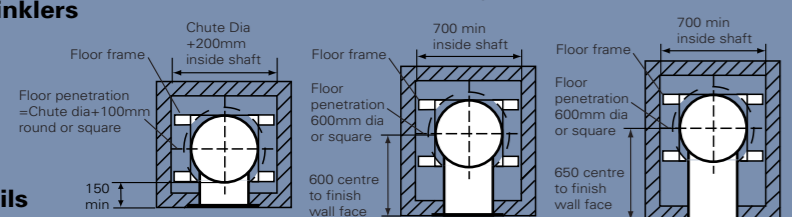
Non fire rated doors (NFR) are a selfclosing, bottom hinged, non combustible door of Zincaneal steel construction suitable for paint finish.

RECOMMENDED ACCESSORIES

Flushing spray

Intake close-off devices

Fire sprinklers



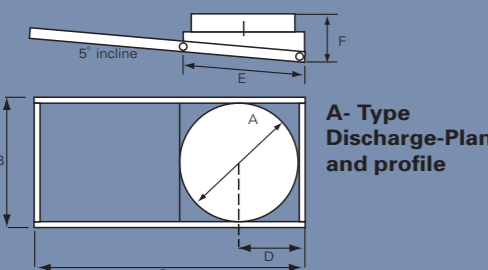
Intake Details

A-Type Discharge

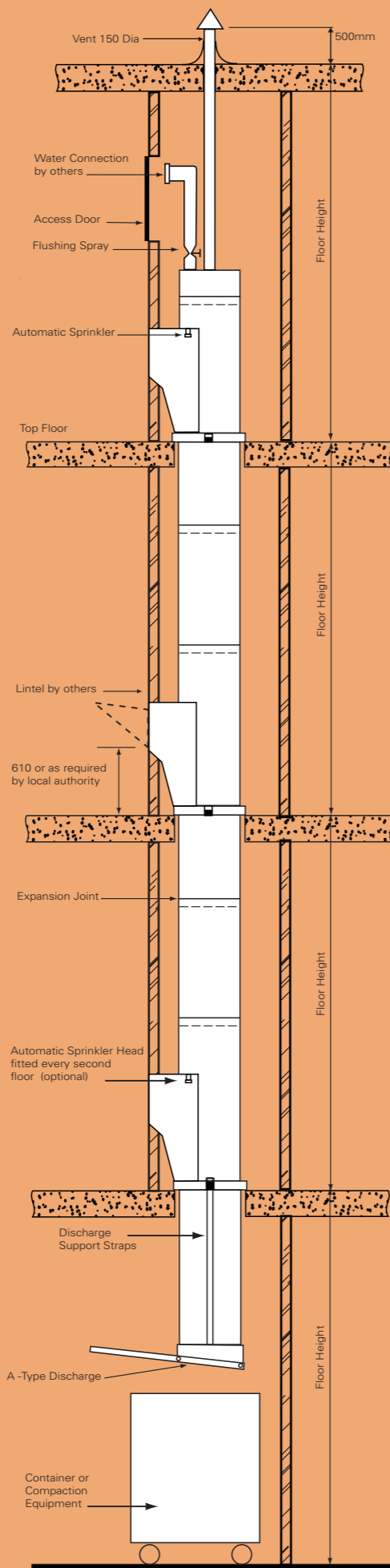
An A-Type horizontal rolling door is used for garbage or linen chutes with an open end discharge. The door is constructed from Zinalume steel with an insulated filling but is not fire rated. It is supported by four rollers on inclined tracks and held open by a fusible link. When excess heat breaks the link, gravity makes the door roll shut.

A-Type Discharge Dimensions

size	A	B	C	D	E	F
710	860	1551	391	762	263	
610	760	1348	340	660	256	
510	660	1146	289	559	248	
457	610	1045	264	508	241	



A-Type Discharge-Plan and profile



Materials Chutes are available in 1.6mm Zinalume, Stainless Steel and Galvabond.

Door Intakes

Intake is via a stainless steel, self closing, hydraulic, hand-operated, side-hinged door with a 180 degree opening for easy operation. All linen doors carry a two hour fire rating label and have a fire resistance level (FRL) of NA/120/30 for Australian Standard 1530.4 - 1990. A hydraulic check ensures a smooth, quiet close and makes opening the door easier. The purpose of the chute (soiled linen) is embossed in 26mm high letters in the Stainless Steel trim across the top of the door.

Locks

All linen chute doors come with cylinder locks to prevent unauthorised access. The locks are keyed alike and are configured so that doors are locked at all times.

RECOMMENDED ACCESSORIES

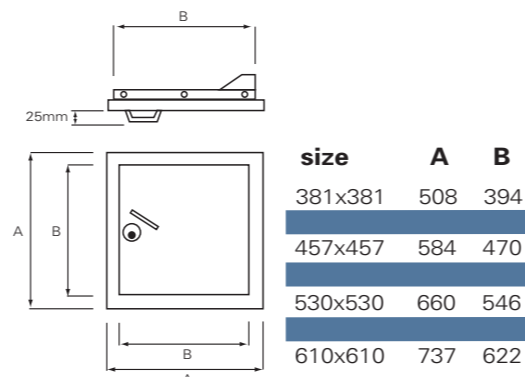
Roof Vent

Fire sprinklers

H-Type Discharge

The H-Type hopper is used when the discharge is built into a wall. The opening is formed on to the door frame, while the sloped bottom is reinforced with a 3mm Galvanised Steel impact plate and supported on a 50mm pipe pedestal. The door is top-hinged, and of 25mm thick insulation in a Zinalume Steel inner cover with Stainless Steel fascia. It is not fire rated. Note: A-Type outlets can be substituted where heavy usage requires the discharge be left open to prevent build up.

LINEN CHUTES

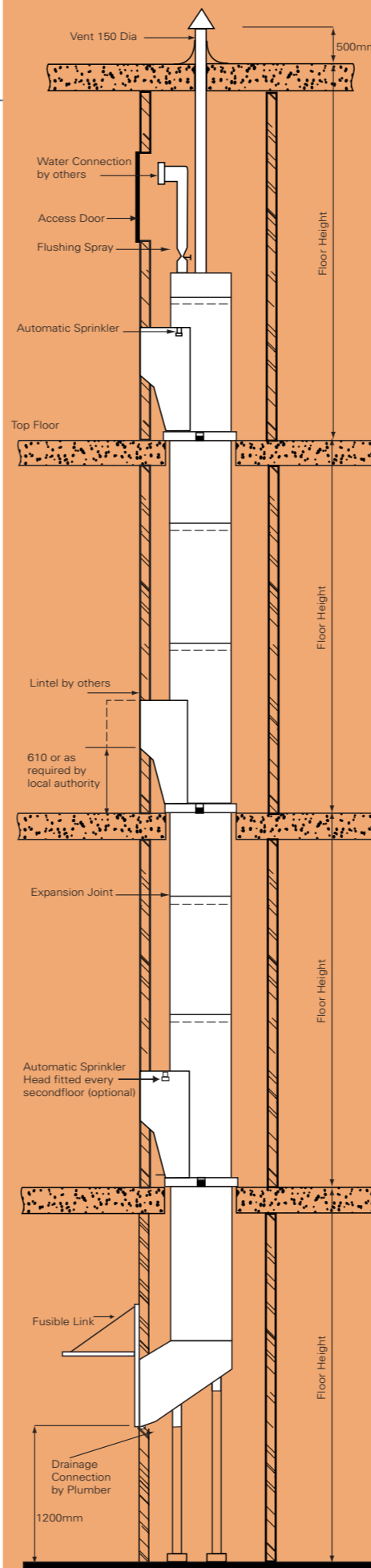
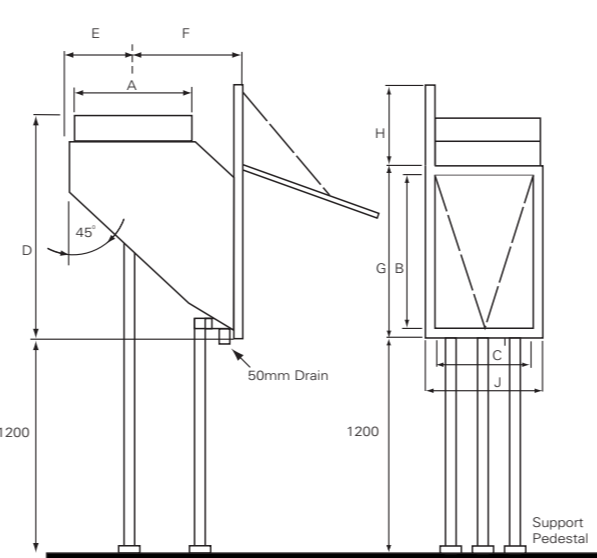


size	A	B
381x381	508	394
457x457	584	470
530x530	660	546
610x610	737	622

Square Side-hinged Door-Face dimensions

H-Type Discharge Dimensions

size	A	B	C	D	E	F	G	H	J
710	917	714	1187	375	599	1000	329	797	
610	765	613	1035	324	508	848	305	695	
510	765	511	1035	273	457	848	229	594	
457	765	460	1035	248	432	848	203	543	



GENERAL INFORMATION

Construction

Chutes are fully factory assembled. All joints except those required to separate sections for shipment are welded. Intake doors are bolted in place on throats formed in the chute tube. All sections flash into the sections below, with no bolts, clips or other projections to obstruct the flow of material. Pre positioned support frames assure proper door intake levels and the chute has expansion joints between all support points. Discharge hoppers and offsets (where required) are reinforced and separately supported in the impact area.

Installation

The chute should be assembled in place, aligned and anchored as required. Plumbers - run water supplies to the flushing and sprinkler heads. Electricians - run conduit and wiring to electrical equipment such as interlocks or heat detectors (where fitted). Bricklayers/carpenters erect walls around the chute after all other work is completed, setting intake door frames square and flush with the finished wall face.

ACCESSORIES

Roof vents

Linen or garbage roof vents are made from 150mm diameter PVC or the same material as the chute. Some local authorities may have specific ventilation requirements.

Flushing spray

A spray is fitted above the top intake door, which can be connected to hot or cold water for cleaning the chute. It uses a 20mm gate valve which is accessed via a side-hinged door built into the shaft wall above the top intake.

Fire sprinklers

Installed into chute intake throats at various levels as required by local authorities.

Key locks

All **linen chute doors** are fitted with cylinder locks to prevent unauthorised access. The locks are keyed alike and are configured to ensure that doors are locked at all times. Garbage chute door locks are optional on fire rated doors.

Electrical interlocking

Intake doors can be interlocked so that only one can be opened at a time. A further option is for all doors to be locked via a control panel in the basement with red indicators on each door to show they are locked.

Intake close-off devices

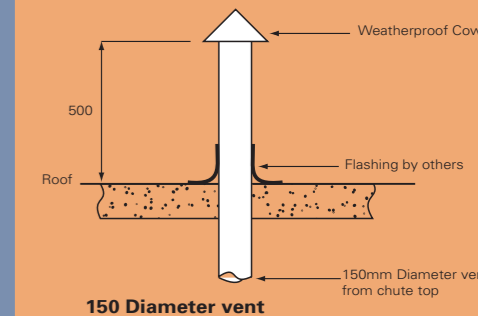
Where local authorities require, intake doors may be fitted with an extension hopper to seal off the chute when the door is opened. This does not effect the door's fire rating.

Sound insulation

Where noise is likely to be a problem, the chute can be wrapped in a sound insulation blanket during installation.

Custom discharges

Can be designed and built to suit most applications.



150 Diameter vent



Recommended Intake Doors

CHUTE Dia	SOILED LINEN side hinged	GARBAGE bottom hinged
710	610x610	533x457
610	533x533	381x457
510	457x457	381x457(FR) 360x340(NFR)
457	381x381	381x457

INNOVATION CONTINUES

As a modern solutions orientated company, JD MacDonald utilises the latest technologies, quality systems, manufacturing techniques and materials. A proven supplier to major developers and corporate organisations JD MacDonald employs experienced, qualified engineers with the latest in CAD design to develop solutions for today's building industry.

JD MacDonald engineers will check the proposed site and provide lay-out drawings as required. Our engineers consult regarding material and volumes expected to ensure the suitability of the proposed equipment.

All JD MacDonald's equipment and products are backed by our high quality service and support which ensures long, reliable operating life.



This brochure supersedes all previous literature on this subject. JD MacDonald's continued improvement to the specifications and details contained in this publication may change. Please contact our office for confirmation of current issue. Published January 2003.

TOLL FREE 1800 023 441
MELBOURNE (03) 9271 6400
SYDNEY (02) 9756 1622
ADELAIDE (08) 8262 3122
PERTH (08) 9271 8455
BRISBANE (07) 3205 3166
www.jdmacdonald.com.au