Garbage and Linen Chutes

STANLEY Fabs, a name generic and synonymous with quality stainless steel and engineered Steel products in India, Leverages its extensive experience and knowledge of Stainless steel Products category to present build to Builder for commercial & Residential Apartments

GARBAGE & LINEN CHUTES

Garbage and Linen Chutes

Material Thickness & Gauges

SF provides the following material gauges:
- *1.5mm (16 Gauge)*
- *2.0mm (14 Gauge)*
- *3.0mm (11 Gauge) (when specified).*

Usage of 1.5 mm thickness material is recommended for buildings up to 10 storeys high. For buildings over 10 storeys, we recommend the following:

Number of Storeys	Storey	Material Thickness
1-10	All	1.5 mm
1-20	1-9 10-20	2.0 mm 1.5 mm
1-30	1-6 7-20 21-30	3.0 mm 2.0 mm 1.5 mm
1-45	1-9 11-30 31-45	3.0 mm 2.0 mm 1.5 mm

Material Choice

SF provides refuse and linen chutes to customer requirements form the following high quality materials:

Material	1.5 mm	1.5 mm	1.5 mm	Standard
Stainless Steel Type	*	*	*	BS 1449
Stainless Steel Type 316	*	*	*	BS 1449
Galvanized Stee IB2	*	*	*	BS 1449 ASTM A527
Aluminized Steel CR4	*	*	*	ASTM A463
Aluminum SIC/H2	*	*	*	BS 1470

Metal refuse chutes are specially designed for use in flats, hotels, hospitals, apartments, factories, condominiums, offices, commercial complexes and shopping centers. Anywhere, in fact where refuse needs controlling, moving and disposing at low cost.

Indoor Chutes

The majority of refuse chutes are fitted internally within a building. Uni-Metal chutes can either pass through the floor slab of the building or be fixed within a vertical shaft.

Outdoor Chutes

Uni-Metal refuse chutes can be fixed externally to most types of building, particularly useful when a refuse chute has to be provided after the building has been finished or where it is not possible to replace in the same location. External refuse chutes can be single or double skinned. Please contact our technical department for further advice.

Choosing the Correct Size of Chute

SF provides a comprehensive range of refuse chutes, both in size and material choice. The choice of materials to be used are covered thoroughly elsewhere, the choice of refuse chute diameter is shown on this page. Historically, the most common size of refuse chutes were 375 mm and 450 mm. However we strongly recommend the use of 600 mm diameter chutes, as in practical terms this diameter is the least likely to cause any long term problems.

Appreciating that design and space considerations sometimes lead to compromises, the table opposite is given as a guide to assist you in choosing the correct diameter of chute.

Reccomended Chute Diameter	Plastic Sack Capacity	No. of Apartments per Chute
500 mm	20 liters	21 - 30
550 mm	30 liters	31 - 40
600 mm	40 - 50 liters	40 +
700 mm	40 - 50 liters	40 +
800 mm	45 - 55 liters	45 +
900 mm	50 - 60 liters	50 +

Floor Support Frames

Cut, shaped and drilled from 35x35x3mm or (38x38x5mm) mild steel angle with a rigid, welded construction. The frame holds a metal clamp band. The frame is rustproofed for internal use and hot dip galvanized for external use.

Angle Ring Joints

Used to join certain section of trunking. A factory fitted joint, to ensure chute stability, cut shaped and rolled from 25x25x3mm m.s. angle. Rustproofed for internal use and hot dip galvanized for external use. Angle ring joints are firmly bolted together and sealed during field erection.

Slip Joints

Mechanically swaged into the trunking, the slip joint gives up to 75mm tolerance. These joints are sealed during field erection with factory supplied sealant.

Material Specification & Choice

SFSP strongly recommends the use of stainless steel for the manufacture of refuse chutes.

Stainless steel has the advantage of being resistant to the humidity, acid and alkalis contained within refuse.
Stainless steel has no applied coating to wear off and most important has very high impact strength. For economy, SFSP also provides chutes from both galvanized steel and aluminized steel (Aluminized Steel to American Standards).

Galvanized steel and aluminized steel, whilst not having the same qualities as stainless steel, are still used extensively for refuse chutes. We can also manufacture chutes in aluminum though, due to the softness of the material, we would only recommend its use where low weight is a key factor.

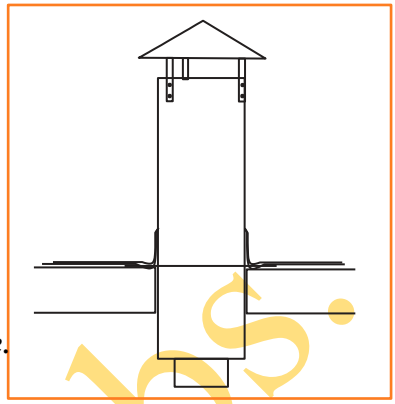
Type of Use/User	Formula	Volume Per Week
Household/Residential	2 person/1 house/1 flat	0.3 m^3
Offices	Per Person/10m^2	0.05 m^3
Hotels Total hotel waste based on number of rooms	4/5 star hotel-per bed 2/3 star hotel-per bed	0.35m^3 0.25m^3
Restaurants	per cover (dining space)	0.75 m^3
Fast Food Oultlets	per sale	0.005 m^3
Canteens	per cover	0.10m^3
Major Shopping Centers	per m^2 of sales area	0.010m^3
Major Supermarkets	per m^2 of sales area	0.015m^3
Secondary Supermarkets	per m^2 of sales area	0.010m^3
Depatment Stores	per m^2 of sales area	0.010m^3
Shops	per m^2 of sales area	0.0075m^3
Hospitals	per bed excluding clinical waster	0.15m^3
Industrial Units	per m^2 of floor space	0.005m^3

ACCESSORIES

Vents & Fans

Automatic Foul Air Exhaust Fan

Installed at the top of the chutes, usually above roof level this ventilator maintains a smooth flow of fresh air within the refuse chute. Normally changing the air approximately 50 times per hour. The foul air exhaust fan helps prevent the escape of any bad odors or explosive gases released by aerosols etc, through refuse hoppers or into the refuse room. For use with vent pipes of (9") 230 mm diameter or above.



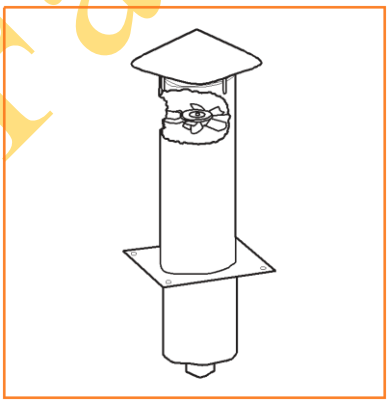
Standard Vent

Technical Specification

Air displacement 200m3/hour. Fan motor, Class H tropicalized continuously rated, 1300 RPM.

Electric Supply:

220/240 volts or 110/120 volts, 50/60 Hz. N.B. Flashed to roof by others.

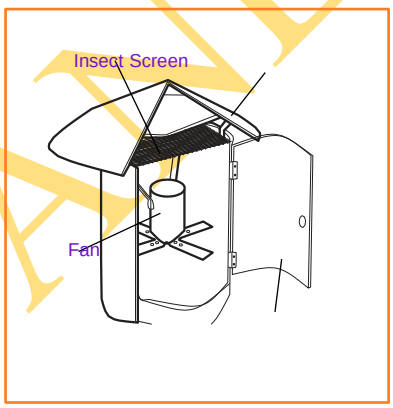


Standard Vent with fan

Full Diameter with Insect Screen

Recommended on chutes if a foul air exhaust fan is not being specified. The full diameter of the Uni-Metal refuse chute is used to vent any foul air in the chute. The screen keeps out any insects or birds attracted to the vent pipe. An exhaust fan can be fitted to any full diameter vent pipe, complete with inspection door. It extends 4 feet (1.2m) above roof.

Standard Vent with fan



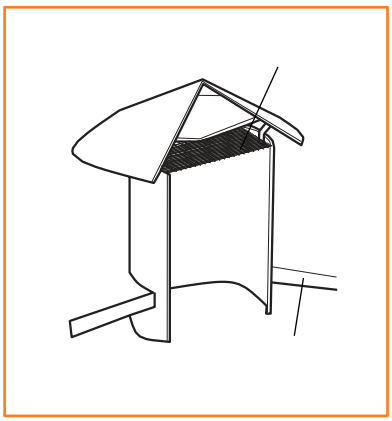


IMAGE OF DUCT WITH VENT !

IMAGE OF VENT WITH FAN !

IMAGE OF TERRACE FLOOR VENT DOOR!

Chute hopper doors are available in different sizes but commonly use :

Chute Diameter	Lengths	Width
500 mm (20")	450 x 450 mm (18" x 18")	450 x 450 mm (18" x 18")
550 mm (22")	450 x 450 mm (18" x 18")	450 x 450 mm (18" x 18")
600 mm (24")	500 x 550 mm (20" x 22")	450 x 450 mm (18" x 18")
700 mm (28")	600 x 900 mm (24" x 36")	600 x 600 mm (24" x 24")
800 mm (32")	600 x 900 mm (24" x 36")	600 x 600 mm (24" x 24")
900 mm (36")	700 x 950 mm (28" x 36")	600 x 600 mm (24" x 24")

Introduction

Electromagnetic door locking systems are used to enhance the safety of garbage and linen disposal chute systems; chute systems; although not required by law, systems; although not required by law, they considerably improve and ensure they considerably improve and ensure proper operation of intake doors.

Application

Electric latches can be incorporated in tipping hopper and side- hinged door fixtures; they can be coupled to warning light indicators, signal light indicators, smoke and fire alarms so that the doors remain closed in an emergency situation. Coupled with timers they can be used to control and dictate operating hours of the chute system. Door control is made at the central switchboard so that when one door is open, all others remain closed. This arrangement prevents injury to operating personnel by a falling bag should the chute be used simultaneously at two different levels in disposal, for instance.

Design

Electromagnetic door locking systems are fitted under the filler frame on tipping hopper and bag intake doors. In the door leaf a falling latch is incorporated which can be opened in an emergency by a simple allen key. The lock is operated via a green illuminated pushbutton; a red indicator lamp signaling that the chute has no access. All components of a door locking system and the operating controls are connected during installation and the final connection to the power unit is done by the main contractor..

Operating instructions

1- All doors shall be locked when the chute cleaning systems are in operation.
2- Doors can only be opened individually, a feedback contact preventing opening of other doors; an indicator lamp on the switchboard indicates that a door is open.
3- When all doors are locked it may be that the smoke detectors or fire alarms have been triggered.
4- When work is going on in the collection room, personnel safety should be ensured by closing all doors to the system via the switchboard.

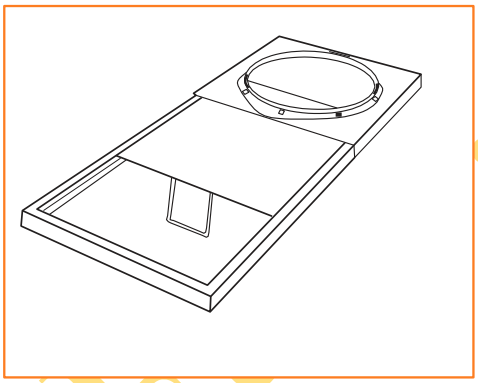
Supply requirements & specification

- Electro magnetic solenoid bolts.
- 220/240 volts. 50/60 Hz. 10 Amps max. or 120/240 volts. 50/60 Hz 5 Amps max. - Low power factor - Pre-set timer. Electric supply as above - Delay on/off. Range 5/200 seconds

Manual Cut-off Door

Shuts or cuts off chute for cleaning, removal of containers or maintenance of refuse compactors or shredders.

Chute Diameter	Lengths	Width
500 mm	1000 mm	550 mm
550 mm	1100 mm	600 mm
600 mm	1200 mm	650 mm
700 mm	1400 mm	750 mm
800 mm	1600 mm	850 mm
900 mm	1800 mm	950 mm



Strategic architectural Design Layout!

Consult requirement of Garbage Chutes!

3-D visualization Chutes Drawing!

LINEN CHUTES

Technical Information

Introduction

Uni-Metal linen chutes are the most efficient method of quickly and economically disposing of soiled linen in multi storey buildings.
The dirty linen is usually bagged before loading into the chute. Side hung doors with large openings are therefore the normal standard on linen chutes.
Hospitals generate about 3.0 kgs. of soiled linen per bed per day and a similar figure can be used for hotels. The increasing cost of using lifts and maintaining labour in hotels and hospitals reinforces the decision to install a linen chute.

Application

Original equipment installed in hospitals and hotels for the vertical movement of loose and bagged soiled linen.

Technical Information

Uni-Metal linen or laundry chutes have the same basic specification as refuse chutes. For details on the construction, material specification and choice please see previous pages. A full specification for Uni-Metal linen chutes can be found in this section.

Linen Chute Sizes

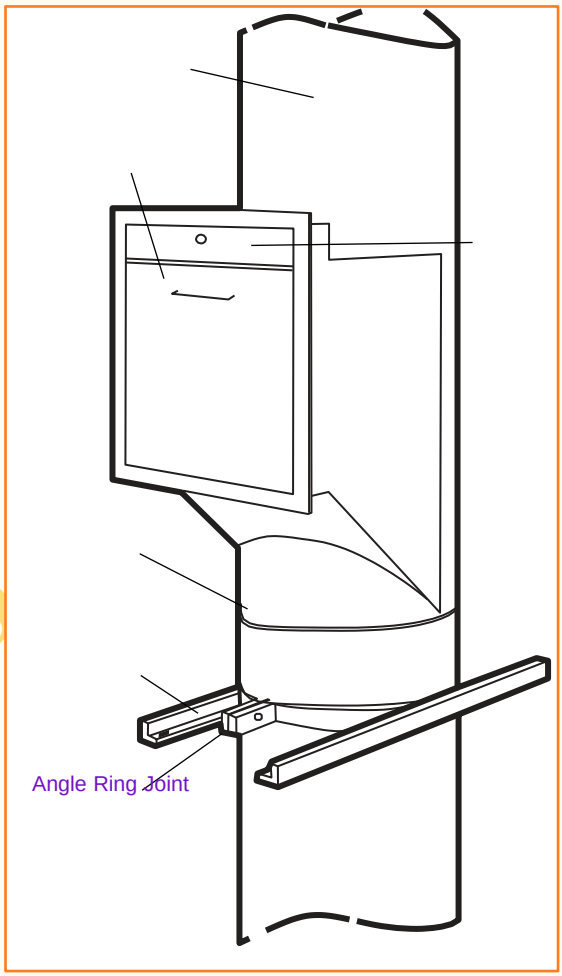
Available in either 600mm or 800mm diameters though in practice the 600mm diameter is adequate for most purposes.

Linen Chute Doors

SF normally recommends the use of a 450 x 450mm door for use with linen chutes and would also recommend the use of electric interlocks. Linen chute doors are side hung on stainless steel hinges, with either separate or master keyed locks. The doors are fully self closing on an efficient hydraulic self closer. Labels can be attached bearing the message 'LINEN ONLY' in english and/or the local language.

Fire Safety

To meet British Standards of fire safety an automatic linked fire shutter door with 1 1/2 hour fire rating should be fitted to the bottom of the linen chute, in the linen. Fire to be fitted at every second floor. The sprinklers are fitted inside the chute entry section and do not interfere with the loading or fall of the soiled linen.



SF normally recommends the use of a 450 x 450mm door for use with linen chutes and would also recommend the use of electric interlocks. Linen chute doors are side hung on stainless steel hinges, with either separate or master keyed locks. The doors are fully self closing on an efficient hydraulic self closer. Labels can be attached bearing the message 'LINEN ONLY' in english and/or the local language.

Fire Safety

To meet British Standards of fire safety an automatic fusible linked fire shutter door with a 1 1/2 hour fire rating should be fitted to the bottom of the linen chute, in the linen. Fire to be fitted at every second floor. The sprinklers are fitted inside the chute entry section and do not interfere with the loading or fall of the soiled linen.

Technical Information

Uni-Metal linen or laundry chutes have the same basic specification as refuse chutes. For details on the construction, material specification and choice please see previous pages. A full specification for Uni-Metal linen chutes can be found in this section.

Linen Chute Sizes

Available in either 600mm or 800mm diameters though in practice the 600mm diameter is adequate for most purposes.

Linen Chute Doors

SF normally recommends the use of a 450 x 450mm door for use with linen chutes and would also recommend the use of electric interlocks. Linen chute doors are side hung on

closing on an efficient hydraulic self closer. Labels can be attached bearing the message LINEN ONLY' in english and/or the local language.

Fire Safety

To meet British Standards of fire safety an automatic fusible linked fire shutter door with a 1 1/2 hour fire rating should be fitted to the bottom of the linen chute, in the linen collection room. Fire sprinklers are also recommended to be fitted at every second floor. The sprinklers are fitted inside the chute entry section and do not interfere with the loading or fall of the soiled linen.

Electric Interlocks

To give increased operator safety we strongly recommend the use of "time delay" interlocks inside hung door linen chutes.

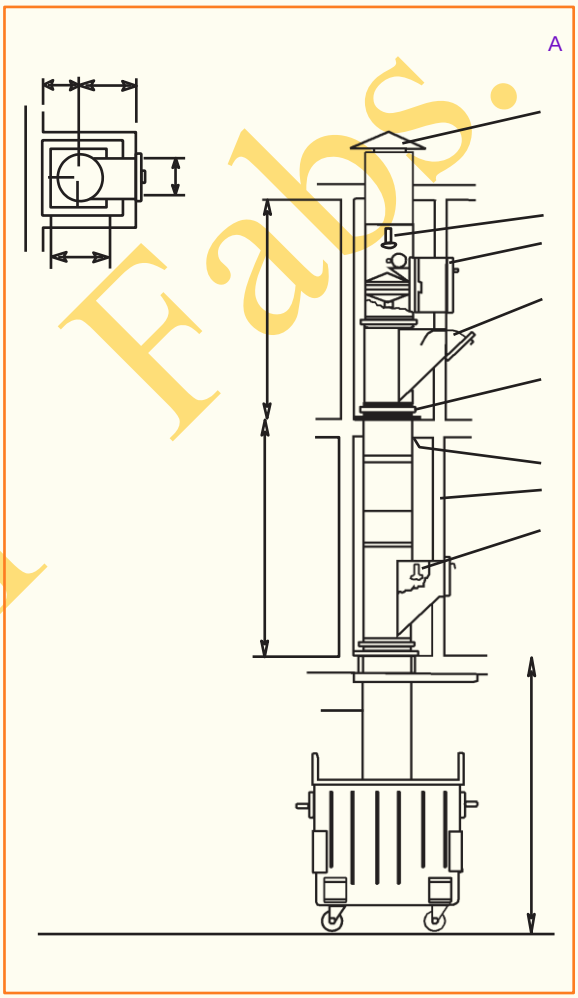
Accessories

The majority of accessories are available with linen chutes as are deceleration tracks, rolleys and containers for carrying bagged or loose linen-the range can be seen in the containers section.

REFUSE CHUTS EXAMPLES

Customized Garbage Chutes & Linen Chutes model

All application appeared as customized by floor section, Image of floor wise duct section with Trolley



A. Full diameter vent and cowl (or as specified)
B. Disinfecting and sanitizing unit
C. Automatic chute cleaning system
D. 1 1/2 hour fire rated hopper
E. Floor support frame
F. Floor opening to be infilled by contractor
G. Enclosing walls built after chute installation
H. Sprinklers
I. Fire shutter door
J. Discharge section

GARBAGE CONTAINERS

Material: ***Galvanized or stainless steel***

Specifications:

- *Refuse container capacity 2 cubic yard (1.53 m3) type MGC as above shape.*
- *All made of high tensile steel ST52-3, 2mm thick, reinforced at front top edge by 30mm dia round bar.*
- *Top edges surrounded by U shaped channels (3mm thick).*
- *Four heavy duty swivel caster wheels of 8" diameter two with brake and two without brake.*
- *Continuous inside welding.*
- *Two coats of epoxy primer and two coats of final color on request.*
- *Container without cover.*
- *Made to be lifted by the refuse compactor.*

Contact:

STANLEY Fabs. Pvt.Ltd.

Regd. Off : # 433/35/A, 2nd Floor, 10th Cross, 1st 'N' Block, Rajajinagar,Bangaluru-560010
Cell :+91 9538302582,+9739246445,+919916038480,E-mail:stanleyfabsin@gmail.com,
info@stanleyfabs.com, www.stanleyfabs.com

Partial Client List !

- Urban Tree Oxygen -Chennai
- Yashoda Hospital -Hyderabad
- Hospimed Group -Kolkata
- Jindal Hospital - Bangalore.
- Narayana Hrudalaya –Bangalore
- Berggruen Hotels(Keys Hotel) India.
- Varun Group(Novotel) Visakhapatnam.
- Sharanya Narayani Residential School-Bangalore.
- Green Park Hotel (4star) - Hyderabad.
- Best Western Ashok (3star)-Hyderabad.
- Brigade Group - Bangalore.
- Fusion India Projects - Bangalore
- DLF Residential projects- Kolkata
- PARK Plaza 5star property-Bangalore
- Fern Builders -Bangalore
- Hiranandani -Bangalore
- Maxworth Realty -Bangalore
- Raintree Boulevard -Bangalore
- Godrej Platinium -Bangalore
- Akme Projects -Bangalore
- Shapoorji Pallonji -Bangalore