



# **LINEN CHUTES**

MERIT AWARD - 2005 By MCCIA, Pune.

# HORIZON CHUTES PVT. LTD.

**Garbage Chutes - Debris Chutes - Odor Control Systems Access Doors - Fire Doors** 

Supporting Eco-Friendly Society with Safety

www.horizonchutes.com

# **HORIZON LINEN (LAUNDRY) CHUTES**



#### **Hotels** and

**Hospitals** generate soiled linen on different floors.

This used linen needs to be taken to Laundry Room, for sorting and cleaning.

Thus Linen (Laundry) Chutes are planned and installed in such a way that laundry disposed from individual floors gets collected in the Laundry Room.

#### Linen Chutes can be installed in

- Hotels, Hospitals, Bungalows.
- Residential buildings.
- In any duct, accessible from every floor.

### **Advantages of Horizon Linen Chutes**

- ▶ Facilitates total building Linen collection at one single point.
- Linen disposal with ease and safety.
- Reduces power consumption.
- ▶ Widely used all over the World.
- ▶ Reduces manpower.

#### Salient features of Horizon Linen Chutes

- Manufactured & Installed as per BS 1703:2005, NFPA 82.
- Weather proof Stainless Steel construction.
- Interlocking of chute hoppers to achieve one user at a time. Hoppers will remain locked with busy indication for all other floors, when one floor is operating.
- Vent system to allow air movements for vacuum breaking.
- Intake Hoppers are 90 minute fire rated as per UL Label 10B.
- Intake Hoppers can be L-hand or R-hand side hinged.
- Discharge end fire door D Type.
- Available in different sizes.
- Optional sanitation system for internal cleaning of chutes.

# Stand alone access control system dedicated for Linen Chute only.

- Access control system with 12 digit key pad is provided near the intake hopper.
- 4 digit changeable password for each intake hopper will allow usage by authorized persons only.
- A master password is provided with higher management for overriding any password.



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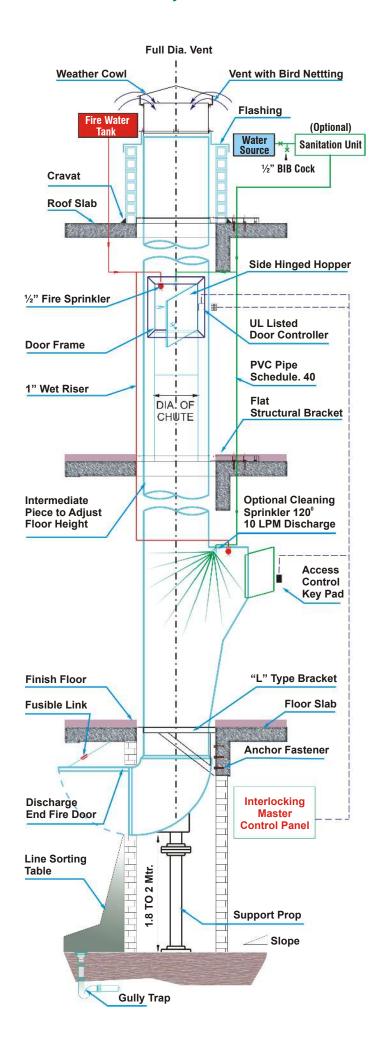
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## Schematic Layout of Linen Chute



# CHUTE SPECIFICATIONS

# **FIRE SAFETY**

#### **Selection of Chute Diameter**

Type of building	Linen chute dia.
Residential	600 mm
Hotels / Hospitals	750 mm

#### Hopper size for std. chute

Chute Diameter		Hopper Size
		Side Hung
600 mm	Typ. Size	16" x 18"
(18")	Max. Size	16" x 24"
750 mm	Typ. Size	21" x 21"
(24")	Max. Size	24" x 24"

Any bigger sizes are available with max. intake hopper size 30"x 30" Mfg. as per UL Label 10 B.

#### **Material of Construction**

- Stainless Steel SS 304 1.5 to 2 mm thick.
- Fibre, Plastic chutes are not allowed considering fire hazard, as per BS/NFPA Codes.

#### Floor Frames

- > Total chute weight is divided on each floor.
- MS Galvanized structural frame fabricated from 40 X 40 X 5 mm angles.
- Anchor fastened with floor / beam.

#### **Sound Dampener Coating (Optional)**

Min. 2 mm thick sound deadner coating to reduce sound, if required.

#### **Intake Hoppers**

- Laundry Chute Hoppers Side hung, left or right hand opening.
- Fixed with chute in face with front wall.
- Hopper can be interlocking for "One user at a time" concept.
- ▶ 90 minute fire rated as per Underwriters Laboratory (UL) USA.
- As per UL Label 10B. Std. Max. temperature rise of 121°C in 30 min. (of unexposed surface)

#### Vent

- Installed at roof level or just above last intake hopper.
- Designed to break vacuum created by falling Linen.
- Provided with weather cowl & bird screen.

#### **Discharge**

- Chute shall directly discharge into Laundry room on laundry sorting table.
- ▶ 90° diverted discharge at 1.8 to 2 mtr. height above Laundry Room floor level.
- Discharge end fire cut off door.

#### **Linen Trolley**

• Customized fabricated trolleys available.

#### Discharge End Fire Door ' D ' type

Our "D" type discharge end fire rated door is held horizontally against gravity by 79°C. fusible link. In case of fire, fusible link melts and fire door closes the upward path of chute restricting heat transfer to upper floors.

#### **Fire Protection in Linen Chutes**

Manufacturing and installation codes and standards.

BS 1703:2005 seen along with BS 476 part 22, NFPA 82, IS 6924:2001, NBC 2005 - clause 3.4.8.3





Door integrity shall remain even after "Hose reel test" at the end of 90 min. fire test.





#### **Requirements for Intake Hopper -**

- ▶ 90 Minute fire rated.
- > Passage for flame is not allowed
- ▶ If fire exposed side temp. is @1000° C. then unexposed side temp. shall be 121° C.
- Door should not fall open after Hose reel test at the end of fire test.
- Inter-locking chute hopper controllers are also UL Listed for user safety.

#### Fire Sprinklers -

- → Opens at 68°C. to extinguish fire.
- Installed at top and bottom intakes and in between alternate floors. Starting from top.
- → ½" IPS (BSP) female threading ready to be connected to 1" wet riser of fire protection system.

#### Discharge End Fire Door -

In case of fire in Laundry room this shall cut off fire path at 79° C.

### **Duct Size**

#### **Required Minimum Duct Size for Installation**

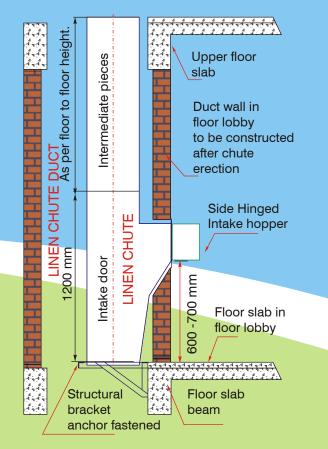
Chute Diameter	Duct / Slab Opening
24" (600 mm)	32" x 32"
30" (750 mm)	36" x 36"
For other sizes	Dia of chute +8"

- Front wall shall be constructed after the erection of chute.
- 2. Provide 1"wet riser from fire protection system for total building height inside chute duct.
- Connect fire sprinklers provided by us at top most intake, lower most intake & in between alternate floors starting from top. (Fire sprinklers are provided with 1/2" BSP female threading ready to be connected.)
- In case of requirement of integral cleaning system, provide predefined water connection as per our requirement.

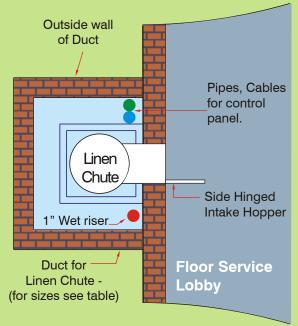
## **Laundry Room**

- 1. Provide wall tiles (min. 1.8 mtr. high) & floor tiles.
- Floor to have slope towards gully trap connected to drainage/basement sump. (In case of Interval cleaning system.)
- 3. Provide 6 Amp. MCB, earth, neutral for control panel in laundry room.
- 4. Lighting arrangement.
- 5. Provide clear min. 1.5 mtr. wide, out side opening flush door (40 mm thick) to Laundry room.
- 6. Chute duct slab to be closed in Laundry Room after installation of chute.

### **Elevation at Linen Chute Duct**



## **Plan at Linen Chute Duct**







# HORIZON CHUTES PVT. LTD.

Unit 1: 11/16/2, Village Nanded, Pune Sinhagad Road, PUNE - 411041. (Maharashtra) INDIA.

Tel.: +91-20-24394617, 24390445. Mobile: +91-9822037079. Email: info@horizonchutes.com

Unit 2: Gat No. 6B, Village Kasurdi, Shivapur - Saswad Road, Tal. Bhor, PUNE - 412 205. (Maharashtra) INDIA.