

Door Considerations



Metaflex Doors India Pvt. Ltd.

Courtesy

Metaflex Knowledge centre

Presented by: Padam Garg , Director & CEO

Agri Industry focus for the future

- To make India the food basket of the world
- Impetus of the government
- More than 4000 crores is being provided to develop world class infrastructure for handling, storage , processing , logistics

Current Cold storage capacity to be enhanced manifold



- Move away from conventional brick & mortar cold storage
- Modern technologies will be imported from the western advanced countries
- Modern technology will be efficiency driven

Doors is our core competency



Metaflex Doors India Pvt. Ltd. is a fully owned subsidiary of Metaflex BV , The Netherlands, a company having 35 years of expertise in the doors for special applications with a in-house R & D centre.

As “Global Leaders in Door Solutions” Metaflex has its presence in more than 30 countries around the world with more than 1 million installations worldwide.

Role Of Cold Storage Doors ?

Old conventional construction is giving way to new design and development

Cold storage doors plays an important and integral role in the profitable operation of the modern cold storage warehouse.

- a) Effectively control traffic
- b) Maintain required Temperatures
- c) Reduce infiltration
- d) Save energy costs

Effective Temperature & Infiltration control

- Doors must have hermetic sealing
- Proper insulation values for required temperature
- Heater tapes

Easy & Efficient operation

- To manage traffic with ease

- ensure that the door will open and close for a minimum time to allow the fork lift to enter or depart from the area . This can result in huge savings on energy cost

- lowest infiltration

- low temperature exchange

Door considerations

- Careful Selection for application areas
- Design for proper use
- Manufactured & built to precise specifications
- Installed correctly
- Regular Maintenance

Application Areas

- Chillers
- Freezers
- Deep Freezers
- Blast Freezers
- Ripening Chambers
- Buffer areas
- Dock areas
- Personnel entry

Selection

Selection of the type of Cold storage doors

- Depends on the application area
- Design of the cold storage
- Space availability for the doors

Horizontal Sliding Doors

- application in all areas
- most efficient in regulating flow of traffic
- control of temperature
- Should have 3 D movement for full hermetic sealing
- Automated for maximum efficiency , control and savings
- The automated door pays back for itself within one year



Horizontal Sliding Doors



Horizontal Sliding Doors



Hinged Doors

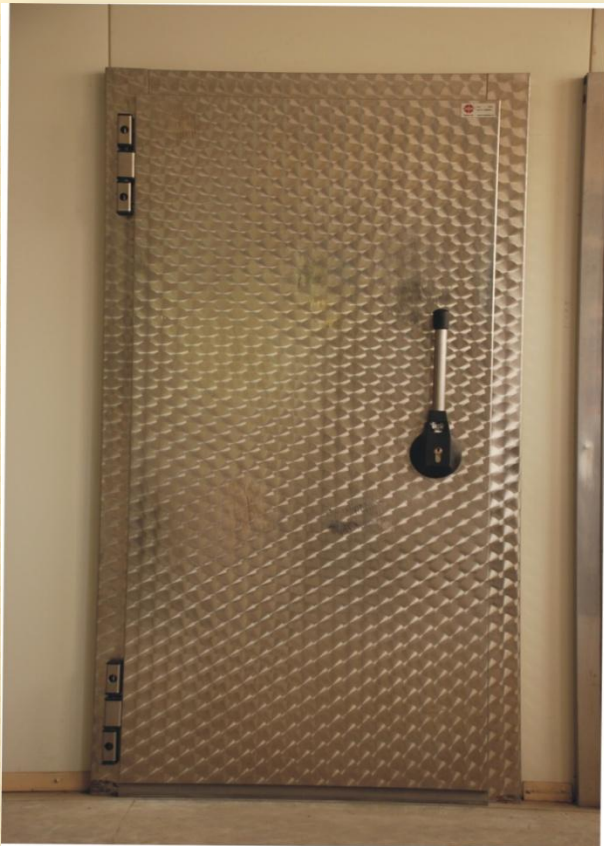
- For personnel entry point
- Where traffic is minimal
- If Space is not available for sliding doors



Hinged Door



Hinged Door



CA or Ripening doors

For ripening areas



CA or Ripening doors

For ripening areas



Overhead Sectional doors

For Dock areas



Overhead Sectional doors

For Dock areas



Designing of a Door

Designing process should take into consideration

- Application*
- Building design*
- Openings planned*
- Traffic estimated*
- Sizes required*
- Temperature requirements*
- Special material requirements*
- Coatings*
- Color preferences*
- Designing process should ensure functionality, durability and Insulation values.*
- Door weights to calculate movements , framework , hardware fittings and so on*

Door Construction

The door construction should be :

- ✓ Robust to withstand rigors of industrial use
- ✓ Stable and heavy duty framework
- ✓ Panels to have proper insulation
- ✓ self regulating heater tapes
- ✓ Carefully select hardware hinges , rising hinges , locks seals , rollers , guide rollers , carriages should be of high quality

Manufacturing of a door

- *Is a skilled job*
- *As it should ensure*
- *Precision building , sealing and fitting of a door*
- *After building a door it should be tested for leakages*

Installation of door

- Is a very skilled job
- A good door badly installed will render the good door useless...

Installation of door

Installation should be done by trained people and should be checked for

- Smooth and trouble free operation of all fittings
- Full hermetic sealing
- Where ever automation , that Automatic systems are working satisfactorily
- Doors must have protection from accidental damage by fixing checker plates and bumpers
- Automations must have protection by installing UPS for power fluctuations

Maintenance

- ✓ well manufactured and correctly installed doors will need lesser maintenance .
- ✓ Regular maintenance schedules including annual maintenance contracts with the company will ensure longevity , durability and continuous efficiency of the door

Maintenance Should :

- ensure tracks are cleaned regularly
- All loose parts are working properly and changed if worn out
- Seals to be checked for any wear
- Accidental damages or Repairs if required should be carried out immediately so that damage is contained and the efficiency of a door is not compromised .
- Always use OEM spares and only trained people to carry out repairs

Importance of Door

- *Choosing & building the right door for your operation can mean a system that will deliver the required level of performance at the lowest maintenance cost and at the right price*



QUERIES & QUESTIONS

For further details please mail us at:

info@metaflex.in

OR

ceo@metaflex.in

Thank You!



Metaflex has affiliations with

- **Global Cold Chain Alliance**
- **International Association of Refrigerated Warehouses**
- **International Association Of Cold Storage Construction**