# ALL FIBRE SQUARE DRUM

From BHARGAVI AUTOMAC *An Innovative Packaging Machinery Manufacturer* (
Part of Bhargavi Paper Industries LLP, Pune)

An Opportunity For Packaging Material Manufacturers. An Ideal Packaging Solution for chemical & allied Industry.



# **Present Packing Style**



- Composite materials
  - Paper
  - Wood / Plastic
  - Metal
- Metal part to cut off for disposing.
- Not Environment friendly.
- Not "RESY" standard compliant.
- No hand hole cut-out for easy handling.



- Made out of one material only (no metal part to cut off and hence no rusting)
- Solid, Re-usable,
- 100% Recyclable
- RESY standard compliant,
- With hand hole cut-out for easy handling.

- Cubic efficient for a 50 % reduction of the storage and handling costs.
- Certified for Hazardous goods.
- Can be stacked up to 3 m high.





- Environment friendly,
- Collapsible for easy recycling,
- Easily Disposable.



- Made from 300 GSM Test Liner or Liner Kraft.
- Made on specially designed Convolute Winder. Fully automatic line. Only three persons required to run the plant.
- Can be made up to 7 to 9 layers of Kraft liner. Meets all IMDGA standards.
- Food grade adhesive used.
- Food grade Certified.



- Compression strength: Up to 1000 Kgs
- Puncture resistance: Up to 800 beach units.
- Cobb value < 155</li>
- Stack ability: 3 meters.
- Moisture: 7% to 9%



- Base size: 370 mm X 370 mm.
- Suitable for CP 3 Pallet.
- Pallet size: 1140 mm X 1140 mm
- 3 X 3 configuration on the pallet.
- Minimum drum height: 300 mm.
- Maximum drum height: 1170 mm.
- Required volume for packing adjusted by height.

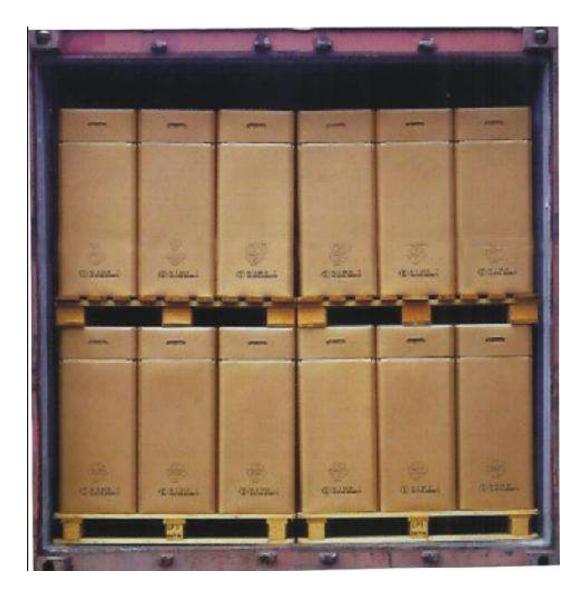


- Volume range from 25 liters to 150 liters.
- Used for Powder, Paste packing using poly Liner bags.
- Used for liquid packing using specially designed liner with closure.

# 100 % Pallet Utilization



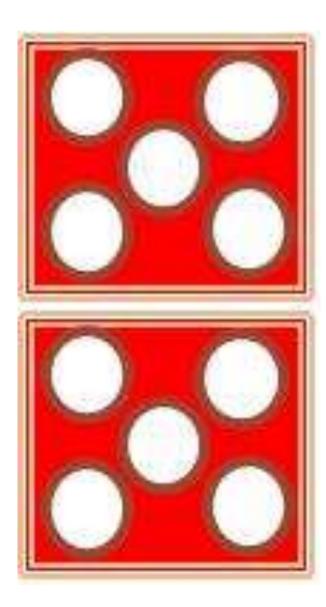
#### 100 % Container Utilization





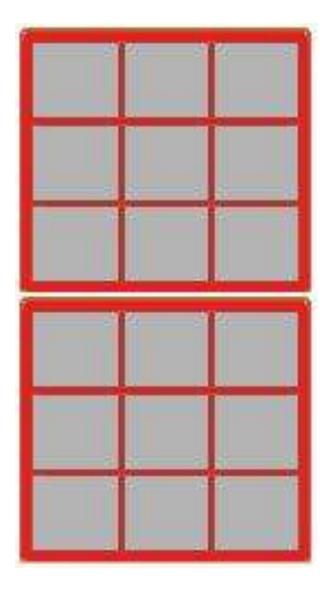
#### How can we achieve saving's

- Consider an example.
- Material to pack is powder having bulk density of 0.35
- To pack net 50 Kgs per drum.
- Round drum size required is 18" diameter and 32" height
- Square drum size required is 370 mm X 370 mm X 970 mm



# Round Drum

- No of drums on pallet in one layer is 5
- Pallet size 1140 mm X 1140 mm
- No of pallets per 20 feet container is 20
- Total no of drums in container = 20 X 5 = 100 drums
- Weight of material packed in one container
   = 100 X 50 Kgs = 5000 Kgs.



# Square Drum

- No of drums on pallet in one layer is 9
- Pallet size 1140 mm X 1140 mm
- No of pallets per 20 feet container is 20
- Total no of drums in container = 20 X 9 = 180 drums
- Weight of material packed in one container
   = 180 X 50 Kgs = 9000 Kgs.



# Savings

- 4000 Kgs more material loaded in to container.
- 80 % increase in loading
- Possibility of saving 10 pallets as square drums can be easily stacked on each other as shown.



# Example of Single pallet

- 4 high stack on single pallet.
- Neat appearance.
- Label can be properly pasted for visibility from all four sides.

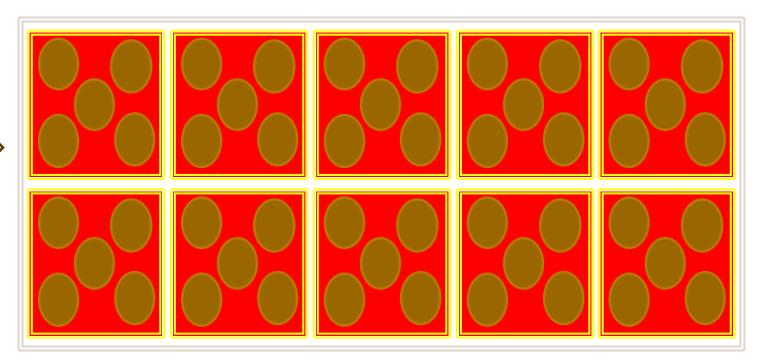
Actual container picture showing complete utilization of container space

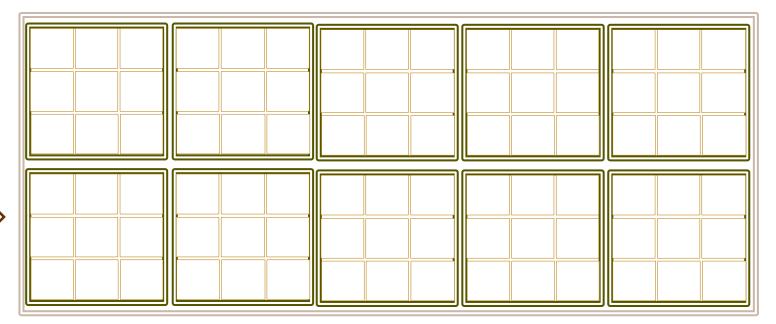


#### Round Drum

Container utilization by round and square drums

Square Drum



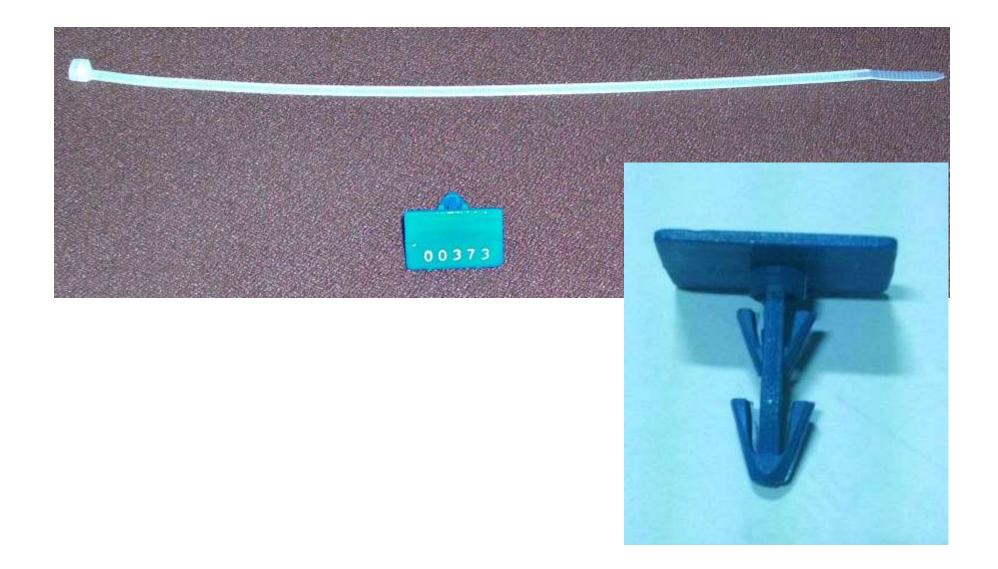


#### **Closure methods**



- We can add security seals.
- Tying type.
- Insert type

## Security seals



#### **Square Fiber Drum Production Line – Model BA 360 A**

| Drum (Body)   |                                   |  |
|---|-----------------------------------|--|
| Output  | Design Speed 100 drums per hour*  |  |
| Length of Drum  | 370 mm Outer dimension            |  |
| Width of Drum   | 370 mm Outer dimension            |  |
| Height of Drum  | 225 mm to 1170 mm                 |  |
| Volume of Drum  | 25 Liters to 150 Liters           |  |
| Number of plies   | 6 to 8 plies                      |  |
| Wall thickness of Drum  | 3.0 mm to 3.2 mm                  |  |
| Material of construction  | Kraft Liner of 250 GSM to 350 GSM |  |
| * Depends on Paper quality, Adhesive quality, number of plies and |                                   |  |
| operators' skill  |                                   |  |

#### **Square Fiber Drum Production Line – Model BA 360 A**

| Lid (Cap)                |                                   |
|--------------------------|-----------------------------------|
| Output                   | Design Speed 100 Lids per hour*   |
| Length of Lid            | 370 mm Outer dimension            |
| Width of Lid             | 370 mm Outer dimension            |
| Height of Lid            | 150 mm                            |
| Number of plies          | 6 to 8 plies                      |
| Wall thickness of Lid    | 3.0 mm to 3.2 mm                  |
| Material of construction | Kraft Liner of 250 GSM to 350 GSM |

#### **Square Fiber Drum Production Line – Model BA 360 A**

| Bottom Plate  |                                      |  |
|---|--------------------------------------|--|
| Length of Bottom Plate  | 356 mm                               |  |
| Width of Bottom Plate   | 356 mm                               |  |
| Thickness of Bottom Plate   | 2.8 to 3 mm                          |  |
| Material of Construction  | 1900 GSM to 2100 GSM Stiffener board |  |
| Top Plate   |                                      |  |
| Length of Top Plate   | 360 mm                               |  |
| Width of Top Plate  | 360 mm                               |  |
| Thickness of Top Plate  | 0.30 mm to 0.45 mm                   |  |
| Material of Construction  | 150 Kraft/20 microns poly/150 Kraft  |  |
| * Depends on Paper quality, Adhesive quality, number of plies and |                                      |  |
| operators' skill  |                                      |  |

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