

Design of a Post Box for India Post

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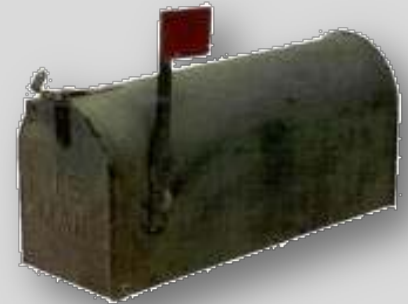


THE TRIGGER



BACKGROUND OF POST BOXES

- After introduction of stamps, people were not required to go to post offices to post letters.
- Use of common box for the incoming and outgoing mails was a collecting method in some parts of the world.
- The concept of letterboxes as we see them today was started around mid 19'th century.



THE NEED FOR NEW PRODUCTS

The Post Box has changed through the years due to the new developments in manufacturing.

UK 1857



UK 1859



UK 1866



THE NEED FOR NEW PRODUCTS

The Post Box has changed through the years due to the new developments in manufacturing.

UK 1887



UK 1901



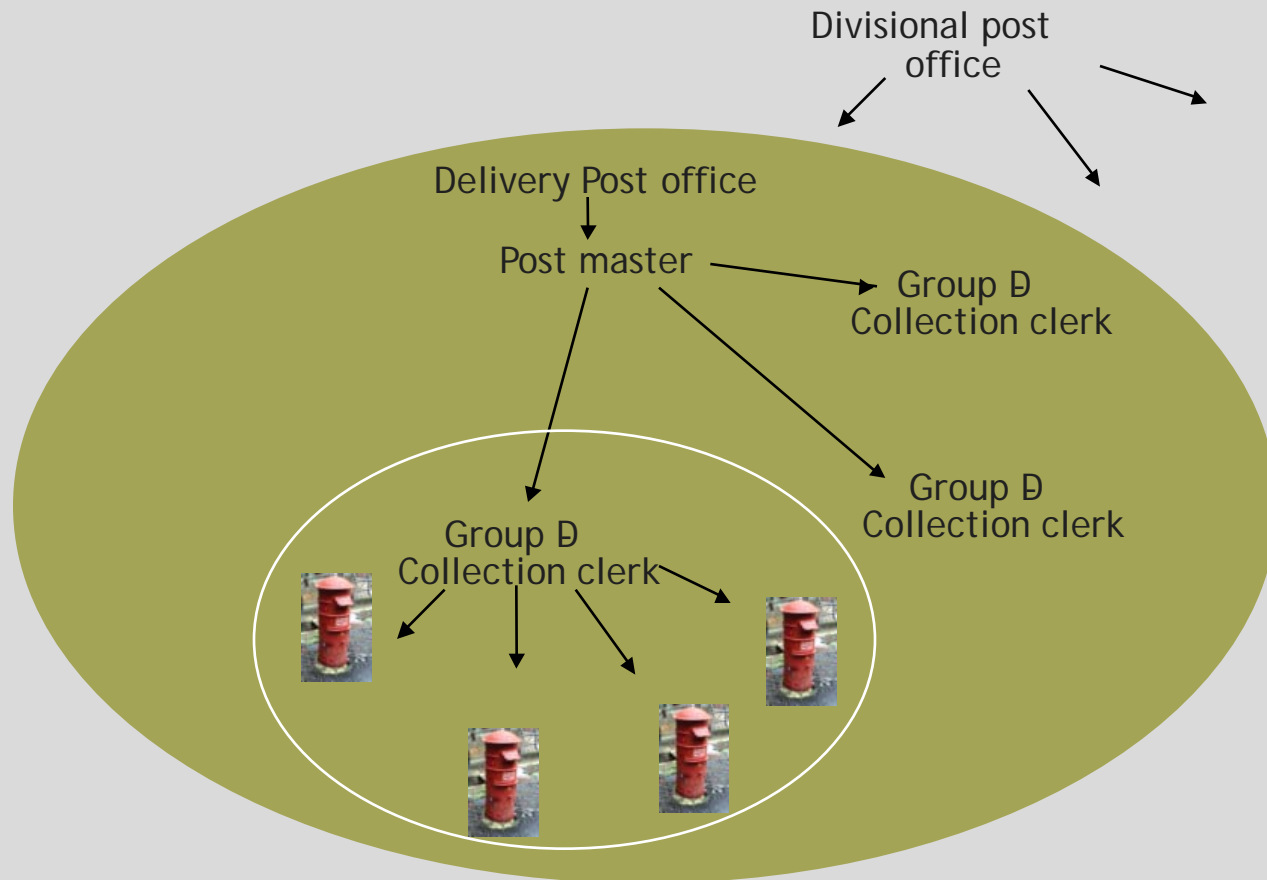
UK 1952



UK 1992



THE COLLECTION SYSTEM FROM POST BOXES



- The city area is divided in small parts and the collection happens systematically.
- It works out efficiently in local conditions .

RUSTING OF POST BOXES

- Repair jobs are with contract people.
- Maintenance work takes a lot of time.
- Even a simple problem like replacing a lock takes a lot time.
- The next clearance tag and locks many times missing



QUALITY OF POST BOXES



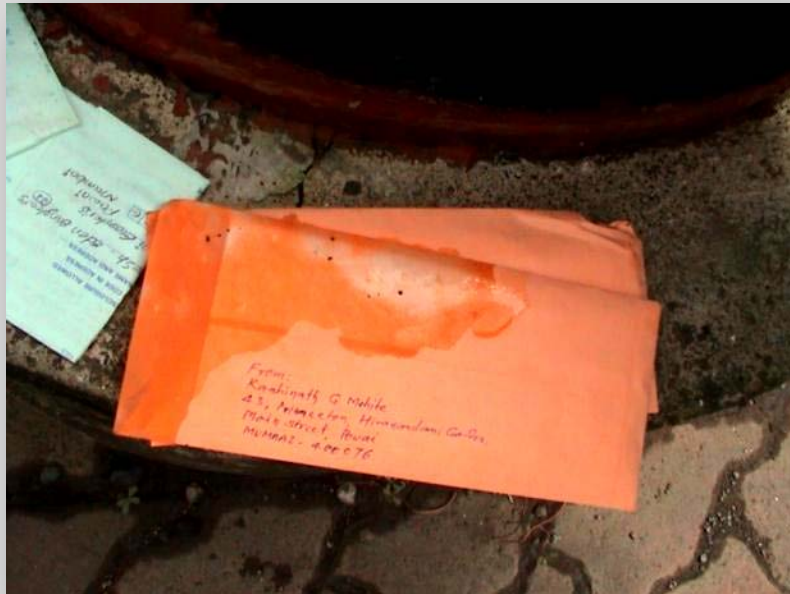
- A typical post box lasts for 3-6 years, depends on the location, shade etc.
- Installation charges around Rs. 750 (contractors)
- Maintenance work 4-5 times minimum in the lifetime.
- Painting done yearly by contractors.

WATER INGRESS OF POST BOXES



The sheet metal construction does not withstand the environmental conditions.

DAMAGE TO LETTERS



PROBLEMS WITH CURRENT POST BOXES



The deciding people are not much bothered about the design issues.

PROBLEMS WITH CURRENT POST BOXES



PROBLEMS WITH CURRENT POST BOXES





INSTALLATION SURROUNDINGS OF POST BOXES



INSTALLATION SURROUNDINGS OF POST BOXES



SIMILAR PRODUCTS



USABILITY OF POST BOXES



LEARNING FROM OTHER PRODUCTS



CLEARANCE TAGS



CONCERN FOR THE POST BOX



CARE FOR THE POST BOX

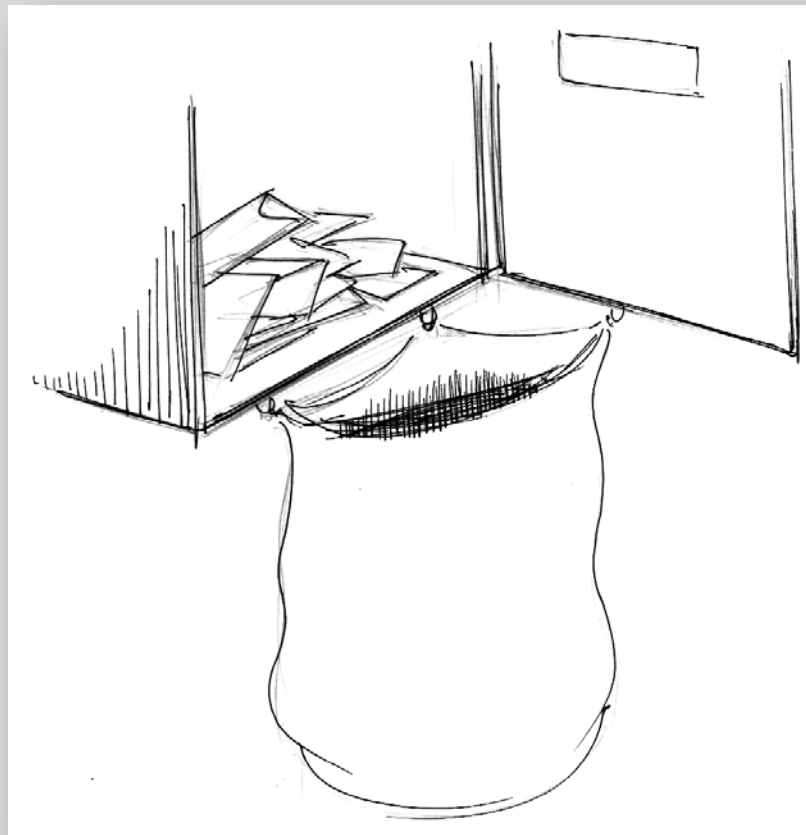
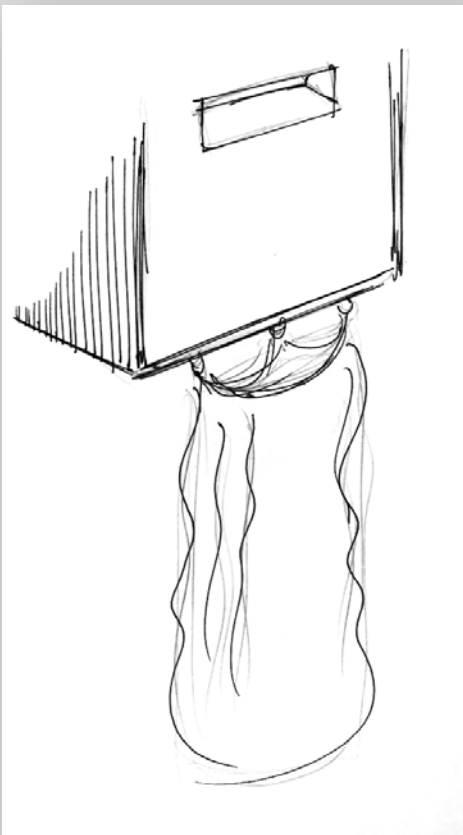


- Problems in fixing
- Post box with cement base
- Difficult to maintain
- Difficult to paint

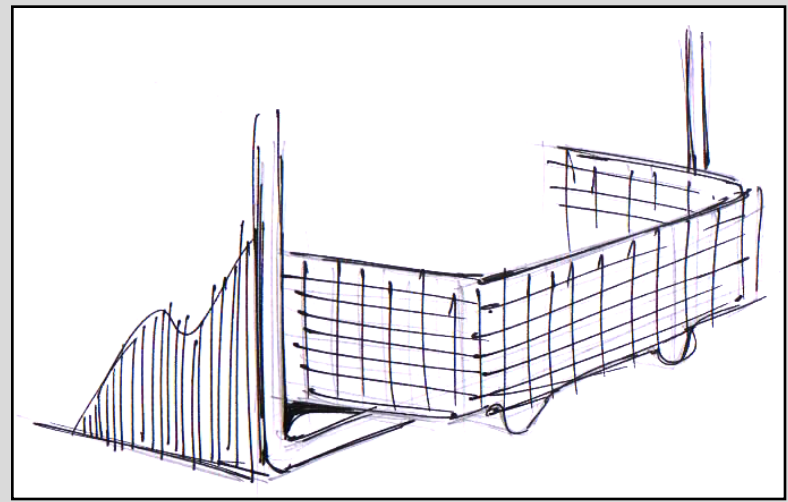
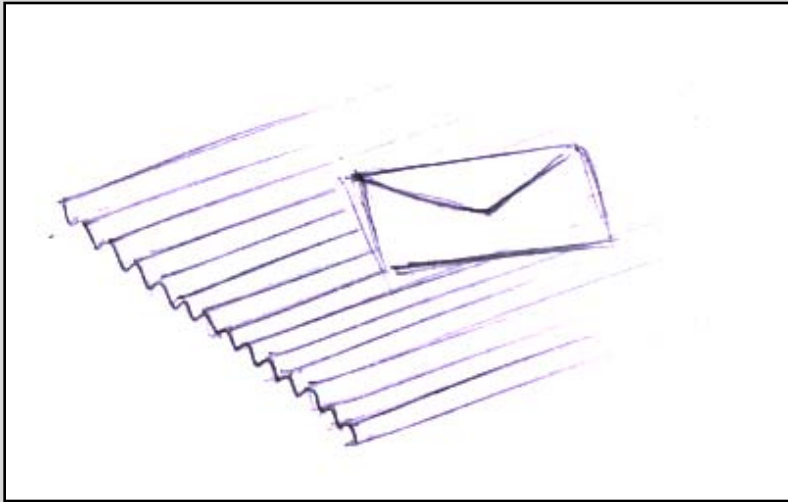
THE CHECK

- Maintenance free for 20 years
- Long life
- Use of contemporary materials
- Robust manufacturing
- User convenience
- Modular design- small and large box
- Create a unique identity for India Post

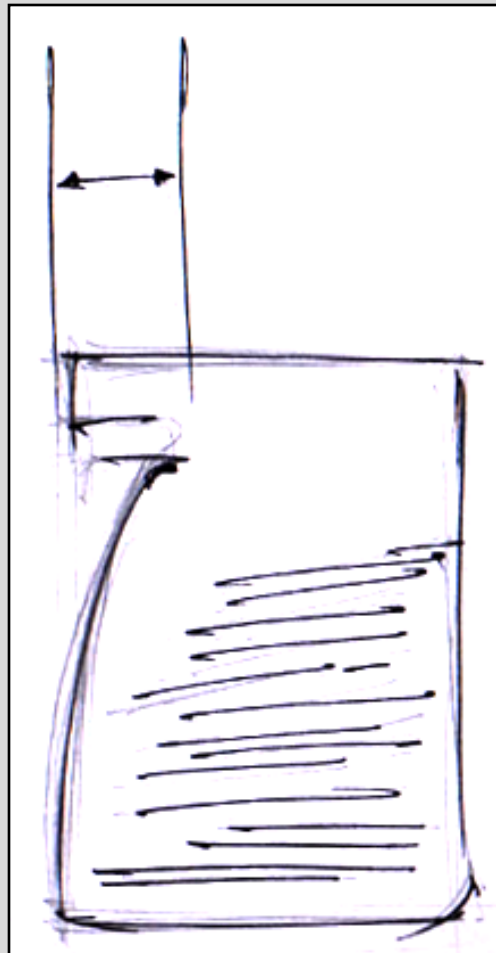
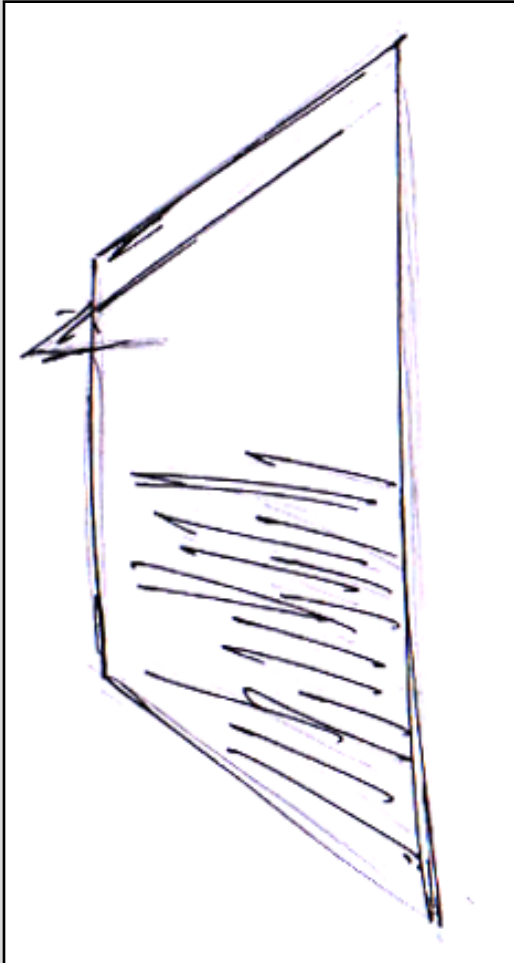
IDEA GENERATION



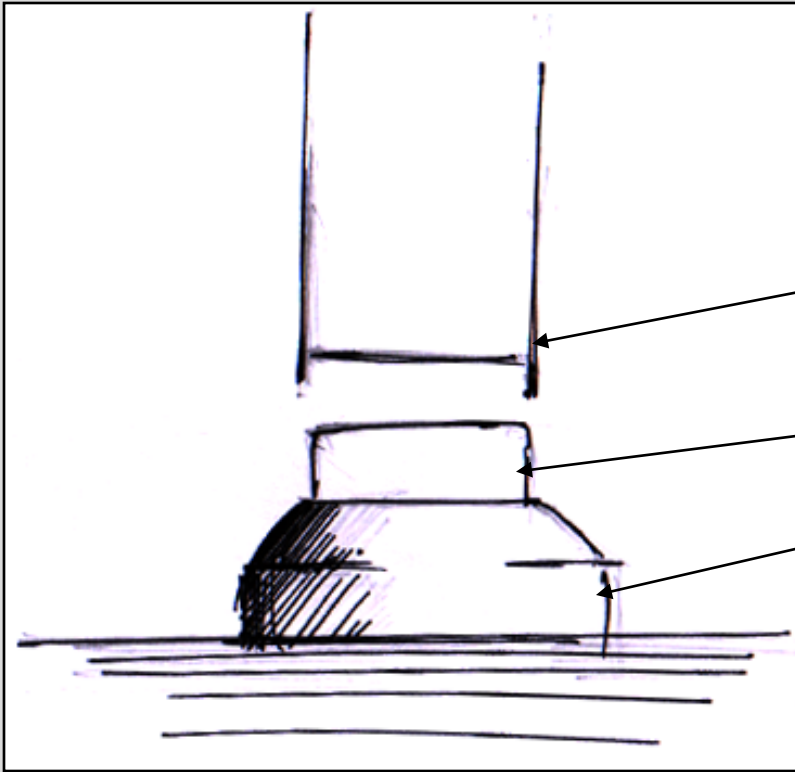
IDEAS



IDEAS



IDEAS



Removable Post Box

Fixed element

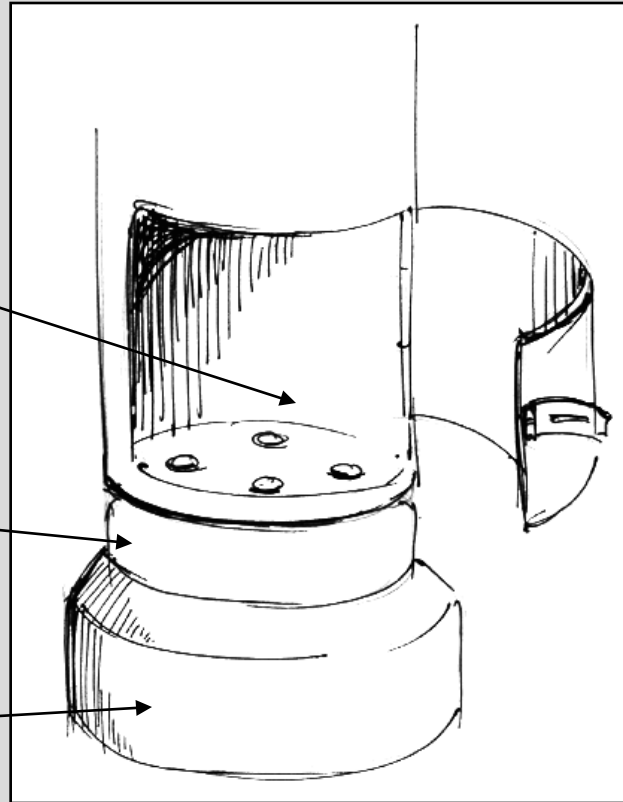
Base

IDEAS

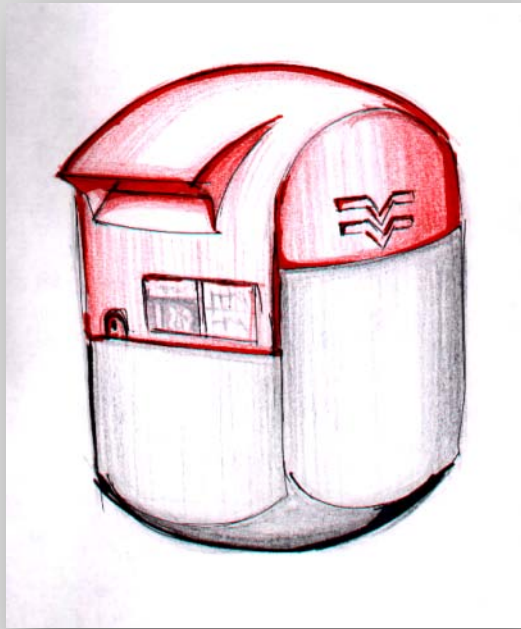
Post Box fixed from
inside the lock

Fixed element

Base



IDEAS

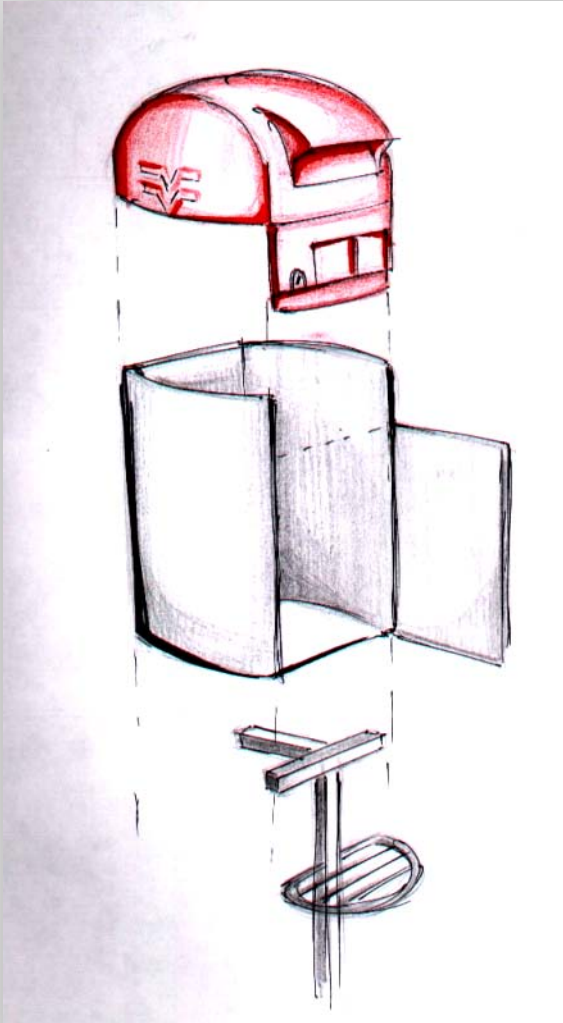


Plastic cap + plastic box



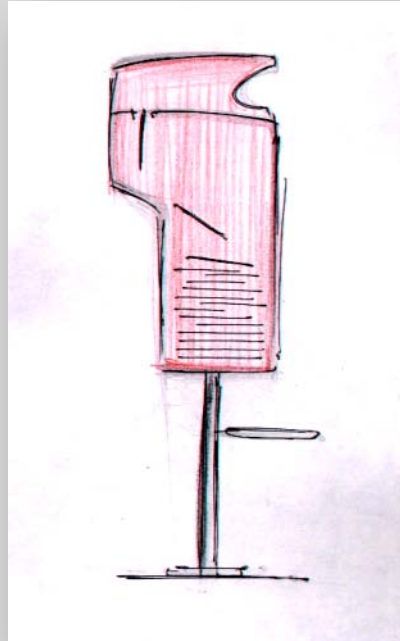
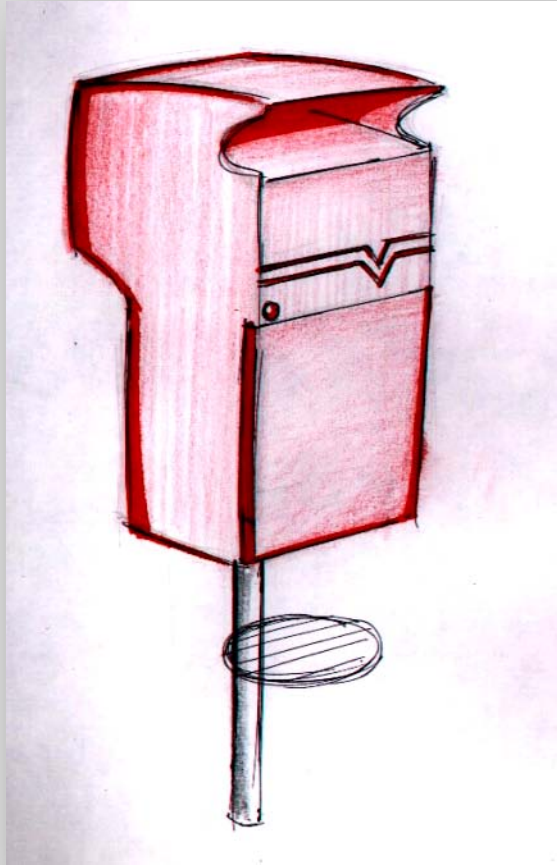
Plastic + sheet metal box

IDEAS



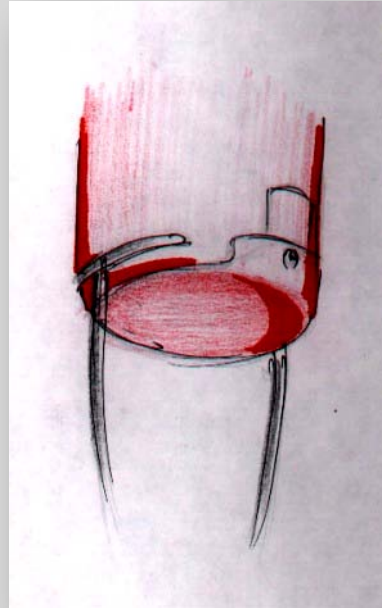
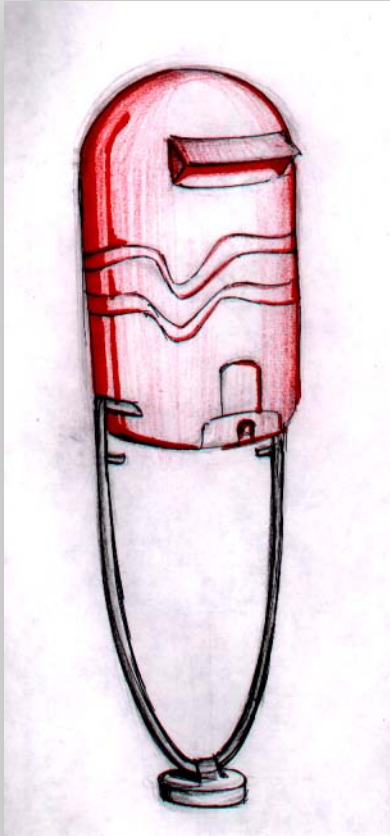
- Plastic top providing a good sealing
- Bag resting on provided rest surface
easy letter collection process

IDEAS



- From bank cheque collection box
- Letters collected systematically
- Bag resting on provided rest surface

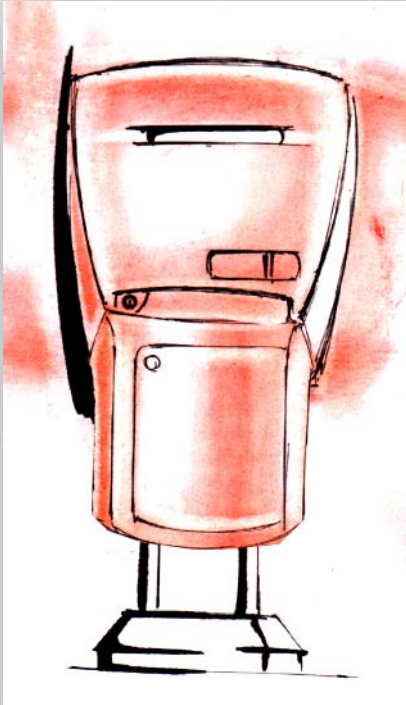
IDEAS



Roto molding
in plastic

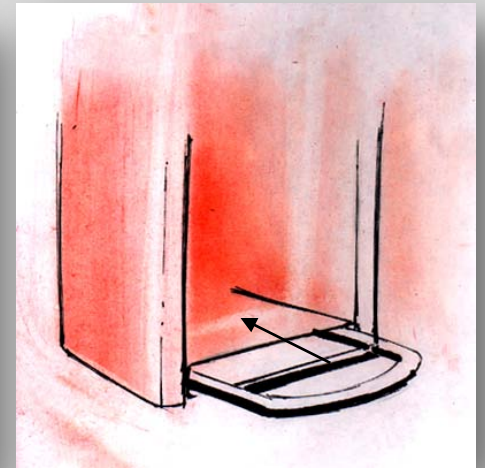
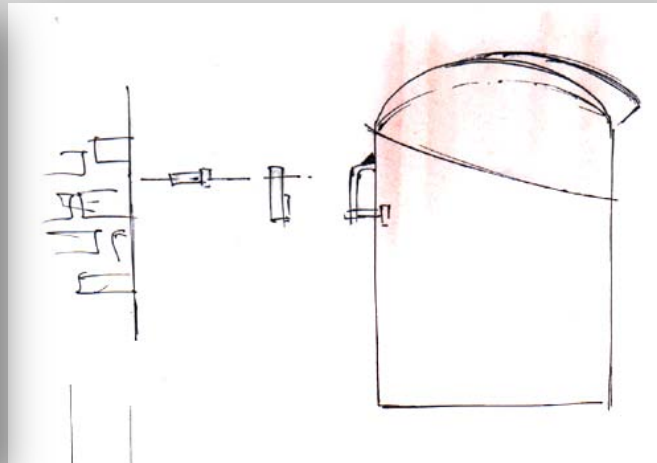
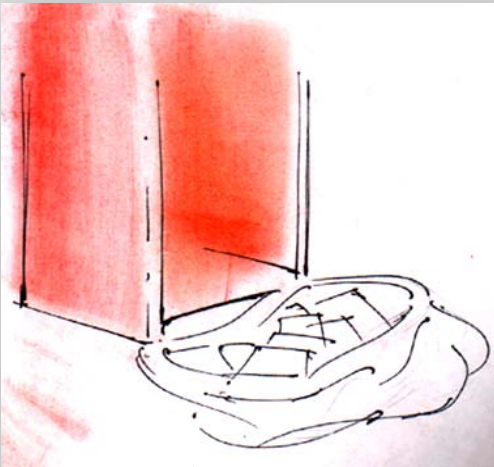
- Provision for hanging the bag
- Opening at bottom
- Fully rotomolded box

IDEAS



- Completely in plastic -rotomolding
- Can be converted from small to large box
- Collecting letters from bottom.

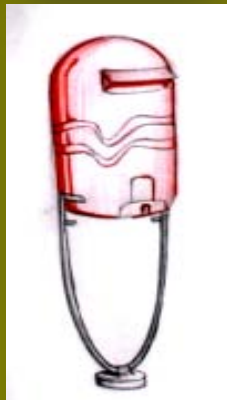
IDEAS



Bottom sliding frame as support for bag

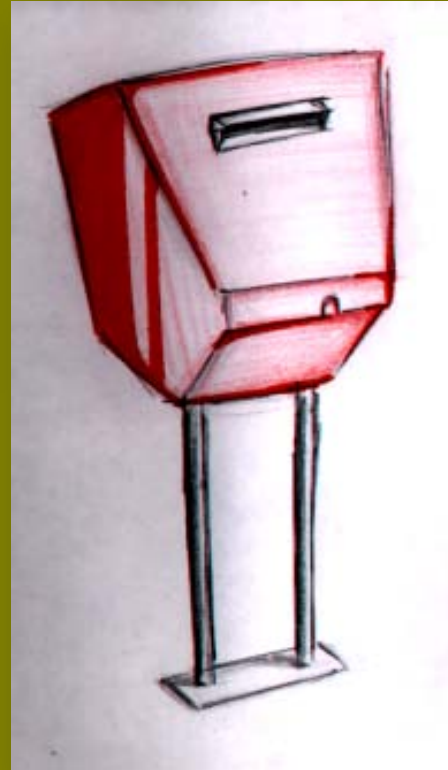
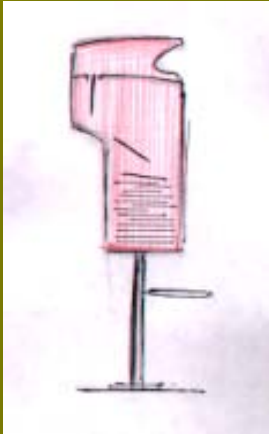
CLUSTERS

Cluster 1- Plastic Body



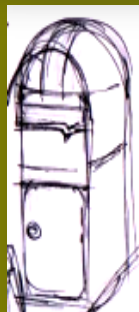
CLUSTERS

Cluster 2 - Sheet metal Body

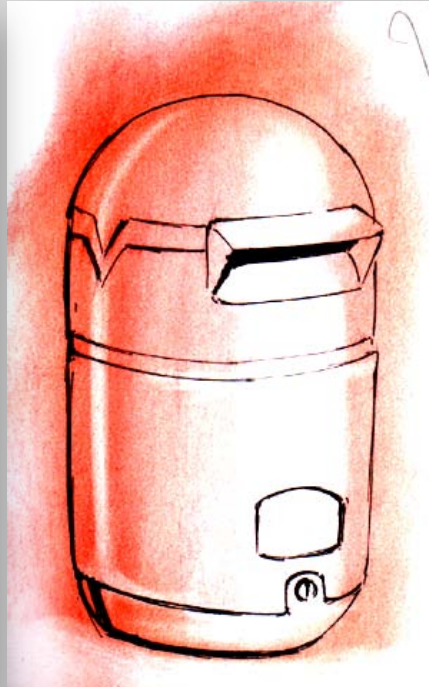
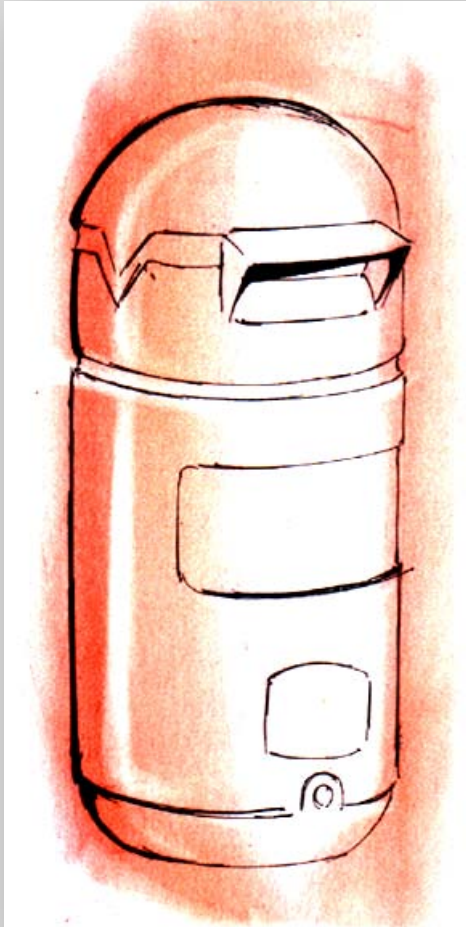


CLUSTERS

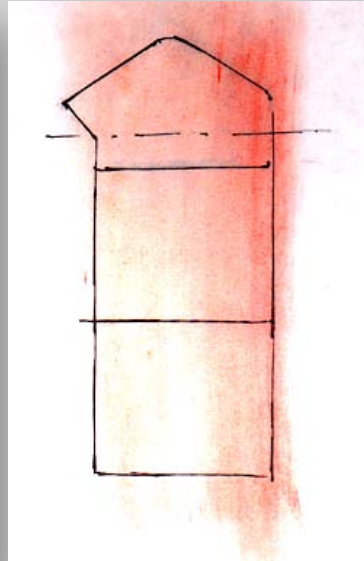
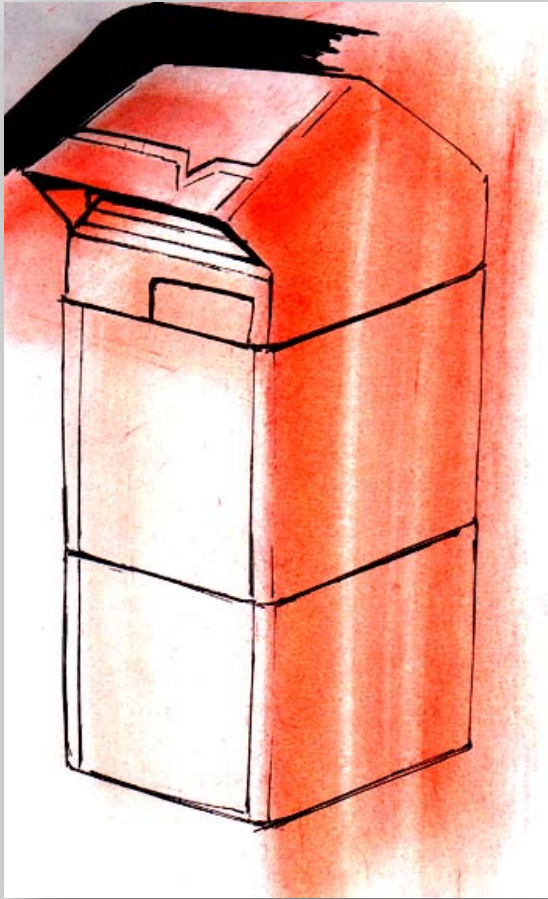
Cluster 3 - Mix of Plastic top and Sheet metal Main Body



CONCEPT 1



CONCEPT 2



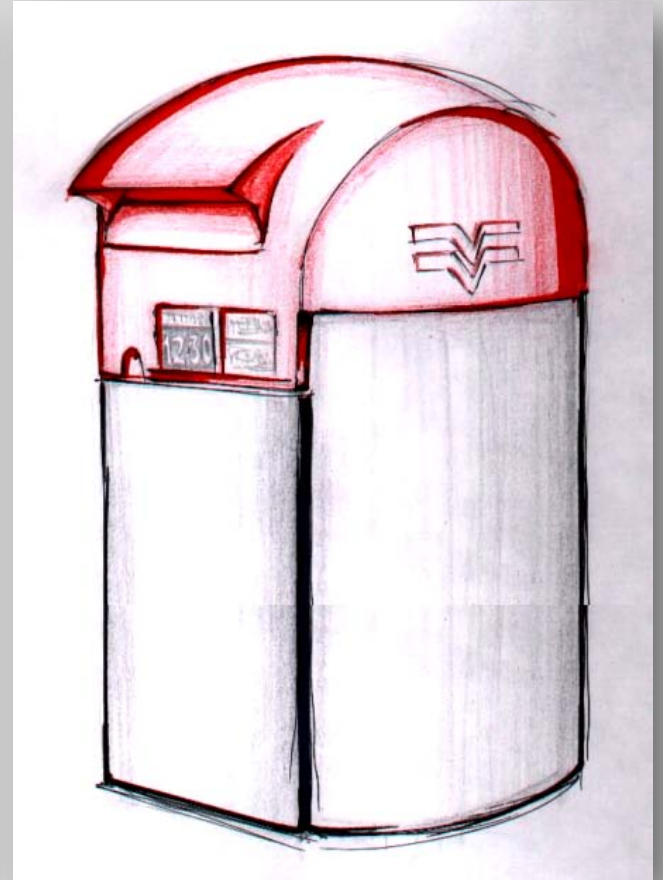
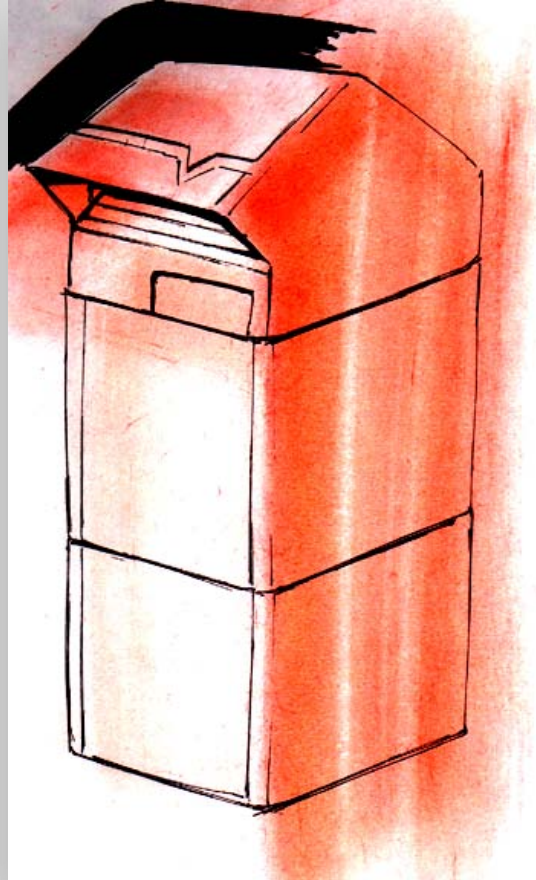
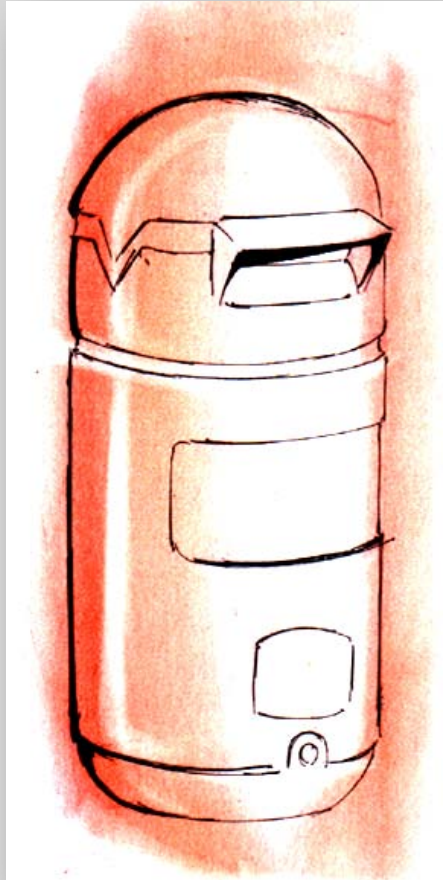
CONCEPT 3



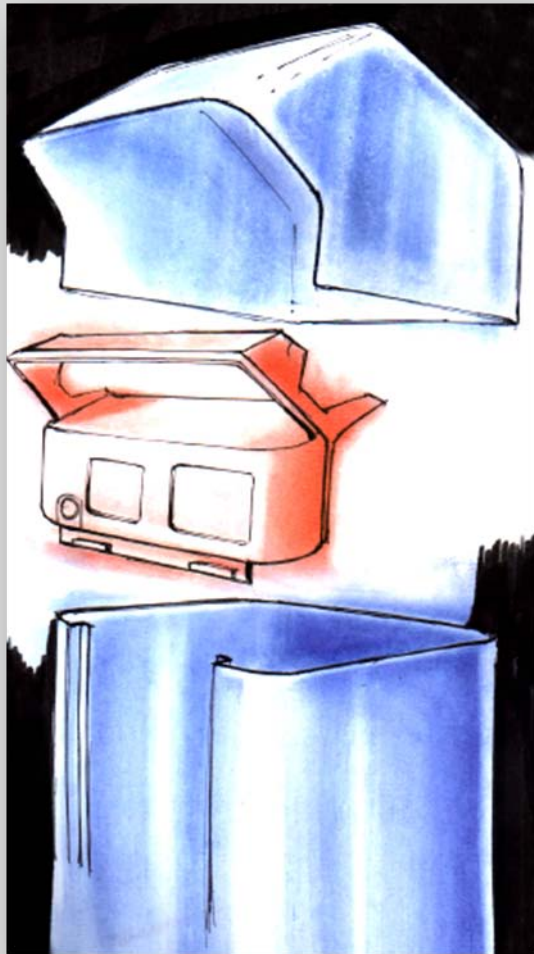
EVALUATION

- Longevity of product
- Robust detailing
- Finish and detail
- Modular design
- User convenience
- Easy of interaction for Post Man
- Cost of product
- Weather ability
- Unique identity
- Perception as letterbox
- Image of letterbox

EVALUATION



MATERIAL CONSIDERATIONS



- Top to be manufactured in engineering plastics with the front posting detail.
- The door , box and pedestal will be CNC Fabricated in stainless steel.

FORM REFINEMENTS



- As the basic structure of the box has to be simple, the form of the cap was going to dictate the overall statement of the Post Box.
- Different variations of the cap were tried out.

FORM REFINEMENTS



FORM REFINEMENTS



FORM REFINEMENTS

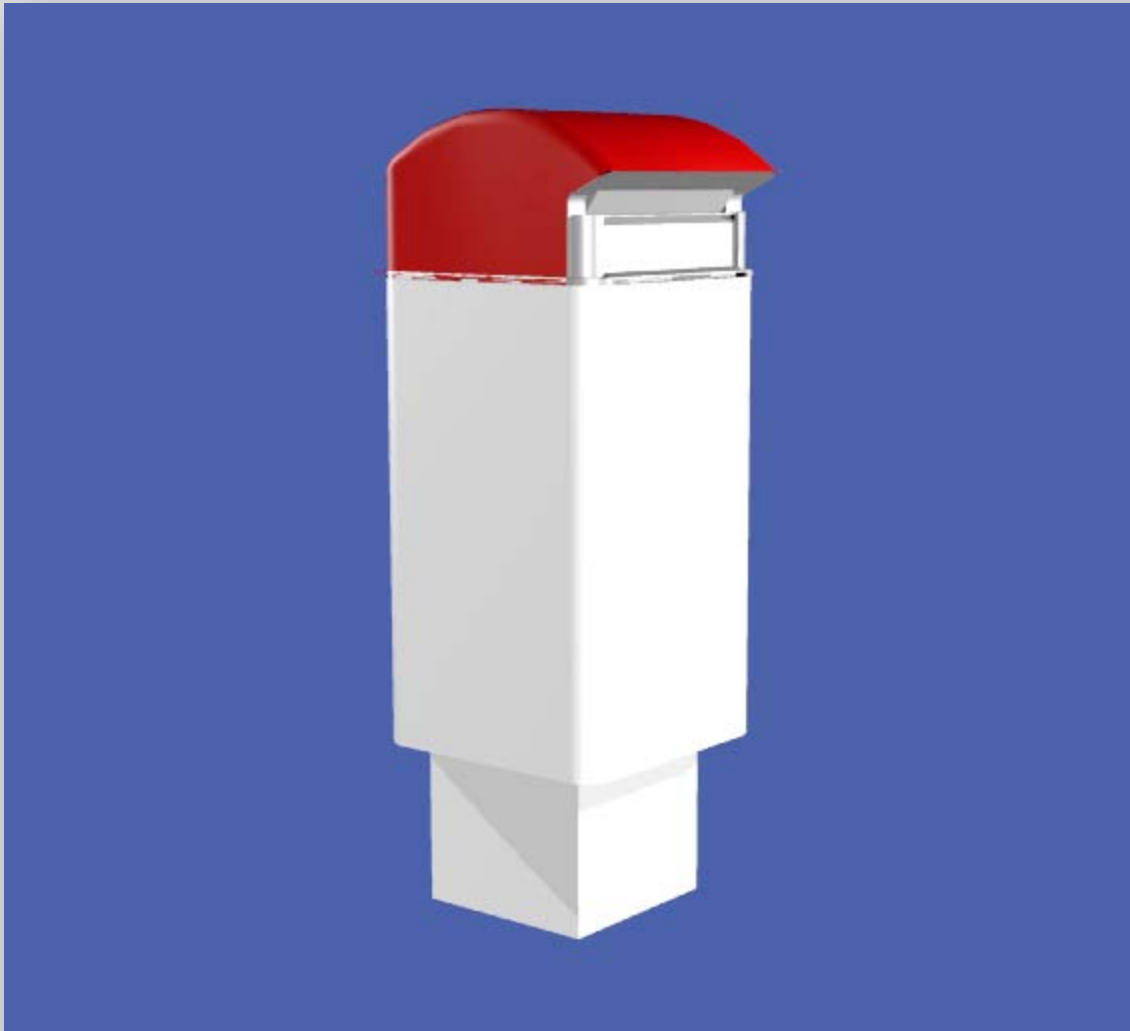




COMPUTER AIDED DESIGN



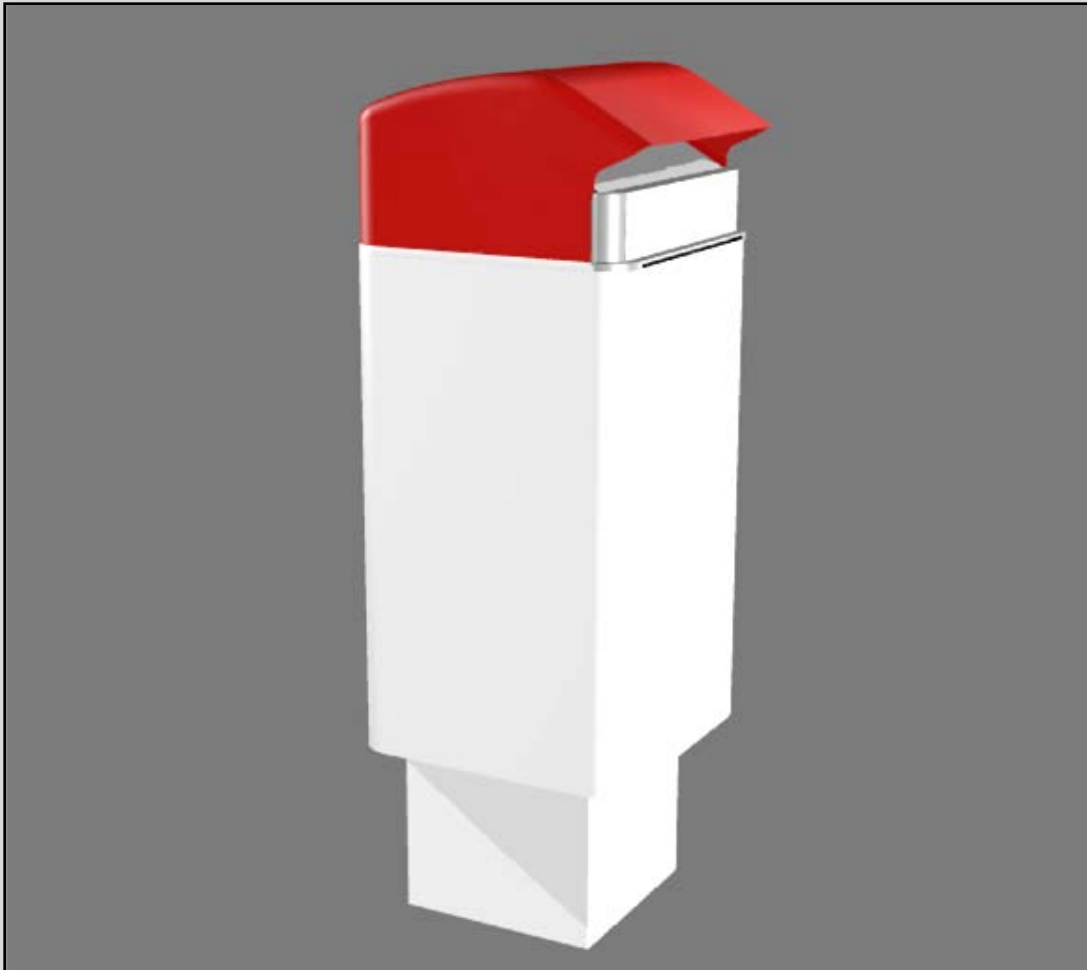
COMPUTER AIDED DESIGN



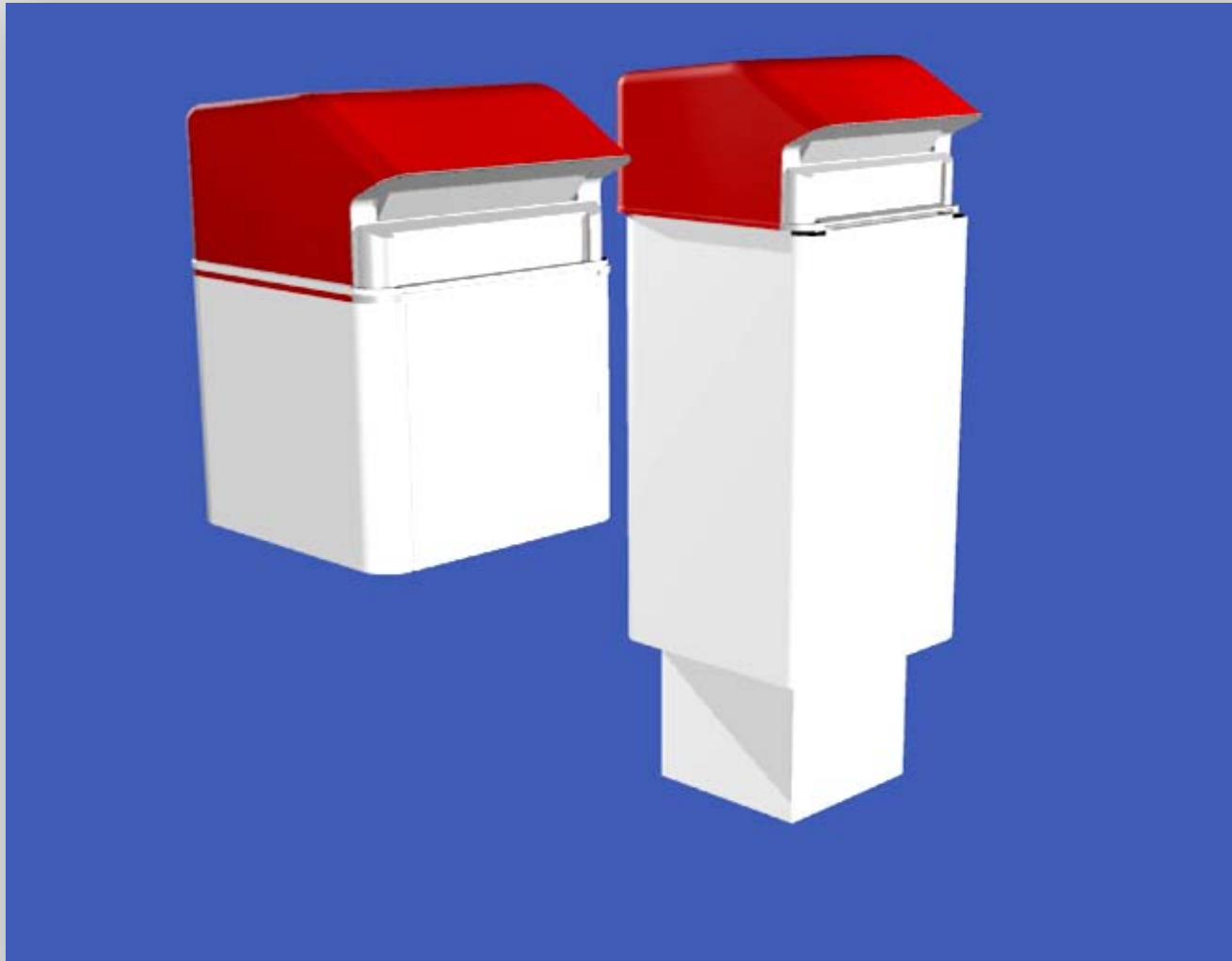
COMPUTER AIDED DESIGN



COMPUTER AIDED DESIGN



SMART TOP



LARGE POST BOX



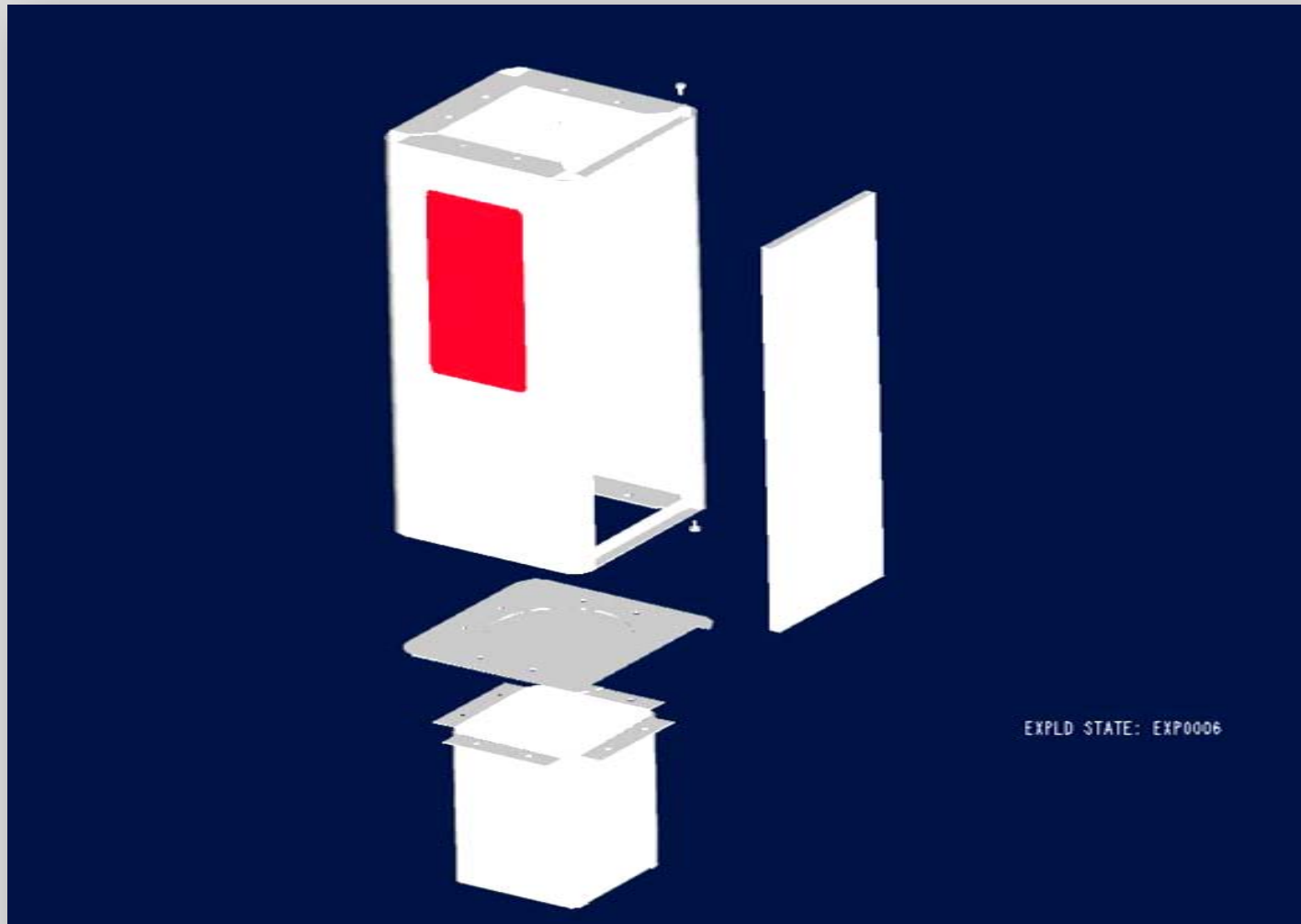
SMALL POST BOX



CLEARANCE TIMING & PIN NO.



DESIGN FOR MANUFACTURE



DESIGN FOR MANUFACTURE



PROTOTYPE POST BOX



PROTOTYPE POST BOX



PROMINENT FRONT PANEL



EASE OF USE





SALIENT FEATURES

- Modern Design : Helps in image building.
- Maintenance Proof : Low lifecycle cost, will last for minimum 20 years.
- User Convenience : Easy for collection of letters, change of time and common locking for all the post boxes in the region.
- Easy and Efficient Installation : Can be transported easily in knockdown condition and assembled at site.

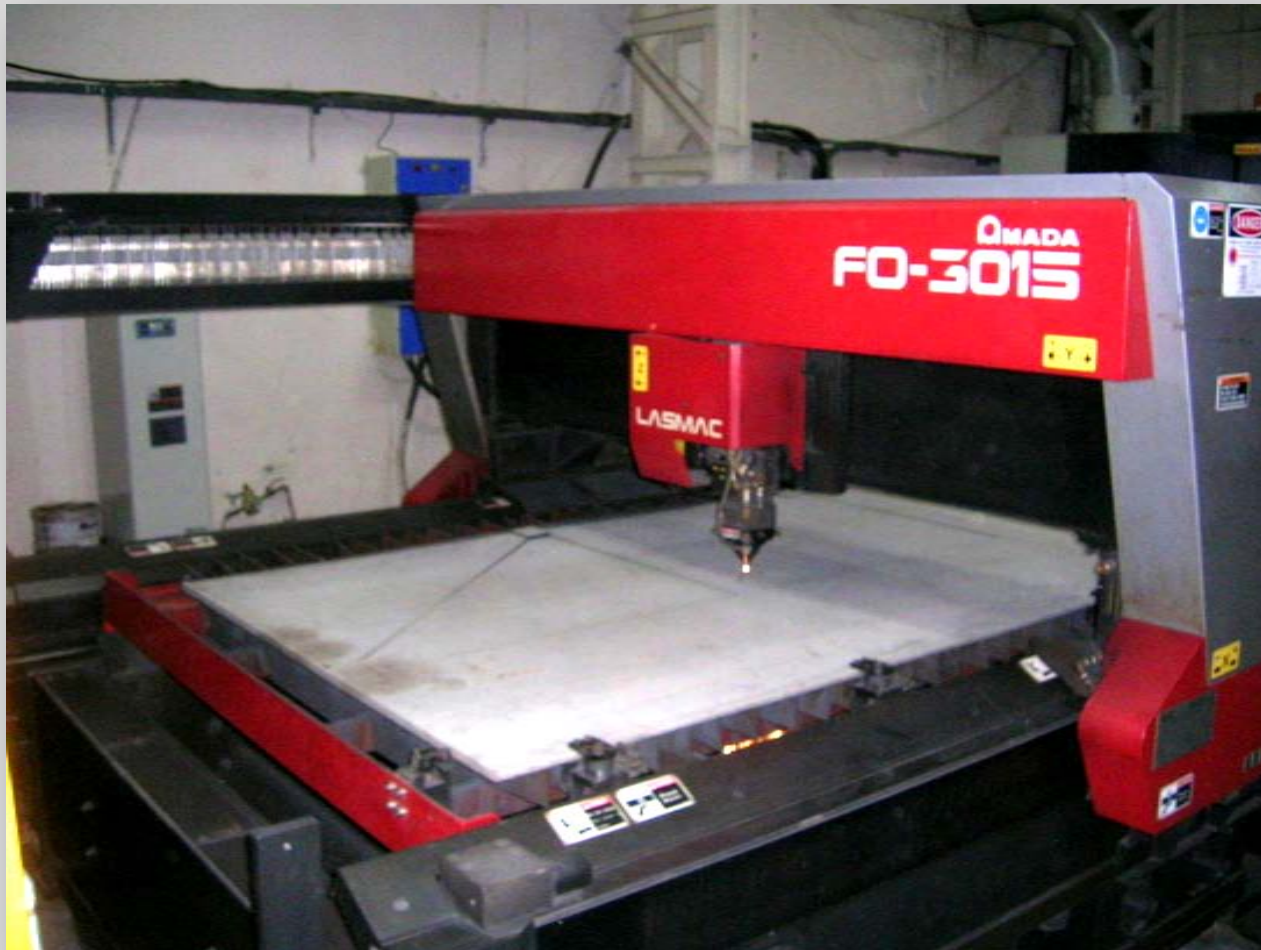
SALIENT FEATURES

- High-Tech Manufacturing : Use of CNC machines for fabrication.
- Contemporary Materials : Use of high quality brush finished stainless steel for durability and vandal proofness.
- Revenue from Advertising : Has ample space for advertisements and can become a revenue generating activity.
- Creates a strong message of retail visual identity.

CNC TURRET PUNCH MANUFACTURE



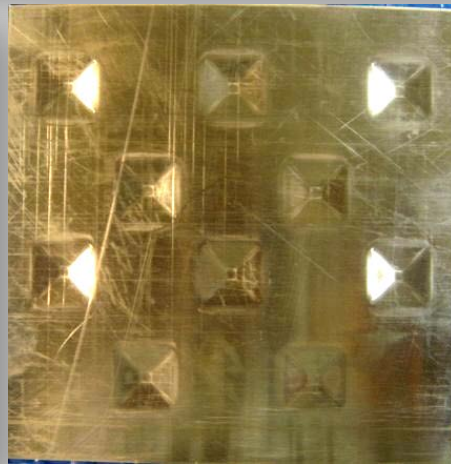
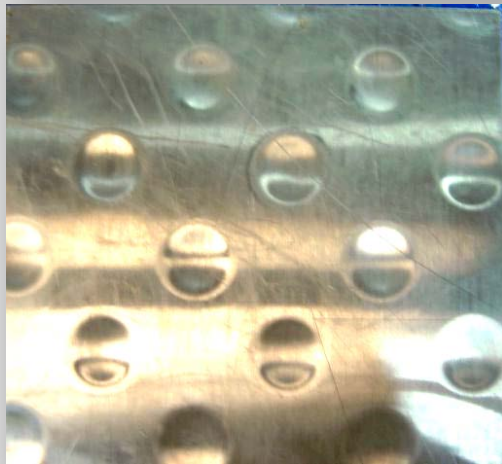
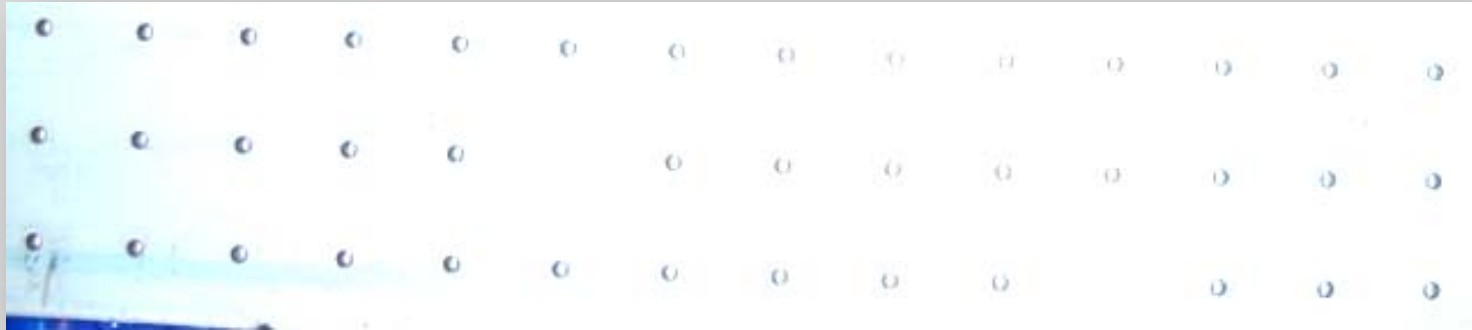
LASER CUT MACHINE



CNC BENDING FOR ACCURACY



EMBOSSING



IMPROVED PROTOTYPE



FIRST PRODUCTION SAMPLE





EASE OF POSTING



STRONG AND DURABLE



COMMON KEY TO OPEN



TOUGH COMPOSITE TOP



EASY TIME SLIDER



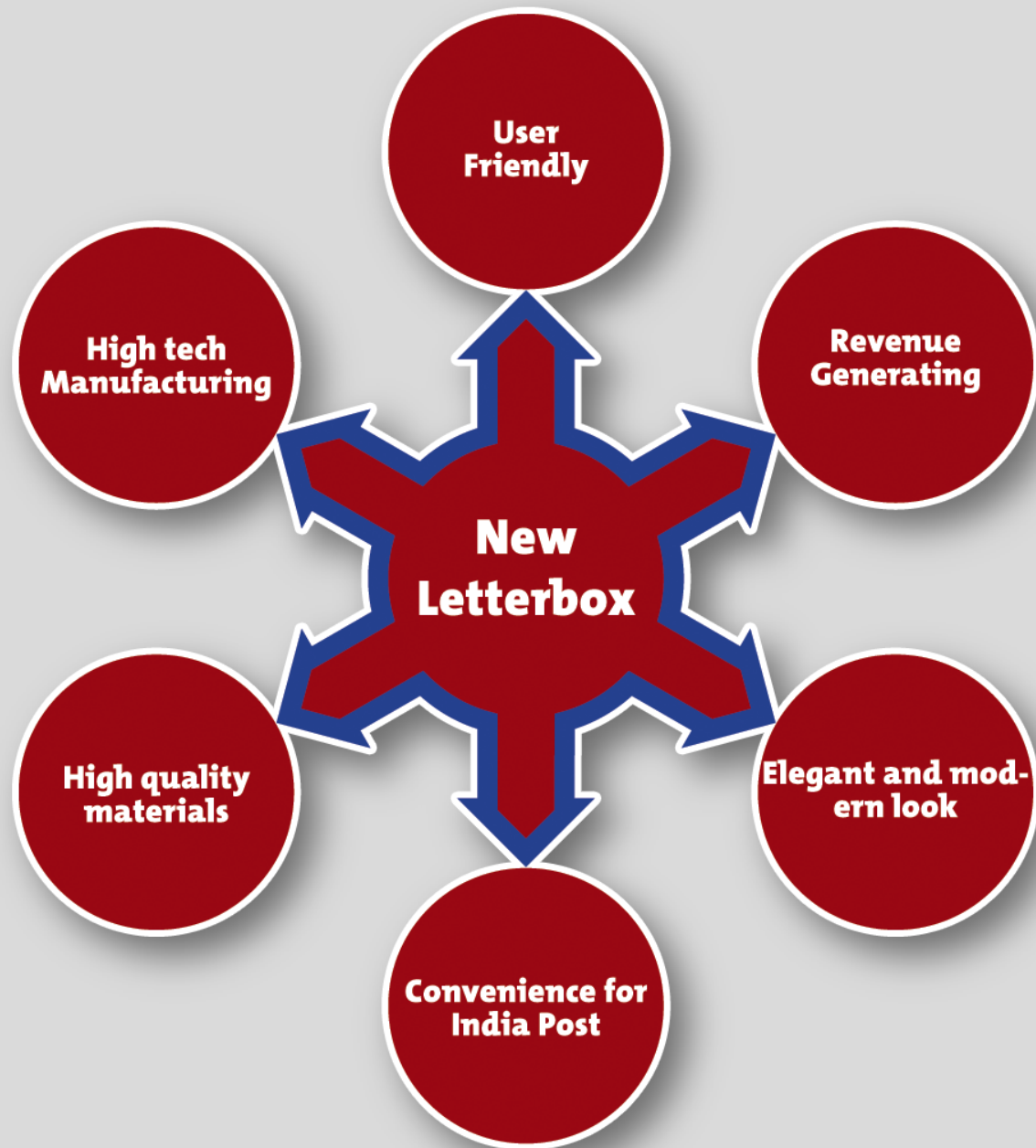
INNOVATIVE SHAPE



COLLABORATIVE INNOVATION



- Stainless Steel from Jindal Stainless Ltd.
- GELOY Engineering Plastic from GE Plastics
- Rust Proof Locks from Godrej
- CNC Manufacturing from Jindal Architecture Ltd.
- Adhesive from Huntsman
- Anchor Bolts from HILTI



PACKAGING AND TRANSPORTATION



Reduces the volume of the letterbox thus reducing the cost of transportation. This also helps in protecting the plastic top during transit.

PROMOTION



INAUGURATION OF LIGHTED POST BOX AT AIRPORT



PRODUCT LAUNCH







Thank You !