Innovation by Design
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Module – 07
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Lecture – 46
The User Feedback
Failure to Identify

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See how, through laser, you can cut the intricate shapes for your profiles.

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And this is where you can get all the rounds, the rectangular cuts.

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And you can take it for fabrication where you get flat sheets; you take the flat sheets to this machine to do the bending. What is a very interesting about CNC bending operation is that this bending operation is very very intricate and very accurate.

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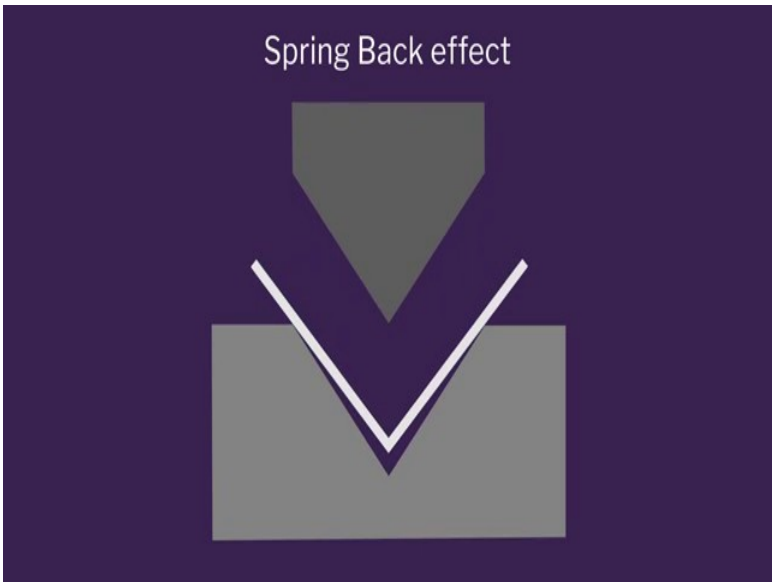

Stainless steel has a property of spring back. If you bend 90 degrees, finally you land up with some 87 or 86. So, this machine has the capability a computer to calculate the material properties of stainless steel, you can feed in the grades with 304 and it will bend exactly 90 degrees.

It has that capability of calculating and bending and I also told you that to get this radius, we had twenty two strokes. So, it did the 22 strokes on the machine to get this radius. So, by 22 strokes what do I get? I get more strength, more rigidity and where do I need strength and rigidity?

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On the corners, those are the areas where the damages can occur.

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That also I founded from the factory, that is why factory visit and materials understanding is very very important.

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So, it was fabricated. So, then we, you know, have this interesting process of, you know, getting the raw material manufactured. So, we also got this scotch-brite finish, you can see this dull finish manufactured in Jindal Stainless steel.

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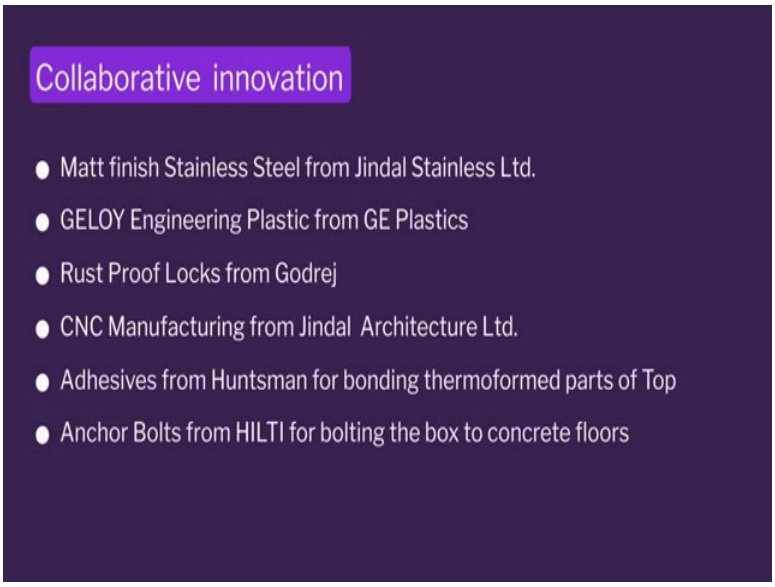

Then we got the plastic as I showed you manufactured by GE Plastics; we, you know, got it specially tailor made manufacturing for us. Then we made this, you know, rust proof locks from Godrej.

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Because when we went during our survey, we found out the locks were rusting. Then we went for CNC manufacturing very very high quality manufacturing with again Jindal Architecture.

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Then as I told you earlier, we got the best adhesives.

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So, that there is no chance that these things will open up in the field, because you have to be really really strong.

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And, then when you bolt it to the floor, there is a lot of technology in bolting, where you use anchor bolts for bolting the box to the floor. And that also has a very large technology of expansion anchor bolts which are bolted to the floor. So, we went to the best companies to get this thing done.

And then we implemented the 200 nos. It was a great, you know, experience to see the whole factory full of these boxes in Jindal; I was in the factory, we had quality control, you know, from IDC, so we had our staff flying to Delhi,

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checking out whether the quality is right, you know, all the systems are working properly. And finally, we dispatched 200 numbers like, you know, two different parts of the country. So, it was installed all over the country from Jammu and Kashmir to Kanyakumari to Guwahati and we waited for the results.

So, this first dispatch, India Post is a Government Organization, it's Ministry, so very very sensitive to feedback. So, they said that first we will install 10, 10 in all these locations, we will get feedback from them and after feedback, we will give you the larger order. We will then put a tender for a larger order and it will go in to the market very logical. We were also pretty happy, because the first 20 gave us very good results.

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The first 20 were put up in 5 different locations Mumbai, Delhi, Patna and Chennai. But, what went wrong with us was from our design process was, there was no rural area; it was all put up in cities. So, what type of feedback did I get? Excellent, very good. You saw all those newspaper clippings.

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You know, like past, imperfect, future perfect, whatever all those great feedback we got. But then what happened when we made 200 numbers, when you put 200 numbers in the field, they went to all the remote locations. Because what happens, when you give

individual post offices they only put up these boxes wherever there is a need and wherever there is a requirement there is a waiting list. So, as soon as a 10 new boxes went and the waiting this could be the district areas, in the rural areas, and everywhere. And then we got the right feedback, you know, most of the population is in the rural areas, and district areas, and district headquarters and from people centered point of view the design identification was, you know, not thought of.

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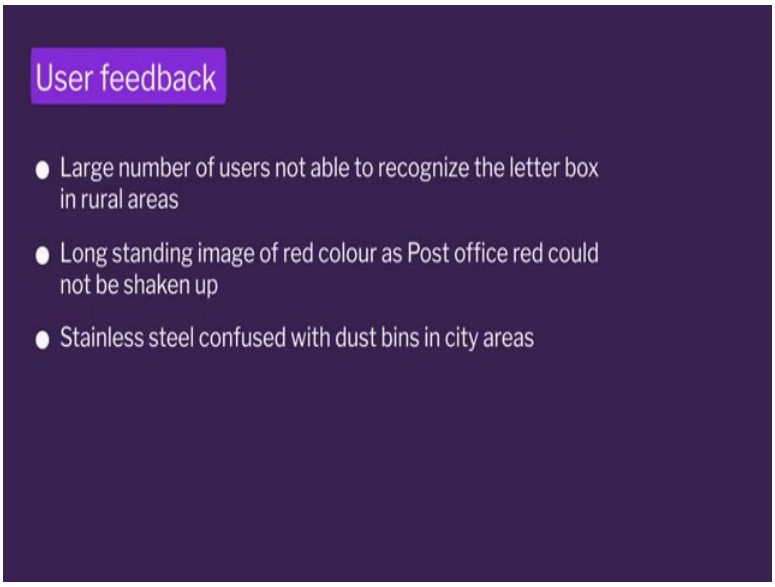

And then we got a user feedback where large number of users could not recognize the box. So, after doing this whole story you realize what type of shock we can come to, if you do not keep the larger user base in our mind. We got a feedback of around 60 to 70 percent of the Post Officers said, people are not able to identify our post box. There was a double edged sword here, when you said; one box somewhere to a remote area there is hardly any identification, because, all the other boxes are round and there is no advertising, there is no, you know, information processing, there was no paper articles like the cities. So, there we, you know, fell back on and then the long standing image, see this is again very important. The post boxes are classic product which stayed for 40 to 50 years in the field, so there is a ingrained image of the box in the minds of the people and the paint companies sell paint by calling post office red. You heard about it, post office red? It's so important. And, you know, that red color was very critical. Stainless steel confused the cities a lot of people came from rural areas to cities.

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Even in the suburban areas, some of the people got confused saying that could be a dust bin. Because dust bins are using stainless steel very heavly in the city environment.

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In the city environment, there were dust bins and there were post box in stainless steel, so they would confuse it with dust bins, large bins in the metros and all. So, it is a very very shocking revelation for us, but we took it in our stride, we said, you know, this is the mandate of the people. And, we need to, you know, we humble and understand people's needs more closely before we go ahead with our design journey.

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So, then we went to Ministry of Posts again they got a feedback, they had a board meeting in which they said oh no we do not want to change our round look. We want it round, let Professor Chakravarthy design better manufacturing using round shape; why should you change the shape to rectangular or square.

So, we know, we fell flat on our face, then they said redesign the same modular and good manufacturing, CNC and all using round shape. And all other features were appreciated that everything else is good, it is excellent, you know, new manufacturing, because today, materials are new; use stainless steel, no problem, but retain our round shape.

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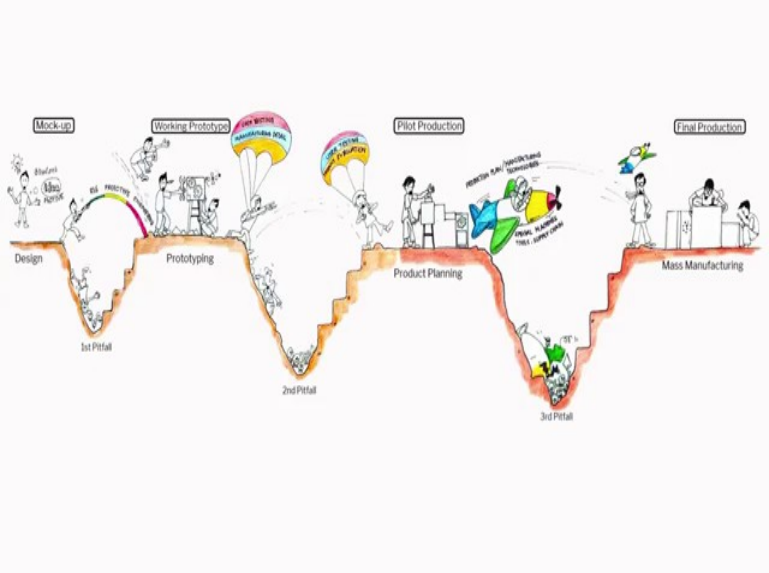

So, they sent a letter to me, now design a round one. So, where are we back now? From pilot production, we fell back to, mock up. This is the third time we are moving there, so as a big challenge.