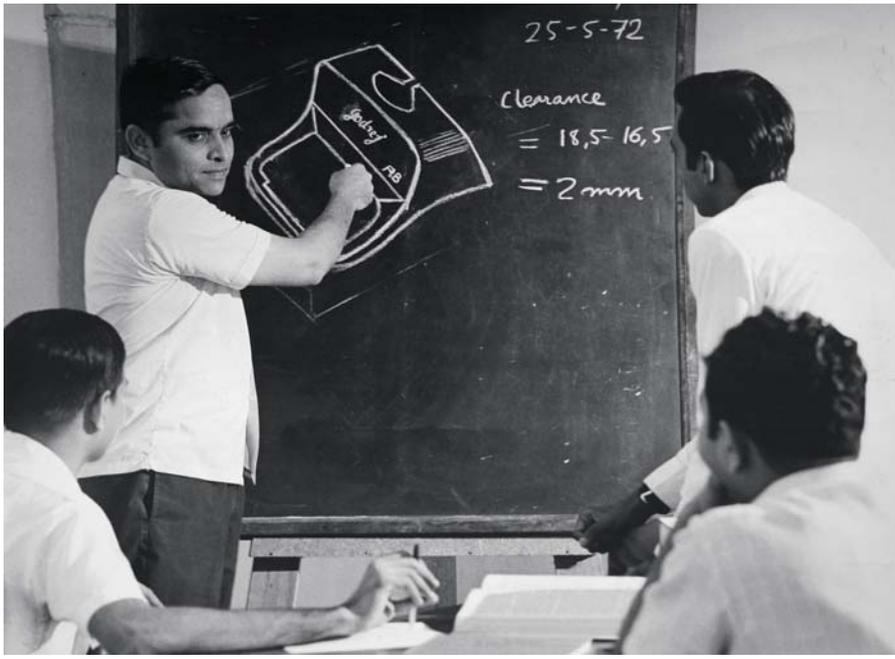




Bringing design to the center



Dr. P A Joshi discussing the design of AB typewriter with his team

In a website for industrial design, an article discussing the definition of Industrial design has two rather interesting anecdotes: An executive at a large retail channel, after sitting through a 30-minute presentation, summed it up bluntly: "Well, this is all very impressive, and the products you've shown here are great. But why is it that all the design projects I've done in the last 10 years have failed?"

The second being a charismatic young entrepreneur on design awards: "Awards are the kiss of death. If you win a design award, the product is no good, it's dead, it's never taking off."

The author of the piece went on to write, "The quickest way to end a design debate with a good designer is with the question: "...but would you buy it?" Deceptively simple, but straight through the heart, it's amazing how

Archivist Vrunda Pathare delves deeper to find some interesting details on the erstwhile Design Centre at Godrej

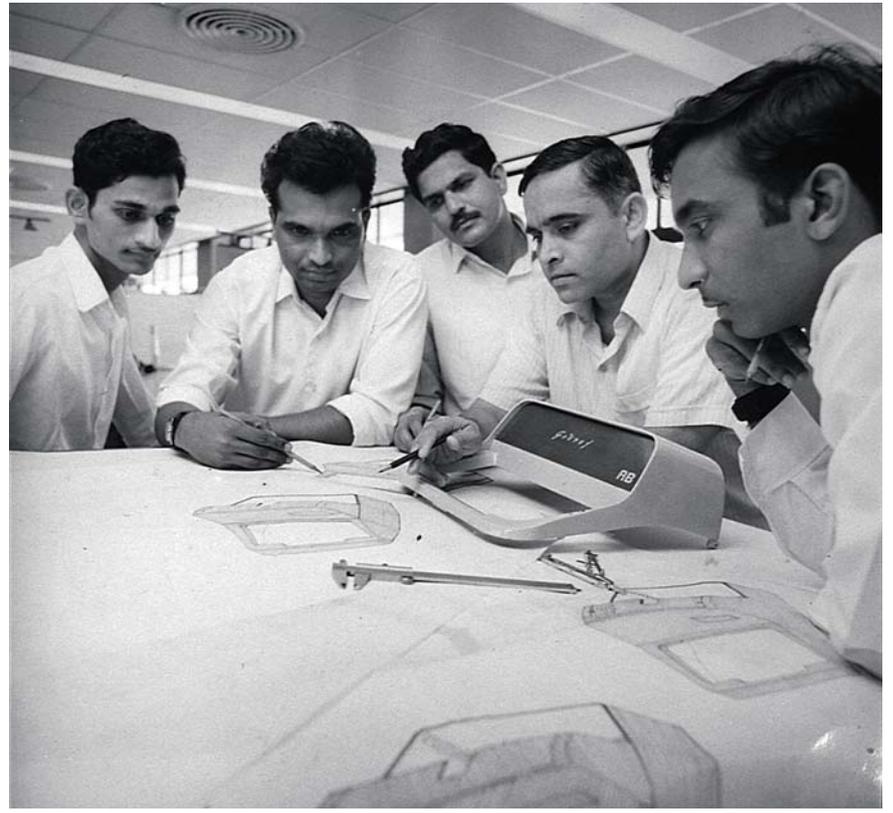
quickly designers who fought hard for a far-reaching concept will reevaluate their position when faced with their own pocketbook. Is it too far to push this to a rule that "if you won't buy it to do the work it's meant to do for the price it's meant to carry, it is not 'Industrial' enough?"

Form, function, desirability, manufacturability, affordability - all these are the ingredients of successful design. And design engineers, who conceptualize ideas, create and execute the design solutions towards problems of engineering, marketing, brand development and sales are among main pillars of any manufacturing unit.

A manufacturing organisation like Godrej had the vision and foresight to understand this criticality of design and Mr. Naoroji (Naval) Godrej conceived



Design team at work



the idea of starting a centralised designing activity catering to all manufacturing plants and their products at the start of 1970s. A few design engineers were brought together for spearheading this design activity at Godrej. As a result, a design centre was created in mid-1970s.

Godrej Archives brings you the story of this Design Centre through the reminiscences of those who were part of this centralised design activity.

In the year 1971, the design centre was formed after transferring product design engineers, technicians and draftsmen from various plants like locks, typewriter, furniture, security equipments, and refrigerator. However, machine tools, forklift and tool room were not made a part of this centralised design activity. "The reason being, the focus of the design centre was mass application items," informs Dr. PA Joshi, under whom the Design team was put together.

SA Kolhatkar, SS Kulkarni and Mr. Kshirsagar from the Typewriter Plant joined the team. Ashank Desai, now the CMD of Mastech, was also a part of this design team and looked after refrigerator design. Uday Nanivadekar was in-charge of Locks. Sarang Sulakhe, Dilip Kelkar also joined the Design Centre.

An advertisement calling for design engineers was carried out in newspapers. GR Kulkarni who had

completed his MTech in Machine Design from IIT Mumbai, applied in response to this ad. Subsequently he also became part of the design team in the year 1972.

There were about 12-13 design engineers and about 10-12 draftsmen. Among draftsmen who joined were: Mr. Tandel, Mr. Gavankar, Mr. Paranjpe, Mr. Ramesh Satam, Mr. Bapat, Mr. Maruti Desai, Mr. Tikam and Mr. Patil. Mr. Tilani was working as stenographer for the design centre.

The design centre was located at Plant 11 which at that time was only a 'ground + one' structure. The first floor was the office and workshop facility was established at the ground floor for making prototypes designed at the centre. Mr. Gawade was looking after the workshop. Raghunath Patil, Mafatlal Panchal, Mr. Shinde and Chimanlal Panchal were working at the workshop. The library containing technical books and periodicals was also maintained at the Design centre. George Eipe used to look after the library.

"The main function", as Dr. PA Joshi puts it, "was to undertake the work of new product design, improve existing products, study customer product complaints and take remedial measures."

The scope of the activity was however limited to making of prototypes, said Mr. Kolhatkar. The decision of whether to go ahead and manufacture the product lay with the top management, who would base it on feasibility.

Among the various products developed at this Design Centre important products were: The carbon film ribbon for the typewriter, Tubular latches, Fire Resisting Filing Cabinets (FRFC), industrial heavy duty racking and several others.

GK Kulkarni particularly remembers two products that they developed: Fire resisting filing cabinets, the product which was commercialised later and is still in production even today. One of the other designs they developed was for Locks. A problem was being faced with the bending of the lock shackle (the U bend rod) – it was



Design Group, From L to R:
Mr. Gawankar, Mr. Satam, Mr. Gawade,
Dr. P A Joshi, Mr. Kolhatkar, Mr. Tolani
and Mr. Samudra

specifically an alignment problem. The problems to be addressed by the Design Centre were: non-uniformity in bend angle and skewness in slot relative to the bend. The solution proposed by the design center to bend the lock shackles is put in use even today. "Of course now with the proper controls but the basic principle, the basic way in which the lock shackle is formed is still the same as was developed at that time by the design centre."

He also recalls that NPG took very special interest in the design centre - almost everyday or every alternate day he used to visit and give suggestions on improvements to be made. One incident which Mr. Kulkarni vividly remembers was when Mr. NP Godrej came to see the telescopic slides for fire resisting cabinets that the Design Centre had developed. These slides were to carry 30 kg load when they are fully extended meaning when the entire drawer is opened. One day Mr. N P Godrej came to the shop area when the endurance test for these slides was being carried out. To check the strength of the slides, he extended the drawer fully and suddenly clung on to the drawer front when the drawer was fully loaded. With that much of a load the front portion of the drawer got

a bent. So he said that nothing wrong should happen even if the user puts his hand inside the drawer and presses it down. He asked us to improve on this. So immediately the next day we modified the design by adding a stiffening bracket to the front portion of the drawer. Then he again came and checked the strength by clinging to the fully loaded, extended drawer. This time nothing happened. The drawer was working perfectly fine. So he was happy and gave his go ahead.

The design centre also made 20 prototypes of the lateral filing cabinets. Interesting feature of this cabinet was the Scissor's type arrangement provided at the back of the drawer to ensure fully parallel movement of a wide drawer. This product was never commercialised. But these prototypes found their way to the offices of few in Godrej, recalls Mr. Kulkarni.

Dr. Joshi recalls the development of tube bending machines for Malaysia. "We made two such machines which were sent to Malaysia. They wanted tube bending machines which could be hand operated. Automatic machines are available for bending tubes and they were being used in furniture plant. However NPG said that we need some machines which can be manually

operated. Malaysia was a very poor country in those days (and could not afford the automatic machines). So we made some machines (which then) were shifted there."

The other significant contribution made by the Design Centre, as pointed out by Dr. Joshi, was that for the first time the polyurethane foams were used for the heat insulation. The man behind this was Mr. Ashank Desai. He and Mr. Shahpurkar had started an initial work on foaming fixtures at the Design Centre, recalled Mr. Kolhatkar.

“NPG took very special interest in the design centre - almost everyday or every alternate day he used to visit and give suggestions”

Dr. Joshi takes pride in the fact that the initial work on fractionating trays for the IPCL also began at the Design



Centre ...the work that in fact laid the foundation of the Precision Equipment Division. The design centre developed and made prototypes of chemical equipments like fractionating trays, bubble caps...as per the design specifications from Engineers India Limited, New Delhi, who were the engineering consultants to IPCL. The samples were shown to Mr. NP Godrej. He liked them very much and immediately decided to accept the order and start manufacturing them. Special plant for manufacturing chemical equipments was set up.

The appreciation of all these efforts of the Design Centre came from the Government of India that acknowledged "Our design Centre as a recognised research and development centre. Our company was represented in various committees of ISI Indian Standard Institution of Government of India and standards for various products were discussed, formulated and updated," recalled Dr. Joshi.

In spite of the success that Design Centre achieved in a short span of its life, a decision was taken to close down the Design centre around 1975-76. In retrospect while citing reasons for its closure, Dr. Joshi thinks the lack of coordination between manufacturing plants and the design centre was most probably the reason for the winding of the centralised design activity. "Design activity has to go with the production. It should be housed physically (at the plant) because lot of interactions (are required)," observed Dr. Joshi.

Mr. GR Kulkarni says, "If there had been much more involvement from manufacturing plants and if few people from the manufacturing plants itself could have been drawn to do these activities it would have benefited." Consequently, the Design Centre had to be soon dissolved...

Design Centre groomed many fresh design engineers by allowing them to use their skills to the fullest and allowing them the freedom to experiment and to design. For them, the design centre provided the necessary training ground where they learned, molded and improved their

skills. The capabilities generated here benefited the company in the long term as these design engineers continued making significant contributions to the manufacturing plants they were sent to. Few like Mr. G R Kulkarni are still contributing their expertise.

When the request came from the Change magazine to trace the history of Design Centre, we were a bit baffled as we had no paper records telling the story of this centralised design activity. On the suggestion of Mr. I P Singh, we decided to meet those who were associated with the activity in 1970s like Dr. P A Joshi, Mr. S A Kolhatkar, Mr. G R Kulkarni. Interactions with them proved very fruitful based on which we could write a piece on the Design Centre. We are indebted to them for their time and information. Our special thanks to Mr. GR Kulkarni who also allowed us to take copies of the records carefully treasured by him, documenting the contribution of the design team.

If you have any information or records pertaining to history of Godrej please contact us at: archives@godrej.com. You can also call us at: 6796 4124/2014



Save our history before it's gone !!!

Though a short lived activity, the