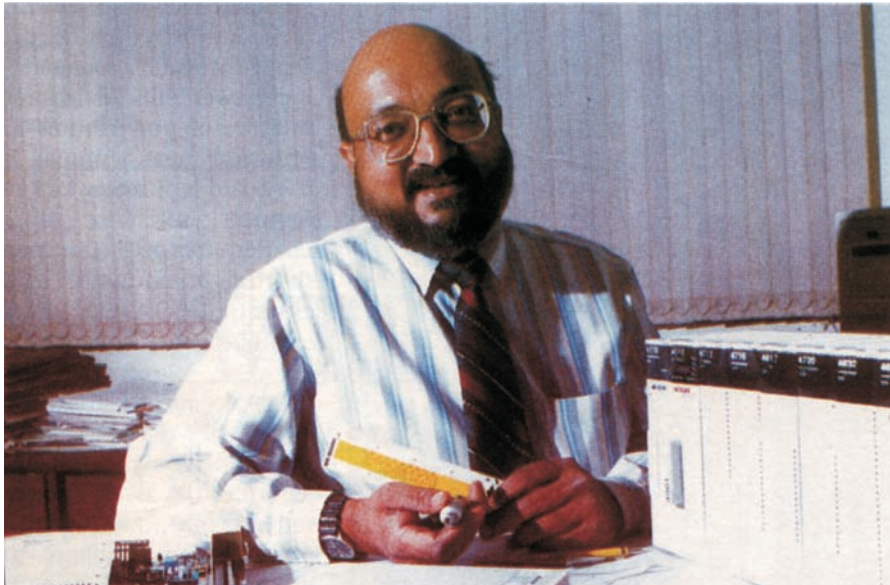


Automator Pro

An IIT graduate in Pune is designing cost-effective machinery of global standards

It was, says Mohan Bhandari, managing director of Bhandari Industries Ltd, which manufactures cardboard tubes and cones for the textile industry, a delight to share his company's design and automation issues with Harshwardhan Gupta. "His eye for simplicity and cost-effective solutions

design process from scratch, rather than redesigning an existing machine which has grown organically and is no longer optimal, or providing cosmetic changes as many other designers do. "We ask clients for a full wish-list of what they want in the machine, with no compromises," he says. "Then we



Gupta's PLC console for Messung satisfies both physical and aesthetic needs

are remarkable and of global standards. His support to us for our paper container spraying line and paper tube finishing line yielded us great advantages in Quality and efficiency," Bhandari adds.

Gupta, a mechanical engineering graduate from the Indian Institute of Technology in Mumbai, has been designing machines for a quarter-century now. After freelancing for six years, he set up Neubauplan Machine Design Studio in 1981, and has since designed a variety of machines for bottle-capping, blister packing, tray stacking, and various other functions. "Neubauplan simply means 'new construct plan' in German," explains Gupta. "Our mission is to provide the most sensible designs, and to always pay attention to detailing."

Gupta is happiest beginning the

design the next generation of equipment; and cost-cutting changes can be incorporated later."

Gupta is particularly proud of a servo-driven, programmable, high-volume machine he has designed for Elmach Packages of Mumbai, which he claims is the only one in the world capable of producing tropical, alu-alu, AFT and regular blister packs. Tropical blister packs have an aluminium tray-like covering below, making duplication impossible; alu-alu has aluminium foil on both sides, necessary for hygroscopic medicines from which oxygen escapes slowly; and AFT is advanced forming technology, used for smaller pills. The machine, which conforms to US good manufacturing practices (GMP) for pharmaceutical companies' operations, is still at the prototype stage and much more

research and development is needed before it is commercially manufactured. Target customers for the machine would be pharmaceutical majors like Cipla and Ranbaxy.

Neubauplan's brand is rarely seen on the machines because it usually works for machine manufacturers and not for end-users. Umesh Shah, director of Mumbai-based Pharmed Engineering, for whom Neubauplan has designed a capping machines, feeding systems, a gravity-cum-vacuum liquid filler, and a modular wet labelling machine for medicine bottles, says his company went to Gupta to modernise its manufacturing process. "What is very good about him is that he creates from scratch, without copying things from abroad," says Shah. "We just gave him some ideas and showed him the features we wanted. He came up with good designs, with a very strong engineering concept."

Besides the pharmaceutical industry, Gupta has designed spark erosion machine tools for Electronica, a hot-melt adhesive applicator for Pidilite's packaging machines, an in-line accumulator for aluminium collapsible tubes for Patel Extrusion Group, and a wrap reel for denier-count sampling at Century Enka. For Messung Systems' Nexgen-4000 programmable logic controllers (PLC) and micro-PLC extension, he not only designed the aesthetic and mechanical components but put them together, too; so they carry Neubauplan's name. "But I prefer not to get into manufacture, only design the machine," he clarifies. As in the mechanical fare meters he redesigned for Standard Meter, whose products adorn half the taxis and autorickshaws plying all over India.

Gupta says machine design is India's "blind spot", which our industrialists and others are unaware of or do not care much about. "Without becoming self-reliant in designing machines and equipment, we will never be able to shake off the yoke of foreign domination in technology," he says. The only silver lining, as he points out, is the handful of industries with the good vision to engage good designers to work on new machines. May this trend grow.

* SEK HAR SHESHAN