

MACHINES TOOL

## WESTERN QUALITY, ASIAN PRICES

### INFLOW SYSTEMS

Pune is a well-known Indian automotive hub where important companies like Tata Motors, Bajaj Auto and Mahindra have their manufacturing plants.

On the other hand Pune is also home for many successful companies from diverse industrial sectors. Such an example is EPS Worldwide, a manufacturer of automatic wave soldering machines for PCBs and its sister concern Inflow which manufactures welded assemblies for captive use and also offers laser cutting services.



## RAPID GROWTH

EPS was founded in 1990 by Atul Limaye who is still one of the directors of the company along with his brother-in-law Avadhoot Joshi and cousin Sunil Jogi. Limaye (his first name Atul, literally means unparalleled) told us the story of EPS. Having worked for some time with electronic components in Pune area, he decided to start his own business to design and manufacture wave soldering machines. The company was started in a small shed with 4 employees. In a short time the product range was expanded to other systems used in the manufacturing process of PCBs and the importance of EPS brand grew. It also received some awards for the indigenous technological development.

Inflow System was established in 1999; in the rear half of EPS's erstwhile shade to produce laser cut sheet-metal parts for machines manufactured by EPS. A laser sheet cutter was purchased soon after and since the captive load was less than the capacity of this machine, it started offering laser sheet cutting services to other companies from different industrial sectors. "Even if a Customer comes with a small volume requirement, we are ready to serve him" explains Limaye and probably this was the winning strategy because the company started its growth immediately. This growth in demand resulted in purchase of a second laser sheet cutter in 2000 and even today the same philosophy is fueling the growth of the company. In 2002 EPS built a new building and moved there and inflow moved to a new location in 2008. More laser sheet cutting machines were added and at one time they had 5 of them.

For EPS a turning point came about 10 or so years ago when some western OEMs (American, English and German) from the same sector of activity, approached EPS with a proposal to manufacture their machines in India and export them worldwide. EPS grabbed the opportunity and started manufacturing machines for these western OEMs while continuing to manufacture machines under their own brand. The machines manufactured for OEMs are directly shipped from EPS to the final users.

The technical capabilities of EPS are appreciated by these OEM Customers to the extent that now EPS not only manufactures their machines but sometimes is asked to upgrade their older models from the technological as well as design standards

/regulations viewpoint. Now EPS is an OEM Machine supplier for German, US, British and other European Companies.

## ONE MACHINE FOR TWO SECTORS

Today EPS sells about 30-40% of its production in the domestic market while rest of it is exported all over the world. "We are aware that we have good quality products capable of being competitive in terms of specifications and performance not only in India but also abroad" explains Limaye "and so we participate in various international exhibitions". Today EPS has 30 employees and a turnover of about 1.5 ME.

The work-load at Inflow is typically that of a job-shop: small batch quantities and a lot of variety. Every year EPS alone manufactures a total of 500 machines of various models and in such case laser becomes an essential component of efficient operations. The capability of laser tube cutting allowed them to have the same advantages like flexibility and productivity on tube processing that they had been enjoying with sheet processing for years. On the other hand, it allowed them to widen their offer in terms of processing capability which helped them to strengthen their relationship with some of the existing Customers and win some new Customers.

« We decided to go for a fiber laser to have higher cutting speeds and at the same time lower electrical consumption and hence lower operating costs » says Atul, "most of the material that we use is of low thickness and cutting speed becomes an essential parameter to be competitive in the market: whether it is sheet metal or tube »

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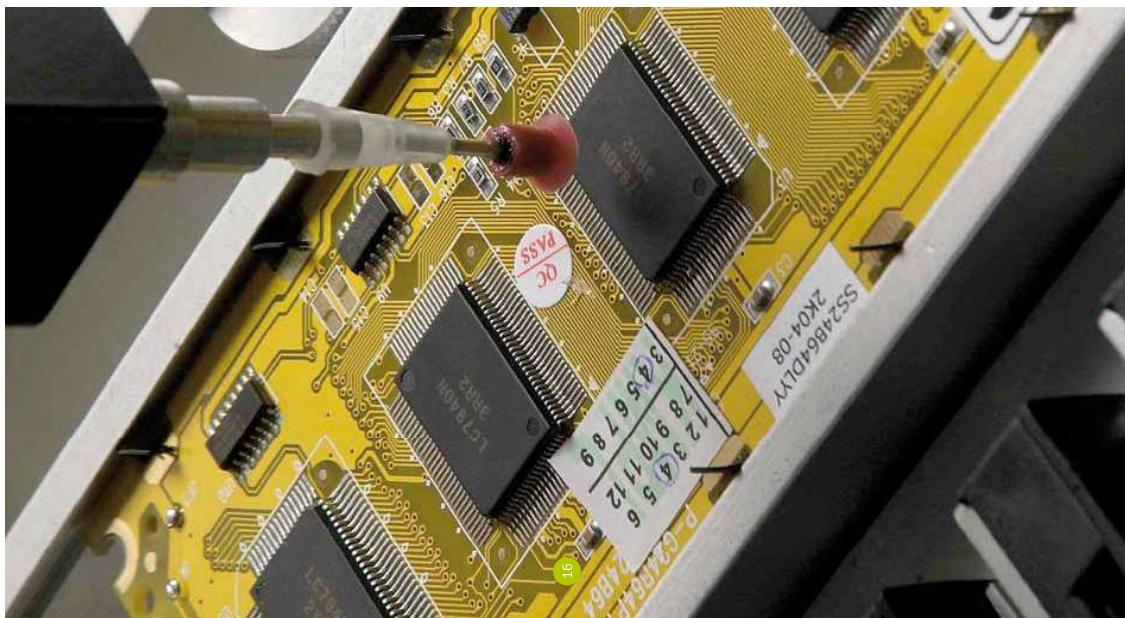
« Un nostro cliente che produce sistemi ed attrezzature per il motoOne di our Customers manufactures fitness equipment and he asked us to cut tubes for his tubular structures. When we started supplying him laser cut tubes, he could increase his weekly production from original 4-5 structures to 40-50 structures; an eight to tenfold increase » says Atul and continues "once a Customer sees the advantages offered by laser cut tubes, he does not turn back: he wants all his tubes to the laser cut »

The laser tube processing really offers significant reduction of cycle times and hence cost reduction of the entire manufacturing process. Just think of "Cut & Bend" technique or various self locking joint configurations that can be easily programmed on all the BLM GROUP Lasertube systems. These techniques simplify assembly of structures, reduce possibility of errors and improve the welding quality and reduce the time required for welding. These aspects were confirmed by Limaye:

« before getting the LC5, we used to take 2-3 days to build one of our machine frames; today we assemble 6-7 frames in a day »

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The machines for electronic industry are going thru' a very competitive phase. The main competition is coming from Asia (mostly from China) and one can win in such a situation only if one can offer "western" quality at a price that is comparable to Asian prices. For



This was achieved by appropriately modifying the original frame designs to exploit the advantages of Lasertube cutting to its maximum extent. It was an easy operation because ARTUBE can directly import 3D structures and automatically generate cutting programs for LC5.

#### NOT ONLY TUBES

The LC5 replaced two older laser sheet cutting systems. Even if it opened new doors to tube cutting opportunities, its main task is still sheet cutting. It is extremely fast on thin sheets making it competitive in the marketplace. All the thin sheet cutting is carried out on LC5 by default. As far as tubes are concerned: "If the things go as they are going now, it's quite possible that in not so distant future we may buy a new machine dedicated for only laser tube cutting" says Limaye.

The modernization of production systems is a MUST, even in India, because it is always more and more difficult to get skilled workforce

and the manpower cost is going up rapidly. In these conditions, automation of production systems is not to be considered as a luxury but a necessity.

Modern manufacturing systems not only offer better work environment but they are also an important element to attract and retain qualified manpower" points out Limaye who is extremely sensitive towards retention of qualified human resources.

The use of laser cutting for cutting tubes and sheet metal both offers interesting opportunities in the automation of light-medium fabrication starting with robotic welding. Considering these opportunities and ever increasing demand for finished or semi-finished assemblies, inflow has decided to build additional factory space to offer fabrication services too.

To purchase a combined laser cutting machine capable of cutting tubes and sheet metal was an entrepreneurial risk that inflows owners have taken. It has started showing "hoped for" and promised results and inflow feels confident that this system will help them to achieve their 20% annual growth target for the next few years.

## SHEET & TUBE ONE CHOICE, TWICE THE OPPORTUNITY



The LS5 laser for sheet also becomes a laser for pipes after attachment of the pipe module. It is actually a dual unit, capable of loading, cutting and unloading pipes, completely automatically.

