

Leadership...

...is about having the vision to succeed, a strategy to get there and the character to implement it. At Moser Baer, we have endeavored to master the art and science of Leadership. To us, Leadership is about the inspiration to push all boundaries—be it people, processes or technology

Report



Leading the way...

...is about having the courage to stand first in the line of fire. In our industry space, facing the salvo of changing technologies is an everyday phenomenon. At Moser Baer India Ltd, we pride ourselves on the partnerships we have and the value we have helped create for our OEM partners, our customers and our business partners. The 'Leadership Culture' we have evolved is our greatest strength today—and is what has helped us get this far, and what will help us chart out our future path.

It is because of this that Moser Baer has set global standards and successfully put India on the international map—be it in technology that matches the best in the world; R&D that has set industry benchmarks; project management capabilities that see us cut down implementation and time-to-market cycles; processes and systems that make us perhaps the lowest-cost optical media manufacturer in the world; and a proud human resource pool that mans our facilities every day and manufactures disks which have the 'Made in India' stamp shining bright on them.

Increasing demand for 'digital'

Given the rapid growth in digitization of data, the tone has been set for a strong future for optical storage media. Analysts estimate the demand for removable storage to double every 18 to 24 months, creating a strong outlook for our industry. Whether it is the increasing use of digital photos, videos and music at the personal level, or larger databases and information systems at the organizational level, data storage requirements are assuming critical importance.

Year 2005 will be the year of the DVD, with the format gaining momentum worldwide. The DVD market is growing at a fast clip and at Moser Baer, we saw this emerging opportunity early, and expanded our DVD production capacity to meet the rising demand. We have now earmarked an investment outlay of \$105 million in FY 2005-06 to further increase our overall production capacity from 2.4 billion disks in FY 2004-05 to over 2.8 billion disks in FY 2005-06—with all new capacities being used for the manufacture of DVDs. That having been said, CDs remain a strong part of our product portfolio and will make up a substantial part of our revenues.

Pre-empting the future

To sustain success, you have to lead by example. In our industry, where change is the only constant, staying

ahead in both the format and speed races is critical. Our focus on R&D has seen us gear up for future technologies well in time. In FY 2004-05, we saw many firsts—we were licensed by HP to manufacture Lightscribe-enabled media; we began manufacturing and retailing the HP brand of disks in the SAARC region; we were amongst the first in the world to ship out 16x DVDs; and we had many breakthroughs in manufacturing processes and technology. Going forward, we have initiatives in place to retain this cutting edge—thanks in large part to our in-house R&D team, and to the technology agreements we have with leading global tech majors and top educational institutions like IIT Delhi.

It is this focus on manufacturing excellence, quality and environment protection that saw us bag nearly every award that was there to be won in our industry—among them felicitations from Deloitte, Frost & Sullivan, the Institute of Directors and Optical Disc Systems. I extend my hearty congratulations to everyone in the Moser Baer family—our employees, our shareholders, our business and OEM partners—these awards are a great honor, especially in a challenging year.

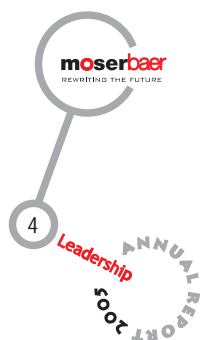
Excelling in challenging times

Since the second half of FY 2004-05, the optical storage media industry has been witnessing steady recovery signs—there's been a healthy growth in the average selling price; our input costs have stabilized after a few turbulent quarters; and volumes have shot up. In fact, both the third and fourth quarters of the year saw our shipments hit record highs. Clearly, the stage is set for a strong performance in FY 2005-06.

I would like to extend a special note of thanks to everyone in the Moser Baer family—it is the conviction and faith that everyone has reposed in the company and its beliefs and values, that saw Moser Baer outperform the competition and come out stronger in a tough year. As the saying goes, it is good to face tough situations at times, for it brings out the mettle in you.

It also gives me pride to end this message to you all on a high note—one that has given me great personal satisfaction as well—your Company is among the first in India to have gone '.in', and I urge all of you to visit our website 'www.moserbaer.in'.

Thank You.





Deepak Puri

Chairman & Managing Director



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Manufacturing Excellence

In our industry...

...to succeed, you need to be ahead at each stage of the product lifecycle. Typically, removable storage products start their journey at the upper end of the price realization scale, undergo price and cost erosion as the product reaches a stage of maturity, and then live out the rest of the product life as a commodity. The challenge, therefore, is to manage operations in a manner that enables you to capture the benefits of each stage.

At Moser Baer, we have faced this challenge successfully over the years—and that achievement can be attributed to our focus on and commitment to manufacturing excellence. We have always strived to be among the first to enter the market with any new product line (when price realizations are at their highest), and have scaled up operations in quick time to harvest the commodity crop (by effecting a substantial increase in output and shipment rates).

This has been the case with us over our two decades of being in business—first with the floppy diskettes, then with compact disks (CDs), and now with digital versatile disks (DVDs). At the same time, as the Next-Gen recordable optical storage media formats—Blu-ray, HD-DVD and Holographic Storage—are being finalized, we are an integral part of the industry associations working on these, optimally poised to launch these products in the very early stages of their lifecycle.

Any company that wants to be in position to reap the rewards of every stage of a product cycle has to start from the beginning and move up the manufacturing value chain—from designing the facility to ramping up production, to technology forecasting and optimized manufacturing, to processes that increase efficiencies and better yields, and to a logistics and supply chain network that ensures on-time dispatches and delivery. That having been said, the number one imperative is technology forecasting, backed by R&D that helps create the product quicker than anyone else.

We have focused on cutting-edge R&D and our manufacturing and project implementation strengths to create benchmark solutions

For instance, a key competitive characteristic of the optical storage media business is the 'Speed Race' (speed at which data is burnt onto the optical storage medium). Moser Baer was among the first in the industry to offer 16x DVDs, the current high point for this product line. Earlier, we did the same with recordable CDs, and were among the frontrunners at almost every stage of the product evolution—right up to the 52x finishing line.

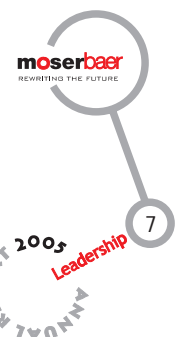
On time... Every time

Typically, Moser Baer receives forecasts—both from customers and our internal strategy department—on probable numbers for the next quarter. In most cases, however, firm orders for any month come in only in the last week of the previous month. This is where the real manufacturing and logistics test comes in, for we have to gear up, produce, create the packaging SKUs and start rolling out consignments—literally within days. The timing has to be just right in order for us to be able to meet stringent customer requirements. Moser Baer has its supply chain firmly in place and delivers products right to the customers' doorstep—and in specific cases, right to the retail store.

Making every BIT count

Each of our CDs contains over 5.4 billion bits of data; in DVDs the number is far higher. And the speed, quality and accuracy of the media we manufacture are all a derivative of our commitment to make every BIT count. And we believe it is this commitment that has helped us emerge as perhaps the lowest-cost producer of optical storage media globally. Across industry segments, the advantage of lower labor cost in India has often been shadowed by lower productivity. At Moser Baer, this has never been the case—we have focused on cutting-edge R&D and our manufacturing and project implementation strengths to create benchmark solutions.

We engineer and design our production systems in close collaboration with equipment vendors to maximize throughput, quality and reliability. By using domestic vendor bases and in-house fabrication of production systems and utilities, we have been able to substantially reduce our capital investment costs. This has helped us reduce the capital expenditure per disk of output. We have also vertically integrated our manufacturing operations to produce key raw materials and process inputs, including energy. As a result, we have been able to maintain and improve quality while minimizing costs.



Fundamental research...

...has a critical role to play in making any organization in the technology space self-sustaining and a force to reckon with. At Moser Baer, we realize that it is our focus on research and development that will determine our future success. We remain committed to investing on R&D each year and have now built up a strong base of intellectual resources in this area.

This year saw Moser Baer collaborating with the Indian Institute of Technology (IIT), Delhi to work jointly in the areas of thin-film coating and sputtering technology. The marriage is a symbiotic one—while Moser Baer has mass manufacturing skills in the optical storage media space, coupled with excellence in research and process development, IIT Delhi is one of India's premier R&D institutes, boasting a vast pool of knowledge in the fundamental area of thin-film sputtering. Through agreements such as this one, we intend to strengthen India's position as a center for high-end technology research and further develop the potential to 'Rewrite the Future'.

Slaying the 'Change' dragon

With technology innovations come multiple formats. And with multiple product lines vying with one another to emerge as tomorrow's mass-market formats, format wars start brewing—as happened in the late eighties, when VHS and Beta cassettes locked horns. In the optical storage media space, a similar format war is being waged between HD-DVDs and Blu-ray disks. While both formats are extremely consumer-friendly and promise to meet market demand, global device manufacturers and large studios hold the final say over their fate. At Moser Baer, we are in advanced stages of development of both formats—we are also a member of both the Blu-ray and HD-DVD associations and are working with global hardware, content and drive majors in the creation of these formats.

Clearly, there is enormous scope for the development of

new technologies to enhance current data storage capacities of optical media formats—taking them up to a mind-boggling 200 GB, using both organic and inorganic materials as the recording media.

The current maximum recordable/rewritable capacity of optical media ranges from 4.7 GB to 8.5 GB, which will be enhanced to well over 50 GB between 2007 and 2010. This enhancement will be attributed to the advent of Blu-ray technology, as also the 'Holographic Storage' technology.

Blu-ray disks, which will hold 25 GB of video in their first version—67 per cent more than HD-DVDs—will offer ultra-high quality viewing. The only catch—for the stunning 1920 x 1080 resolution, many consumers will have to upgrade their TV sets!

Successful R&D at Moser Baer

Improvement in direct cyclability of rewritable disks: We have optimized the thickness of semi-conducting alloys to improve the overwrite cyclability of the compact disc. As a result, we have produced media with improved performance and lower electrical and optical defects;

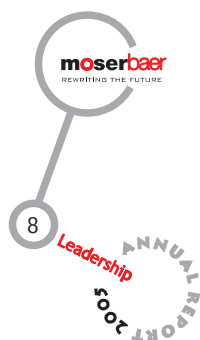
Improvement in archival life and overwrite cyclability of rewritable media: We have invented a new process that enhances the electrical quality of the rewritable compact disc before and after environment-soaking;

Layer stack optimization for improving quality and performance of rewritable media: We have proposed a new thin-film configuration for rewritable optical media that will improve direct overwrite performance with reduced jitter, 'BLER' and no recording failures;

LightScribe CD-R: Moser Baer was one of the first optical storage media manufacturers worldwide to partner with Hewlett-Packard on the latter's LightScribe CD-R—which allows users to create professional labels inside the writer drive itself. Moser Baer worked with HP through the process of development of this exciting technology option; and

16x DVD-R: Moser Baer was among the first media manufacturers to launch the high-speed 16x DVD-Rs. This is the highest speed possible in the DVD-R space, as per today's drive capability.

Moser Baer was among the first media manufacturers in the world to launch high-speed 16x DVD-Rs—the highest speed possible today



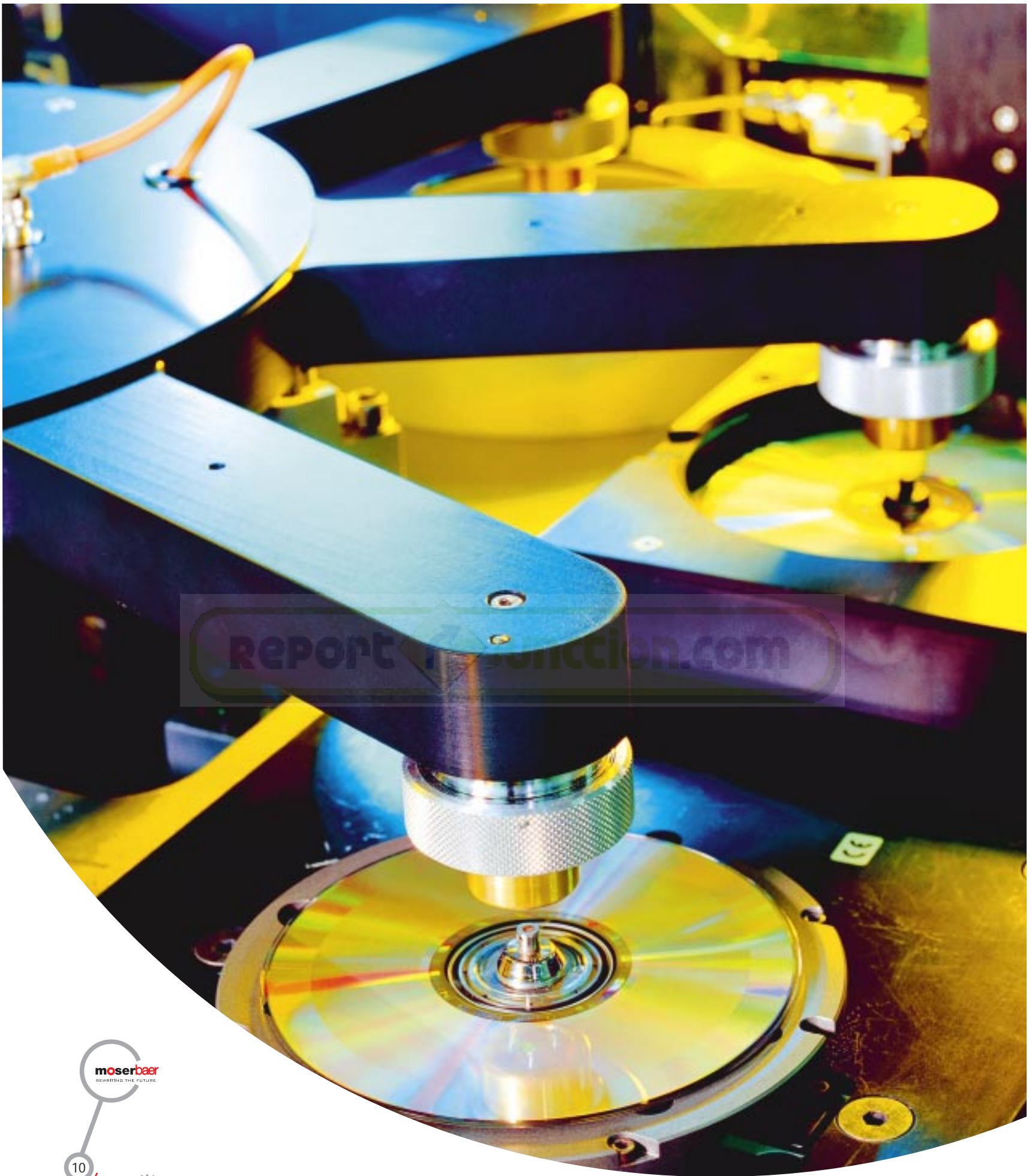


Mastering Technology

moserbaer
REWRITING THE FUTURE

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Quest for **Quality**

At Moser Baer...

...we believe that only consistent ability to deliver quality products will be our key differentiator. We have, therefore, instituted a continuous quality improvement culture and a system-driven focus to ensure that the quality of our products meets and, in fact, exceeds international benchmarks. The company's processes are ISO 14001-certified and our product quality adheres to the standards prescribed by the American National Standards Institution (ANSI) and the European Computer Manufacturers' Association (ECMA).

On an average, we invest close to 50 man-hours per year per person on quality training across all manufacturing disciplines to create a quality-conscious culture. Our strategy on the quality front is not control-oriented, but preventive in nature—thereby enabling us to minimize the cost of quality while achieving one of the lowest defect rates in the industry.

A disk is a fairly complex product governed by a variety of electrical, mechanical and environmental parameters. And when you are producing millions of these disks, it is critical that you ensure product reliability. We rely on quality management processes and process capability initiatives—both on and off the shopfloor—to ensure that we meet the mandate of our OEM partners.

At our Greater Noida facility (amongst the largest optical storage media facilities in the world) for instance, we have achieved less than 100-ppm levels at a very early stage itself. Also, we measure our processes on all significant parameters and have achieved target quality values on almost all critical parameters. We have now taken on Six Sigma and follow the DIMAC (Define, Measure, Analyse, Improve and Control) model for problem solving. This extends beyond the shopfloor and into every function at the facility. For instance, we are carrying out a project on how to improve specific fuel consumption for generators using Six Sigma methodology. We are also applying Six Sigma to supply chain management. A large number of 'Continuous Improvement' (CI) projects—related to cost innovation, productivity improvement, cost drive-downs and cycle-time improvement—are simultaneously under way. At any point, nearly 500 such improvement projects are under way in the organization.

Also, since our capital expenditure is high given the nature of our industry, we have an 'Overall Equipment

Effectiveness' program in place to ensure that we optimize returns. Our Fixed Asset turnover ratio at present is about 0.6—this means that for every \$100 that we invest, our turnover will be about \$60. Hence, equipment efficiency is critical to our operations. Due to sound manufacturing processes and management, our yield rate (the percentage of good disks vis-à-vis rejects) is in the region of 99 per cent.

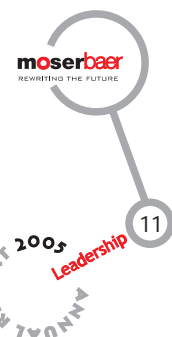
We define quality with only one parable—consumer delight; and that's only attained by enriching lives. It is an attitude that we have inculcated, a part of every process...and that's because we realize that even a one-in-a-million error disk can spell disaster for the user. So, we target 'zero-defect' manufacturing.

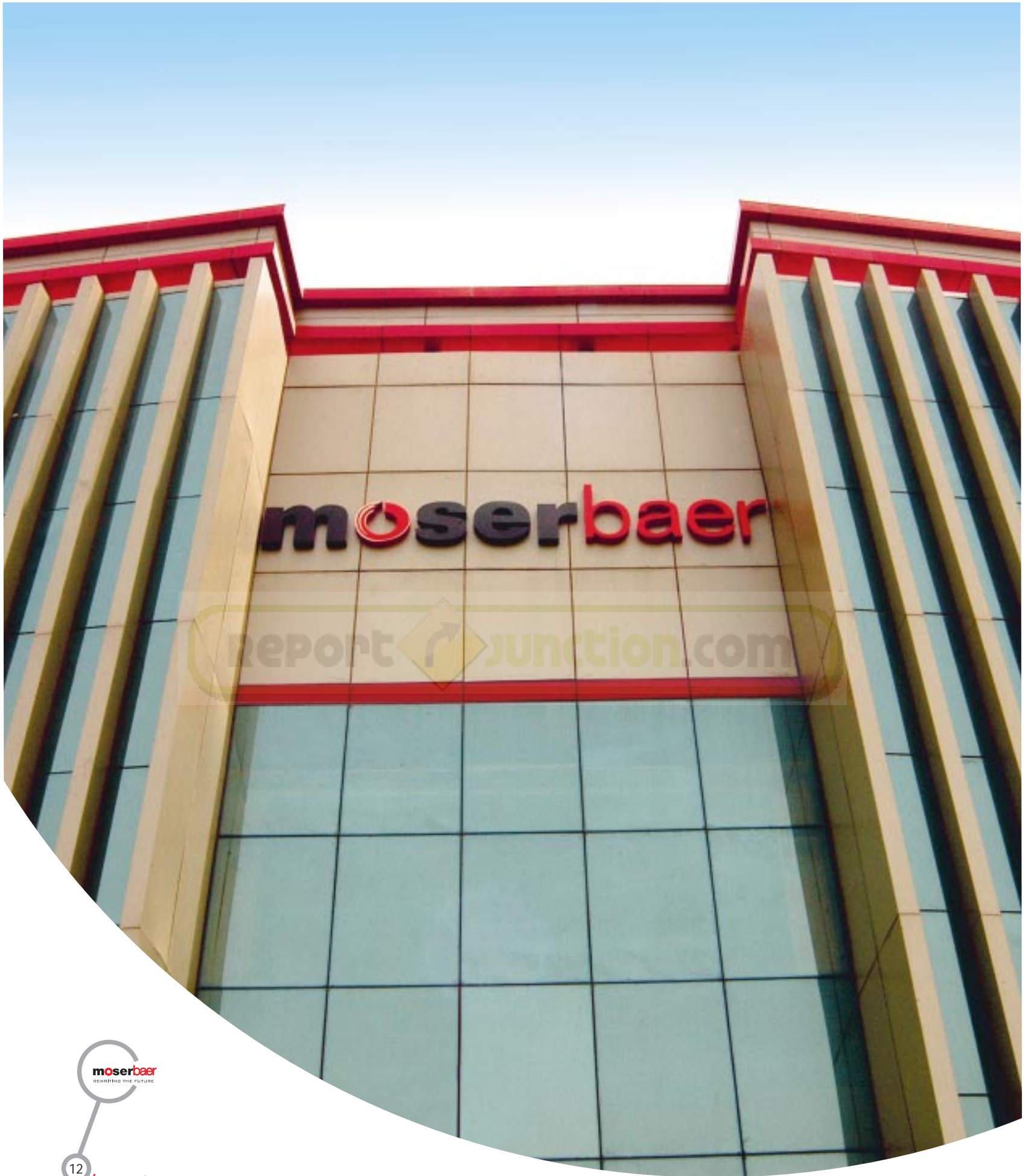
Making Leaders

At Moser Baer, we believe that leaders are made, not born and it is because of this that we no workers in the organization—only leaders. For us, our people are our greatest asset, and that is why we have hired and developed creative, talented, and initiative-taking people with leadership qualities.

Being in a highly competitive and technology-advanced environment, retaining talent is always the primary focus for the human resource (HR) department—and we are proud that our attrition rate is lower than the industry average. In order to retain talent, Moser Baer has been promoting a sense of ownership and pride in association through various initiatives—'Long Associate' Awards, employee-friendly policies, training, frequent get-togethers and contests, etc. The company has worked towards providing a challenging high-growth environment for its employees and we benchmark our HR policies against industry-best practices.

We have also introduced the 'Balanced Scorecard' regime, with the aim of having a clearly-defined objective for performance management and individual and functional efforts, which will tie in seamlessly into the larger organizational objective. The strategic themes and objectives identified are now flowing down to all levels of the organization, aligning and sharpening focus on our collective direction. Each function has formulated measures by identifying critical processes and resources central to its success. At the end of the day, all are targeted at a single objective—quality products, quality living, and quality working...





Global **Kingpin**