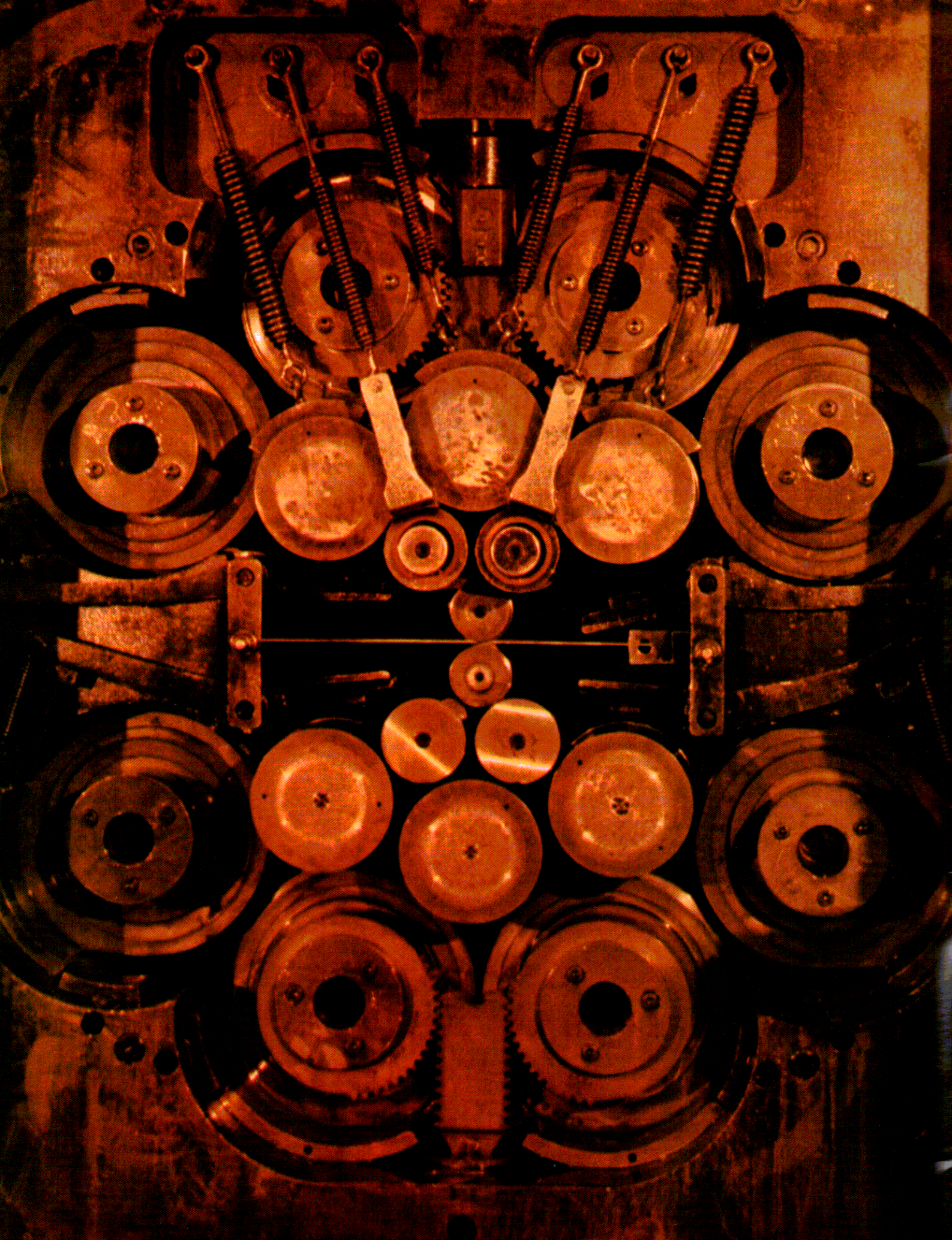


There's never been a time when efficiency of production
has meant more to manufacturing profitability.

You face heavy, often unpredictable, increases in raw material, energy, and labor costs. At the same time your customers are setting increasingly stringent quality standards. Companies which can make incremental gains in production efficiency will generate additional money by reducing manufacturing costs . . . money which can be applied to profit, R&D, capital improvements, or marketing.

That's why companies which make pulp and paper, extrude plastic sheet or film, cold-roll metal, calender rubber or vinyl, finish synthetic textiles, and make cigarettes depend upon AccuRay process management systems.





Every square foot, every square meter of product you make on your processing line has a built-in cost calculated to the fraction of a percent. Reducing that cost — and saving you money — is our job. You'll know not only where the savings come from, you'll find out where you can make improvements that will yield even more savings.

You can make the same amount of product on the same equipment with the same labor complement, but use up to 20% less raw material. And still meet your customers' stringent quality standards.

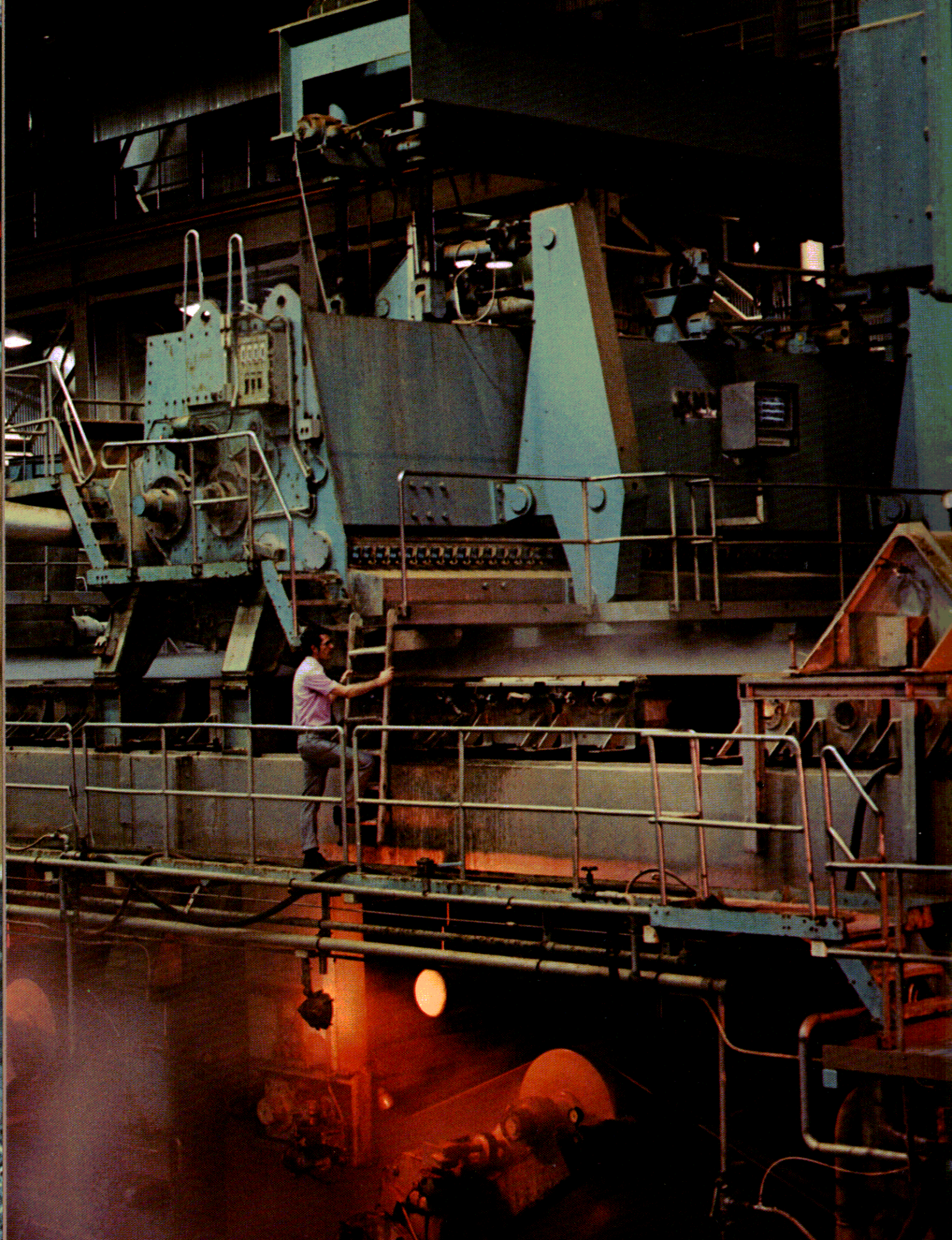




You'll have less scrap. There won't be as much out-of-spec product to recycle, and there will be fewer breaks in the production process.

Throughputs can be higher, coordination more exacting. Your processing line can run to its limits because a dedicated, computer-based system will be able to do what is not humanly possible. Men will be free to run the process instead of responding to it.





Labor proficiency is higher with shorter training times. An AccuRay system makes the manufacturing process visible to your operators so they know what's happening as it happens. With the control system as a communications link between man and machine, your operators don't have to be everywhere at once: they know where to be and what to do at any given moment.

The savings begin with precise measurement of the key variables by which the quality of your product is judged — weight, thickness, moisture content, density, opacity, ash content. Measurements are compared to the product specifications, and a computer coordinates complex adjustments in the processing line. The system controls the product to specification and manages product targets for top efficiency. When the skill and judgment of an experienced operator are needed, the system helps him do his job faster and better by concentrating the information he'll need into compact, understandable visual displays.

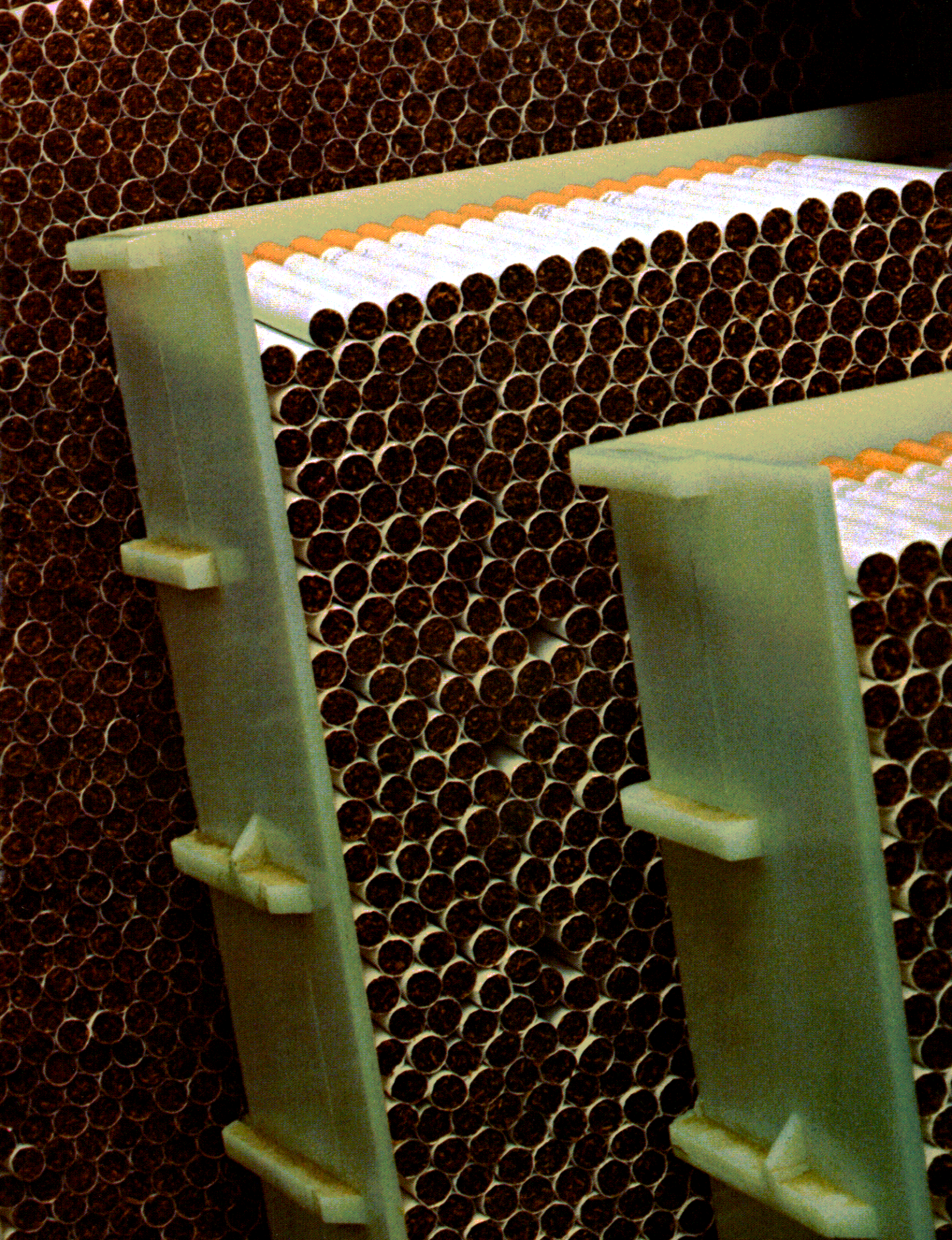


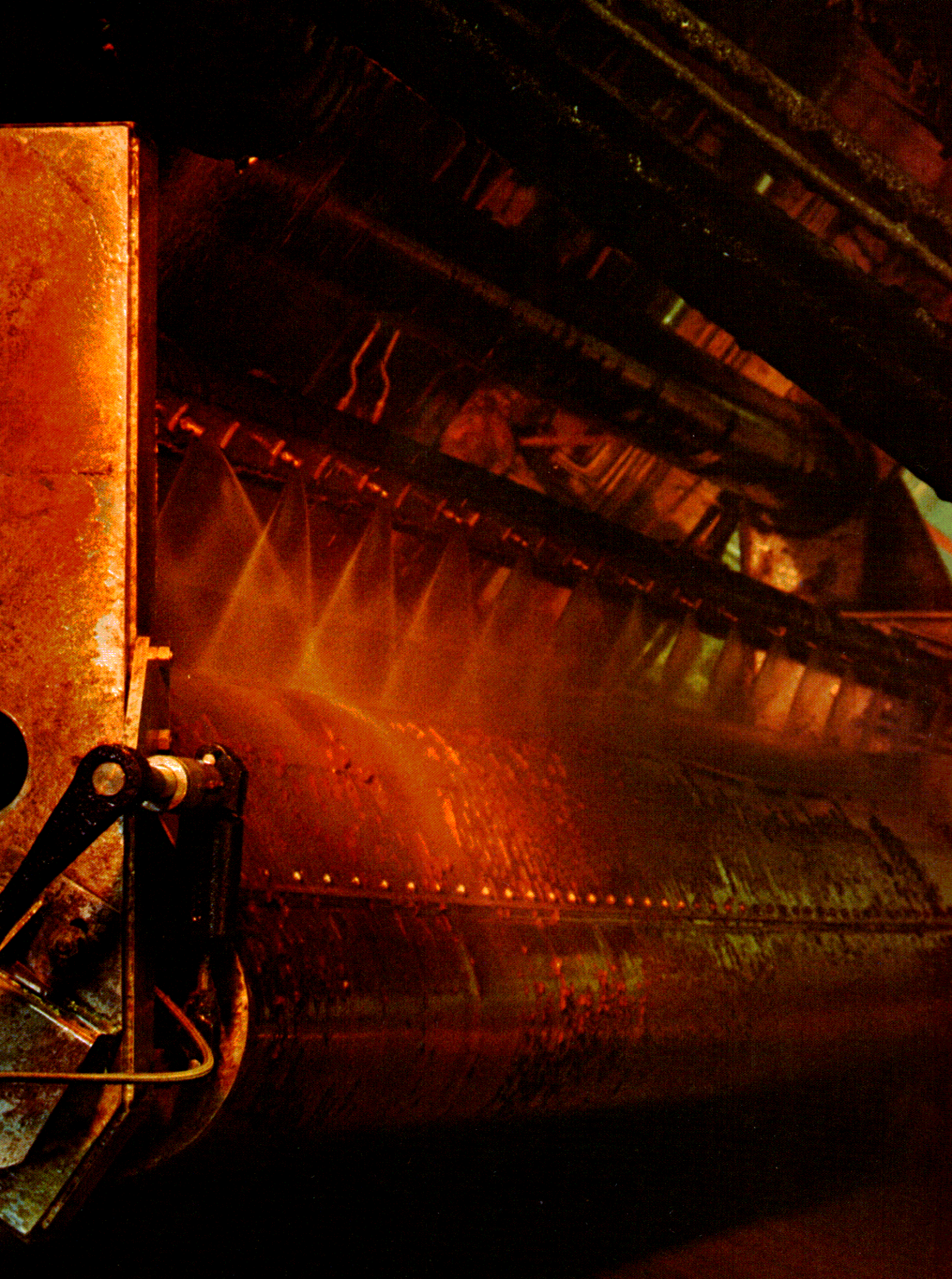
A close-up photograph of a red, rectangular button with the words "AUTO GRADE CHANGE" printed in white, sans-serif capital letters. The button is positioned on a light-colored, textured surface, possibly a piece of paper or a control panel. In the background, there are blurred elements of a construction site, including a large, light-colored structure and a blue and white striped object. The lighting is bright, creating a slight shadow to the right of the button.

AUTO
GRADE
CHANGE

Control is instantaneous and coordinated.
So much so, in fact, that highly interactive
processes are automatically guided through
the complexities of changing from one
product specification to another at the push
of a button.

Product quality improves. Your product is closer to target with reduced variations from unit to unit, from day to day. And those product quality improvements are marketable.





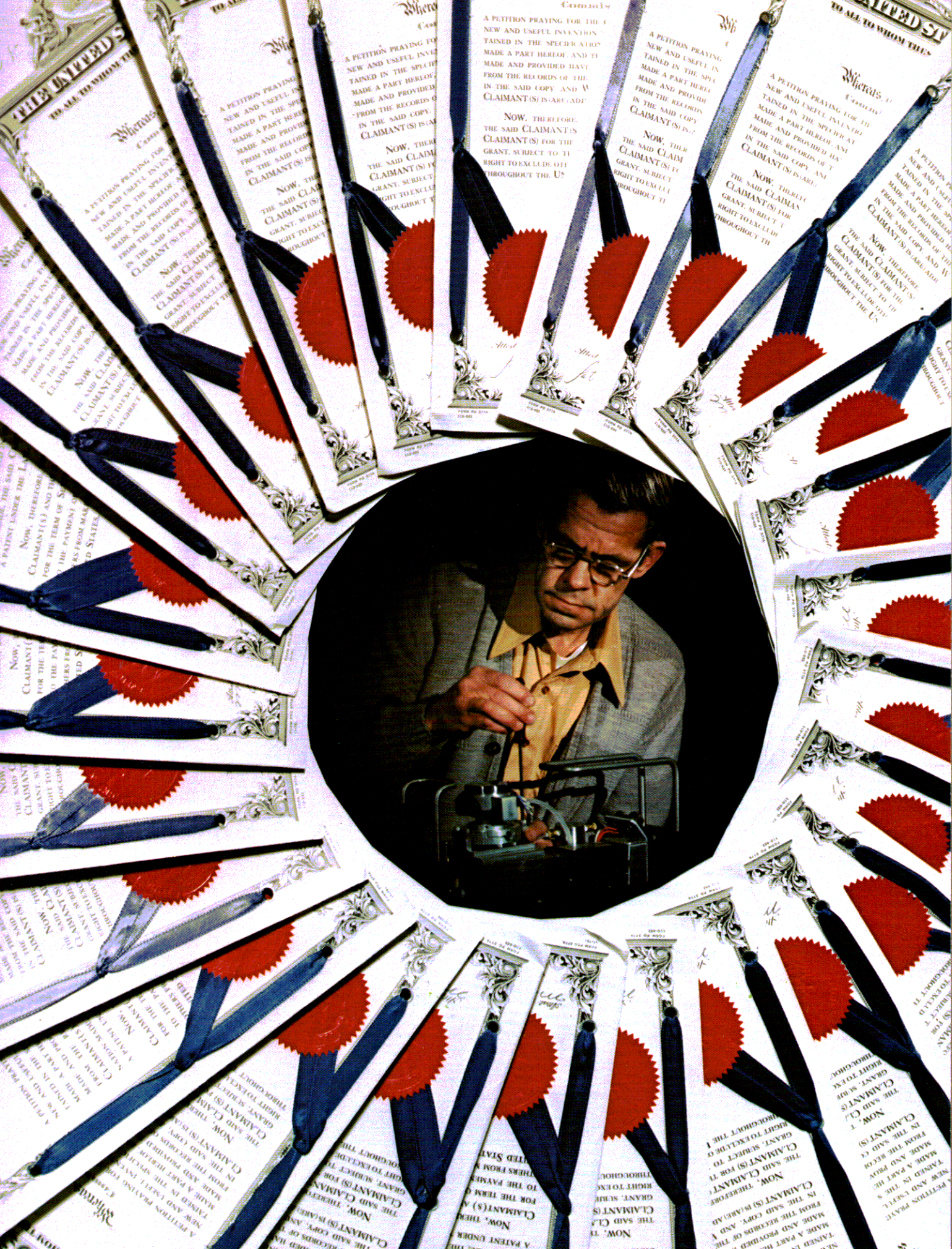
AccuRay control systems perform day after day, year after year. On existing equipment, all over the world. In the toughest environments, with an unsurpassed record for reliability.

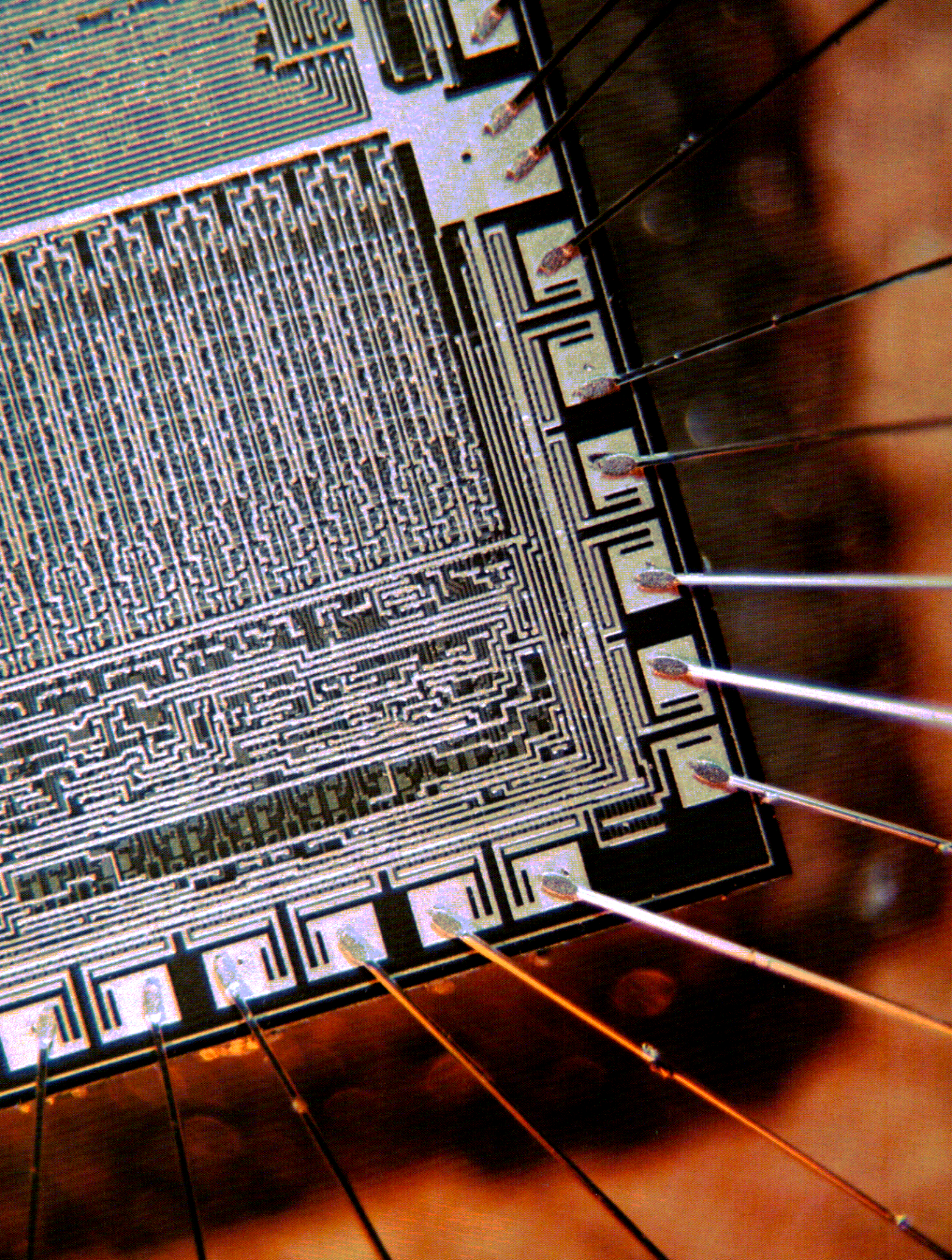
AccuRay control begins . . .



...with people. Through their skill,
imagination, and commitment, we structured
a new technology — process management.
With the full spectrum of scientific
disciplines at our command, we can focus
the capabilities of a system on the specific
process management and profit
opportunities in your plant.

Our sensor and control technology is the best in the world. We pioneered it, and 650 patents later it's still the standard by which progress is measured.





An AccuRay system is not considered a marketable product until it has survived a complex design, analysis, and field testing process. With the full spectrum of scientific disciplines at their command, our scientists and engineers start with the design of the architecture — the structure — of a new system. They are guided by a unique sense of responsibility gained through years of working closely with you and your product, your industry, and your technology. Their goal is long-term performance in your plant.

An architecture based upon ease of communications allows us to incorporate practical and effective technological advances into a system. Some of these advances — **hierarchical processing** and **distributed intelligence**, for example — are so new that their application is practiced by only a few companies that have the depth to operate on the leading edge of technology. But the benefits are there, and the architecture has the flexibility to accommodate them as well as future developments, an added assurance against obsolescence.





To achieve all the advantages that can be derived from a communications-oriented architecture, each component must be as efficient, as reliable, and as accurate as possible. That's why we design and manufacture our own, starting with the precise layout of each circuit board. Every component is functionally engineered to be exactly equal to the job it must perform. As a result, AccuRay systems deliver the efficiencies inherent in their design, have fewer electronics to maintain and service, and bring larger capacities and greater flexibility to your processing line.

The concept of testing as a final check to make sure that everything works is not sufficient. To achieve the degree of reliability and accuracy you need in a process management system, we've extended the concept back to the very beginnings of the design stage. Everything is tested against our standards of reliability engineering and environmental design. These standards set the pace for the industry: they're high, and they must be high if our systems are to perform in the hostile environment of a working mill.

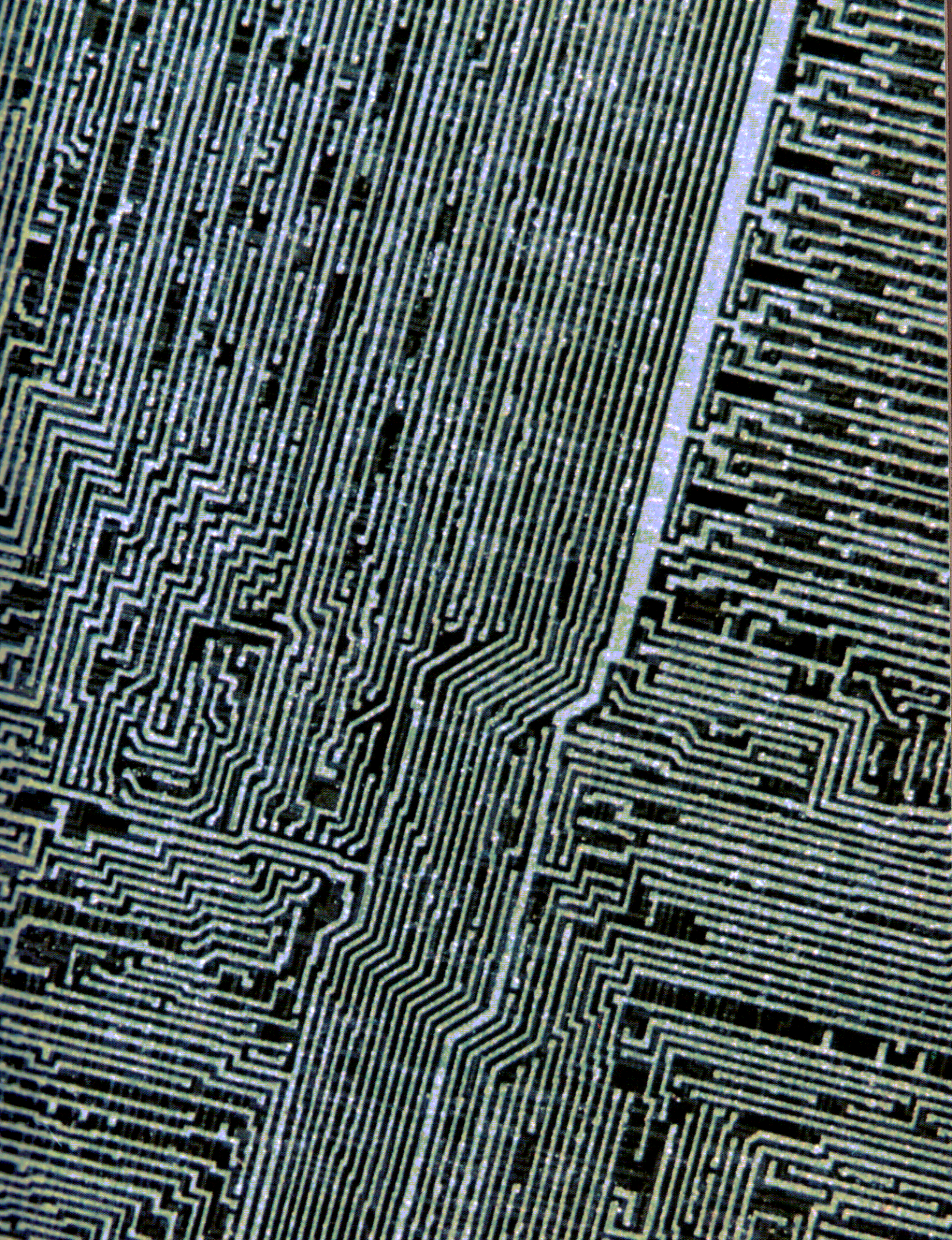


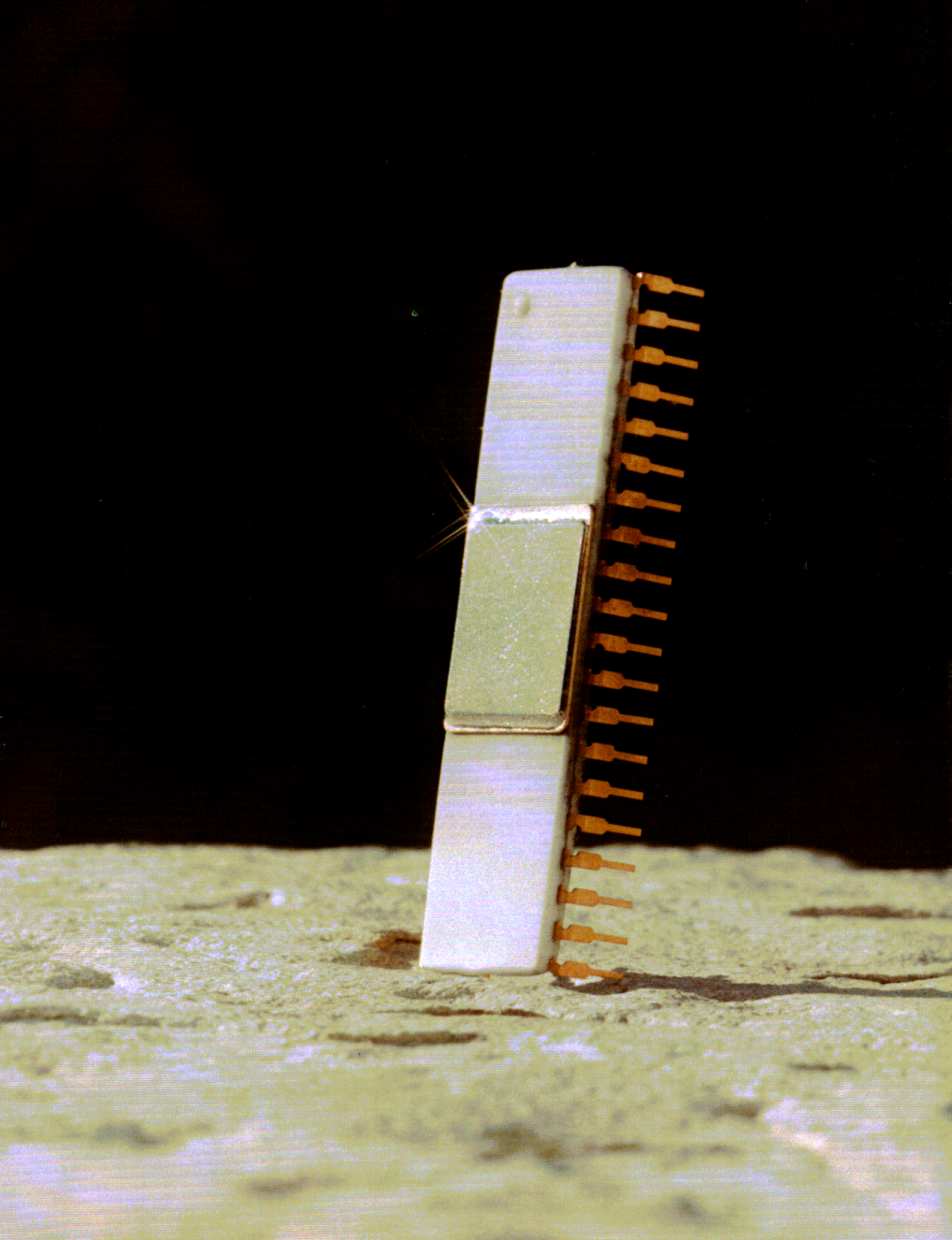


Your challenge is to manage raw materials, energy, capital, and labor to make the best product at the lowest price. To meet that challenge in tomorrow's business environment, you'll want direct communications with all your AccuRay process management systems at each production location. The architecture of our systems was designed with this in mind.

And you can profit from our own experience in networking. Our primary computer facility is already networked with several other computer systems for use in data correlation, software design, remote diagnostics, maintenance assistance, downline loading, and time-shared participation in a multitude of engineering programs. Everything we've learned is available to you.

The whole idea is to take complex
technology . . .





... and make it work reliably, simply, and easily — yet capable of controlling the most massive industrial processing machinery. We do this better than anybody else. So that your AccuRay system can help you make product better, faster, and cheaper.

AccuRay®

Industrial Nucleonics Corporation
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