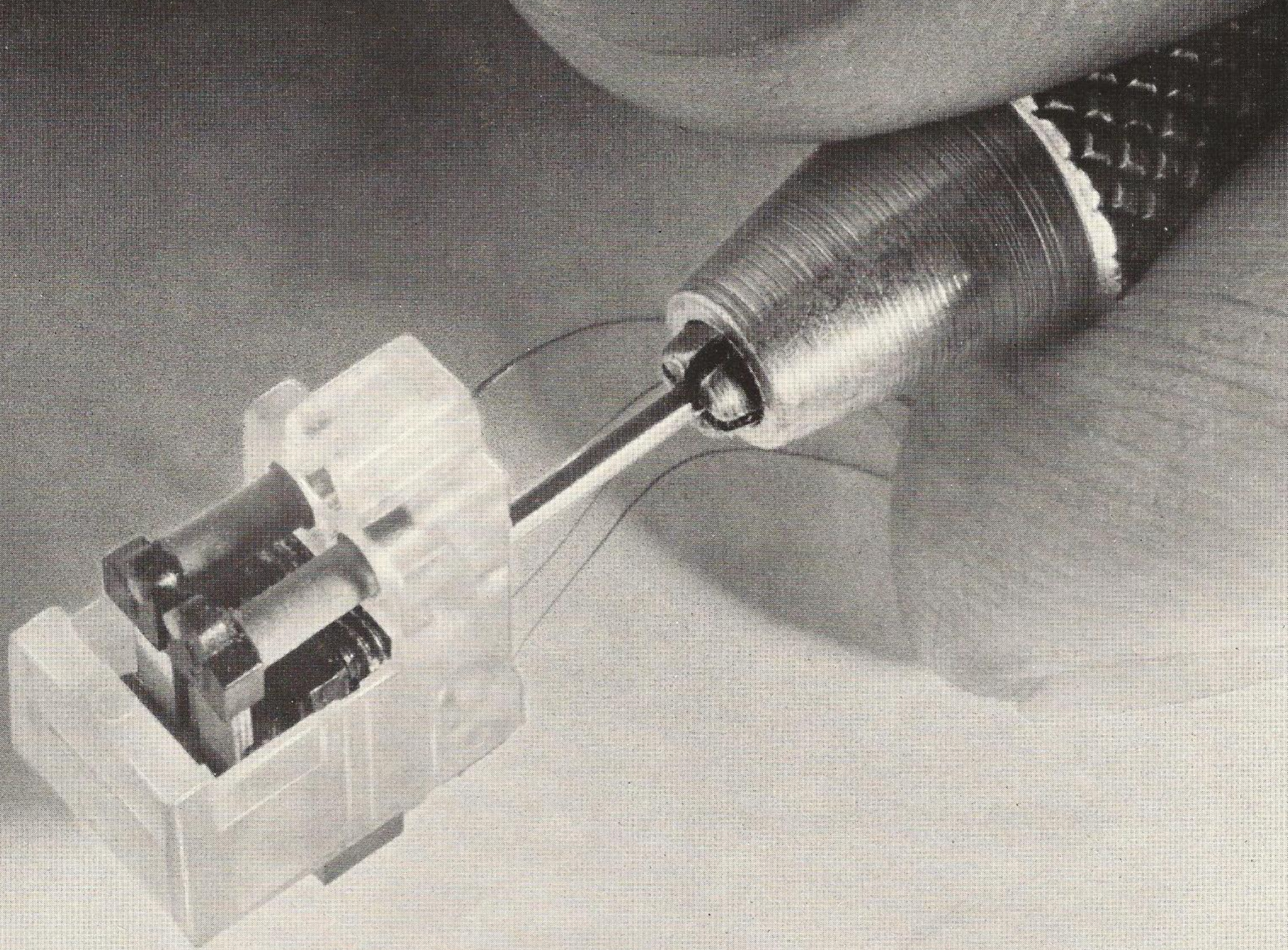


**Micro-Acoustics invites you to take
a closer look...**



ma[®]
Micro-Acoustics

At Micro-Acoustics, we hand-assemble Because mass production

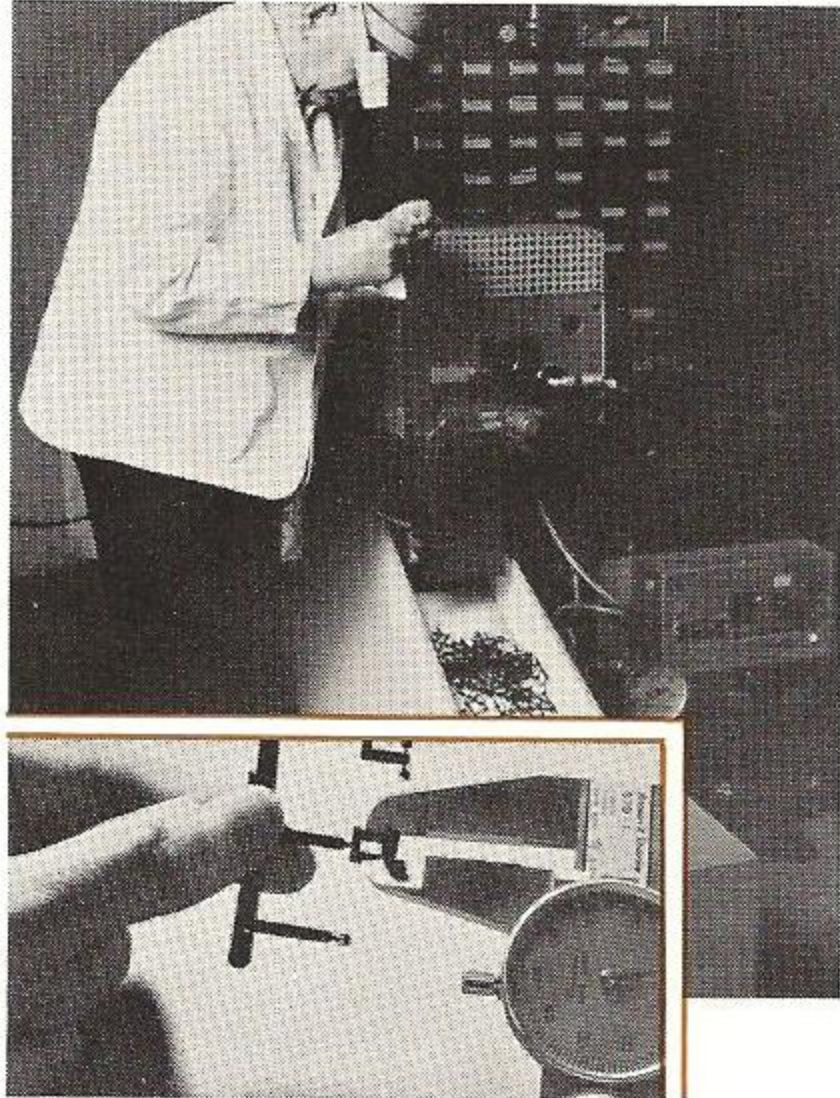
At Micro-Acoustics, we call our stereo cartridges "The high-end phono cartridge line." And we'd like you to know what stands behind this philosophy.

Micro-Acoustics cartridges sound better — and *sell* better — for a very good reason: they're very different from the other phono cartridges on the market.

Basically, most stereo cartridges are designed for

mass-production. And they have to be. Because they're engineered and manufactured to *meet a price*: Low enough to fit comfortably into even modestly-priced systems. And low enough in cost to be used as a promotional item in a turntable or system sale.

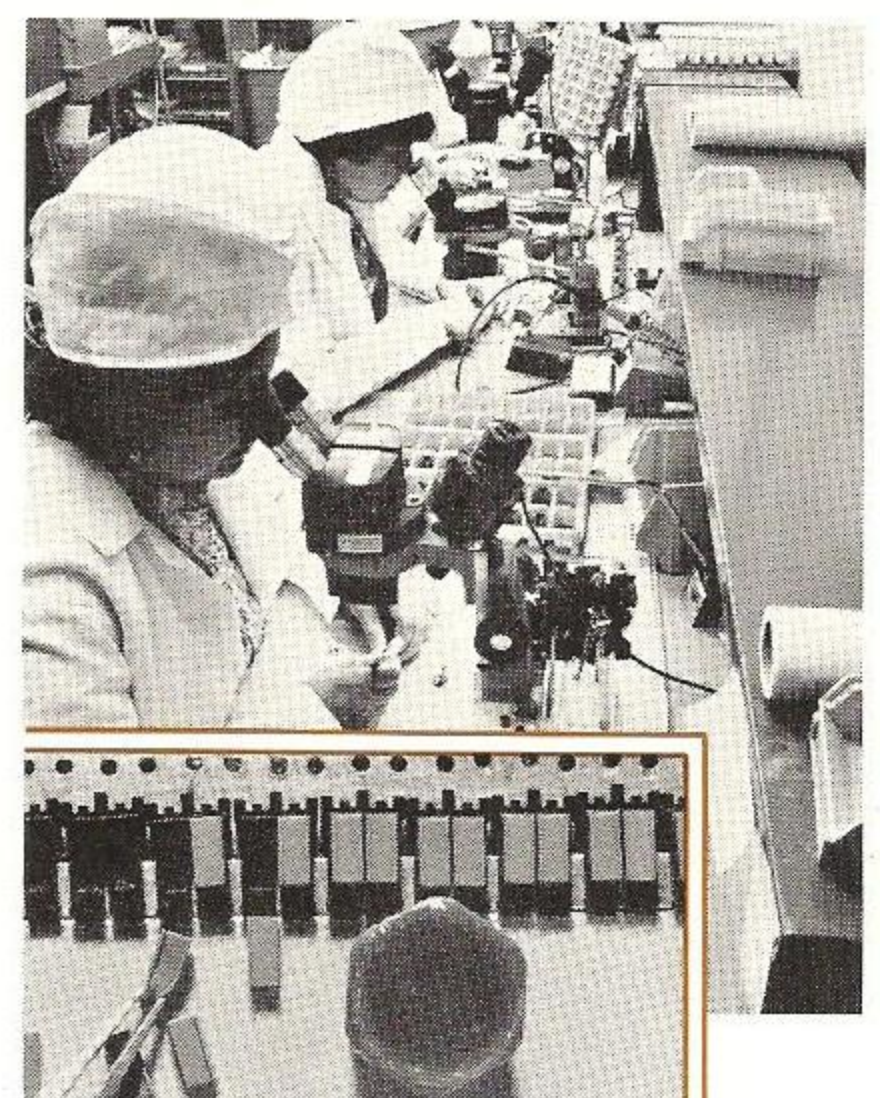
Considering these limitations, some manufacturers have done a remarkable job of achieving acceptable



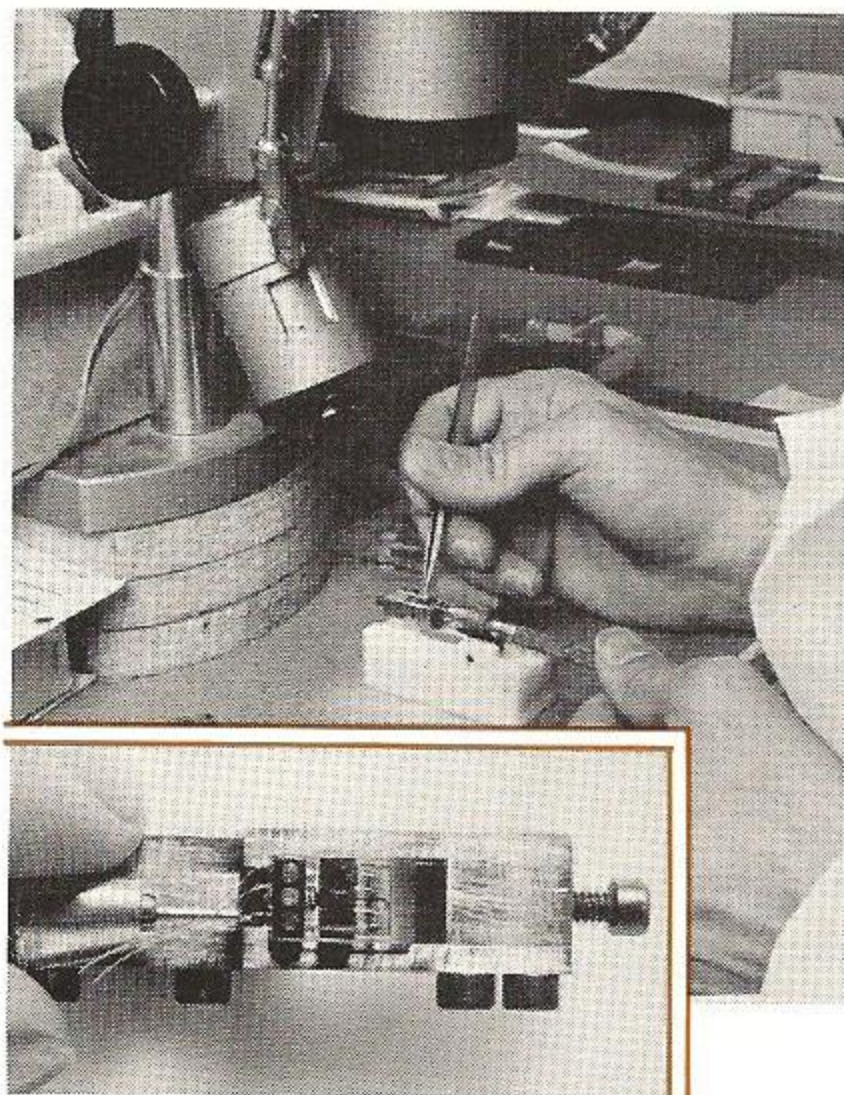
1. Injection-molding station. All plastic parts for Micro-Acoustics cartridges are individually molded in single-cavity molds for maximum uniformity. Frequent sampling and inspection assure that tight tolerances are maintained.



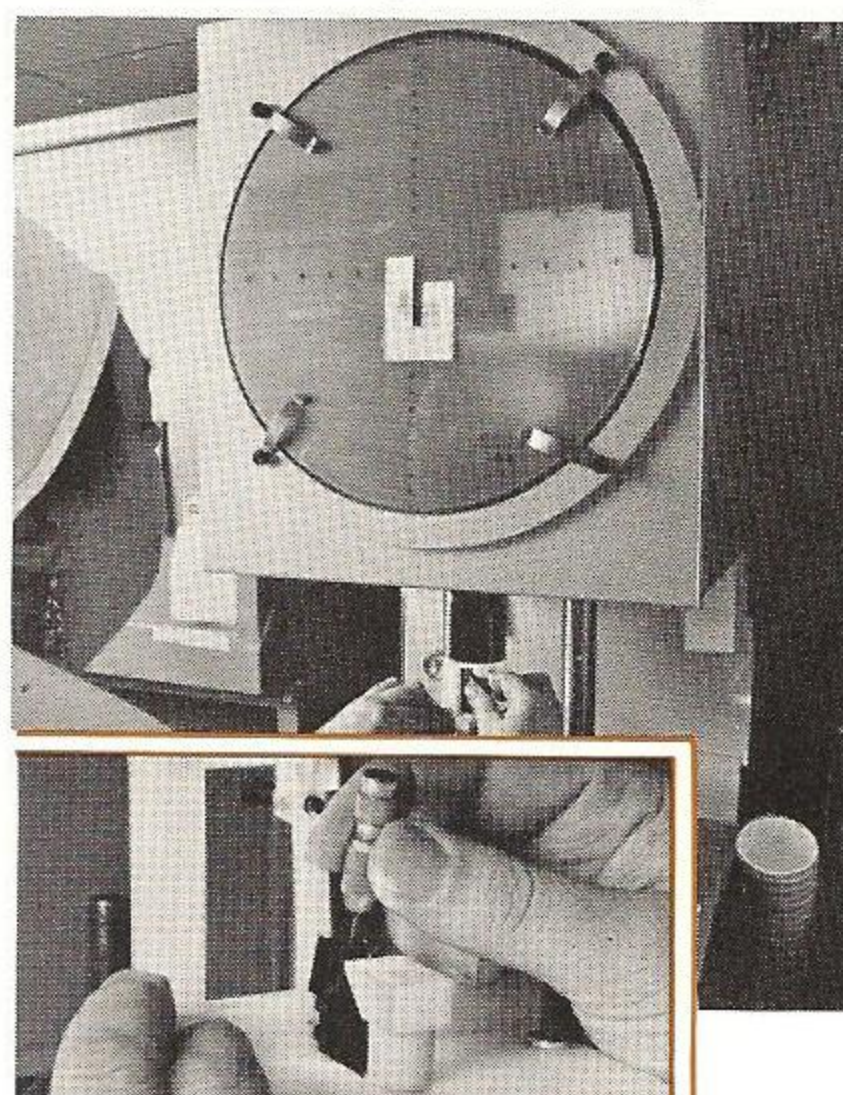
2. Rubber-molding press. Sixteen precision elastomers are employed in all Micro-Acoustics phono cartridges. Each part is individually molded; then inspected and tumbled in refrigerant to remove any excess "flash". The use of multiple elastomers provides greater long-term reliability and consistency than conventional single-bearing cartridge designs.



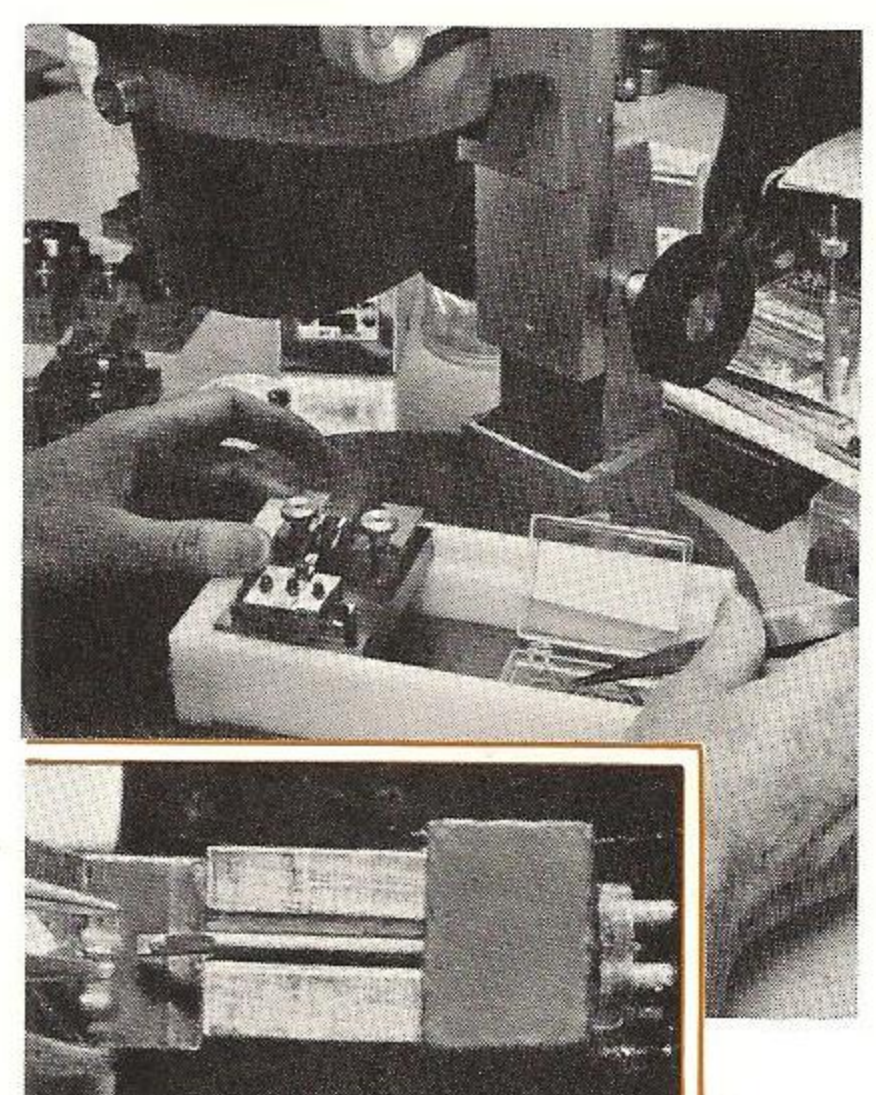
3. Microscopic assembly of damping mechanism. Each elastomeric damper is individually cemented to its own retainer block. Eight dampers are used in each cartridge.



7. Microscopic assembly of complete transduction system. Here, all elastomeric parts are assembled together with transducer elements and positioned by means of three vernier alignment screws.



8. Final vernier adjustment. The three vernier screws are individually set so that the stylus seats symmetrically between the cartridge's twin pivots. Stylus assembly is magnified 20 times on calibrated comparator screen, to assure that all replacement styli will align identically.



9. Microscopic hand assembly of stylus. Using the same procedure employed for Micro-Point™ recording styli, precision polished diamonds are light-beam oriented for mounting in shank and then secured with epoxy to dual-bearing platform. This low-mass, dual-bearing stylus configuration provides superior tracking ability.

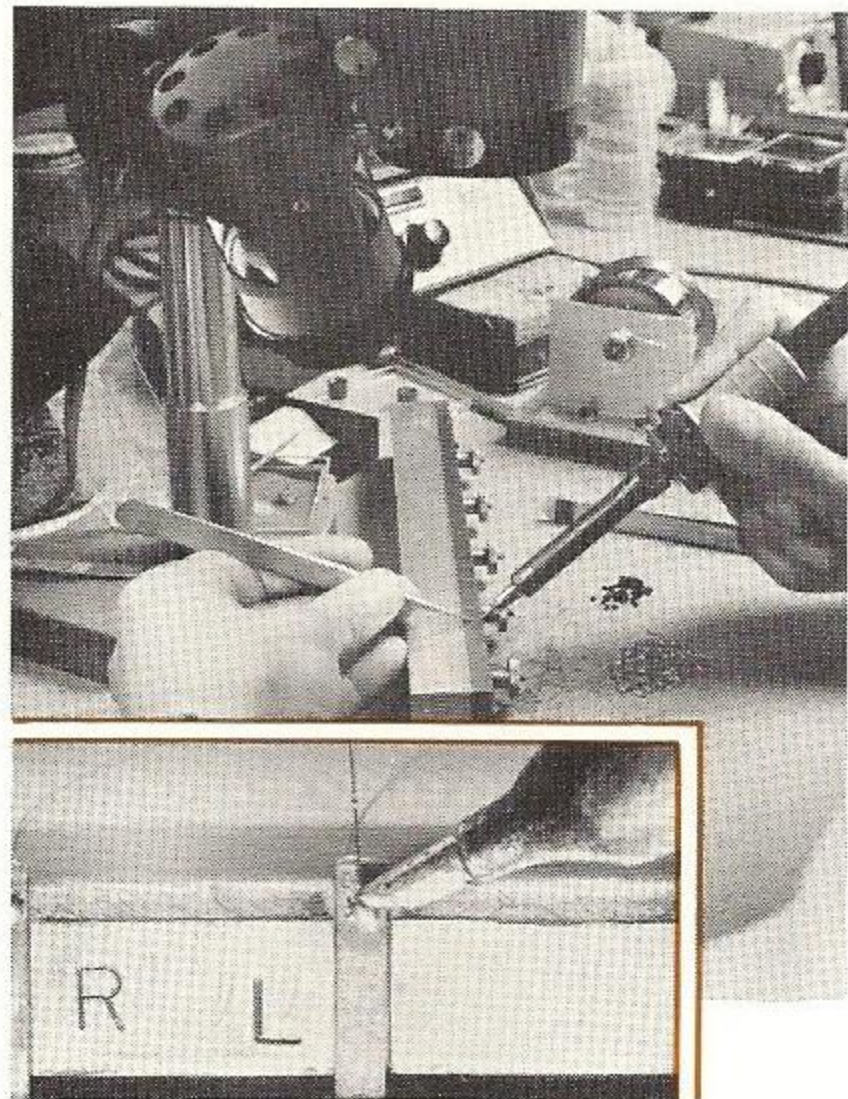
Cover photo: Heart of Micro-Acoustics' patented (Pat. No. 3952171) direct-coupled system, seen with alignment tool making vernier adjustments.

le our precision cartridges one-by-one. n isn't good enough.

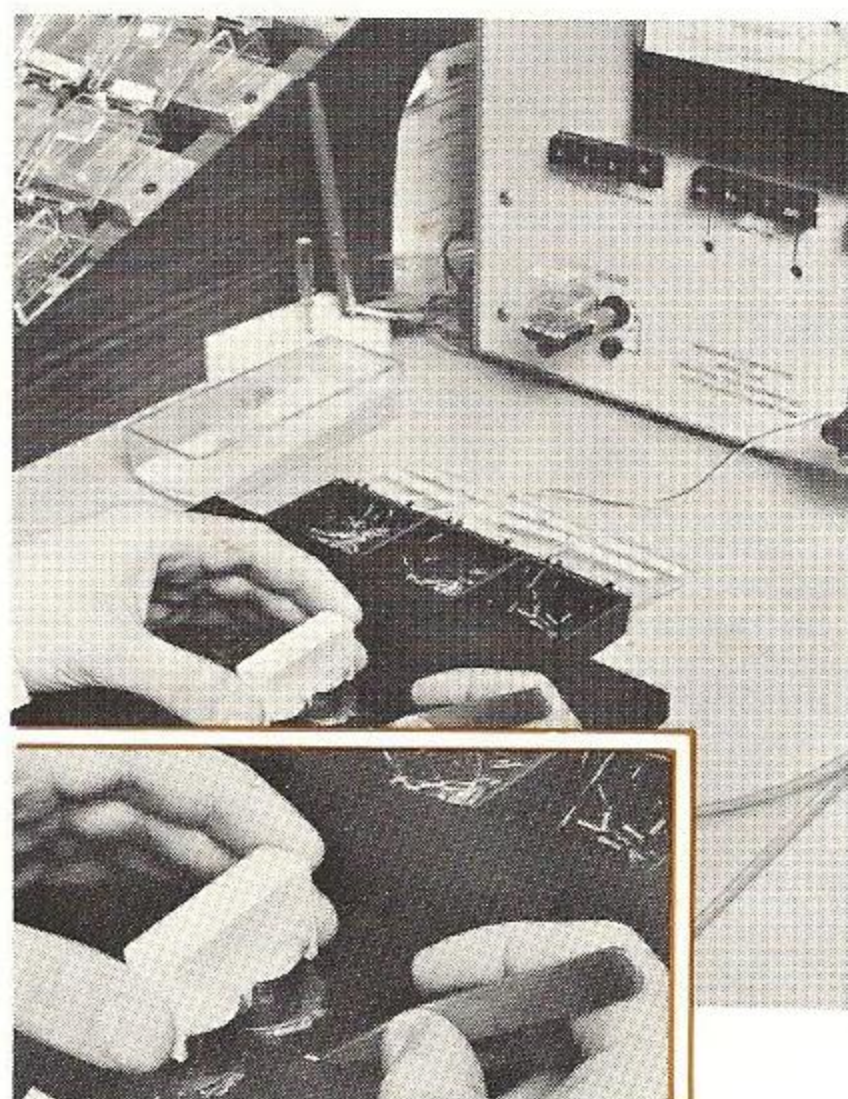
performance levels through automation and other mass-manufacturing techniques.

Problem is, when these manufacturers add *high-end* cartridges to their lines, they're still locked into manufacturing the same basic way. So aside from a change in styli, the differences between other manufacturers' high- and low-end models are primarily cosmetic.

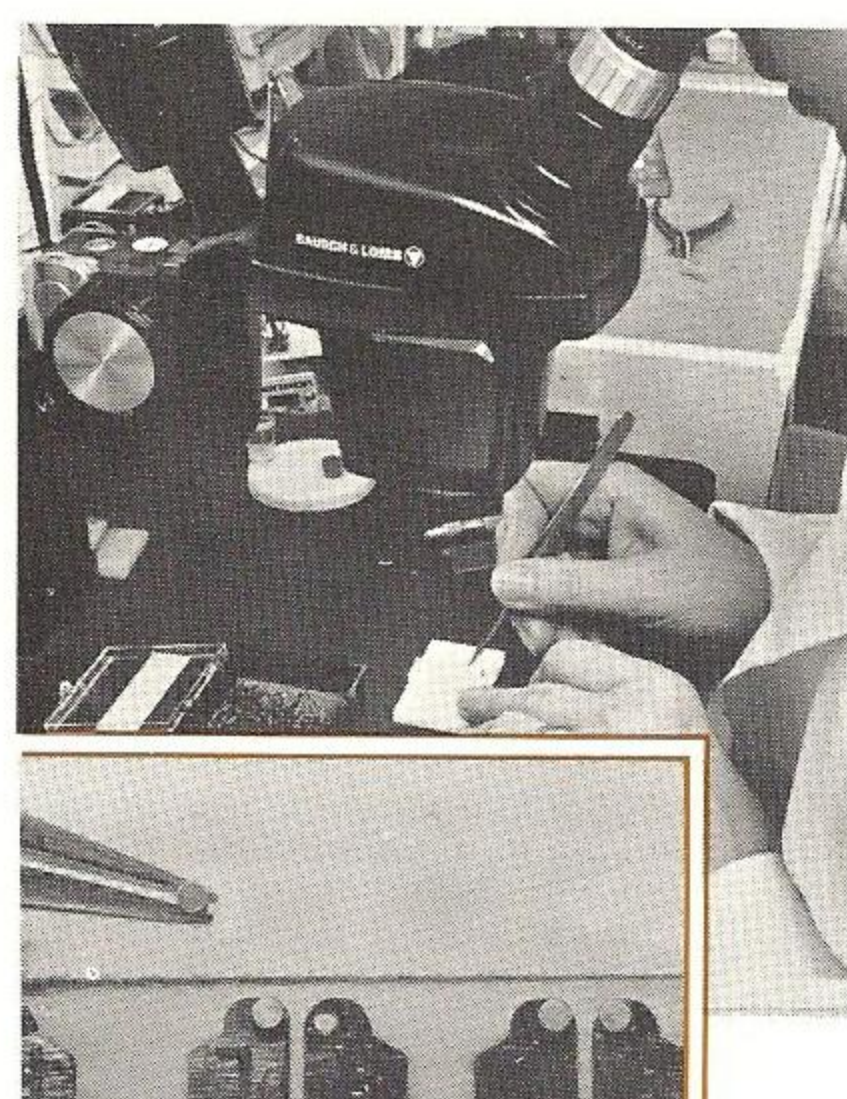
Micro-Acoustics' manufacturing philosophy is quite the opposite: when we design a cartridge, it is to meet *performance* goals. Not budgetary limitations. And the best way is to manufacture a hand-made, precision-crafted product. One that must be assembled under carefully-controlled conditions. Incorporating a number of critical steps which lead to the highest possible performance levels.



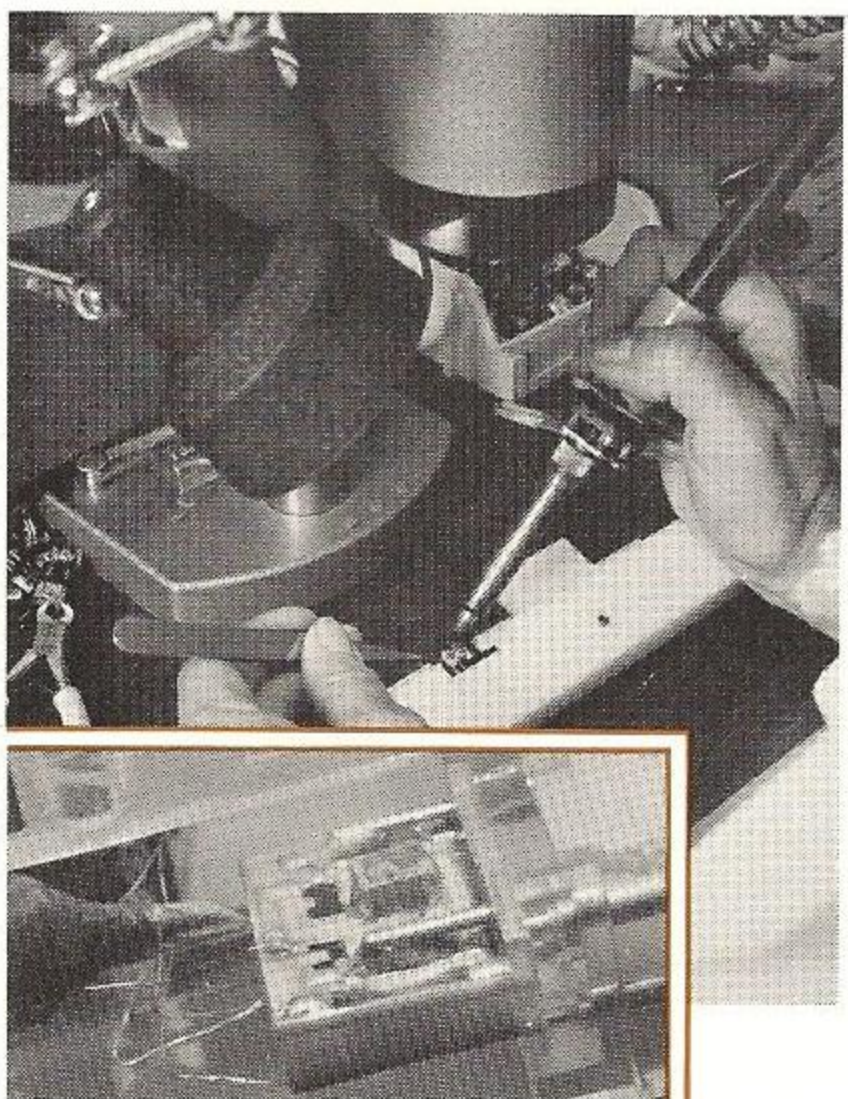
4. Microscopic soldering of transducer leads. Two pieces of pure gold wire are soldered to each electret transducer element (negative and positive poles). Thinner than a human hair, this pure gold wire is totally resistant to oxidation, for long, trouble-free cartridge life.



5. Matching of transducers. Electret transducers are measured for capacitance and sorted into matched pairs. This assures accurate channel balance.



6. Microscopic assembly of pivot dampers. Each transducing element is individually fitted with an elastomeric bearing in which the stylus coupler pivots. This twin independent pivot system assures maximum transient ability.



10. Microscopic assembly of microcircuits. Each cartridge has two individual passive microcircuits whose inputs are directly soldered to gold leads from transducers. These microcircuits assure perfect match with any phono cable-preamp input combination.



11. 100% quality control of all cartridges. All fully-assembled cartridges are individually played on a CBS STR-100 test record, monitored on a dual trace oscilloscope and measured with a VTVM.



12. All areas of cartridge performance are tested. Tests include frequency response, channel separation, output level, tracking and transient ability. Only cartridges that fully meet published specifications are serialized and placed in stock for shipment.

The result. The result of Micro-Acoustics' advanced design and precision manufacturing techniques is a sophisticated phono cartridge line that is non-critical to install and use. Cartridges that deliver maximum performance on manual and automatic turntables. Highly-acclaimed cartridges which work superbly, independent of cable capacity and preamplifier input loading.

High-reliability stereo cartridges, with a number of unique features:

1. Ultra-low body weight.

Weighs only a fraction of other manufacturers' high-end cartridges. Helps provide superior tracking of even severely-warped discs.

2. Mechanical dampers.

Configuration of 8 elastomeric damping blocks (only 3 shown in this view) achieves optimum transient ability while cartridge tracks the heaviest groove modulations at low stylus forces.

3. Low-mass stylus. Shaped and polished with the same care as our world-famous Micro-Point™ recording styli.

4. Ultra-lightweight stylus bar. For minimum effective tip mass.

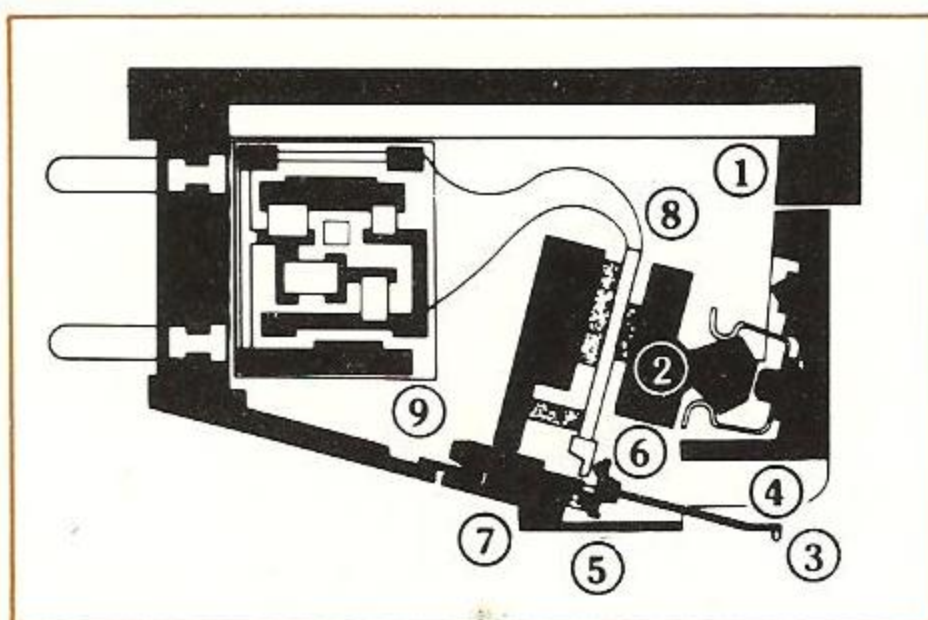
5. Twin pivot/dual bearing resolver. For optimum tracking ability and precise signal resolution. The resolver separates the complex stylus vibrations into left and right channels.

6. Direct coupling of stylus bar to electret. Coupling the stylus bar to the electrets at this point directly transmits the undulations of the groove to the transducers.

7. User-replaceable stylus assembly.

8. Electret transducer. A permanently-polarized dielectric device best described as a low-mass electrostatic equivalent of a magnet. It provides superior response because of inherent linearity from 5Hz to 50kHz.

9. Microcircuit. Passive circuit matches the electret transducer's characteristics to preamplifier phono inputs within 1%. Also, makes output purely resistive, eliminating effect of cable capacitance on frequency response. Resistive output also shunts preamp input, reducing thermal noise.



Specifications*	2002-e	282-e	530-mp
Stylus Configuration** (User replaceable)	.0002 x .0007 elliptical diamond beryllium cantilever	.0002 x .0007 elliptical diamond	Micro-Point™ diamond playback stylus, beryllium cantilever
Frequency Response	5Hz to 20kHz ± 1.5dB	5Hz to 20kHz ± 2dB	5Hz to 20kHz ± 1.25dB†
Tracking Force Range	0.7 to 1.4 grams	.75 to 1.5 grams	0.7 to 1.4 grams
Cartridge Weight	4 grams	5.2 grams	4 grams
Channel Separation	Nominally 30dB at 1kHz 15dB at 10kHz	Nominally 25dB at 1kHz 15dB at 10kHz	Nominally 30dB at 1kHz 15dB at 10kHz
Output Voltage	3.5 mv each channel at 5cm/sec peak recorded velocity	3.5 mv each channel at 5cm/sec peak recorded velocity	3.5 mv each channel at 5cm/sec peak recorded velocity
Load Requirements	10k to 100k (not critical)	10k to 100k (not critical)	10k to 100k (not critical)
Cable Capacity	100pF to 1,500pF (not critical)	100pF to 1,500pF (not critical)	100pF to 1,500pF (not critical)
Suggested List Price	\$119.00	\$89.00	\$200.00

*All measurements made with CBS STR-100 Test Record

**Like our Micro-Point™ recording styli, all Micro-Acoustics playback styli are light-beam oriented under a microscope for optimum relationship between stylus and cantilever.

†Each cartridge supplied with individual frequency response curve.

Warranty: Full 2 years (excluding stylus wear) on all models.

ma[®]
Micro-Acoustics
Because good tracking isn't enough.

Micro-Acoustics Corporation, 8 Westchester Plaza, Elmsford NY 10523, (914) 592-7627