Shah
Eye Care (P) Ltd
the winds of change...

Launches

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Redefining Accuracy

DISPOSABLE OPHTHALMIC MICRO SURGICAL KNIVES

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Redefining Accuracy

INDIA'S FIRST Ophthalmic Micro Surgical knives Manufactured Through fully automated, revolutionary

ELECTRO ETCHING / POLISHING TECHNOLOGY

&

Designed to give diamond like performance

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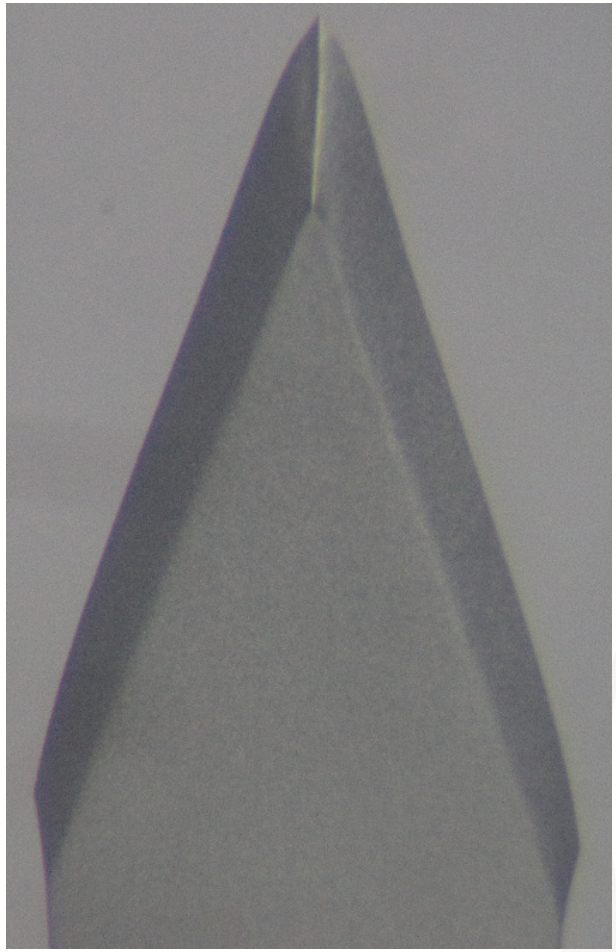
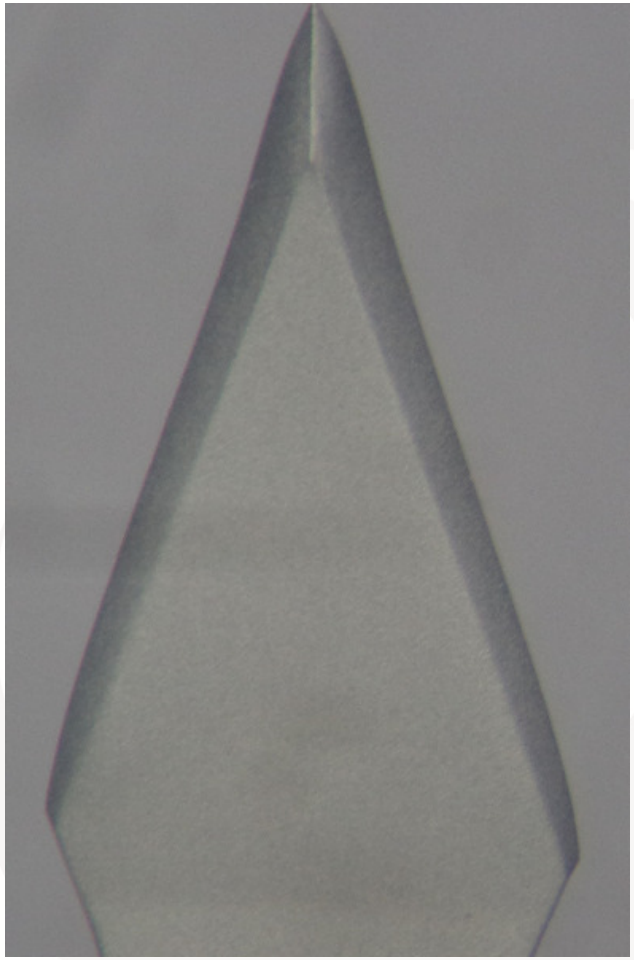
Keratome



2.2 MM SB Keratome



2.8 MM SB Keratome

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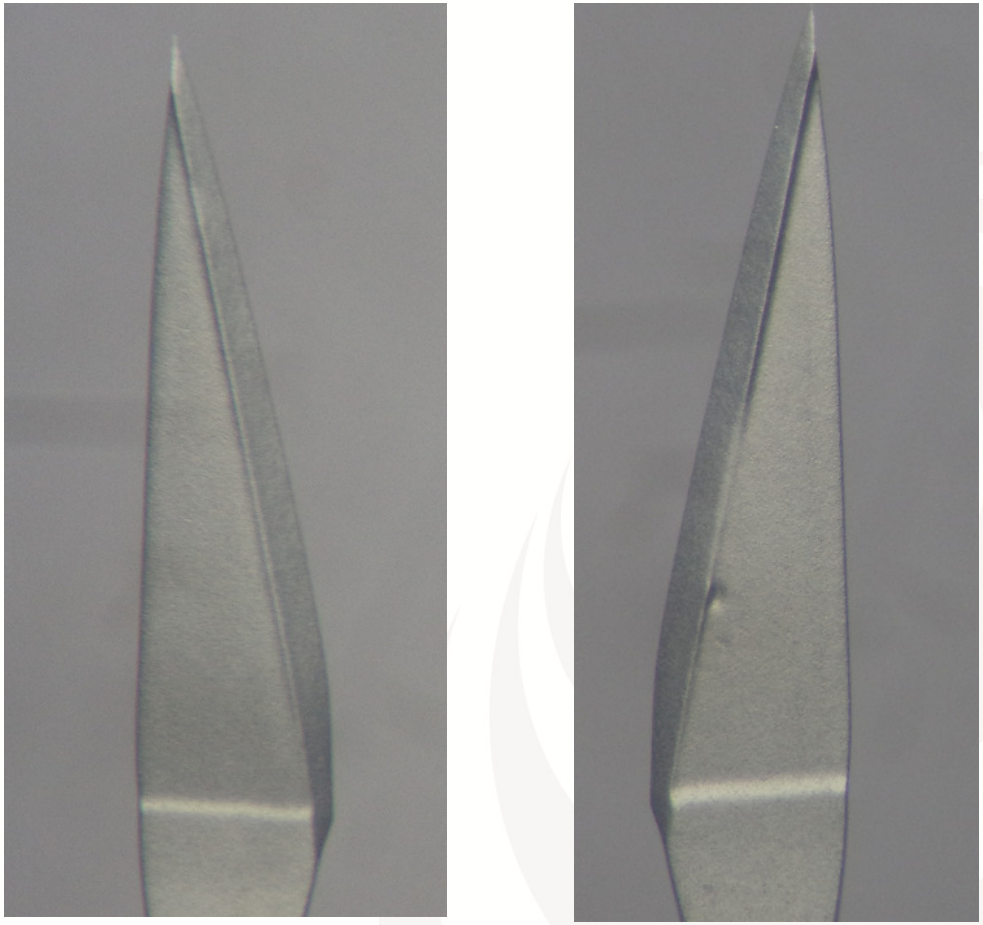
SIDE PORT 15 DEGREE



SIDE PORT 15 DEGREE

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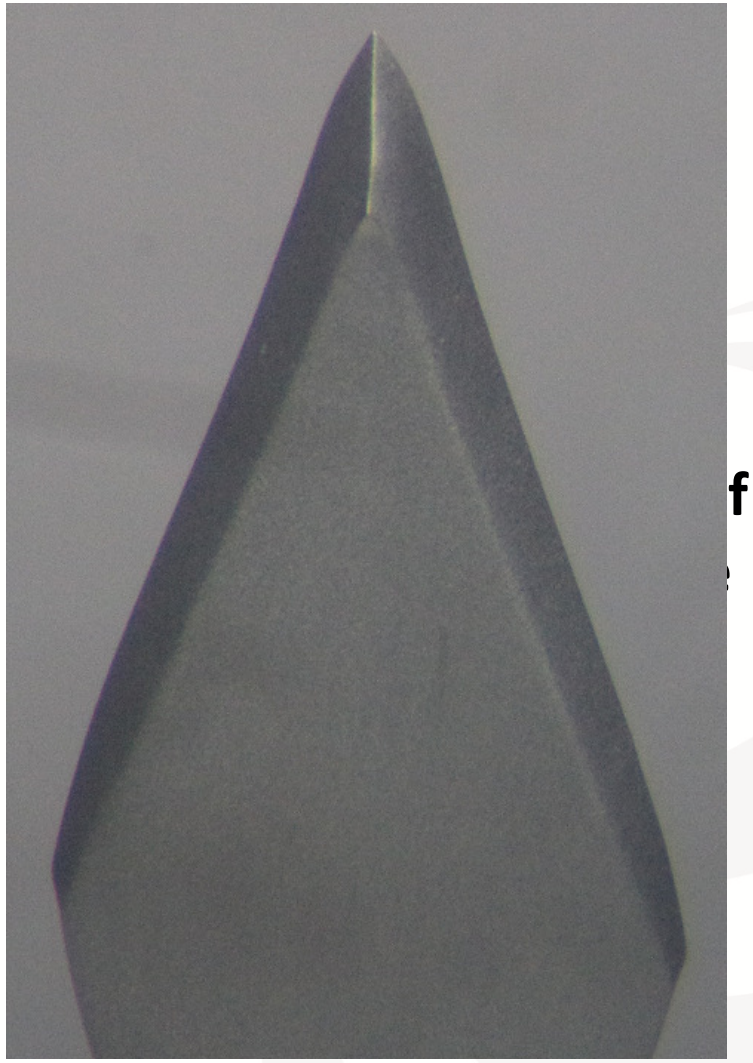
CLEAR CORNEA 2.8 MM SB



CLEAR CORNEA 2.8 MM SB

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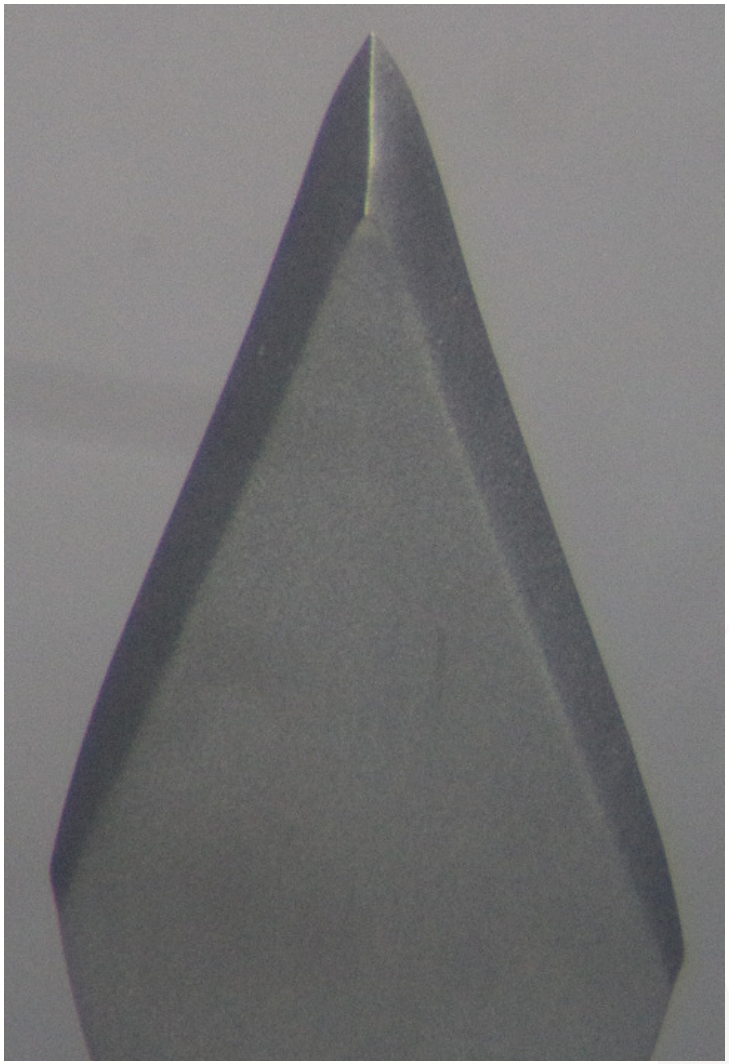

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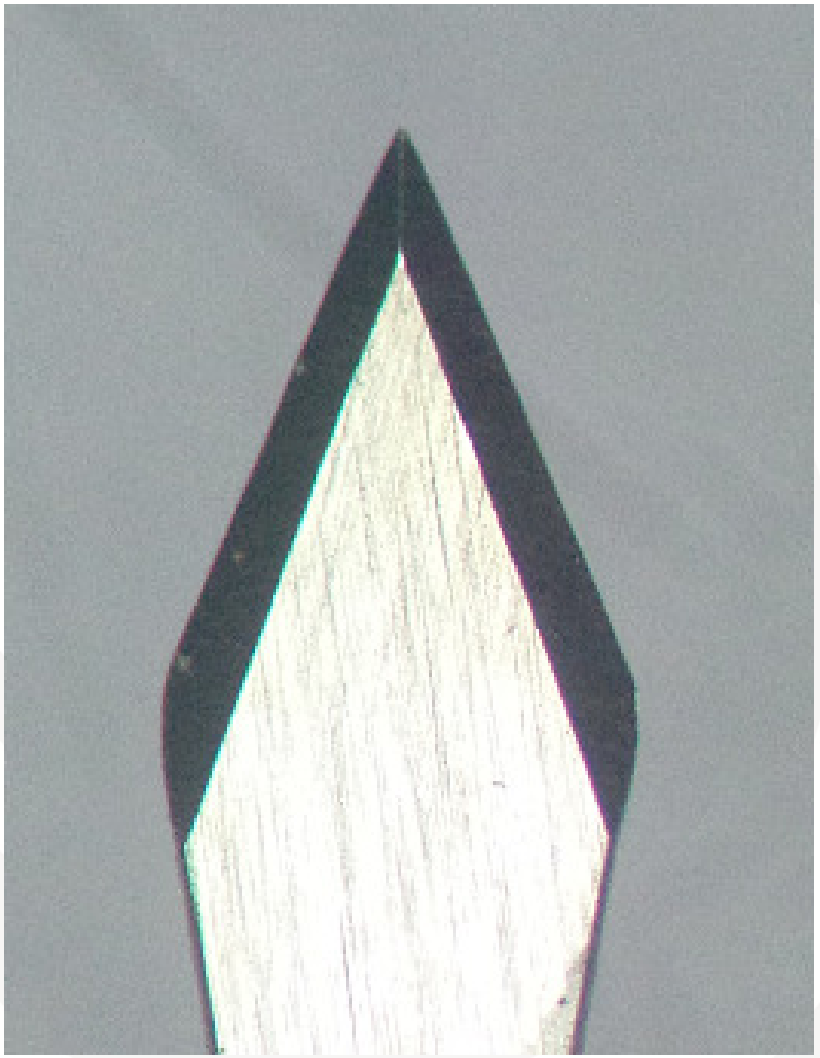

INDIAN BLADES

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Unique Features

Of

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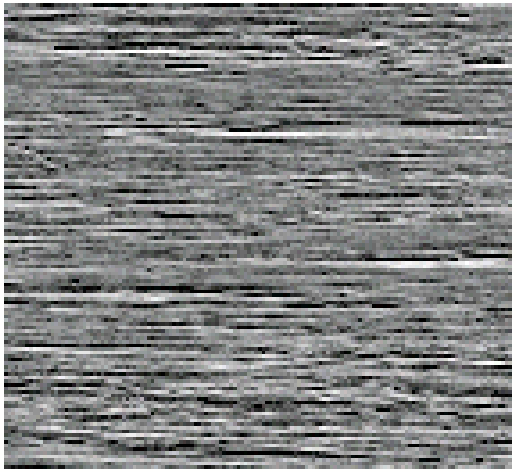
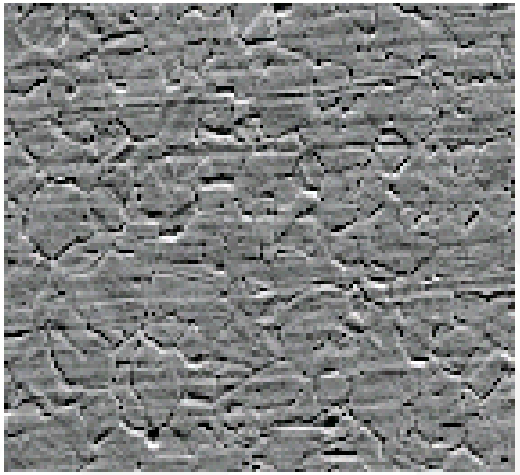
BASIC MATERIAL



ACUCUT DVM SS Material



Other brands steel

ACUCUT , uses a specially processed, Highly Purified, Special Stainless Steel to make the Blades which is hard and break resistant; whereas other blades are made with Single vacuum Melt Stainless steel.

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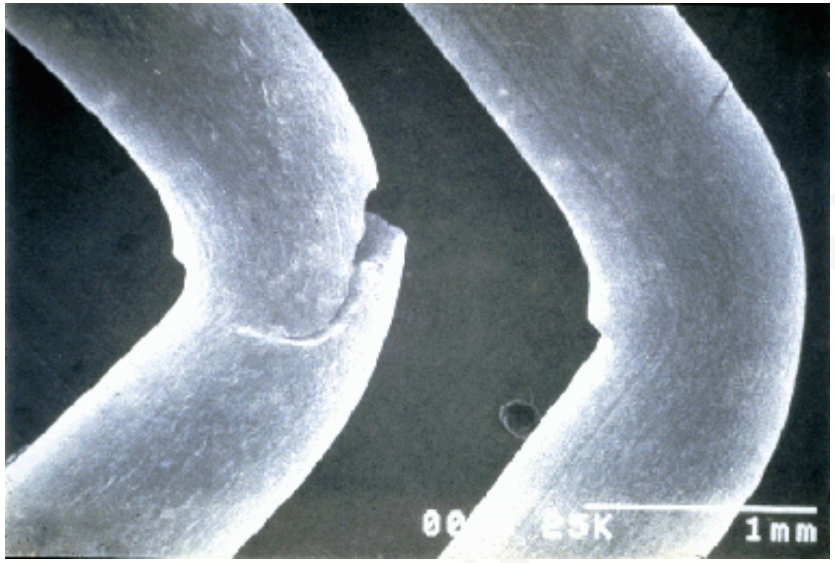
Heat Treatment



A Special Heat treatment & Tempering is done. The above picture shows the result of bending strength of ACUCUT (right) compared with an equivalent thickness of other brands steel (left). ACUCUT steel is hard and break resistance as proved.

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Advantage of Electropolishing

i. Improved Surface Finish:

Improved microfinishes can do more than improve the appearance of a part. Superior microfinishes can improve seals, lower friction, reduce real surface area, allow for easier sanitation, and improve heat and light reflection. chemical etching process provides an enhancement to the surface finish that is inherent in the process

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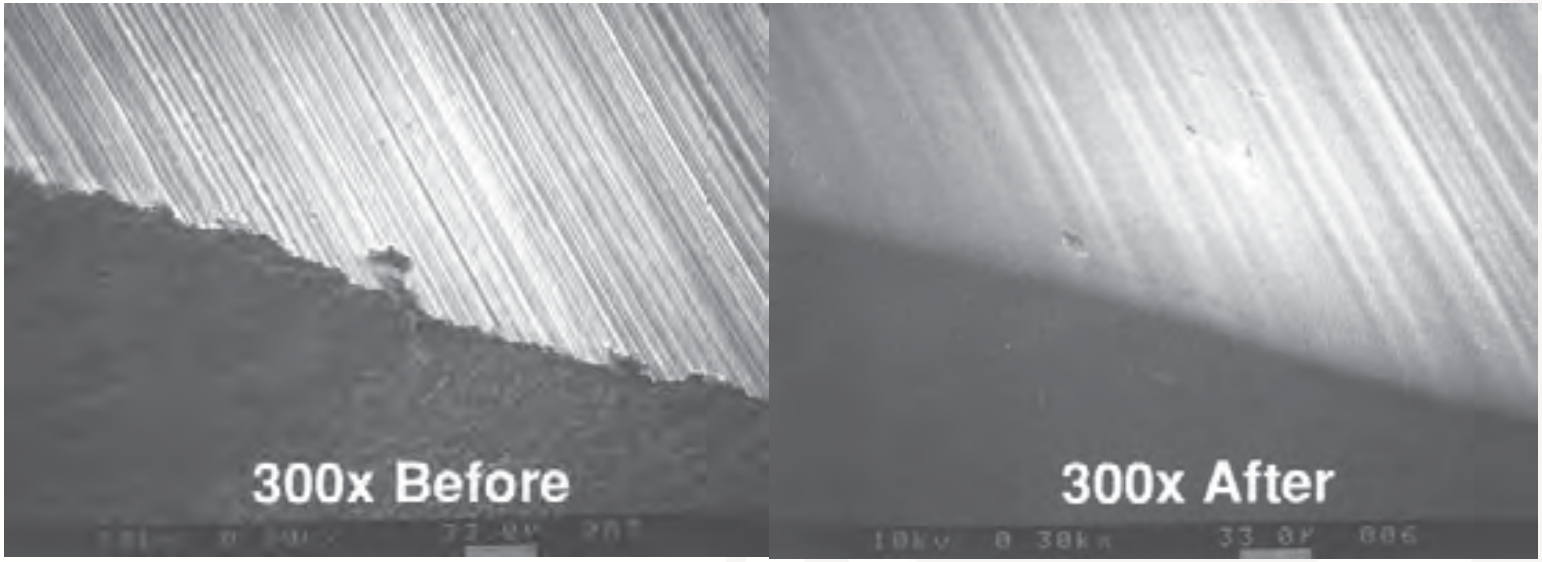
Advantage of Electropolishing

Edge as ground **Edge after electro polishing**



Knife cutting edge before and after electropolishing

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Advantage of Electropolishing

ii. Improved Corrosion Resistance:

Electropolishing improves the near surface chemistry of stainless steel. Not only does it remove embedded particles and inclusions, it also improves the atomic ratios of the materials alloying elements. This improved surface will form a thicker and more uniform oxide layer with enhanced corrosion resistance properties.

iii. Reduced Product Adhesion & Ease of Cleaning:

The improved micro finish produced by electro polishing can reduce product adhesion and contamination buildup. Electro polishing facilitates sterilization and maintenance of hygienically clean surfaces. Research by the USFDA has indicated that electro polishing reduces the buildup of bacterial biofilms.

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Advantage of Electropolishing

iv. Appearance:

The most striking benefit of electropolishing is the resulting lustrous surface. Electropolishing is a non-mechanical process. No tools come in contact with the piece so there is no risk of creating directional polishing lines. The material is treated electrochemically, leaving a microscopically smooth surface that is highly lustrous.

V. Replacement for Mechanical Finishing:

In the past 15 to 20 years electro polishing has been rediscovered as a replacement for mechanical finishing (grinding, honing, and lapping).

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Advantage of Electropolishing

VI. EP Process Results.

EP Process produces a structure that can be finished to ensure a

1. **consistently sharp,**
2. **precise cutting edge. As the process Is fully Automating**
3. **Consistent Repeatability**

VI. Performance Demand

Many advances it ophthalmic surgical procedures, and especially cataract surgery, occurred over the last 10-15 years. The process for removal of the hardened nucleolus of the lens by ultrasonic phaco emulsification and the invention of soft foldable replacement lenses required smaller incisions and "sutureless surgery" techniques. "Wound Architecture", the forming of precise incisions increased the performance demands placed on ophthalmic surgical knives.

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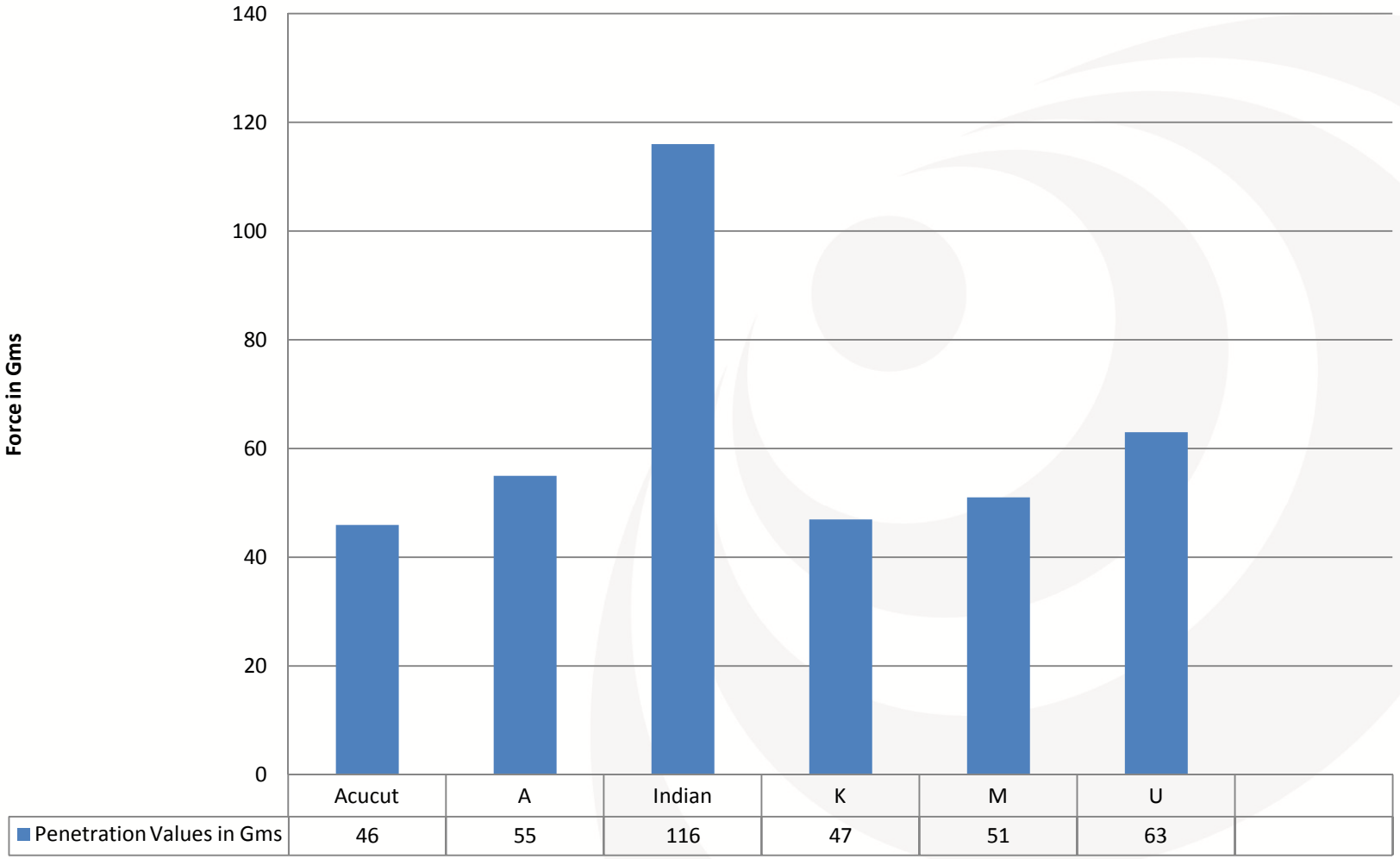
Redefining Accuracy

High Performance Sharpness Comparision

Penetration Values in Gms for 2.8 SB CC



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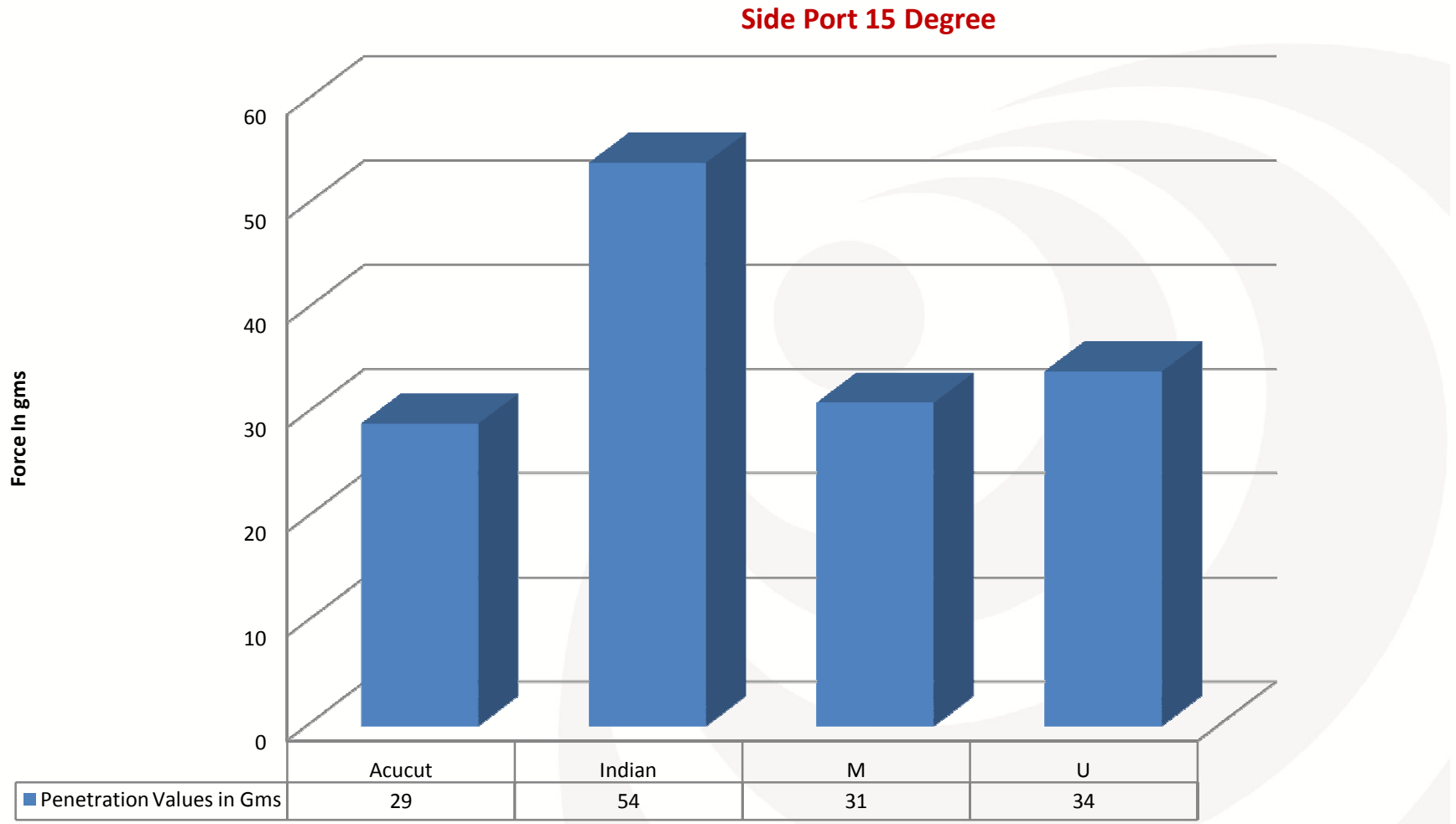
High Performance Sharpness Comparision



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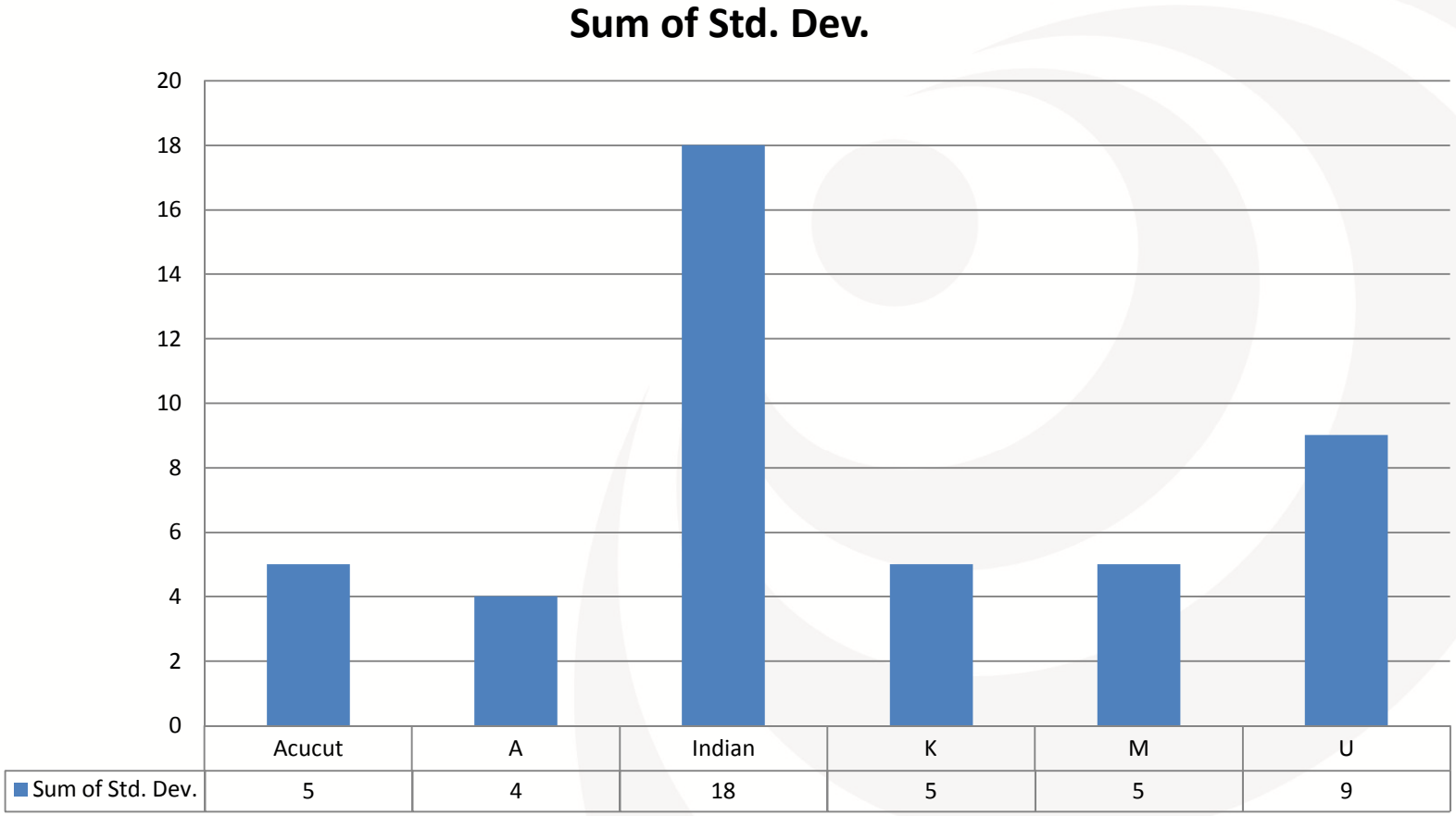
Exact consistency

Electropolish Technology's automated manufacturing minimizes operator handling to produce unparalleled consistency



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Redefining Accuracy

High Repeatability

•.It is Proved Fact that Electro Itching Process Gives More Strong Tip than Mechanical Grinding

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• Bcos of the Strong Tip, It Gives Best Results, when Used Repeatedly

• The sharpness Drops by 6 to 10 Gms After first Use , after which it give Consistently Same performance.

For Further details see Graph

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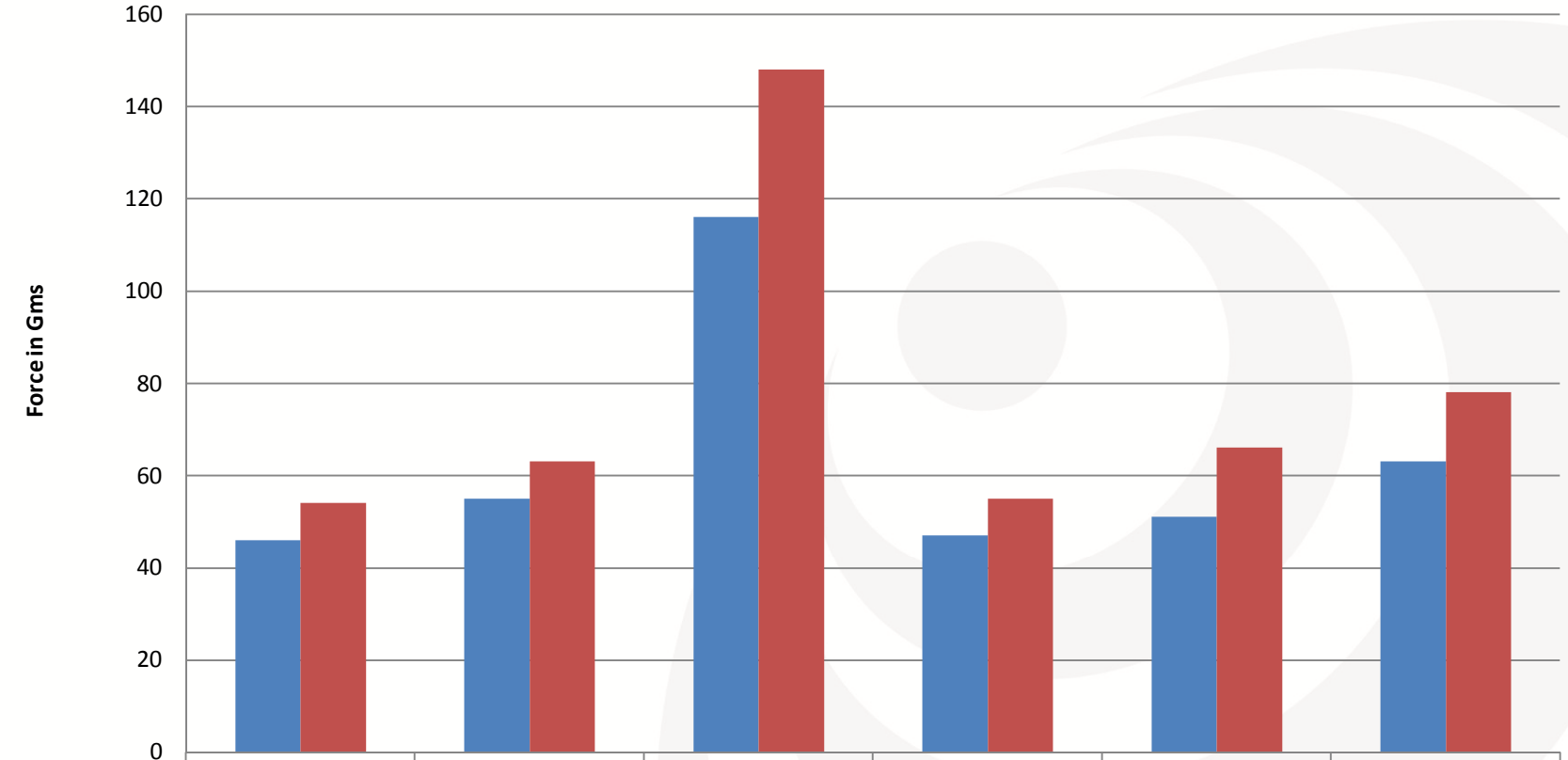
Redefining Accuracy

High Repeatability

Penetration Values in Grams for 2.8 SB CC



	Acucut	A	Indian	K	M	U
Repeatation 1	46	55	116	47	51	63
Repeatation 5	54	63	148	55	66	78

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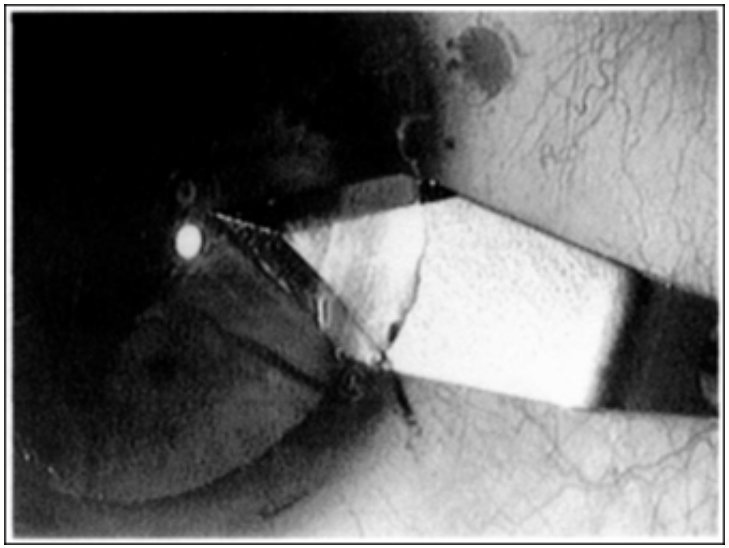
Cutting Comparison



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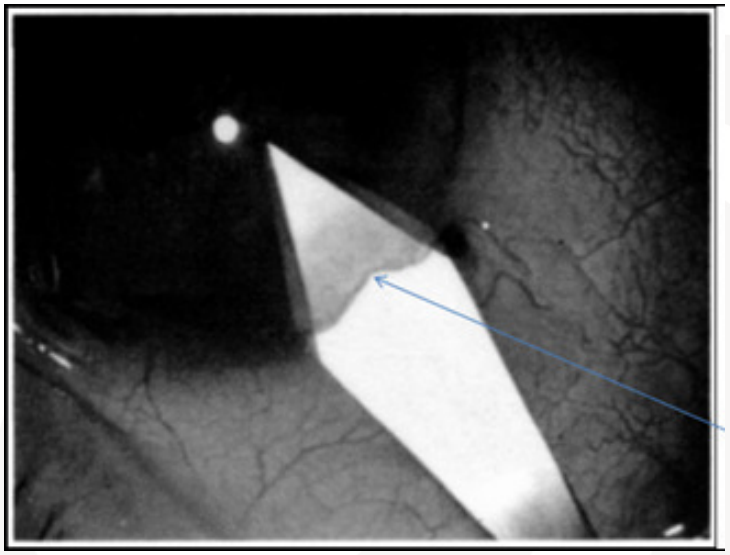
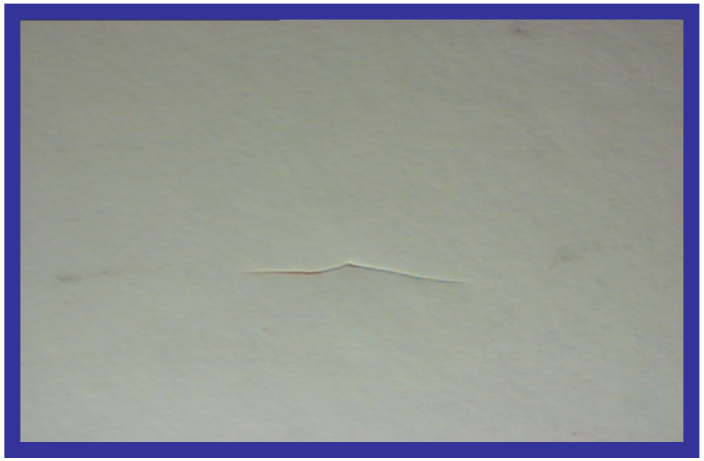


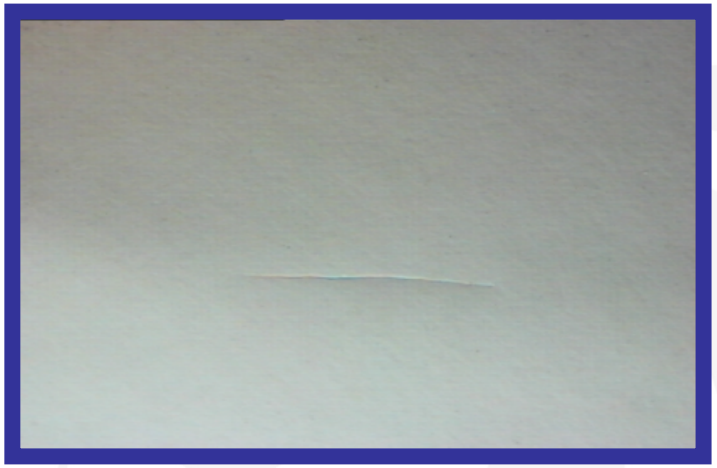
OTHERS

Redefining Accuracy

Cutting Comparison



OTHERS



ACUCUT

Achieve Tight Sealing Incisions For Chamber Balance With Acucut Double Bevel Knives

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Redefining Accuracy

Advantage of Good quality Blades

- EXACT Sharpness & Consistency
- High Performance
- High Repeatability
- Exact consistency
- Realize Minimum Induced Astigmatism
- Influence a Decrease in Wound Healing time
- Achieve Tight Sealing Incisions For Chamber balance
- Improved Micro Finish
- Improved Corrosion Resistant
- Meets Patient Performance Demand

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Redefining Accuracy

OTHER DEVELOPMENTS

•.THE BLADE BENDING IS DONE THRU. AUTOMATED COLD BENDING, NO CONTAMINATION ON THE LAYER GENERALLY CAUSED WHEN BENDING IS DONE THRU. HEAT.

.

• BLADES & HANDLE ASSEMBLY CURING IS DONE THRU. ULTRA VIOLET RAYS, WHICH MAKE SURE THE STRONG BONDING BETWWEN HANDLE & BLADE.

•THE FINAL PACKING WILL DONE IN CLASS 100000 CLEAN ROOM ENVIRONMENT.

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Penetration Test

Gage R&R Study	**ANOVA Gauge R&R (or ANOVA Gauge Repeatability & Reproducibility) is a Measurement Systems Analysis technique which uses Analysis of Variance (ANOVA) random effects model to assess a measurement system.** **The gage R&R measures the amount of variability induced in measurements by the measurement system itself, and compares it to the total variability observed to determine the viability of the measurement system.**

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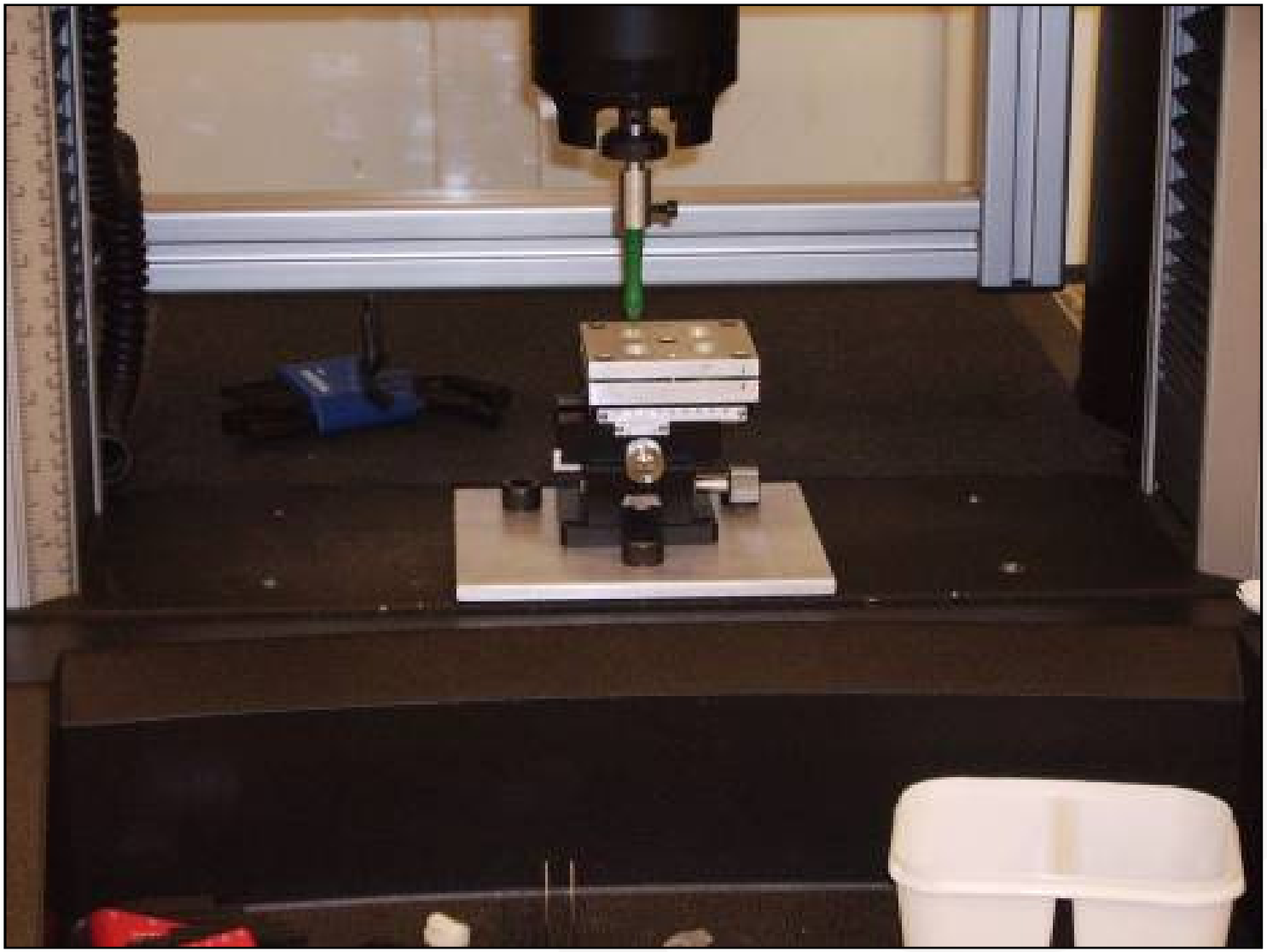
Penetration Test



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THANK YOU