**Horizontal Choppers**

**Nagahara Chopper: 2515 (90°), AE-2517 (60°), AE-2517L (60°, L-hand)**
- 60° sharp edge cuts in the same direction as the phaco handpiece
- 90° sharp edge cuts toward the side port

**Phaco Chopper: AE-2517A**
45° hook with 60° cutting edge

**Olson Chopper: AE-2527, AE-2527(L-hand)**
- 60° sharp edge cuts in the same direction as the phaco handpiece
- Rounded, blunt side protects the posterior capsule
- Groove on blunt side used to retract iris

**Koch-Minami Chopper: AE-2528**
- 60° sharp edge cuts in the same direction as the phaco handpiece
- Rounded, blunt side protects the posterior capsule
- Groove on blunt side used to retract iris

**Miyoshi Chopper: AE-2532**
- Designed to completely separate the posterior plate with minimal movement
- Smooth, rounded tip and shorter 1.25mm cutting edge will not damage posterior capsule

**Inamura Race Chopper: AE-2534**
- Designed to rotate the nucleus in a counter-clockwise direction
- Angled tip used to elevate the nucleus away from the posterior capsule toward the phaco tip

*Today's Precision...Tomorrow's Vision®*
**Horizontal Choppers**

“The Nagahara-Ahn Chopper has a slight modification to the popular Nagahara Chopper allowing the surgeon to better engage the iris in cases of floppy iris syndrome for both protection and exposure.”

Charles Ahn, MD  
Downers Grove, Illinois

**Nagahara-Ahn Small Pupil Chopper: AE-2544**
- Modified Nagahara Chopper with shorter, 1.25mm inner cutting-edge for small pupils or floppy iris syndrome
- Notch on the blunt side used to retract pupil or iris

**Minami M Hook: AE-2523**
- Chopper, splitter, dissector, pupil or floppy iris syndrome
- Tip used for dividing and manipulating nucleus material from all directions in the capsule

**Asami Chopper: AE-2575**
- This chopper can be used as Chopper and Divider
- Features 1.5mm tip

**Crandall-Nagahara Chopper: AE-2576**
- Features a 60 Degrees inside cutting edge
- Unique 110 Degrees angled tip allows better visibility during phacoemulsification

**Asami Chopper II: AE-2577**
- This chopper can be used as Chopper and Divider
- Shorter tip allows easy manipulation of nucleus

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**Today's Precision...Tomorrow's Vision**
**Horizontal Choppers**

**Rosen Phaco Splitter: AE-2578**
- Wedge shaped inferior edge with blunt tip

**Crandall Chopper: AE-2579**
- Rounded, blunt, olive-tip and offset inferior wedge

**Vertical Choppers**

**Nagahara Karate Chopper: AE-2529**
- Designed for nuclei grades 3+
- Spear tip with internal cutting edge easily cracks and divides the nucleus into quadrants prior to phacoemulsification

**Nagahara Quick Chopper: AE-2533**
- Broad tip facilitates efficient chopping prior to and during phacoemulsification

**Lane Quick Chopper: AE-2537**
- Broad “axe” tip easily chops both hard and soft nuclei in a controlled manner
- Thin sides can act as a horizontal chopper after initial penetration

**Fonseka Chopper: AE-2572**
- Unique tip features a groove which allows to chop, pivot and penetrate dense nuclei (grades 3-5)
- Works as both a vertical and horizontal chopper and the notch at the front of the chopper can be used to retract small pupils
Double Ended Choppers

Lieberman Microfinger: AE-2518
• "Microfinger" stabilizes, positions, retracts, and lifts the entire lens away from the posterior capsule
• Iris spatula can be used to manipulate throughout surgery

Nagahara Chopper & Koch Spatula: AE-2520
• 60° Nagahara on one end to chop towards phaco handpiece
• Koch spatula pushes, lifts, rotates, and dissects

Friedman Chopper & Koch Spatula: AE-2524
• Double-cutting surface on chopper for efficient chopping
• Koch spatula pushes, lifts, rotates, and dissects

Lubeck Chopper & Sustainer: AE-2546
• 60° Nagahara on one end to chop towards phaco handpiece
• Akahoshi sustainer on the other end to rotate and manipulate the lens

Chang Combo Chopper: AE-2573
• Sharp vertical tip ideal for incising brunescent nuclei
• Modified "Microfinger" for chopping

Choppers for Every Technique
Double Ended Choppers

Aguilar Chopper: AE-2571
• Can be used for soft and hard nucleus

Espiritu-Caparas Chopper: AE-2574
• Verges-style horizontal chopper on one end
• 0.8mm spatula on other end

Femtosecond Choppers

Slade Femtosecond Ball Chopper: AE-2324
• The ball chopper provides an ideal way to chop the femtochopped nucleus
• The shaft is curved to precisely clear the surface of the nucleus for maximum efficiency
• The ball tip can easily slip segments as well

Nagy Femto Chopper: AE-2559
• Nagy chopper allows to crack the nucleus along the fragmentation lines created by laser