
# EXPERIENCE ALCON'S MOST ADVANCED GRAVITY PHACO SYSTEM*

**The Centurion® Silver System** with OZil® Torsional Technology puts the power of intelligent phaco in your hands.

*Comparison with the Stellaris® PC (Bausch&Lomb), WHITESTAR SIGNATURE® (AMO), EVA™ (DORC).

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# Alcon's Most Advanced Gravity-Fluidics System[1]

## Improved gravity fluidics yields enhanced chamber stability*,[1]

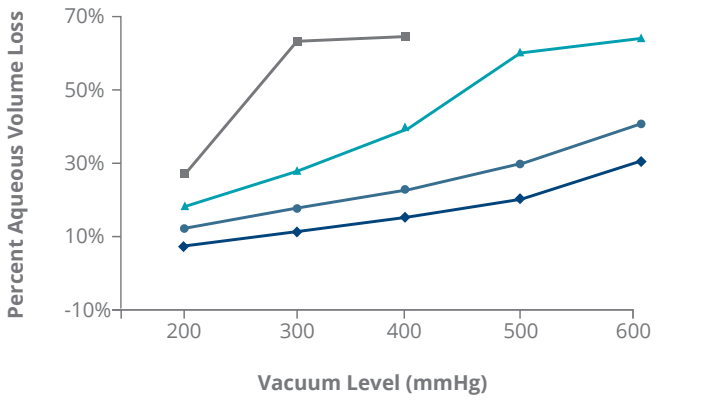
By leveraging the Centurion® technology, the gravity fluidics of Centurion® Silver System increases focus and control in the OR through:

- Enhanced surge protection and chamber stability*,[1]
- Enhanced ergonomics with improved flexible tubing*,**,[2]
- Improved vacuum sensing and fluid venting**,[2]

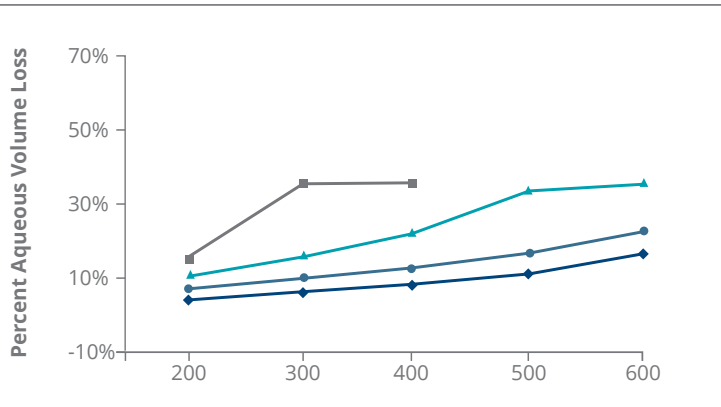
When tested against other phaco systems, Centurion® has the **lowest post-occlusion break surge volume in both phakic and aphakic eyes.**[1]

**Centurion® had the lowest surge response across all vacuum limits.**[1]

### Phakic Eye Testing-Mechanical Eye Model[1]




### Aphakic Eye Testing-Mechanical Eye Model[1]




*Comparison with the Stellaris® PC (Bausch&Lomb), WHITESTAR SIGNATURE® (AMO), EVA™ (DORC).

**Refer to the Centurion® Silver System User Manual.

# Centurion® Energy Delivery

## Optimized torsional phaco for a smooth and efficient procedure

The Centurion® Silver System features advanced fluidics that work with OZil® and INTREPID® BALANCED Tip technology to optimize efficiency and control.

### Reduced repulsion

The OZil® Torsional Handpiece uses unique, side-to-side shearing for enhanced energy delivery and to reduce the repulsion associated with the jackhammer effect of traditional longitudinal ultrasound.[3-5]

### Enhanced torsional efficiency compared with Kelman Tip***[,6,7]

The INTREPID® BALANCED Tip proprietary technology supports enhanced cataract removal efficiency by:

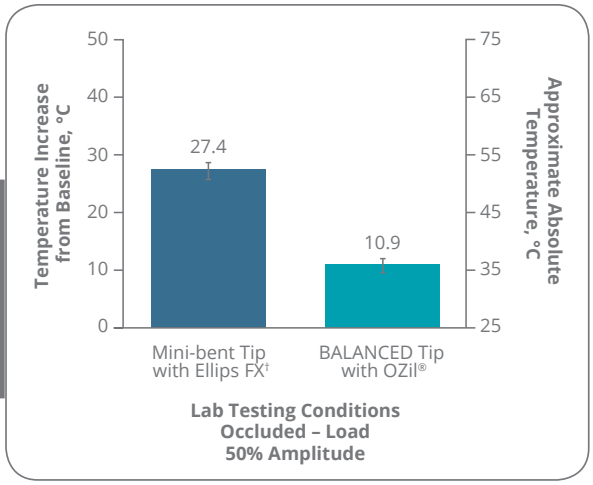
- Enhancing torsional tip movement at the distal end***[,7,8]
- Reducing tip movement at the incision[7,8]

### Reduced heat transfer***[,9]

OZil® and INTREPID® BALANCED Tip technology combine to deliver reduced heat transfer to the eye** for enhanced thermal safety.[9]

**Designed for improved thermal safety, OZil® technology has 60% less temperature rise.[9,10]**

### Temperature Rise Under Occlusion & Load[9,10]




# Intuitive User Experience**

To streamline information sharing in the OR, the high-tech, graphical user interface features:

- Articulating flat screen
- Active matrix color LCD
- Touch screen
- Global footswitch wired for a controlled procedure, including irrigation flow, aspiration rate and phaco handpiece power

***Comparison with Alcon 45 Degree Mini Flared Kelman Tip.

# Experience Alcon's Most Advanced Gravity Phaco System*,[1]

| Alcon's most advanced gravity-fluidics system* | Centurion® Energy Delivery | Intuitive user experience** |
|---|---|---|
| • **Enhanced surge protection and chamber stability***,[1]<br>- Less surge at any tested vacuum level<br>• **Enhanced ergonomics with improved flexible tubing****,[2]<br>• **Improved vacuum sensing and fluid venting****,[2] | • **Reduced repulsion**[3-5]<br>- Unique, side-to-side shearing eliminates the repulsion associated with traditional longitudinal ultrasound[3,4]<br>• **Enhanced torsional efficiency*****,[6,7]<br>- INTREPID® BALANCED Tip is designed to maximize cataract removal efficiency<br>• **Reduced heat transfer*****,[9]<br>- 60% less temperature rise in the eye | • **Streamlined information sharing via high-tech, graphical user interface** |


## The Centurion® Vision System and Centurion® Silver System share industry-leading phaco technology.

| | Fluidic Management System | OZil® Technology | Cataract Refractive Suite Integration | Foot Pedal |
|---|---|---|---|---|
| Centurion® VISION SYSTEM | Active Fluidics™ Gravity Fluidics | ✓ | ✓ | Wireless |
| Centurion® SILVER SYSTEM | Gravity Fluidics | ✓ | | Wired |

## Contact your Alcon representative to schedule a demonstration and experience the Centurion® Silver System for yourself.

*Comparison with the Stellaris® PC (Bausch&Lomb), WHITESTAR SIGNATURE® (AMO), EVA™ (DORC).

**Refer to the Centurion® Silver System User Manual.

***Comparison with Alcon 45 Degree Mini Flared Kelman Tip.

1. Aravena C, Dyk D, Thorne A, Fanney D, Miller K. Percent aqueous volume loss associated with post occlusion break surge in 4 phacoemulsification systems. ASCRS-ASOA Symposium and Congress; May 5-10, 2016; New Orleans, LA. 2. Arbisser L. Evaluation of low-surge fluidic system. ASCRS-ASOA Symposium and Congress; May 25-29, 2011; San Diego, CA. 3. Fernández de Castro LE, Dimalanta RC, Solomon KD. Bead-flow pattern: quantitation of fluid movement during torsional and longitudinal phacoemulsification. *J Cataract Refract Surg.* 2010;36(6):1018-1023. 4. Cionni R. Comparison of nuclear material chatter: longitudinal versus torsional phacoemulsification. Paper presented at: ASCRS Symposium on Cataract, IOL and Refractive Surgery; April 30, 2007; San Diego, CA. 5. Vasavada AR, et al. Comparison of torsional and microburst longitudinal phacoemulsification: a prospective, randomized, masked clinical trial. *Ophthalmic Surg Lasers Imaging.* 2010;41(1):109-114. 6. Rekas M, et al. Comparison of torsional and longitudinal modes using phacoemulsification parameters. *J Cataract Refract Surg.* 2009;35(10):1719-1724. 7. Khokhar S, Aron N, Sen S, Pillay G, Agarwal E. Effect of balanced phacoemulsification tip on the outcomes of torsional phacoemulsification using an active-fluidics system. *J Cataract Refract Surg.* 2017;43(1):22-28. 8. Zacharías J. Qualitative and quantitative analyses of stroke dynamics and microfluidics of phacoemulsification probes operating in different modes. *J Cataract Refract Surg.* 2016;42(5):772-779. 9. Zacharías J. Thermal characterization of phacoemulsification probes operated in axial and torsional modes. *J Cataract Refract Surg.* 2015;41(1):208-216. 10. Zacharías J. Comparative thermal characterization of phacoemulsification probes operated in elliptical, torsional and longitudinal ultrasound modalities. ASCRS-ASOA Symposium and Congress; April 25-29, 2014; Boston, MA.

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