

# **STAG Clinical Benefits**

Making Whiteside's Line more accurate and reliable



## **E**enztec

## The Sulcus Line Trochlear Alignment Guide (STAG) helps reduce femoral component malrotation by improving the accuracy of Whiteside's Line.

Femoral malrotation is one of the most common technical problems leading to patient dissatisfaction and early component failure<sup>1,2</sup>.

#### STAG IMPROVES ACCURACY AND REDUCES ERRORS

### Proven to improve the accuracy of femoral component rotation

Femoral component malrotation, greater than 3°, is reduced from 43%, using the traditional Whiteside's Line technique<sup>3</sup>, to 19% using STAG alone<sup>4</sup> and to 2% by combining STAG and the posterior condylar axis<sup>4</sup>.



# Removes errors caused by anatomical variation in the coronal alignment of the trochlear groove

Much of the variation in Whiteside's Line is due to a geometrical error in the way we look at the line. Variations in the coronal orientation of the trochlear groove are not compensated for when measuring the rotational alignment. This type of parallax error is hard to visualize and difficult to correct without STAG.

#### IT'S A FAST AND EASY TO USE, COST-EFFECTIVE, REUSABLE INSTRUMENT

STAG takes less than 30 seconds to use

### Allows easy and accurate comparison to other landmarks and techniques

Posterior condyles, epicondyles and gap balancing are easily compared.

#### STAG WORKS WITH ALL OTHER INSTRUMENTS AND TECHNIQUES

#### Can be used with any knee component

STAG can be used with any brand of implant as it is simply a more accurate way of identifying the landmark before any of the bone cuts are made. Once identified, the surgeon can use that information with any type of femoral component.

### Can be used with conventional instruments and computer navigation



#### REFERENCES

- Kim Y-H, Park J-W, Kim J-S, Park S-D. The relationship between the survival of total knee arthroplasty and postoperative coronal, sagittal and rotational alignment of knee prosthesis. Int Orthop. 2014;38(2):379-85.
- Bell SW, Young P, Drury C, Smith J, Anthony I, Jones B, et al. Component rotational alignment in unexplained painful primary total knee arthroplasty. The Knee. 2014;21(1):272-7.
- Talbot S, Dimitriou P, Radic R, Zordan R, Bartlett J. The sulcus line of the trochlear groove is more accurate than Whiteside's Line in determining femoral component rotation. Knee Surg Sports Traumatol Arthrosc. 2015;23(11):3306-16.
- Chao TW, Geraghty L, Dimitriou P, Talbot S. Averaging rotational landmarks during total knee arthroplasty reduces component malrotation caused by femoral asymmetry. J Orthop Surg. 2017;12(1):74.