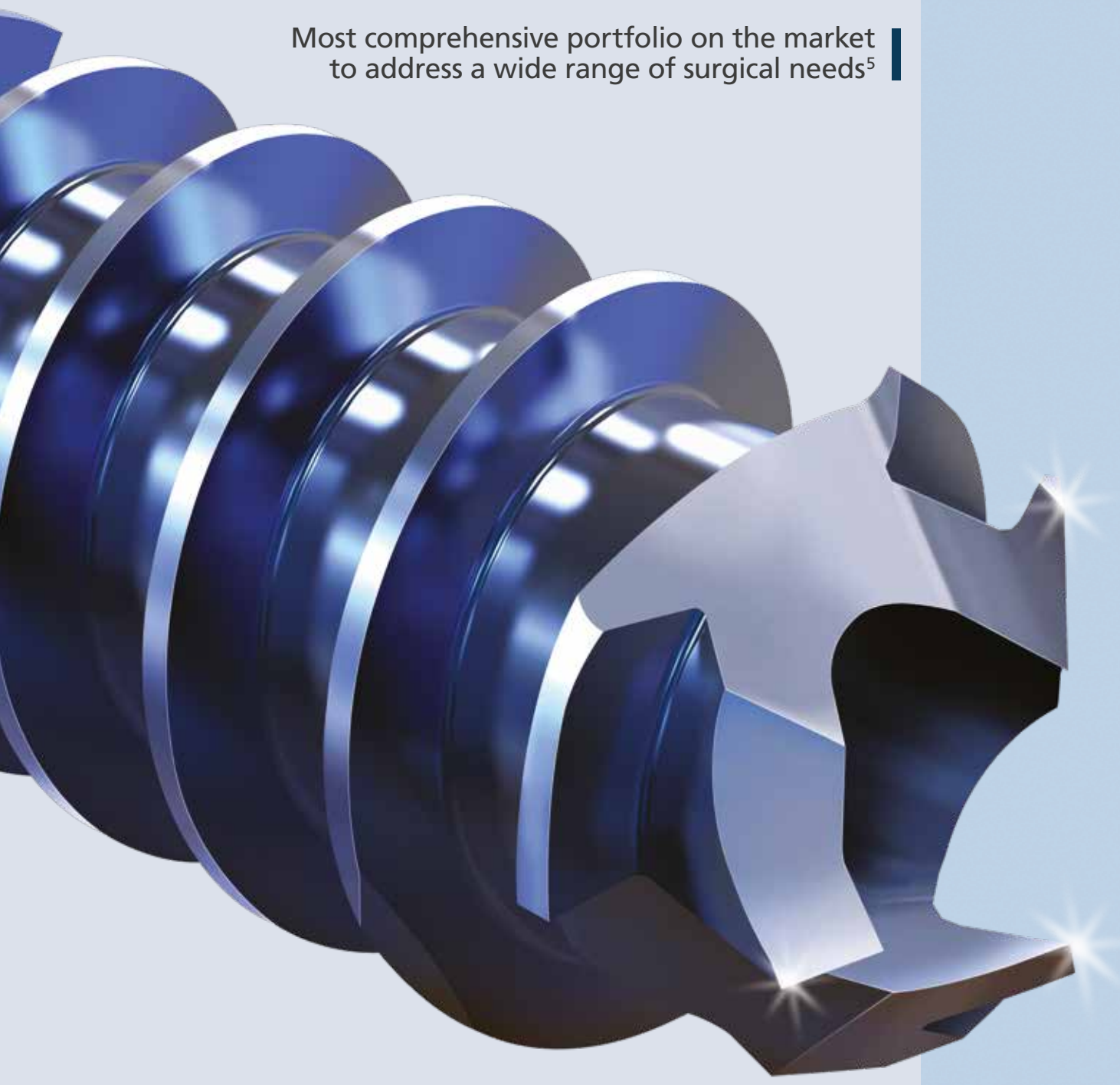


# CCHS OFFERS SURGEONS UNCOMPROMISED PRECISION THROUGH

- Innovative cutting edge for improved cutting efficiency<sup>2-4</sup> |
- Cobalt Chrome Guide Wire for less deflection<sup>1</sup> |
- Most comprehensive portfolio on the market to address a wide range of surgical needs<sup>5</sup> |



## CCHS INSTRUMENTATION AND IMPLANT OVERVIEW

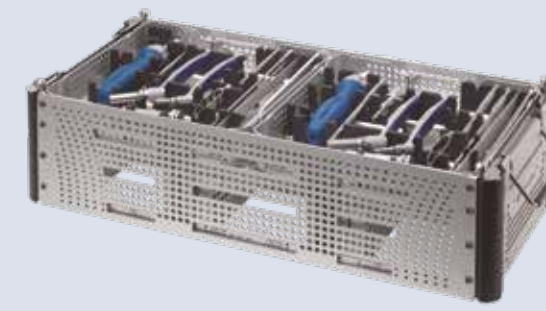
Screw Diameter (mm)	2.0	2.5	3.0	3.5	4.0	4.5	5.5	6.5	7.5
Guide Wire (Ø/L)	0.8/L 100 mm	1.1/L 150 mm		1.4/L 150 mm		1.6/L 220 mm		2.8/L 220 mm	
Cannulated Drill Bit Ø	1.6 mm	2.0 mm		2.7 mm		3.0 mm		5.0 mm	
Drill Guide Ø	0.8/1.6 mm	1.1/2.0 mm		1.4/2.7 mm		1.6/3.0 mm		2.8/5.0 mm	
Cannulated Screwdriver	T6	T8		T15				T30	
Handle	Small Handle With Jewelers Cap (Standard AO)			Large Ratcheting Handle (Standard AO)				Large Ratcheting Handle (Large Quick Coupling)	
Short Thread	Screw Length	10-30 mm (2 mm increments)	10-40 mm (2 mm increments)		14-50 mm (2 mm increments)	14-60 mm (2 mm increments)	20-50 mm (2 mm increments) 55-110 mm (5 mm increments)		30-130 mm (5 mm increments) 30-140 mm (5 mm increments)
	Thread Length	4-8 mm	4-10 mm		4-13 mm	5-15 mm	8-28 mm		16 mm
Long Thread	Screw Length	20-30 mm (2 mm increments)	20-40 mm (2 mm increments)		24-50 mm (2 mm increments)	24-60 mm (2 mm increments)	30-50 mm (2 mm increments) 55-110 mm (5 mm increments)		45-130 mm (5 mm increments) 45-140 mm (5 mm increments)
	Thread Length	8-12 mm	8-16 mm		10-20 mm	10-24 mm	12-44 mm		32 mm

Instrument sets are designed to be modular for optimal flexibility<sup>2</sup>



### Small Set (2.0-4.0 Instruments and Implants)

- Instrument and Implant Set - Flex Small with QIS (01.333.001)
- Upgrade Implant Set - Small (01.333.002)
- Instrument and Implant Set - Flex Small (01.333.101)



### Large Set (4.5-7.5 Instruments and Implants)

- Instrument and Implant Set - Flex Large (01.333.003)
- Upgrade Implant Set - Large (01.333.004)

**References:** 1. DePuy Synthes CCHS Engineering Rationale 0000286734, 2019. 2. DePuy Synthes: CCHS Screw Cutting Performance Test 0000288513, 2019. Bench testing may not be indicative of clinical performance. Axial load of 15 samples of small screw types and 6 samples of large screw types were measured. Percentage comparisons between CCHS and competitive screws are based upon observed mean axial loads from testing. Superiority is based on a 99% observed confidence. 3. DePuy Synthes Patent Application: Angled Flutes in Cannulated Bone Screws. 2018/0303529 A1. 4. DePuy Synthes Guide Wire Stiffness Memo 0000287828, 2019. CoCr Guide Wire compared to SS Guide Wire of same diameter. 5. DePuy Synthes Market Analysis 0000286547, 2019. Research was performed (June 2019) comparing cannulated headless screw offerings among all main competitors who offer this product line. Main competitors were defined based on market report Medtech 360 Trauma Devices Market Analysis US (2018). Most comprehensive is defined as the widest range of portfolio of available cannulated headless screw diameters currently marketed. 6. DePuy Synthes QIS Engineering Rationale 0000286995, 2019.

Please also refer to the package insert(s) or other labeling associated with the devices identified in this brochure for additional information.

CAUTION: Federal Law restricts these devices to sale by or on the order of a physician.

Some devices listed in this brochure may not have been licensed in accordance with Canadian law and may not be for sale in Canada.

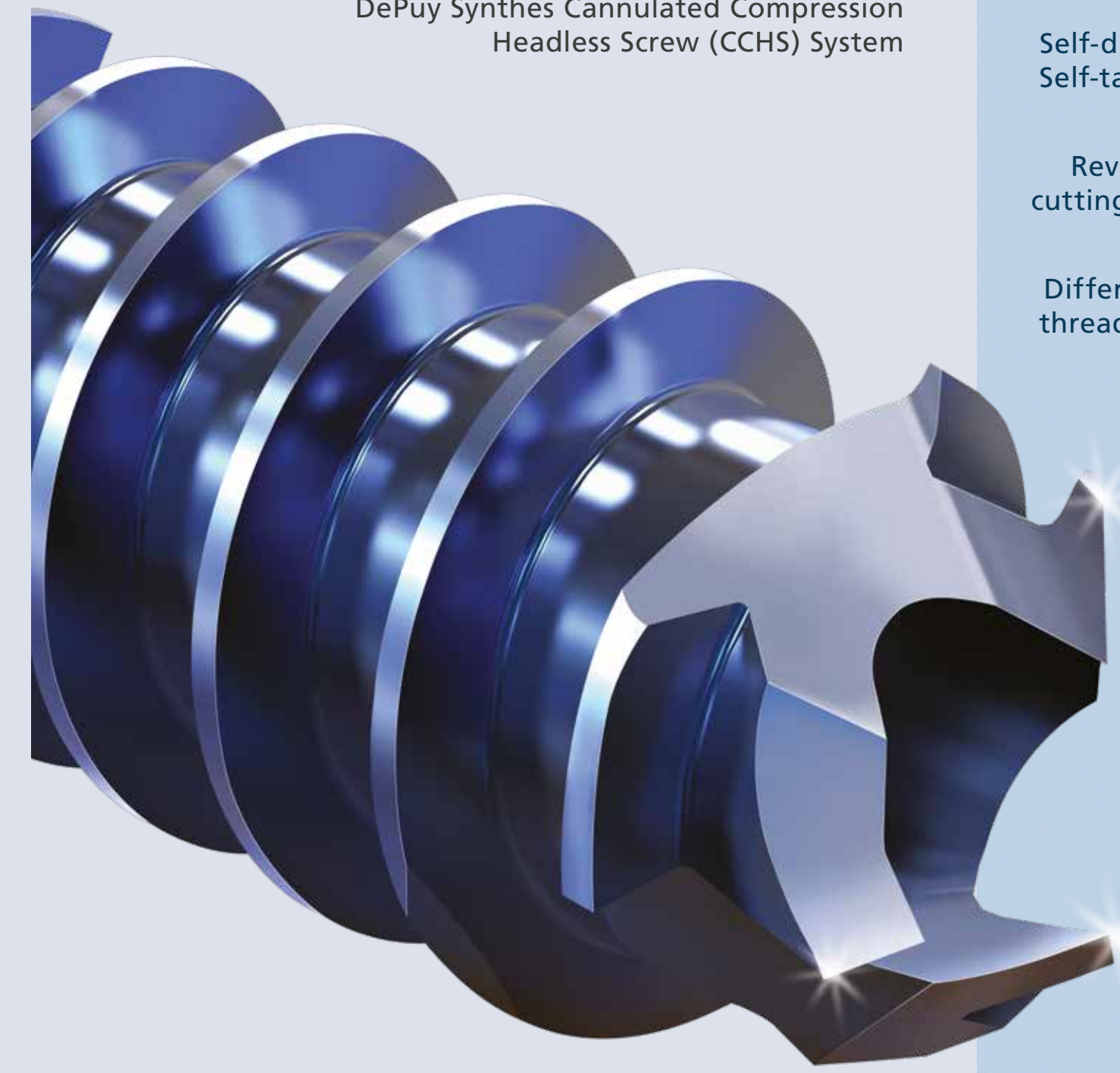
Please contact your sales consultant for items approved for sale in Canada.

Not all products may currently be available in all markets.

# THE CUTTING EDGE IN SCREW TECHNOLOGY

FOR UNCOMPROMISED PRECISION

DePuy Synthes Cannulated Compression Headless Screw (CCHS) System



Titanium alloy

Partially threaded

Self-drilling/  
Self-tapping

Reverse cutting flutes

Differential thread pitch

# SUPERIOR CUTTING PERFORMANCE

DePuy Synthes Cannulated Compression Headless Screws offer a unique cutting tip designed to reduce the axial force required for the screw to self-tap compared to Stryker® Fixos/Fixos 2° (Figs. 1 and 2) and Acumed® Acutrak 2° Micro (Fig. 1) Headless Screws<sup>1-3</sup>.

## SCREW INSERTION FORCE COMPARISON OF HEADLESS SCREWS<sup>2</sup>

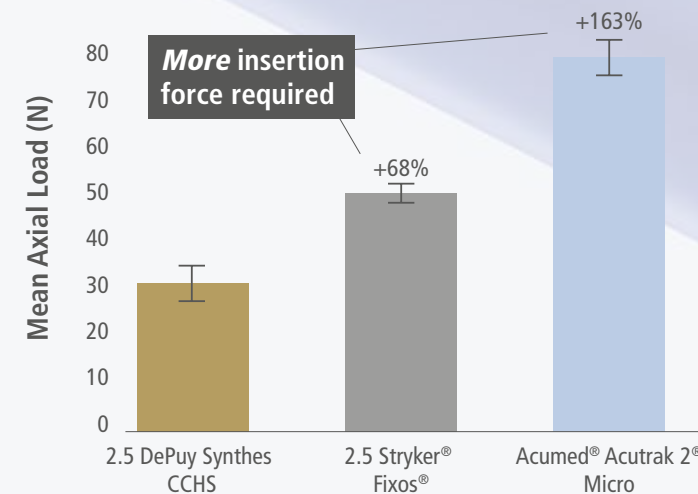


Figure 1: Small Headless Compression Screws (40 pcf)

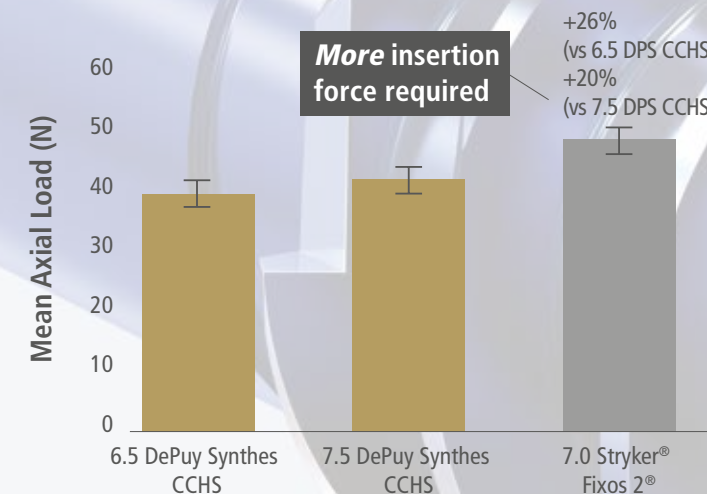
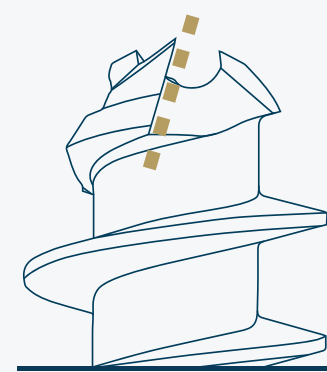


Figure 2: Large Headless Compression Screws (20 pcf)

# DESIGN RATIONALE

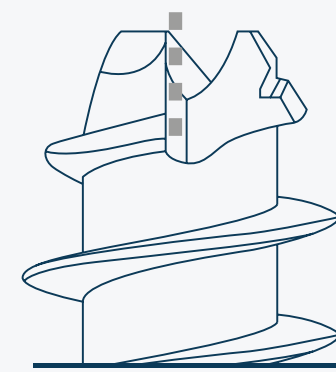
## CCHS POSITIVE RAKE ANGLE



### CCHS CUTTING TIP

- Positive rake angle cutting tip design offers a **sharp cutting edge**
- May require **less force** to insert<sup>1,3</sup>

## GENERIC NEUTRAL RAKE ANGLE

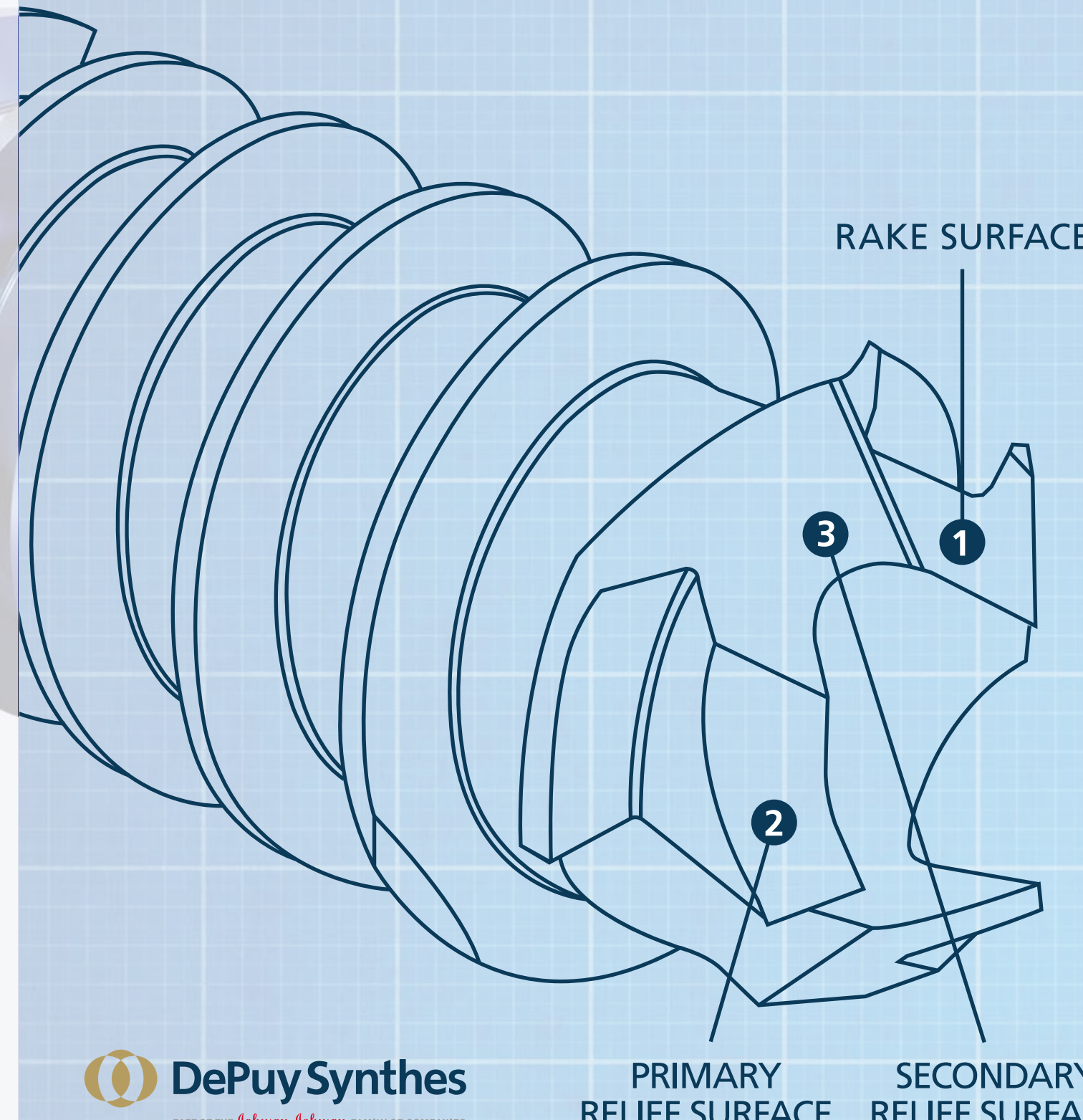


### COMPETITIVE CUTTING TIP

- By definition a neutral rake angle cutting tip design has **less sharpness** at the cutting edge
- May require **more force** to insert<sup>1,3</sup>

# INNOVATIVE CUTTING EDGE<sup>3</sup>

- Three uniquely angled surfaces combine to form an innovative cutting edge designed to reduce insertion force and minimize the need for predrilling<sup>1,2</sup>



# COBALT CHROME GUIDE WIRE FOR LESS DEFLECTION<sup>1</sup>

29% higher bending stiffness compared to Stainless Steel guide wire<sup>4</sup>

- Stiffer guide wire results in less deflection during screw insertion to maintain intended trajectory<sup>4</sup>



# MOST COMPREHENSIVE PORTFOLIO TO ADDRESS A WIDE RANGE OF SURGICAL NEEDS<sup>5</sup>

- **Widest Range of Screw Diameters (mm):** 2.0, 2.5, 3.0, 3.5, 4.0, 4.5, 5.5, 6.5, 7.5) and lengths (10-140)<sup>5</sup>
- Color-coded titanium alloy indicates the diameter and corresponding instrumentation
- Partially threaded short and long screw designs
- **2.0 mm Quick Insertion Screws**

# 2.0MM QUICK INSERTION SCREWS

- **Self-drilling/self-tapping** twist-off style screws offered in lengths 11 mm to 18 mm
- Unique Easy Loader Screwdriver designed to prevent premature post breakage of the screws<sup>6</sup>

