

# XT

## STRONG+BEAUTIFUL

### INSTRUCTIONS FOR USE

#### Jensen XT and XT Translucent Zirconia

- XT Zirconias are made of Yttrium-Stabilized Zirconia.
- It is intended for the milling of full contour crowns, crown and bridge substructures, and implant superstructures to produce prostheses for replacement of missing / damaged dentition.
- XT materials are ISO 6872:2015 Type II, Class 5 ceramics for use in 98 mm disc milling machines or Jensen approved frame mills.

#### INDICATIONS FOR USE

XT Zirconias		
Anterior	Crown	✓
	Bridge*	✓

  

XT Zirconias		
Posterior	Crown	✓
	Bridge*	✓
	Inlay	✓
	Onlay	✓

\*Bridges up to 16 units

#### CONNECTOR CROSS SECTIONS

XT Zirconias		
Anterior	Abutment to Pontic	≥7 mm <sup>2</sup>
	Pontic to Pontic	≥12 mm <sup>2</sup>
	Cantilever Pontics	≥8 mm <sup>2</sup>

  

XT Zirconias		
Posterior	Pontic to Pontic	≥12 mm <sup>2</sup>
	Abutment to Pontic	≥9 mm <sup>2</sup>
	Abutment to Abutment	≥9 mm <sup>2</sup>
	Cantilever Pontics	≥12 mm <sup>2</sup>
	Inlay Retainer to Pontic	≥9 mm <sup>2</sup>

#### COEFFICIENT OF THERMAL EXPANSION

XT: 25-500°C:  $10 \times 10^{-6} \text{ K}^{-1}$   
 XT Translucent: 25-500°C:  $10.4 \times 10^{-6} \text{ K}^{-1}$

#### WALL THICKNESS

Posterior	≥0.5 mm
Anterior	≥0.3 mm
Primary Crowns	≥0.3 mm
Cantilever Bridge Retainer	≥0.7 mm
Zirconia Build-up for Two-piece Abutments	≥1.0 mm

#### STEM PLACEMENT

- Anterior: minimum of two 1.7mm stems per unit
- Posterior: minimum of three 1.7mm stems per unit

#### HANDLING

##### Prior to Loading Material in Mill Fixture:

- Clean all debris from mill fixture prior to loading material. Dust that is present can cause uneven pressure when loading, resulting in the rim of the disc to crack, chip and/or flake.

##### While Loading Material in Mill Fixture:

- Place disc into the loosely secured clamps of clean fixture.
- While supporting the disc with your hand, gradually and evenly apply pressure to clamps when loading; DO NOT TIGHTEN clamps until all are secure.
- After all clamps are secure, gradually and evenly tighten them; too much, uneven pressure can cause contact stresses resulting in the rim of the disc to crack.



## SINTERING



Ensure shading liquids are thoroughly dry prior to sintering; add delay start of up to 3.5 hours if desired for in-oven drying time. Final temperature is dependent on furnace design, condition, and calibration.

Sintering Cycle	Standard (all restoration types)	Speed (1-3 unit bridges)
Start Temperature	Room temperature	Room temperature
Heat Rate 1	6°C / min	30°C / min
Temp 1	1000°C	1300°C
Hold Time 1	1 hour	30 mins
Heat Rate 2	3°C / min	40°C / min
Temp 2	1530-1540°C	1530-1540°C
Hold Time 2	2 hours	1 hour
Cool Rate 1	6°C / min	15°C / min
Cool Temp 1	n/a	900°C
Cool Rate 2	n/a	20°C
Cool to Minimum Temp	250°C	250°C

## POST SINTER FINISHING

As with all Y-TZP materials, grinding on sintered parts should be avoided whenever possible. If post-sinter finishing is necessary:

- Fine diamond tools are recommended using a water-cooled, high speed hand piece.
- Use light pressure to avoid overheating and micro-cracking of the sintered body.
- Polish with diamond impregnated rubber polishers; maintain minimum wall thickness and connector cross sections.

Jensen Technical is available to assist you at [jensendental.com](http://jensendental.com) or by calling 800.528.5531.

## CEMENTATION

Conventionally cement following the manufacturer’s instructions for use with zirconia restorations.

### WARNING

Inhalation of ceramic dust can be hazardous to your health.

- An appropriate vacuum must be used when milling.
- Milling should be conducted in a well-ventilated area.
- Please refer to the SDS sheet for other important safety information.

