

# JRVT

## HIGH NOBLE YELLOW TYPE 2 or 3 CROWN & BRIDGE ALLOY

JRVT is Jensen's premier 77% Au crown and bridge alloy. Professionals who specialize in gold restorative work prefer JRVT because it has an exceptional rich yellow color and polishes to a mirror-like luster. JRVT has 55% elongation which means it's extremely burnishable. JRVT is perfect for inlays, onlays, crowns, and short-span bridges.

PROPERTIES		CHEMISTRY	
Melting Range	1650° to 1755°F (900° to 955°C)	Gold	77%
Density	15.4 g/cm <sup>3</sup>	Silver	13%
Hardness	120 HV	Copper	8.5%
Tensile Elongation	55%	Palladium	1%
Grain Size	22 microns	Contains less than 1% Zinc, Indium, Iridium	
Tensile Yield Strength	35,300 psi (245 MPa)	Au & Pt group - 78%	
Ultimate Tensile Strength	59,300 psi (410 MPa)	Classification - High Noble	

### PROCESSING TECHNIQUE

#### SPRUIING

The indirect method is recommended for small bridges. Direct spruing is recommended for inlays, onlays and crowns. Sprue to the bulkiest section. Patterns should be 1/4 inch (6mm) from the top of the ring.

#### INVESTMENT

Gypsum bonded investment is recommended. For bridges and full crowns use the thermal technique with a burnout temperature of 1200°F (650°C). The hygroscopic technique and a burnout temperature of 900°F (480°C) is recommended for inlays and onlays.

#### MELTING AND CASTING

JRVT can be melted with gas and compressed air. When melting with gas and oxygen, set gas pressure at 5 psi. and oxygen pressure at 10 psi. Cast the alloy when it is fully puddled, balled and free from oxide on the surface. Carbon based casting fluxes may be used but should not be necessary when melting with a reducing flame. JRVT can be water quenched or bench cooled without changes in its properties. The casting temperature is 1850°F (1010°C).

#### DEVESTING AND FINISHING

Devested castings may be pickled. If aluminum oxide blasting is used, protect marginal areas. Use a fine stone to establish a uniform surface finish.

#### POLISHING

Use low speeds and light pressure

1. Rubber wheel with white flexi wheel
2. Polish with tripoli compound using a soft or medium felt wheel and/or a soft Robinson brush
3. Using a rag wheel and/or a soft Robinson brush polish with rouge
4. Ultrasonically clean in water or ethyl alcohol for five minutes then shine with tin oxide and soft Robinson brush dry or with ethyl alcohol

#### SOLDER AND FLUX

Solder: 650 Fine Solder  
Flux: Brown Fluoride Flux

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