JYE

YELLOW CROWN AND BRIDGE ALLOY

JYE is a noble type IV crown and bridge casting alloy. It is one of a group of medium gold content casting alloys offered by Jensen Industries. JYE features 57% nobility, yellow gold color, high strength, moderate cost, and melts, casts, finishes and polishes like a very high gold content alloy. Processing of JYE, due to its lower silver and higher melting range, is fast and easy.

PROPERTIES

Melting Range . . . . . 1545° F to 1635°F
Density . . . . . 12.8 g/cm^3

	HARDENED	SOFTENED
Hardness..	280HV	245HV
Tensile Elongation	10%	23%
Tensile Yield Strength (PSI)	111,000	87,600
Ultimate Tensile Strength (PSI). . .	117,000	93,600

CHEMISTRY

Gold 52%
Silver 24%
Copper 18%
Palladium 5%

Contains less than 1%
Zinc, Indium, Iridium

Classification - Noble

PROCESSING TECHNIQUE

SPRUING
The indirect method is recommended for multi-units. Use an 8 gauge runner bar with 10 gauge connectors. If preferred, the direct method may be used on both single units and small bridges. Use a 10 gauge sprue 1/4" (6mm) to 3/8" (9mm) long. Sprues longer than 3/8" (9mm) should have a reservoir 1/16" (1.5mm) from pattern. Patterns should be a maximum of 1/4" (6mm) from top of investment.

INVESTMENT and BURNOUT
Either gypsum or phosphate bonded investment may used following the manufacturer's instructions.
The burnout temperature should be at least 900°F (480°C) and should not exceed 1200°F (650°C).

MELTING AND CASTING
Extra winds of the casting arm are not required. A gas/compressed air or gas/oxygen flame with 5 PSI gas and 10 PSI oxygen is recommended. The alloy will fully puddle and form a ball before it is ready to cast. DO NOT OVERHEAT. The casting temperature is 1750°F (950°C). Bench cool to obtain the hardened condition. Water quench from a dull red heat to obtain the softened condition.

DEVESTING AND FINISHING
Blast with aluminum oxide to remove investment particles and oxidation. Finish and polish using standard techniques.

SOLDER AND FLUX
Solder: 615 Fine Solder
Flux: Brown Fluoride Flux