

## HVAF vs HVOF SET-UP AND OPERATIONAL COST COMPARISON

### Set up cost comparison

	HVAF	JP5000
System	Over \$100,000	Over \$100,000
Chiller (29 ton)		\$15,000
Air compressor	\$25,000	
LO2 storage		\$5,000
Booth, lathe, robot, dust collector, etc	same	same

### Operating cost comparison

	HVAF	JP5000	
Air/O2	\$15/hr	\$100/hr	
Fuel, carrier gas	comparable	comparable	
Spare parts ***	\$3,000/yr	\$30,000/yr	***assuming 2,000 hrs/yr operation
Spray rate	up to 65 lb/hr	up to 10 lb/hr	
Deposition rate	0.002"/pass	0.0005"/pass	
Deposit efficiency	45-80%	30-60%	
Ease of use	high	low	
Sensitivity to operator actions	low	high	

### Capabilities comparison

	HVAF	JP5000
Finished density	99.8%+	99.5%+
As-sprayed finish	100-140 uin Ra	160-200 uin Ra
Attainable surface finish	0.3 uin Ra	1-2 uin Ra
Max thickness	0.5 in+	0.02 in
Sound output	130 dB+	130 dB+
Materials	brazing alloys metals self fluxing alloys carbides -	- metals self fluxing alloys carbides some ceramics
Gun mount	hand held or robot	robot