

# Kermetico AK HVOF System

***Spray at 1/2 of the Usual HVOF Cost, Deposit Better Coatings 5 Times Faster!***

**Oxidant and coolant:** Compressed Air. Pressure range 8-11.5 bar (115-165 PSIG).

**Fuel:** Propane, Propylene, Propane-Butane (LPG), or Natural Gas.  
Pressure: 7-11.5 bar (100-165 PSIG)

Kermetico AK HVOF Spray Guns	Gun	Description	Max spray rate, per hour
	AK7	Large parts with a diameter >200 mm (8") The best coating quality and the lowest cost for large surfaces.	33+ kg 72+ lbs.
	AK6	A gun to spray carbides onto parts with OD 5 - 250 mm (0.2" - 10") We designed the gun to spray tungsten and chromium carbide onto a variety of parts.	28 kg 62 lbs.
	AK5	Compact gun for smaller parts Spraying metals, alloys and carbides for parts <200 mm in diameter, ID's from 200 mm (8") and larger, thin walls, and complex surfaces.	15 kg 33 lbs.
	AK-HH	Manual on-site HVOF spraying and blasting This compact dual-use hand-held or robot-mount equipment helps to spray metals, alloys, and carbides. Gun weight: 2.5 kg	15 kg 33 lbs.
	AK-IDR	Rotating head, minimum diameter 100 mm (4")	
	AK-ID	Internal diameters minimum 80 mm (3.15") Air cooling and axial powder injection provide hours of continuous ID operation. Spray angle 90°.	5 kg 11 lbs.

# The Kermetico AK HVOF System

The Kermetico AK HVOF system deposits coatings with 5-6 times higher spray rates, 20-30% higher deposition efficiency, 30% less hardness deviation than any HVOF system. Choosing Kermetico AK, an HVOF job shop gains at least a 50% cost advantage to HVOF competitors and additional coating quality advantage as a "bonus."

WC-10Co-4Cr Coating Features	Typical HVOF	Kermetico HVOF Mode		
		Economy	Balanced	Ultra
Deposition efficiency, %	40-55	60+	48-58	36-42
Hardness, HV <sub>300</sub>	1,050-1,250	1,050-1,250	1,250-1,350	1,350-1,600+
Apparent metallographic porosity	<0.8	<0.8	<0.5	<0.3
Bond strength, MPa (PSI)	80+ (12,000+)			
Range of as-sprayed roughness, µm (µ in.)	3.5-4.5 (150-180)	1-3.2 (40-130)		

## Kermetico Control Consoles and Powder Feeders



AK02: Wide-Screen Industrial Operator Tablet and Data Visualization System

## Some Features of the Kermetico Systems

- ✓ Industrial IP67-rated Tablet with automatic data logging
- ✓ One system runs all Kermetico guns
- ✓ Variety of powder feeders and gas vaporizers
- ✓ Custom-made systems and guns by request
- ✓ And more

We have been developing our HVOF process and equipment since 2006. More than 60 systems are at work worldwide. All of our equipment is designed and built in California, USA.