

Spray for ½ the Cost of HVOF, Deposit Better Quality 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
	<u>AK7</u>	Large parts with a diameter >200 mm (8") A powerful gun with the widest range of combustion chamber pressures and the best coating quality on large surfaces. The lowest cost for large surfaces. The best protection against feedstock oxidation.	33+ kg 72+ lbs.
	<u>AK6</u>	A gun spraying carbides for 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.
	<u>AK5</u>	Compact gun for smaller parts Spraying metals, alloys, and carbides for parts <200 mm diameter, ID from 250 mm (10") and more, thin walls, complex surfaces.	15 kg 33 lbs.
	<u>AK-HH</u>	Manual on-site HVOF spraying and blasting This compact dual-use hand-held or robot-mount equipment helps to spray and blast anywhere. Used for spraying metals, alloys, and carbides. Gun weight: 2.5 kg	15 kg 33 lbs.
	<u>AK-ID</u>	Internal diameters minimum 80 mm (3.15")	5 kg 11 lbs.
	<u>AK-IDR</u>	Rotating head, minimum diameter 100 mm (4") Air cooling and axial powder injection provides hours of continuous ID operation. Spray angle 90°.	

Each gun, except for our ID guns, may be configured to **Ultra** (highest velocity), **Economy** (highest DE), or **Balanced** mode and they may be used in blast & spray mode.

The Kermetico AK HVAF System



The Kermetico AK HVAF system deposits coatings with 5-6 times higher spray rates, 20-30% higher deposition efficiency, 30% less 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 HVAF Mode		
		Economy	Balanced	Ultra
Deposition efficiency, %	40-55	60-70	48-58	36-42
Hardness, HV ₃₀₀	1,050-1,250	1,050-1,250	1,250-1,350	1,450-1,600+
Apparent metallographic porosity	<0.8	<0.8	<0.5	<0.1
Bond strength, MPa (PSI)	80+ (12,000+)			
Range of as-sprayed roughness, μm ($\mu\text{in.}$)	3.5-4.5 (150-180)	1-3.2 (40-130)		

Kermetico Control Consoles and Powder Feeders

AK02: Controller & Wide-Screen Industrial Operator Tablet

AK02T: Single-Unit Portable



Some Features of the [Kermetico AK Systems](#):

- ✓ Industrial IP67 rated Tablet + PLC Controller
- ✓ Unlimited number of stored programs
- ✓ One system fits all guns
- ✓ Variety of powder feeders and gas vaporizers
- ✓ A blast grit feeder to reduce spraying time and cost
- ✓ Custom-made systems and spray guns by request
- ✓ And more

We have been developing our HVAF process and equipment since 2006. Years of research let us create equipment which produces the best quality coatings and the highest technological efficiency possible. More than 60 systems are at work worldwide. All of our equipment is designed and made in California, USA.

Visit our [website](#) or our job shop to learn more about Kermetico's coating quality and equipment.

* Multiple scientific papers and case studies supporting this info will be provided upon request.

Kermetico Inc., 3900 Oregon St., Ste 2, Benicia, CA 94510 USA. Tel: +1(707) 745-3862.

jrienecker@kermetico.com kermetico.com