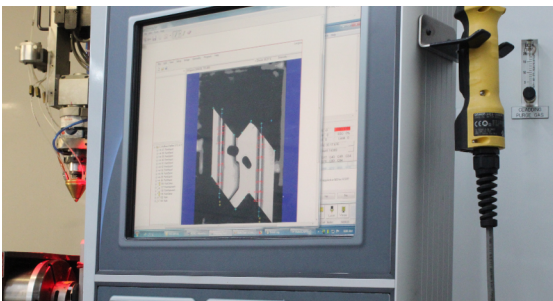
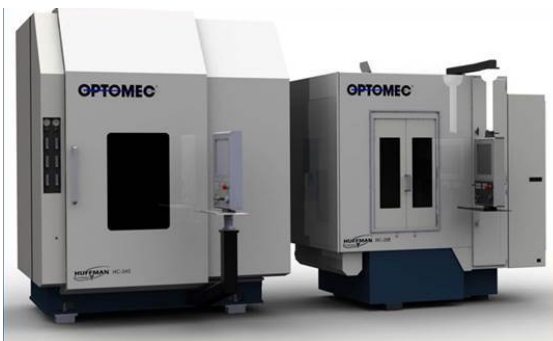


HC205/245 DED Systems



Huffman brand laser cladders with integrated machine vision and AutoCLAD™ software are designed for high volume repair of aviation components using Directed Energy Deposition (DED) additive manufacturing technology.

Complete , Fully-integrated Turnkey Solution

- For automated repair of blades, vanes, Z-notches, blisks and other high value components.
- Superior metallurgy and shortened finishing time compared to TIG welding.
- Three to five axes of precision motion control.
- Integrated GigE machine vision with LED lighting for Adaptive Process Control.
- Fiber laser with standard coaxial deposition nozzle and integrated chiller for prolonged operation and increased process stability.
- Self-contained twin-canister powder feeder.

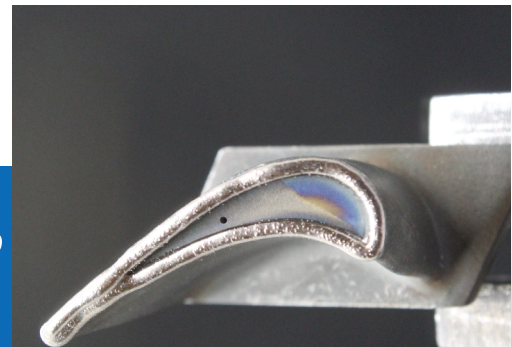
Open Architecture Control

- Industrial i7 PC with integrated video
- 22" touchscreen monitor
- Profibus I/O

Adaptive Process Control with AutoCLAD™ Software

Integrated vision system captures part images to create new repair process programs or to automatically adapt a repair process for part-to-part variations. The AutoCLAD vision system also can perform visual inspections to verify repair quality.

As a testament to its high quality and consistency, Civil Aviation Authorities in 15 countries have certified repairs made using AutoCLAD software for flight-critical gas turbine engine components.



Optomec's Huffman Series Laser Cladders



Huffman Series System Specifications

		HC205	HC245
System components	Laser	IPG 1000 watt fiber laser and chiller	IPG 1500 watt fiber laser and chiller
	Vision hardware	GigE camera, telecentric lens, LED lighting	GigE camera, telecentric lens, LED lighting
Linear axes	X,Y,Z travel	356 x 356 x 356 mm	762 x 457 x 508 mm
	Feed rate	0 - 8.9 m/min	0 - 10 m/min
	Resolution	0.001 mm	0.001 mm
	Standard accuracy	0.067 mm/m (higher accuracy optional)	0.067 mm/m
	Standard repeatability	0.067 mm/m (higher accuracy optional)	0.02 mm
Rotary axes	Rate	B axis: 0 - 5.5 rpm	A axis: 0 - 3.3 rpm
	Rate	C axis: 0 - 40 rpm	C axis: 0 - 5.5 rpm
	Resolution	0.001 deg	0.001 deg
	Accuracy	+/- 20 arc seconds	+/- 20 arc seconds
Mechanical	Machine weight	6795 kg	7710 kg
	Max part weight	22.7 kg	136 kg

