SPRAYWERX · APPLICATION DEVELOPMENT

Prototyping

Facility

Validate the application before you commit.

ADVANCED ENGINEERING COATING ANALYSIS LAB

Every coating is verified at both ends. Incoming powders are checked by Particle Size Distribution (PSD) analysis, and finished coatings are evaluated in-house through microstructure characterization and microhardness testing — the same rigor behind every project qualification and investment decision.



2.35″
Minimum bore diameter (59.7 mm)

1 m / 100 kg
Max part length and weight

Robotic
Spray cell

Particle Size Distribution
In-house powder analysis

OVERVIEW

The Spraywerx Prototyping Facility is a fully equipped HVOF development cell for internal diameter coating applications. Built around the proprietary ID-Nova™ system, it supports rapid prototyping, powder qualification and Warm Spray testing on bore diameters ≥ 2.35″ (59.7 mm). Ideal for thermal spray service providers and OEMs evaluating internal coating solutions — qualify a coating against your project's technical requirements, or build a proof-of-concept case ahead of your equipment acquisition.

TECHNICAL SPECIFICATIONS

Supported torches	**ID-Nova MK7, Mini-Nova™, Super-Nova™**
ID range	**≥ 2.35″ (59.7 mm)**
Part length	**Up to 1 m**
Gases	**Hydrogen, oxygen and Warm Spray gases**
Performance (WC, typical)	**>1000 HV300, porosity <1%, Ra ~2 µm, 65% DE**

KEY FEATURES

- Equipped with ID-Nova™ HVOF systems
- Robotic spray cell with turntable and integrated lathe
- Powder feeders, inert gas integration, chillers and dust extraction
- On-site qualification: hardness, porosity and microstructure analysis
- Warm Spray trials with inert gas injection
- Field-proven configurations used in aerospace, energy and industrial R&D

QUALIFIED MATERIALS · TEST RESULTS

MATERIAL	HARDNESS	POROSITY	OTHER
WC-CoCr	1100±60 HV300	0.53%	65% DE · ASTM E384
Cr_3C_2-25NiCr	907±59 HV300	<1.0%	89±7 MPa bond · 35.3% DE
Ti-6Al-4V (Warm Spray)	490±31 HV100	0.53%	~2 mm thick · 1.74% O_2
Inconel 625	352±25 HV100gf	0.2%	~100% DE · ~2 mm thick

APPLICATIONS

01 **Coating prototyping** — Internal coatings for aerospace, energy, and oil & gas.

02 **Powder & DE studies** — Powder feed and deposition efficiency studies.

03 **Warm Spray validation** — Trials with inert gas atmospheres.

04 **Application demos** — Customer-specific demonstrations.

05 **Production trial runs** — Trial runs for large-bore components.

06 **System evaluation** — Accelerated evaluation of ID-Nova™ system integration.

Spraywerx Technologies, Inc.
115-2433 Dollarton Highway
North Vancouver, BC, Canada V7H 0A1

info@spraywerx.com
spraywerx.com
+1 (604) 306-2061

