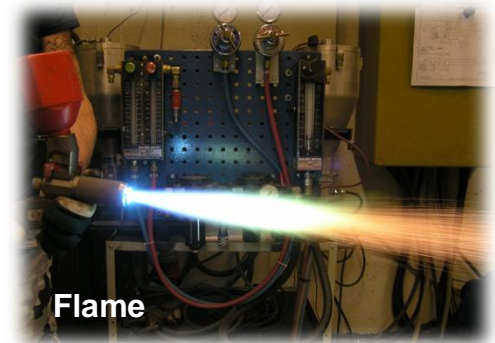


Thermal spraying at TUT

Traditional thermal spray technologies

Arc and flame spray equipment at TUT

- Sulzer Metco 6RC (arc spray)
- Sulzer Metco 6P-II (powder flame spray)
- Castolin DS 8000 (powder flame spray)
- Sulzer Metco 12E (wire flame spray)
- Saint Gobain MasterJet (wire, rod, flexicord flame spray)
- TeroDyn polymer flame spray



Detonation equipment at TUT

- PERUN P D-gun (Paton Electric Welding Institute)

Spray method	Process temperature (°C)	Particle velocity (m/s)
Plasma	12000	200 - 400
Arc	4000	100
Flame	3000	40
Detonation	4000	900
HVOF	3000	800
Cold	25-1000	550-1200

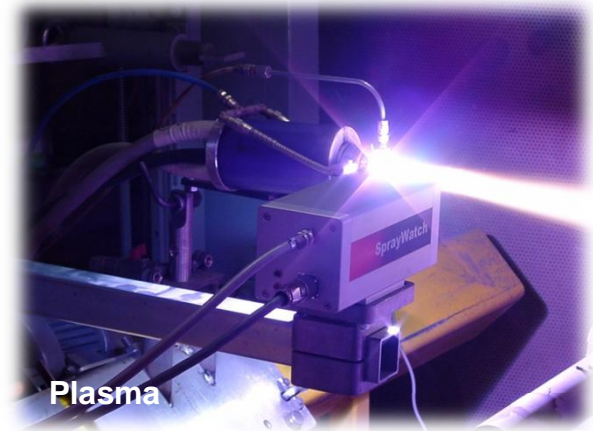


Thermal spraying at TUT

Advanced thermal spray technologies

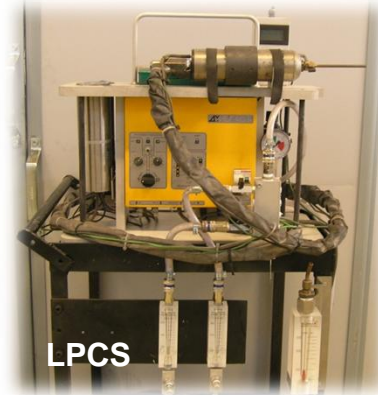
Plasma spray equipment

- Sulzer Metco F4
- Saint Gobain ProPlasma
- Suspension plasma spray process



HVOF and HVAF spray equipment

- Sulzer Metco DJ Standard (propane), DJ-1000 (propane), DJ-2600 (hydrogen) and DJ-2700 (propane, ethene)
- GTV Top Gun (hydrogen, ethene)
- S-HVOF (suspension)
- UniqueCoat M3™ (HVAF)



Cold spray equipment

- DYMET 403K (low-pressure cold spray)

Department of Materials Science,
Laboratory of Surface Engineering

Prof. Petri Vuoristo (petri.vuoristo@tut.fi)
Dr. Heli Koivuluoto (heli.koivuluoto@tut.fi)

