

# Protective Coating for Slurry Pumps

## Benefits

- ■ □ Increased production
- ■ □ Higher efficiency
- □ □ Compliance with environmental regulations
- ■ ■ Availability and reliability
- ■ ■ Life extension

Customer benefits include:

- 6x-9x longer parts life
- Less maintenance
- Lower operating costs

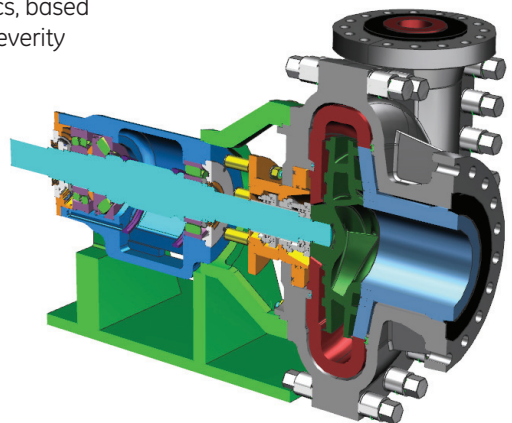
## What it is

GE's Slurry Coating is an extremely resilient new coating designed to protect slurry pumps used in heavy-duty mining operations (including grinding, mill discharge, cyclone feed) or oil and gas refining processes (such as flue gas desulfurization and fluid catalytic cracking).

The patented solution is the result of collaboration between GE Oil & Gas, the Niskayuna Global Research Center, and GE Mining Vertical. It draws on their extensive, leading experience in this technology area across numerous industries in Canada, the US, Peru, Norway, Sweden, Pakistan, India, Nepal, and China.

GE's Slurry Coating protects the pump's wet parts from erosion and abrasion by hard solid particles — significantly extending component life, enabling longer mean time between forced outages, and significantly reducing maintenance costs.

Our application experts can also work with operators to tailor the coating formula to each plant's specific slurry characteristics, based on pump size, application severity and utilization factor.

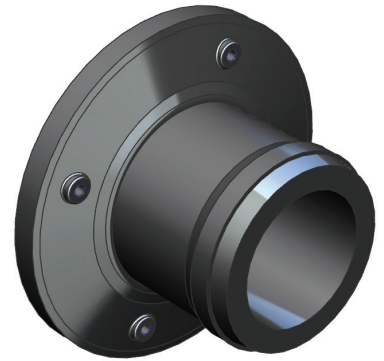


## How it works

In mining, slurries are essentially mineral feedstocks to be processed in a concentrator plant, or a waste stream of hard rocks (tailings). In oil and gas refineries, slurries are mainly catalyst streams, such as limestone or zeolites. In all cases, the mechanical and chemical forces can have extremely demaging effects on the material integrity of pump parts — especially as pressure, temperature, and flow volume increase.

GE's Slurry Coating combines a very hard thermal spray with high-performance silicon-based paint to coat the suction liner, casing liner, and impeller. It can be quickly and easily applied to any OEM/vendor equipment during refurbishment, and is available on all new pumps from GE.

Compared to conventional materials, GE's Slurry Coating extends slurry pump wear life by up to 6x for erosion, and 9x for abrasion.



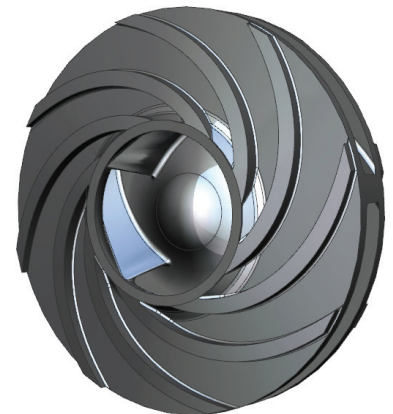
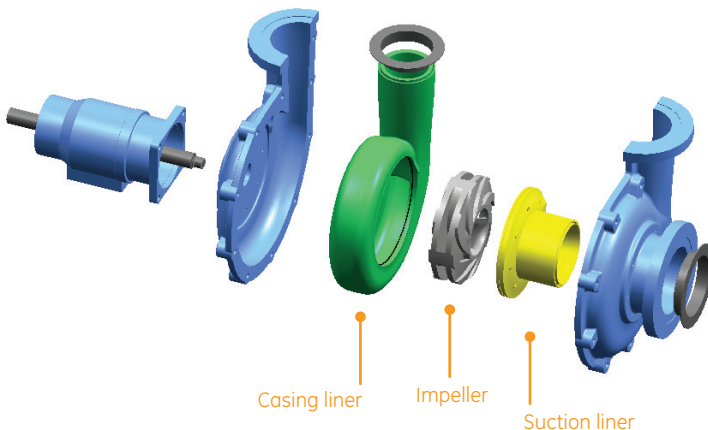
## Combination of advanced materials

### Thermal spray coating

- Established process using tungsten carbide cobalt chrome (WCCoCr) powder
- Robotic and line-of-sight application
- GE lab tests have proven up to 6x erosion resistance and 9x abrasion resistance vs. conventional materials
- Not classified as hazardous material

### Silicon-based coating

- Proprietary nano-technology combined with simple "paint-like" process
- GE lab tests have proven over 6x erosion resistance vs. conventional materials
- Not classified as hazardous material



GE imagination at work

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