



What causes the wear of InFocus electrodes?

Avoiding causes reduces costs and ensures quality.

1 Normal wear on the electrode tip

After a long period of welding, especially at high amperages, the electrode geometry may change due to normal wear, this may affect the welding properties.

This normal wear can be reduced to a minimum by selecting the correct electrode geometry.

2 Constriction as a result of excessive thermal stress

The areas above the arc attachment are subject to high thermal stress, a very high energy input is generated.

As a result of excessive current, melting and necking as well as chipping of the electrode tip can occur. Recommendation:

- Use suitable electrode geometry (see product description)

3 Wear due to metallic substances

Metallic contaminants/spatter on the electrode lead to alloying of the electrode material (locally or over a large area).

The electrode tip may drip completely in the arc. Recommendation:

- Avoid workpiece contact of the cathode
- Optimise filler material supply

4 Wear due to organic substances

By reaction of tungsten with organic substances the electrode material melts and vaporizes. Recommendation:

- Use less thermal paste or use InFocus pro cathodes
- Clean workpieces well (especially from oils, greases, waxes)

5 Wear due to oxygen

Blue-grey annealing colours due to reaction of hot tungsten with oxygen leads to erosion at the electrode, change of electrode material and dross formation.

Recommendation:

- Improve shielding gas coverage
- Clean workpieces well (scale, rust, moisture)

Hint

The new InFocus pro high-performance cathodes enable the use without the previously required thermal paste. This simplifies wear part replacement and reduces the cost of avoidable cathode wear, unnecessary torch repairs or unnecessary rework.



Use the link to the left to learn more about InFocus welding.

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