

# POLIGRAT-PRODUCTINFORMATION

## POLIGRAT E 268

Electropolishing Process for Stainless Steel



### Properties and effect

POLIGRAT E 268 is a high efficient industrial electropolishing process for ferritic, martensitic and austenitic stainless steel as well as Ni-based stainless steel. It achieves bright and smooth surfaces and is widely used for deburring.

The operation range is expanded significantly:

- polishing parameter: 8 - 50 A/dm<sup>2</sup>
- process temperature: 50 – 90 °C
- consistent results and steady polishing parameters from the beginning up an high metal concentration of approx. 120 g Fe/l

The electropolishing process removes metal from the surface of the goods using DC current. Edges are de-burred and soft rounded while the surface is smoothed and reduced in its micro roughness.

The electropolished surfaces are metallic clean and highly passivated.

The deep polishing effect is best compared to other electrolytes and by this the need for cathodes is often not necessary. The specific composition of the electrolyte allows a uniform polishing at small and large surfaces. The polishing parameters remains stable even the electrolyte get metalized up to 7% of iron.

### Economics

In consequence of the high metallization property the electrolyte is very efficient and cost saving. In many cases the metallization during the process is equal or less than the drag out losses, the electrolyte has not to be wasted from time to time. The waste costs are reduced accordingly.

The removal rate is up to 30% higher than conventional electrolytes.

### Application

POLIGRAT E 268 is operated as immersion process in suitable tanks. The work pieces can be treated either on jigs or as bulk goods in electropolishing barrels or by a special POLIBOX equipment. The electrolyte can be operated to polish the insides of parts ( i.e. tubes or vessels) as well as to polish the outside of parts.

POLIGRAT E 268 is suitable for the tampon polishing technique too.

POLIGRAT E 268 and the rinse water from the process are acidic and contain the dissolved metal. They have to be treated and disposed according to the statutory laws and regulations.



### Supply

1. Liquid – ready to use or as concentrate

Packing units:

- Single-use canister 50 kg ( 28 l)
- Barrel 348 kg ( 200 l)
- IBC 1,740 kg ( 1,000 l)

2. Concentrate POLIGRAT E 268 K ( 1: 10 )

Mixing for 100 l ready to use electrolyte:

phosphoric acid 85%	50 l
sulfuric acid 96%	40 l
POLIGRAT E 268 K	10 l

- Single-use canister 50 kg ( 30 l)
- Barrel 316 kg ( 200 l)
- IBC 1,580 kg ( 1,000 l)

### Your advantage

- high economics
- wide range of operation
- high speed de-burring
- deep polishing effect
- high passivity