

Chemical

- ▶ High shear homogenisation of intermediate products
- ▶ Emulsification of waxes, creams, polishes, plastics etc.
- ▶ Dispersion/Desagglomeration of abrasive solids or pigments
- ▶ Dispersion and homogenisation of polymer melts
- ▶ Liquid-gas reactions
- ▶ Homogenisation of lined and multi-component adhesives
- ▶ Saponification and neutralization reactions
- ▶ Preparation of metallo-organic compounds

Bitumen

- ▶ Production of polymer modified bitumen
- ▶ Production of bitumen emulsions
- ▶ Production of crumb rubber modified bitumen (CRMB)

Food/Bio-derivative

- ▶ Processing of fruit and vegetables
- ▶ Homogenisation of creams and fillers
- ▶ High shear homogenisation of coffee extract with an insoluble gas
- ▶ Homogenisation and dispersion of wheat dough
- ▶ Wet grinding and dispersion of corn slurry

Paper

- ▶ Grinding and disintegration of rejects
- ▶ Deflaking, coating slip preparation

Mineral Oil

- ▶ Homogenisation of oil and grease products

Working Principle & Processing

Supraton® machines are dynamic Rotor-Stator Homogenisers with a multistage tool set. The pumpable product passing through the homogeniser is subject to several physical processes:

- ▶ Multistage hydrodynamic high shear
- ▶ High-frequency oscillating forces
- ▶ Intensive micro-volume mixing
- ▶ Pressure increase

These effects enable processes with highest demands like:

- ▶ Homogenising
- ▶ Dispersing
- ▶ Disintegration
- ▶ Emulsifying
- ▶ Dissolving
- ▶ Reacting
- ▶ Wet grinding

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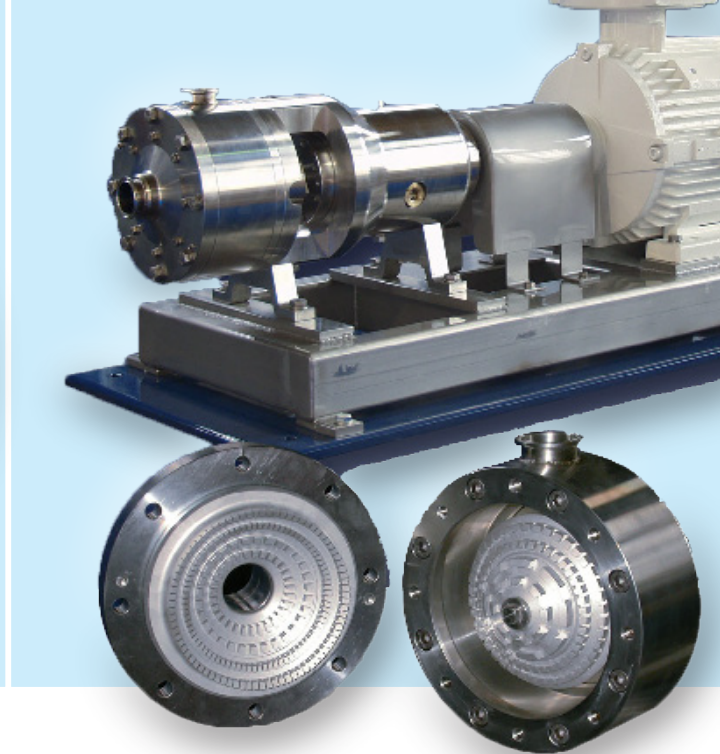
SUPRATON

High Shear Inline Homogeniser



Supraton S-Series

- ▶ Product viscosity up to 200,000 cP
- ▶ Temperature up to 240 °C
- ▶ Pressure up to 20 bar
- ▶ Pressure head up to 12 bar
- ▶ Circumferential speed up to 57 m/s
- ▶ Step less adjustable grinding gap
- ▶ Symmetrical tool design
- ▶ Stator injection



Supraton Sanitary Series

- ▶ Corresponds to the requirements of Hygienic design (QHD, GMP)
- ▶ Gapless multistage rotor and stator tools
- ▶ Capable CIP process
- ▶ Product contacted parts stainless steel
- ▶ O-ring compliant with FDA regulations



Supraton Bitumen Homogeniser

- ▶ Patented Supraton high shear Inline Homogeniser for polymer modified bitumen production
- ▶ Progressive turned, wedge-shaped shear gap followed by a toothed rotor-stator system
- ▶ Tool material carbon steel cast, hardened for long lifetime
- ▶ Working gap set by hydraulic axial shaft adjustment
- ▶ Polymer portion up to 20 %
- ▶ Capacity up to 70 m³/h
- ▶ Single pass or circulation process