

WORLD-FIRST!

SCALING UP METHOD FROM R&D AND LABORATORY- BASED FORMULATION TO INDUSTRIAL SCALE MANUFACTURING

FOR PHARMACEUTICAL, COSMETICS, FOOD, PETROCHEMICAL AND CHEMICAL INDUSTRIES

IKA®
Made in Germany

PROMOTION!

* Prices are valid until 31 Dec. 2009

INTERCHANGABLE MODULES FOR VARIOUS APPLICATIONS

LABOR-PILOT Basic version

Working temp.: **Max. 120°C**
Sealing type: Special lip seal up to 3bar
Motor power: **1.5 kW motor with on/off switch**
Speed: RPM 7,000
Flow rate: 300L/hr (as H₂O)

EURO 2,850.00
ID no.: S097950

LABOR-PILOT (with integrated VFD)

Working temp.: **Max. 120°C**
Sealing type: Special lip seal up to 3 bar
Motor power: **2.2 kW Non-Ex. proof motor with integrated inverter**
Speed range: RPM 3,160 - 13,750
Flow rate: 200- 700L/hr (as H₂O)

EURO 3,750.00
ID no.: U075171

LABOR-PILOT suitable for VFD operation without ATEX CERTIFICATION

Working temp.: **Max. 120°C**
Sealing type: Special lip seal up to 3 bar
Motor power: **2.2 kW Ex. proof T4 motor suitable for VFD**
Speed range: RPM 3,160 - 13,750
Flow rate: 200- 700L/hr (as H₂O)

EURO 3,950.00
ID no.: U090762

PROCESS-PILOT (including thermosyphon system)

Working temp.: **Max. 120°C**
Sealing type: Double mechanical seal up to 10 bar
Motor power: **2.2 kW**
Speed range: RPM 7,000
Flow rate: 300L/hr (as H₂O)

EURO 5,950.00
ID no.: T058102

PROCESS-PILOT (with integrated VFD including thermosyphon system)

Working temp.: **Max. 120°C**
Sealing type: Double mechanical seal up to 10 bar
Motor power: **4 kW Non-Ex.**
Speed range: RPM 3,160 - 13,750
Flow rate: 200- 700L/hr (as H₂O)

EURO 6,550.00
ID no.: U075172

PROCESS-PILOT Ex. proof motor suitable for VFD including thermosyphon system with ATEX CERTIFICATION

Working temp.: **Max. 120°C**
Sealing type: Double mechanical seal up to 10 bar
Motor power: **4 kW T4**
Speed range: RPM 3,160 - 13,750
Flow rate: 200- 700L/hr (as H₂O)

EURO 8,500.00
ID no.: U090764

MHD Module



Inline continuous solid-into-liquid incorporation with dispersing. Example: Incorporation of hydrocolloids (carbopol, gum), carbon black, TiO₂ powder, ceramic powders.

CMS Module



Inline batch solid-into-liquid incorporation with recirculation. Example: Mineral salts (CaCO₃, MgO), starches, various hydrocolloids, Aerosil®

MK Module



Inline wet milling & particle size reduction of thick, pasty, creamy, moderately viscous products. Example: Metal-oxide slurries, pigments slurries, sauces, creams, lotions

DR Module



Inline three stage dispersing for optimal homogeneity of various suspensions and emulsions. Example: Personal care products, cosmetics, pharmaceutical & nutraceutical, chemicals

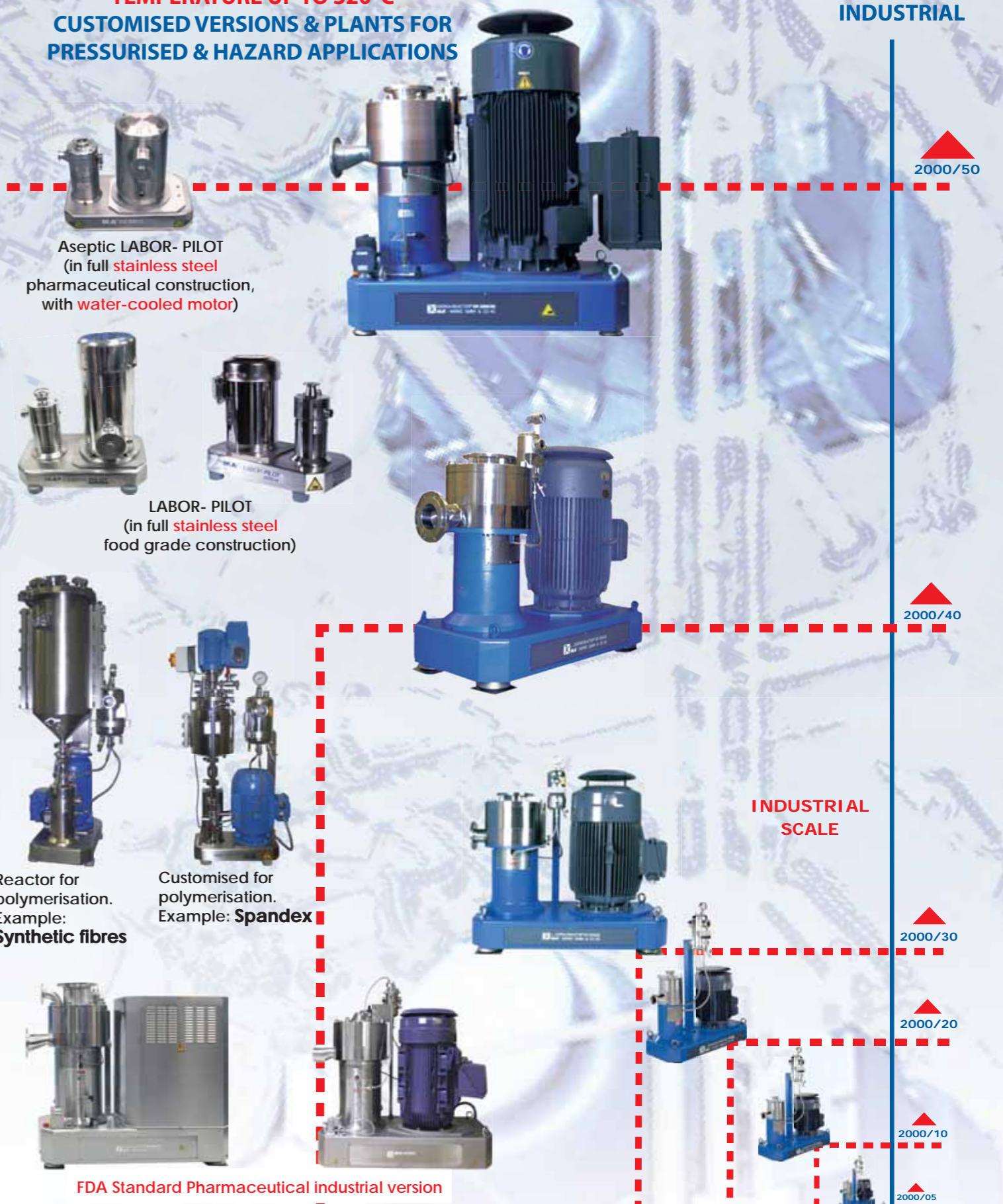
UTL Module



Inline single stage dispersing for optimal homogeneity of various suspensions and emulsions. Example: Personal care products, cosmetics, pharmaceutical & nutraceutical, chemicals

- Alumina
- Carbopol
- Polymer
- Colour paste
- Pectine
- Spice sauces
- Acrylic resin
- Calcium carbonate

TEMPERATURE UP TO 320°C CUSTOMISED VERSIONS & PLANTS FOR PRESSURISED & HAZARD APPLICATIONS

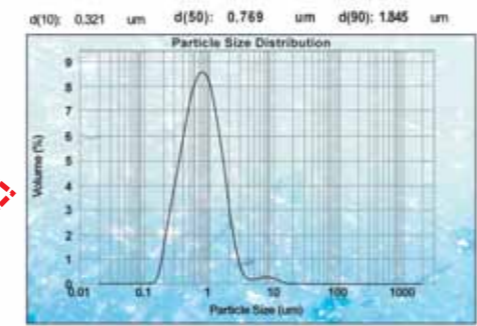


SCALE-UP FOR INDUSTRIAL

LAB SCALE - Formulation development magicLAB®



IKA® Sample of particle size analysis report
TiO₂ Suspension



Flow Capacity (x 10³ Ltr/hr)

125 70 30 20 8 2.5 0.3 0.7 2.5 8 20 30 70 125