

# WORLD-FIRST!

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

FOR PHARMACEUTICAL, COSMETICS, FOOD, PETROCHEMICAL AND CHEMICAL INDUSTRIES



**PROMOTION!**

\* Prices are valid until 15 Dec. 2008

PILOT SCALE



### 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 H<sub>2</sub>O)

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 H<sub>2</sub>O)

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 H<sub>2</sub>O)

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 H<sub>2</sub>O)

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 H<sub>2</sub>O)

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 H<sub>2</sub>O)

EURO 8,500.00  
ID no.: U090764

### LAB SCALE - Formulation development

**magicLAB®**

all modules



**IKA®** Sample of particle size analysis report  
**TiO<sub>2</sub> Suspension**

### INTERCHANGABLE MODULES FOR VARIOUS APPLICATIONS

#### MHD Module



Inline continuous solid-into-liquid incorporation with dispersing. Example: Incorporation of hydrocolloids (carbopol, gum), carbon black, TiO<sub>2</sub> powder, ceramic powders.

#### CMS Module



Inline batch solid-into-liquid incorporation with recirculation. Example: Mineral salts (CaCO<sub>3</sub>, MgO), starches, various hydrocolloids, Aerosil®

#### MK Module



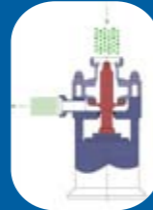
Inline wet milling & particle size reduction of thick, pasty, creamy, moderately viscous products. Example: Metal-oxide slurries, pigments slurries, sauces, creams, lotions

#### DR Module

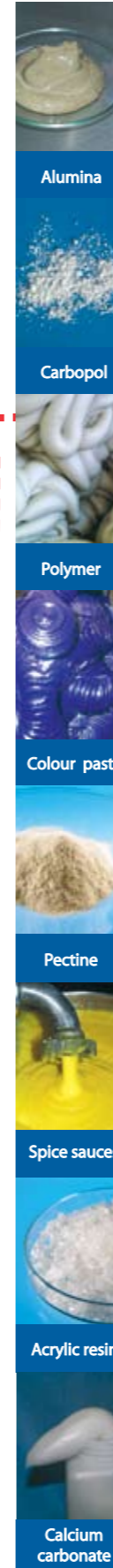


Inline three stage dispersing for optimal homogeneity of various suspensions and emulsions. Example: Personal care products, cosmetics, pharmaceutical & nutraceutical, chemicals

#### UTL Module



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



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

SCALE-UP FOR INDUSTRIAL

