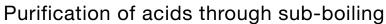


# **CLEANACIDS**







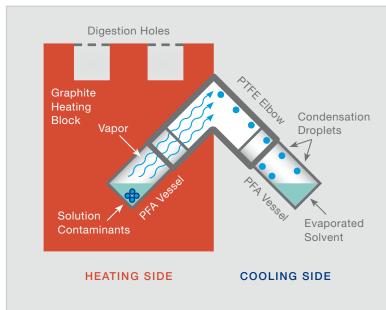
## **EFFICIENT AND COST-SAVING**

The CleanAcids from ESI-Analab is a system for efficient and cost-saving production of ultra-pure acids and reagents for sample preparation in trace element or ultra-trace analysis. It gently heats up liquids below the boiling point ('sub-boiling') and allows to clean multiple reagents simulaneously. It can handle various liquids such as HNO<sub>2</sub>, HF, HCI, NH<sub>4</sub>OH and H<sub>2</sub>O.

# **FEATURES AT A GLANCE**

- ✓ Metal-free and PFA-coated
- ✓ Acid inert and corrosion-resistant
- ✓ Homogenous temperature distribution
- ✓ Simultaneous purification of multiple liquids
- Cleaning in sequent steps
- ✓ Large volume element enrichment
- ✓ No water-cooling required

#### CLEANACIDS WORKING PRINCIPLE



The solution is evaporated under sub-boiling conditions (temperature below the boiling point). Contaminants like metal salts remain in the starting vessel. The ultra-pure vapors rise up and condense in the cold outside vessel.

Through the patented elbow design, the ultra-pure condensate gets not in contact with the starting material.

The starting concentration of the acids should be close to the azeotropic concentration (HCl  $20\,\%$ , HNO $_3$   $68\,\%$ , HF  $37\,\%$ ). Using higher concentrated acids will cause pollution of the lab with vapors of excess acids.

# **CLEANACIDS MODELS**







Part No.	Model	Heating Slots / Vessel Type	Material		Evaporation Rates*
T03-610	3p125	3 slots for 180 mL vials	Vials: PFA	Elbows: PTFE	10 – 15 mL / hour
T03-605	3p500	3 slots for 500 mL bottle	Bottles: PFA	Elbows: PTFE	10 – 15 mL / hour
T03-601	1p1000	1 slot for 1000 mL jar (inside) and 2000 mL bottle (outside)	Jar/bottle: PFA	Elbow: PTFE	35 mL / hour

<sup>\*</sup> Depending on configuration and the substances being processed. Table data shows typical evaporation rates for e.g. HCl, HNO<sub>3</sub>.

### TEMPERATURE CONTROLLER



Part No.	Description	
T03-305	Non-programmable controller with timer	
T03-3051	Non-programmable controller without timer	
T03-310 Programmable controller with timer		

#### **ACCESSORIES**





Order No.	Description
T03-521	PFA elbow for 180 mL vessels
T03-522	PTFE elbow for 500 mL vessels
T03-519	Elbow stand for 180 mL vessels
T03-615	Elbow stand for 500 mL bottles