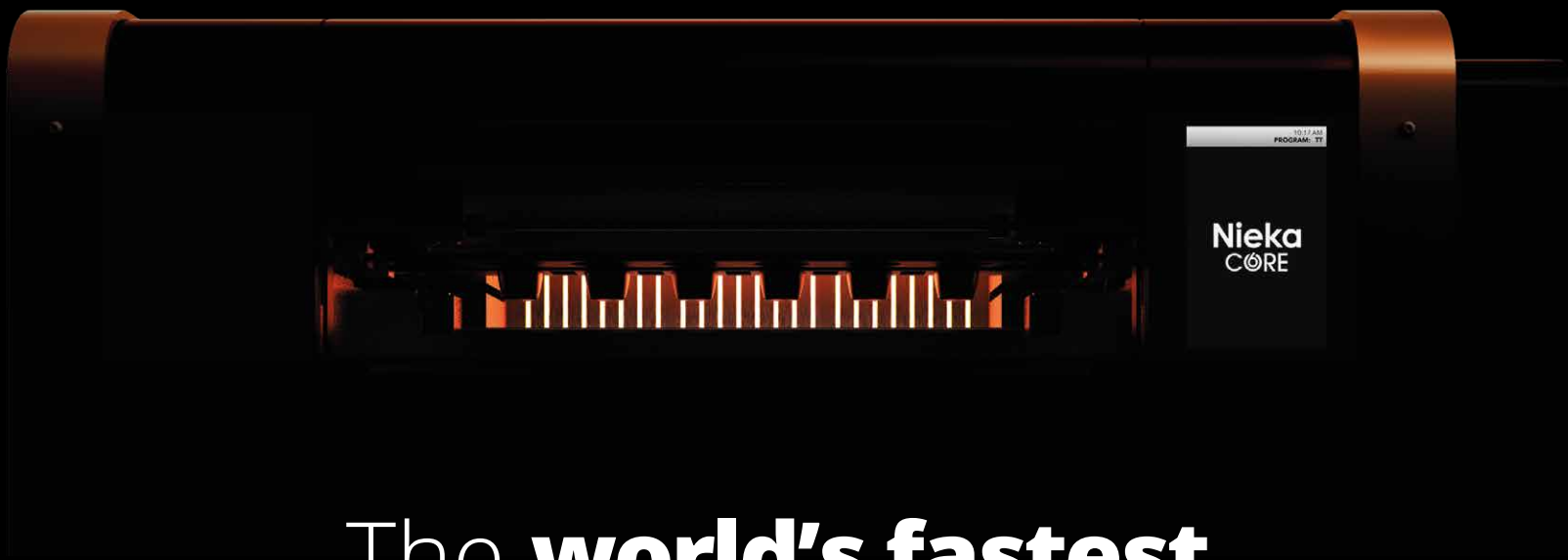


**Nieka**<sup>®</sup>   
industrial series

The **heat** is on



The **world's fastest**  
**fluxer** is here

**CORE**

# Performance through science



At NIEKA®, we design and build the most advanced fusion instruments. Each of our product is crafted by the peoples that travel the world to visit laboratories like yours. The Core-6 is the achievement of a decade-long research program where nothing has been left behind. With the Core systems, you will benefit from multiple inventions and the experience of Nieka users worldwide. The Core-6 mechanical systems are based on the proven Nieka platform: they are sturdy, efficient and easy to maintain.

## Features

### Modular furnace for instant on-site maintenance\*



The main furnace can be removed and replaced **within minutes with no special tools**. You can resume operation without a lengthy cooldown and on-site repair. The entire heating assembly comes as a snap: elements, insulation and sensors, nothing is left behind.

### Pre-oxidation chamber for true temperature ramping (optional)\*



Several sample types require a pre-oxidation step, which is challenging with a furnace-type fluxer. Our inovative middle chamber **allows an intermediate temperature step**.

### Fully modular power system and zone control



Each furnace zone is powered by its own power module. **The temperature inside the furnace is uniform**.

### Filtered cooling air



The stream of air cooling the glass disks and internal electronics is **fully filtered**. Even in dusty environments, the Nieka Core system will deliver premium analytical purity.

### Circular agitation motion allowing faster sample dissolution\*



Borate fusion is a dissolution technique. **If you stir better, you dissolve faster**, it's that simple. Our fully circular and rapid motion will reduce repeat and save up to 30% of dissolution time.

### Cold crucible retaining bar\*



When the hot crucibles are moved out of the furnace for the pouring step, a special bar is waiting outside to hold them in place for the final tilt. Having such bar outside of the furnace **reduces the contamination and failures** associated with retaining bars inside the furnace

\* Patent pending

# Nieka Core - 6



# Pre-oxidation chamber

Transform your difficult samples to their fully oxidized state



## Zone 1 - room temperature

Sample, oxidizer and flux are loaded in the crucible



## Zone 2 - pre-oxidation zone

The crucible slides into and intermediate zone where the temperature is controlled for a smooth and complete pre-oxidation



## Zone 3 - fusion furnace

After a complete pre-oxidation, the crucible moves in the main furnace where the flux melts and dissolves the sample

## Specifications

Power	208-240Vac 50-60Hz 1 or 3PH / 380-415 Vac 50-60 Hz 3 PH input power: 5.5 kVA / up to 4.8 kW heating power in the furnace
Dimension (W, H, D)	115 x 67x 66 cm; 125 kg / no external power supply unit
Heaters	High-emissivity resistive heaters
Programming	Up to 32 steps per program; 32 program storage space + external USB
Mixing	Clockwise and counter-clockwise agitation, fully configurable
Heating configuration	up to 1250°C intermittent, 1200°C continuous / pre-heating schedule
Heater servicing	Modular elements with quick connectors, fully detachable furnace
Bead cooling	Fully configurable cooling steps, from 0 to 100%, filtered air
Connectivity	USB/LAN connectivity
XRF / ICP sample preparation capability	Bead-solution switch using modular system
Ventilation requirement	No full hood required, 7 m <sup>3</sup> / min, extraction point behind the instrument
Control and operation	Touchscreen interface with password-protected access levels
Crucible/mold holders	non-oxide ceramics, resistant to flux spillage
Safety	Locking door, redundant systems, emergency stop switch, cold-to-cold operation, lockable power disconnect, UL 94 components



4715 des Replats, Suite 135 Quebec, Canada, G2J 1B8

✉ info@nieka.systems 🌐 www.nieka.systems ☎ +1 418 476 7913