



## INDUSTRIAL AUTOMATED SYSTEM «NIKA-M75» FOR SAPPHIRE SINGLE CRYSTAL GROWING BY KYROPOULOS TECHNIQUE

Equipment is intended for industrial production of sapphire single crystals of optical and optoelectronic quality with weight up to 75 kg.

## **Technical parameters**

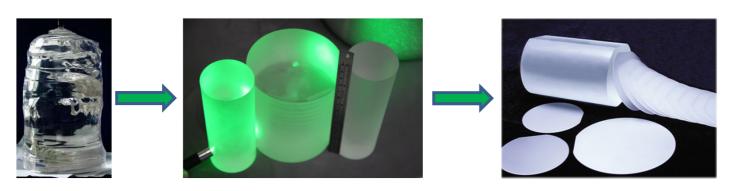
Heating temperature	Up to 2200° C
Type of heating	Resistive
Crystal weight	Up to 75 kg
Weight sensor sensitivity	0.5 g
Upper shaft translation	200 mm
Rate of upper shaft movement	от 0,05 mm/h
	до 130.0 mm/min
Upper shaft rotation	1-50 rpm
Voltage regulator type	Thyristor or IGBT
Output power	0,1 – 80 kW
Precision of power control	0,003 kW
Output power deviation	± 0,1%
Limit vacuum in chamber	2*10 <sup>-4</sup> Pa
Pressure of cooling water	200 - 250 kPa



## **Equipment advantages:**

- Automatic system for growth control using a weight sensor
- Direct high precision crystal weighing
- Heat flux measurement through structural elements of equipment
- Video supervision system of the initial stage of the growing process
- · Remote control and management of equipment
- Precise control of heating power
- Up to 20% energy savings with using a IGBT voltage regulator





EZAN 9 Academician Semenov Ave. Chernogolovka, Moscow region, Russia, 142432