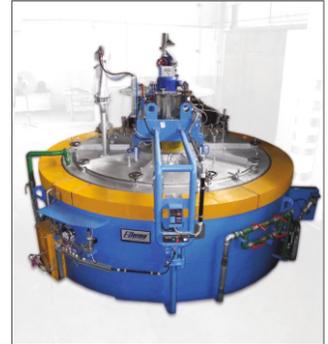


Horizontal and vertical retort furnaces for gas nitriding from SECO/WARWICK

SECO/WARWICK tends to fully satisfy our customer's requirements, therefore a new line of modern and efficient furnaces for gas nitriding with the use of state of the art method called ZeroFlow® has been developed. Based on long-term experience we have created furnaces that will fully satisfy the needs of your industry, company and production. We guarantee their long-lasting work and reliability, which leads directly to your profit and satisfaction.



Controlling the nitriding process has never been so simple! The nitriding potential is regulated with the help of PLC controller, which by controlling an adequate valve on the basis of indications from the hydrogen analyzer periodically opens and closes the inflow of ammonia to the furnace. When there is no ammonia flow the nitriding takes place in a tight-closed retort, however the nitriding atmosphere stays under constant control and is being kept at low overpressure. The excess of the atmosphere is being let out by periodical opening of the outlet valve and burnt in a simple, but efficient utilization burner.

Our furnaces are produced with maintaining all of the effective industry standard, and the component parts to its construction originate only from renowned and reliable suppliers, which guarantees their long-lasting work and reliability.

Our nitriding furnaces guarantee

- Simple and automated service due to using a PLC controller and an industrial computer
- Full technical and technological support
- Conformity with AMS 2750D, European and American standards
- Good and repeatable results of the processes
- Low installation and operation costs
- Conformity with environment protection requirements

Available processes

- ZeroFlow nitriding
- Nitrocarburizing
- Oxidation
- Nitrosulfurizing
- Tempering
- Annealing

Horizontal and vertical retort furnaces for gas nitriding

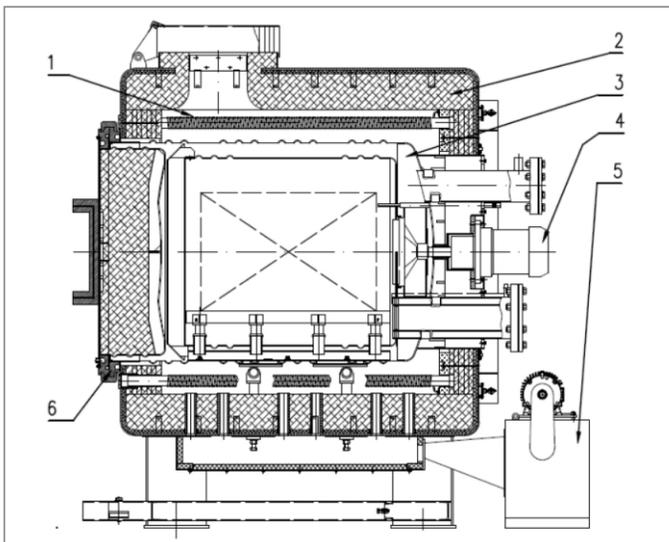
Furnace type	Useful dimensions [mm]	Gross load weight [kg]	Working temperature [°C]	Temperature uniformity [°C]	Number of heating zones	Furnace heating power [kW]
HRNe*-60.60.90-650-6-ZF	600x600x900	600	150-700	±5	one	75
HRNe-90.80.120-650-15-ZF	900x800x1200	1500	150-700	±5	three	150
HRNe-100.100.150-650-25-ZF	1000x1000x1500	2500	150-700	±5	three	240

* HRNe - horizontal retort nitriding - electrical

Furnace type	Useful dimensions [mm]		Gross load weight [kg]	Working temperature [°C]	Temperature uniformity [°C]	Number of heating zones	Furnace heating power [kW]
	Diameter [mm]	Height [mm]					
VRNe*-60.90-650-6-ZF	600	900	600	150-700	±5	two	40
VRNe-80.120-650-12-ZF	800	1200	1200	150-700	±5	two	80
VRNe-100.150-650-25-ZF	1000	1500	2500	150-700	±5	two	115
VRNe-120.150-650-30-ZF	1200	1500	3000	150-700	±5	two	135
VRNe-140.250-650-45-ZF	1400	2500	4500	150-700	±5	three	210
VRNe-160.250-650-60-ZF	1600	2500	6000	150-700	±5	three	225

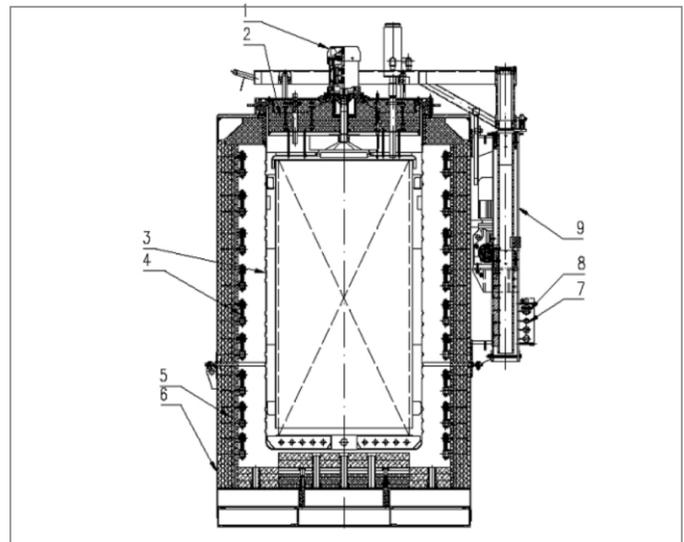
* VRNe - Vertical retort nitriding - electrical

The given characteristic is a standard series of types of SECO/WARWICK furnaces, in case there is such a need we are able to adjust our products to the requirements of our customers.



HRNe

1. Efficient heating elements
2. Light and durable insulation
3. Strong retort with low weight
4. Efficient atmosphere mixer
5. Fast and effective cooling system
6. Gas- and vacuum-tight closure



VRNe

1. Efficient atmosphere mixer
2. Light cover
3. Strong retort
4. Heating elements
5. Light and durable insulation
6. Housing
7. Cooling water outlet
8. Cooling water inlet
9. Mechanical cover lifter