



BOILTE HERO

**HIGH PRESSURE — STABLE STEAM —
UNINTERRUPTED PRODUCTION**

CAPACITY: 300–5000 kg/h
STEAM TEMPERATURE: up to 201°C,
PRESSURE: 15 bar



Boilte Hero

FUEL: GAS / DIESEL / HEAVY FUEL OIL / HEATING OIL / WASTE OIL

Designed for intensive 24/7 operation

Boilte Hero is an industrial high-pressure steam boiler, created for large-scale process applications in the refining, petrochemical, woodworking, food, and chemical industries.

The Hero model range covers steam capacities from 300 to 5,000 kg of steam per hour at operating pressures up to 15 bar. Saturated steam temperature reaches 201°C.

The Hero boiler features a two-pass fire-tube design with flame inversion. This configuration ensures high efficiency, compact dimensions, and ease of maintenance. The equipment comes with a full certification package for EAEU-compliant use.

Hero is the choice for industries requiring stable high-pressure steam for continuous process operations. The boiler is designed for 24/7 duty with a high degree of automation and minimal operator intervention.

What you get when choosing Hero

- Two-pass design with flame inversion – maximum heat transfer, high efficiency, fast start-up.
- Shell made of 09G2S steel – corrosion resistance and resistance to cyclic thermal loads.
- Lifetime warranty – on the heat exchanger and load-bearing components. No time limit.
- Removable rear gas collector – quick flue gas cleaning without dismantling components.
- Front access – front door opens to either side for easy installation and maintenance.
- Components from global brands – Siemens, Schneider Electric, ABB, Danfoss: high precision and spare parts availability.

All welded joints are made by robotic welding systems with subsequent non-destructive testing (ultrasonic testing or radiography). Hydraulic tests are performed at 1.5 times the working pressure. Each boiler is supplied with factory test reports.

Optimised for variable steam demand

Unlike conventional boilers that struggle with fluctuating loads, Hero's two-pass design and fully modulating burner allow it to respond smoothly to

changes in steam demand. This is particularly valuable in processes with batch operations or variable production schedules, where the boiler can ramp up or down without thermal shock, minimising fuel waste and reducing mechanical stress on pressure parts.

Enhanced water circulation reliability

The Hero's internal water circulation circuit is engineered to ensure stable natural circulation even at the lower end of the load range. This prevents localised overheating of tube sheets and ensures uniform temperature distribution across the heating surfaces. This is critical for extending tube life and reducing the risk of fatigue failures in high-pressure applications where thermal gradients are severe.

Standard scope of supply

Basic package (included in the boiler price):

Feedwater and steam system:

- Feed pumps (1 duty + 1 standby) – redundant configuration with automatic standby activation
- Main steam stop valve – controls steam delivery to the header

Safety and monitoring system:

- Safety valves (2 pcs) – dual-circuit overpressure protection
- Pressure monitoring package – pressure switch, electronic transmitter, indicating gauge
- Level monitoring system – two water gauge columns, working and emergency level electrodes

Intelligent control system:

- Control panel – PLC with operator interface, automatic start-up, power modulation, emergency shutdown
- Flue gas temperature sensor – combustion efficiency monitoring, overheat prevention

Heat transfer enhancement:

- Turbulator set – flame disruptors in fire tubes, improving efficiency

Valves and documentation:

- Full set of shut-off and regulating valves
- Passport, instruction manual, certificates, factory test reports

Optional extras (on request):

- Combination burner (gas/diesel/heavy fuel oil)
- Advanced automation (SCADA, remote monitoring)
- Water treatment system (deaerator, filters)

Fields of application

- Petrochemical and refining – reactor heating, distillation, reforming, hydrotreating. Stable 24/7 steam for continuous process cycles.
- Wood processing – lumber drying, PB, MDF, OSB press heating. Consistent steam parameters ensure product quality.
- Food and beverage – sterilisation, pasteurisation, cooking in dairies, meat plants, canneries. Steam purity for food safety compliance.
- Chemical and pharmaceutical – pressure reactors, distillation, drying. Precise temperature control for reproducible reactions.
- Processing and manufacturing – heat treatment, autoclave curing, process line heating. Compact footprint for existing plants.
- Energy and municipal utilities – district heating, industrial cogeneration, peak-load and baseload operation.
- Additional – rubber vulcanisation, textile finishing,

pulp and paper drying, building materials curing, marine auxiliary systems.

Why choose Boilte Hero?

- Lifetime warranty on the boiler heat exchanger and main load-bearing components – an unconditional manufacturer's commitment, legally confirmed.
- Full certification package (GOST, TR EAEU, EN, optionally ASME, PED) – for trouble-free commissioning and inspection by any regulatory authority.
- Engineering support at every stage – selection, site supervision, commissioning, start-up, staff training, and ongoing service.
- Factory-direct pricing – optimised logistics, no intermediaries, no hidden markups.
- Proven reliability for 24/7 operation – designed for continuous duty with minimal operator attention.
- Complete traceability – every welded joint is documented with NDT reports.

Technical specifications

Model, Hero	Power, kW**	Efficiency, %	Boiler resistance, mbar	Water volume, L	Steam space volume, L	Flue gas flow, m ³ /h	H, mm	B, mm	L, mm	Dry weight, kg
300	210	91,3	3,5	246	133	278	1112	1259	1601	612
400	280	91,3	1,1	306	153	435	1214	1358	1786	830
500	350	91,7	4,6	333	166	465	1214	1358	1886	880
600	420	91,7	5,6	358	179	532	1214	1358	1986	920
800	600	91,2	6,9	886	443	798	1532	1646	2333	1590
1000	700	90,2	5,7	986	493	931	1532	1646	2533	1760
1250	905	92,1	5,1	1086	543	1197	1696	1791	2381	1930
1500	1100	92,2	4	1266	633	1452	1696	1791	2681	2100
1750	1300	91,3	6,3	1466	733	1718	1696	1791	2981	2400
2000	1400	91,3	7,6	1496	763	1875	1696	1791	3081	2420
2250	1600	91,3	6	1620	810	2129	2021	2048	2961	3110
2500	1800	91,7	8,1	1760	880	2395	2021	2048	3161	3250
2750	2000	91,7	8	1953	976	2662	2130	2152	3161	3850
3000	2200	91,2	10,1	2000	1000	2916	2130	2152	3261	3990
3500	2500	91,2	6,8	2533	1266	3303	2360	2349	3169	4750
4000	2800	91,1	9,1	2640	1320	3714	2360	2349	3269	4977
4500	3300	91,2	14	2866	1433	4380	2360	2349	3519	5210
5000	3500	91,5	16,5	3133	1566	4658	2360	2349	3769	5670

****Power:** The values shown correspond to operation on methane (natural gas). When using diesel fuel or heavy fuel oil (mazut), a power adjustment (reduction) may be required in accordance with design standards and fuel-specific calculations.

Boilte reserves the right to modify dimensions and design without prior notice.

Dimensional tolerance: ±0.1–0.2% for all Boilte equipment.

BOILTE[®]
engineered trust

