

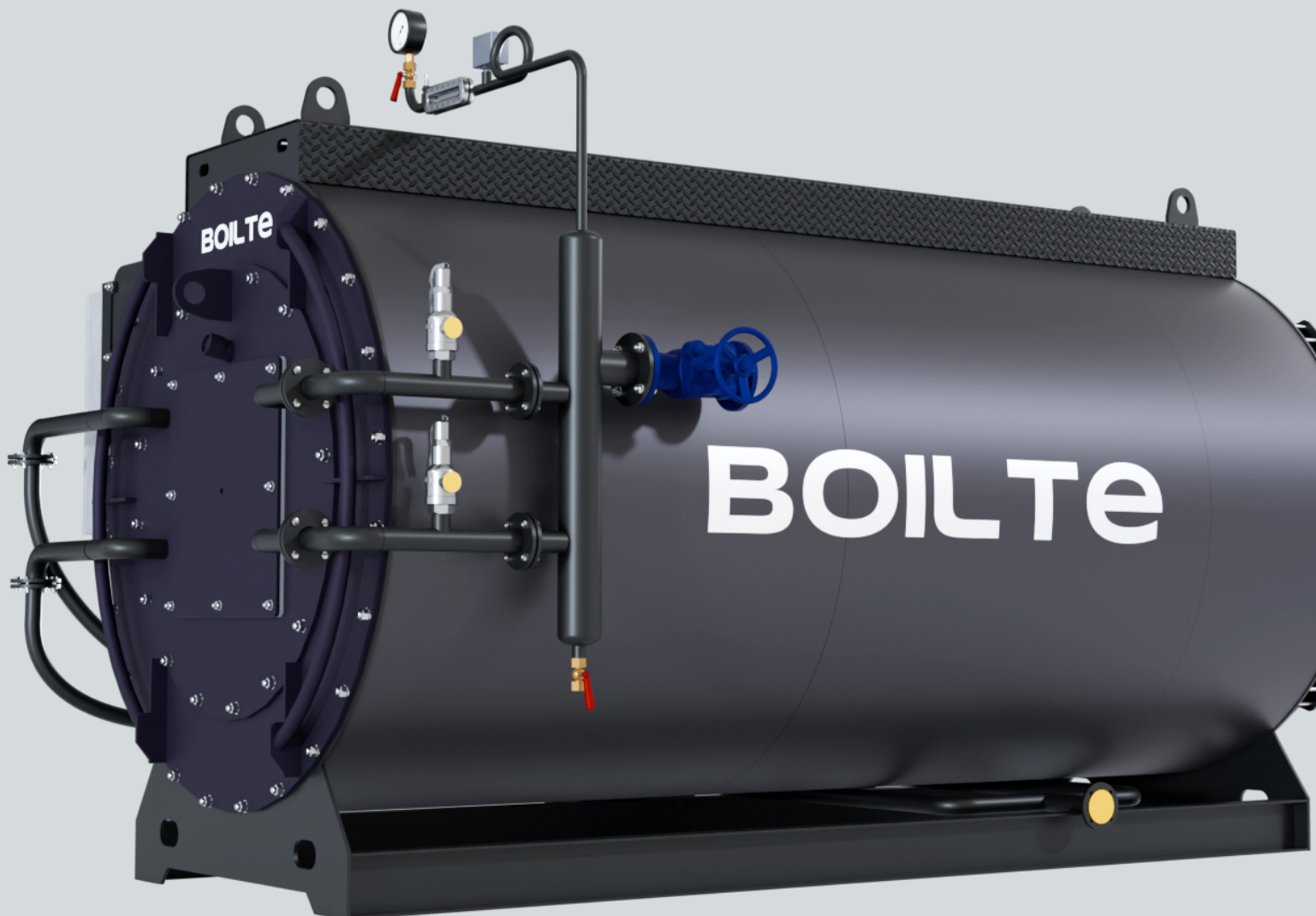
BOILTE RAPID

STEAM THAT DOESN'T WAIT

CAPACITY: 120–8000 kg/h

STEAM TEMPERATURE: up to 194°C

OPERATING PRESSURE: 12 bar



Boilte Rapid

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

Why Conventional Boilers Slow Down Your Production?

In high-tech industries where processes require instant temperature changes or on-demand sterile cycles, conventional boilers with their massive water volume become the weakest link.

A fire-tube boiler with a capacity of 1000 kg/h contains 800–1200 liters of water under pressure. Heating this mass to boiling takes 25–40 minutes. During this time, you're burning fuel without producing any steam. With cyclic operation (frequent starts and stops), fuel losses reach up to 30%.

Rapid solves this radically: water under pressure is fed into a coil and turns into steam in a single pass. No massive drum. No thermal inertia.

The key advantage of Rapid: steam output in 90 seconds with precise parameter control. That's 15–25 times faster than fire-tube alternatives.

Core feature: a once-through coil heat exchanger made of seamless heat-resistant steel. Water passes through the spiral tube and is heated to high-quality dry saturated steam in a single pass.

Key Advantages (6 reasons to choose Rapid)

1. Steam output in 90 seconds – a fire-tube boiler needs 25–40 minutes for the same result. With cyclic operation, you save up to 30% on fuel. Steam is generated only when it's actually needed.
2. Minimal water volume – 8–10 times less than fire-tube analogues. Instead of 1000 liters under pressure – just 100–150 liters. The risk of accidents is dramatically lower. The hazard category of the facility is reduced.
3. Precise parameter control – no overshoot or fluctuations. Instant response to control system commands. Operation in "on-demand" mode. Ideal for fully automated production lines.
4. Seamless heat-resistant steel coil – withstands extreme temperature gradients and cyclic loads. Not afraid of frequent starts and stops.
5. Compact footprint and low weight – 3–5 times smaller footprint and 4–8 times lighter than a fire-

tube boiler of the same capacity. Installation directly in the workshop, next to the point of use. Minimal steam line losses.

6. Lifetime warranty on the coil heat exchanger – we are so confident in our materials and welding quality that we guarantee the core component without any time limit.

Quality Control: From Pipe to Commissioning

A boiler operating at the limits of material capabilities requires a different level of control.

1. Incoming pipe inspection. Each pipe for the coil comes with a certificate confirming chemical composition and mechanical properties at temperatures up to 400°C. No certificate – no production.
2. Coil bending inspection. The bending radius is at least three times the pipe diameter. A smaller radius means a risk of wall cracks. Every bend is inspected.
3. 100% radiographic weld inspection. The coil is welded from multiple pipe sections. Every weld is X-rayed. The report is included with the boiler passport.
4. Hydraulic pressure tests. The coil is tested at 1.5 times the working pressure (up to 18–20 bar). Holds for 10 minutes – no micro-cracks.
5. Thermal cycling tests on the test bench. The complete boiler is started on the bench, and 10–20 heating/cooling cycles are simulated. Tightness and automation response are checked in real dynamic conditions.
6. Full certification package: GOST/EAC conformity. Hassle-free commissioning.

Where Rapid Is Used: Industries and Applications

Once-through coil design. Water passes through the coil once, heating up gradually without recirculation or mixing. This eliminates stagnant zones and local overheating.

How flue gases flow:

- Pass 1 – combustion chamber, flame heats the inner coil turns
- Pass 2 – gases turn around the chamber and flow along the outer coil
- Pass 3 – residual heat recovery

- How water flows: A high-pressure feed pump pushes water through the coil at a controlled flow rate. The speed is monitored by the control system – if the flow drops, the coil would overheat locally. This is prevented by the interlock system.
- Seamless heat-resistant steel coil. Multi-pass spiral designed for high temperatures and pressures up to 25 bar. Wall thickness and material are chosen for frequent start-stop operation.
- Gas-tight combustion chamber. No air leakage – stable combustion and lower emissions. Efficiency exceeds 90%.
- Minimal water volume. Instead of 1000 liters – just 100–150 liters under pressure. In an emergency, the discharge volume is minimal. The potential energy of a hazardous situation is dramatically lower.

Why choose Boilte Rapid?

- Lifetime warranty on the boiler heat exchanger and main load-bearing components – an unconditional manufacturer's obligation, legally confirmed and backed by full technical responsibility. This is not a marketing statement, but a legally binding commitment.
- Full certification package – GOST, TR EAEU, EN, and optionally ASME, PED upon request. This ensures smooth commissioning and trouble-free inspection by any regulatory authority. No bureaucratic delays, no last-minute surprises.
- Engineering support at every stage – from selection and sizing to site supervision, commissioning, start-up, staff training, and ongoing service support. Our engineers stay with you through the entire life cycle of the equipment.

Technical specifications

Model, Rapid	Power, kW**	Efficiency, %	Boiler resistance, mbar	Water volume, L	Furnace volume, m ³	Flue gas flow, m ³ /h	H, mm	B, mm	L, mm	Dry weight, kg
120	84	90,1	1,9	20	0,1	110,4	1575	1380	1665	750
200	140	90,2	1,9	30	0,11	183,6	1575	1380	1665	750
300	209	89,2	2,9	30	0,11	274,8	1575	1380	1665	750
400	279	88,4	3,4	40	0,14	304,8	1675	1380	1700	850
500	349	90,1	3,4	40	0,14	453,6	1675	1380	1700	850
600	419	89,5	3,9	80	0,26	554,4	1675	1380	2280	1250
800	558	90,3	3,9	80	0,29	697,2	1675	1380	2280	1250
1000	698	90,4	6,8	120	0,32	920,4	1440	1380	2280	1270
1200	837	90,3	8,8	120	0,32	1104,7	1440	1380	2280	1380
1500	1047	90,1	8,8	190	0,67	1380,4	1900	1600	3290	1550
1800	1256	90,3	8,9	250	0,82	1657,2	2030	1600	3350	2170
2000	1396	90,5	8,9	310	0,82	1836,1	2030	1600	3375	2220
2500	1745	90,1	9,1	390	1,42	2292,2	2115	1600	3680	2890
3000	2093	90,3	9,2	450	1,42	2762,7	2115	1685	4120	2970
3500	2345	90,1	9,2	490	2,21	3084,7	2115	1685	4220	3550
4000	2791	90,3	9,8	570	2,21	3684,5	2080	1870	4350	4090
4500	3021	90,1	9,8	690	4,15	3984,4	2080	1870	4550	5020
5000	3489	90,3	10,7	900	4,15	4595,5	2650	2400	4750	6680
6000	4187	90,5	11,2	1100	5,24	5520,9	2650	2610	5150	7120
7000	4885	90,1	11,8	1250	6,51	6444,1	2650	2610	5400	7890
8000	5582	90,3	12,2	1470	7,78	7368,2	2980	2810	5700	9350

****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

