



BOILTE QUANT

**FOR PROCESSES THAT NEED MORE
TEMPERATURE**

POWER: 300 – 3500 kW

TEMPERATURE: up to 151°C

PRESSURE: 10 bar



Professional high-temperature heat supply solution

Need a powerful and ultra-reliable source of high-temperature water for process applications or heating? Industrial boilers Boilte Quant on superheated water are a professional solution for generating heat transfer fluid with parameters up to 151°C and pressure up to 10 bar. The power range from 300 to 3500 kW makes them ideal for large-scale production facilities, municipal utilities, and any task requiring high thermodynamic parameters.

The key advantage: An investment in the continuity of your production. The Quant boiler design is engineered for ideal compensation of constant loads from high pressure and temperature differentials, radically increasing its fatigue life and eliminating the risk of deformation.

The core feature of Quant: an embodiment of the engineering approach to durability. The cylindrical symmetry of the shell and tube sheets ensures ideal, isotropic distribution of mechanical and thermal stresses. You are investing not just in equipment, but in high production availability and predictability throughout the entire life cycle of the boiler.

Fuel flexibility: Operation on gaseous and liquid fuels with compatible industrial burners. Protection against market price fluctuations in energy carriers.

Key advantages (6 reasons to choose Quant)

1. High heat transfer fluid parameters – water heating up to 140°C (at 8 bar) or 151°C (at 10 bar). For the most demanding process and heating systems.
2. Engineering reliability for decades – cylindrical symmetry of the shell and tube sheets for ideal load distribution. Enhanced fatigue strength.
3. High thermal inertia – ability to operate stably under significant and variable loads. Peak smoothing and process protection.
4. Fuel flexibility – operation on gaseous and liquid fuels without replacing the main equipment. Strategic business protection.
5. Complete Control automation – intelligent control, monitoring, diagnostics and protection system. Fault logging and data transmission to the operator.

6. Lifetime warranty on the heat exchanger and load-bearing components.

Engineering excellence: designed for decades

The Quant boiler design is an embodiment of the engineering approach to durability.

- Cylindrical symmetry of the shell and tube sheets. Ensures ideal, isotropic distribution of mechanical and thermal stresses. This means the boiler is designed for ideal compensation of constant loads from high pressure and temperature differentials, radically increasing its fatigue life and eliminating the risk of deformation.
- Wetted combustion chamber bottom. A special design where the combustion chamber bottom is constantly washed by the heat transfer fluid. This eliminates local metal overheating and thermal stress formation in the most heavily loaded zone of the boiler.
- Two-pass design with two full turns of flue gases. Ensures maximum heat extraction and deep cooling of combustion products. Every additional metre of gas path is additional heat transferred to the heat transfer fluid.
- Quality control. Every critical welded joint undergoes 100% non-destructive testing. Protocols are included with the supply.

Optimised for continuous high-temperature operation

Quant's robust two-pass design and generous water volume make it particularly suitable for applications requiring continuous high-temperature water supply without interruption. The boiler's thermal inertia allows it to maintain stable outlet temperatures even during upstream process fluctuations, ensuring consistent thermal energy delivery to critical production equipment such as reactors, dryers, and sterilisation units.

Flexible installation and integration

Quant's compact footprint and standardised burner flange (EN standard) allow it to be easily integrated into existing plant layouts without major modifications. The boiler can be installed in tight machinery rooms, on mezzanine floors, or in outdoor weatherproof enclosures with minimal adaptation.

Operating modes

- Process heating. Stable temperature in reactors, autoclaves, dryers. Guaranteed product quality.
- Heating mode. Efficient heating of workshops, warehouses, hangars with high ceilings. Operation with any radiators.
- Peak mode. 100% power during extreme frosts. Covering maximum loads without oversizing in normal mode.
- Variable load mode. High thermal inertia smooths consumption fluctuations. No temperature or pressure surges.

Fields of application

- Food production. Pasteurisation, sterilisation, equipment washing require water at 90–120°C.
- Chemical industry. Reactor heating, autoclaves, product drying – high parameters are critical.
- Light industry. Ironing, fabric drying, dyeing production.
- Large greenhouse complexes. Heating large areas at low temperatures.

- Industrial workshops. Heating of high-ceiling spaces (hangars, warehouses, production lines).
- Municipal facilities with high requirements. Boiler plants serving buildings with old high-temperature heating systems.

Why choose Boilte Quant?

- Lifetime warranty on the boiler heat exchanger and main load-bearing components – an unconditional manufacturer's obligation, legally confirmed.
- Full certification package (GOST, TR EAEU, EN, optionally ASME, PED) – for trouble-free commissioning and inspection by any regulatory authority.
- Adaptation for any burner – burner flange manufactured to EN standard, allowing the installation of burners from any brand.
- 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.

Technical specifications

Model, Quant	Power, kW**	Efficiency, %	Boiler resistance, mbar	Water volume, L	Flue gas flow, m ³ /h	Gas consumption, m ³ /h	H, mm	B, mm	L, mm	Dry weight, kg
300	300	92,11	3,1	400	390,08	32,81	1093	900	1724	875
500	500	92,11	4,8	560	658,26	54,69	1194	1000	1974	1110
700	700	92,12	5,7	750	938,68	77,03	1194	1000	2474	1310
800	800	92,02	3,9	910	1072,72	88,58	1523	1300	2186	1935
1000	1000	92,14	6,7	1030	1328,81	109,38	1523	1300	2486	2655
1200	1200	92,11	5,2	1170	1597,02	131,72	1523	1300	2656	2958
1500	1500	92,11	5,1	1250	1999,32	164,45	1702	1450	2778	3520
1700	1700	92,12	7	1330	2267,34	186,41	1702	1450	2978	3615
2000	2000	92,12	8	1360	2669,16	219,53	1842	1550	3182	4245
2500	2500	92,14	6,8	1850	3328,14	273,45	2126	1800	3183	5345
3000	3000	92,51	11	2250	3998,64	328,91	2126	1800	3533	5620
3500	3500	92,11	16,5	3640	4693,15	385,14	2126	1800	3833	6855

****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

