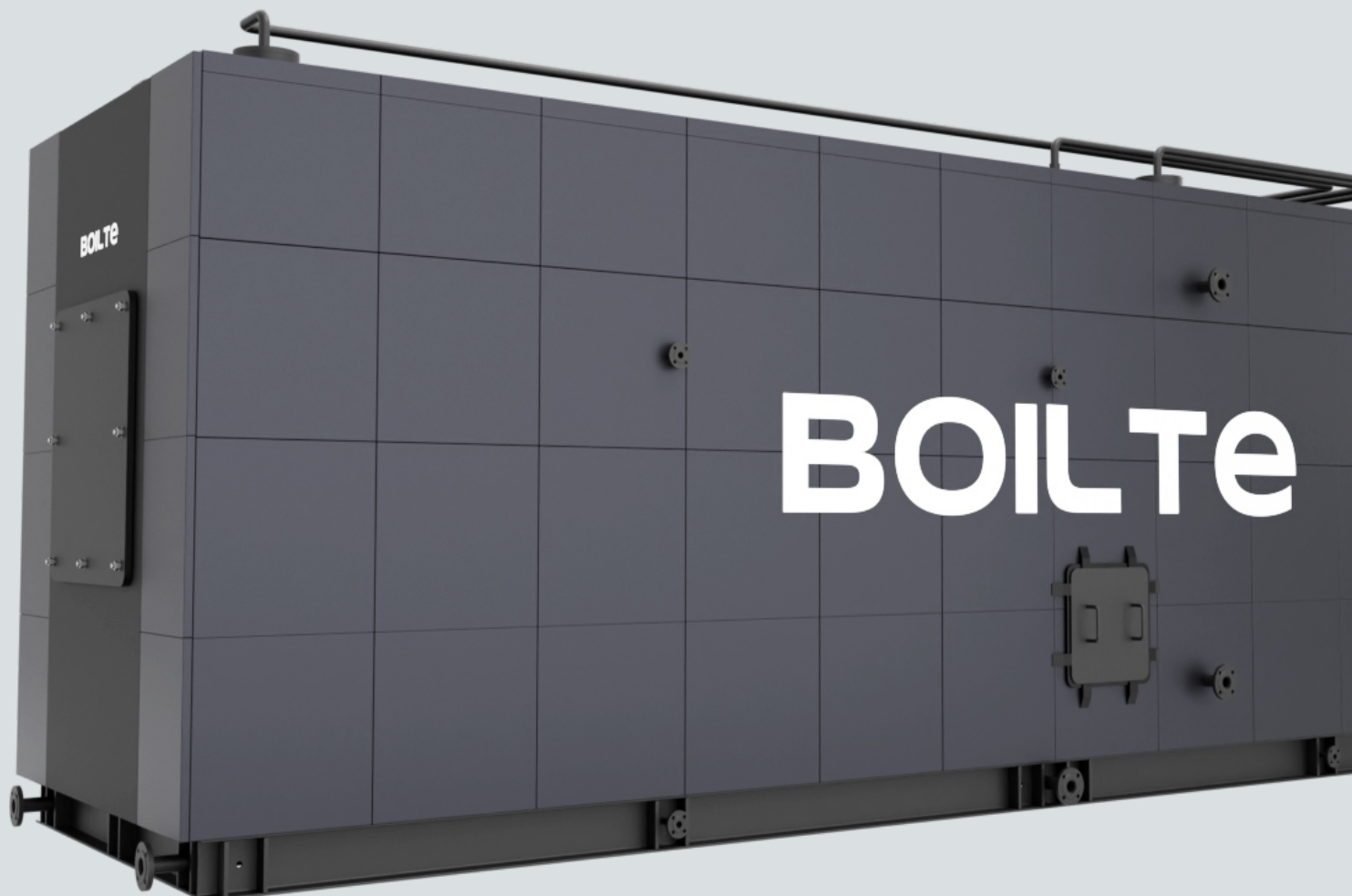


# BOILTE MEGA

## WATER-TUBE POWER FOR LARGE-SCALE ENERGY TASKS

**POWER:** 4650 – 50000 kW  
**TEMPERATURE:** up to 115°C,  
**PRESSURE:** 16 bar



# Boilte Mega

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

## Reliable source of high-temperature heat for your production

When it comes to heating large industrial enterprises, logistics complexes, or entire residential areas, standard solutions cease to work. Boilte Mega is a water-tube tunnel single-pass boiler designed to generate hot water at temperatures up to 115°C and pressures up to 16 bar. The model range covers thermal power from 4,650 to 50,000 kW, allowing precise selection of equipment for your actual plant load without excess capacity margin.

The key advantage: Efficiency up to 94% is achieved through a carefully designed heating surface layout and gas-tight construction that eliminates air infiltration and heat losses. The large-volume combustion chamber with low thermal load ensures complete fuel combustion with minimal NOx formation, meeting the strictest environmental standards. Design service life: 20 years.

### Construction where everything is thought through

- Gas-tight construction. Complete sealing eliminates heat losses and ensures safe pressurised operation. The boiler can operate without an induced draft fan, reducing electricity costs.
- Reduced metal consumption. The modern water-tube design makes the boiler lighter and more compact than equivalents of the same capacity.
- Smooth tubes. Heating surfaces are made of smooth tubes – minimum soot formation, easy cleaning.
- Large-volume combustion chamber. Low thermal load guarantees clean combustion with minimal NOx emissions.

### Minimal maintenance thanks to smooth tubes

Mega's heating surfaces are made of smooth tubes, significantly reducing soot formation and deposits. This extends the service interval to 8,000 hours of continuous operation and reduces chemical cleaning and mechanical maintenance costs. Removable insulation and cladding provide quick access to tube bundles for visual inspection and local repair without full boiler disassembly.

### Optimised for large water volume and thermal stability

Mega's large water volume and carefully designed

circulation circuit provide exceptional thermal stability, making it ideal for applications with fluctuating heat demand. The boiler's thermal inertia dampens load changes, ensuring stable outlet temperatures even during sudden demand shifts. This is particularly valuable in district heating networks and industrial processes where temperature consistency is critical.

### Simplified logistics and fast site erection

Mega's modular design and reduced metal consumption allow for easier transportation and faster site assembly. The boiler is supplied as a single transportable module on a self-supporting frame, eliminating the need for complex on-site welding and reducing installation time by up to 30% compared to field-erected boilers of similar capacity.

### Advanced integration with building management systems

Mega's control system is designed for seamless integration into modern building management and SCADA systems. Standard Modbus TCP/IP protocol enables remote monitoring, automatic load distribution between multiple boilers, peak load forecasting, and remote setpoint adjustment without operator presence. This makes Mega ideal for fully automated boiler plants and centralised energy management.

### Standard scope of supply

- Support frame. Robust self-supporting metal structure with fixed and sliding supports.
- Boiler tube section. Fully assembled and welded module: combustion chamber, convective tube bundles, headers, internal piping. Hydraulically tested.
- Thermal insulation. High-efficiency basalt wool insulation on all heated surfaces.
- External cladding. Protective casing of laminated steel sheets with polymer coating.
- Internal boiler piping. Transfer, drain, and vent lines installed within the boiler footprint.
- Documentation. Passport, certificates, test reports.

Optional extras: burner unit, automation panel, flue gas recirculation system, site supervision and commissioning.

## Where Mega is applied

- Large industrial enterprises – metallurgy, petrochemicals, mechanical engineering. Workshop heating, reactor heating, pipeline heating, process support. Operating pressure up to 16 bar for extended networks.
- Logistics hubs and warehouses – uniform heating of large areas with ceiling heights up to 20 m. Compact design for confined boiler rooms.
- District and neighbourhood boiler plants – heat supply to residential areas according to 95/70 or 115/70°C schedules. Load range 30–100%.
- Social infrastructure – hospitals, schools, sports complexes. Uninterrupted heat supply with low NOx emissions for installation near residential zones.
- Technological processes – heating of washing solutions, drying, reactor and autoclave heating at temperatures up to 115°C and pressures up to 16 bar.

## Why choose Boilte Mega?

- Compact footprint. Water-tube design reduces floor area, lowering capital costs for boiler house construction or renovation.

- Low NOx emissions. Optimised combustion chamber size and low thermal load ensure clean combustion with minimum NOx formation.
- Flexible selection. Power range from 4.65 to 50 MW allows precise matching to plant load. Single-module delivery reduces installation time and eliminates the need for special foundations.
- High operating parameters. Temperature schedules 95/70, 115/70°C and pressure up to 16 bar make the boiler universal for heating and process applications.
- Advanced energy efficiency. Efficiency up to 94% – low flue gas losses, pressurised operation without induced draft fan reduces electricity consumption.
- Reliability and ease of maintenance. Smooth tubes simplify cleaning. Modular construction and access to key components reduce repair time.
- Lifetime warranty on heat exchanger and load-bearing components.
- Full certification package (GOST, TR EAEU, EN, optionally ASME, PED) for trouble-free commissioning.

## Technical specifications

| Model, Mega | Power, kW** | Efficiency, % | Boiler resistance, mbar | Water volume, L | Flue gas flow, m <sup>3</sup> /h | Gas consumption, m <sup>3</sup> /h | H, mm | B, mm | L, mm | Dry weight, kg |
|-------------|-------------|---------------|-------------------------|-----------------|----------------------------------|------------------------------------|-------|-------|-------|----------------|
| 4000        | 4650        | 92,4          | 1,45                    | 89              | 5630                             | 495                                | 2312  | 2248  | 6250  | 8141           |
| 7000        | 7560        | 93,2          | 3,42                    | 146             | 9125                             | 810                                | 2312  | 2250  | 8100  | 15360          |
| 10000       | 11630       | 93,4          | 1,78                    | 221             | 15000                            | 1247                               | 2312  | 2250  | 8920  | 22000          |
| 15000       | 15000       | 93,2          | 1,89                    | 287             | 17868                            | 1570                               | 2833  | 2460  | 9450  | 32000          |
| 18000       | 18000       | 94,1          | 3,1                     | 398             | 20356                            | 1870                               | 2833  | 2460  | 10207 | 36200          |
| 20000       | 23260       | 93,2          | 2,2                     | 500             | 27210                            | 2427                               | 3260  | 3060  | 9821  | 43560          |
| 25000       | 27000       | 94,1          | 3,3                     | 601             | 31998                            | 2806                               | 3260  | 2900  | 10570 | 36200          |
| 30000       | 30000       | 93,8          | 3,1                     | 623             | 37887                            | 3106                               | 3827  | 3620  | 9590  | 38500          |
| 35000       | 35000       | 93,2          | 2,1                     | 662             | 41887                            | 3605                               | 3827  | 3620  | 10490 | 43560          |
| 40000       | 40000       | 93,1          | 2,5                     | 856             | 48102                            | 4179                               | 3827  | 3620  | 11630 | 58850          |
| 45000       | 46500       | 93,8          | 3,3                     | 1145            | 55102                            | 4679                               | 3827  | 3620  | 12230 | 38500          |
| 50000       | 50000       | 93,2          | 3,1                     | 1356            | 60144                            | 6046                               | 3965  | 3620  | 14180 | 43560          |

**\*\*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:  $\pm 0.1-0.2\%$  for all Boilte equipment.

**BOILTE<sup>®</sup>**  
engineered trust

