



3-pass Oil- / Gas Boilers

Uno-3 · Max-3 · THW-I NTE

Hoval

Responsibility for energy and environment

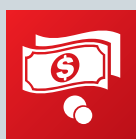
Hot water boilers.

Hoval 3-pass Oil/Gas Boilers.

Advantages at a glance.

Our products represent the technological state-of-the-art and our innovative solutions offer extremely low energy consumption in keeping with our motto “Responsibility for energy and environment”.

economical



Cost effectiveness

- **Cost-efficient solution**
due to low investment cost
- **Best effectiveness**
due to built in dimpled tubes*
- **Power saving and high efficiency**
due to large water capacity

*Thermolytic heating surface

ecological



Lowest emissions

- **Environment friendly**
due to lowest noxious emission
- **Low CO₂ emissions**
due to minimal consumption
- **Outstanding emissions values**
due to power adjustment (modulation) of LowNOx burners

clever



Compact and complete

- **Large range of applications**
due to flexible combination options
- **Space-saving**
due to compact design
- **Simple installation**
due to high flexibility in positioning

easy to use

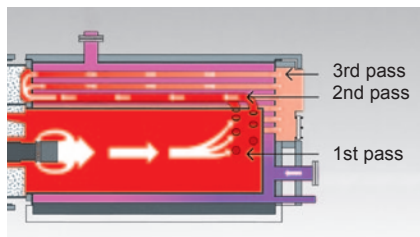


Simple maintenance

- **Easy to use**
due to intelligent design details
- **Convenient and accessible remote maintenance** by using TopTronic® online
- **Service friendly**
due to very easy front door access

Hoval 3-pass Oil/Gas Boilers.

Three-pass boilers that meets your requirements:



For clean combustion.

With the proven 3-pass technique, the hot combustion gases are immediately moved out of the high-temperature zone. The flame temperature is reduced, and the pollutant emissions are minimized. Thanks to its 3-pass construction, the Hoval 3-pass boilers undercut even the most stringent emission control requirements by a wide margin.



Free burner choice, safety inclusive from the Hoval test stand:

Basically all modulated and 2-stage burners can be used for the Hoval Uno-3 and Max-3 boilers. Burners of all well-known manufacturers have been tested in our company and can be recommended for our Hoval Uno-3 and Max-3 boilers according to the test results.



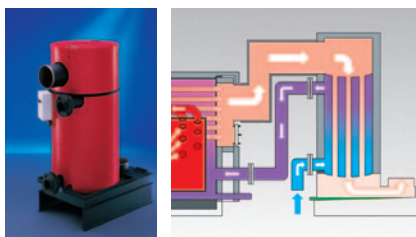
Intelligent command centre for your heating system

The TopTronic® control is the brain of every Hoval system. Innovative microprocessor technology ensures smooth, and continuously monitored, operation. The clearly arranged LCD display provides information on important operating data, while a single rotary pushbutton and seven keys are used to activate heating programs and settings. If intervention is necessary, the required program can be found in seconds in the self-explanatory user guide



Low operating costs of the Hoval 3-pass boilers can be taken for granted:

The Hoval 3-pass boilers transform the energy stored in oil and gas into valuable heat with impressive efficiency – this is demonstrated in a boiler efficiency rating of up to 96%. You, as the investor, will benefit from this high efficiency in the form of substantially lower heating costs. The excellent insulation of the boiler lowers the stand-by losses and further reduces the energy consumption of the system.



Up to 15 % additional energy saving with the ThermoCondensor aluFer®.

With the additional flue gas heat exchanger you gain highest energy utilization. The Hoval ThermoCondensor aluFer® allows modern flue gas condensing. It is also possible to gain energy which in conventional boilers are lost through the chimney as flue gas loss. The result: The efficiency of the Hoval Max-3 improves by additional 15%. ThermoCondensors aluFer® are offered as separate freestanding units. All connections to the boiler and the condensor are designed for quick and simple installation.



Remote access via TopTronic® online

The TopTronic® online feature allows you to control and optimise your heating system from afar. The exceptionally user-friendly interface is equipped with easy-to-operate features, accessible from either your PC or Smartphone.

Additionally, you can use your mobile phone to communicate with your heating system. Previously programmed phone numbers can receive fault notifications via text, so that you can always be in touch with your system.



Installation wherever you want it!

The compact dimensions of the boiler allow installation of the Hoval 3-pass boilers in heater rooms with even the lowest of ceilings. In case this should fail, Hoval will perform a custom installation of the system on location.

Hoval 3-pass Oil/Gas Boilers Uno-3, Max-3, THW-I NTE.

Quality and unlimited technical know-how at a comparatively low price.

Hot water boilers from 50 to 20 000 kW.



The Uno-3

model series fulfils the strictest legal requirements for environmentally friendly, low-emission and economical operation. The finely tuned model series ranges from 50 to 360 kilowatts, so exactly the right unit can be selected to suit the building to be heated. Especially in this mid-range capacity sector, Hoval has gained a great deal of experience and is recognised throughout the world as a manufacturer of high-quality, long-lasting boilers.

The Uno-3 keeps your operating and heating costs down. The effectiveness of a heating unit is measured by means of the standard efficiency factor. The Hoval Uno-3 achieves a remarkable standard.



The Hoval Max-3

offers high-value heating technology at reasonable conditions. Particularly when replacing or renewing existing systems – situations where cost-optimizations is very important – the Hoval Max-3 is the ideal solution. The proven 3-pass low-NO_x technology ensures extremely low emissions in all operating phases. Low operating costs of the Hoval Max-3 can be taken for granted: The Hoval Max-3 transforms the energy stored in oil and gas into valuable heat with impressive efficiency – this is demonstrated in a boiler efficiency rating of up to 94%. You, as the investor, will benefit from this high efficiency in the form of substantially lower heating costs.



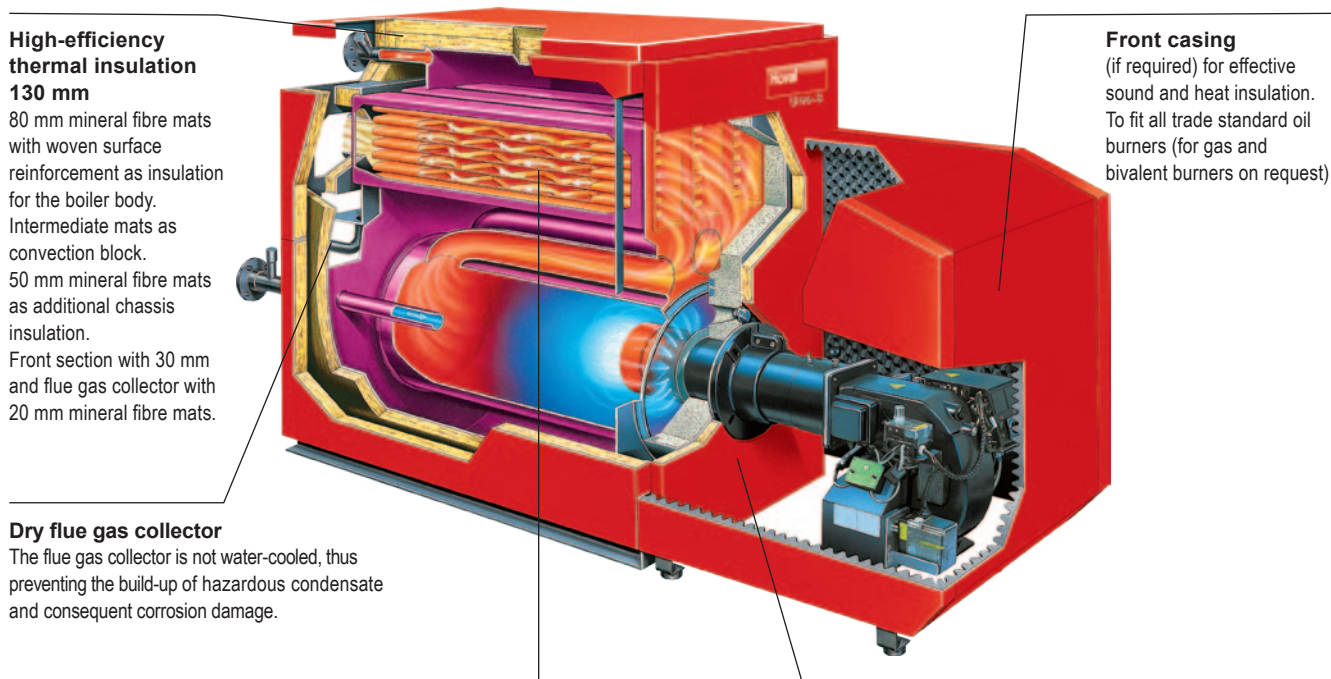
The Hoval THW-I NTE

has a wide range of applications thanks to its large output range, its construction advantages and its compact design. It is employed wherever the highest standards of reliability and economical profitability are required – not only in new buildings but also in redevelopments.

The THW-I NTE's list of references includes industrial sites, commercial office buildings, housing developments, hospitals, hotels and shopping centres. It is also suitable for district heating schemes due to its large output of up to 20 MW.

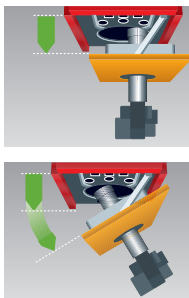
Uno-3.

Oil/Gas low temperature boiler from 50 to 360 kW



The thermolytic heating surface – a Hoval innovation.

If soot collects on the heating surfaces the energy transfer is impaired, resulting in increased fuel consumption and harmful emissions. This problem occurs frequently with conventional heating surfaces. On the Uno-3, however, no soot can collect on the heating surfaces: Thanks to the special ribbed structure deposits become thermally decomposed. On account of the self-cleaning effect of the patented, thermolytic heating surfaces the Uno-3 achieves an almost constant, high efficiency rating – even after a long period of service.



Double hinge door simplifies servicing.

Servicing the Hoval Uno-3's combustion components is made significantly easier thanks to the ingenious double hinge swing door. The boiler door swings forwards together with the burner. This is even possible with long and bulky burner heads. Thus the service technician has access to the combustion chamber and to the burner head easily and in just a few seconds. Laborious and time-consuming deinstallation of the burner is unnecessary. The direction in which the double hinge door swings out can be chosen at will and changed easily and quickly.

Technical data	Boiler output (kW)	working pressure (bar)	water content (l)	depth (mm)	width (mm)	height (mm)*	weight (kg)**
Hoval Uno-3 (50 - 90) type:							
(50)	35 - 50	4.0	105	1082	710	1072	247
(62)	46 - 62	4.0	105	1082	710	1072	247
(80)	56 - 80	4.0	115	1092	710	1072	268
(90)	60 - 90	4.0	115	1092	710	1072	268
Hoval Uno-3 (110 - 190) type:							
(110)	70 - 110	4.0	250	1536	780	1255	391
(125)	70 - 125	4.0	250	1536	780	1255	391
(160)	105 - 160	4.0	270	1548	910	1403	495
(190)	123 - 190	5.0	362	1565	910	1563	635
Hoval Uno-3 (220 - 360) type:							
(220)	143 - 220	5.0	362	1565	910	1563	635
(250)	170 - 250	5.0	480	2050	910	1563	880
(280)	190 - 280	5.0	480	2050	910	1563	880
(320)	220 - 320	4.0	625	2147	910	1481	920
(360)	220 - 360	4.0	625	2147	910	1481	920

* control box included

** casing included, without water

Figures subject to change without notice

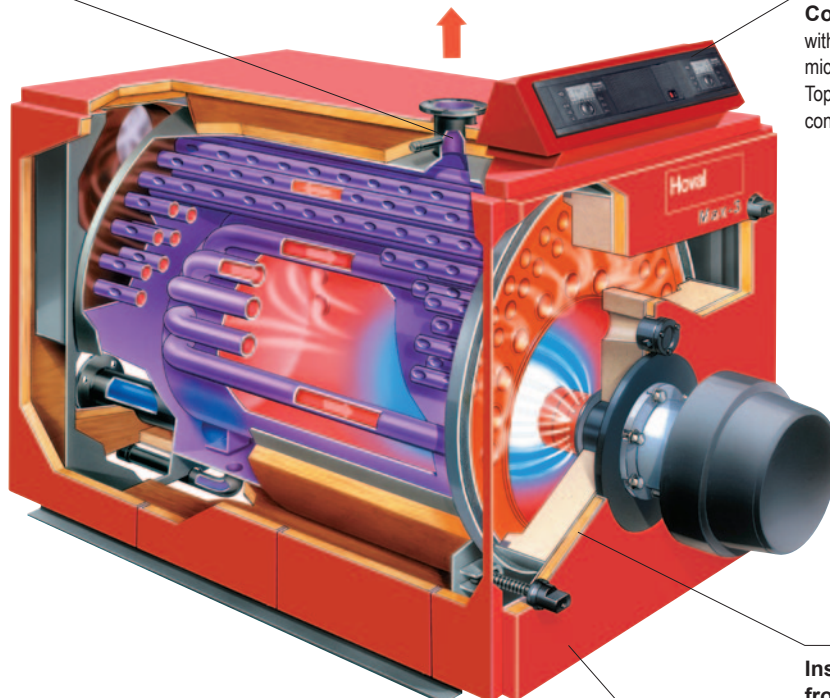
Max-3

3-pass oil/gas heating boiler from 192 to 3000 kW

Dimpled tubes – Hoval's patented development for constant high efficiency.

The efficiency of the Hoval Max-3 is a result of the design of the Hoval patented heating surfaces. The unique design of the dimpled tubes allows a guaranteed and permanent turbulence of the flue gases. This results in an optimized heat transfer and keeps the combustion efficiency constantly high.

The special feature of the third flue gas pass heating surface design brings an additional benefit: If boilers are used with low burner load the flue gases are still passing evenly through the heating surfaces. Thanks to the smooth inner surface of the dimpled tubes and their shape no additional turbulators are necessary and therefore no deposits of aggressive dirt are possible. A constant high efficiency is achieved and in addition the danger of corrosion is highly reduced.



Control panel
with modern, microprocessor-based TopTronic®T operating controls

Insulated swiveling front door
for easy cleaning and quick access to the combustion chamber. Optionally with heat- and sound-insulation cover.



Double hinge door simplifies servicing.

Servicing the Hoval Max-3's combustion components is made significantly easier thanks to the ingenious double hinge swing door. The boiler door swings forwards together with the burner. This is even possible with long and bulky burner heads. Thus the service technician has access to the combustion chamber and to the burner head easily and in just a few seconds. Laborious and time-consuming deinstallation of the burner is unnecessary. The direction in which the double hinge door swings out can be chosen.

Technical data Max-3 type:	Boiler output (kW)	working pressure (bar)	water content (l)	depth (mm)	width (mm)	height (mm)*	weight (kg)**
(420)	320 - 500	6	552	2178	1190	1435	1093
(530)	350 - 610	6	520	2178	1190	1435	1150
(620)	450 - 720	6	969	2452	1310	1435	1093
(750)	520 - 870	6	938	2452	1310	1555	1800
(1000)	680 - 1150	6	1528	2739	1500	1755	2500
(1250)	850 - 1450	6	1478	2739	1500	1755	2600
(1500)	1050 - 1750	6	2343	3030	1610	1790	3500
(1800)	1250 - 2150	6	2750	3400	1770	1950	4000
(2200)	1500 - 2500	6	3050	3700	1770	1950	4300
(2700)	1780 - 3000	6	3550	4030	1800	1980	5100

* control box included

** casing included, without water

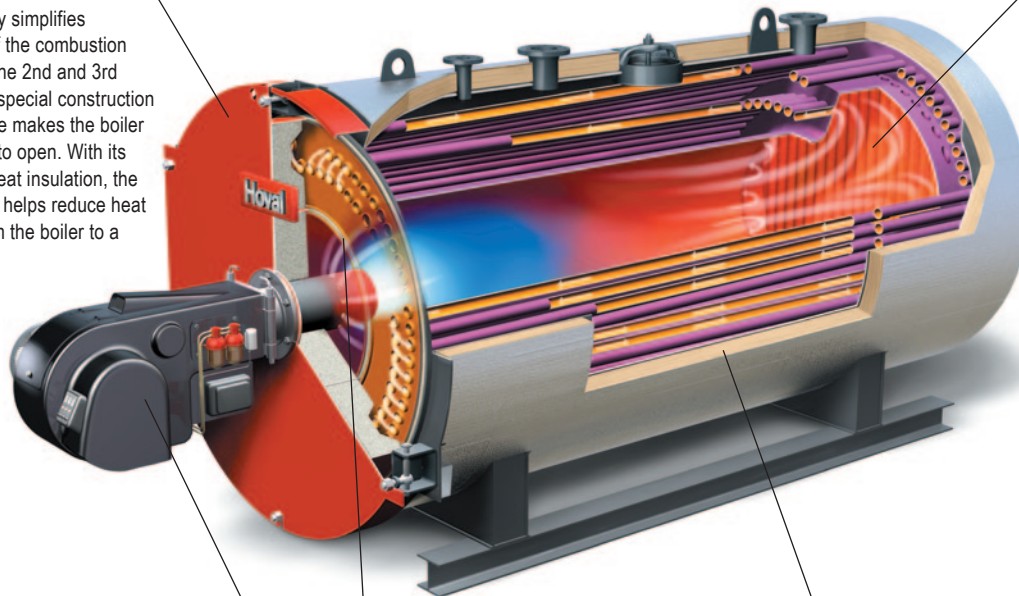
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THW-I NTE

3-pass oil/gas heating boiler from 1500 to 20 000 kW

Large boiler door
significantly simplifies cleaning of the combustion chamber, the 2nd and 3rd pass. The special construction of the hinge makes the boiler door easy to open. With its optimum heat insulation, the boiler door helps reduce heat losses from the boiler to a minimum.

Finned tube wall
means that full water cooling in the turning chamber between the 1st and 2nd pass is achieved. This significantly boosts fuel exploitation.



Burner
The boiler is optimally suited for the use of LowNOx burners due to the combustion chamber geometry and the low thermal load at the combustion chamber.

Smooth-tubed heating surface
without turbulators reduces flue gas losses and enables quick and easy cleaning to ensure economical operation.

High-efficiency thermal insulation
with aluminium cladding reduces standby losses to a minimum and thus contributes to optimum cost effectiveness.

Technical data THW-I NTE type:	Boiler output (kW*)	working pressure (bar)	water content (l)	depth (mm)	width (mm)	height (mm)*	weight (kg)**
(23/15)	2300	6 or 10	2800	3450	1700	2300	4000
(28/20)	2800	6 or 10	3500	3950	1800	2400	5300
(35/25)	3300	6 or 10	4500	4300	1900	2500	6000
(40/30)	4000	6 or 10	5000	4600	1950	2550	6600
(45/35)	4500	6 or 10	5500	4750	2000	2600	7300
(50/40)	5000	6 or 10	6500	5150	2100	2750	8400
(55/45)	5500	6 or 10	7000	5400	2150	2850	9200
(60/50)	6000	6 or 10	8000	5450	2200	2900	10000
(70/60)	7000	6 or 10	9000	5650	2300	3000	11200
(80/70)	8000	6 or 10	10000	5850	2400	3100	12500
(90/80)	9000	6 or 10	11500	6150	2500	3200	14000
(100/90)	10000	6 or 10	13000	6450	2600	3300	16000
(120/100)	12000	6 or 10	14000	6650	2700	3400	18000
(140/120)	14000	6 or 10	15000	6850	2800	3550	20500
(160/140)	16000	6 or 10	16500	7050	3000	3750	24000
(180/160)	18000	6 or 10	20000	7250	3200	3950	22000
(200/180)	20000	6 or 10	25000	7450	3300	4050	33000

*kW Burner setting max. load, air coefficient $\lambda = 1.14$
(CO₂, oil EL = 13.5%, liquid gas = 10.4%), standard load $\lambda = 1.23$.

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What you can count on.

Hoval



Clever and complete solutions from a single source

Consistent Hoval system technology simplifies the links between different technologies and establishes a reliable platform for efficient and dependable solutions. With us, you can easily incorporate solar or biomass energy solutions into your heating system. Hoval – everything you need from one source.



Planning support from experts

Hoval are happy to assist you and your planning partners in developing progressive systems, allowing you to take advantage of our expertise, and to count on the experience of our specialists.

Ask about Hoval system solutions and learn more about the many ways to combine highly efficient condensing boilers with our range of renewable products.



Hoval Service.

For specialist commissioning and maintenance of your Hoval appliances contact our service and spare parts department or your local Hoval partner. This is your guarantee for economical operation, reliability and added value.

Responsibility for energy and environment.

The Hoval brand is internationally known as one of the leading suppliers of indoor climate control solutions. More than 65 years of experience have given us the necessary capabilities and motivation to continuously develop exceptional solutions and technically superior equipment. Maximising energy efficiency and thus protecting the environment are both our commitment and our incentive. Hoval has established itself as an expert provider of intelligent heating and ventilation systems that are exported to over 50 countries worldwide.

Your heating planner / installation engineer

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