

LN gas/oil burners

"A burner that does what it is supposed to do"

Since its establishment in 1960, Thermeta Service BV has produced burner systems for greenhouse farming, industry and utility. The core of this delivery programme is the LN-series (Low NO_x) burner. The Thermeta LN-series burner is extremely flexible for use of various fuels and combinations of fuels burnt separately or even simultaneously. This allows delivery of burners for (bio) gas, (bio) oil, heavy oil or gas + oil simultaneously. This makes the Thermeta burner financially interesting and you can directly capitalize on developments in the energy market or temporary gas shortages.

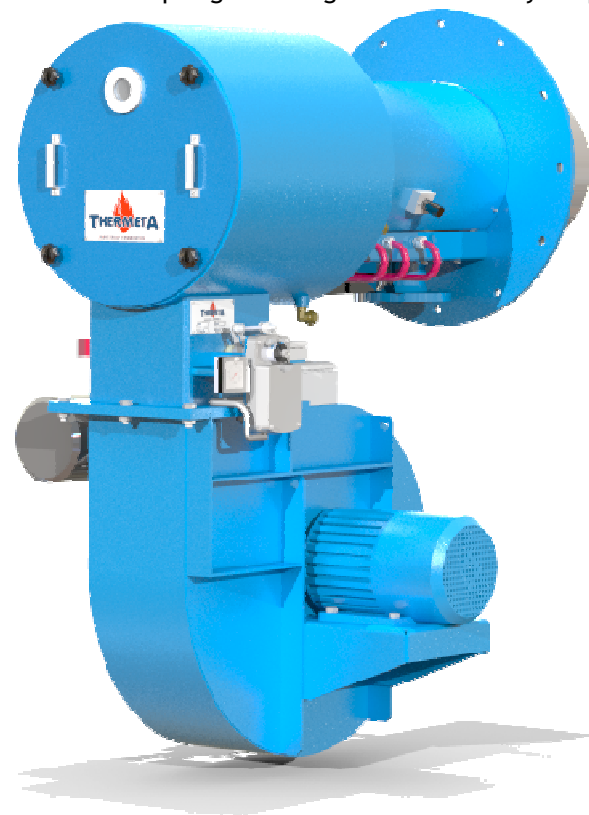
The flexibility of application of fuels or combinations of fuels is obtained by the unique design of the Thermeta Service BV burners, which allows for mounting and delivering these types in the same housings. The burners are delivered in a capacity range from 582 kW to 14.000 kW inclusive.

Innovations

The Thermeta burner is developed and manufactured in our own factory. Thermeta Service BV has been leading in the field of products for industrial combustion plants for many years. This is also thanks to our constant urge for pushing the limits and accepting challenges. Where many stop, Thermeta Service BV goes on. Therefore, Thermeta is proud that the burners are considered to be the 'cleanest' burners available in the market.

Greenlabel

Stimulated by globally more and more stringent standards, Thermeta has developed a range of burners that substantially reduces the emission of atmospheric pollution, such as NO_x, CO and unburnt parts. The LN-series burner has a very low NO_x emission. The Thermeta burners comply with the most recent **BEES** and **MIA/VAMIL** standards and meets the standards set for **Green Label**. This results in **extra points for the Green Label certificate** for greenhouse farming!



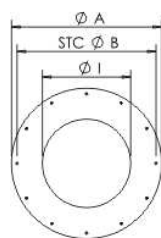
Scope of delivery

- Choice of many standard burner options.
- Recently developed LN-series burner with a very low NO_x emission and a very stable, low-noise combustion as well as a large heat exchange power with low reverse box temperatures.
- The putting into operation of the burner (pre-purge) at Low Speed (or 30 Hz) saves energy and minimizes noise pollution.
- A very accurate adjustment of the gas-air ratio across the entire control range. The control does not involve any mechanical parts, thus ensuring a reliable, 100% reproduction-accurate control of the combustion. The controller measures the air pressure in the burner housing and based on this controls the gas pressure on the gas ports. Further, the controller is completely insensitive to any change in the position of the air valve or contamination of the fan, as this changes the air pressure in the burner housing and the gas pressure is corrected accordingly.
- In order to avoid standstill losses of the boiler, the air valves are fully closed when stopping the burner system.
- Default modulating capacity control (PID) through the burner panel or through an external control, for example a climate computer or building control.
- Burner and gas trains are entirely pre-wired, thus minimizing local mounting activities.
- A fan with optimum air production because of the ingeniously clever shape of the spiral housing and the fan blades. The fan can be equipped with a single-speed, two-speed or frequency-controlled motor.
- With the two-speed type fan the motor is optimally adjusted to the low-speed range. This results in very economic use of electric energy at a low speed.
- The frequency-controlled burner has been especially developed for an even more economic (40% compared with the two-speed motor) use of the required electric energy for the fan of the burner.
- The burner can also be provided with a combustion device for other gas-type fuels and oil (HBO), consisting of: oil transport pump/motor combination with the oil magnet valves, strainers and nozzles.
- The burner control has been secured with a flame detection system (based on an UV-cell) and various air and gas pressure switches.
- In the switch panel motor safety switches provide protection against overload and short circuit of the fan motor and oil pump/motor combination. Here no use is made of once-only used melting fuses.

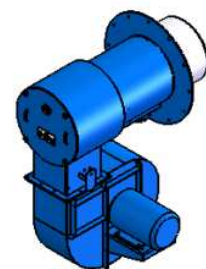
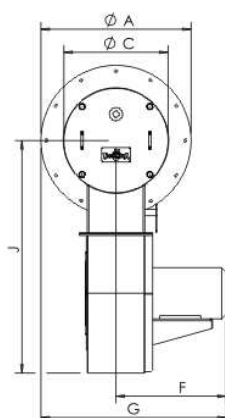
| Type | Burner capacity (Mcal/u kW) | Vent. (kW) | Oil (l/h) | Gas (m ³ /h) | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | F (mm) | G (mm) | H (PN-6) | I (mm) | J (mm) |
|---------|----------------------------------|---------------|--------------|----------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-------------|-----------|-----------|
| LN 5 | 500 582 | 1.1 | 62 | 70 | 500 | 450 | 700 | 297 | 212 | 339 | 636 | DN40 | 223 | 895 |
| LN 7.5 | 750 872 | 1.5 | 93 | 105 | 500 | 450 | 700 | 297 | 212 | 382 | 702 | DN40 | 223 | 944 |
| LN 10 | 1.000 1.163 | 2.0 | 125 | 140 | 570 | 520 | 785 | 297 | 260 | 386 | 737 | DN50 | 272 | 977 |
| LN 12.5 | 1.250 1.454 | 3.0 | 156 | 175 | 570 | 520 | 785 | 297 | 260 | 437 | 749 | DN50 | 272 | 1038 |
| LN 15 | 1.500 1.745 | 3.0 | 187 | 210 | 620 | 560 | 910 | 297 | 320 | 437 | 774 | DN80 | 332 | 1095 |
| LN 17.5 | 1.750 2.035 | 4.0 | 218 | 245 | 620 | 560 | 910 | 297 | 320 | 448 | 794 | DN80 | 332 | 1095 |
| LN 20 | 2.000 2.326 | 5.5 | 250 | 280 | 620 | 560 | 910 | 297 | 320 | 521 | 848 | DN80 | 332 | 1218 |
| LN 25 | 2.500 2.908 | 5.5 | 312 | 350 | 660 | 620 | 960 | 297 | 385 | 521 | 868 | DN80 | 397 | 1246 |
| LN 30 | 3.000 3.489 | 7.5 | 375 | 420 | 660 | 620 | 960 | 297 | 385 | 559 | 868 | DN80 | 397 | 1246 |
| LN 35 | 3.500 4.071 | 7.5 | 437 | 490 | 825 | 755 | 1010 | 350 | 465 | 559 | 950 | DN80 | 477 | 1260 |
| LN 40 | 4.000 4.652 | 11 | 500 | 560 | 825 | 755 | 1010 | 350 | 465 | 655 | 1051 | DN80 | 477 | 1383 |
| LN 50 | 5.000 5.815 | 15 | 625 | 700 | 940 | 870 | 1110 | 373 | 540 | 691 | 1161 | DN80 | 552 | 1454 |
| LN 60 | 6.000 6.978 | 18.5 | 750 | 840 | 940 | 870 | 1110 | 373 | 540 | 736 | 1161 | DN80 | 552 | 1454 |
| LN 70 | 7.000 8.141 | 18.5 | 875 | 980 | 1040 | 970 | 1110 | 466 | 640 | 736 | 1240 | DN100 | 652 | 1512 |
| LN 80 | 8.000 9.304 | 22.0 | 1000 | 1120 | 1040 | 970 | 1110 | 466 | 640 | 785 | 1272 | DN100 | 652 | 1512 |
| LN 90 | 9.000 10.467 | 30.0 | 1125 | 1260 | 1040 | 970 | 1360 | 466 | 640 | 918 | 1431 | DN125 | 652 | 1814 |
| LN 100 | 10.000 11.630 | 37.0 | 1250 | 1400 | 1040 | 970 | 1360 | 466 | 640 | 935 | 1431 | DN125 | 652 | 1814 |
| LN 110 | 11.000 12.793 | 37.0 | 1375 | 1540 | 1160 | 1090 | 1360 | 518 | 760 | 935 | 1536 | DN150 | 772 | 1880 |
| LN 120 | 12.000 13.956 | 45.0 | 1344 | 1680 | 1160 | 1090 | 1360 | 518 | 760 | 980 | 1536 | DN150 | 772 | 1880 |

Larger capacities on request

Dimensions and technical data are subject to change without prior notice



BOILER FLANGE
LN 05 - 60
LN 70 - 160



Detailed drawings are available on request