Cassette inserts and fireplace doors
Open fireplaces shine in a new splendour
Spartherm is the name for innovative fireplace solutions that not only meet the highest design standards but are also high quality and built for long life. That quality philosophy runs through the entire process: from the idea to development, from the different stages in production right through to delivery and service – all from a single source.

Spartherm is one of Europe’s biggest producers of fireplace inserts, stoves and cassettes. More than 25 years’ experience has gone into the acquired know-how of our staff, whose daily commitment is to be the best in the industry – each one in his or her own area, but all with the same aim: perfect products, happy customers.

At our two factories with a total production area of about 40,000 sq m we plan, develop and produce more than 55,000 fireplace units every year, using the latest equipment, with efficient production processes, in top quality.

We also put a lot of effort and care into making beautiful personalised creations. At our factory we turn our customers’ very special dreams into reality by producing individual custom designs to fulfil all requirements.

The basis of our success? The high technical quality of our products, combined with stylish design and constant innovation in the area of combustion technology. That’s what we do, and will continue to do. You can rely on that!
More safety for your open fireplace.
This is now possible for almost all open fireplaces with the new LINEAR fireplace cassette.
Available in five sizes and in the standard panel colour, black.
Technical information can be found on page 22.

LINEAR Standard cassette inserts
The universal applicable cassette for all open fireplaces
Say goodbye to old, ineffective and troublesome fireplaces in your home. Choose a modern and functional Spartherm cassette insert.

Do you have an open fireplace at home and would you like to bring it up to date while at the same time enjoying more effective, cleaner and safer heating? Then choose a new LINEAR Standard cassette inserts from Spartherm Feuerungstechnik GmbH.

Technical information can be found on page 22
Cosy Atmospherie
Perfect functionality

The new LINEAR Standard cassettes offer perfect functionality and a modern and stylish appearance, as well as being easy and uncomplicated to install. They fit in stylishly with your particular ambience and don’t just fill the empty space of an open fireplace but allow it to radiate in a completely new splendour.

Technical information can be found on page 22
Your benefits

High technical quality combined with stylish design. Enjoy those relaxing hours in the splendour of a new Spartherm LINEAR Standard fireplace cassette, while enjoying more warmth and greater safety.

- Low-key frame solution, big viewing panel for optimum fire experience
- High efficiency
- Retrofitting a blower is possible
- Safe locking mechanism

Technical information can be found on page 22

Principle of operation of the LINEAR Standard cassette inserts

01 Combustion air (in this case via optional flow pipe)
02 Combustion air inlet
03 Convection air outlet
04 Secondary air wash
05 Primary air
06 Flue gas outlet
07 Optional fan
Detail of technology
...made according to your wishes.

our custom-made cassette inserts!
Your benefits

- Safe and clean
- Environment-friendly heating
- Up to 5 times enhanced efficiency in comparison to an open fireplace
- High efficient combustion up to 83% even without hot air fan
- Adjustable heat

Impressions

Let yourself be inspired

We will show you a small selection from the numerous design possibilities that are possible with a Spartherm cassette inserts on the following pages. Allow your creativity to run free – we manufacture our cassettes according to your wishes.

- Almost all shapes and sizes possible
- Production according to your individual dimensions
- Different colours and surfaces to choose from
- Technical advice and support
- etc.

Feel comfortable at home – we make it possible for you.

Technical information can be found on page 23 or on request.
Simpler and more flexible

Spartherm cassette inserts
Fire...

A feeling of warmth, cosiness and the fascination of flickering flames – quality of living enters a new dimension.
Old fireplaces fitted out in a new splendour enable you to enjoy the natural spectacle in a tamer and safer form.

Technical information can be found on page 23 or on request

Your new cassette insert allows you to immediately enjoy flickering flames in a “controlled” and more comfortable form.
A very well sealed fireplace provides 100% protection against flying sparks and smoke nuisance into living areas. And also you should consider that open fireplaces will achieve a significantly higher efficiency when a cassette insert has been installed.

Technical information can be found on page 23 or on request
Varieties and installation examples

Old fireplaces in a new splendour

Say goodbye to old, ineffective and troublesome fireplaces in your home. Choose a modern and functional Spartherm cassette insert. Perfect functionality and the easy and clean installation, as shown in our example installation, will convince you of the quality of our fireplace cassettes. Technical information can be found on page 23 or on request.
Cassette inserts - custom-made
We implement your ideas – that's our guarantee!
High technical quality combined with contemporary design

Your advantages

- Discreetly placed control elements
- Self-closing fireplace door
- Permanent air wash system for clear glass panes
- High-heat resistant vitroceramic glass windows
- High material strength for greater durability
- Up to 5 times higher efficiency in comparison to an open fireplace
- Fitting a cassette clearly improves the draught properties of a flue
- Heat emission through radiation and convection
- Increased convection performance due to a continuously variable fan (as from 600 mm front width) optionally available
- Adjustable heat
- Certified according to DIN EN 13229

Technical information can be found on page 23 or on request
Always stylish: cassette inserts!
You often find old, open and dirty fireplaces that have been in service for a very long time. They are damaging to our environment and no longer practical to operate due to their lower efficiency levels. Our cassette inserts fit in with the style of the house and don’t just fill the empty space of an open fireplace but emphasise the character of the room or apartment with their design.

Technical information can be found on page 23 or on request.
Cassette insert construction according to your demand

The production of your new cassette insert is carried out precisely according to the dimensions of the existing opening, which are measured on-site by the fireplace fitter.

Spartherm cassette insert and doors are tailor-made in a variety of fronts, shapes and designs. Whether you require a straight, prismatic, round, rectangular or rounded arch front, or you like a one or two-leaf door, or even a one-sided, two-sided or three-sided viewing panel – we produce the cassettes and doors in our factory according to your personal requirements.

Technical information can be found on page 23 or on request

Brilliant technology.
The principle of operation of the customised cassette inserts

01 Firebox bottom, with moulded fire-clay bricks
02 Firebox walls line up with vermiculite
03 Double-layered base and walls to circulate the convection air
04 Air intake slats for the convection air (cold air)
05 Air outlet slats for the convection air (hot air)
06 Ash pan
07 Ash grate
08 Wood catcher
09 Heat exchanger pipes for the convection air
10 Integrated primary air control (handle adjustable/rotatable)
11 Primary air intake into the firebox
12 Secondary air intake (pre-heated air)
13 Control lever for continuously adjustment of the secondary air (operation using the ‘cold hand’)
14 Adjustable feet for aligning the cassette
15 Optional fan

Standard | black
Elegance | gold
Elegance-matt | gold matt
Avantgarde | chrome
Avantgarde-matt | chrome matt
Luxury

Standard version with ornamental molding (see Fig.)
The trims are available with an elegant or avantgarde finish.
Fireplace doors

Fireplace doors from Spartherm are a simple option for preventing flying sparks and escaping smoke. The radiant heat emitted from the glass panel is another advantage. Just like with fireplace cassettes, we produce fireplace doors for you in all feasible sizes and forms with galvanised or black surfaces. Decide for yourself!

Your benefits

- Safe and clean heating
- Cosy heating with no draughts
- Lots of radiant heat via the glass panel
- Custom-made production in a wide range of versions

Please note:

Fireplace doors alter the structure of the existing open fireplace, so you need to observe the local regulations and ask the appropriate authority (if applicable).

Achieve a great deal with little expenditure
LINEAR Standard cassette inserts

Technical data

<table>
<thead>
<tr>
<th>Type of fuel</th>
<th>Unit</th>
<th>E4</th>
<th>E5</th>
<th>E7</th>
<th>E10</th>
<th>E14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal heat output kW</td>
<td>4.6</td>
<td>4.9</td>
<td>6.9</td>
<td>9.9</td>
<td>14.0</td>
<td></td>
</tr>
<tr>
<td>Fuel feed quantity kg/h</td>
<td>1.4</td>
<td>1.5</td>
<td>2.0</td>
<td>3.0</td>
<td>4.3</td>
<td></td>
</tr>
<tr>
<td>Thermal output range min/max kW</td>
<td>4.0 - 6.0</td>
<td>4.5 - 6.4</td>
<td>4.8 - 9.0</td>
<td>6.9 - 12.9</td>
<td>9.8 - 18.2</td>
<td></td>
</tr>
<tr>
<td>Efficiency %</td>
<td>&gt; 80</td>
<td>&gt; 80</td>
<td>&gt; 80</td>
<td>&gt; 80</td>
<td>&gt; 78</td>
<td></td>
</tr>
<tr>
<td>CO content mg/m³</td>
<td>&lt; 1250</td>
<td>&lt; 1250</td>
<td>&lt; 1250</td>
<td>&lt; 1250</td>
<td>&lt; 1250</td>
<td></td>
</tr>
<tr>
<td>Dust emissions mg/m³</td>
<td>&lt; 40</td>
<td>&lt; 40</td>
<td>&lt; 40</td>
<td>&lt; 40</td>
<td>&lt; 40</td>
<td></td>
</tr>
<tr>
<td>Weight kg</td>
<td>80</td>
<td>80</td>
<td>90</td>
<td>110</td>
<td>135</td>
<td></td>
</tr>
</tbody>
</table>

Compliance with: BImSchV Stages 1 and 2
EN 13229
DIN Plus
Aachen/Munich/Regensburg Ord.
15a (for Austria)
Air Purity Directive from January 2011 (for Switzerland)

Dimensions

<table>
<thead>
<tr>
<th>Technical drawing</th>
<th>LINEAR XS 500</th>
<th>LINEAR S 600</th>
<th>LINEAR M 700</th>
<th>LINEAR L 800</th>
<th>LINEAR XL 900</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Standard screen: 45 mm</td>
<td>Standard screen: 60 mm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>456 mm</td>
<td>453 mm</td>
<td>503 mm</td>
<td>523 mm</td>
<td>543 mm</td>
</tr>
<tr>
<td>C</td>
<td>492 mm</td>
<td>489 mm</td>
<td>539 mm</td>
<td>559 mm</td>
<td>579 mm</td>
</tr>
<tr>
<td>D</td>
<td>582 mm</td>
<td>609 mm</td>
<td>659 mm</td>
<td>679 mm</td>
<td>699 mm</td>
</tr>
<tr>
<td>E</td>
<td>345 mm</td>
<td>510 mm</td>
<td>610 mm</td>
<td>710 mm</td>
<td>810 mm</td>
</tr>
<tr>
<td>F</td>
<td>380 mm</td>
<td>546 mm</td>
<td>646 mm</td>
<td>746 mm</td>
<td>846 mm</td>
</tr>
<tr>
<td>G</td>
<td>470 mm</td>
<td>666 mm</td>
<td>766 mm</td>
<td>866 mm</td>
<td>966 mm</td>
</tr>
<tr>
<td>H</td>
<td>ø 130 mm</td>
<td>ø 150 mm</td>
<td>ø 150 mm</td>
<td>ø 180 mm</td>
<td>ø 200 mm</td>
</tr>
<tr>
<td>I</td>
<td>352 mm</td>
<td>412 mm</td>
<td>442 mm</td>
<td>472 mm</td>
<td>502 mm</td>
</tr>
<tr>
<td>J</td>
<td>ø 100 mm</td>
<td>Standard convection air opening: ø 125 mm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>K</td>
<td>400 mm</td>
<td>566 mm</td>
<td>666 mm</td>
<td>766 mm</td>
<td>866 mm</td>
</tr>
<tr>
<td>L</td>
<td>250 mm</td>
<td>374 mm</td>
<td>434 mm</td>
<td>534 mm</td>
<td>634 mm</td>
</tr>
<tr>
<td>M</td>
<td>523 mm</td>
<td>520 mm</td>
<td>570 mm</td>
<td>590 mm</td>
<td>610 mm</td>
</tr>
<tr>
<td>N</td>
<td>405 mm</td>
<td>582 mm</td>
<td>682 mm</td>
<td>782 mm</td>
<td>882 mm</td>
</tr>
<tr>
<td>O</td>
<td>541 mm</td>
<td>540 mm</td>
<td>590 mm</td>
<td>610 mm</td>
<td>630 mm</td>
</tr>
</tbody>
</table>

Optional accessories *

P Flue gas offset bend
Q Rear combustion air connection
R Blower
S Governor housing
T Bottom combustion air connection

* for cassette inserts only

Dimensions N and O are measured from the edge of the cassette body.

Subject to technical modifications.
Customised cassette inserts

Key parameters for the flue and chimney calculation

According to DIN 4705 Part 1 and Part 2 or EN 13384 for nominal heat output according to Section 7, Part 1:

<table>
<thead>
<tr>
<th>Customised fireplace cassettes</th>
<th>Customised fireplace cassette 'small' up to 700 mm wide</th>
<th>Customised fireplace cassette 'large' 700 mm or wider</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fireplace doors closed</td>
<td>Unit</td>
<td>Wood logs</td>
</tr>
<tr>
<td>Flue gas flow rate</td>
<td>g/s</td>
<td>4.68</td>
</tr>
<tr>
<td>Average flue gas temperature</td>
<td>° C</td>
<td>269</td>
</tr>
<tr>
<td>Minimum draught</td>
<td>mbar</td>
<td>0.12</td>
</tr>
<tr>
<td>Nominal heat output</td>
<td>kW</td>
<td>6.0</td>
</tr>
<tr>
<td>Heat output range</td>
<td>kW</td>
<td>4.2 – 7.8</td>
</tr>
<tr>
<td>Feed rate</td>
<td>kg/h</td>
<td>1.9</td>
</tr>
</tbody>
</table>

Heating capacity

The heating capacity is dependent on the volume and type of fuel wood used.

Room heating capacity

The nominal heat output is dependent on the heating conditions:

<table>
<thead>
<tr>
<th>Heating conditions</th>
<th>8 kW sufficient for</th>
<th>6 kW sufficient for</th>
</tr>
</thead>
<tbody>
<tr>
<td>Favourable</td>
<td>160 m²</td>
<td>120 m²</td>
</tr>
<tr>
<td>Less favourable</td>
<td>105 m²</td>
<td>80 m²</td>
</tr>
<tr>
<td>Unfavourable</td>
<td>80 m²</td>
<td>60 m²</td>
</tr>
</tbody>
</table>

The values stated serve only for guidance. A specific heating load investigation must be completed according to TR-OL or carried out according to DIN EN 12831 (if applicable or according to the local regulation). The room heat capacity in relation to the nominal output can be influenced by the wood feed quantity, +/- 30 %.

Technical information

Source: Handbook of Heating and Air Conditioning Technology Becknagel/Sprenger

Subject to technical modifications.
Cassette inserts and fireplace doors
Open fireplaces shine in a new splendour

Your specialist dealer: