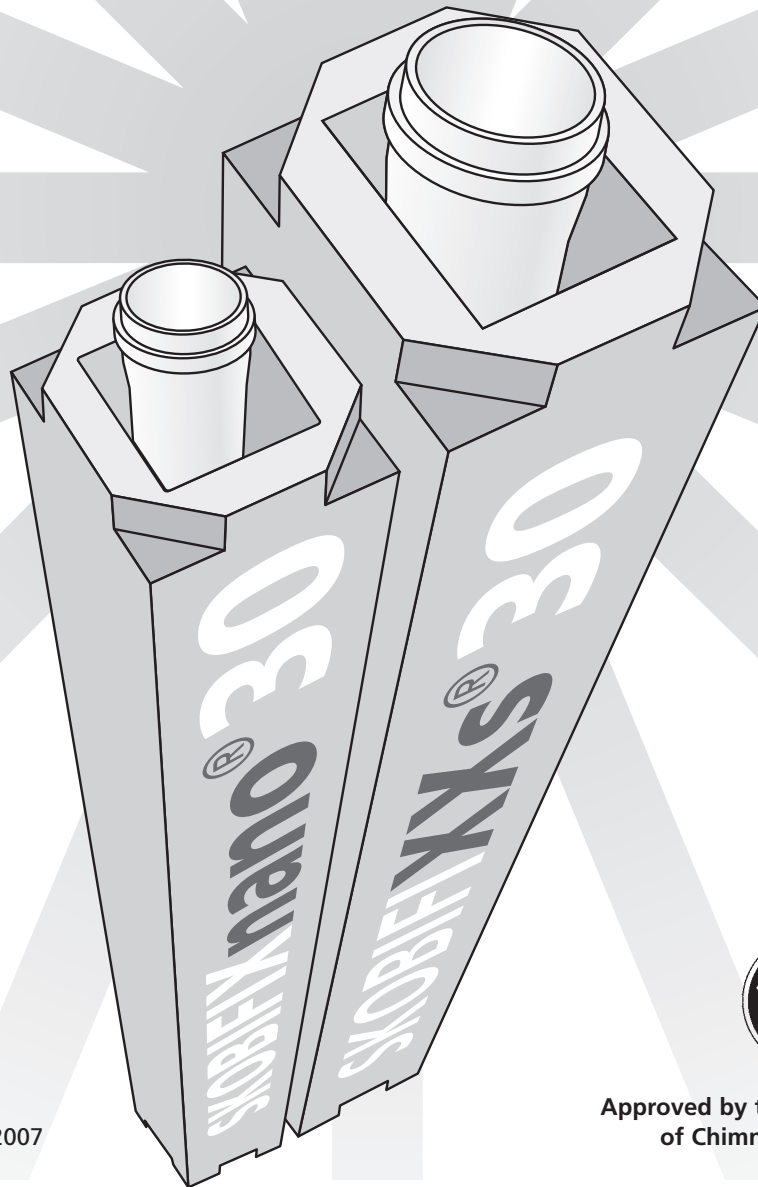


*Technical Information
and Installation Guide*

SKOBIFIXnano[®] 30

SKOBIFIXxs[®] 30



Latest revision: February 2007



Approved by the German Association
of Chimney Sweepers (ZIV)

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Description

General information

Depending on the region, flue gas systems may or may not require a permit or approval. According to the German States Heating Safety Guidelines (FeuVo), flues that span several floors must be housed in their own fire protection shaft. The fire protection requirements (fire resistance period of 90 or 30 minutes) are not related to building classification. The shaft therefore effectively provides the required mechanical protection from impact and damages to the flue. Furthermore, free vertical movement along the flue and easy dismantling of the flue is required by building authorities. DIN V18160 requires that the flue be airtight to prevent gas leakages. SKOBIFIXnano®/XXs® 30 fulfils all requirements in a single system.

The system

SKOBIFIXnano®/XXs® 30 is a gas flue with a fire resistance period of 30 minutes according to the construction approval number Z-7.2- 3210. Flue gas is carried out through the PPs D60/D80 flue. The SKOBIFIXnano®/XXs® 30 shaft made of foam ceramics encases the pipe, providing resistance to fire. The ring space between the plastic flue and shaft provides ventilation in the system. Depending on the operation mode of the heating appliance, air is either sucked in for combustion in the ring space or room air is carried out in parallel to flue gases.

Material

Ceramic is a natural material with excellent properties. It is a very light material that is easily processed while being less susceptible to wear, and its durability is guaranteed over a long period of time. The plastic flue that carries out flue gas is made of high quality PP (flame resistant), ensuring that flue gas is discharged of from a pressure-tight and acid-resistant environment. Skoberne's gas flues have been tried and tested over more than 20 years.

Both of the materials contain no harmful substances and they are easily recycled. They can be used entirely again in the production process.

Design

SKOBIFIXnano®/XXs® 30 can conveniently be hidden in the wall thanks to its small dimensions. With SKOBIFIXnano®/XXs® 30, your living space and comfort will be increased dramatically. The design of the shaft parts makes it easy, safe, and quick to assemble the system. The parts are easily mounted using a tongue and groove system.

The PPs pipes have push-fit sockets with a seal. They are quickly and safely mounted without the use of a lubricant.

Installation site

SKOBIFIXnano®/XXs® 30 is meant for use in small buildings. These are typically detached and semidetached houses. A definition can be found in country-specific or region-specific building regulations. The model building regulations define it as follows: small buildings are classified as buildings in which the floor of any storey with living space does not exceed an average height of 7 metres above the ground level. Such buildings are listed in the classes 1 to 3 in more recent building regulations.

Please refer to the chimney sweeper responsible for your district for information on country and region-specific regulations.

The boiler

SKOBIFIXnano®/XXs® 30 is ideal for use in connection with condensing heating appliances. SKOBIFIXnano®/XXs® 30 is virtually a condensing chimney. Flue gas discharges reaching a maximum temperature of 120°C are permitted. Both oil and gas heating appliances may be used with this

chimney. The flue gases can be carried out over the roof using either positive or negative pressure. The system has been specially developed for operating room sealed heating appliances. This eliminates the need for separate air vents, slits in doors, or even draft protectors on competing appliance fans (clothes dryer, exhaust hoods, etc.). The combustion air is sucked in and pre-heated, increasing condensation and thus the overall efficiency of the system.

The ceiling connection adapter

The patented ceiling connection adapter makes assembly and operation of the SKOBIFIXnano®/XXs® 30 systems so much easier.

The height of the connector between the condensing boiler and the shaft is variable. The connector is free to an infinite number of horizontal variations due to its round design. This makes it possible to mount the connector precisely in line with the coupler. The need for intricate and expensive bends and connectors is eliminated. This is also good news for chimney sweepers since it allows them to merely carry out a simple visual inspection.

The ceiling connection adapter possesses an inspection hatch for air-inlet. Chimney sweepers can inspect the outer ring space simply by opening the air-inlet cap.

All inspections can be carried out from the room where the heating appliance is set up. There is no need for additional inspection hatches, roof hatches, catwalk gratings, inspection platforms, etc.

The roof terminal

The coaxial roof terminal allows the terminal end to be quickly created and sealed in the roof area. The universal pitched roof tiles seal roofs with a pitch between 5° and 55°. The need for intricate sealing work, scaffolding and cranes is eliminated. The roofing panel is easily sealed up again, which is very helpful when the weather is bad.

Assembly can easily and quickly be carried out by the installation contractors. The roof opening is contained in packages. The roof terminal is packaged in various lengths and colours along with a pitched roof tile or flat flashing. The roof terminal can be extended using parts that are either 0.5m or 1.0m in length.

It is recommended that lengths extending more than 1.0m above the roof be secured and anchored. Extensions and anchoring parts are available within the scope of delivery.

The flue outlet pipe is black in the roof terminal area and provides the plastic flue outlet pipe with UV protection. It is absolutely necessary that the black flue outlet pipe is put into use in the roof terminal.

Snow protection on the roof

Please make sure to protect the roof terminal against large masses of snow in regions with heavy snowfalls.

We recommend installing a snow guard above the coaxial roof terminal.

Planning advice

Installation guidelines

The following guidelines are relevant to the installation and assembly: DIN V18160-1, regional building authority guidelines and approval certificate Z-7.2-3210. Prior to installing SKOBIFIXnano®/XXs® 30, the chimney sweeper responsible for the district is to be consulted in regard to the building plans.

Only the original parts included in the delivery are to be used. The following assembly tips and guidelines must be followed.

Height above roof

Please pay special attention to the Heating Safety Guidelines (LFuVo in Germany) valid for your region as well as the Technical Rules for Gas and Oil Systems (TRGI/TRÖ) on this point. As a general rule, a distance of 40 cm to the roof is sufficient for room sealed heating appliances with a fan power of up to 50kW. For open flue operation, a distance of 1m to the roof should not be exceeded or the opening above the roof ridge should be at least 40cm.

The guidelines mentioned above are to be followed for distances between room openings and roof structures. As a general rule, a distance of 1.0m must be maintained for windows and air vents within a range of 1.5m. In the German state of Bavaria, a distance of 1m must be maintained for windows and air vents within a range of 8m.

Assessment of combustion parameters

The standard EN 13384-1 relates to this assessment. The maximum nominal heat capacity is dependent on the construction method of the condensing heating appliance as well as the delivery pressure available.

Generally, standard market devices with a power of up to 30kW (SKOBIFIXnano® approx. 15 kW) may be installed. A heating appliance delivery

pressure above 90 Pa will be achieved by trusted devices. A calculation according to EN 13384-1 provides the right dimensions in different cases.

Inspection and cleaning hatches

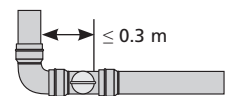
Inspection and cleaning hatches are addressed in DIN V18160-1 for the chimney sweeping trade. The lower cleaning duct makes it possible to eliminate an additional cleaning and inspection hatch. Inspection from the terminal end may also be eliminated. Intricate and expensive safety features are not necessary.

For flues with a pipe length of up to 15m, the lower cleaning hatch may be located

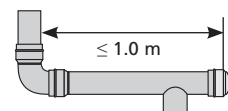
Variant 1: directly above the coupling unit in the vertical part of the flue gas system



Variant 2: on the side of the coupling unit at most 0.3m away from the bend in the vertical part of the flue gas system



Variant 3: on the front side of a straight coupling unit at most 1.0m away from the bend in the vertical part of the flue gas system.



The chimney sweeper responsible for the district is to be consulted about the method used.

Distances to combustible parts

No particular distances to combustible parts need to be taken into account for SKOBIFIXnano®/XXs® 30. The standard DIN V18160-1 allows for SKOBIFIXnano®/XXs® 30 parts to be directly next to parts with or made of combustible materials due to the low flue gas temperatures and rear ventilation.

Technical specifications

Parts

SKOBIFIX[®]nano[®] 30

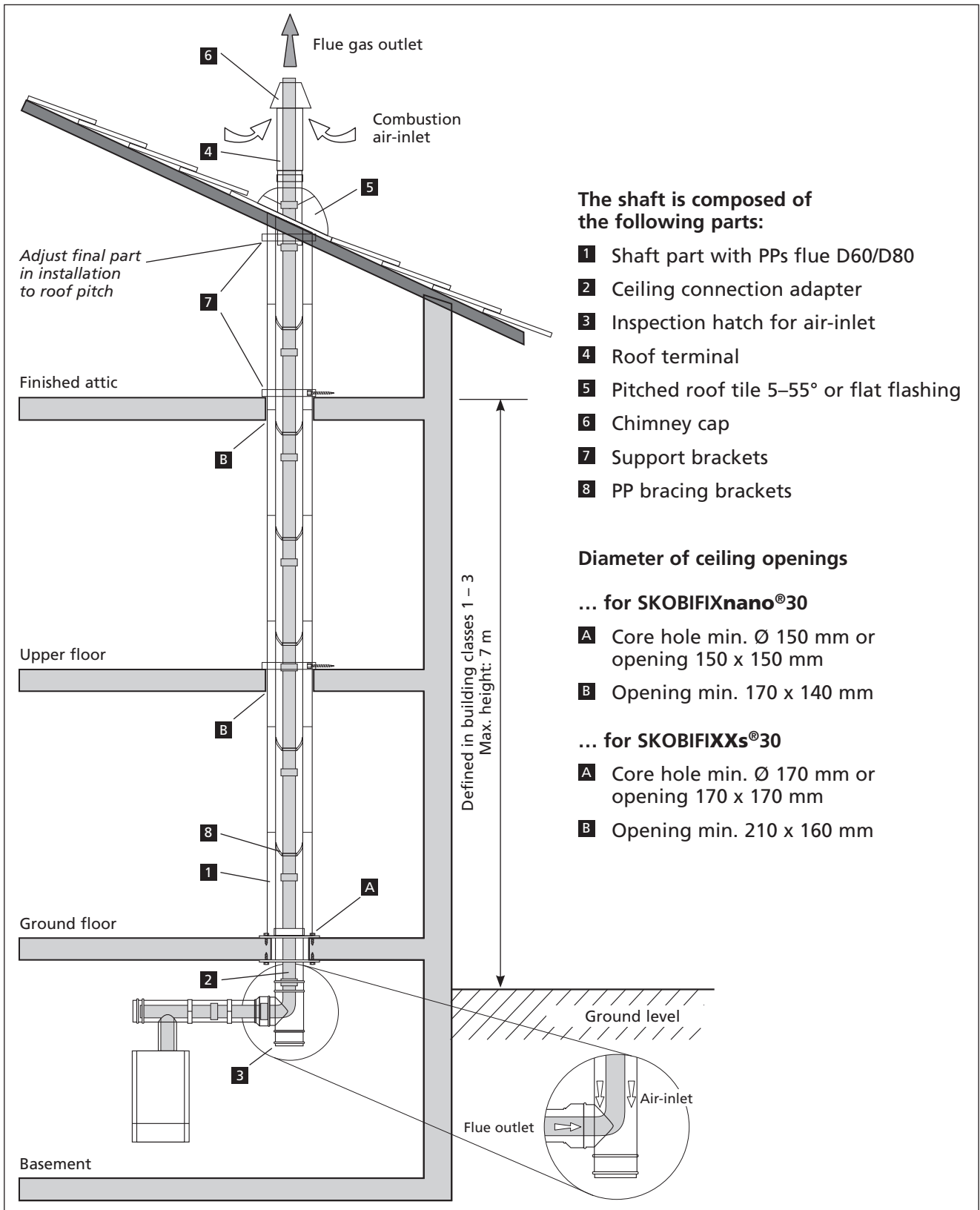
SKOBIFIXXs[®] 30

Material	Shaft made of foam ceramics with integrated flame resistant PP pipe	
Outer dimensions	130 x 160 mm	150 x 200 mm
Cross-sectional dimensions	80 x 100 mm, including flue D60, usable inner width 56.4 mm	100 x 140 mm, including flue D80, usable inner width 76 mm
Height	1,000 mm	
Weight per piece	approx. 8 kg	approx. 10 kg
Fire resistance period	30 minutes	
Density	0.5 / +/- 0.05 g/cm ³	
Heating appliance mode of operation	<ul style="list-style-type: none"> ■ flue gas temperatures up to a maximum of 120°C ■ for use with oil and gas appliances ■ flue gas outlet using positive or negative pressure 	

SKOBIFIX[®] system adhesive (tips for use)

Delivery form	3kg pail, sufficient for approx. 10 – 15 connections
Amount of water required for 3kg	1L
Processing temperature	+5°C to +25°C
Shelf life	6 months when stored in a closed, dry container
Storage temperatures	no lower than 5°C
Application surface	dry, clean and free of grease
Period required for setting	12h

Overview of parts



The shaft is composed of the following parts:

- 1 Shaft part with PPs flue D60/D80
- 2 Ceiling connection adapter
- 3 Inspection hatch for air-inlet
- 4 Roof terminal
- 5 Pitched roof tile 5–55° or flat flashing
- 6 Chimney cap
- 7 Support brackets
- 8 PP bracing brackets

Diameter of ceiling openings

... for SKOBIFIXnano®30

- A Core hole min. Ø 150 mm or opening 150 x 150 mm
- B Opening min. 170 x 140 mm

... for SKOBIFIXXs®30

- A Core hole min. Ø 170 mm or opening 170 x 170 mm
- B Opening min. 210 x 160 mm

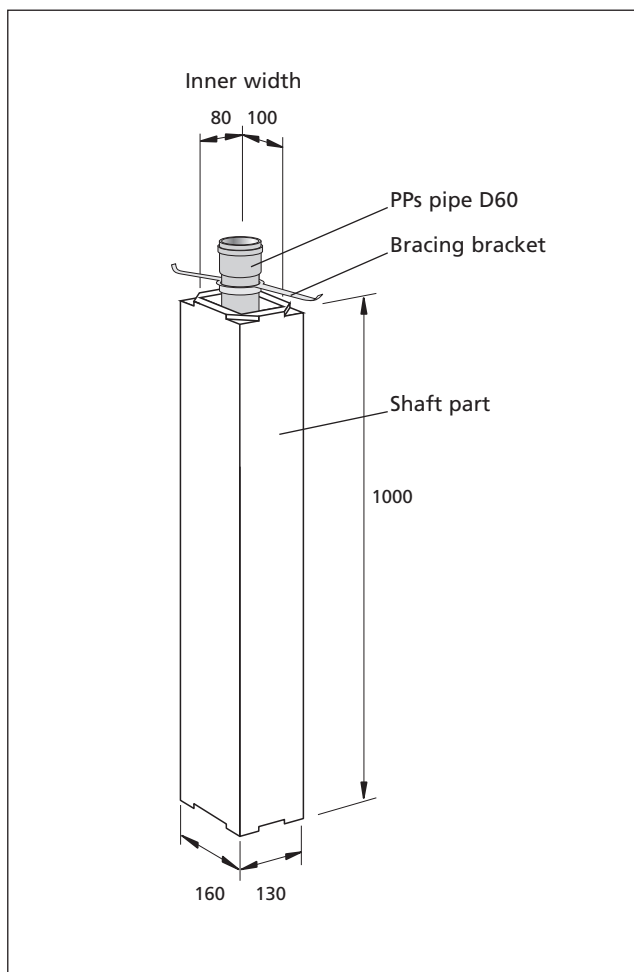
Overview of parts

SKOBIFIXnano® 30 shaft part

- made of foam ceramics
- inner PPs pipe D60
- dual-arm bracing bracket centres the pipe in the shaft

Item number: 731000 (for single shaft)

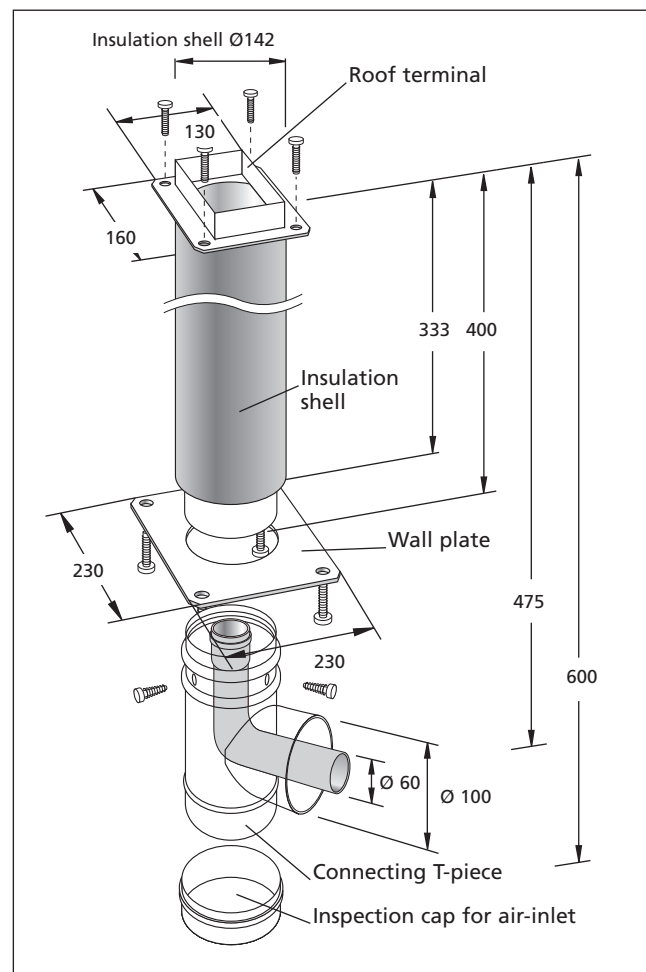
Item number: 731001 (for units in a palette)



Ceiling connection adapter

- Adapter dimensions 60/100, PPs/Aluminium
- Includes set of screws
- Cleaning hatch for air-inlet
- Installation guide, approval certificate, approval sticker included in accessories
- Adjustable length ceiling terminal

Item number: 731003

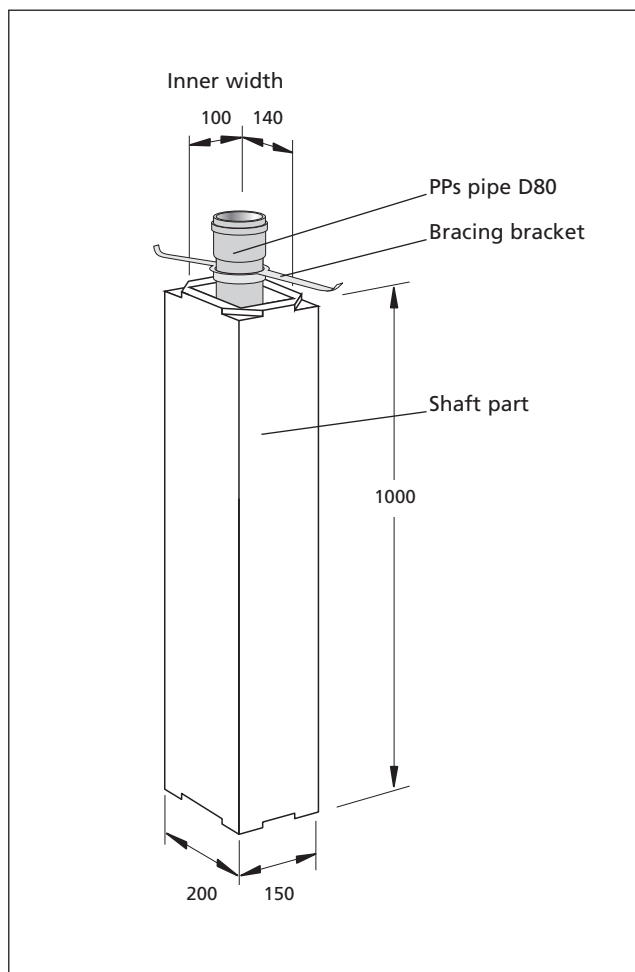


SKOBIFIXXs® 30 shaft part

- made of foam ceramics
- inner PPs pipe D80
- dual-arm bracing bracket centres the pipe in the shaft

Item number: 730000 (for single shaft)

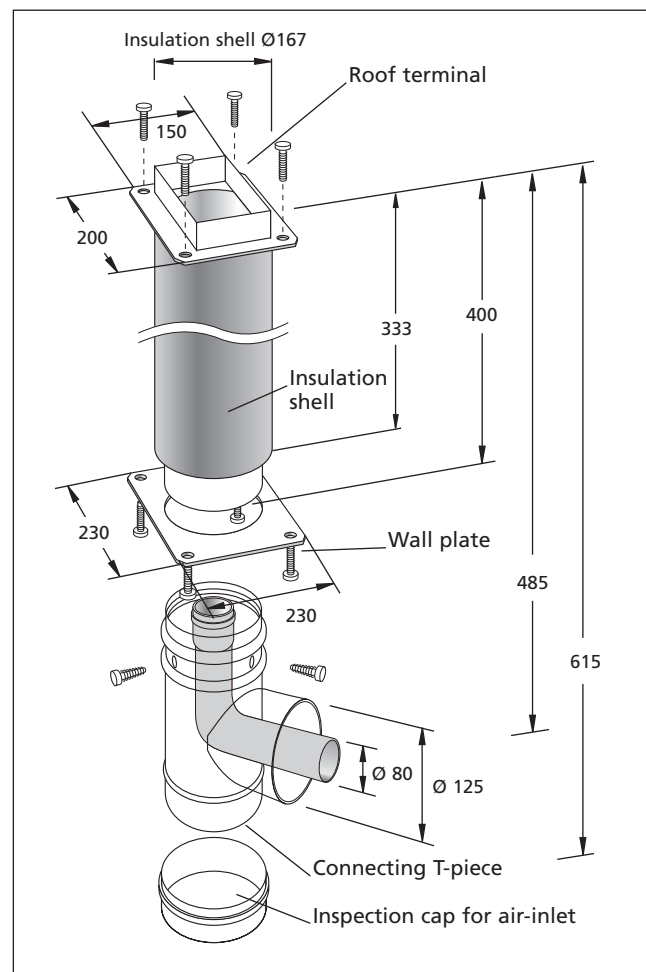
Item number: 730031 (for units in a palette)



Ceiling connection adapter

- Adapter dimensions 60/125, PPs/Aluminium
- Includes set of screws
- Cleaning hatch for air-inlet
- Installation guide, approval certificate, approval sticker included in accessories
- Adjustable length ceiling terminal

Item number: 730003



Adapter part of ceiling connection adapter Flue outlet/air-inlet

- Reduced to 60/100, PPs/aluminium
- Item number: 730032
- Additional items available upon request

Stack package comprised of roof terminal and pitched roof tile

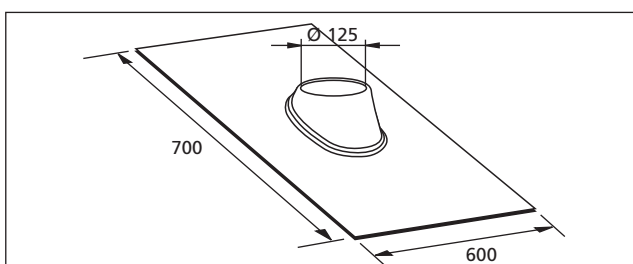
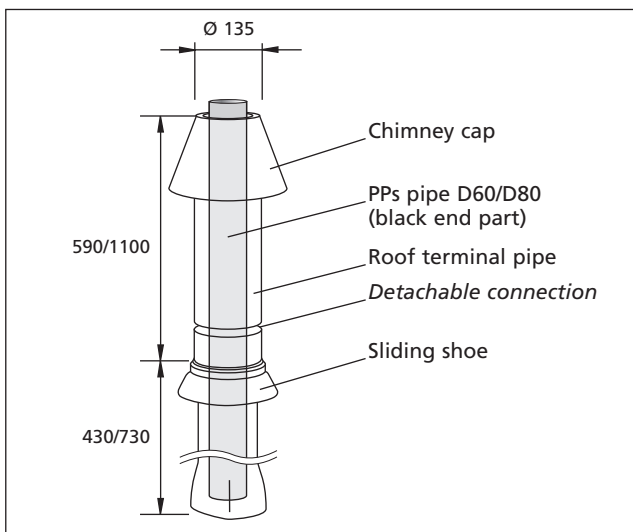
Item number: Refer to price list

SKOBIFIXnano®/XXs® 30 roof terminal

- SKOBIFIXnano® 30:
60/125 Powder coated PPs/air-inlet pipe

SKOBIFIXXs® 30:
80/125 Powder coated PPs/air-inlet pipe

- black, roofing tile red or silver finish
- for requirements of 0.4 or. 1.0 m at a right angle to the roofing panel
- extension by 0.5 or. 1.0 m possible



Universal pitched roof tile for roof pitches of 5°–25°, 25°–45° and 35°–55°

- black
- roof tile red
- with lead skirt, coloured lead tile

Stack package comprised of roof terminal alternatively with flat flashing

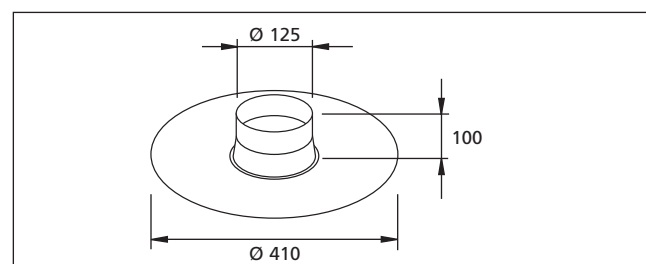
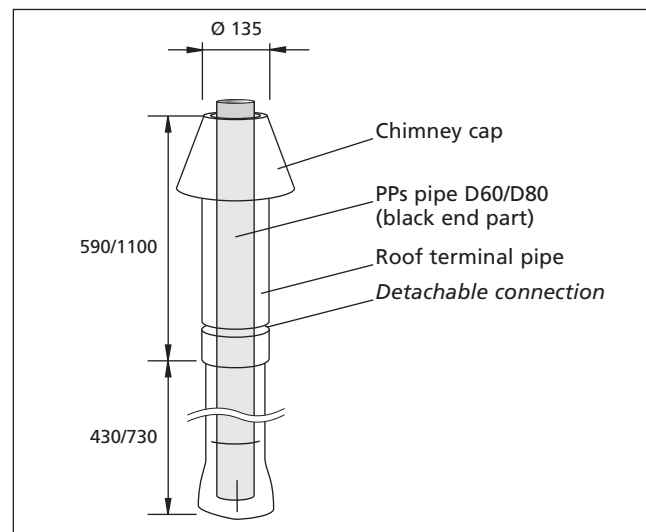
Item number: Refer to price list

SKOBIFIXnano®/XXs® 30 roof terminal

- SKOBIFIXnano® 30:
60/125 Powder coated PPs/air-inlet pipe

SKOBIFIXXs® 30:
80/125 Powder coated PPs/air-inlet pipe

- black, roofing tile red or silver finish
- for requirements of 0.4 or. 1.0 m at a right angle to the roofing panel
- extension by 0.5 or. 1.0 m possible



Flat flashing

- plain aluminium
- approx. 410 mm outer diameter
- opening for roof terminal 125 mm

SKOBIFIX[®] system adhesive

- 3kg pail

Item number: 710007

SKOBIFIX[®] system adhesive

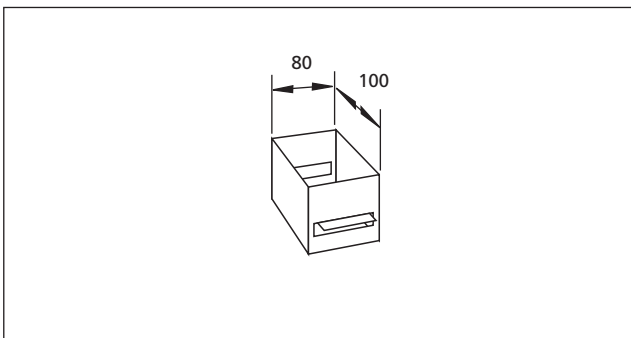
- 3kg pail

Item number: 710007

SKOBIFIXnano[®] 30 connecting nipple

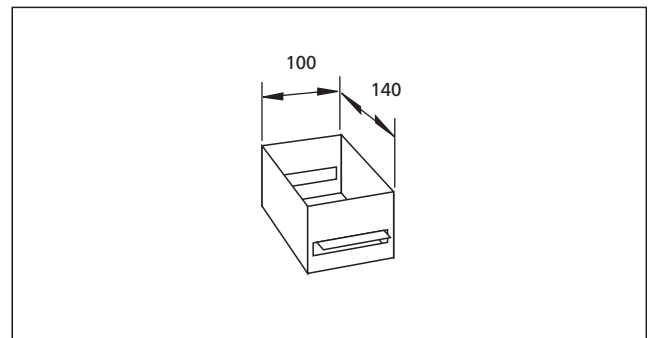
- galvanised steel plate
- use only for cut parts as a replacement for tongue and groove connecting part system

Item number: 731005

**SKOBIFIXXs[®] 30 connecting nipple**

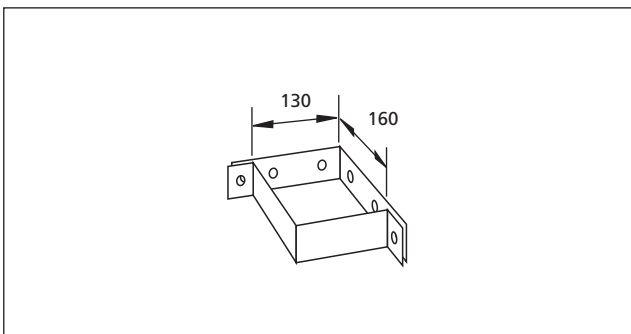
- galvanised steel plate
- use only for cut parts as a replacement for tongue and groove connecting part system

Item number: 730005

**SKOBIFIXnano[®] 30 support brackets**

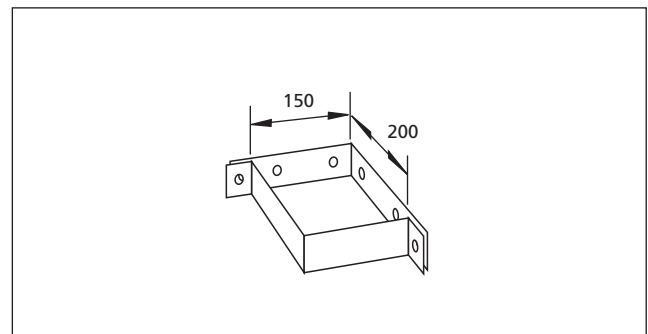
- for vertical and transverse installation
- comes with insulation insert
- comes with set of screws

Item number: 731004

**SKOBIFIXXs[®] 30 support brackets**

- for vertical and transverse installation
- comes with insulation insert
- comes with set of screws

Item number: 730004



Checklists: Prior to installation

<p>Please consider the following points before installing the SKOBIFIXnano®/XXs® 30:</p>
<p><i>Has the chimney sweeper responsible for the district been informed? Yes <input type="checkbox"/></i></p>
<p><i>Have the requirements of building regulations been adhered to? Yes <input type="checkbox"/></i></p>
<p><i>Have the ceiling openings been planned? (for ceiling of floor above the heating appliance as well as for other floors). Yes <input type="checkbox"/></i></p>
<p><i>Has the vertical opening been secured for the entire building? Yes <input type="checkbox"/></i></p>
<p><i>Have the support bracket positions been planned and do they pose no restrictions to other utilities? Yes <input type="checkbox"/></i></p>
<p><i>Have you made sure that the shaft will not be weakened or strained by foreign parts? Yes <input type="checkbox"/></i></p>
<p><i>Will only the PPs outlet flue be housed in the shaft? (Foreign parts such as solar conductors and power lines are not permitted). Yes <input type="checkbox"/></i></p>
<p><i>Have any necessary adjustments been made to other systems within the building? Yes <input type="checkbox"/></i></p>
<p><i>Have you read and made note of the advice in the installation guide? Yes <input type="checkbox"/></i></p>

Installation guide

General guidelines

SKOBIFIX[®]nano[®]/XXs[®] 30 is assembled as a modular system. The parts are connected with the SKOBIFIX[®] system adhesive in a durable and permanent way.

The system can be installed in buildings at the shell construction stage. Precautions must be taken to prevent moisture from entering the system (i.e. from rain). SKOBIFIX[®]nano[®]/XXs[®] 30 starts above the ceiling of the floor where the heating appliance is located and continues up to the roofing panel.

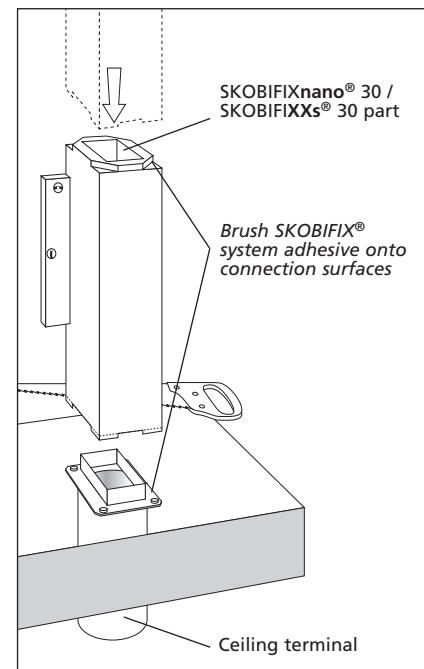
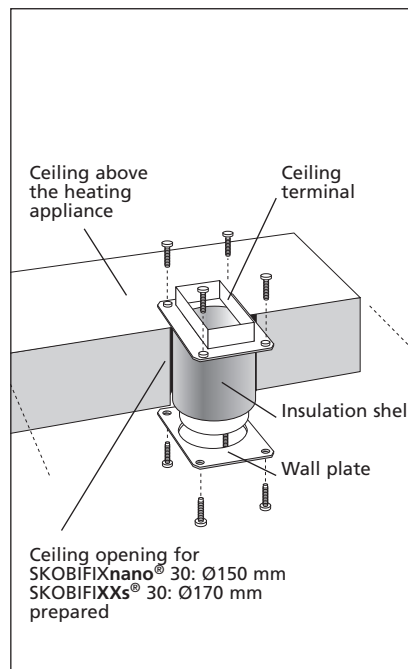
The system ends at the coaxial roof terminal with the pitched roof tile/flat flashing.

The rotatable ceiling connection adapter creates the connection to the gas or oil condensing boiler.

Next, the SKOBIFIX[®]nano[®]/XXs[®] 30 outer jacket is assembled starting at the ceiling located above the heating appliance. Once it is finished up to the roofing panel, the PPs pipe for flue outlet is introduced at the top. Finally, the connecting T-piece connects the coupler to the heating appliance.

The ceiling openings have either already been planned at this stage or must first be created. The shaft is to be assembled vertically. Rafters or similar items that are in the way must be replaced.

It is not possible to warp the shaft.

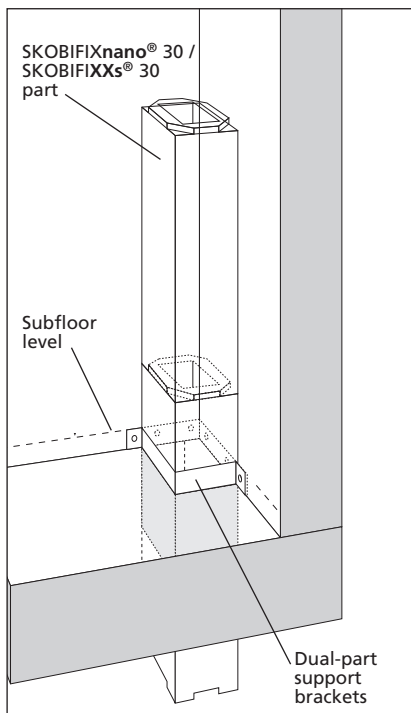


1. Installing the ceiling terminal

- Prepare an opening of approx. Ø150 mm/nano[®] and approx. Ø170 mm/XXs[®] in the ceiling of the floor above the heating appliance. Clean the surface underneath and create a level surface. Insert the ceiling terminal with its insulation shell from above. Secure it to the ceiling using the screws included. In cases where the opening is square or larger in shape, fill in the remaining open area using either non-combustible materials that are dimensionally stable or concrete. Larger ceiling openings may also be closed up using other suitable construction methods.
- If required, apply mortar bed to the ceiling and position the ceiling connection adapter vertically.
- Cut the insulation shell to fit to the size of the ceiling.
- Mount the wall plate from below and secure to the ceiling on the bottom side using the set of screws included

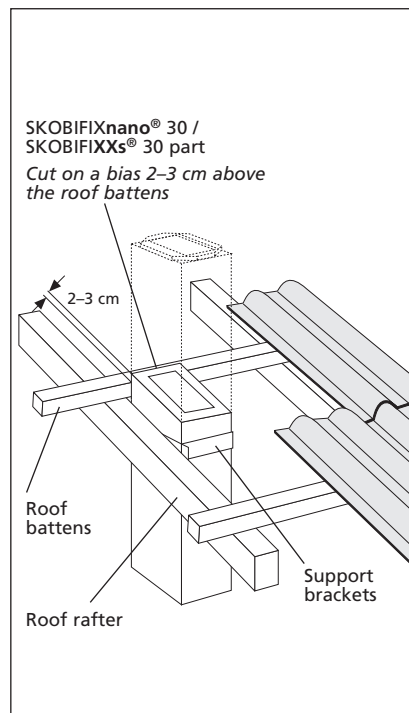
2. Installing the shaft parts

- Saw off the feet on the bottom end of the first shaft part using a builder's saw so that the bottom end of the shaft has a straight edge.
- Brush SKOBIFIX[®] system adhesive onto the flange of the ceiling connection adapter (connection surface). Place the first shaft part over the flange of the ceiling connection adapter using the grooved side and adjust it so that it is vertical.
- Put the other shaft parts together. For this assembly, paste the connection surfaces together using SKOBIFIX[®] special adhesive. Apply the adhesive to the entire surface, using a thickness of about 2mm. Brush any excess adhesive onto the outer surfaces afterwards.
- Fill in any ceiling openings that are too large using non-combustible materials that are dimensionally stable.



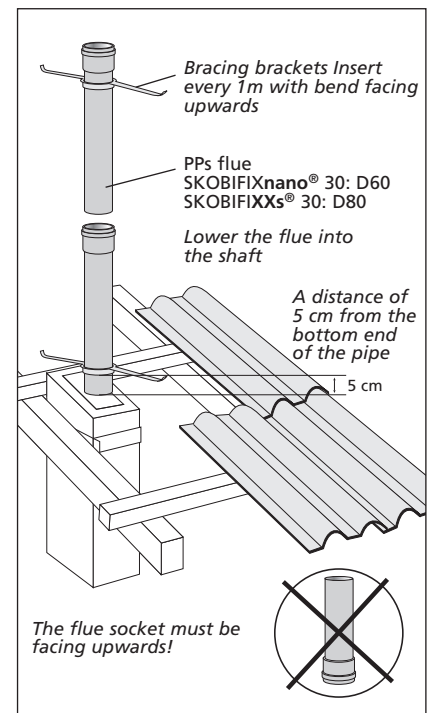
3. Installing the support brackets

- The first support bracket must be placed above the following ceiling or no higher than 2.80m. The brackets cannot be applied later on in the subfloor level.
- The brackets may be inserted vertically or transversely. Secure them to the applicable construction component using the set of screws included.
- Paste the insulation insert inside the bracket.
- Support and reinforcement within the ceiling may also be provided by fastening wedges or other types of anchoring. A comparable level of stability must be ensured.



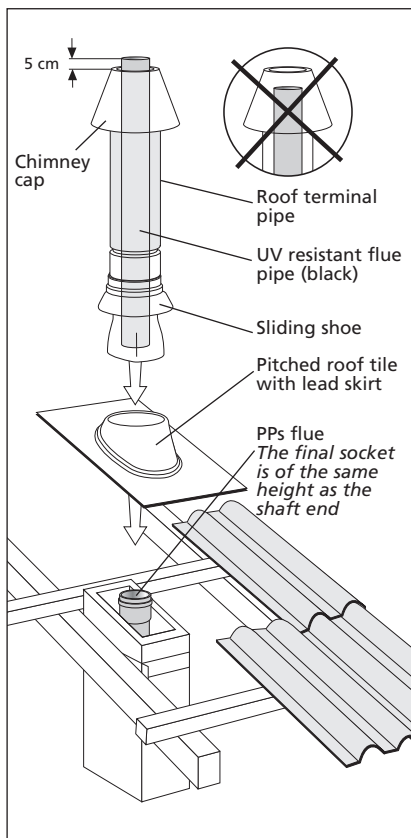
4. Installing the shaft in roof rafters

- If required, replace rafters that are in the way.
- Place SKOBIFIXnano®/XXs® 30 over the rafters using the last part and adjust to the roof pitch.
- First lay the last part "dry" on top and mark the roof pitch. Cut the part on a bias approx. 2-3cm above the level of the roof battens. This adjustment can be made using a coarse blade saw.
- Next, secure the adjusted part using adhesive and the support bracket. Reinforcement is necessary at this position due to the strain of wind and snow.
- Support may also be provided by roof battens.
- Vapour barriers, underlayments and other methods of sealing the roof must be installed according to technical rules.



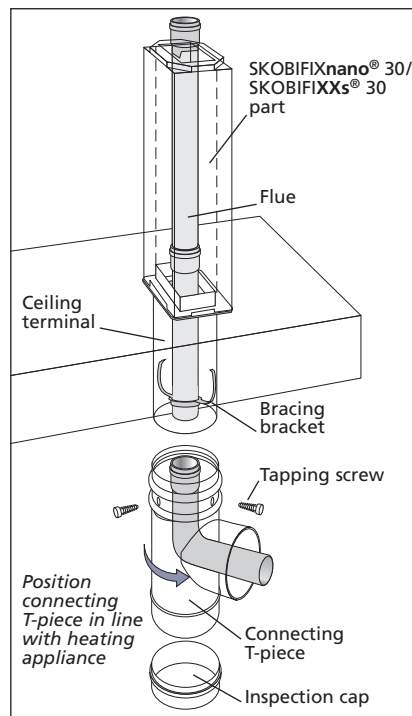
5. Installing the flue

- The flue is lowered from above into the shaft.
- Perform a conventional cleaning on the sockets and shank end of the PPs pipe prior to installation and trim the edges of cut parts.
- Check that the seal fits tightly
- Insert the flue pipes into each other with the socket facing upwards.
- A bracing bracket is to be put over the flue at every 1m interval. The curved ends must be facing upwards.
- Position the first bracing bracket approx. 5cm above the pipe end. This secures the pipe stack when gas is discharged from the flue.
- The flue ends below in the room where the heating appliance is set up, 1-2cm below the air-inlet pipe of the ceiling connection adapter.
- Adjust the final PPs pipe above the roof so that the socket ends at the same height as the bias cut shaft.



6. Installing the roof terminal and pitched roof tile

- Lay the pitched roof tile onto the slanted shaft and cover the surrounding tiles.
- Insert the UV resistant black inner pipe into the shaft in the roof terminal. The inner PPs pipe connects to the final socket. Outside, the sliding shoe sits tightly on the pitched roof tile. Position vertically.
- Cut the PPs pipe approx. 5 cm above the chimney cap and trim.
- Caution: The sockets of PPs flues must not be located in the area surrounding the chimney cap!
- Use of the UV resistant pipe (black) is essential.



7. Installing the connecting T-piece

- The connecting T-piece is comprised of an outer jacket and an 87° plastic bend. Connect the PPs socket to the flue in the ceiling terminal. The air-inlet socket slides over the outer jacket of the ceiling terminal.
- If required, have counter-pressure applied on the terminal end!
- Position the connecting T-piece horizontally in line with the coupler of the heating appliance that is to be connected.
- Insert the connecting T-piece tightly into the ceiling terminal. Use the 3 tapping screws included here. This holds the vertical pipe in place. A stopper should be used when pre-drilling so that the PPs flue is not damaged.

Important steps after finished installation

- Apply the approval sticker close to the ceiling terminal so that it can be read easily.
- Provide the chimney sweeper responsible for your district with the installation documents and approval certificate.
- Before filling the ceiling with plaster, apply a sidewall to the shaft.
- The surface of SKOBIFIX nano®/ XXs® 30 can be processed as you wish. Due to the linear scale invariance of the foam ceramic material, stucco, drywall or tiles may be applied directly to the shaft.
- Pay attention to related expansion joints if contact is made with other construction components. Pitched roof tile with lead skirt.

Invitation to tender form

The SKOBIFIXnano®/XXs® 30 shaft system with the general construction approval number Z-7.2-3210 is an authorised multilayer flue. The system comprises the following parts: ventilating, flue outlet inner shell made of polypropylene with a nominal diameter of 60mm (SKOBIFIXnano® 30) or 80mm (SKOBIFIXXs® 30), outer shell parts made of foam ceramics. The multilayer flue has a fire resistance period of 30 minutes.

SKOBIFIXnano®/XXs® 30 is suited for use with heating appliances that require liquid or gas fuels, primarily condensing boilers. It must be ensured that the heating appliance properties or fittings cannot exceed a temperature of 120°C.

The system is an industrially prefabricated product which is assembled as a modular system. It is meant for installation in small residential buildings (according to LBauO, LFeuVo in Germany) up to a shaft length of 12m (in building classes 1 to 3 in more recent building regulations).

SKOBIFIXnano®/XXs® 30 starts above the ceiling of the floor where the heating appliance is located and continues up to the roofing panel. It is connected to the heating appliance using the rotatable ceiling connection adapter. The flue gases are discharged from the roof via the coaxial roof terminal.

The outer shell is provided with the rectangular outer dimensions of 130 mm x 160 mm (SKOBIFIXnano® 30) or 150 mm x 200 mm (SKOBIFIXXs® 30). It has a height of 1000mm. The outer shell connection is created using the SKOBIFIX® system adhesive along with the integrated tongue and groove system.

The pressure-tight flue gas outlet pipe made of polypropylene is mounted using a socket system and centred in the outer shell using bracing brackets.

Before installation work begins, the chimney sweeper responsible for the district must grant approval. All valid guidelines and DIN standards must be followed along with the installation guide provided by the manufacturer.

After preparations and planning for the ceiling openings have been completed, the actual installation (i.e. excluding set-up time) of SKOBIFIXnano®/XXs® 30 takes:

approx. 15-30 minutes	for ceiling connection adapter
approx. 5-10 minutes (per metre increment)	for shaft part
approx. 15-30 minutes	for stack package

Serial no.	Amount	Description	Individual price (EUR)	Total price (per unit) (EUR)
1		<p>Shaft part incl. PPS flue up to 120°C. Starting at the ceiling above the heating appliance and extending to roofing panel (approx. 2-3 cm above roof battens)</p> <p><input type="checkbox"/> Height 1000mm, width 160 mm, depth 130mm SKOBIFIXnano® 30, flue D60</p> <p><input type="checkbox"/> Height 1000mm, width 200 mm, depth 150 mm SKOBIFIXXs® 30, flue D80</p> <p>Order no.:</p> <p>Delivery and installation.</p> <p style="text-align: right;">Material costs:.....EUR/unit</p> <p style="text-align: right;">Labour costs:.....EUR/unit</p>		
2		<p>SKOBIFIX® special adhesive 3kg pail, sufficient for approx. 10–15 connections</p> <p>Order no.:</p> <p>Delivery and installation.</p> <p style="text-align: right;">Material costs:.....EUR/unit</p> <p style="text-align: right;">Labour costs:.....EUR/unit</p>		
3		<p>Ceiling connection adapter in the form of a rotatable adapter connecting the condensing boiler with SKOBIFIXnano®/XXs® 30 incl. inspection piece for air-inlet ring space</p> <p><input type="checkbox"/> Adapter: AZ (PPs/aluminium) SKOBIFIXnano® 30</p> <p><input type="checkbox"/> Adapter: AZ (PPs/aluminium) SKOBIFIXXs® 30</p> <p>Order no.:</p> <p>Delivery and installation.</p> <p style="text-align: right;">Material costs:.....EUR/unit</p> <p style="text-align: right;">Labour costs:.....EUR/unit</p>		
Balance:				

Serial no.	Amount	Description	Individual price (EUR)	Total price (per unit) (EUR)
4a		<p>Stack package comprising:</p> <p>1 universal pitched roof tile</p> <ul style="list-style-type: none"> <input type="checkbox"/> 5°–25° <input type="checkbox"/> 25°–45° <input type="checkbox"/> 35°–55° <p>1 roof terminal</p> <ul style="list-style-type: none"> <input type="checkbox"/> 60/125 mm (SKOBIFIXnano® 30) <input type="checkbox"/> 80/125 mm (SKOBIFIXXs® 30) <ul style="list-style-type: none"> <input type="checkbox"/> Standard length 0.4 m above roof/roof tile red <input type="checkbox"/> Standard length 0.4 m above roof/black <input type="checkbox"/> Standard length 0.4 m above roof/silver finish <input type="checkbox"/> Non-standard length 1.0 m above roof/roof tile red <input type="checkbox"/> Non-standard length 1.0 m above roof/black <input type="checkbox"/> Non-standard length 1.0 m above roof/silver finish <p>Order no.:</p> <p>Delivery and installation.</p> <p style="text-align: right;">Material costs:EUR/unit</p> <p style="text-align: right;">Labour costs:EUR/unit</p>		
4b		<p>Stack package comprising:</p> <p>1 flat flashing</p> <p>1 roof terminal</p> <ul style="list-style-type: none"> <input type="checkbox"/> 60/125 mm (SKOBIFIXnano® 30) <input type="checkbox"/> 80/125 mm (SKOBIFIXXs® 30) <ul style="list-style-type: none"> <input type="checkbox"/> Standard length 0.4 m above roof/roof tile red <input type="checkbox"/> Standard length 0.4 m above roof/black <input type="checkbox"/> Standard length 0.4 m above roof/silver finish <input type="checkbox"/> Non-standard length 1.0 m above roof/roof tile red <input type="checkbox"/> Non-standard length 1.0 m above roof/black <input type="checkbox"/> Non-standard length 1.0 m above roof/silver finish <p>Order no.:</p> <p>Delivery and installation.</p> <p style="text-align: right;">Material costs:.....EUR/unit</p> <p style="text-align: right;">Labour costs:.....EUR/unit</p>		
Balance:				

Serial no.	Amount	Description	Individual price (EUR)	Total price (per unit) (EUR)
5		<p>Connecting nipple. For use with custom cut elements or in places where the tongue and groove connector must be repaired with this piece</p> <p><input type="checkbox"/> 80 x 100 mm (SKOBIFIXnano® 30)</p> <p><input type="checkbox"/> 100 x 140 mm (SKOBIFIXnano® 30)</p> <p>Order no.:</p> <p>Delivery and installation.</p> <p style="text-align: right;">Material costs:.....EUR/unit</p> <p style="text-align: right;">Labour costs:.....EUR/unit</p>		
6		<p>Support brackets. The required amount corresponds to the number of floors above the heating appliance</p> <p><input type="checkbox"/> 130 x 160 mm (SKOBIFIXnano® 30)</p> <p><input type="checkbox"/> 150 x 200 mm (SKOBIFIXnano® 30)</p> <p>Order no.:</p> <p>Delivery and installation.</p> <p style="text-align: right;">Material costs:.....EUR/unit</p> <p style="text-align: right;">Labour costs:.....EUR/unit</p>		
7		<p>Connection adapter (only for SKOBIFIXXs® 30)</p> <p>For ceiling connection adapter (AZ 80/125) if different adapter dimensions are used in the construction's coupler.</p> <p><input type="checkbox"/> Reduced to 60/100, PPs/aluminium</p> <p><input type="checkbox"/> Additional available upon request</p> <p>Order no.:</p> <p>Delivery and installation.</p> <p style="text-align: right;">Material costs:.....EUR/unit</p> <p style="text-align: right;">Labour costs:.....EUR/unit</p>		
Total sum:				

Bauvorhaben:

Bauherr/Bauherrin:.....

Abgabetermin des Angebotes:

Angebotssumme:

Ort/Datum:

Anschrift des Bieters

Dealer's stamp

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Subject to technical changes