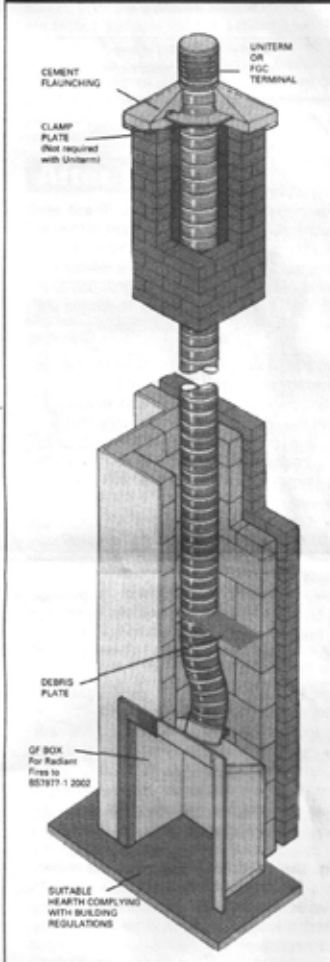


FLEXIBLE LINERS

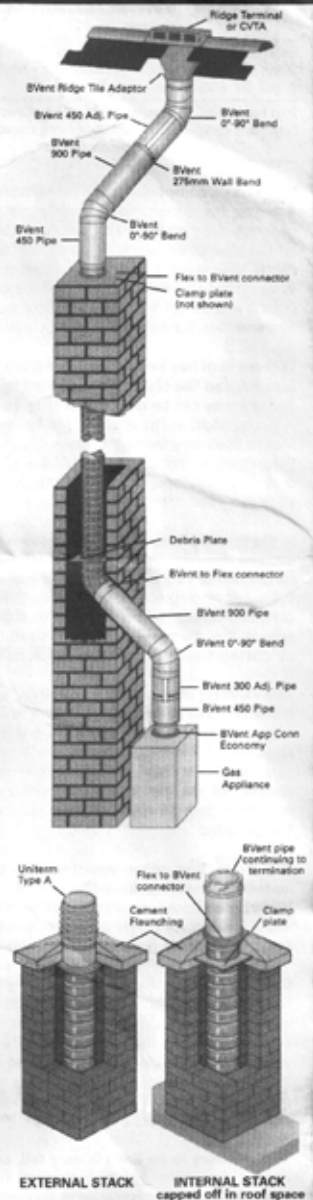
SCHIEDEL
RITE-VENT

Installation Instructions

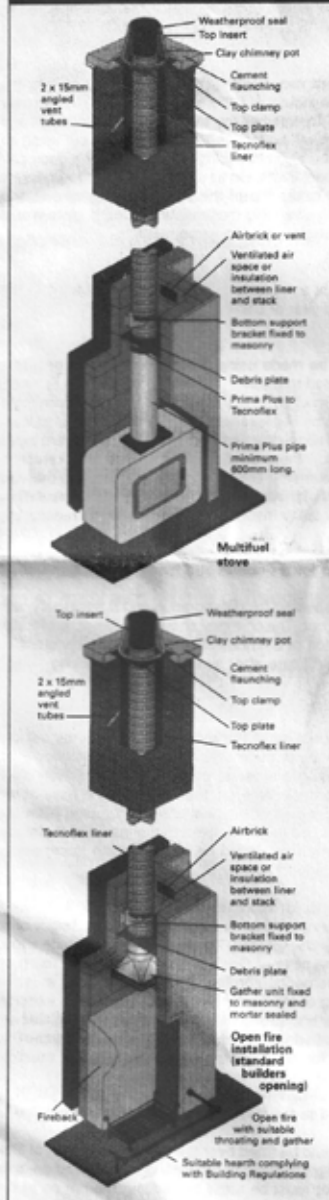
Wonderflex & Triplelock



Wonderflex & Triplelock



Tecnoflex



Tested & Approved



Tecnoflex
Tested to EN 1856-2

	MAXIMUM BENDING RADIUS (mm)													
PRODUCT	80	100	125	155	180	200	230	250	300	350	400	450	500	
WONDERFLEX TRIPLELOCK	200	250	310	375	450	500	575	625	750	885	1000	1125	1250	
TECNOFLEX	240	300	375	465	540	600	690	750	-	-	-	-	-	

**INSTALLER
HELPLINE
0191 416 6666**

SCHIEDEL CHIMNEY SYSTEMS
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Flueliner DOC/CP03/40 Issue No. 4 August 09

MONIER

Design, Installation and Assembly

How are liners supplied?

All types are available in either drum or cut lengths, with the ends of the liner taped to ensure safe handling. This must be removed from each end, prior to connection to the appliance/terminal. Gasflex is available on wooden drums to be cut to the required length, or in a range of lengths, supplied in polythene bags for easy handling. Basic cut length and complete packs with fabricated terminal and clamp plate are available. Tecnoflex is supplied in plastic cartons in either cut length or full drum sizes, and is suitable for exterior storage. Please refer to the table below for options available.

GASFLEX			TECNOFLEX		
meter	Drum	Cut Length	Diameter	Drum	Cut Length
100-125mm	80 metres	6-14 metres	80-155mm	30 metres	Up to 30 metres
150mm	50 metres	—	180-200mm	20 metres	Up to 20 metres
180-200mm	30 metres	—	230-300mm	—	10 metres
225-250mm	25 metres	—	—	—	—
300-500mm	—	Up to 12 metres	—	—	—

Can anyone install Flue Liner?

Connection to an appliance which is not connected to the fuel supply, should be carried out by a competent person. However, connection to an appliance that is connected to the fuel supply **must** be carried out by a GAS SAFE ENGINEER (Gas), OFTEC (Oil) or a HETAS registered installer.

Are there any special tools or equipment required?

No. The following would be necessary:- an industrial knife, tin snips, hacksaw, masonry drill, screwdriver, and adjustable spanner. To weather the top of the chimney stack and seal, a trowel with some sand and cement will be required. Gasflex can be cut using an industrial knife whereas Tecnoflex will need to be cut using a disc cutter or a good pair of tin snips, and rivet gun with stainless steel rivets. On all systems, it will be necessary to fix the clamp plate or plate and clamp to the top of the chimney using screws and wall plugs, so a drill will be necessary with a suitable masonry bit. A debris plate would need to be fitted at the bottom of the system using the same method.

Can Flue Liner be installed anywhere?

No. Flue liner **must** only be installed inside a masonry brick chimney, as defined in the table opposite depending on the type and year of chimney construction.

Are any other materials required?

The connection to the appliance should be made using fire cement/rope to ensure a positive seal. Where Tecnoflex is to be fitted to the top of an open fire place, a Schiedel Chimney Systems gather unit should be fitted into the throat of the chimney connected to the Tecnoflex and sealed off. It will also be necessary to fit an air vent/brick of at least 20 sq cm's into the breast of the chimney above the gather unit and 2 angled vent pipes of 15mm diameter at the top of the stack. Where Gasflex is being used on a kerosene or a gas appliance with a forced draught burner, it will be necessary to insulate the void between the flue liner and the masonry chimney with a perlite tube insulation. Alternatively, a solid tube wrap of high quality insulation can be used, to reduce the possible formation of condensates.

The chimney has been previously used for an open solid fuel fire, can a flue liner be installed straight away?

No, in all cases, the chimney must be inspected for deterioration and if necessary, any remedial work required should be carried out. The chimney should be swept, preferably by a member of NACS (National Association of Chimney Sweeps) or a suitably qualified chimney sweep who would provide a certificate after sweeping and checking, which should be retained for future reference.

How is the liner supported?

Gasflex is relatively light so it can be supported at the top of the chimney by using a clamp plate, which should be fixed to the top of the masonry stack. Tecnoflex however, is heavier and would be supported by using a separate plate and clamp, which again would be securely fixed to the top of the stack. Where a tee is used at the base of the system to provide a drain point/cleaning access or connection to a flue pipe from the appliance, a bottom support bracket would be required, fixed to the inside of the stack. In all cases, liner lengths exceeding 15 metres, should be provided with intermediate support, by using additional clamp plates/support brackets.

How is the liner cut to the correct length for the chimney?

After the length of flue liner has been connected to the appliance, fluebox spigot or to the flue pipe connecting to the appliance, allow at least 75mm of liner to protrude above the top clamp/plate and cut. In the case of Gasflex, this would be by using an industrial knife, without any other requirements. For Tecnoflex, the cut ends must be secured using either electric tack welding or stainless steel rivets. At all times extreme care must be taken when cutting the liner and strong industrial gloves plus long sleeved overalls should be worn as cut edges are very sharp. In addition, any tape secured to the ends of the liner, which is provided for safe handling prior to installation, must be removed before completion, and commissioning of the full system.

How should the Terminal be connected to the flue liner and how is the installation made weatherproof?

For gas and oil systems, the terminal should be fitted over the protruding 75mm of liner and rivetted or secured using self tapping screws. On Tecnoflex, where used on solid fuel appliances, a proprietary chimney pot must be fitted by bedding the pot on to the top plate. In all cases, the top of the stack should then be weathered and sealed using a suitable acid resistant mortar to prevent ingress of water.

Are there any special requirements for providing ventilation?

The room carrying the appliance should have an air vent either direct to an external air source or vented into a room that has an external vent direct to an air source. This is required to provide adequate air supply to allow the appliance and flue to operate efficiently. These requirements are specified in the Building Regulations (Document J) also by CIBSE and BS5440. Where Tecnoflex is used serving a solid fuel appliance, ventilation between the liner and the inside of the chimney will be required. This is provided by installing two 15mm pipes into the masonry at the top of the stack just below the top plate and clamp, at an angle to prevent the ingress of rainwater. It would also be necessary to install a vent at the base of the stack above the debris plate or the gather unit. This should be an air brick or vent of 20cm. If the cavity is to be insulated with perlite, or tube wrap insulation, then two 15mm pipes at the top of the stack to allow any moisture in the insulation to evaporate freely, must still be provided.

Is there a correct 'way up' to install the flue liner?

Yes, this is very important on Tecnoflex multifuel liner; the directional arrow on the outside of the liner indicates the direction of flue gases, and this must be pointing upwards towards termination. Gasflex can be installed either way up.

Does an existing chimney need relining when fitting a gasfire into a fireplace opening?

Building Regulations Document J, outlines different requirements for relining masonry chimneys built before and after 1st February 1966. This can be summarised in the following table to provide guidance in the correct method of installing Schiedel Chimney Systems flue liners into these chimney types. The liner must be sized to meet the requirements of the new appliance, please refer to the flue size selection guide and the appliance manufacturer's instructions. A lined chimney is defined as one which is fitted with a clay or concrete liner within the flueway, complying with Document J.

Appliance	Chimneys built prior to 1/2/1966	Chimneys built after 1/2/1966
Gas burning Input upto 45kW	BS715 Gasflex can be used in unlined chimney	BS715 Gasflex can be used in lined chimney
Kerosene burning Output upto 45kW	F.G.T under 260°C BS715 Gasflex can be used in unlined chimney and surrounding airspace insulated	F.G.T over 260°C BS715 Gasflex can be used in lined chimney and surrounding airspace insulated
Gasoil burning Output upto 45kW	Tecnoflex can be used in unlined chimney and surrounding airspace insulated	Tecnoflex can be used in lined chimney and surrounding airspace insulated
Solid Fuel burning Output upto 45kW	Tecnoflex can be used in unlined chimney and surrounding airspace insulated and ventilated	Tecnoflex can be used in lined chimney and surrounding airspace insulated and ventilated

What basic components are required for a typical relining system?

A typical installation would include the liner, a clamp plate and terminal. These are generally supplied in a kit form for gasflex, a debris plate would also be required to seal off the base of the stack. In the case of an open fire using Tecnoflex, a gather unit, and debris plate would be necessary together with a top insert and a suitable terminal/pot. When installing a flue liner for use on a gas fire complying to BS7977-1:2002, BS7977-2:2003 and BS EN 509:2000 (i.e. Radiant, BBU, DGF or ILFE), a range of flueboxes are available with Gasflex and Turboflex spigots for use within the chimney opening.

When a roof has been converted from flat to pitched, and the existing chimney is capped, can the chimney be reused to accommodate a new appliance?

The chimney can be reused providing the existing brickwork is inspected to ensure it is in good condition. The chimney can be lined with the appropriate liner, ensuring that the liner is used only inside the stack. Connection to a vitreous enamelled flue pipe, or to BVent(gas), KVent(kerosene) or ICS + ICID Lite (multifuel). A connection can be made from the appliance to the System, by using Prima+ 1mm **inside** the chimney, and suitably sealed with fire cement.

Is the flexible liner pulled up or down the chimney, and what should be used?

The flue liner should be pulled down the chimney using a nose cone and string/rope. A nose cone can be purchased, rope attached, and connected to the end of the liner by using self tapping screws. It is strongly recommended that a 1m test section, with nose cone and rope attached, is pulled through the chimney, prior to installation, in order to ensure the chimney is suitably sized, and free from obstructions. These can be purchased separately from your local distributor.

The existing chimney has a flexible flue liner fitted, connected to an old gas fire. If the fire was to be changed can the liner be reused for the new fire?

Yes, in general terms, providing the diameter and type of flex is suitable for the new appliance to be fitted, the installer has inspected the liner and is satisfied that the condition of the liner is such to be reused with the new appliance. However, as the lifespan of the previous appliance and liner may not be known, it is **strongly** recommended the old fueliner is removed, the chimney swept, then a suitable new liner installed.

Are there any other maintenance checks that should be carried out when installing a new appliance?

It will be necessary to check that the flaunching at the top of the stack is not cracked, and if so replaced. The brickwork pointing and the flashings should be checked to ensure they are in good order and corrected as necessary.

Can flue liner be used on condensing appliances?

Gasflex is not suitable for use on condensing appliances as the internal surface profile is convoluted and can hold aggressives caused by the flue gases which will attack and eventually corrode the stainless steel. Tecnoflex can be used on condensing appliances, which have pressure at the flue outlet of 100Pa maximum, and provided the liner is insulated so condensation formation is minimised. It is also necessary to fit a tee and drain point at the base of the vertical system, adequately supported, and connected to a drainpipe to a suitable drain point.

The chimney to be lined is very tall, can lengths of flue liner be joined?

Flexible flue liners **must** be installed in continuous lengths without joiners. Schiedel Chimney Systems can supply all flue liners in specific lengths on drums or in pack form upon request. On Tecnoflex installations, joiners are **only** permitted where the chimney liner length exceeds the maximum drum length available and details of the installation are agreed in advance, in writing, in compliance with product warranty conditions.

Which type of terminal is recommended for gas, oil or multifuel application?

As specified in BS7566 Part 4. For gas burning installations, a flue terminal is required that complies with section 5 of BS715:1993. Where a proprietary terminal is not used, the free area of outlet openings on the termination shall be at least twice the cross sectional area of the flue. Outlet openings shall be such that they will admit a ball of 6mm diameter but not of 16mm diameter except for terminals serving an incinerator which shall admit a ball of at least 25mm. The openings shall be uniformly distributed around the terminal or arranged at two opposite faces. (BS5440 Part II). A gas flue terminal must be fitted to an all gas installations of 170mm or less. For oil burning installations, a rain cap or universal terminal may be used, however, as there is a corrosion risk on such systems, **regular inspection is recommended.**

Multifuel Applications

Rain caps and universal terminals are not recommended for use on solid fuels, as the use of covered terminals will increase flow resistance and encourage the formation of aggressive condensates and deposits. In some instances, a terminal incorporating a spark guard may be demanded to reduce the risk of fire hazard. For all multifuel systems, regular cleaning is essential to prevent the accumulation of material which could ignite and create a fire hazard.

Do I require an appliance connector to fit the flex to the appliance spigot?

In the event of connecting directly to the appliance i.e. a gas fire with back boiler within the chimney stack, it will generally be unnecessary to use an appliance connector. When making a connection to a fluepipe in another product type, then the appropriate connector to/from flexible would be used. When making a connection to a fluepipe which is to be joined to the appliance spigot, then the appropriate BVent (gas), KVent (kerosene), ICS (multifuel) or Prima Plus 1mm appliance connector must be used, suitably sealed to the appliance spigot ensuring a gas tight joint.

Is the Rite-Vent range of flue liners fully approved?

Wonderflex and Triplelock are both tested and Kitemarked to BS715:1993 in diameters 100/125/150. Tecnoflex with Wonderflex are tested and approved by CSTB (France) in diameters 125-200mm and Triplelock up to diameter 300mm. Tecnoflex are also tested and approved by CE to EN 1856-2, Designation: T600 in diameters 80mm to 300mm. All Schiedel Chimney Systems flexible flue liners are manufactured under the stringent requirements of BS EN ISO 9001:2008 Quality management system. Tecnoflex are listed in the tenth edition of the HETAS Guide.

After Installation

Does the flue liner require sweeping/cleaning/maintenance?

Provision should be made for inspecting and cleaning the liner. This is especially important on Tecnoflex for solid fuel applications. The liner should be swept at least twice a year, and all deposits swept down the chimney must be removed. **Do not** use chemical chimney cleaners or metal scarifying devices under any circumstances. Mechanical cleaning with hog hair/stiff nylon brush and rods are the **only** recommended methods. Please refer to maintenance and end user instructions detailed on the reverse of the flap.

What is the life expectancy and are there any warranties on the liners?

Under normal operating conditions and providing the liner is installed correctly, it should last the lifetime of the appliance which is normally 10 to 12 years. All flue liners carry a 10 year conditional warranty. The conditions are that the flue liner is correctly sized, installed, and properly maintained, burning only approved fuels in accordance with the Schiedel Chimney Systems and appliance manufacturer's instructions. For recommended fuels listings, please refer to the HETAS guide, or by contacting the Solid Fuel Association (Tel: 0845 601 4406) or appliance manufacturer's instructions. Warranty registration details are provided with installation instructions for completion and registration with Schiedel Chimney Systems.

Will the flue liner be OK to use after a chimney fire?

No. The flue liner could be damaged under the conditions of a chimney fire, and **must** always be inspected by a suitably qualified individual (e.g. NACS/NACLE member and replaced as necessary), before using the appliance or fire again.

After installation, does the flue liner need to be tested before use?

Yes, this is done by means of a flue flow test as described in BS5440. This can be summarised as follows:- After a visual and physical check of the joints in the system, and ensuring an adequate air supply for combustion has been provided, close all doors and windows in the room in which the appliance is to be installed. It will be necessary to introduce heat to the flue system for a minimum of 10 mins and possibly up to 30 mins using a blow torch or similar. Position a smoke pellet (providing a performance of 5m³ of smoke in 30 secs burn time) at the intended position of the appliance. The test is satisfactory if there is no significant spillage from the appliance position, no seepage over the length of the system, and discharge only from the terminal. If these conditions are not met, the test has failed and all faults **must** be rectified before connection of the appliance to the flue supply. In the event of any further problems, reference to BS5440 and BS6461 must be made.

IF BURNING WOOD OR COAL, MORE FREQUENT SWEEPS ARE RECOMMENDED

PRODUCT REGISTRATION

The installer / customer is requested to fill in the details below and return the registration form to SCHIEDEL CHIMNEY SYSTEMS. Failure to register the installation may affect any claim made during the guarantee period of the product.

Name & Address of Installer		Address of Property where product is installed:-	
Supplier / Stockist		Date of Purchase	
Occupier of Property		Date of Installation	
Appliance Type		Internal Flue Diameter	
		Fuel Type	

As part of our continual research and development programme we reserve the right to alter/modify components shown in this catalogue without prior notice.

TO BE LEFT WITH HOUSEHOLDER

Fuels

Schiedel Chimney Systems Wonderflex and Triplelock are not suitable for any grade of oil other than 28 second (kerosene). For other fuel oils, solid fuel and woodburning, Tecnoflex must be used.

Ventilation

It is very important that sufficient air for combustion and ventilation is provided to the room containing the appliance to enable correct and efficient working of the appliance and chimney to occur. Recommendations are given in the Building Regulation or CIBSE Guidance Notes.

Downdraught

There are many causes of down-draught problems, including the height of the chimney. If this problem occurs, then advice may be sought from the Schiedel Chimney Systems Technical Services Department.

Warning

Failure to maintain a clean chimney can result in the emission of toxic gases into the dwelling. The system should be inspected at the start of the heating season for blockages such as birds nests. Should any component show any sign of deterioration seek professional advice.

Flue to be cleaned at least once a year.

PRODUCT WARRANTY

Schiedel Chimney Systems flue liners carry a 10 year conditional warranty. The warranty period is effective from the date of installation, subject to the registration of the product and providing the following conditions have been met:

- The requirements of the Building Regulations
BS5440 - Installation of flues and ventilation for gas appliances of rated input not exceeding 60kW
BS5410 - Code of practice for oil firing
BS6461 - Solid fuel burning appliances
Schiedel Chimney Systems Design and Installation Instructions
Schiedel Chimney Systems Use and Maintenance Instructions
Other standards / Regulations relevant to the application.
- The appliance has been approved and has been installed and has been operated in accordance with the manufacturer's instructions and is only used with the approved fuel.
- The liner is not sited where it can be exposed to halogens, such as chlorine, or their compounds.
The combustion air must also be free of halogens and their compounds.
- The chimney or liner has not suffered mechanical damage.
- The chimney or liner has not suffered a chimney fire.
- The chimney is inspected regularly.
- The installation where possible is entirely of Schiedel Chimney Systems manufactured components (clamp plates, terminals, flue boxes etc.).

PLEASE NOTE: Terminals are not included in this product warranty

In the event of a fault developing in the product due to defective materials or faulty manufacture Schiedel Chimney Systems undertake to replace the product only. Replacement will be on a pro rata basis, relating to the age of the product.

Schiedel Chimney Systems cannot accept liability nor take any responsibility for the installation, building or redecorating costs or any other consequential losses arising.

If any complaint is found to be as a result of faulty installation, non-compliance with or abuse contrary to these conditions, the cost of site investigation is chargeable.

TO BE LEFT WITH HOUSEHOLDER

USER RECOMMENDATIONS

1. Maintenance

CLEANING

It is recommended that chimneys serving solid fuel appliances be swept as frequently as necessary but at least twice a year. Ideally this should take place in the middle of the heating season and at the end of the season. The chimney should be inspected at the start of the heating season for blockages, such as birds nests. Care should be taken when sweeping, as the use of an incorrect brush can damage or tear the inner skin. Only polypropylene brushes of the correct diameter should be used.

CLEANING METHODS

It is advised that only mechanical sweeping methods are used, **chemical cleaners are not recommended.** The services of a professional chimney sweep should be employed.

For details of chimney sweeps in your area contact N.A.C.S. (National Association of Chimney Sweeps) Tel: (0800) 833464, e-mail: nacs@chimneyworks.co.uk

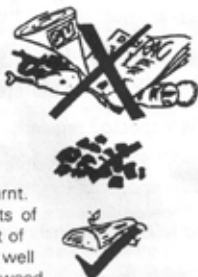
2. Warning

Failure to maintain a clean chimney can result in the emission of toxic gases into the dwelling or damage from potential chimney fires. If a chimney fire does occur, professional advice should be sought regarding the condition of the chimney before use. The chimney should be inspected at least once a year to see if the construction materials are in good condition. Particular attention should be paid to terminals, cowls, sections externally exposed above the roof line and inspection openings. Should any component show any sign of deterioration, professional advice should be sought. It could be necessary to replace these components in order to ensure that the chimney can operate correctly and safely.

3. Fuels

It is advisable that only the fuel recommended by the appliance manufacturer be used. Approved fuels lists available from HETAS, Tel: 01242 673257
Website: www.hetas.co.uk

Household refuse **must** not be burnt. Wood-burning produces considerable deposits of soot, tarry matter and wood ash. The amount of these deposits can be reduced by burning well seasoned, air-dried (preferably 6-12 months) wood, and by ensuring that an active bright fire is maintained.



4. Appliance Operation

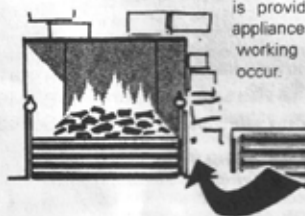
Do not run an appliance at low output for long periods such as overnight.

Do not damp down fires to save relighting in the morning. These conditions allow condensate to build up which corrodes the liner. We advise that running the appliance at controlled high fire for at least 30 minutes can minimise the effects of operating at a low output for long periods.



5. Ventilation

It is very important that sufficient air for combustion and ventilation is provided to the room containing the appliance to enable correct and efficient working of the appliance and chimney to occur.



Recommendations are given in the Building Regulations or CIBSE Guidance Notes.

6. Downdraughts

There are many possible causes of down-draught problems including the height of the chimney. If these problems occur it is recommended that professional advice is sought. A range of anti-downdraught terminals are available.



**SCHIEDEL CHIMNEY SYSTEMS
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