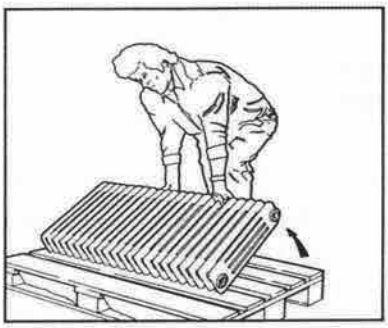
Cast Iron Radiators

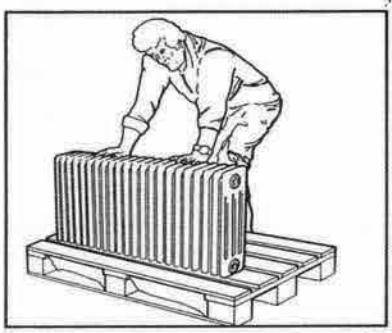
Radiator handling, assembling & finishing

Please read these instructions!

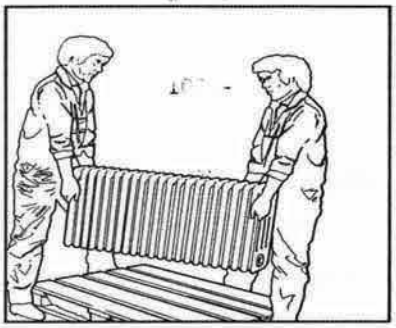
CORRECT HANDLING PROCEDURE



1 ALWAYS LIFT THE RADIATOR IN THE CENTRE AS ILLUSTRATED ✓

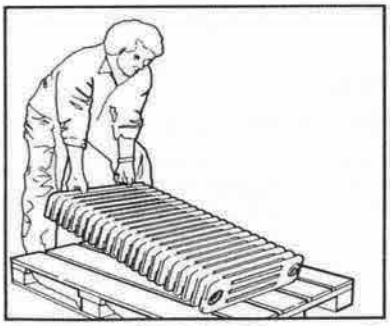


2 BRING THE RADIATOR TO THE VERTICAL POSITION ✓

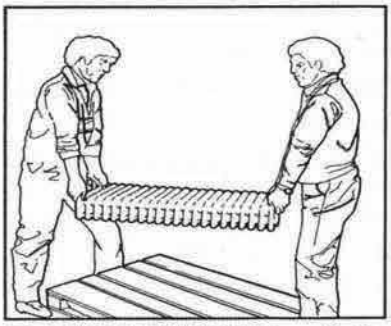


3 ALWAYS CARRY THE RADIATOR IN THE VERTICAL POSITION ✓

INCORRECT PROCEDURE



A NEVER LIFT THE RADIATOR FROM ONE END WHILST IT IS IN THE HORIZONTAL POSITION ✗



B NEVER CARRY RADIATOR IN THE HORIZONTAL POSITION ✗

NB:
INCORRECT HANDLING PROCEDURES A OR B MAY CAUSE WATER LEAKS

Engineering Data Sheet 694/4

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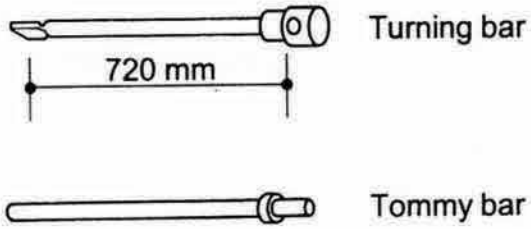
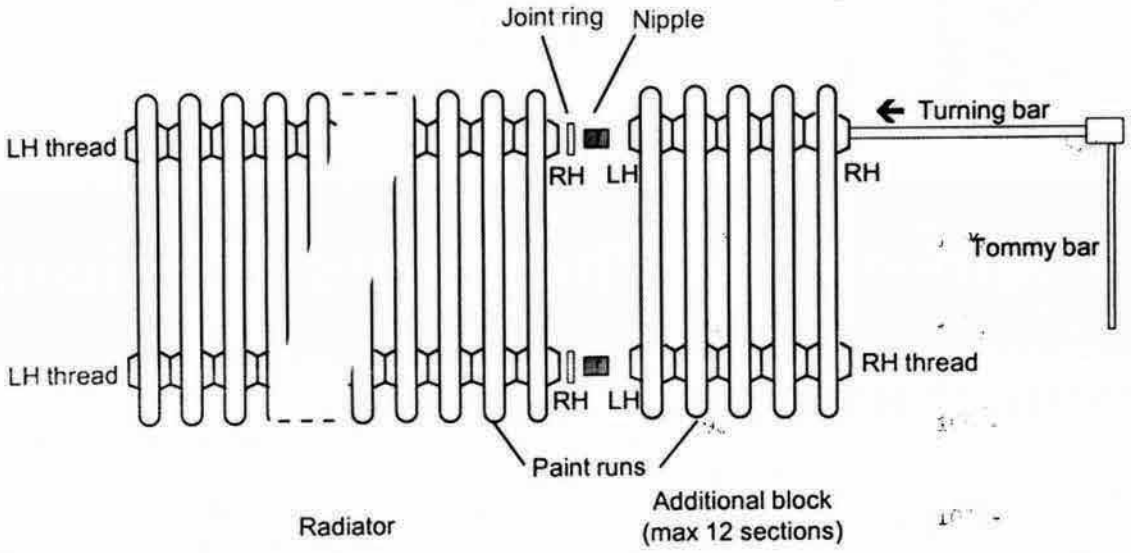
Assembling tools



Connections

Radiators blocks have 1¼" right hand threads at one end and 1¼" left hand thread at the other. Lay the blocks out so the right hand threads are aligned with left hand threads to suit the threaded nipples - refer diagram below.
Inspect all blocks before joining for primer paint runs and arrange these to be at the bottom of the radiator.



Assembling

Sections are joined with dry fitted joint rings between the machined faces of each section. Bushes and plugs are dry sealed in the connections at each end of the radiator with a joint ring supplied as part of the bush or plug. **Hemp, tape or sealing compounds must not be used.**

1 Position the section block horizontally on two lengths of timber.

2 Ensure that the machined faces and threads of the section are perfectly clean.

3 Screw two nipples one full turn into each of the section tappings. Note that the nipples have left and right handed threads.

4 Place a 0.75mm joint ring on each nipple.

5 Clean the machined surfaces and threads of the adjoining block or section. Lay this block or section beside the first block ensuring that the threads mating to the nipples have the correct thread rotation.

6 Measure and mark off the length of the adjoining block or section on the nipple turning bars.

7 Insert the turning bars through the nippleways of the adjoining block or section to engage with the nipples.

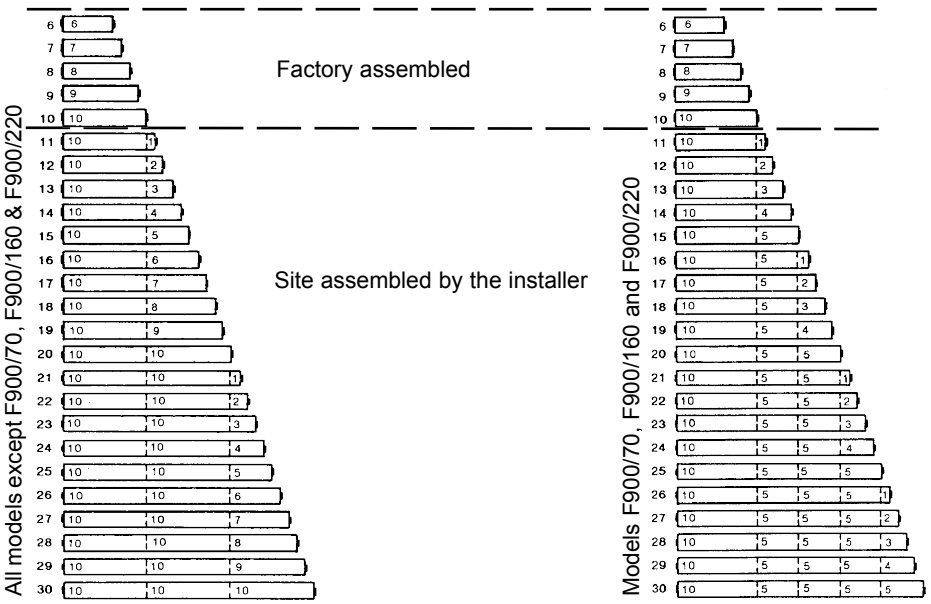
8 Rotate both nipple turning bars equally to draw the blocks together keeping them parallel. If the blocks are not pulled together evenly, threads can be damaged and may give rise to leakage. Tighten the section nipples to a torque of 300 - 380 Nm (220 - 280 ft.lbs) - ie. the full weight of a 10-stone man bearing down on a 2ft long tommy bar.

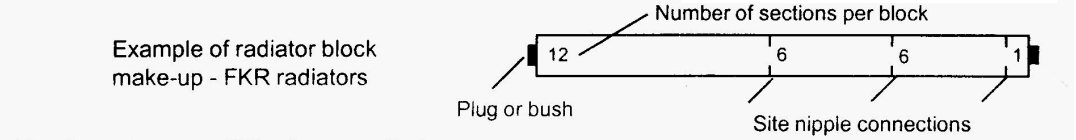
9 Repeat operations 2 to 8 until the radiator is fully assembled.

10 If a flow diverter is required, refer to the fitting instructions supplied with the diverter.

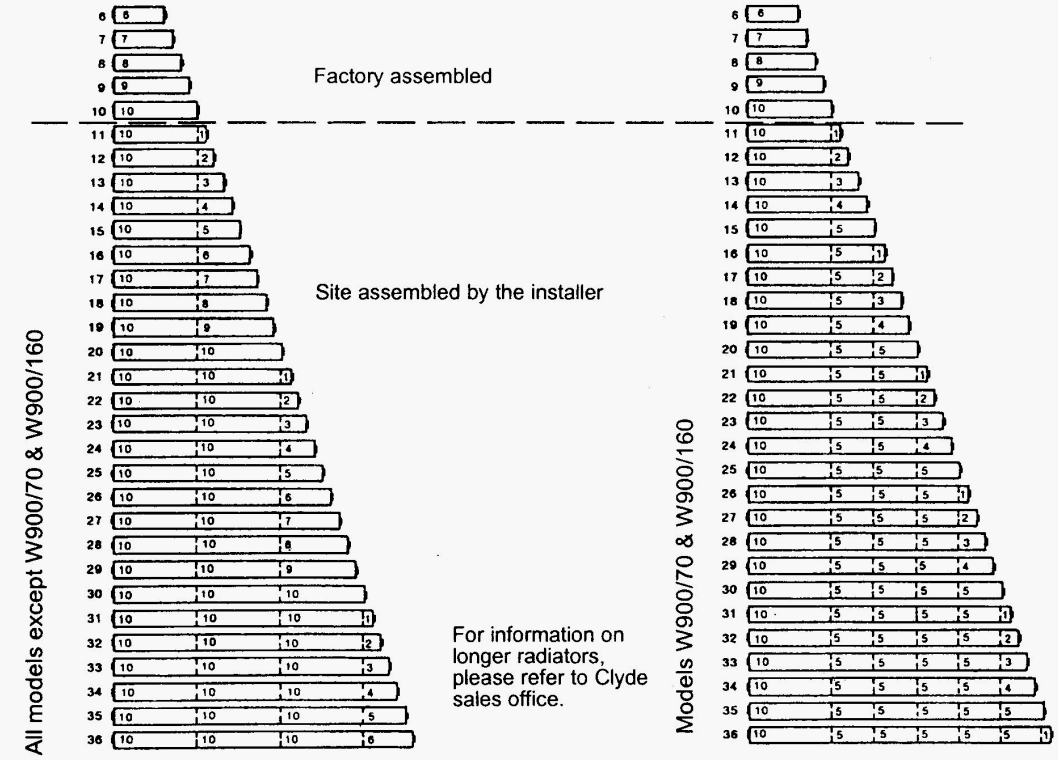
11 Fit bushes, blank plug and vent valve according to the connection plan required.

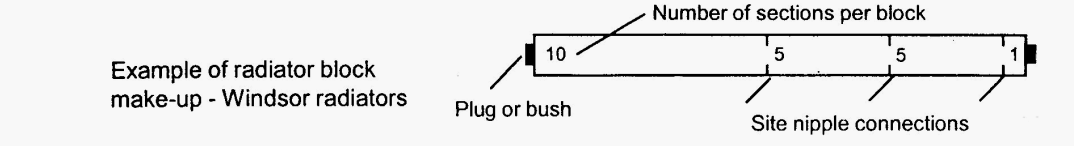
Block make-up - FKR radiators



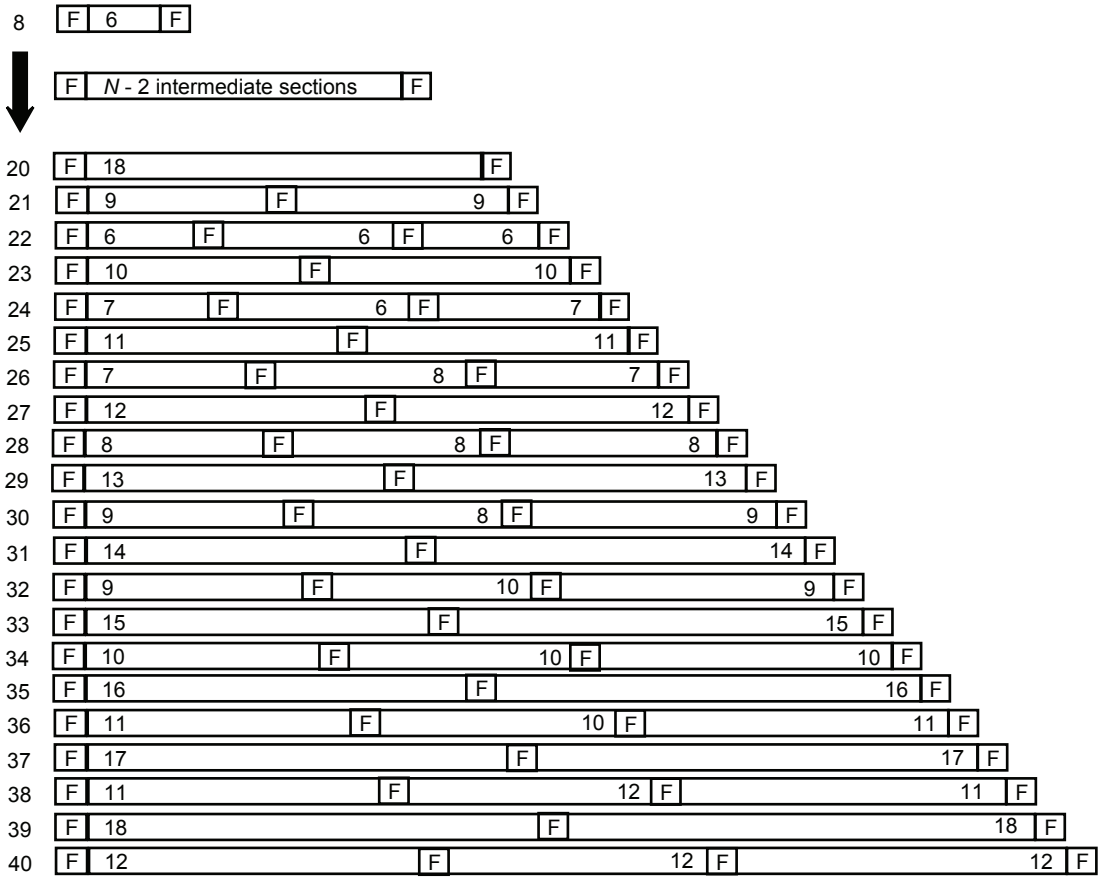


Block make-up - Windsor radiators





Block make-up - Grange radiators



Clyde Grange radiators include footed sections that are designated ‘F’ in the above block make-up

PAINTING

Clyde cast iron radiator blocks are supplied with a protective paint coating that will inhibit the formation of rust if the blocks are dry stored correctly, as stated in the data sheets. Blocks will rust if they become wet. THIS PROTECTIVE PAINT COATING IS A PRIMER NOT AN UNDERCOAT

Paint may be applied by brush or spray over an undercoat, in accordance with the paint manufacturer's instructions. The quantity of paint required may be calculated from the coverage rate declared by the paint manufacturer and the surface area of the radiators calculated from the data published in the radiator engineering data sheets (available from Clyde Energy Solutions Ltd and www.clyde4heat.co.uk)

Preparation

Before assembling blocks together, arrange them with primer paint runs at the bottom. These paint runs can usually be removed with a stiff wire brush. Assemble the blocks as described in page 2

Mount the radiators in their final position and complete all pipe connections. Painting radiators 'in situ' against a wall is not recommended as the entire surface cannot be covered and there is a high risk of rust formation on unpainted surfaces

When all installation work has been completed, disconnect the pipework and remove the radiators from the wall. The radiators are heavy and cumbersome to move, so it is advisable to paint finish each radiator close to where it is being installed. Stand or lay the radiators on wooden chocks. For safety, the radiators must be supported whilst standing up, but it is necessary to turn them over to examine and treat all surfaces

Protective coating

For a superior, long lasting finish we recommend that a protective coat of zinc based rust inhibitor is used. This may be applied by brush or spray and must be compatible with the undercoat and finish to be used. The advice of a paint specialist should be sought

Paint choice

Radiators may be finished with most domestic paints that are formulated to withstand temperatures up to 100^{o}C. Spray paints as used for car bodywork are also suitable if they are not water based. Some POWDER COATING processes are unsuitable - contact Clyde if in doubt. The finish coat may be a plain pigment or a metallic paint, but there will be a loss of heat emission if a metallic paint is used (refer data sheets). A satinwood finish is particularly compatible with the texture of cast iron. Metallic paints with a 'hammer' finish generally enhance the appearance of the cast iron surfaces

Topcoats and undercoats must NEVER be WATER BASED or EMULSION type. Be careful in selecting undercoats as some modern formulations are water based even though they are intended for use with oil based topcoats. A water based paint will create rust pocks that will grow and become unsightly

Paint odours may be emitted during painting and when the radiator heats up for the first few times. Adequate ventilation should be provided

Clyde Radiators

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