FLEET WALL HUNG SERIES BOILER PIPE KITS

Suitable for one, two, three, and four boiler installation configurations

IMPORTANT NOTE

THESE INSTRUCTIONS MUST BE READ AND UNDERSTOOD BEFORE INSTALLING AND COMMISSIONING THESE PIPE KITS.



Customer After Sales Services

Telephone: 01202 662555 E-mail: service@hamworthy-heating.com Fax: 01202 662522

Technical Enquiries

To supplement the detailed technical brochures, technical advice on the application and use of products in the Hamworthy Heating range is available from our technical team in Poole and our accredited agents.

Site Assembly

Hamworthy offer a service of site assembly for many of our products where plant room access is restricted. Using our trained staff we offer a higher quality of build and assurance of a boiler built and tested by the manufacturer.

Commissioning

Commissioning of equipment by our own engineers, accredited agents or specialist sub-contractors will ensure the equipment is operating safely and efficiently.

Service Contracts

Regular routine servicing of equipment by Hamworthy service engineers inspects the safety and integrity of the plant, reducing the risk of failure and improving performance and efficiency. Service contracts enable you to plan and budget more efficiently.

Breakdown service, repair, replacement

Hamworthy provide a rapid response breakdown, repair or replacement service through head office at Poole and accredited agents throughout the UK.

Spare Parts

We offer a comprehensive range of spare parts, providing replacement parts for both current and discontinued products. Delivery options are available to suit you. Please refer to our website for more details.

FLEET WALL HUNG BOILER PIPE KITS

Suitable for one, two, three, and four boiler installation configurations

INSTALLATION, INSTRUCTIONS

NOTE: THESE INSTRUCTIONS MUST BE READ AND UNDERSTOOD BEFORE ATTEMPTING TO INSTALL & COMMISSION THESE PIPE KITS.

THESE INSTRUCTIONS MUST BE READ IN CONJUNCTION WITH THE FLEET WALL HUNG BOILER INSTRUCTIONS (HHL Part No. 50001211)

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CONTENTS

		PAGE
Fron	nt Page	i
Con	tents	ii
1.0	GENERAL INSTRUCTIONS	1
2.0	PARTS IDENTIFICATION	4
3.0	OPTIONAL EXTRAS	14
4.0	DIMENSIONAL DRAWINGS	15
5.0	ASSEMBLY & INSTALLATION OF THE PIPE KIT	19
6.0	ASSEMBLY OF BOILERS TO THE PIPE KIT	20
7.0	TESTING & PURGING GAS PIPE WORK	21
TAB	BLES: -	
1	Water & Gas Pipe Work 1 & 2 Boiler Pipe Kits	10
2	Water & Gas Pipe Work 3 & 4 Boiler Pipe Kits	11
3	Boiler Water & Gas Connection Seals	
4	Frame Assembly Spare Parts	
5	Condensate Pipe Work Parts	
6	Manifold Fixing Kit Parts	
7 8	Low Loss Header Part NumbersLow Loss Header Spare Parts	
9	Low Loss Header Fixing Kit Components	
10	Sensor Spool Kit Part Numbers	
11	Sensor Spool Kit Spare Parts	14
12	Installation Parameters For Boiler Connection	20
FIGU	URES: -	
1.1	One boiler arrangement	1
1.2	Two boiler arrangement	
1.3	Three boiler arrangement	
1.4	Four boiler arrangement	
1.5 2.1	Assembly parts identification	
2.2	40-150kW Boiler Pipe Kit Gas Pipe Assembly - Parts	
2.3	40-150kW Boiler Pipe Kit Flow Pipe Assembly - Parts	
2.4	40-150kW Boiler Pipe Kit Return Pipe Assemblies - Parts	
2.5	Condensate Pipe Assembly - Parts	
2.6	Pipe Kit Boiler Safety Relief Valve Vent Pipe Assembly - Parts	
2.7 2.8	Manifold Fix Kit 563605605 (40-150kW Boiler Pipe Kit) - Parts	
3.1	DN65 PN16 Flanged 2 Port & 6 Port Low Loss Header - Parts	
3.2	DN65 Sensor Spool Kit - Parts	
4.1	1 Boiler Pipe Kit Dimensions With Boiler Assembled	15
4.2	2 Boiler Pipe Kit Dimensions With Boilers Assembled	15
4.3 4.4	Boiler Pipe Kit Dimensions With Boilers Assembled Boiler Pipe Kit Dimensions With Boilers Assembled	
4.4 4.5	Dimensions DN65 / PN16 Flanged 2 Port Low Loss Header	
4.6	Dimensions 4 Wide 40-150kW Boiler Pipe Kit With 2 Port L. Loss Header	
4.7	Dimensions 40-100kW Boiler Pipe Kit & Sensor Spool Kit	18
4.8	Dimensions DN65/ PN16 Flanged 6 Port Low Loss Header	18

CONTENTS

		PAGE
6.1	Hanging The Boiler On The Pipe Kit	20
6.2	Connecting The Boiler To The Pipe Kit (Viewed From Front)	
7.1	Testing & Purging Gas Pipe Work	21

1.0 GENERAL INSTRUCTIONS

These instructions MUST be read in conjunction with the Fleet Boiler Installer's Guide (HHL Part No. 500001211).

SAFETY NOTE: All safety instructions referred to in the Installer's Guide must be adhered to and a competent person must carry out all works referred to in these instructions.

The water and gas pipe kits are specifically for use with Fleet Wall Hung boilers for hot water heating systems. Additional kits are available for use in conjunction with the Pipe Kits:

- · 2 Port Low Loss Header
- 6 Port Low Loss Header
- Spool kits for 3 off, Diameter 6mm Sensors

Boiler flue kits are also available - refer to boiler instructions for details.

All pipe kit components are pressure tested prior to despatch.

In order to ensure the correct parts are delivered please use the tables and drawings in sections 2.0 & 3.0 (pages 4 to 14) of this guide. As options are available for this product please check the original order requirement against the delivery note and then check the parts supplied.

If any items are missing, use the delivery note & fax this back to HHL. Fax No. 01202 665111.

The range of header kits are suitable for 40kW, 50kW, 60kW, 70kW, 80kW, 85kW, 100kW, 120kW, 125kW, 140kW, 150kW, 160kW, 170kW, 180kW, 200kW, 210kW, 240kW, 250kW, 255kW, 280kW, 300kW, 340kW, 375kW, 400kW, 450kW, 500kW, 600kW boiler configurations.

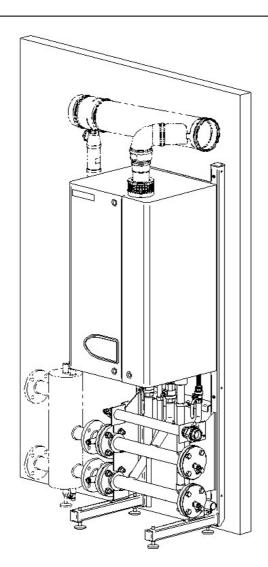


Figure 1.1 - Single boiler arrangement showing boiler, frame, optional 2 port low loss header, optional flue header, water & gas pipe work for 40kW, 50kW, 60kW, 70kW, 85kW,100kW, 125kW, 150kW boiler outputs.

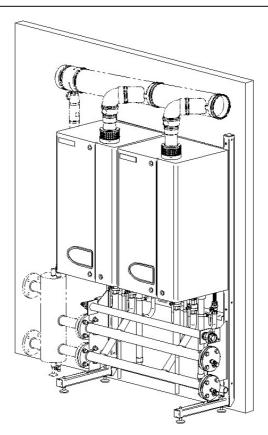


Figure 1.2 - Two boiler arrangement showing boilers, frame, optional 2 port low loss header, optional flue header, water & gas pipe work for 80kW, 100kW, 120kW, 140kW, 170kW, 200kW, 250kW, 300kW boiler outputs.

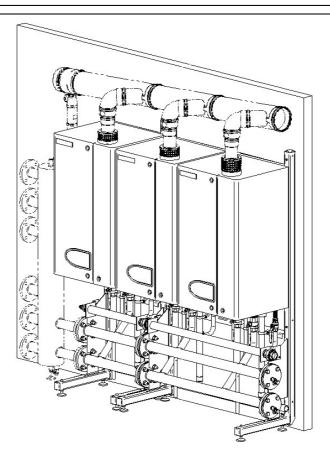


Figure 1.3 - Three boiler arrangement showing boilers, single & double boiler frames bolted together, optional 6 port low loss header, optional flue header, water & gas pipe work for 120kW, 150kW, 180kW, 210kW, 255kW, 375kW, 450kW boiler outputs.

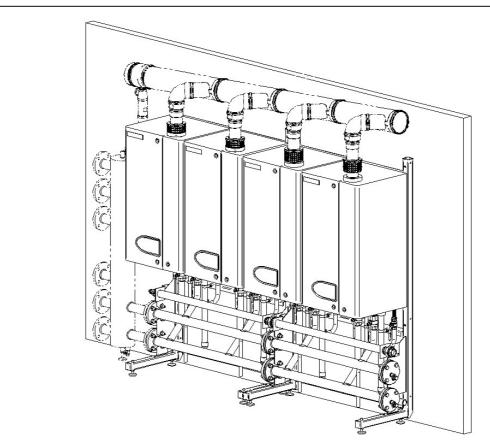
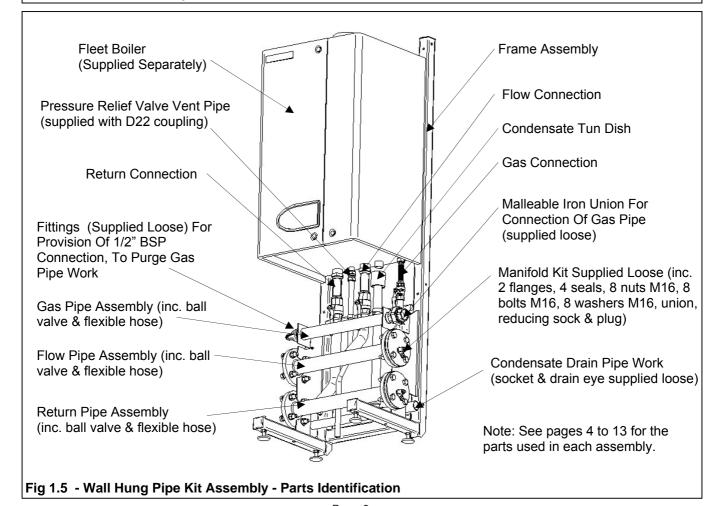
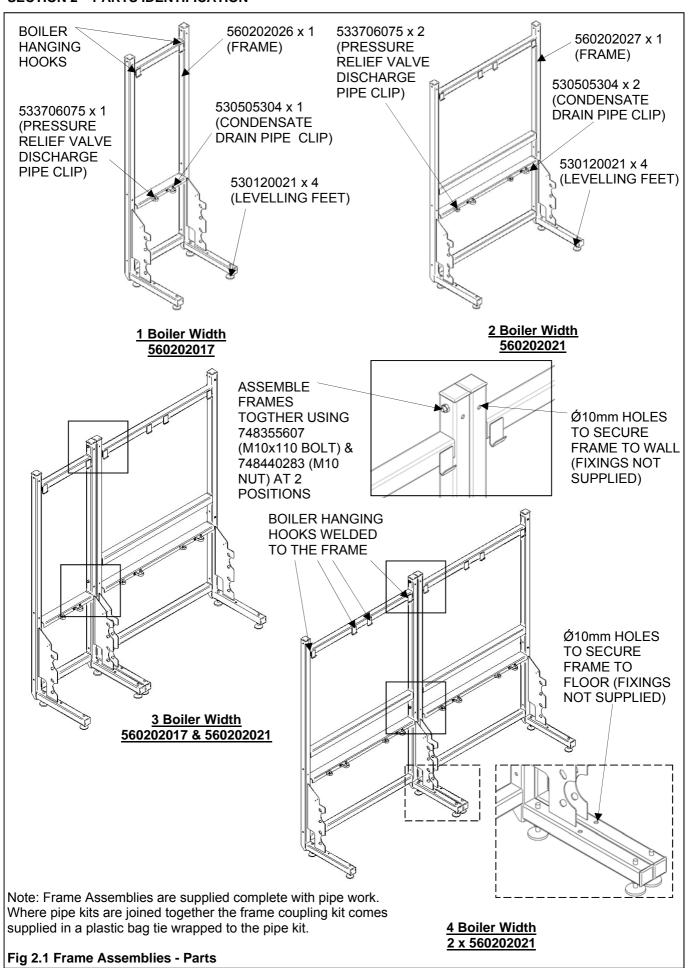
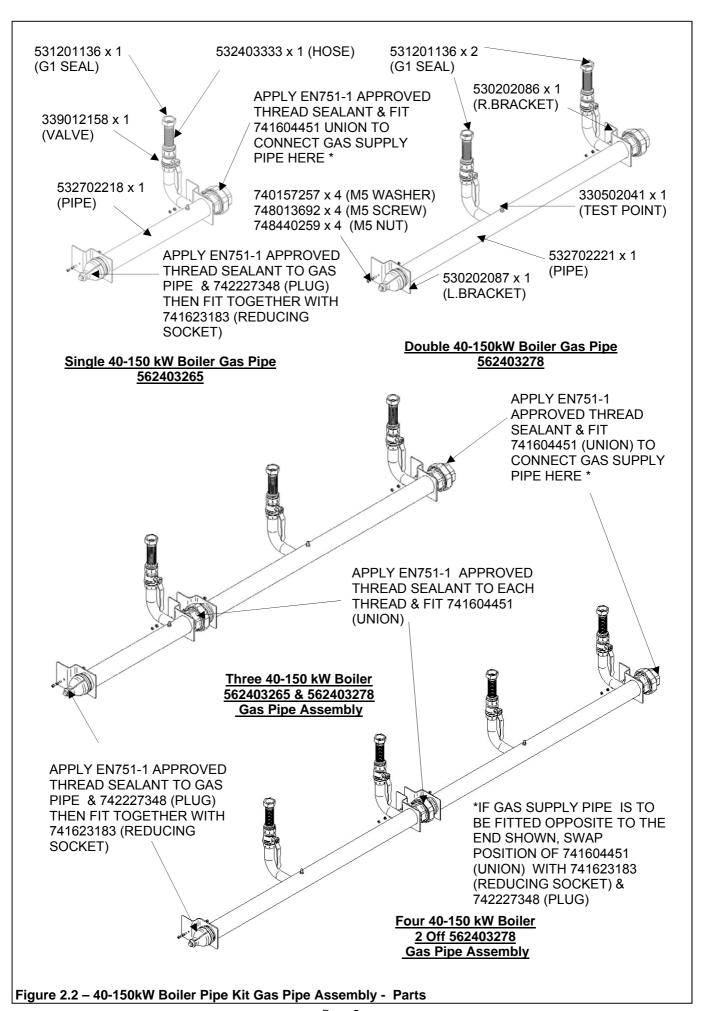


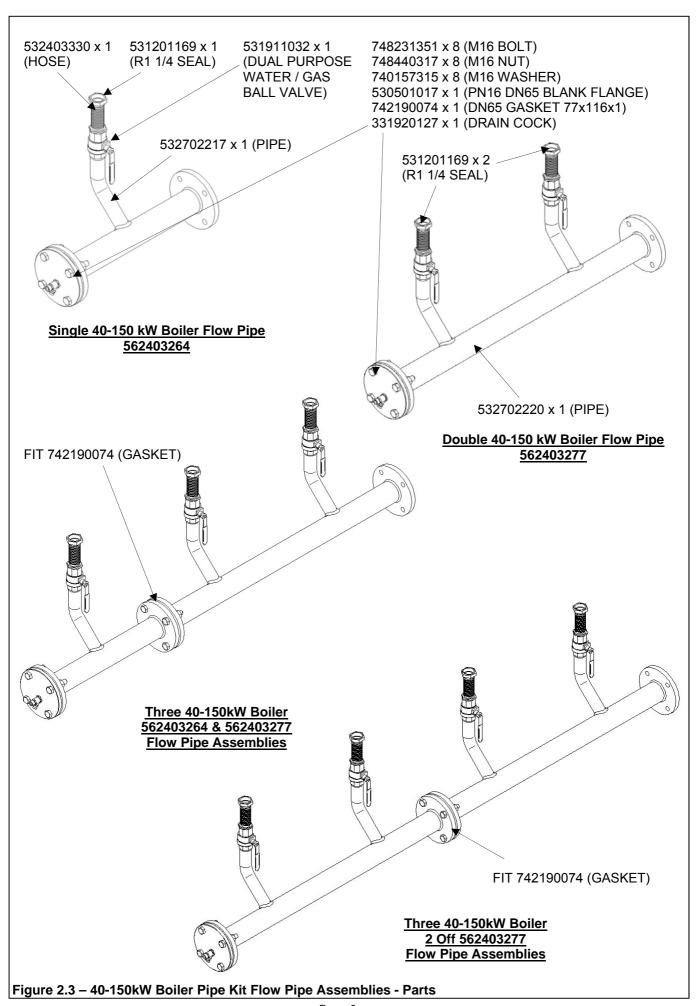
Figure 1.4 - Four boiler arrangement showing boilers, two double boiler frames, optional 2 port low loss header, optional flue headers, water & gas pipe work for 160kW, 200kW, 240kW, 280kW, 340kW, 400kW, 500kW, 600kW boiler outputs.

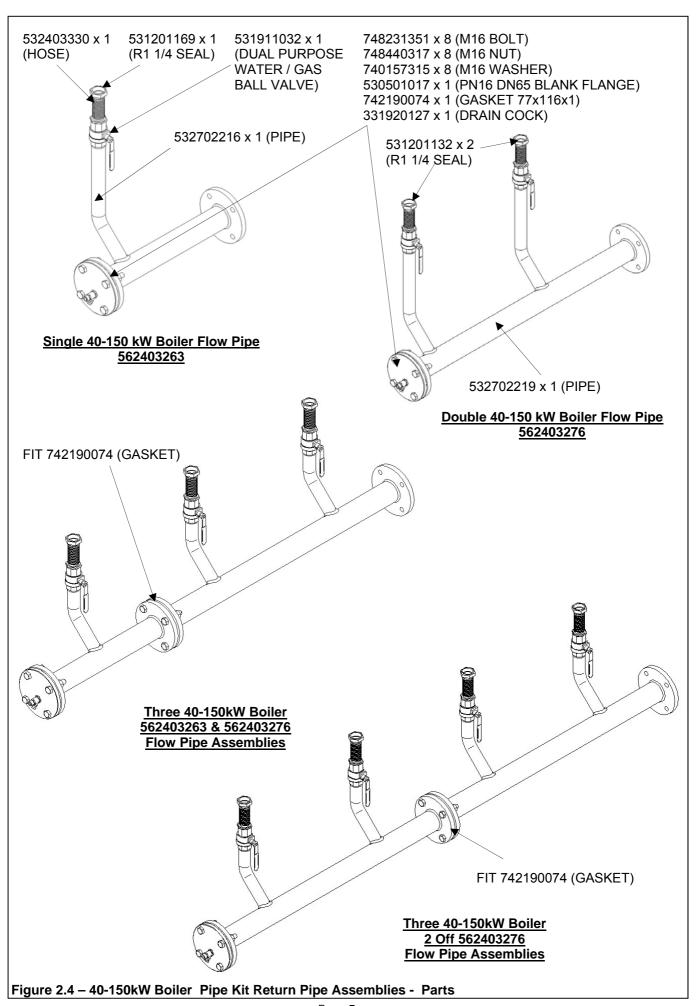


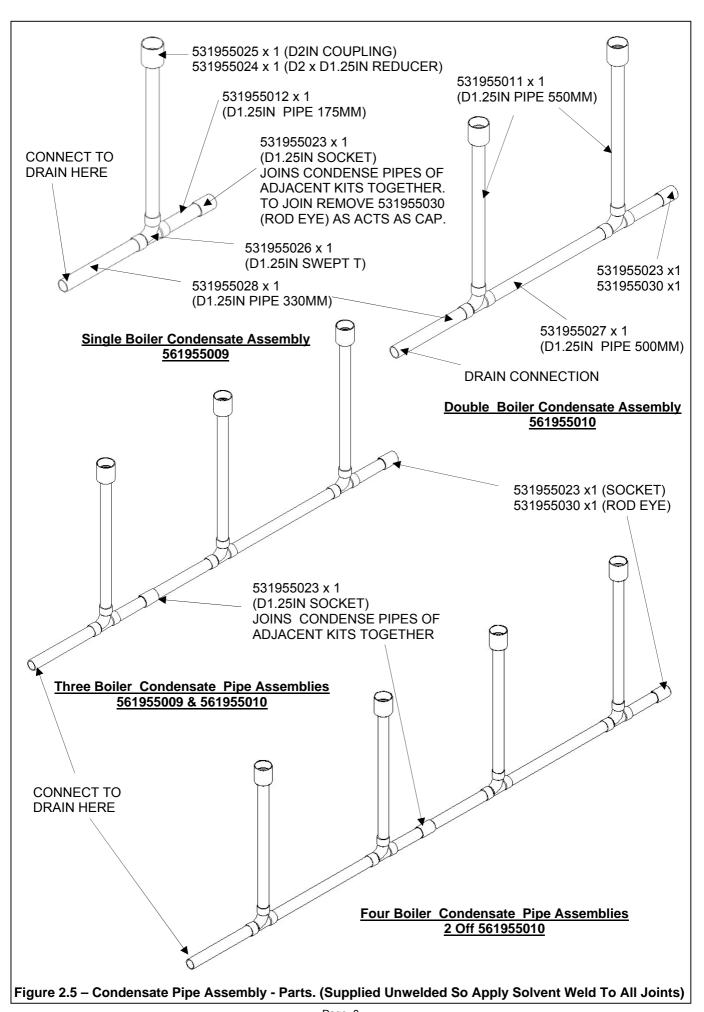
SECTION 2 - PARTS IDENTIFICATION

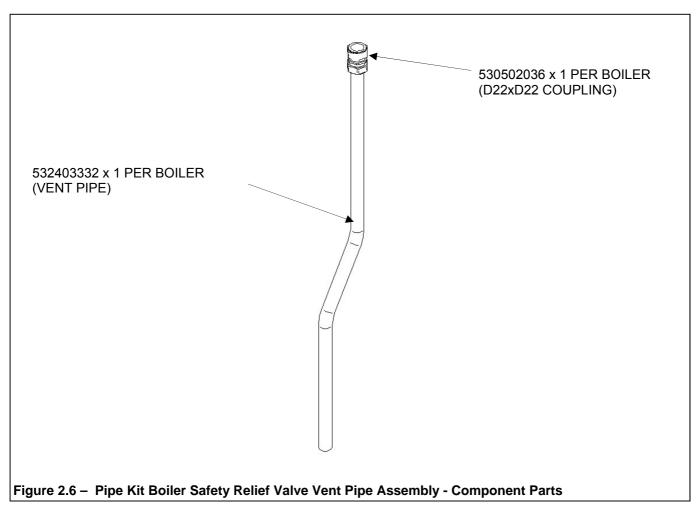


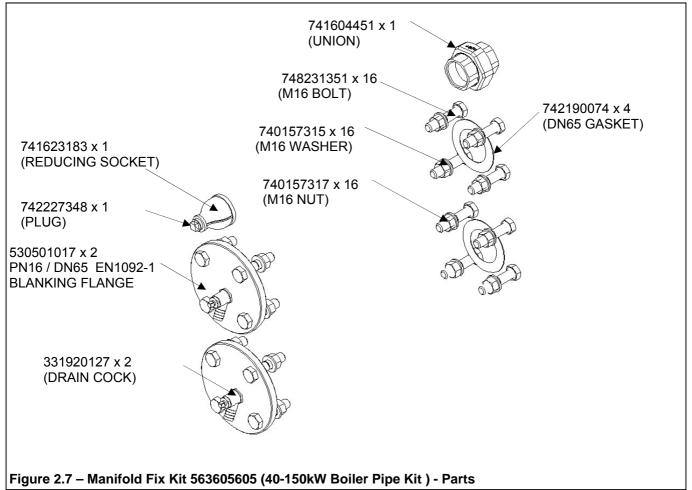












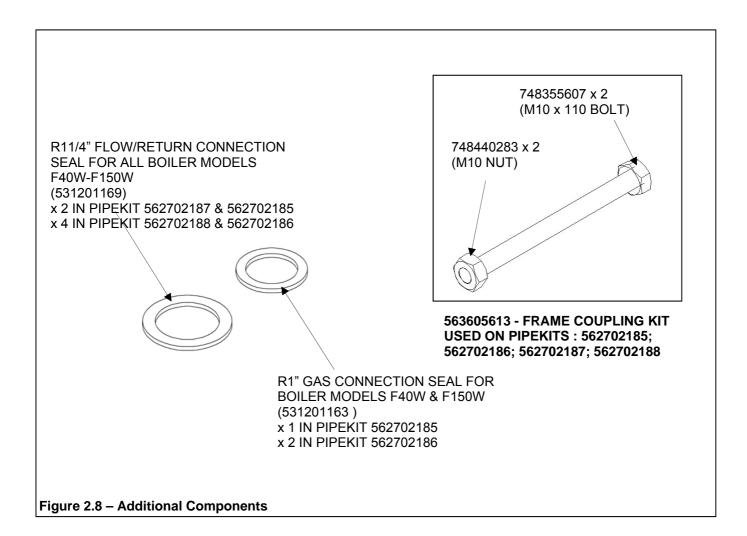


Table No. 1 - Water & Gas Pipe Work 1 & 2 Boiler Pipe Kits

Description	Part No./Qty	1 Boiler Kit 40-150kW Range	2 Boiler Kit 40-150kW Range
		HHL Ref: 562702185	HHL Ref: 562702186
Frame Assembly 1 Boiler Wide	560202017	1	-
Frame Assembly 2 Boiler Wide	560202021	-	1
Gas Pipe Assembly 1 Wide 40-150kW	562403265	1	-
Gas Pipe Assembly 2 Wide 40-150kW	562403278	-	1
Flow Pipe Assembly 1 Wide 40-150kW	562403264	1	-
Flow Pipe Assembly 2 Wide 40-150kW	562403277	-	1
Return Pipe Assembly 1 Wide 40-150kW	562403263	1	-
Return Pipe Assembly 2 Wide 40-150kW	532403276	-	1
Condensate Drain Kit 1 Boiler Wide	561955009	1	-
Condensate Drain Kit 2 Boiler Wide	561955010	-	1
Safety Relief Vent Pipe	532403332	1	2
Vent Pipe D22 Coupling	530502036	1	2
DN65 Manifold Fixing Kit 40-150kW	563605605	1	1

Table No. 2 - Water & Gas Pipe Work 3 & 4 Boiler Pipe Kits

Description	Part No./Qty	3 Boiler Kit	4 Boiler Kit
		40-150kW	40-150kW
		Range	Range
		HHL Ref:	HHL Ref:
		562702185	562702186
Single Boiler Kit 40-150kW	562702185	1	-
Two Boiler Kit 40-150kW	562702186	1	2

Table No. 3 - Boiler Water & Gas Connection Seals

Description	Part No./Qty	1 Boiler Kit 40-150kW Range	2 Boiler Kit 40-150kW Range
		HHL Ref: 562702185	HHL Ref: 562702186
D30xD20x2 Seal For R1 Gas Connection	531201163	1	2
D37xD27x2 Seal For R11/4 Flow / Return	531201169	2	4

Table No. 4 - Frame Assembly Spare Parts

Description	Part No./Qty	Single Boiler	Two Boiler	Three Boiler	Four Boiler
		Frame	Frame	Frame	Frame
		Assembly	Assembly	Assembly	Assembly
		HHL Ref:	HHL Ref:	HHL Ref:	HHL Ref:
		562702187	562702188	None	None
D22 Pipe clip	533706075	1	2	3	4
D36 Pipe clip	530505304	1	2	3	4
2in Box Section Plastic Cap	531202024	4	4	8	8
M12x75 Adjustable Foot	530120021	4	4	8	8
Frame Coupling Kit	563605613		See Par	ts Below	
M10 x 110mm Hex Head Bolt	748355607	-	=	2	2
M10 Nut	748440283	-	-	2	2

Table No. 5 - Condensate Pipe Work Parts

Description	Part No./Qty	Single Boiler Condensate Line Assembly	Two Boiler Condensate Line Assembly
		HHL Ref: 561955009	HHL Ref: 561955010
1.25/36 Swept T	531955026	1	2
1.25/36 x 175 ABS Pipe	531955012	1	1
1.25/36 x 1.25/36 Straight Coupling	531955023	1	1
1.25/36 x 550 ABS Pipe	531955011	1	2
2/54 M x 1.25 /36 F Reducer	531955024	1	2
2/54 x 2/54 Straight Coupling	531955025	1	2
1.25/36 330 ABS Pipe	531955028	1	1
1.25/36 x 500 ABS Pipe	531955027	1	1

Table No. 6 - Manifold Fixing Kit Parts

Description	Part No./Qty	DN65 40-150kW Manifold Fixing Kit
		HHL Ref: 563605605
DN65 Blanking Flange With 1/2 BSPT Hole	530501017	2
DN65 Gasket D116xD77x1	742190074	2
Rc2 FxF Union 40-150kW Boiler Gas Pipe	741604451	1
Rc2xRc1/2 Red Socket (Gas Line Purge)	741623183	1
Drain Cock	331920127	2
Plain Washer M16	740157315	8
M16x70 Bolt	748231351	8
Nut M16	748440317	8
R0.5 Plug	742227348	1

SECTION 3 – OPTIONAL EXTRAS

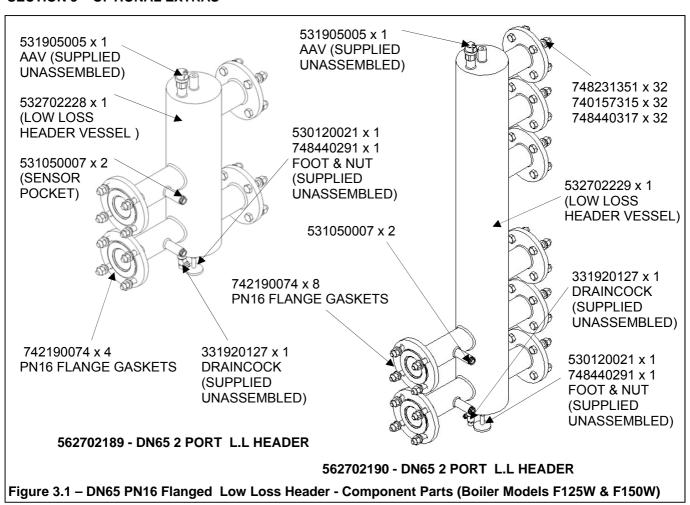


Table No. 7 - Low Loss Header Part Numbers

	Fleet Low	Loss Header
	40-150kW Boiler	
No. of Boilers	2 Port Header	6 Port Header
1		
2	1 x 562702189	1 x 562702190
3		
4		

Table No. 8 - Low Loss Header Spare Parts

Description	Part No./Qty	2 Port Header 40-150kW Boilers	6 Port Header 40-150kW Boilers
		HHL Ref: 562702189	HHL Ref: 562702190
R1/2" Auto Air Eliminator (AAV)	531905005	1	1
R1/2" Drain Cock	331920127	2	2
Adjustable Foot M12x75	530120021	1	1
Thermostat Pocket	531050007	2	2
M12 Hex Nut	748440291	1	1
Fixing Kit 2 Port DN65 Low Loss Header	563605610	1	-
Fixing Kit 6 Port DN65 Low Loss Header	563605611	-	1

Table No. 9 - Low Loss Header Fixing Kit Components

Description	Part No./Qty	2 Port DN65 Fixing Kit	6 Port DN65 Fixing Kit
		HHL Ref: 563605610	HHL Ref: 563605611
Gasket DN65 PN16 Flange D77xD116x1	742190074	4	8
Hex Head Bolt M16x70	748231351	16	32
M16 Plain Washer	740157315	16	32
M16 Hex Nut	748440317	16	32

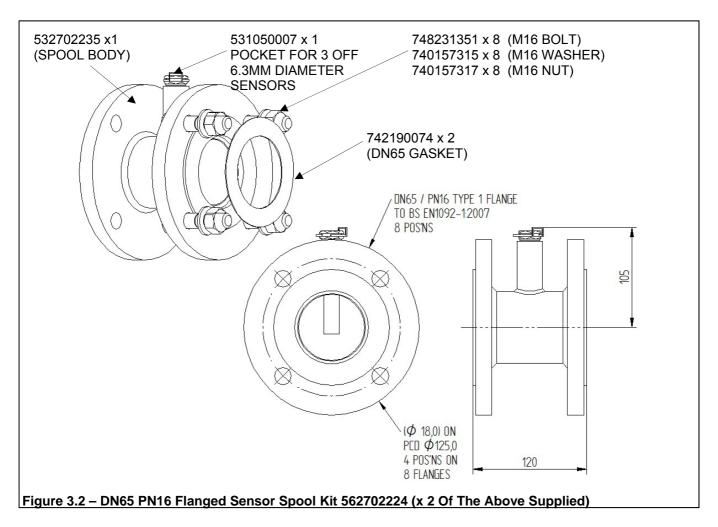


Table No. 10 - Sensor Spool Kit Part Numbers

No. of	Sensor Spool Kit
Boilers	40-150kW Boiler
1	
2	1 x 562702224
3	
4	

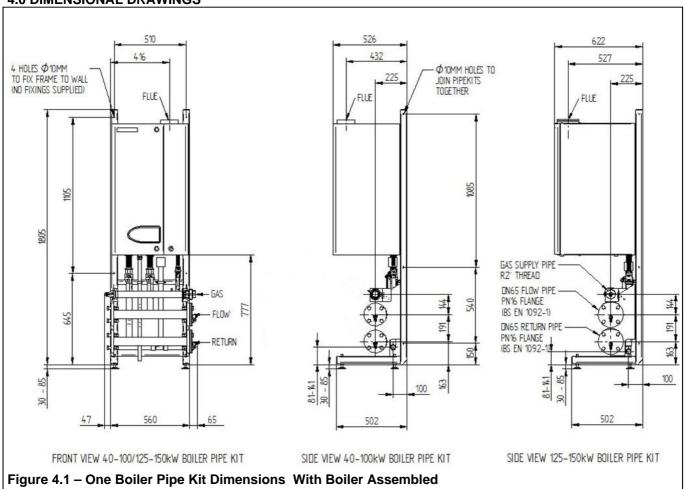
Table No. 11 - Sensor Spool Kit Spare Parts

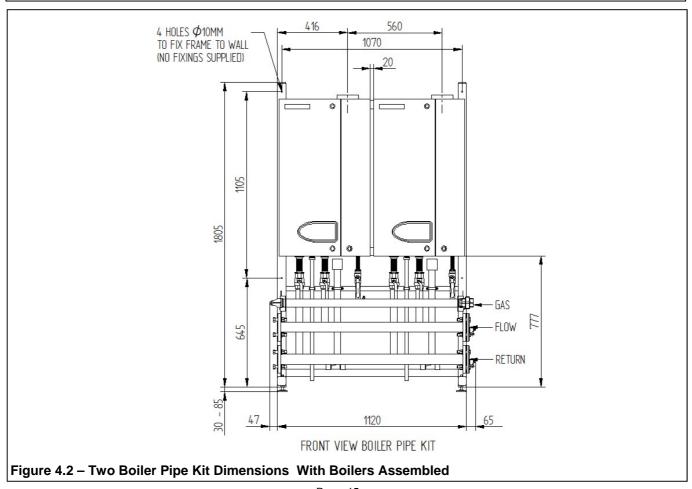
Description	Part No./Qty	DN65 Sensor Spool Kit
		HHL Ref: 562702224
Thermostat Pocket	531050007	2
Gasket DN65 PN16 Flange D77xD116x1	742190074	4*
Hex Head Bolt M16x70	748231351	16
M16 Plain Washer	740157315	16
M16 Hex Nut	748440317	16

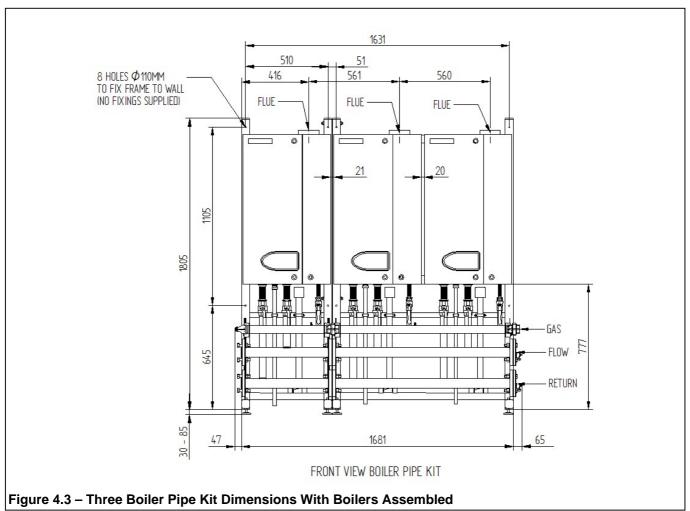
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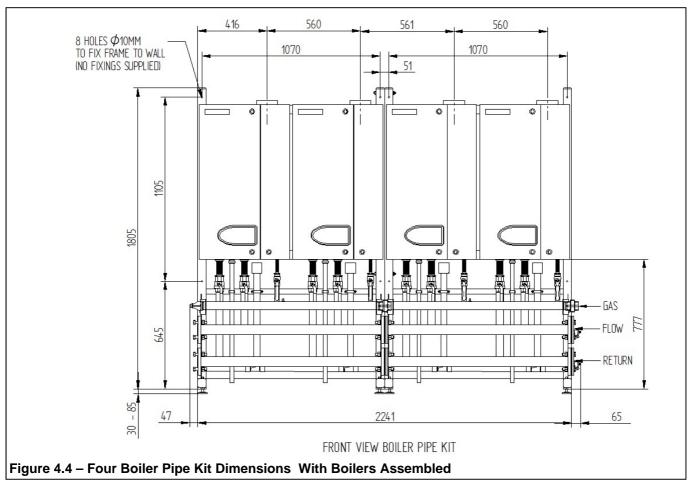
^{* 2} Gaskets Supplied As Spare

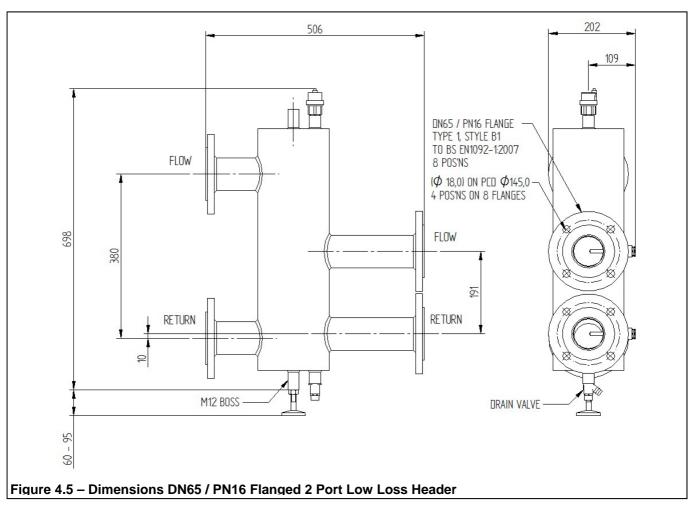
4.0 DIMENSIONAL DRAWINGS

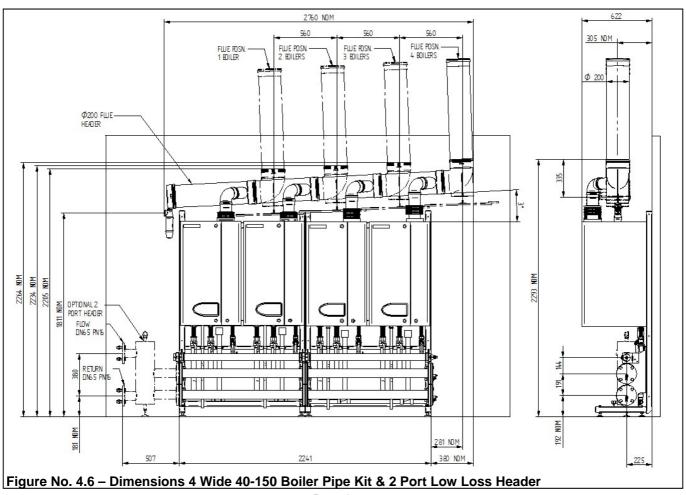


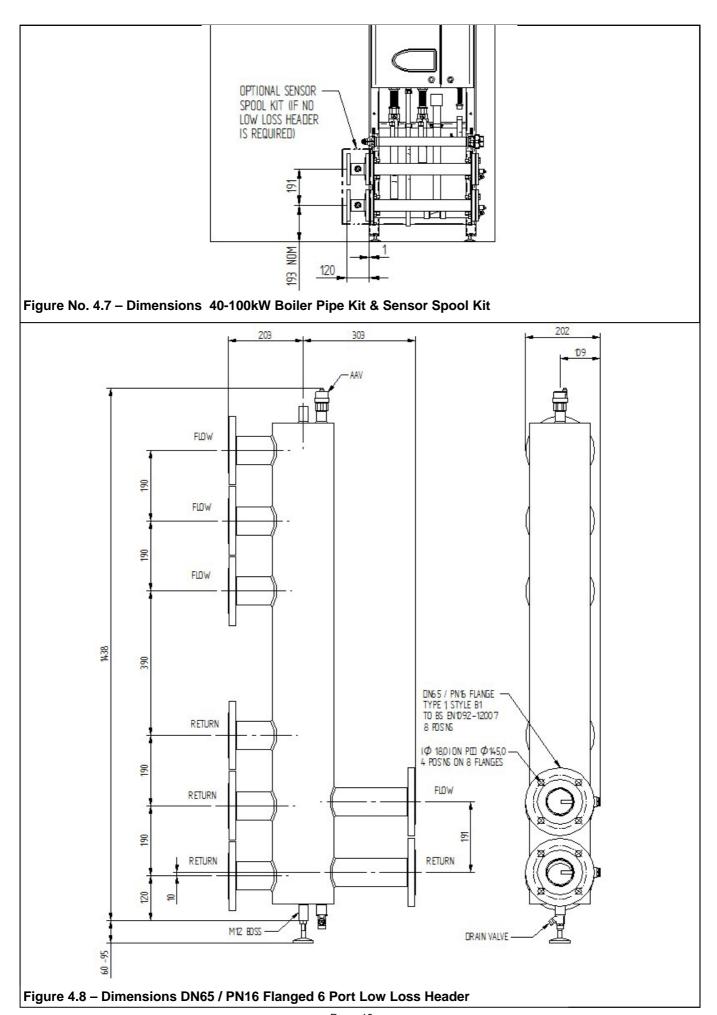












5.0 ASSEMBLY & INSTALLATION OF THE PIPE KIT

- a) Always use appropriate Personal Protective Equipment when installing pipe kits on site.
- b) Gas supply pipe work, 2 Port & 6 Port Low Loss Headers (for connection to the heating system) can be assembled to the left hand or right hand end of a single or multiple pipe kit for up to 4 boilers. See **Figures 1.1 to 1.4** (Pages 1 to 3).
- c) Instrument spools (pipes with flanges welded at either end & fitted with a sensor pocket for 3 off diameter 6.3mm temperature sensors) can be assembled to the flow & return pipes of the pipe kit. These are supplied when a low loss header is not used. See **Figure 4.7** (page 18).
- d) Multiples of single boiler or twin boiler pipe kits can be assembled together for up to 4 boilers in a row. See **Figures 4.1 to 4.4** (Pages 15 to 16).
- e) The bolts & nuts supplied in the pipe kits are to ISO 898-1 Grade 8.8 & flange gaskets to DIN2690.
- f) Position the pipe kits side by side & against the wall, as shown in **Figures 1.1 to 1.4** (on pages 1 To 3).
- g) Adjust the feet to the desired height so that the centres of the flow, return & gas pipes of adjacent pipe kits are in line. The feet can be adjusted by 55mm.
- h) Push the pipe kits apart to leave sufficient gap between each pipe kit so the union/s supplied can be fitted to the threads of the gas pipes at the positions shown in **Figures 2.2** (page 5).
- i) Apply a EN751-1 (gas) approved thread sealant to the threads of the gas pipes. Assemble one half of the union to the right hand side gas pipe & one half to the left hand side gas pipe of adjacent kits being coupled together.
- j) Refer to **Figure 2.5** (Page 8). The condensate pipe work is not supplied solvent welded. Orientate the swept T's of the condensate pipe work to the desired direction of flow to drain. Depending on the orientation of the condensate pipe work it may be necessary to swap 531955028 & 531955012 over from what is shown. Remove the rod eye from the socket where the socket is to mate with the pipe of the adjacent pipe kit.
- k) Push the pipe kits together so that adjacent flanges of the flow & return pipes are 3-5mm apart. Adjust the feet of each pipe kit so that the flow, return, gas & condensate pipe centres are at the same height. Use a builders level to ensure that the pipe kits are level.
- I) See **Figures 2.3 & 2.4** (Pages 6 to 7). Assemble the respective flow & return pipes of each kit together with the gasket supplied sandwiched between the flanges, using the M16 nuts, bolts & washers provided to connect the pipe work together. Tighten the bolts opposite to one another, working clockwise round the flange for a leak free assembly.
- m) See **Figure 2.2** (Pages 5). Where pipe kits are assembled together assemble the two halves of the unions together to join the gas pipes of adjacent pipe kits.
- n) See **Figure 4.1** (page 15) Cut a R2" thread on the gas supply pipe to match the thread of the gas pipe/s of the pipe kit/s. The gas supply pipe can be connected to either end of the bank of pipe kits using the union/s supplied. Apply a EN751-1 (gas) approved thread sealant to the pipe thread before assembling to the union.
- o) Assemble the reducing sock & plug as shown in **Figures 2.2** to the outer thread of the gas pipe at the end opposite to which the gas supply pipe is fitted. Apply a EN751-1 (gas) approved thread sealant to the male thread of the pipe & R1/2" plug before assembling the reducing sock to the pipe.
- p) See Figure 2.5. Where necessary realign the centres of the horizontal condensate pipe work of adjacent pipe kits. Adjust the position of the horizontal portion of the condensate line by sliding the vertical condensate pipes up or down in the pipe clip fixed to the frame (Figure 6.2 Page 21). Provide an incline to the horizontal so the condensate pipe work will drain.
- q) Working from one end of the condensate line of the pipe kits to be joined together to the other end, disassemble then solvent weld each condensate pipe & fitting together as shown in **Figure 2.5** (page 8) Solvent weld the socket 531955023 of adjacent pipe kits to the pipe of the kit next to it.
- r) Check local authority requirements with respect to disposal of boiler condensate to the local sewers prior to connecting any condensate pipe work to drain.
- s) Where allowed, pipe the condensate pipe work to drain.
- t) At the opposite end to the pipe kit/s connection to drain, solvent weld a socket & rod eye to the end of the pipe. as shown in **Figure 2.5** (Page 8).
- u) Once the flow, return, gas & condensate pipe work of adjacent pipe kits has been assembled use the M10 Nuts & long M10 bolts provided, to bolt the frames together through the holes in the side of the vertical box section of the frame shown in **Figure 2.1** (Page 4).
- v) The pipe kits should be secured to the wall & floor using the holes in the frame provided. Fixings are not supplied for this purpose. See **Figure 2.1** (Page 4).
- w) See **Figure 4.6** (Page 17) When assembling a low loss header to the pipe kit adjust the foot of the low loss header so the centres of the header & pipe kit flanges are at the correct height.
- x) Where a low loss header is not ordered a sensor spool kit can be fitted. See **Figure 3.2** (Page 14).

z) Assemble the Low Loss Header shown in **Figure 3.1** (page 12) or instrument spool kit **Figure 3.2** (page 16) to the pipe kit as shown in **Figures 4.6 & 4.7** (Pages 17 & 18). Sandwich the gasket supplied between the flanges. Bolt the flanges together using the M16 nuts, bolts & washers provided. Tighten the bolts opposite to one another, working clockwise round the flanges to produce a leak fee assembly.

6.0 ASSEMBLY OF THE BOILERS TO THE PIPE KIT

- a) Fix the pipe kits to the wall.
- b) Refer to **Figure 6.1** below. Using suitable lifting equipment lift the boiler onto the hooks on the frame to locate with the corresponding slots in the back of the boiler so the boiler hangs on the frame.
- c) Pivot the boiler away from the frame & secure a temporary packing to push the boiler away from the frame. Adjust the two M6 x 20 Screws at the bottom right & left hand sides at the rear of the boiler, so that the bottom of the boiler is pushed away from the frame. Take precaution to prevent trapping fingers between the frame & the boiler during the adjustment. Remove the packing & using a builders level check the boiler hangs parallel to the pipe kit.
- d) Refer To **Table 12** (below) & **Figure 6.2** (page 29). Assemble a sealing washer (provided) between the sealing face of each Flexible hose and the connection on the boiler above it & screw the nut of each flexible hose up over the thread of the boiler connection. Tighten using a spanner for a leak proof seal.
- e) Push the D22 compression coupling supplied with the bent D22 copper pipe on the pipe kit, over the end of the short length of D22mm pipe protruding from the bottom of the boiler. Make a leak free connection between both pipes by tightening the nuts of the compression coupling.

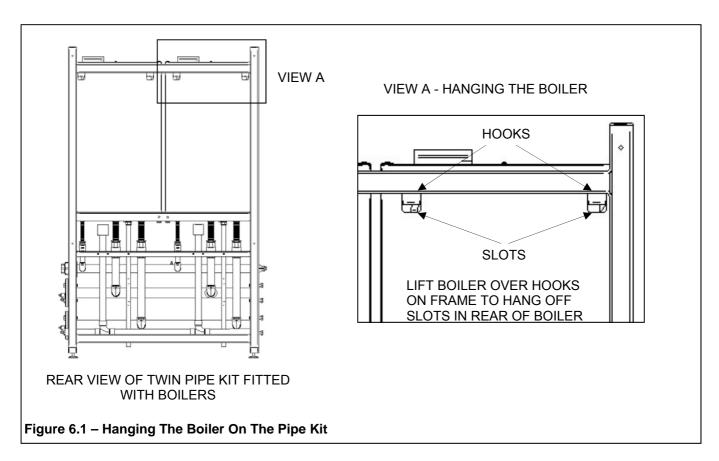
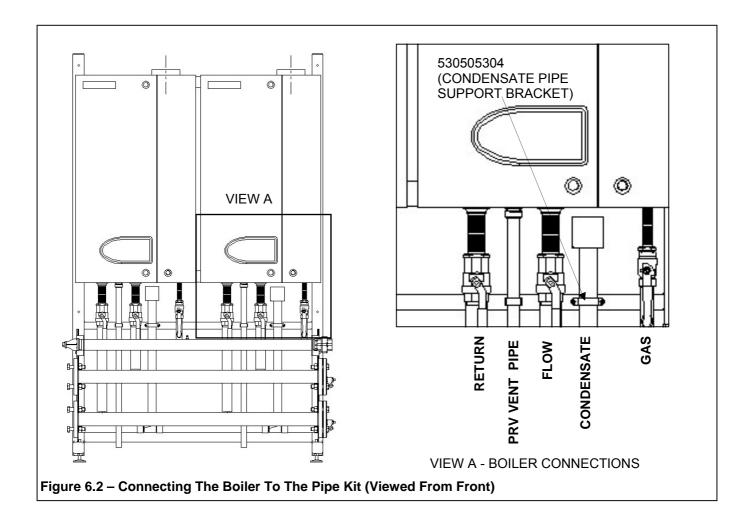


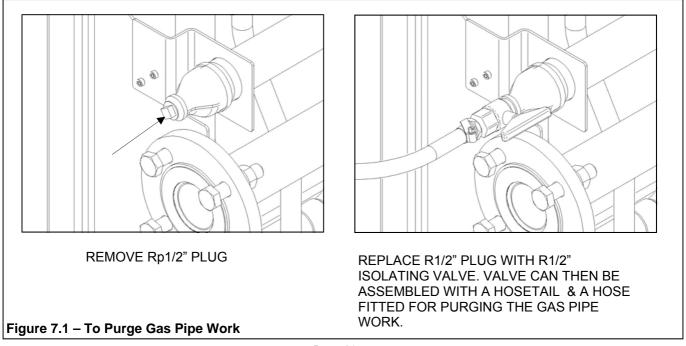
Table No. 12 - Installation Parameters For Boiler Connection

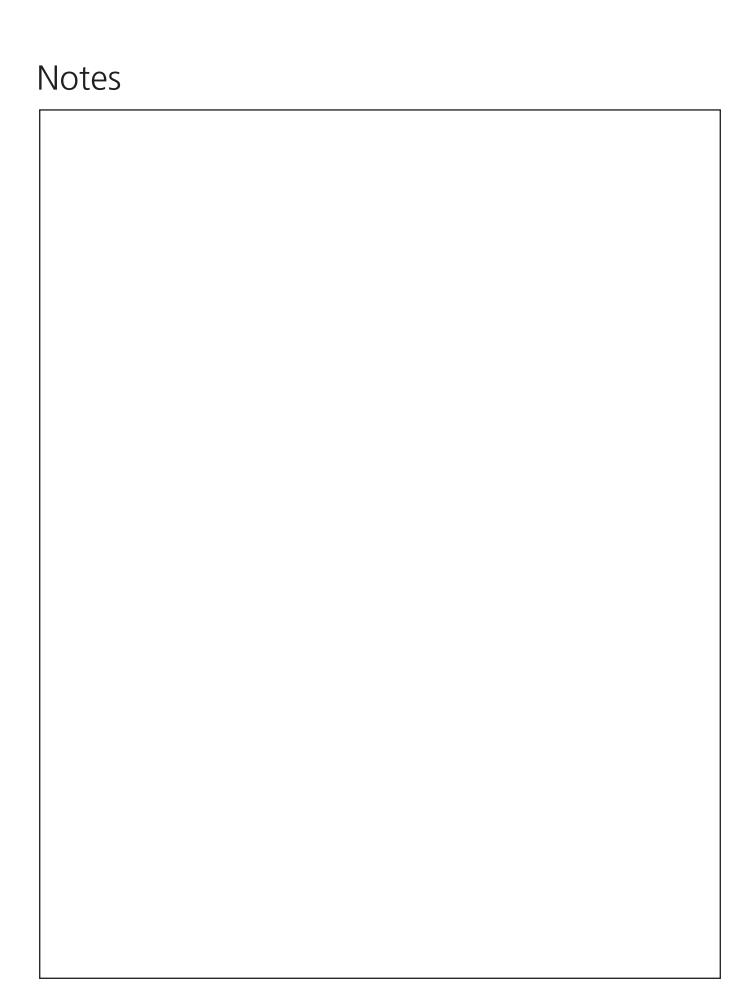
Boiler Thread	Sealing Nut AF (mm)	Seal Part Number	Seal Dimensions (mm)
R11/4"	47	531201169	D37xD27x2
R1"	42	531201163	D30xD20x2
D22 Compression (PRV Vent Pipe)	32		



7.0 TESTING & PURGING GAS PIPE WORK

- a) Strength & tightness test the gas pipe work to IGE/UP/1 & 1A.
- b) To purge the gas installation to IGE/UP/1 & 1A an isolating valve (not HHL supply) will need to be fitted instead of the R1/2" plug assembled to the reducing socket at the opposite end to the gas supply pipe. The gas pipe work can then be purged by connecting to this isolating valve. See **Figure 7.1** below.





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