

REPLACE PAGES 26 TO 30 WITH THIS DOCUMENT

CONNECTIONS – PLUMBING

• **PLUMBING CONNECTIONS**

All plumbing work must be carried out by a qualified person and in accordance with the National Plumbing Standard AS/NZS 3500.4 and local authority requirements.

All gas work must be carried out by a qualified person and in accordance with the Australian Gas Installations Standard AS/NZS 5601.1 and local authority requirements.

• **PIPE SIZING**

The pipe sizing for hot water supply systems should be carried out by persons competent to do so, choosing the most suitable pipe size to ensure adequate flow for each individual application. Reference to the technical specifications of the water heater and local regulatory authority requirements must be made.

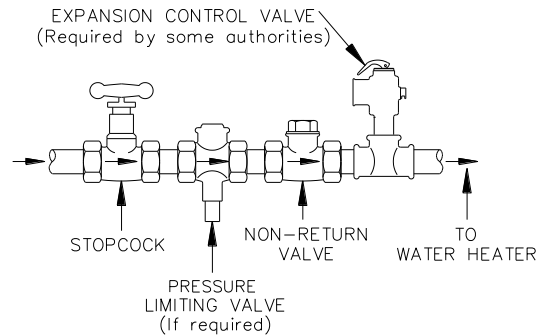
To achieve true mains pressure operation, the cold water line to the water heater should be the same size or bigger than the hot water line from the water heater.

The table below specifies the minimum cold water and hot water manifold header pipe size required between the CFWH and the storage tank(s) and the minimum gas manifold pipe size for typical installations. The design allows for 8m total flow and return between Tankpak and storage tanks (excluding manifolding) and 12 x 90 degree bends, with 1.2m/sec velocity.

An isolation valve, non return valve and line strainer must be installed on the cold water supply to the system, A PLV and/or ECV may also be required. A full flow isolation valve/ball or gate disconnection union must be installed on the inlet and outlet of the storage tank(s).

Note: The system is supplied with a line strainer on the inlet of the Tankpak Series 2 package.

A pressure limiting valve must be fitted if the water supply pressure exceeds 80% of the storage tank temperature and pressure relief valve or expansion control valve setting, whichever is the lower.



• **VIBRATION NOISE**

All plumbing within a building must be appropriately isolated to limit noise transference due to vibration. We recommend rubber isolation pads be fitted under the feet and wall brackets (wall mounted units) to limit any possible pump vibration.

Tankpak Model ¹	Thermal Input (MJ/hr)	Minimum Primary Flow and Return Pipe Size (mm)	Minimum Gas Pipe Size (mm)		Pump Model
			NG	Prop/ULPG	
TP02	410	25	40	32	CM3-2
TP03	615	32	40	32	CM3-2
TP04	820	40	50	32	CM3-2
TP05	1025	40	50	32	CM5-2
TP06	1230	40	50	32	CM5-2
TP07	1435	50	50	32	CM5-2
TP08	1640	50	65	40	CM10-1
TP09	1845	50	65	40	CM10-1
TP10	2050	50	65	40	CM10-1
TP12	2460	50	80	40	CM10-1
TP14	2870	65	80	50	CM10-1
TP16	3280	65	80	50	CM10-1
TP18	3690	65	80	50	CM10-1

¹includes TP models for Australia and equivalent TZ models for New Zealand

PIPE SIZING (COPPER) BETWEEN TANKPAK SERIES 2 AND STORAGE TANK/S

• **IN-SERIES BOOSTER**

The pipe work between the solar storage tank (if one is installed) and the in-series gas booster, **MUST BE** of copper and be fully insulated with a closed cell type insulation or equivalent in accordance with the requirements of AS/NZS 3500.4.

The insulation must be weatherproof and UV resistant if exposed. The insulation must be fitted up to the connections on the solar storage tank.

All pipe work must be cleared of foreign matter before connection and purged before attempting to operate the water heater. All olive compression fittings must use brass or copper olives. Use thread sealing tape or approved thread sealant on all other fittings.

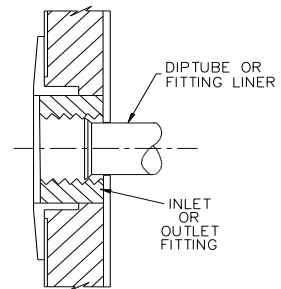
• **WATER HEATER CONNECTIONS**

Connect the water heater and storage tank(s) in accordance with the principles shown in the diagram on page 29 with the following in mind:

Install the storage tanks according to Equa-flow® principles as described in the installation instructions supplied with the storage tanks.

A disconnection union must always be provided at the cold water inlet, hot water outlet and gas connection to the assembly to allow for disconnection of the system

610 Series storage tanks have a plastic fitting liner in the inlet fitting and plastic dip tube in outlet fitting (see diagram). These must be in place for the storage tank to function properly. Do not remove or damage them by using heat nearby. They will be pushed into the correct position as the fitting is screwed in.



• **EXPANSION CONTROL VALVE**

Local regulations may make it mandatory to install an expansion control valve (ECV) in the cold water line to the water heating system. In other areas, an ECV is not required unless the saturation index is greater than +0.4 (refer to 'Water Supplies' in the Instructions supplied with the storage tank). However, an ECV may be needed in a corrosive water area where there are sufficient quantities of silica dissolved in the water.

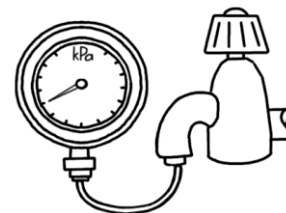
The expansion control valve must always be installed after the non return valve and be the last valve installed prior to the water heater (refer to diagram on page 26). A copper drain line must be run separately from the drain of the relief valve.

MAINS WATER SUPPLY

Where the mains water supply pressure exceeds that shown in the table below, an approved pressure limiting valve is required and should be fitted.

Temperature & Pressure Relief valve setting	1000 kPa
Expansion control valve setting*	850 kPa
Max. mains supply pressure	
Without expansion control valve	800 kPa
With expansion control valve	680 kPa
Min. recommended mains supply pressure	350 kPa

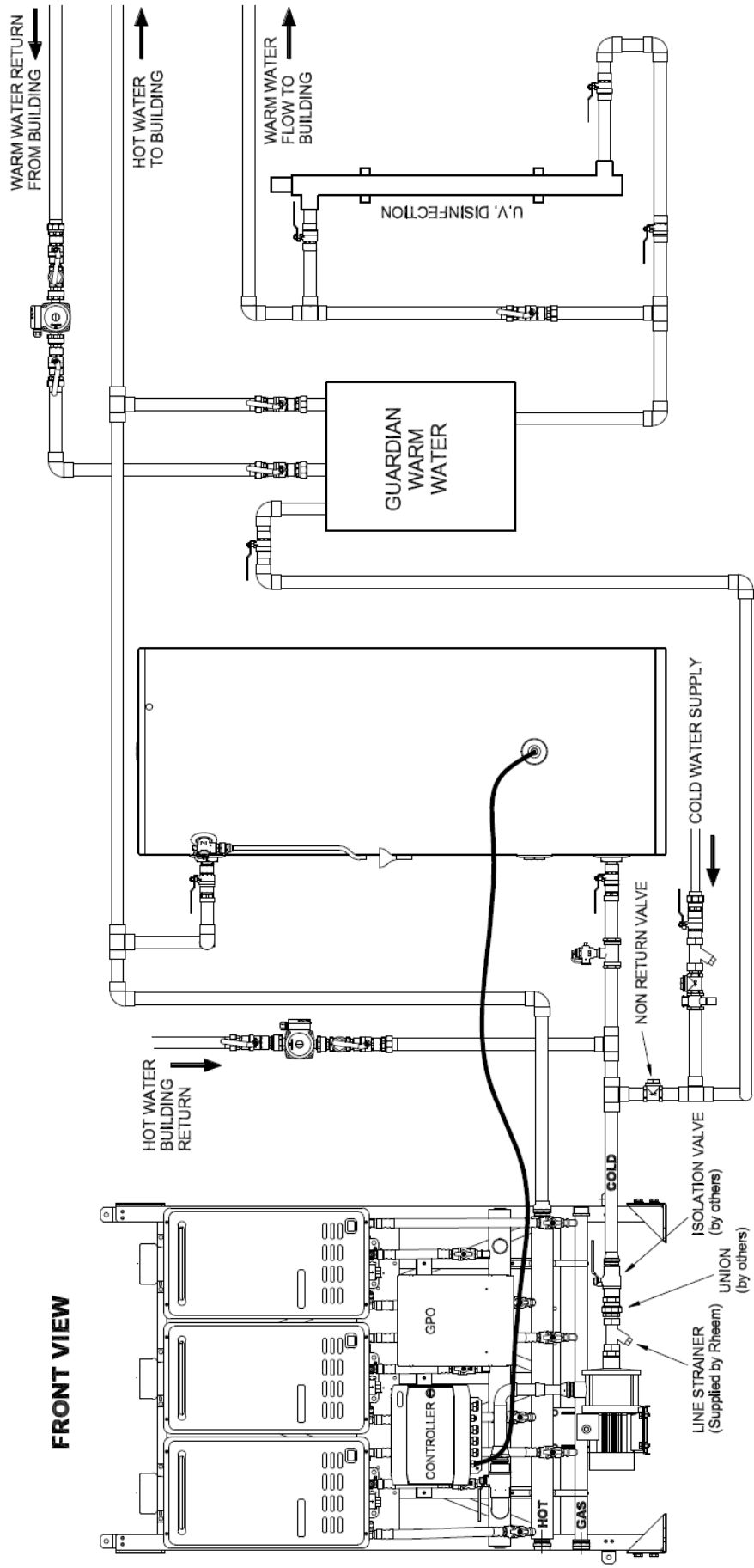
* Expansion control valve not supplied with storage tank



Notes:

- When installed with Rheem 610 series storage tanks, the maximum water supply pressure, without an expansion control valve (ECV), is 800 kPa, however it may be less than this if used with other storage tank models. Refer to the Owner's Guide and Installation Instructions supplied with the storage tank for maximum mains supply pressure details.
- This water heater is not suitable for connection to bore water or spring water unless a water treatment device is fitted.

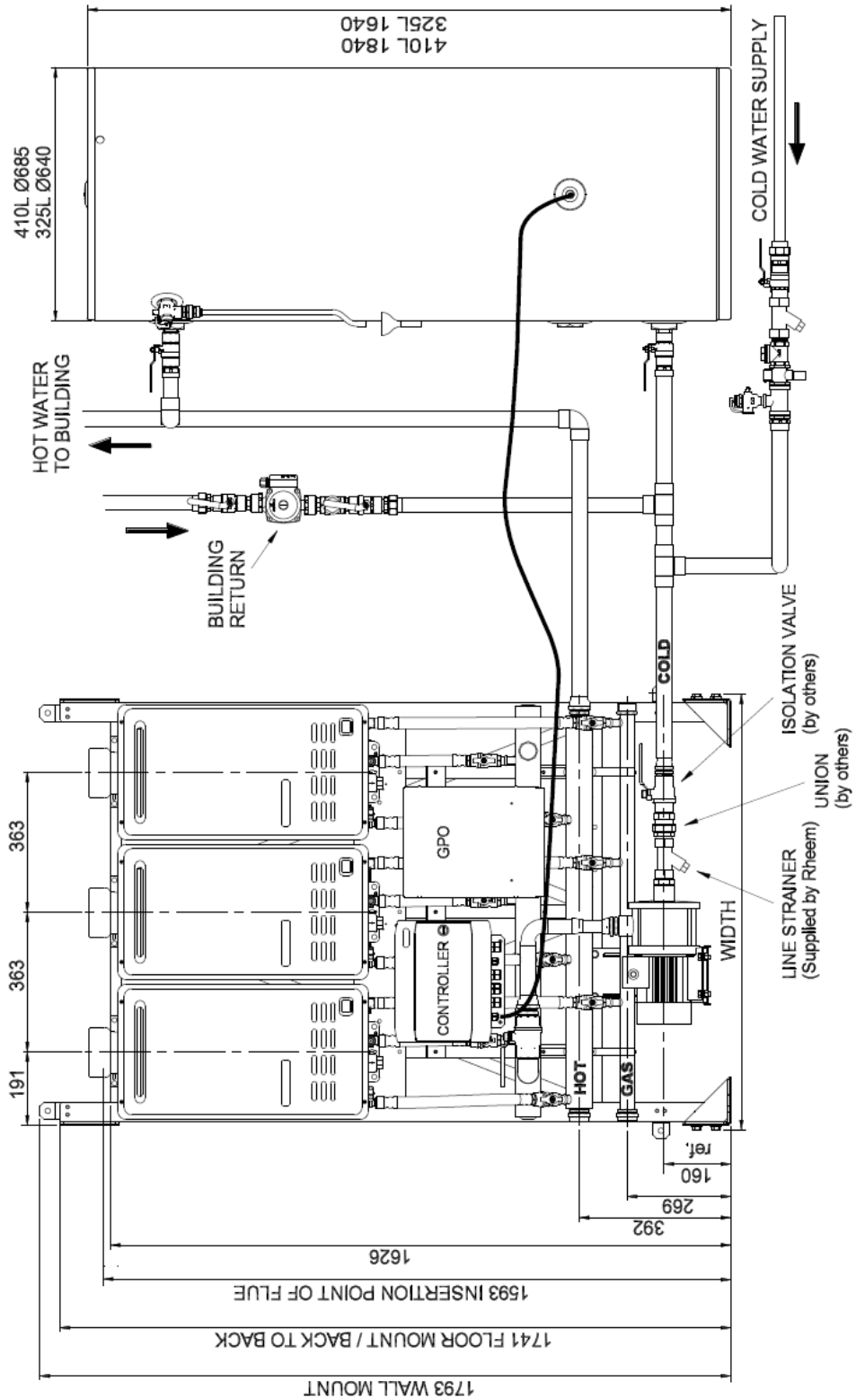
Refer to "Water Supplies" on page 9 for further information on water chemistry.



TYPICAL INSTALLATION RHEEM COMMERCIAL TANKPAK WITH RHEEM GUARDIAN

Width	2	3	4	5	6	7	8	9	10	12	14	16	18
No of heaters	-	1132	1495	2239	2239	2965	2965	3346	-	-	-	-	-
Inline (mm)	-	1132	1495	2239	2239	2965	2965	3346	-	-	-	-	-
Back to Back (mm)	-	-	1132	1132	1132	1495	1495	2239	2239	2239	2965	2965	3346

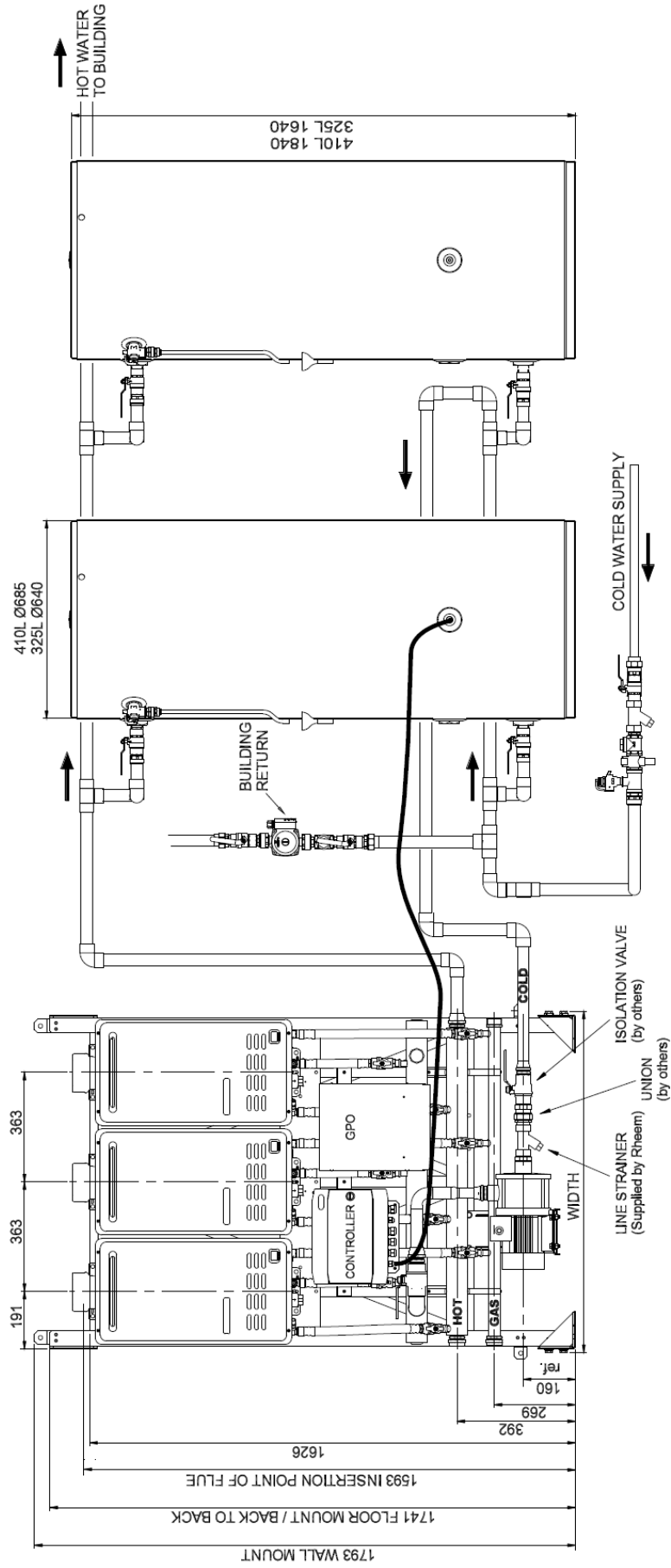
FRONT VIEW



ADDENDUM – AQ0901118-A
FOR USE WITH TANKPAK INSTALLATION INSTRUCTIONS AQ0901069 REV F

No of heaters	2	3	4	5	6	7	8	9	10	12	14	16	18
Inline (mm)	1132	1132	1495	2239	2239	2965	2965	3346	-	-	-	-	-
Back to Back (mm)	-	-	1132	1132	1132	1495	1495	2239	2239	2239	2965	2965	3346

FRONT VIEW



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