



## Installation Instructions / Operating & Maintenance Manual Reduced Pressure Zone (RPZ) Valves Type “BA” Devices



*Model shown – BA15B3T*

### FOREWORD

Reduced Pressure Zone Valves are mechanical backflow preventers that provide Fluid Category 4 protection against backpressure and back siphonage.

RPZ Valves (BA Devices) are designed to discharge the contents of the valve if the pressure is reduced by more than 0.3 bar or if there is a fault within the valve such as debris. Normally the discharge flow is only a drip or trickle.

### SUPPORTING LITERATURE

- BA Datasheet – RPZ Valves
- AIM 08-01 Issue 1 – WRAS Water Suppliers’ Approved Installation Method

SECTION	ITEM
1.0	INSTALLATION
2.0	OPERATION
3.0	COMMISSIONING
4.0	PRESSURE REDUCING VALVES
5.0	MAINTENANCE
6.0	SPARES

### 1.0 INSTALLATION

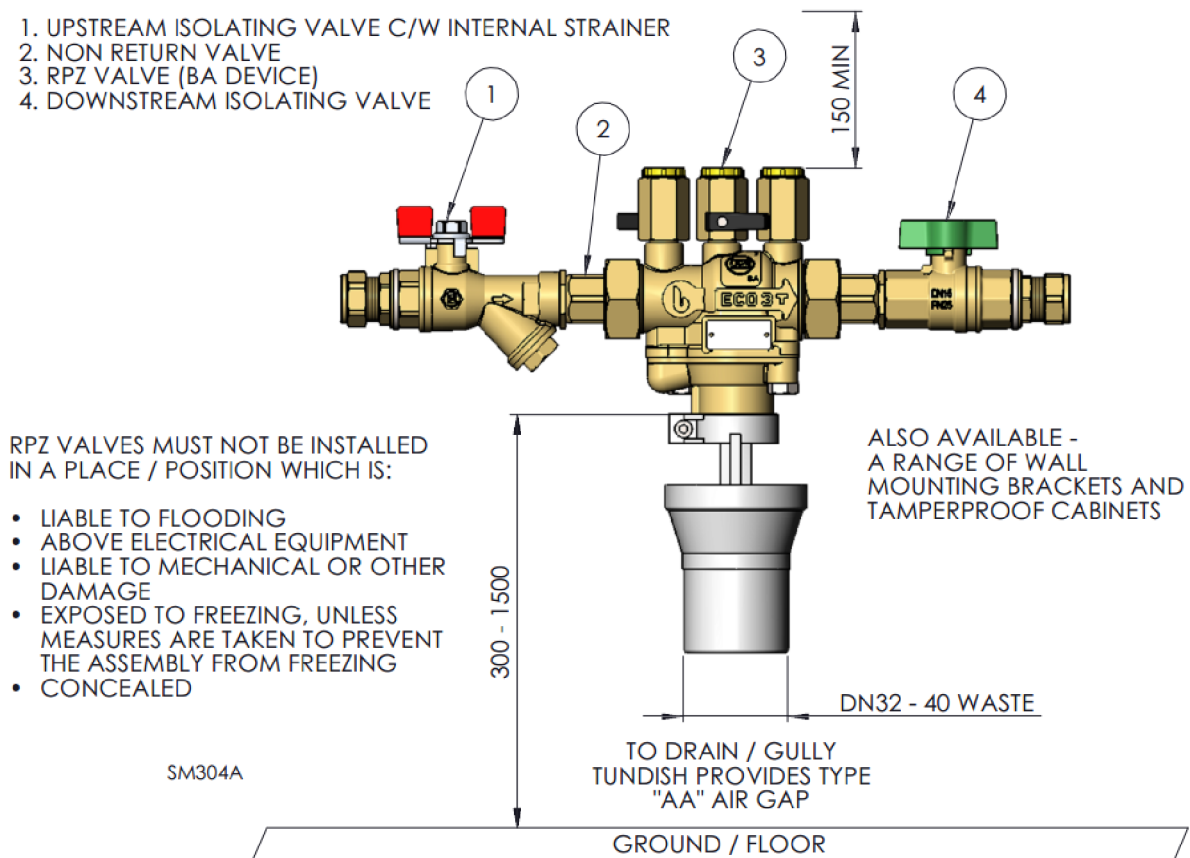
- 1.1 RPZ valves must be installed, commissioned and maintained in accordance with the Water Supply (Water Fittings) Regulations and AIM 08-01 Issue 1.
- 1.2 The RPZ valve assembly should be installed by a competent person with regard to the relevant requirements of the Health and Safety Regulations, building regulations, IEE Regulations, Water Supply (Water Fittings) Regulations, Water Bye-Laws (Scotland) and other local Bye-laws.

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- 1.3 Before installing, ensure the local water company has been notified in accordance with Regulation 5. Details of the proposed work must be sent to the water company at least ten days before work is due to start.
- 1.4 Ensure the supply pressure is at least 1 bar before fitting.
- 1.5 The RPZ valves must be fitted horizontally with the Tundish below the valve.
- 1.6 There must be a clearance of **300-1500mm from the ground, 50mm between the RPZ and any rear wall or cabinet** and **150mm above** the valve to be accessible for testing.
- 1.7 The RPZ must be clear of any electrical equipment or areas likely to be damaged by the discharged water.
- 1.8 The device should not be installed in an area that is liable to flooding, exposed to freezing or concealed.
- 1.9 There should be a drain or gully for the discharge that will not become flooded.
- 1.10 Where there is no gully or drain, the discharge should be connected to a waste pipe. Use a 'Waterless Trap', not a conventional 'S' bend as this will dry out.
- 1.11 Where a waste pipe cannot be installed, a waste vessel can be considered with some form of warning device.

### OPTION "B" ILLUSTRATED

1. UPSTREAM ISOLATING VALVE C/W INTERNAL STRAINER
2. NON RETURN VALVE
3. RPZ VALVE (BA DEVICE)
4. DOWNSTREAM ISOLATING VALVE



## 2.0 OPERATION

- 2.1 Thoroughly flush the pipes to remove any debris.
- 2.2 If required, sterilise all fittings in accordance with BS 6700, 'Design, installation, testing and maintenance of services supplying water for domestic use within buildings or their curtilages', before being commissioned.
- 2.3 Leave the upstream isolating valve in the open position.
- 2.4 The Valve assembly has been assembled for flow left to right. If the flow is right to left, loosen union nut on RPZ valve, rotate isolating valve half a turn, tighten union nuts. The isolating valve handles are reversible – remove nut, rotate handle half a turn, refit handles.
- 2.5 Install the RPZ valve assembly and tighten compression fittings.
- 2.6 Leave the downstream isolating valve closed until the unit has been commissioned.

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**WARNINGS!**



- 1. Do not fit between a break tank and pump inlet. Fit to outlet of pump.**
- 2. Do not turn on downstream isolating valve before commissioning.**
- 3. Installation errors preventing commissioning are chargeable – please call us if in doubt.**

**3.0 COMMISSIONING**

- 3.1 Once installed, the RPZ valve assembly **must** be commissioned by an “Accredited Tester”.
- 3.2 A test report must be sent to the local water company.
- 3.3 The assembly must be at least annually tested or at more frequent intervals as specified by the local water company.
- 3.4 Arrow Services has Testers throughout mainland U.K. and can offer commissioning and annual testing on behalf of Arrow Valves Ltd.
- 3.5 Once installation is complete, contact Arrow Services (0208 387 1421) to arrange for the valve to be commissioned.

**4.0 PRESSURE REDUCING VALVES**

- 4.1 An industrial PRV is used for Option E and is recommended for quick filling heating / cooling circuits where pressure needs to be limited to avoid damage.

**5.0 MAINTENANCE**

- 5.1 The upstream isolating valve includes an integral strainer which must be cleaned annually.
- 5.2 In systems where the volume of debris or the demand for water is high, a large capacity strainer must be used and have a semi (Option F) / fully (Option H) automatic self-cleaning facility.

**6.0 SPARES**

SIZE (DN)	CODE	DESCRIPTION
15-20	BAK005900C70	Upstream Check Valve Assembly
15-20	BAK005900D70	Downstream Check Valve Assembly
15-20	BAK005998C70	Relief Valve Assembly
15-20	0050114C70	Relief Valve Spring
15-20	005012C70	Relief Valve Seat
15-20	BA ECO3T	Combined RPZ Spares Kit
15-20	15-20TUNDISH	Tundish
25-32	CA-59455	Upstream Check Valve Assembly
25-32	CA-59456	Downstream Check Valve Assembly
25-32	CA-59457	Relief Valve Assembly
25-32	CA-59458	Relief Valve Seat
25-32	CA-100100	Combined RPZ Spares Kit
25-32	15-32CTUNDISH	Tundish
40-50	CA-59459	Upstream Check Valve Assembly
40-50	CA-59460	Downstream Check valve Assembly
40-50	CA-59461	Relief Valve Assembly
40-50	CA-59562	Relief Valve Seat
40-50	40-50CTUNDISH	Tundish
25-50	CA59343	Test Cock for RPZ Valve