Head Office
11 Walters Drive, Osborne Park WA 6017
PO Box 1538, Osborne Park DC WA 6916
+61 8 9416 9999
sales@holmanindustries.com.au
www.holmanindustries.com.au

BOOKLEAF PTY LTD as Trustee for the Eden Unit Trust
T/A Holman Industries
A.B.N 29 385 212 665 A.C.N. 009 036 202

AS/NZS 1260:2017 – DWV Fittings - SCOPE OF USE HOLCIVIL

Stabilised Heavy Duty Fittings

Holman PVC-U DWV Fittings are designed and suitable for use in Drain, Waste and Vent applications. DWV fittings are intended for use above and below ground including exposure to direct sunlight.

Unplasticized Polyvinyl Chloride is the predominant material used in DWV applications in Australia.
The economic advantages are publicly documented well accepted by the industry. They are lightweight, resistant to a wide variety of chemicals, do not support combustion (fittings are approved for multi-storey plumbing in conjunction with approved fire stop collars).

PVC-U pipes and fittings are impervious to bacterial and fungal attacks and are not subject to electrolytic or galvanic corrosion.

DWV pipes and fittings are designed with high impact strength, which prevents damage during handling and installation.

All parts assemble easily using either solvent cement or rubber seal rings to accommodate thermal expansion/contraction or ground movement.

Product Limitations

Effect of Low Temperature	The impact resistance of PVC-U pipe and fittings decreases with the reduction in ambient temperature; therefore, extra care should be exercised if installations are carried out at ambient temperature near 0° C.
Effect of Elevated Temperatures	PVC-U DWV fittings have a softening point of approximately 80° C. As the material has a low thermal conductivity, DWV pipe and fittings can cope with typical discharges at higher temperatures, although “Full Bore” and extended periods of discharge should be avoided. The recommended maximum continuous operational temperature for PVC-U pipe systems is 60°C. This limitation refers to the complete pipe wall being at 60°C and would also apply to continuous flow of a fluid at 60°C.

HOLMAN

Head Office
11 Walters Drive, Osborne Park WA 6017
PO Box 1538, Osborne Park DC WA 6916
+61 8 9416 9999
sales@holmanindustries.com.au
www.holmanindustries.com.au

BOOKLEAF PTY LTD as Trustee for the Eden Unit Trust
T/A Holman Industries
A.B.N 29 385 212 665 A.C.N. 009 036 202

Specialised Applications	DWV pipe and fittings systems are more than adequate for normal domestic applications in low and multi-rise dwellings. For intermittent flow, the fluid temperature can be higher due to the low thermal conductivity of PVC. In these circumstances, the duration and volume of the discharge will determine the maximum temperature, which should be assessed in terms of an average thermal limitation of 60°C across the pipe wall thickness. In most common cases, higher temperature discharges are limited to a small volumes and short durations, and PVC pipes and fittings are deemed as satisfactory. For example, thermal cycling tests for PVC drainage pipes require that a test installation withstand alternating 90 second cycles of 34 litres of water at 88°C to 95°C and 34 litres of water at 10°C to 15°C without leakage or excessive deformation. In applications such as commercial laundries or kitchens, where large volumes of fluids at higher temperatures are discharged over longer periods of time, specific advice should be obtained before selecting PVC.

Impact Resistance

The impact resistance of PVC is reduced at lower temperatures. Under impact loading, PVC exhibits a transition between ductile behaviour at room temperature and brittle behaviour as the temperature is reduced. The ductile to brittle transition temperature is dependent on formulation. For some grades, impact strength at -20°C is approximately half that at +20°C.

Provision for expansion and contraction

Consideration must be given to thermal expansion and contraction in situations where the installation temperature differs from the operation temperature, or where thermal variation is likely during operation and maintenance. The coefficient of thermal expansion is 7 x 10-5/ °C which means that for example, a pipe system which is installed at 20°C, and then cooled down to -10°C during operation, will contract by approximately 2.10mm for every metre in length. Pipe design systems shall ensure that thermal movement does not result in a significant “bending moment” at the rigid connections or to bends and tees. Refer to AS/NZS 2032 – Installation of PVC pipe systems, for guidance on provision for thermal movement.

Chemical resistance

The well documented optimal chemical resistance of PVC-U to acid alkalis, oxidising and reducing agents make it particularly suitable for a wide range of industrial and domestic applications. In general PVC-U is resistant to most oils, fats, alcohols, and aromatic-free petrol, but is unsuitable for use with aromatic and chlorinated hydrocarbons, esters and ketones which can ultimately lead to swelling and softening of the material/s.

Head Office

11 Walters Drive, Osborne Park WA 6017
PO Box 1538, Osborne Park DC WA 6916
+61 8 9416 9999
sales@holmanindustries.com.au
www.holmanindustries.com.au

BOOKLEAF PTY LTD as Trustee for the Eden Unit Trust
T/A Holman Industries
A.B.N 29 385 212 665 A.C.N. 009 036 202

Product Features and Benefits:

- Installation as per AS/NZS 3500.2
- BEST ENVIRONMENTAL PRACTICE (BEP) Certified products
- Solvent Weld Joint application (SWJ)
- Australian and New Zealand Standard approved product (AS/NZS 1260)
- Designed for HIGH IMPACT maintenance
- Perfect for HIGH REACTIVE sites with ground movement
- Fittings are freestanding for ease of measurement during installation
- Base Plate allows for easy strapping on sites containing fill
- Fastening Points for anchoring in ground or elevated situations
- Reinforced design (Integrated ribbing system) protects fitting while unblocking on multi-storey buildings

Installation

DWVF0532 and DWVF0080 are to be installed as per AS/NZS 3500.2 with suitable compacted pipe bedding and compacted pipe overlay in accordance with:

AS/NZS 3500.2 - Clause 2.9.1 "Concrete Mix"

Premixed concrete shall have a minimum characteristic impact strength of 20 MPa. Site mixed concrete shall consist of cement, fine aggregate, and coarse aggregate, all measured by volume. Site mixed concrete shall have sufficient water added to make the mix workable. It shall have a minimum characteristic impact strength of 20MPa.

Note 1 – Refer to AS 1379 for information on specification and supply of concrete
Note 2 – The compressive strength of concrete is defined in AS 3600 in Australia and NZS 3109 and NZS 3124 in New Zealand Note 3 – Refer to AS/NZS 4671 for information for steel reinforcing materials

AS/NZS 3500.2 - Clause 4.6.2 "Installation"

Install support material under high impact fittings as required by the AS/NZS 3500.2. Ensure support material is pushed in between rib system to ensure there is no separation between the two that may occur due to ground movement or thermal expansion.

Gullies Shall:

- *a) be of the self-cleaning type*
- *b) Have the top of the gully riser provided with a grating to relieve surcharge; and*
- *c) Where installed below ground*
  - *(i) be supported on a concrete footing of a thickness no less 100 mm, with a width of no less than 100 mm beyond the sides of the trap and extending upwards to no less than 100 mm above the base of the gully*
  - *(ii) Have the top of the gully riser protected from damage at finished surface level (e.g. by means of concrete surround)*

AS/NZS 3500.2 – 5.3 "Concrete support for drains"

Concrete pads used to support drains shall be a minimum of 100 mm thick and be laid:

- *a) under gully traps and boundary traps of material other than cast iron*
- *b) under all inspection junctions where a riser is brought to the surface*
- *c) under all bends greater than DN65 forming risers from the main drain*
- *d) not closer than 20 mm to flexible joints*
- *e) for square junctions, beneath the junction to a minimum thickness of 100 mm and continued up vertically to the centre of the junction fitting, and;*
- *f) for 45° junctions, beneath the junction to a minimum thickness of 100 mm and continued up vertically to the underside of the bend fitted to the junction fitting*

HOLMAN

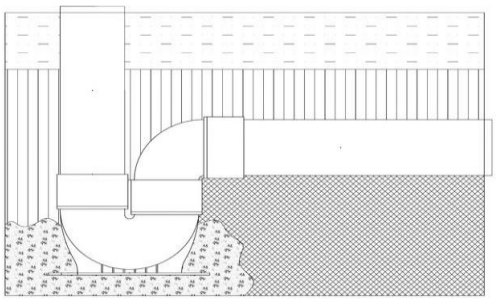
Head Office

11 Walters Drive, Osborne Park WA 6017
PO Box 1538, Osborne Park DC WA 6916
+61 8 9416 9999
sales@holmanindustries.com.au
www.holmanindustries.com.au

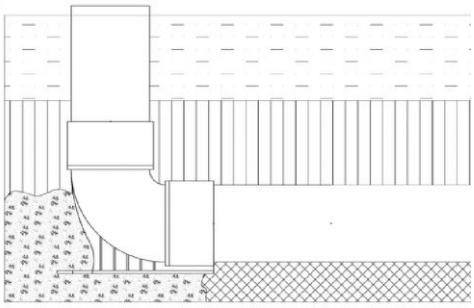
BOOKLEAF PTY LTD as Trustee for the Eden Unit Trust
T/A Holman Industries
A.B.N 29 385 212 665 A.C.N. 009 036 202

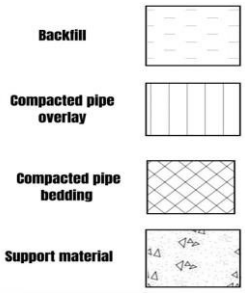
Installation Diagrams

DWVF0532



DWVF0080





Victoria

Hardware
145 Northcorp Blvd,
Broadmeadows VIC 3047
PO Box 627,
Pascoe Vale VIC 3044
+61 3 8335 4444
melbourne@
holmanindustries.com.au

Victoria

Plumbing
2A Williams Barak Blvd,
Broadmeadows VIC 3047
PO Box 627,
Pascoe Vale VIC 3044
+61 3 8335 4444
melbourne@
holmanindustries.com.au

New South Wales

Hardware and Plumbing
1/10 Johnston Crescent,
Horsley Park NSW 2175
P.O. Box 1538
Osborne Park WA 6916
+61 2 9933 6500
sydney@
holmanindustries.com.au

Queensland

Hardware and Plumbing
1-2/68 Lisgar St,
Virginia QLD 4014
P.O. Box 749,
Virginia BC QLD 4014
+61 7 3834 2100
brisbane@
holmanindustries.com.au

Queensland

Holman Civil
4/90 Quinns Hill Road East,
Stapylton QLD 4207
P.O. Box 1538
Osborne Park WA 6916
+61 7 3807 1922
brisbane@
holmanindustries.com.au