



## Holman Industries

### PRODUCT APPRAISAL REPORT 1905 Issue 4

HolTech Polyethylene (PE) Fabricated Fittings for Non-pressure Sewerage Applications

**AS/NZS 4129:2020 Fittings for polyethylene (PE) pipes for pressure applications**

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30 June 2023	Issue 4 Publication

## Peer Reviewers

Name/Title	Organisation	Date
Product Appraisal Technical Advisory Group	WSAA	26 June 2019
WSAA Expert Panel	WSAA	26 June 2019
Peter Pittard, WSAA Consultant	WSAA	5 June 2019
Carl Radford, Product Appraisal Manager	WSAA	5 August 2019
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Carl Radford, Product Appraisal Manager	WSAA	12 May 2021
Peter Pittard, WSAA Consultant	WSAA	30 June 2023
Carl Radford, Product Appraisal Manager	WSAA	30 June 2023

## Overview of WSAA

The Water Services Association of Australia (WSAA) is the peak industry body representing the urban water industry. Our members provide water and sewerage services to over 20 million customers in Australia and New Zealand and many of Australia's largest industrial and commercial enterprises.

Based around our vision of 'customer driven, enriching life', WSAA facilitates collaboration, knowledge sharing, networking and cooperation within the urban water industry. We are proud of the collegiate attitude of our members which has led to industry-wide approaches to national water issues.

WSAA can demonstrate success in the standardisation of industry performance monitoring and benchmarking, as well as many research outcomes of national significance. The WSAA Executive retains strong links with policy makers and legislative bodies and their influencers, to monitor emerging issues of importance to the urban water industry.

WSAA was formed in 1995 as a non-profit organisation to foster the exchange of information between industry, government and the community, and to promote sustainable water resource management.

The urban water industry is committed to anchoring its services to customers' values, and to enrich communities where water services have broad economic, environmental and social values. In line with this our main activities focus on four areas:

1. influencing national and state policies on the provision of urban water services and sustainable water resource management
2. promoting debate on environmentally sustainable development and management of water resources and the community health requirements of public water supplies
3. improving industry performance and establishing benchmarks and industry leading practices for water service processes; and
4. fostering the exchange of information on education, training, research, water and wastewater management and treatment and other matters of common interest.

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## 1 EXECUTIVE SUMMARY

Holman Industries is a major supplier of products for irrigation, watering and garden lighting. Its plumbing segment offers a comprehensive range of PVC and PE fittings for drainage, waste and vent (DWV), stormwater and pressure applications. Holman Industries acquired Fabfit in January 2017.

This appraisal is for a range of HolTech polyethylene (PE) fabricated fittings for non-pressure sewerage applications in sizes DN 110 and DN 160 manufactured in conformance with AS/NZS 4129:2020 *Fittings for polyethylene (PE) pipes for pressure applications*. The range includes junctions, adaptors, backdrops, puddle flanges, end caps and reducers. See Section 3 for details.

This Issue 4 is to update quality certification details to reference AS/NZS 4129:2020, which now includes fabricated fittings. Additional fittings have also been included in the range denoted in red.

Fabrication of the HolTech PE fittings is carried out at the Fabfit facility in Stapylton Queensland using SDR 21 SN8 PN8 PE pipes and PE moulded fittings.

Holman has a Quality Management System Certification to ISO 9001:2015 issued in the name of Fabfit T/A Holman Industries.

The Holman fabricated fittings are covered by ISO Type 5 ApprovalMark Product Certification to AS/NZS 4129:2020.

The HolTech PE fabricated fittings described within this appraisal meet the requirements of WSA PS 242 *Polyethylene (PE) plain wall pipes and fittings for non-pressure applications - Sewerage* and are therefore deemed as 'fit for purpose'.

### 1.1 Recommendations

It is recommended that WSAA members, subject to any specific requirements of the member, accept or authorise the HolTech range of PE fabricated fittings, as detailed in this report, for use in non-pressure sewerage applications, provided they are installed in accordance with any relevant conditions relating to the design, installation, acceptance testing provided in relevant standards, WSAA codes and the manufacturer's requirements.

## 2 THE APPLICANT

The Applicant is Holman Industries.

### 2.1 The Supplier

Holman Industries has been an Australian family-owned business since 1966 operating under new ownership since 1991. The company is a major supplier of products for irrigation, watering and garden lighting. Its plumbing segment offers a comprehensive range of PVC and PE fittings for drainage, waste and vent (DWV), stormwater and pressure applications. Holman Industries acquired Fabfit in January 2017. Fabfit has over 20 years' experience providing PVC-U fabricated and moulded fittings to the water, sewerage, drainage, plumbing, industrial, irrigation, communications, electrical and power markets.

## 3 THE PRODUCT

This appraisal is for a range of HolTech polyethylene (PE) fabricated fittings for non-pressure sewerage applications in sizes DN 110 and DN 160.

The range includes junctions, adaptors, backdrops, puddle flanges, end caps and reducers. See Table 1 for details.

The PE pipe utilised in the fabrication of the fittings is Holman branded and covered by product certification to AS/NZS 5065. The PE moulded fittings are sourced from various suppliers and covered by product certification to AS/NZS 4129. A PVC adaptor fitting used

in the fabricated PE to PVC adaptor is manufactured by Holman and covered by ISO Type 5 product certification to AS/NZS 1260.

Where PE pipe is sourced from alternative suppliers, Holman will ensure the pipe has ISO Type 5 product certification to AS/NZS 4130.

**TABLE 1 PE FITTINGS FOR NON-PRESSURE SEWERAGE APPLICATIONS**

Product Code	Description
HTJ110X110X45	110 x 110 X 45 JUNCTIONS
HTJ160X110X45	160 x 110 X 45 JUNCTIONS
HTJ160X160X45	160 x 160 X 45 JUNCTIONS
HTPF110	110 PUDDLE FLANGES
HTPF160	160 PUDDLE FLANGES
HTAD110X100	110 PE x 100 PVC ADAPTORS
HTAD160X150	160 PE x 150 PVC ADAPTORS
HTJ110X110X88	110 x 110 x 88 SWEEP JUNCTIONS
HTJ160X110X88	160 x 110 x 88 SWEEP JUNCTIONS
HTJ160X160X88	160 x 160 x 88 SWEEP JUNCTIONS
HTJC110	110 x 110 x 88 SWEEP JUNCTIONS WITH CAP
HTJC160X100X88	160 x 110 x 88 SWEEP JUNCTIONS WITH CAP
HTJC160	160 x 160 x 88 SWEEP JUNCTIONS WITH CAP
HTBDE110EX	110 EXTERNAL BACK DROP BENDS
HTBDE110IN	110 INTERNAL BACK DROP BENDS
HTBDE160EX	160 EXTERNAL BACK DROP BENDS
HTBDE160IN	160 INTERNAL BACK DROP BENDS
HTBDJ110X90EX	110 EXTERNAL 90 DEG BACKDROP JUNCTIONS
HTBDJ110X90IN	110 INTERNAL 90 DEG BACKDROP JUNCTIONS
HTBDJ160X90EX	160 EXTERNAL 90 DEG BACKDROP JUNCTIONS
HTBDJ160X90IN	160 INTERNAL 90 DEG BACKDROP JUNCTIONS
HTRED160X110	160 X 110 REDUCERS
HTCAPEXT110	110 END CAPS WITH TAIL
HTCAPEXT160	160 END CAPS WITH TAIL
HTIOJ160X150	160 x 150 PVC I.O. JUNCTIONS

## 4 SCOPE OF THE APPRAISAL

The scope of this Appraisal is for a range of DN 110 and DN 160 PE fabricated fittings for non-pressure sewerage applications.

## 5 APPRAISAL CRITERIA

### 5.1 Quality Assurance Requirements

The WSAA Product Appraisal Technical Advisory Group accepts PE fabricated fittings for non-pressure applications manufactured in compliance with AS/NZS 4129:2020 *Fittings for polyethylene (PE) pipes for pressure applications*.

The manufacturer is generally expected to have a production management and control system that has been duly accredited in accordance with ISO 9001 as a prerequisite to undergoing a product certification audit.

The ISO Type 5 Product Certification Scheme shall meet the criteria described in WSA TN-08.

## **5.2 Performance Requirements**

Holman HolTech PE fabricated fittings have been appraised for compliance with AS/NZS 4129:2020 *Fittings for polyethylene (PE) pipes for pressure applications*.

Appraisal criteria are also determined by the WSAA Product Appraisal Technical Advisory Group and regularly reviewed to ensure that the criteria reflect the requirements of WSAA members.

The following Product Specification is relevant to this application:

WSA PS 242 *Polyethylene (PE) plain wall pipes and fittings for non-pressure applications – Sewerage*.

A copy of the Product Specification is available at the following link:

<https://www.wsaa.asn.au/shop/product/60961>

## **6 COMPLIANCE WITH APPRAISAL CRITERIA**

### **6.1 Compliance with Quality Assurance Requirements**

Holman has submitted the following quality certificates:

- ISO 9001:2015 Certificate of Registration No. QMS 21388 issued to Fabfit T/A Holman Industries by ApprovalMark International Pty Ltd.
- AS/NZS 4129:2020 ApprovalMark ISO Type 5 Product Certification Licence No. AMI 74781 issued to Holman Industries by ApprovalMark International Pty Ltd.
- AS/NZS 5065:2005 ApprovalMark ISO Type 5 Product Certification Licence No. AMI 74871 issued to Holman Industries by ApprovalMark International Pty Ltd.
- AS/NZS 1260:2017 ApprovalMark ISO Type 5 Product Certification Licence No. AMI 21246 issued to Fabfit T/A Holman Industries by ApprovalMark International Pty Ltd.

Copies of the applicable Quality Assurance and Product Certification licences have been included in Appendix B and are also available from WSAA.

### **6.2 Compliance with Performance Requirements**

#### **6.2.1 Materials**

The PE pipe utilised in the fabrication of the fittings is Holman branded and covered by ISO Type 5 product certification to AS/NZS 5065 *Polyethylene and polypropylene pipes and fittings for drainage and sewerage applications*. The PE moulded fittings are sourced from various suppliers and are covered by product certification to AS/NZS 4129. A PVC adaptor fitting used in the fabricated PE to PVC adaptor is manufactured by Holman and covered by ISO Type 5 product certification to AS/NZS 1260.

Where pipe is sourced from alternative suppliers, Holman will ensure the pipe has ISO Type 5 product certification to AS/NZS 4130.

#### **6.2.2 Type tests**

Type test requirements for the fabricated fittings include dimensional, hydrostatic pressure resistance, liquid infiltration, effect of heating (for fittings incorporating moulded fittings) and mechanical strength and flexibility test (for fittings with junctions).

Holman Industries has provided copies of test reports to demonstrate compliance with these requirements.

Tests to demonstrate contact width and pressure for the elastomeric seal joint in the Holman PVC adaptor fittings have been completed and reported in WSAA Product Appraisal 1301.

## **7 FITTING INSTRUCTIONS, TRAINING AND INSTALLATION**

Fabricated PE fittings have been utilised in non-pressure PE sewerage applications for many years now and installation practices are well established. Installation procedures are provided in AS/NZS 2566.2 *Buried flexible pipelines Part 2 Installation*. A copy of Holman's Scope of Use and Installation Document is attached in Appendix A. Holman does not provide specific installation training for installers.

## **8 PRODUCT MARKING**

Marking on the fittings includes the following:

- Manufacturer's name: Holman
- Date or batch code:
- Nominal size: e.g., 110
- Material Class: SDR21 PN8
- The number of the Standard: AS/NZS 4129

## **9 PACKAGING AND TRANSPORTATION**

The PE fittings are packed into cardboard boxes with lids to prevent entry of dust and help to prevent unauthorised access. The boxes are packed on to pallets and shrink wrapped.



**FIGURE 1 PACKAGING**

## **10 PRODUCT WARRANTY**

The products are covered by the normal commercial and legal requirements of the *Competition and Consumer Act 2010 (Cth)*, which covers manufacture to the relevant standard, and details of Holman Industry's warranty is included in their terms and conditions of sale.

## **11 WATER AGENCY EXPERIENCE WITH THE PRODUCT OR FIELD-TESTING REPORT**

Holman fabricated PE fittings have been used in Australian for waste water applications for many years.

## **12 OUTCOMES OF EXPERT PANEL PRODUCT REVIEW**

The following queries were raised:



Q1 Please explain the method of attachment for the puddle flanges.

A1 The internal bore of a puddle flange is machined to ensure a tight slip-on fit to the PE pipe. The flange is then welded to the pipe around the circumference on both sides.

Q2 Please provide details of the PE fittings utilised in the PE-PVC fabricated adaptor.

A2 The PE fitting is a straight piece welded to a PE pipe with an elastomeric seal on the other end to suit connection to a PVC pipe or fitting.

Q3 Please provide details of the PVC fitting utilised in the IO junction.

A3 The PVC fitting is a straight piece with an elastomeric seal joint one end to suit connection to the PE pipe and a socket on the other end to facilitate a solvent cement joint for PVC pipe.

### **13 FUTURE WORKS**

No future works have been identified.

### **14 DISCLAIMER**

This Product Appraisal Report (Report) is issued by the Water Services Association of Australia Limited on the understanding that:

This Report applies to the product(s) as submitted. Any changes to the product(s) either minor or major shall void this Report.

To maintain the recommendations of this Report any such changes shall be detailed and notified to the Product Appraisal Manager for consideration and review of the Report and appropriate action. Appraisals and their recommendations will be the subject of continuous review dependent upon the satisfactory performance of products.

WSAA reserves the right to undertake random audits of product manufacture and installation. Where products fail to maintain appraised performance requirements the appraisal and its recommendations may be modified and reissued. Appraisal reports will be reviewed and reissued at regular intervals not exceeding five (5) years.

The following information explains a number of very important limits on your ability to rely on the information in this Report. Please read it carefully and take it into account when considering the contents of this Report.

Any enquiries regarding this report should be directed to the Program Manager, Carl Radford, Phone: 03 8605 7601 email [carl.radford@wsaa.asn.au](mailto:carl.radford@wsaa.asn.au).

#### **14.1 Issue of Report**

This Report has been published and/or prepared by the Water Services Association of Australia Limited and nominated Project Manager and peer group of technical specialists (the Publishers).

The Report has been prepared for use within Australia only by technical specialists that have expertise in the function of products such as those appraised in the Report (the Recipients).

By accepting this Report, the Recipient acknowledges and represents to the Publisher(s) and each person involved in the preparation of the Report that the Recipient has understood and accepted the terms of this Disclaimer.

#### **14.2 Limits on Reliance on Information and Recommendations**

##### **14.2.1 Disclaimer of liability**

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This Report does not contain all information that a person might require for the purposes of assessing any product discussed or appraised within it (Product). The product appraisal criteria used in preparing this Report may not address all relevant aspects of the Product.

Recipients should seek independent evidence of any matter which is material to their decisions in connection with an assessment of the Product and consult their own advisers for any technical information required. Any decision to use the Product should take into account the reliability of that independent evidence obtained by the Recipient regarding the Product.

Recipients should also independently verify and assess the appropriateness of any recommendation in the Report, especially given that any recommendation will not take into account a Recipient's particular needs or circumstances.

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### **14.3 No Updating**

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The Publisher(s) do[es] not, in any way, warrant that steps have been taken to verify or audit the accuracy or completeness of the information in this Report, or the accuracy, completeness or reasonableness of any recommendation in this Report.

**APPENDIX A – PRODUCT LITERATURE**

# **HOLMAN**

**>> PLUMBING**

## **HOLTECH CIVIL CATALOGUE**

PE100 & SDR21 SEWER NON PRESSURE

**PE RANGE**

[www.holmanindustries.com.au](http://www.holmanindustries.com.au)



## HOLTECH PE RANGE

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**HOLMAN**  
**PLUMBING**







## THE COMPANY

Holman Industries was founded on January 4, 1966. It is still a family business and proudly Australian owned. The company is a leading supplier of plumbing fittings and watering products to the Australian market.

Holman employs over 200 staff in Australia. Head office is in Perth, Western Australia. Large distribution warehouses are located in Melbourne and Brisbane and a plumbing only warehouse is situated in Sydney. The company currently exports watering products to many countries including the USA & Europe.

Holman is dedicated to continually investing in new tooling and more product development and innovation. Holman believes in putting its customers first and offering superior service with a high level of stock support. The aim is to be your best supplier.

## QUALITY

All Holman products are certified by ApprovalMark International (AMI), an Australian based Certification Body accredited by JAS-ANZ, who provides certification to all FABFIT, T/A Holman Industries, plumbing products in accordance with WaterMark. This provides quality assurance and confidence that FABFIT T/A Holman Industries only supplies products which comply to the Australian Standards and are manufactured to the highest quality level. FABFIT, T/A Holman Industries, are a quality endorsed Company to ISO 9001 and also conducts independent batch release testing to maintain the highest level of compliance.

## CUSTOM FABRICATIONS

The FABFIT, T/A Holman Industries, manufacturing facility has the capacity to manufacture special fittings and assemblies in all areas of HDPE (PE100), PP and PVC.

## CERTIFICATIONS & PARTEC CERTIFIED TRAINED FABRICATORS

Holman has stringent quality control programmes implemented at their manufacturing sites to ensure the quality of products supplied to our customers in the Civil Industry. Independent third party certification is undertaken by Approval Mark International JAS-ANZ Accredited.

## HOL-TECH POLYETHYLENE FITTINGS (PE100)

Polyethylene (PE100) as a choice of material for pipeline applications where the product has advantages over other material used for similar applications, difference being are the jointing method, which prevent root intrusion, and has higher impact and abrasion resistance.

Brisbane City Council (Queensland Urban Utilities) made the decision to mandate the use of PE100 pipe and fittings for their gravity sewer network in mid 2000s.

NU Sewer system implemented with QUU incorporates the use of a co-extruded PE100 pipe with a white stripped external appearance including the internal bore being of colour white/light grey which provides improved visibility with in the NU Sewer system during CCTV inspections.

Hol-Tech fittings are fabricated for use in the high visibility NU Sewer network with approved materials. Fittings comply to AS 5065 and AS 4129 methods in fabricating align to best practice

Fittings are made from PE100 - SDR21 pipe complies to AS 4130.

**Holman Industries manufacturer these fittings in Australia.**

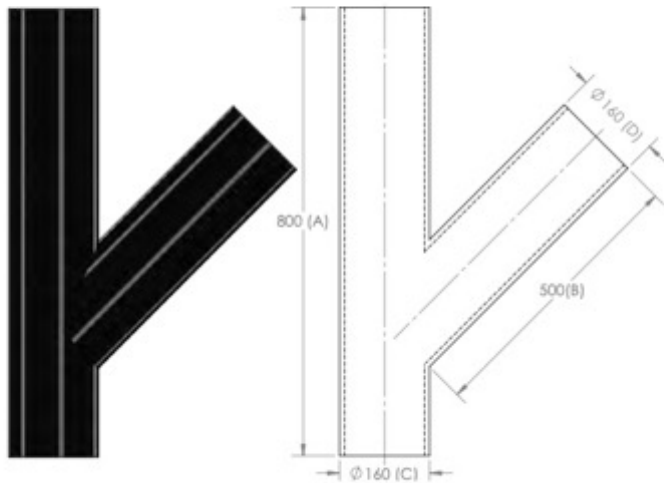


FABFIT  
QMS 21388



## HOLTECH PE RANGE

## PE 45° JUNCTION

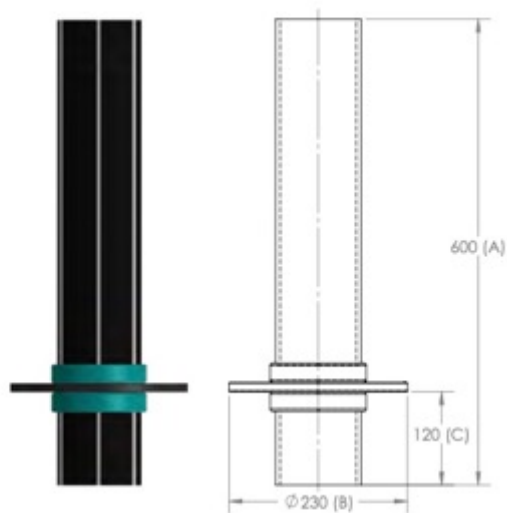


NOM SIZE	PRODUCT CODE	DIMENSION (MM)			
		A	B	C	D
45°	HTJ160X160X45	800	500	160	160
45°	HTJ160X110X45	600	510	160	110
45°	HTJ110X110X45	600	500	110	110



HTJ160X160X45

## PE PUDDLE FLANGE



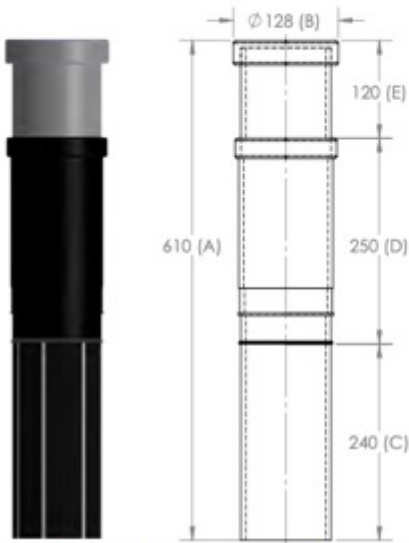
NOM SIZE	PRODUCT CODE	DIMENSION (MM)		
		A	B	C
110mm	HTPF110	600	230	120
160mm	HTPF160	600	270	120



HTPF110

**HOLMAN**  
 >> PLUMBING

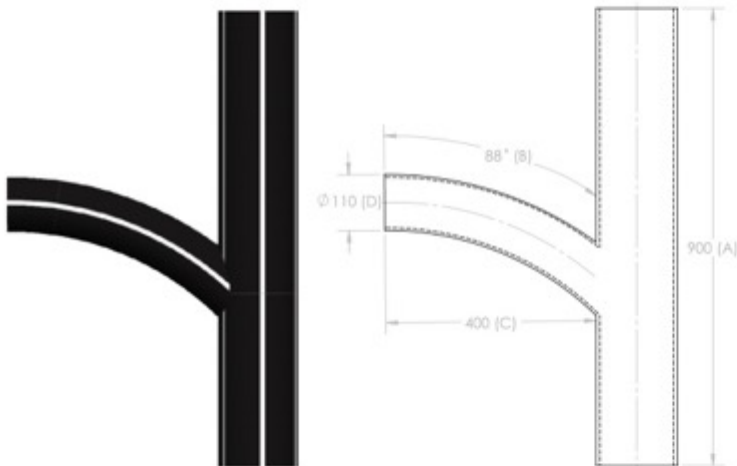
ADAPTOR 110 PE X 100 PVC



NOM SIZE	PRODUCT CODE	DIMENSION (MM)				
		A	B	C	D	E
110	HTAD110X100	610	128	240	250	120
160	HTAD160X150	678	183	220	287	171



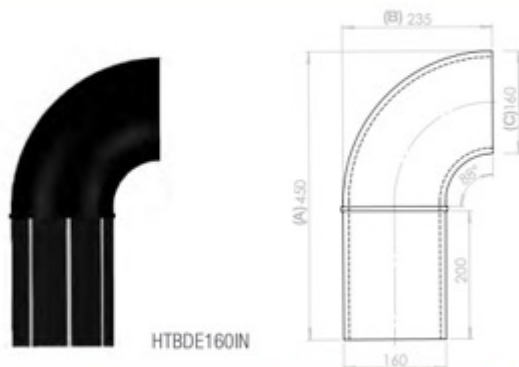
PE 160 X 110 X 88 SWEEP JUNCTION



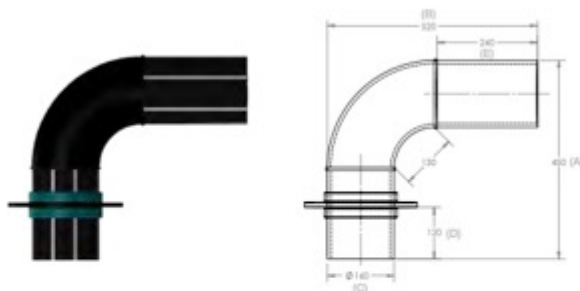
NOM SIZE	PRODUCT CODE	DIMENSION (MM)			
		A	B	C	D
160	HTJ160X110X88	900	88°	400	110



## HOLTECH PE RANGE

**PE EXT/INT BACK DROP BEND 160MM**

NOM SIZE	PRODUCT CODE	DIMENSION (MM)		
		A	B	C
110	HTBDE110IN	385	151	110
160	HTBDE160IN	450	235	160



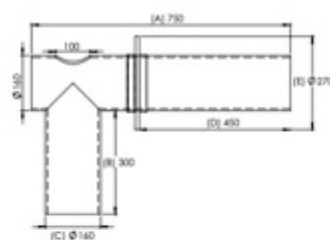
NOM SIZE	PRODUCT CODE	DIMENSION (MM)				
		A	B	C	D	E
110	HTBDE110EX	400	400	110	115	250
160	HTBDE160EX	450	520	160	120	240



HTBDE160EX

**PE 160 INTERNAL 90° BACKDROP JUNCTION**


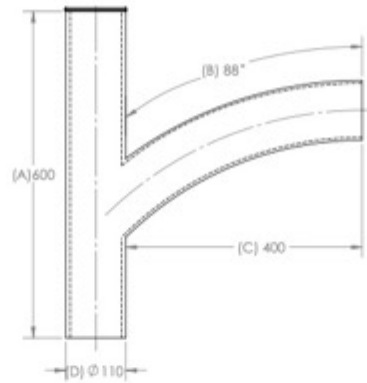

HTBDJ160X90IN




NOM SIZE	PRODUCT CODE	DIMENSION (MM)				
		A	B	C	D	E
110	HTBDJ110X90IN	600	290	110	335	250
160	HTBDJ160X90IN	750	300	160	450	270



PE EQUAL SWEEP JUNCTION




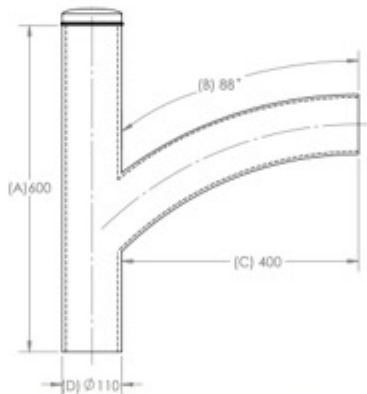

HTJ100X100X88




HTJ160X160X88

NOM SIZE	PRODUCT CODE	DIMENSION (MM)			
		A	B	C	D
110	HTJ110X110X88	600	88°	400	110
160	HTJ160X160X88	600	88°	400	160

PE SWEEP JUNCTION TYPE C



HTJC110

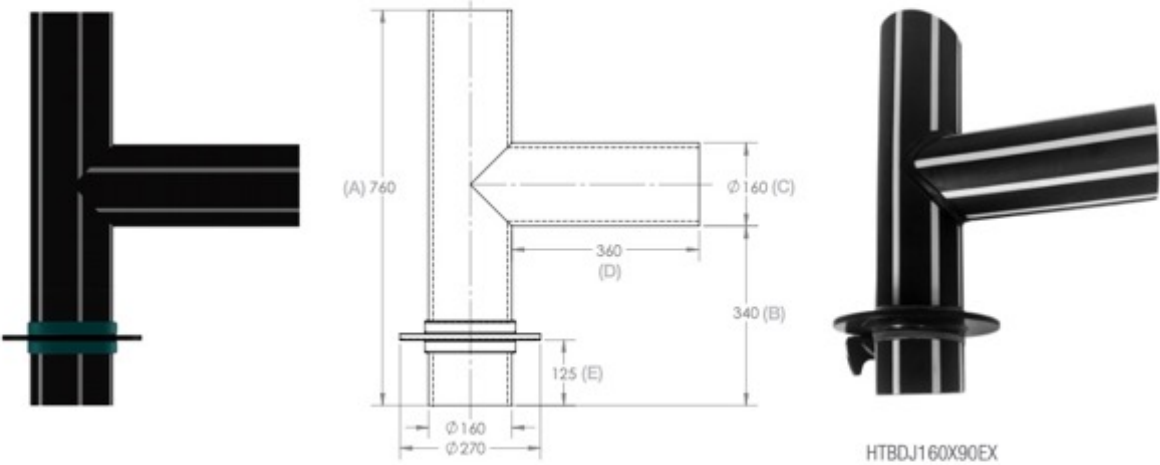


HTJC160

NOM SIZE	PRODUCT CODE	DIMENSION (MM)			
		A	B	C	D
110	HTJC110	600	88°	400	110
160	HTJC160	600	88°	400	160
160x110	HTJC160X110X88	600	88°	400	160X100

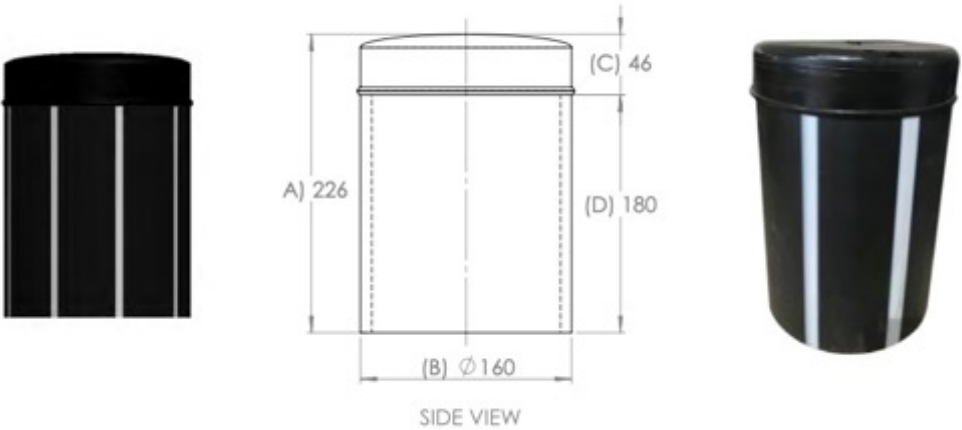
HOLTECH PE RANGE

PE 160 EXTERNAL 90° BACKDROP JUNCTION

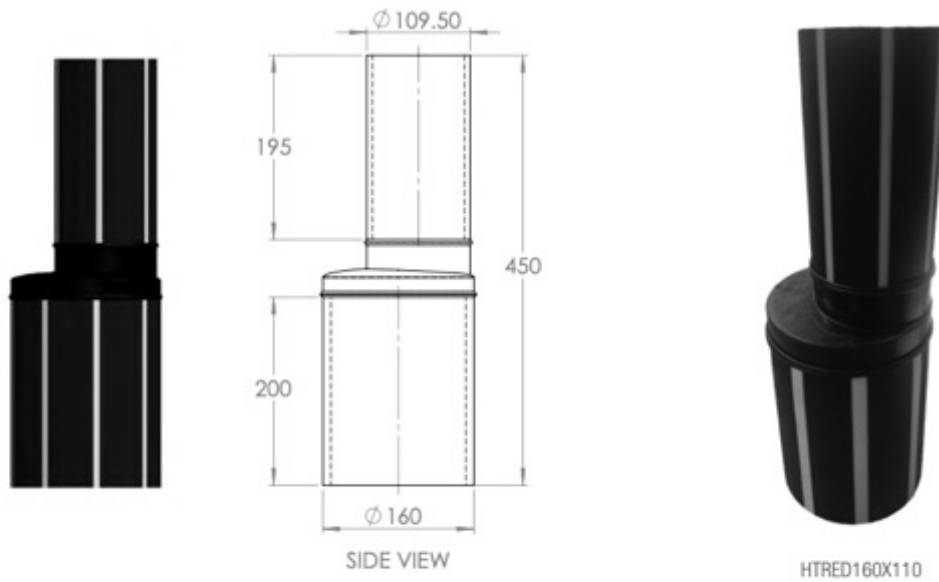
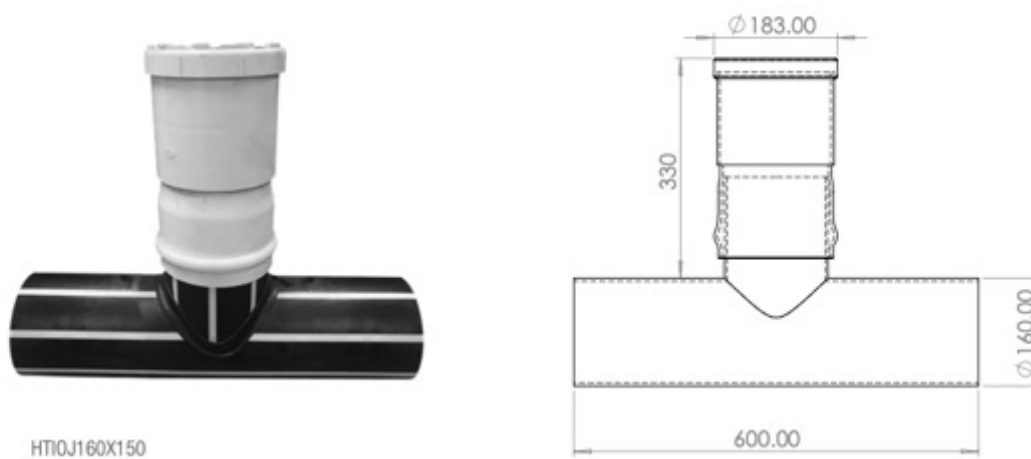


NOM SIZE	PRODUCT CODE	DIMENSION (MM)				
		A	B	C	D	E
110	HTBDJ110X90EX	600	290	110	290	120
160	HTBDJ160X90EX	760	340	160	360	125

PE EXTERNAL END CAPS



NOM SIZE	PRODUCT CODE	DIMENSION (MM)			
		A	B	C	D
110	HTCAPEXT110	226	110	46	180
160	HTCAPEXT160	226	160	46	180

**PE REDUCER****INSPECTION OPENING PE X PVC**

## APPENDIX B - QUALITY CERTIFICATIONS

Copies of the following Quality Certification Certificates are available from WSAA.

**TABLE B1 FABFIT T/A HOLMAN INDUSTRIES – MANAGEMENT SYSTEMS**

298A Stapylton-Jacobs Well Road, Stapylton, Queensland 4207	
Quality Systems Standard	ISO9001:2015
Certification licence no.	QMS 21388
Certifying agency	ApprovalMark International
Current date of certification	15 May 2022
Expiry date of certification	15 May 2025

**TABLE B2 HOLMAN INDUSTRIES – PRODUCT CERTIFICATION**

11 Walters Drive Osborne Park WA 6017	
Product Standard/Spec.	AS/NZS 4129:2020
Certificate No.	AMI 74781
Issuing certification body	ApprovalMark International
First date of certification	19 December 2018
Current date of certification	19 June 2023
Expiry date of certification	19 December 2024

**TABLE B3 HOLMAN INDUSTRIES – PRODUCT CERTIFICATION**

11 Walters Drive Osborne Park WA 6017	
Product Standard/Spec.	AS/NZS 5065:2005
Certificate No.	AMI 74871
Issuing certification body	ApprovalMark International
First date of certification	10 May 2021
Current date of certification	10 May 2021
Expiry date of certification	10 May 2026

**TABLE B4 FABFIT T/A HOLMAN INDUSTRIES - PRODUCT CERTIFICATION**

298A Stapylton-Jacobs Well Road, Stapylton, Queensland 4207	
Product Standard/Spec.	AS/NZS 1260:2017
Certificate No.	AMI 21246
Issuing certification body	ApprovalMark International
First date of certification	22 July 2019
Current date of certification	30 November 2021
Expiry date of certification	22 July 2025

**ISO 9001**

# CERTIFICATE OF REGISTRATION



*ApprovalMark International* hereby grants:

**FABFIT**

T/A HOLMAN INDUSTRIES  
298A Stapylton-Jacobs Well Road  
Stapylton, QLD 4207  
AUSTRALIA

Evaluated to:

**ISO 9001: 2015 - QUALITY MANAGEMENT SYSTEMS**

**THIS COVERS THE FOLLOWING SCOPE:**

**For the fabrication of PVC plumbing and electrical fittings**

**Certificate No. QMS 21388**

**Issued: 15<sup>th</sup> May 2022**

**Expires: 15<sup>th</sup> May 2025**

**John PRASAD**  
Director



**Registered by:** ApprovalMark International Pty Ltd (ABN 69 143 259 974) Unit 20, 33 Holbeche Road, Arndell Park NSW 2148 Australia. The assessment was carried with appropriate skill and assessment by ApprovalMark International Pty Ltd; however it will only accept its responsibility for proven negligence. The certificate remains the property of ApprovalMark International Pty Ltd.

**ApprovalMark**



**ISO TYPE 5**

# CERTIFICATE OF CONFORMITY



*ApprovalMark International* hereby grants:

## Holman Industries

11 Walters Drive  
Osborne Park, WA 6017  
AUSTRALIA

## ISO Type 5 Certificate of Conformity

Evaluated to:

**AS/NZS 4129:2020 - Fittings for polyethylene (PE) pipes for pressure applications**

The ISO Type 5 License shall comply with all the terms and conditions as stipulated by the governance of the operating rules of the ISO Type 5 Scheme and shall comply with the standard requirements at all times including when the standard is amended. The ISO Type 5 License only covers the product which is identified in the attached product schedule.

**Certificate No. AMI 74781**

**Issued:** 19<sup>th</sup> June 2023

**Original Issue:** 19<sup>th</sup> December 2018

**Expires:** 19<sup>th</sup> December 2024

**John PRASAD**

**Director**

ApprovalMark International Pty Ltd  
18/33 Holbeche Road, Arndell Park 2148, Australia  
[www.approvalmark.com](http://www.approvalmark.com)



**Registered by:** ApprovalMark International Pty Ltd (ABN 69 143 259 974) Unit 18, 33 Holbeche Road, Arndell Park NSW 2148 Australia. The assessment was carried with appropriate skill and assessment by ApprovalMark International Pty Ltd, however it will only accept its responsibility for proven negligence. The certificate remains the property of ApprovalMark International Pty Ltd.



# Product Schedule

## Holman Industries

11 Walters Drive  
Osborne Park, WA 6017  
Australia

### ISO Type 5 Certificate of Conformity

Evaluated to:

**AS/NZS 4129:2020 – Fittings for polyethylene (PE) pipes for pressure applications**

Model Id	Model Name	Brand Name	Product Description	Endorsement Date
HTAD110X100	HTAD110X100	HOLMAN	HOLTECH 110 PE X 100 PVC ADAPTOR	19 <sup>th</sup> December 2018
HTAD160X150	HTAD160X150	HOLMAN	HOLTECH 160 PE X 150 PVC ADAPTOR	19 <sup>th</sup> December 2018
HTPF110	HTPF110	HOLMAN	HOLTECH PE PUDDLE FLANGE 110 MM	19 <sup>th</sup> December 2018
HTPF160	HTPF160	HOLMAN	HOLTECH PE PUDDLE FLANGE 160 MM	19 <sup>th</sup> December 2018
HTJ160X160X45	HTJ160X160X45	HOLMAN	HOLTECH PE 160 X160 X45 JUNCTION	19 <sup>th</sup> December 2018
HTJ160X110X45	HTJ160X110X45	HOLMAN	HOLTECH PE 160 X110 X45 JUNCTION	19 <sup>th</sup> December 2018
HTJ160X100X88	HTJ160X100X88	HOLMAN	HOLTECH PE 160 X110 X88 SWEEP JUNCTION	19 <sup>th</sup> December 2018
HTJ110X110X88	HTJ110X110X88	HOLMAN	HOLTECH PE 110 X110 X88 SWEEP JUNCTION	19 <sup>th</sup> December 2018
HTJ160X160X88	HTJ160X160X88	HOLMAN	HOLTECH PE 160 X160 X88 SWEEP JUNCTION	19 <sup>th</sup> December 2018
HTBDJ160X90EX	HTBDJ160X90EX	HOLMAN	HOLTECH PE 160 EXTERNAL 90DEG BACKDROP JUNCTION	19 <sup>th</sup> December 2018
HTBDJ160X90IN	HTBDJ160X90IN	HOLMAN	HOLTECH PE 160 INTERNAL 90DEG BACKDROP JUNCTION	19 <sup>th</sup> December 2018
HTJC110	HTJC110	HOLMAN	HOLTECH PE 110MM TYPE C - with LD welded cap SWEEP	19 <sup>th</sup> December 2018
HTJC160	HTJC160	HOLMAN	HOLTECH PE 160MM TYPE C - with LD welded cap SWEEP	19 <sup>th</sup> December 2018
HTJ110X110X45	HTJ110X110X45	HOLMAN	HOLTECH PE 110 X110 X45 JUNCTION	19 <sup>th</sup> December 2018
HTBDE160EX	HTBDE160EX	HOLMAN	HOLTECH PE EXTERNAL BACK DROP BEND 160 MM	19 <sup>th</sup> December 2018
HTJC160X100X88	HTJC160X100X88	HOLMAN	HOLTECH PE 160 X 110 X88 SWEEP JUNCTION TYPE C	19 <sup>th</sup> December 2018
HTRED160X110	PE Holtec Fitting	HOLMAN	HOLTECH PE 160 x 110 Reducer	12 <sup>th</sup> March 2021
HTCAPEXT110	PE Holtec Fitting	HOLMAN	HOLTECH PE 110mm End Cap With Tail	12 <sup>th</sup> March 2021
HTCAPEXT160	PE Holtec Fitting	HOLMAN	HOLTECH PE 160mm End Cap With Tail	12 <sup>th</sup> March 2021
HTIOJ160X150	PE Holtec Fitting	HOLMAN	HOLTECH PE IO 160mm x PVC 150mm Access	12 <sup>th</sup> March 2021





# Product Schedule

Model Id	Model Name	Brand Name	Product Description	Endorsement Date
HTBDE160IN	PE Holtec Fitting	HOLMAN	HOLTECH PE Internal Back Drop Bend 160mm	12 <sup>th</sup> March 2021
HTBDE110EX	HTBDE110EX_	HOLTECH	HOLTECH SDR21 PE 110MM EXTERNAL BACKDROP BEND	19 <sup>th</sup> June 2023
HTBDE110IN	HTBDE110IN_	HOLTECH	HOLTECH SDR21 PE 110MM INTERNAL BACKDROP BEND	19 <sup>th</sup> June 2023
HTBDJ110X90EX	HTBDJ110X90EX_	HOLTECH	HOLTECH SDR21 PE 110MM EXTERNAL BACKDROP JUNCTION HDPE	19 <sup>th</sup> June 2023
HTBDJ110X90IN	HTBDJ110X90IN_	HOLTECH	HOLTECH SDR21 PE 110MM INTERNAL 90 DEG BACKDROP JUNCTION HDPE	19 <sup>th</sup> June 2023

*End of record*

**Certificate No. AMI 74781**

*The models identified above in the schedule are endorsed for ISO Type 5 application only.*

**ISO TYPE 5**

# CERTIFICATE OF CONFORMITY



*ApprovalMark International* hereby grants:

## HOLMAN INDUSTRIES

11 Walters Drive  
Osborne Park, WA 6017  
AUSTRALIA

### ISO Type 5 Certificate of Conformity

Evaluated to:

#### **AS/NZS 5065:2005 – Polyethylene and Polypropylene pipes and fittings for drainage and sewerage applications**

The ISO Type 5 License shall comply with all the terms and conditions as stipulated by the governance of the operating rules of the ISO Type 5 Scheme and shall comply with the standard requirements at all times including when the standard is amended. The ISO Type 5 License only covers the product which is identified in the attached product schedule.

**Certificate No. AMI 74871**

**Issued:** 10<sup>th</sup> May 2021

**Original Issue:** 10<sup>th</sup> May 2021

**Expires:** 10<sup>th</sup> May 2026

**John PRASAD**

**Director**

ApprovalMark International Pty Ltd  
20/33 Holbeche Road, Arndell Park 2148, Australia  
[www.approvalmark.com](http://www.approvalmark.com)



**Registered by:** ApprovalMark International Pty Ltd (ABN 69 143 259 974) Unit 20, 33 Holbeche Road, Arndell Park NSW 2148 Australia. The assessment was carried with appropriate skill and assessment by ApprovalMark International Pty Ltd; however it will only accept its responsibility for proven negligence. The certificate remains the property of ApprovalMark International Pty Ltd.



# Product Schedule

**HOLMAN INDUSTRIES**

11 Walters Drive  
Osborne Park, WA 6017  
AUSTRALIA

**ISO Type 5 Certificate of Conformity**

Evaluated to:

**AS/NZS 5065:2005 – Polyethylene and polypropylene pipes and fittings for drainage and sewerage applications**

Model Id	Model Name	Brand Name	Product Description	Endorsement Date
PE110X1	PE Holtec Pipe	HOLMAN	SDR21, SN8 110mmx1mt PE Holtech Pipe	10 <sup>th</sup> May 2021
PE160X1	PE Holtec Pipe	HOLMAN	SDR21, SN8 160mmx1mt PE Holtech Pipe	10 <sup>th</sup> May 2021

----- *End of record* -----

**Certificate No. AMI 74871**

*The models identified above in the schedule are endorsed for ISO Type 5 application only.*



# ISO TYPE 5

## CERTIFICATE OF CONFORMITY



*ApprovalMark International* hereby grants:

### FABFIT

T/A Holman Industries  
298A Stapylton – Jacobs Well Road  
Stapylton, QLD 4207  
AUSTRALIA

### ISO Type 5 Certificate of Conformity

Evaluated to:

### AS/NZS 1260:2017 PVC-U pipes and fittings for drain, waste and vent application

The ISO Type 5 License shall comply with all the terms and conditions as stipulated by the governance of the operating rules of the ISO Type 5 Scheme and shall comply with the standard requirements at all times including when the standard is amended. The ISO Type 5 License only covers the product which is identified in the attached product schedule.

**Certificate No. AMI 21246**

**Issued:** 30<sup>th</sup> November 2021

**Original Issue:** 22<sup>nd</sup> July 2019

**Expires:** 22<sup>nd</sup> July 2025

A handwritten signature in black ink, appearing to read "John PRASAD".

**John PRASAD**

**Director**

ApprovalMark International Pty Ltd  
20/33 Holbeche Road, Arndell Park 2148, Australia  
[www.approvalmark.com](http://www.approvalmark.com)



**Registered by:** ApprovalMark International Pty Ltd (ABN 69 143 259 974) Unit 20, 33 Holbeche Road, Arndell Park NSW 2148 Australia. The assessment was carried with appropriate skill and assessment by ApprovalMark International Pty Ltd, however it will only accept its responsibility for proven negligence. The certificate remains the property of ApprovalMark International Pty Ltd.

**APPENDIX C - SUPPLIER CONTACTS****FABFIT**

298A Stapylton  
Jacobs Well Road,  
Stapylton, QLD 4207  
Tel. 07 3807 1922  
Email. [sales@fabfit.com.au](mailto:sales@fabfit.com.au)

**HOLMAN HEAD OFFICE**

Western Australia  
11 Walters Drive  
Osborne Park WA 6017  
Ph: 08 9416 9999

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**New South Wales**

Holman  
2/98 Kurrajong Avenue  
Mount Druitt NSW 2770  
Ph: 02 9832 3298

**Victoria**

Holman  
145 Northcorp Boulevard  
Broadmeadows VIC 3047  
Ph: 03 8335 4444



**Melbourne Office**

Level 8, Suite 8.02  
401 Docklands Drive  
Docklands VIC 3008

**Sydney Office**

Level 9 420 George Street  
Sydney NSW 2000  
GPO Box 915  
Sydney NSW 2001

P +61 (0) 3 8605 7666  
email: [info@wsaa.asn.au](mailto:info@wsaa.asn.au)

[www.wsaa.asn.au](http://www.wsaa.asn.au)