



AUSTRALIAN RAIL TRACK CORPORATION

INFRASTRUCTURE, STRATEGY AND PERFORMANCE

Engineering Standards and Documents

The following recommendation, together with the attached supporting documentation, has been considered at the ARTC Manager, Standards & Systems on 1st November 2006.

Documents:

Ref No:	08-08-10-039 Equipment Type Approval
Subject:	'Linpac' Cable Route Pits and Troughing
Dated:	3 rd October 2006

Prepared By: Arthur Haberlin, Signalling Engineer

Endorsed by: Trevor Moore, Signalling Standards Engineer

Items Considered for Approval:

Manufacturer:	Linpac Rotational Mouldings
Product:	Polyethylene Cable Pits and Ground Level Troughing
Item Identification:	See item list Ref No: 08-0610-029a

The items in the form presented at the review date were approved for System & Equipment Approval to be used on all ARTC jurisdictions in accordance with the manufacturers published performance criteria and subject to the following.

Relevant ARTC Specifications:

Ref. No.	Title	Status	Date
SPS 02	Environmental Conditions	Issue 1 Revision 2	Aug. '04
SC 09 01	Construction of Cable Route and Associated Civil Works	Issue 1 Revision 1	Nov. '06

Specific Conditions of Approval:

- i. For use in accordance with standard cable route construction drawings and ARTC standard SC 09 01.
- ii. Only components from the list reference **08-0610-029a** may be utilised.
- iii. Pits may be utilised for the construction of new cable routes only.
- iv. Derogation from the requirements of ARTC Signalling Specification SC 09 01 – 'Construction of Cable Route and Associated Civil Works' clause 12.5 covering the internal dimensions of the items is granted.

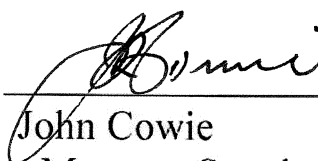
Certificate Issued to:

Linpac Rotational Mouldings
81 Frankston Drive
Carrum Downs
Victoria 3201

A general condition of approval is that the supplier remains accredited to ISO 9001 specifically for these products and ARTC is advised on a 12 monthly basis that accreditation is current. ARTC reserves the right to conduct its own audit of the manufacture and supply of these components to AS 19011:2003.

Any subsequent change to the design, materials or manufacturing process is not covered by this approval.

Approved for use in the ARTC.



John Cowie
Manager Standards & Systems

APPROVAL No: 08-08-10-039

Approval Date: 1st November 2006



AUSTRALIAN RAIL TRACK CORPORATION LTD

Ref No: 08-0610-029a

Date: 3rd October 2006

Equipment Type Approval

Subject: 'Linpac' Cable Route Pits and Troughing

The following lists the individual types (by catalogue number) of cable route pits and troughing manufactured by Linpac Rotational Mouldings Pty. Ltd. which are type approved for use in signalling installations on ARTC infrastructure under Type Approval Certificate **08-08-10-039** subject only to any conditions shown on that Certificate and the Conditions of Use shown against individual types.

Catalogue Code.	Product	Description	Conditions of Use	
VP0152	P2Injection Pit	570mm deep pit 660 x 285	♣ #	
VP0153	P3Injection Pit	630mm deep pit 780 x 345		
VP0155	P5Injection Split Pit	630mm deep pit 713 x 453	♣ unless additional LP5 Collar fitted.	May be used round existing cable(s).
UG2005	LP5 Pit	650mm deep pit 710 x 455	#	
UG2010	LP5 Collar	225mm deep collar 710 x 455	To increase depth of P5Injection Split or LP5 Pit, a suitable access ladder must then be provided.	
UG2300	LP5 Lid	90mm deep lid 650 x 400	May only be used for areas with no vehicular / livestock traffic. (AS3996 Class A).	
UG2006	LP6 Pit	670mm deep pit 1365 x 550	¶ ♣ unless additional LP6 Collar fitted.	
UG2011	LP6 Collar	280mm deep collar 1365 x 550	To increase depth of LP6 Pit, a suitable access ladder must then be provided.	
UG2400	LP6 Lid	90mm deep lid 650 x 500	May only be used for areas with no vehicular / livestock traffic. (AS3996 Class A). LP6 pit requires two LP6 lids.	
UG2007	LP7 Pit	1130mm deep pit 1020 x 550	¶ Must be provided with a suitable access ladder.	
UG2017	LP7 Collar	280mm deep	To increase depth of LP7 Pit.	
UG2008	LP8 Pit	805mm deep pit 1365 x 545	¶ Must be provided with a suitable access ladder.	
UG2009	LP9 Pit	900mm deep pit 2040 x 585		
UG2033	G3 Pit	700mm deep pit 700 x 550	#	May be used only in paved areas unless additional G3 collar fitted.



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Catalogue Code.	Product	Description	Conditions of Use
UG2030	G3 Collar	280mm deep collar 700 x 550	To increase depth of G3 Pit, a suitable access ladder must then be provided.
UG2055	G3 Lid	90mm deep lid 650 x 500	May only be used for areas with no vehicular / livestock traffic. (AS3996 Class A).
UG2090	Platform Pit	670mm deep pit 1115 x 760	♣ ¶
UG2075	Round Pit	1215mm deep pit 1140 diameter	Must be provided with a suitable access ladder.
UG2072	Cable Tray	2m long, 3 section GLT 450 x 338	May only be used for areas with no vehicular / livestock traffic. (AS3996 Class A).
UG2071	Cable tray Lid	2m long, 70mm deep lid	
CM0029	Cable Guard	1.5m long power cable guard.	For 150mm maximum cable diameter.

- ¶: Long axis of the pit must coincide with the main cable route alignment.
 #: Only for secondary cable route, alignment must coincide with long axis of pit.
 ♣: May only be used for reduced depth cable routes in paved areas.