

Certificate No. NESA-S071

Version No. 1.0

Approval date 10 May 2021
Approved by GM Technical Standards
Report no. NESA-S071 (v1.0)
Report date 06/05/2021

This certificate is issued to

Supplier TufDuct Pty Ltd
 8 Harris Street
 Port Kembla, NSW 2505

In respect of

Manufacturer Furukawa Electric Group
Product description TufDuct -Cable Route Management System
Item identification Refer to approved item list below
Application ARTC network wide
Relevant Standards ESC-11-01 Construction of Cable Route and Associated Civil Works
 AS 7664 – Railway Signalling Cable Routes, Cable Pits and Foundations
Conditions of Approval

1. Only items listed are approved for use on the ARTC network.
2. Only to be used for the protection and management of cables.
3. The supplier or manufacturer must advise ARTC of any changes made to the product or system which may alter its identification, performance characteristics, form, fit or processes required for correct usage so that this approval can be revised or reviewed.
4. Use of this product range shall be in accordance with ARTC standard ESC-11-01 Construction of Cable Route and Associated Civil Works
5. Lids are to be held captive by a screw or bolt. Tamper proof screws are permitted where enhanced security is required.
6. Bend radius not to be less than minimum bend radius of the cables to be installed
7. Manufacturer's installation guidelines are to be adopted during installation

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.

NEW EQUIPMENT AND SYSTEM APPROVAL CERTIFICATE

Any subsequent change to the design, materials or manufacturing process is not covered by this approval. The manufacturer should notify ARTC of any modification or changes in order to obtain a valid certificate.

Note/Comments N/A

Issue date 10 May 2021

Expiry date N/A

Issued by

ARTC Manager Signalling Standards

Table 1 - Approved Item List – TufDuct cable route management

The following lists the individual TufDuct products manufactured by Furukawa Electric Group which are type approved for use on ARTC infrastructure under Type Approval Certificate S071, subject only to any conditions shown on that Certificate and the Conditions of Use shown against individual types.

Part Numbers		Description
Miscellaneous	TB-1000	TufDuct Brush - 1m
	TP-1200-S	TufDuct Prisma Standard - 1.2m
	TP-1200-L	TufDuct Prisma Large - 1.2m
	TDA-Feet	TufDuct Feet
	TDA-UL-090	TufDuct U Locator 090 Series
	TDA-LL	TufDuct L Locator
090 Series Duct	TD090S	TufDuct Straight - 090
	TD090B	TufDuct Bend - 090
	TD090T	TufDuct Tee - 090
	TD090G-D	TufDuct Gradient Down - 090
	TD090G-U	TufDuct Gradient Up - 090
	TD090EP-F	TufDuct End Plate Female - 090
	TD090EP-M	TufDuct End Plate Male
135 Series Duct	TD135S	TufDuct Straight - 135
	TD135B	TufDuct Bend - 135
	TD135T	TufDuct Tee - 135
	TD135G-D	TufDuct Gradient Down - 135
	TD135G-U	TufDuct Gradient Up - 135
	TD135EP-F	TufDuct End Plate Female - 135
	TD135EP-M	TufDuct End Plate Male - 135

NEW EQUIPMENT AND SYSTEM APPROVAL CERTIFICATE

Part Numbers		Description
150 Series Duct	TD150S	TufDuct Straight - 150
	TD150B	TufDuct Bend - 150
	TD150T	TufDuct Tee - 150
	TD150G-D	TufDuct Gradient Down - 150
	TD150G-U	TufDuct Gradient Up - 150
	TD150EP-F	TufDuct End Plate Female - 150
	TD150EP-M	TufDuct End Plate Male - 150
200 Series Duct	TD200S	TufDuct Straight - 200
	TD200B	TufDuct Bend - 200
	TD200T	TufDuct Tee - 200
	TD200G-D	TufDuct Gradient Down - 200
	TD200G-U	TufDuct Gradient Up - 200
	TD200EP-F	TufDuct End Plate Female - 200
	TD200EP-M	TufDuct End Plate Male - 200
300 Series Duct	TD300S	TufDuct Straight - 300
	TD300B	TufDuct Bend - 300
	TD300T	TufDuct Tee - 300
	TD300G-D	TufDuct Gradient Down - 300
	TD300G-U	TufDuct Gradient Up - 300
	TD300EP-F	TufDuct End Plate Female - 300
	TD300EP-M	TufDuct End Plate Male - 300
300 Series Walkway	TD300W	TufDuct Walkway - 300 Per 1m single unit
	TD300W-B IN	TufDuct Walkway Bend- 300 Internal
	TD300W-B EX	TufDuct Walkway Bend- 300 External
	TD300W-T	TufDuct Walkway Tee - 300

NEW EQUIPMENT AND SYSTEM APPROVAL CERTIFICATE

Part Numbers		Description
430 Series Duct	TD430S	TufDuct Straight - 430
	TD430B	TufDuct Bend - 430
	TD430T	TufDuct Tee - 430
	TD430G-D	TufDuct Gradient Down - 430
	TD430G-U	TufDuct Gradient Up - 430
	TD430EP-F	TufDuct End Plate Female - 430
	TD430EP-M	TufDuct End Plate Male - 430
Flexible Round Conduit Coils	TFR-030	TufDuct Flexible Round 30mm
	TFR-040	TufDuct Flexible Round 40mm
	TFR-050	TufDuct Flexible Round 50mm
	TFR-065	TufDuct Flexible Round 65mm
	TFR-080	TufDuct Flexible Round 80mm
	TFR-100	TufDuct Flexible Round 100mm
	TFR-150	TufDuct Flexible Round 150mm
	TFR-200	TufDuct Flexible Round 200mm
Flexible Round Bellmouths	TFR-BM-030	TufDuct Bell Mouth - 30mm
	TFR-BM-040	TufDuct Bell Mouth - 40mm
	TFR-BM-050	TufDuct Bell Mouth - 50mm
	TFR-BM-065	TufDuct Bell Mouth - 65mm
	TFR-BM-080	TufDuct Bell Mouth - 80mm
	TFR-BM-100	TufDuct Bell Mouth - 100mm
	TFR-BM-125	TufDuct Bell Mouth - 125mm
	TFR-BM-150	TufDuct Bell Mouth - 150mm
	TFR-BM-200	TufDuct Bell Mouth - 200mm
Flexible Round Conduit to Flexible Joiner	TFR-CF-025	Conduit/Flexible Joiner - 25mm
	TFR-CF-030	Conduit/Flexible Joiner - 30mm
	TFR-CF-040	Conduit/Flexible Joiner- 40mm
	TFR-CF-050	Conduit/Flexible Joiner- 50mm
	TFR-CF-080	Conduit/Flexible Joiner- 80mm
	TFR-CF-100	Conduit/Flexible Joiner- 100mm

NEW EQUIPMENT AND SYSTEM APPROVAL CERTIFICATE

Part Numbers		Description
Flexible Round End Caps	TFR-EC-030	TufDuct Flexible End Cap - 30
	TFR-EC-040	TufDuct Flexible End Cap - 40
	TFR-EC-050	TufDuct Flexible End Cap - 50
	TFR-EC-065	TufDuct Flexible End Cap - 65
	TFR-EC-080	TufDuct Flexible End Cap - 80
	TFR-EC-100	TufDuct Flexible End Cap - 100
	TFR-EC-125	TufDuct Flexible End Cap - 125
	TFR-EC-150	TufDuct Flexible End Cap - 150
	TFR-EC-200	TufDuct Flexible End Cap - 200
Flexible Round Straight Joiner	TFR-SJ-030	TufDuct Straight Joiner - 030
	TFR-SJ-040	TufDuct Straight Joiner - 040
	TFR-SJ-050	TufDuct Straight Joiner - 050
	TFR-SJ-065	TufDuct Straight Joiner - 065
	TFR-SJ-080	TufDuct Straight Joiner - 080
	TFR-SJ-100	TufDuct Straight Joiner - 100
	TFR-SJ-125	TufDuct Straight Joiner - 125
	TFR-SJ-150	TufDuct Straight Joiner - 150
	TFR-SJ-200	TufDuct Straight Joiner - 200
Flexible Round Uni Connector	TFR-UC-030	TufDuct Uni Connector - 030
	TFR-UC-040	TufDuct Uni Connector - 040
	TFR-UC-050	TufDuct Uni Connector - 050
	TFR-UC-065	TufDuct Uni Connector - 065
	TFR-UC-080	TufDuct Uni Connector - 080
	TFR-UC-100	TufDuct Uni Connector - 100
	TFR-UC-125	TufDuct Uni Connector - 125
	TFR-UC-150	TufDuct Uni Connector - 150