

NEW EQUIPMENT AND SYSTEM APPROVAL CERTIFICATE

Certificate No. NESA-S001

Approval date 17 / 12 / 2018
 Approved by GM Technical Standards
 Report no. NESA-S001
 Report date 16/11/2018

This certificate is issued to

Supplier CUBIS Systems
 13 Dunn Road
 Smeaton Grange
 New South Wales 2547

In respect of

Manufacturer CUBIS Systems
 Product description STAKKA BOX - Class B rated modular pits and lids.
 Item identification Refer to Approved Item List.
 Application ARTC Network Wide
 Relevant Standards ESC-11-01 Construction of Cable Route and Associated Civil Works
 SCP 21 Construction of Cable Route and Associated Civil Works (NSW)
 AS3996 Access Covers and Grates

Condition of Approval:

General	<ol style="list-style-type: none"> 1. Only items listed in Approved Item list shall be utilized. 2. For use in accordance with ARTC signals construction standards only. 3. Products to remain compliant to relevant Australian Standards with respect to material used, manufacturing process, design and construction of pits. 4. STAKKA BOX - Class B rated modular cable pit and lid shall only be used in the non-trafficable locations protected with bollards.
Supplier / Manufacturer	<ol style="list-style-type: none"> 5. 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 AS19011. 6. 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, function or processes required for correct usage so that this approval can be revised or reviewed. 7. All documentation and manuals from the supplier shall be in English. The Supplier shall advise of any updates to the documents.

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	<p>8. The unit must be fitted with a readily visible label stating the manufacturer's product identification label.</p>
<p>Design / Installation / Maintenance</p>	<p>9. Cable pits shall not be located within 3m from the nearest rail of any track. Cable pits shall be installed within the ARTC rail corridor.</p> <p>10. Only Concrete Class D rated pits shall be used within 3m from the nearest rail of any track.</p> <p>11. Cable pits shall not be installed in access roads, or where the pits protected with bollards become obstacle to access road users, or create unsafe road condition for the access road users.</p> <p>12. Cable pits installed for accessing location cases/equipment must be installed adjacent to (or) within 5000mm of the location case/equipment.</p> <p>13. Cable pits shall be installed where required to assist in the hauling of the cables or change of direction of any conduit or duct or cable run.</p> <p>14. Long axis of the cable pit must coincide with the main cable route alignment.</p> <p>15. Cable pit size shall be selected according to the number, size and minimum bending radius (recommended by the manufacturer) of the cable required to pass through them.</p> <p>16. Provide a minimum of 100mm of compacted crushed rock underneath the cable pits to permit adequate drainage. Seal the bottoms of the open base cable pits with a medium strength mortar mix (32MPa concrete mix) to a depth of 75mm.</p> <p>17. Provide a 90mm diameter conduit stub in the bottom of the cable pits for drainage purposes.</p> <p>18. Conduit /duct shall enter cable pit and protrude a minimum of 50mm and a maximum of 100mm into cable pit at the nominal depth as specified by ARTC standards ESC-11-01.</p> <p>19. Conduit /duct shall enter and exit through the cable pit walls via a neatly drilled hole of suitable diameter to accept the sized Conduit /duct.</p> <p>20. Conduit /duct entry shall not be formed on the bottom layer (or) top 2 layers of the Stakka Box cable pit.</p> <p>21. Conduit /duct entry shall not be cut within 50mm from the corner of the cable pit.</p> <p>22. The distance between the conduit /duct entries shall be minimum of half the conduit /duct diameter from edge to edge or as per regulatory requirements.</p> <p>23. The accumulative diameter of all the conduit /duct entries shall not constitute more than 20% of the side wall area.</p> <p>24. Seal the holes around the conduit /duct after installation using the silicon sealant or medium strength mortar mix.</p> <p>25. Cable pit lid shall flush with the surrounding ground level after backfilling and compaction.</p> <p>26. Cable pit and lid shall be protected with bollards. Bollards installed shall meet ARTC standard ESC-11-01.</p> <p>27. Cable pit in excess of 750mm deep shall have rungs installed as per ARTC standard ESC-11-01 (or) Cable pit in excess of 750mm deep shall have a galvanized steel ladder fixed securely to the wall at the top and the bottom</p>

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	<p>of the ladder. Supplier to provide installation details to comply with ARTC standard ESC-11-01 and AS1657.</p> <p>28. Excavation, backfilling and compaction shall be carried out as per ARTC standard ESC-11-01 and suppliers installation guideline.</p> <p>29. Lid frame to be screwed to top of fortress ring using 4 x tek screws.</p> <p>30. Pit lids to be locked using ARTC approved padlocks.</p> <p>31. Follow the manufacturer product safety datasheet during transport, storage, installation, maintenance and recycling.</p>
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Note/Comments

NIL.

Issue date 17/12/2018

**Expiry
date**

Issued by



John Furness

ARTC Manager Standards

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Approved Item

STAKKABOX FORTRESS SECTIONS			
Description	Part Number	Dimension	QTY
STAKKABOX FORTRESS 610XD150	620660	610 X 150	16 QTY Required for 610x610x600mm deep pit Min Depth = 600mm Max Depth of pit = 750mm
STAKKABOX FORTRESS 915XD150	620990	915 X 150	24 QTY Required for 915x915x900mm deep pit Min Depth = 600mm Max Depth of pit = 1200mm
STAKKABOX FORTRESS 1220XD150	620120	1220 X 150	32 QTY Required for 1220x1220x1200mm deep pit Maximum depth of pit = 1200mm

Note:

[1]. 4 qty of STAKKABOX FORTRESS parts required per 150mm pit layer.

Cover and Frame Sets			
Description	Part Number	Dimension	Condition of Use
600X600 FORTRESS COV AND FRAME SET CLASS B	620600	600 X 600	Only applicable where vehicular traffic is prevented. Shall require bollards to protect the lids and pits. Areas where there may be vehicular traffic access shall use Concrete pits and lids rated for class D
900X900 FORTRESS COV AND FRAME SET CLASS B	620900	900 X 900	
1200X1200 FORTRESS COV AND FRAME SET CLASS B	620122	1200 X 1200	
Fortress Access Ladder & Bracket Kit	RC5003	Custom-made to specific pit depth.	