

MIAMI-DADE COUNTY
DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS (DTPW)

ADDENDUM NO. 1
September 1, 2023

PROJECT: Metrorail Public Address System Replacement

RPQ No: TP-0000008807
MCC 7360 Plan - CICC 7360-0/08

BID DUE DATE: September 20, 2023; 02:00 P.M. **Revised**

FROM: Miami-Dade County DTPW
Capital Improvements Division
111 NW First Street, 14th Floor
Miami, FL 33128
305.375.2930

TO: Prospective Bidders and Interested Parties

This Addendum forms part of the project solicitation documents and will be incorporated into the Contract Documents, as applicable. Insofar as the Original Contract Documents, Drawings and Specifications are inconsistent, this Addendum shall govern. Please acknowledge receipt of this Addendum, at the time of bid submittal to Miami-Dade County, in the space provided on the "Acknowledgement of Addenda Form" provided with the project solicitation documents. Failure to acknowledge receipt of all addenda may be cause for disqualification.

CHANGES TO INVITATION TO BID:

A. As to the Scope of Work:

Item No. 4 – Delete any reference to "Digital Display Control," Item No. 4 should read as follows:

4. Interface Digital Mixers with Station Control Units (SCUs) (existing) –manage station paging.

B. Change Bid Due Date from Wednesday, September 6, 2023, to Wednesday, September 20, 2023. Time, and place remains unchanged.

CHANGES TO SPECIFICATIONS:

A. As to the Special Provision – Appendix A; – Summary of Work, Introduction, Item 1.,4.:

- a. Delete: 4. Interface Digital Mixers with Station Control Units (SCUs) (existing) – manage station paging and Digital Display control.
- b. And Replace with: 4. Interface Digital Mixers with Station Control Units (SCUs) (existing) – manage station paging.

Any reference in the contract documents to "Digital Display Control," to be ignored.

B. As to the Special Provision – Appendix A; – Summary of Work, 8.1.2. Material List, Inside Table, Column titled: "Communications Room Microphones."

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- a. Delete: Make: SHURE, Model: 514B U, and replace with: Specifications with Astatic, omnidirectional Dynamic Microphone, Model 611L, attached under this addendum.

- C. As to the Special Provision –” Summary of Work 13.1 - Regarding the Eaton Enclosure: Replace Eaton enclosures with Great lakes enclosures. Specifications are attached under this addendum. The following additional items are to be taking into considerations:
 - a. The cabinets will need to be 42U to 44 RU high to give enough room at the top for cable routing. This is station dependent.
 - b. Cabinet depth shall be 32 inches.
 - c. The enclosures will also need to have the top and bottom plates to fully enclose the equipment that will be housed in the enclosure.
 - d. Cable glans for cable entries and exits shall be the only permissible perforations in the enclosure.
 - e. The PDU can be factory installed.
 - f. All cabinets shall be provided with Horizontal and vertical cable management.
 - g. All required bonding and grounding requirements shall be per applicable NEC guidelines.
 - h. All cable entries and or exits shall be by means of the appropriate cable glans.
 - i. Enclosure PDUs shall be fed by the UPS panel in the Train Control and Communications room.

- D. As to the Special Provision – Add Specifications sheet for Ceiling Loudspeakers IC-500-T-SC by Klipsch.

- E. As to the Special Provision – page 32 of 66 of APPENDIX A, replace Number 22 Northside with Santa Clara. The table should now read as follows:

1 Government Center	2 Overtown
3 University Station	4 Dadeland South
5 Dadeland North	6 South Miami
7 Brownsville	8 Northside
9 Palmetto	10 Okeechobee
11 Martin Luther King	12 Earlington Heights
13 Allapattah	14 Tri Rail
15 Coconut Grove	16 Douglas Road
17 Brickell	18 Vizcaya
19 Civic Center	20 Culmer
21 Hialeah	22 Santa Clara

MIAMI-DADE COUNTY
DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS (DTPW)

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September 1, 2023

END OF ADDENDUM NO. 1



Alfredo E. Muñoz, P.E.
Chief, Capital Improvements Division
Department of Transportation and Public Works (DTPW)

AM:mm

cc: Katherine Fernandez, DTPW
Colin Armorer, DTPW
Eric Perez, ISD

Marco Movilla, DTPW
Fletcher Winston, DTPW
Project File

Laurie Johnson, ISD
Harry Francillon, DTPW
Clerk of the Board

**METRORAIL PUBLIC ADDRESS
SYSTEM REPLACEMENT**

RPQ NO. TP-000008807

ADDENDUM NO.1

ATTACHMENTS

**CHANGES SPECIFICATIONS
TO:**

**ASTATIC OMNIDIRECTIONAL DYNAMIC
MICROPHONE, MODEL 611L**



Commercial Audio Products

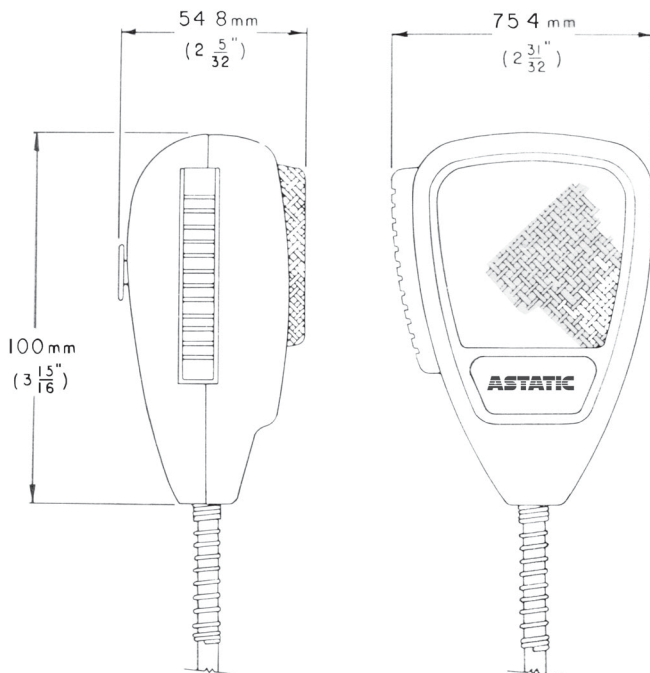
611L

OMNIDIRECTIONAL
DYNAMIC MICROPHONE

Description

The Astatic Model 611L is an omnidirectional, dynamic microphone designed for hand held applications in quality sound installations. The frequency response, especially tailored for voice communications, provides a crisp, clear, highly intelligible sound. The Model 611L, with modern "tear drop" styling, offers extreme reliability, convenient handling, rugged construction and high performance for years of dependable service.

The dynamic cartridge has a rugged polyester diaphragm which resists moisture, temperature extremes, most acids, alkalis and solvents. Molded in high impact Cynolac, the Model 611L comes with a permanently attached, heavy duty, four conductor, two shielded, coil cord. The 611L has a simple to operate 2PDT long life, trouble free switch. The Model 611L has a low impedance output and is factory wired normally open. The Model 611L may be rewired in the field if a line shorting function is desired.



APPLICATIONS

The Astatic Model 611L, because of its' professional sound and rugged construction, is an excellent choice for any application requiring a hand held, microphone for public address in industrial and general applications, such as factories, airports, lobbies, restaurants, warehouses, etc. and for two-way communications in taxicabs, buses, construction, police and fire vehicles, etc.

SPECIFICATIONS FOR 611L



Specifications

Element:

Dynamic

Pattern:

Omnidirectional

Frequency Response:

100 to 7500 Hz

Output Level:

-58 dB (0 dB = 1mw / 10 microbars)

-76 dB (0 dB = 1 volt / microbar)

1.6 mV/PA

Impedance:

400 ohms, matches 150 to 1000 ohms

Cable:

Four conductor, two shielded, permanently attached, heavy duty, neoprene jacketed coil cord that extends to 1.8m (6 ft.)

Switch:

Operated by press-to-talk lever, 2PDT long life, trouble free switch with spring return, has smooth feel. Wired normally open

Housing:

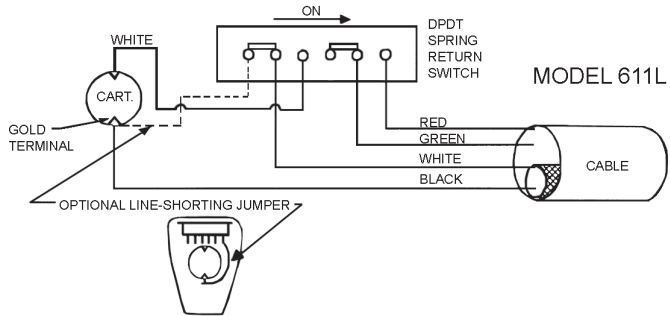
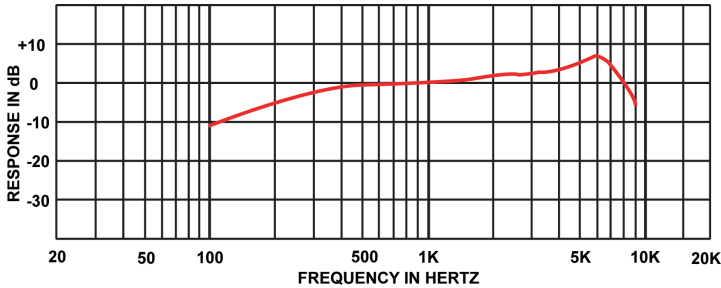
Durable molded black Cycolac

Dimensions:

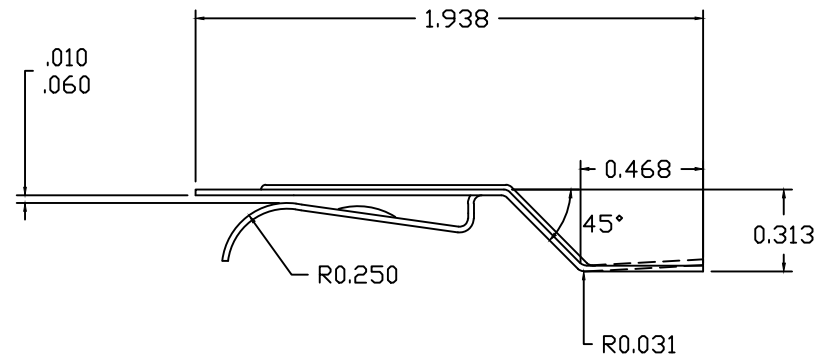
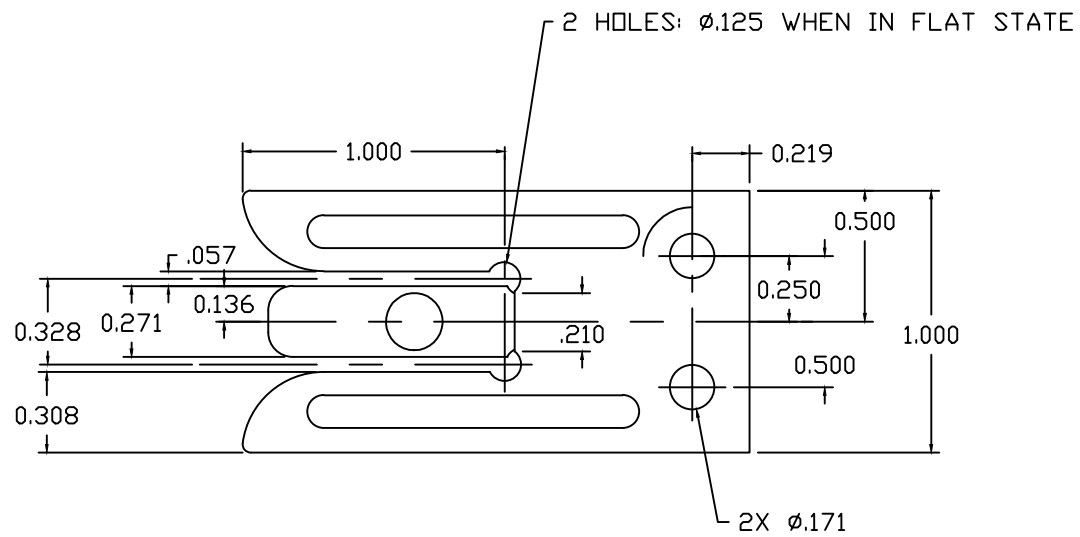
100mm (3-15/16") high x 75.4mm (2-3/32) wide x 54.8mm (2-5/32") deep

Weight:

227 grams (8 oz.)



40-315 mic clip



**METRORAIL PUBLIC ADDRESS
SYSTEM REPLACEMENT**

RPQ NO. TP-000008807

ADDENDUM NO.1

SPECIAL PROVISION

**ADD SPECIFICATIONS SHEET
FOR:**

**CEILING LOUDSPEAKERS
IC-500-T-SC by
KLIPSCH**

IC-500-T-SC

SHALLOW DEPTH 5" 2-WAY IN-CEILING LOUDSPEAKER



Klipsch®

KLIPSCH PROFESSIONAL | DISTRIBUTED AUDIO | DATA SHEET



LISTED

UL-1480
UL-2043

PRODUCT OVERVIEW

At just over 4" deep, the all-new IC-500-T-SC packs proven materials and wide dispersion horn technology into an installer-friendly, UL-2043 and UL-1480 certified in-ceiling loudspeaker with an integrated backcan and multi-tap transformer.

The two-way IC-500-T-SC features a 5" woofer, and a 1" titanium diaphragm compression driver on a 2" round Tractrix® horn for smooth response with constant directivity. A Tractrix port design helps to provide deeper, fuller bass with less compression and distortion.

For distributed line application, the IC-500-T-SC features a 15 watt, 70/100 volt multi-tap transformer. A single rotary switch for the 8-ohm bypass and multi-tap setting is conveniently located under the speaker grille. The IC-500-T-SC is shipped complete with a tile-bridge for installation in a suspended ceiling or wherever additional reinforcement of the ceiling material is required.

FEATURES

- Shallow 4.125" depth
- Includes 15 watt 70/100 volt multi-tap transformer
- 70V, 100V, or 8 ohm operation selectable via front baffle switch.
- Tractrix port design for deep bass with less compression
- Tractrix horn tweeter for smooth on and off axis performance
- Designed to mix and match with Klipsch CA speakers
- Includes grille, backcan, tile-bridge, and cut-out template for easy installation

APPLICATIONS

- Restaurants
- Retail Stores
- Offices
- Airports
- Schools
- Health Clubs

SPECIFICATIONS

FREQUENCY RESPONSE¹ (+/- 4 dB)	95 Hz - 20 kHz
POWER HANDLING²	50 watts (14.5V) 200 watts peak
MAXIMUM SPL³	101 dB Continuous 107 dB Peak
SENSITIVITY⁴	87 dB
COVERAGE ANGLE	80°
DIRECTIVITY INDEX (DI)	8 dB
DIRECTIVITY FACTOR (Q)	6.3
NOMINAL IMPEDANCE (IN 8 OHM BYPASS MODE)	8 ohms 4.2 ohm minimum
COMPONENTS	One 5" (12.7cm) woofer 1" (2.54cm) Titanium diaphragm compression driver
INPUT CONNECTION	Terminal Strip
TAP SETTINGS	70V: 15w, 7.5w, 3.8w, 1.9w 100V: 15w, 7.5w, 3.8w
ENCLOSURE TYPE	Bass-reflex via Tractrix port
SAFETY AGENCY RATING	UL-1480, UL-2043
WIRE GAUGE ACCOMMODATED	14 AWG
CUTOUT DIMENSIONS	9.125" (23.2cm) diameter
MOUNTING DEPTH	4.125" (10.5cm)
OVERALL DEPTH	4.375" (11.1cm)
OVERALL WIDTH	10.75" (27.3cm) diameter
THRU HOLE WIDTH	9" (22.8cm)
WEIGHT	5.5 lbs. (2.5kg)
FINISHES	White/Paintable
ACCESSORIES	Mud Ring Kit (PN: 1010413)

ALSO AVAILABLE MUD RING KIT



¹ 3M, Half-spaced anechoic

² AES standard, continuous pink noise 50 Hz - 10 kHz, 6dB peaks

³ Calculated at 1M at power handling power input, 8 ohm mode

⁴ SPL at 1M, Half-spaced anechoic with 2.83V input

**METRORAIL PUBLIC ADDRESS
SYSTEM REPLACEMENT**

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ADDENDUM NO.1

SPECIAL PROVISIONS

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**(ATTACHMENTS FOR)
GREAT LAKES ENCLOSURES**

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Capri ADE cable glands - specification features.....	2.4
Ex flameproof cable glands for non-armoured cable:	
ADE-1F2	2.6
ADE-1F2 DS (double seal)	2.8
ADE-1F2 A (integrated clamping)	2.10
ADE-1F2 O-ring (integrated O-ring).....	2.12
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1F2 ADCC for flexible and rigid conduit.....	2.14
1F2 ADCS for rigid conduit	2.16
Ex flameproof cable glands with compound for non-armoured cable:	
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ADE Accessories	2.29
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NEWCAP MS-e.....	2.32
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Ex increased safety cable glands for non-armoured cable:	
CEAG GHG Ex e black	2.34
CEAG GHG Ex e blue.....	2.35
Trumpet Ex e	2.36
North American certified cable glands:	
Terminator™ II TMCX	2.38
Accessories for Terminator™ II TMCX	2.40
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INTRODUCTION












HAZARDOUS AREA CABLE GLANDS

HAZARDOUS AREA ACCESSORIES





INDUSTRIAL CABLE GLANDS AND ACCESSORIES

TECHNICAL GUIDE

Selection guide for cable glands for hazardous areas





Non-armoured cable glands	Cable type	Material options	Key points	
ADE-1F2 cable gland page 2.6		<ul style="list-style-type: none"> • Non-armoured • Marine shipboard cable • Tray cable • Type P 	<ul style="list-style-type: none"> • Nickel-plated brass • Option: Stainless steel Aluminum Bronze 	<ul style="list-style-type: none"> • Ex d / Ex e • UL / cULus • IP66 / IP68 • -60°C to +140°C • Metric / NPT
ADE-1F2 DS cable gland page 2.8		<ul style="list-style-type: none"> • Non-armoured • Marine shipboard cable • Tray cable • Type P 	<ul style="list-style-type: none"> • Nickel-plated brass • Option: Stainless steel Aluminum Bronze 	<ul style="list-style-type: none"> • Ex d / Ex e • UL / cULus • IP66 / IP68 • -60°C to +140°C • Metric / NPT
ADE-1F2 A Clamping cable gland page 2.10		<ul style="list-style-type: none"> • Non-armoured • Marine shipboard cable • Tray cable • Type P 	<ul style="list-style-type: none"> • Nickel-plated brass • Option: Stainless steel Aluminum Bronze 	<ul style="list-style-type: none"> • Ex d / Ex e • UL / cULus • IP66 / IP68 • -60°C to +140°C • Metric / NPT • Integrated clamp
ADE-1F2 O-Ring cable gland page 2.12		<ul style="list-style-type: none"> • Non-armoured • Marine shipboard cable • Tray cable • Type P 	<ul style="list-style-type: none"> • Nickel-plated brass • Option: Stainless steel 	<ul style="list-style-type: none"> • Ex d / Ex e • UL / cULus • IP66 / IP68 • -60°C to +140°C • Metric • Integrated O-ring
1F2 ADCC conduit gland page 2.14		<ul style="list-style-type: none"> • Non-armoured cable in flexible conduit • Non-armoured cable in rigid conduit 	<ul style="list-style-type: none"> • Nickel-plated brass • Option: Stainless steel 	<ul style="list-style-type: none"> • Ex d / Ex e • IP66 / IP68 • -60°C to +140°C • Metric / NPT / BSPP
1F2 ADCS conduit gland page 2.16		<ul style="list-style-type: none"> • Non-armoured cable in rigid conduit 	<ul style="list-style-type: none"> • Nickel-plated brass • Option: Stainless steel 	<ul style="list-style-type: none"> • Ex d / Ex e • IP66 / IP68 • -60°C to +140°C • Metric / NPT / BSPP • Swivel function
ADE-1FC cable gland page 2.18		<ul style="list-style-type: none"> • Non-armoured • Marine shipboard cable • Tray cable • Type P 	<ul style="list-style-type: none"> • Nickel-plated brass • Option: Stainless steel Bronze 	<ul style="list-style-type: none"> • Ex d / Ex e • UL / cULus • IP66 / IP68 • -60°C to +80°C • Metric / NPT • Deluge seal
NEWCAP MS-e page 2.32		<ul style="list-style-type: none"> • Non-armoured • Braided cable 	<ul style="list-style-type: none"> • Nickel-plated brass • Option: Stainless steel 	<ul style="list-style-type: none"> • Ex e • IP66 / IP68 • -20°C to +80°C
NEWCAP CT-e page 2.33		<ul style="list-style-type: none"> • Non-armoured • Braided cable • For EMC specific cable and application 	<ul style="list-style-type: none"> • Nickel-plated brass • Option: Stainless steel 	<ul style="list-style-type: none"> • Ex e • IP66 / IP68 • -20°C to +80°C
CEAG GHG Ex e Blue / Black page 2.34/2.35		<ul style="list-style-type: none"> • Non-armoured 	<ul style="list-style-type: none"> • Nylon 	<ul style="list-style-type: none"> • Ex e • -20°C to +70°C • Integrated sealing lip
TRUMPET page 2.36		<ul style="list-style-type: none"> • Non-armoured 	<ul style="list-style-type: none"> • Nylon 	<ul style="list-style-type: none"> • Ex e • -40°C to +85°C

Selection guide for cable glands for hazardous areas

Armoured cable glands	Cable type	Material options	Key points	
ADE-4F page 2.20		<ul style="list-style-type: none"> SWA / SWB / STA Braided marine shipboard Lead sheathed (with washer) Type P 	<ul style="list-style-type: none"> Nickel-plated brass Option: Stainless steel Aluminum Bronze 	<ul style="list-style-type: none"> Ex d / Ex e UL / cULus IP66 / IP68 -60°C to +140°C Metric / NPT
ADE-5F page 2.22		<ul style="list-style-type: none"> SWA / SWB / STA Braided marine shipboard Lead sheathed (with washer) Type P 	<ul style="list-style-type: none"> Nickel-plated brass Option: Stainless steel Aluminum Bronze 	<ul style="list-style-type: none"> Ex d / Ex e UL / cULus IP66 / IP68 -60°C to +140°C Metric / NPT Deluge seal option
ADE-6F page 2.24		<ul style="list-style-type: none"> SWA / SWB / STA Braided marine shipboard Type P 	<ul style="list-style-type: none"> Nickel-plated brass Option: Stainless steel Aluminum Bronze 	<ul style="list-style-type: none"> Ex d / Ex e UL / cULus IP66 / IP68 -60°C to +80°C Metric / NPT Deluge seal
ADE-6FC page 2.26		<ul style="list-style-type: none"> SWA / SWB / STA Braided marine shipboard Type P Tray cable 	<ul style="list-style-type: none"> Nickel-plated brass Option: Stainless steel Bronze 	<ul style="list-style-type: none"> Ex d / Ex e UL / cULus IP66 / IP68 -60°C to +80°C Metric / NPT Deluge seal

INTRODUCTION

HAZARDOUS AREA CABLE GLANDS

North American cable glands	Cable type	Material options	Key points
TMCX II Armoured barrier gland page 2.38		<ul style="list-style-type: none"> Aluminum Option: Nickel-plated brass Stainless steel 	<ul style="list-style-type: none"> cULus NEMA 6P / 4X -40°C to +60°C NPT / Metric Cold Shrink™ kit available
TMCX Armoured barrier gland page 2.41		<ul style="list-style-type: none"> Aluminum Option: Nickel-plated brass 	<ul style="list-style-type: none"> UL / CSA NEMA 4 / IP56 -25°C to +60°C NPT Cold Shrink™ kit available
TMC armoured gland page 2.42		<ul style="list-style-type: none"> Aluminum 	<ul style="list-style-type: none"> UL / CSA NEMA 4 / IP56 -25°C to +60°C NPT
TECK armoured gland page 2.43		<ul style="list-style-type: none"> Aluminum Option: Steel Stainless steel PVC coated aluminium 	<ul style="list-style-type: none"> CSA IP56 -25°C to +60°C NPT Cold Shrink™ kit available

HAZARDOUS AREA ACCESSORIES

INDUSTRIAL CABLE GLANDS AND ACCESSORIES

TECHNICAL GUIDE

Capri ADE cable glands - specification features

Material specification

Metallic components

The Capri ADE range of cable glands are available in four different material types:

- Nickel-plated brass
- 316L stainless steel
- Aluminum
- Bronze

Nickel-plated brass

Nickel-plated brass is used extensively throughout the oil and gas and petrochemical industries because it provides superior protection against corrosion and contamination under severe conditions and in the most extreme environments over equivalent natural brass products.

All nickel-plated brass components, both external and internal, are designed specifically to allow for a nickel-plated coating between 5 to 7 microns that ensures the critical tolerances can be maintained. The design tolerance of the components and the quality control of the plating process ensure a uniform coating which protects against the possibility of chipping, flaking, and peeling under extreme conditions.

Seal material

The seal material of the ADE range has been carefully formulated to achieve the optimized performance across a wide range of operating temperature conditions.

- Silicone - for extended temperature performance



Operating temperature range

The ADE models are suitable for the following operating temperatures:

Silicone seals -60°C to +140°C

Barrier compound -60°C to +80°C

Refer to individual product data sheets for specifications.



Cable clamping technology

Fig. 1 - External cable clamping

All ADE models are designed to accommodate an external clamping module which provides additional mechanical strength for strain relief.

Fig. 2 - Outer sheath cable sealing

All ADE models utilize a gland specific seal design (Fig.8), which, combined with the material formulation, ensures suitable sealing and ingress protection on the outer cable sheath.

Fig. 3 and 4 - Inner sheath cable sealing

The ADE-4F and ADE-5F utilize the same proven seal design as for the outer sheath (Fig.8), while the ADE-6F utilizes a diaphragm design seal to achieve the desired flame-path protection.

Fig. 5 and 6 - Universal clamping - armoured cable

The ADE-4F, ADE-5F and ADE-6F models all offer universal designs for all types of armoured cable. These include:

- Steel wire armoured (SWA) cable
- Steel tape armoured (STA) cable
- Steel wire braided (SWB) cable
- Braided marine shipboard cable
- Lead sheath armoured cable
- Type P cable

All designs achieve clamping and earth bonding of the armour for all armour types with no reversible components.

Fig. 7 - Lead sheath armour cable

The ADE-4F and ADE-5F ranges are suitable for lead sheath armoured cable with the addition of a simple washer.

Fig. 8 - Specially formulated elastomer seal

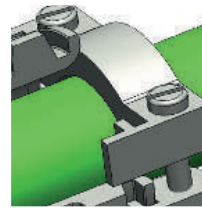


Fig.1

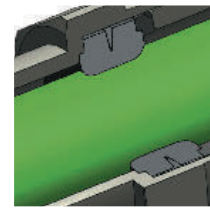


Fig.2

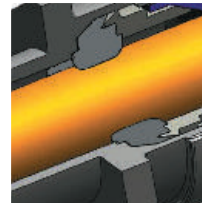


Fig.3



Fig.4

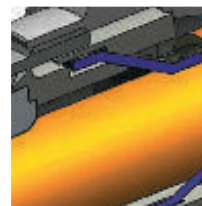


Fig.5

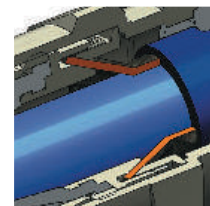


Fig.6



Fig.7



Fig.8

Ingress protection (IP)

IP rating

All ADE models incorporate an elastomeric dust cap to prevent dust and solid ingress prior to installation. Ingress protection is achieved by the following:

Metric threads: fitted on equipment with a flat surface, on threaded hole, or on blank hole ("d" use excluded) fixed by a qualified locknut with all threads engaged:

- IP64, IP66 without sealing washer and surface finish of Ra 0.4µm or on threaded hole and surface finish of Ra 1.6µm max.
- IP64, IP66 with all sealing washers (red fibre, green fibre, on or PTFE) on surface Ra 6.3µm max.
- IP68 tested 30m/7days with red fibre or green fibre sealing washers

NPT threads: IP64, 66 and IP68 tested 30m/7days; HTL lubricant may be needed. For details, please refer to cable glands installation guide page 5.12.

Deluge protection

All ADE models comply and are compliant with DTS-01 deluge certification.

The ADE-6F incorporates an additional deluge boot seal for enhanced deluge protection in marine / offshore environments.

An optional deluge seal is also available for larger sizes of the ADE-5F.

ADE-1F2 - for non-armoured cable

Hazardous area cable glands



Suitable for the following cable types:

- Non-armoured cable
- Marine shipboard cable; Type P cable
- Tray cable: TC

Provides 25% of cable clamping. As per IEC60079 § A.2.3.2 for group II or III cable glands, "without a clamping device, additional clamping of the cable is needed to ensure that pulling & twisting is not transmitted to the terminations". We recommend using the certified ADE clamping module (page 2.29).

Certifications and compliances

• ATEX No. INERIS 12ATEX0032X

Zones 1 and 2, Groups IIA, IIB and IIC
 Zones 21 and 22, Groups IIIA, IIIB and IIIC
 ⚠ II2GD / Ex db IIC / Ex eb IIC / Ex tb IIIC
 ⚠ II3G Ex nRc IIC

• IECEx No. IECEx INE 12.0025X

Zones 1 and 2, Groups IIA, IIB and IIC
 Zones 21 and 22, Groups IIIA, IIIB and IIIC
 Ex db IIC / Ex eb IIC / Ex nRc IIC / Ex tb IIIC

• UL: 3DJN E310130 Class I Zone 1*, AEx e II

⚠ ADE size 3 to 8, NPT 1/2" to 1 1/4" or ISO 20 to 40 with non-armoured cable TC-ER-HL up to 1" diameter

• UL: 3DJN E310130 Class I Zone 2*, AEx e II, Ex e II

⚠ ADE size 3 to 17, NPT 1/2" to 4" or ISO 20 to 110 with non-armoured cable ITC, MV, PLTC, TC-ER, TC-ER-HL, TC

• UL: 3LRC E314047 Class I Zone 2*, AEx e II, Ex e II

⚠ ADE size 3 to 17, NPT 1/2" to 4" or ISO 20 to 110 with non-armoured marine cable

* Can be used in Div.2 provided that the enclosure contains no components that produce arcs or sparks.



Other certificates:

CEPEL: 05.0558X
CCoE: P360379-1
KOSHA: 2015-BO-0249 to 0256
NANIO: TC-RU C-FR.ГБ05.B.00858
NEPSI: GYJ13.1082X
SABS: MS/15-0314X

Shipping applications:

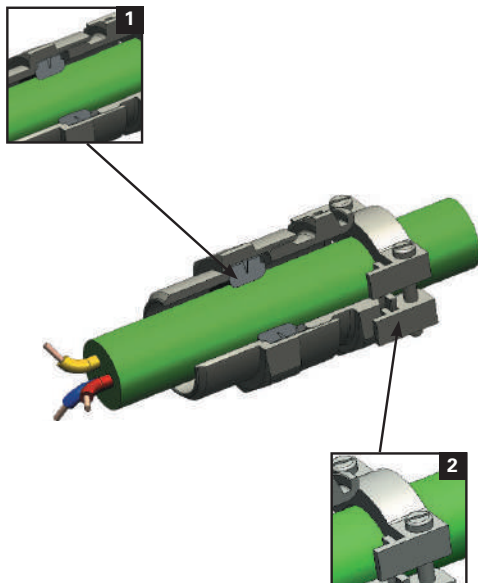
ABS: 14-HS1274083-PDA
BV: 40910/A0 BV
DNV: TAE000010X
Lloyds: 11/00072
DTS-01:1991

Technical specification

- Nickel-plated brass for superior corrosion resistance. 316L stainless steel, bronze and aluminium options available. It is recommended that a suitable lubricant is used on all threads of stainless steel and aluminium versions.
- Temperature range: -60 °C to +140 °C
- IP66 / IP68 according to the method of attachment and the condition of the equipment area, see page 2.5

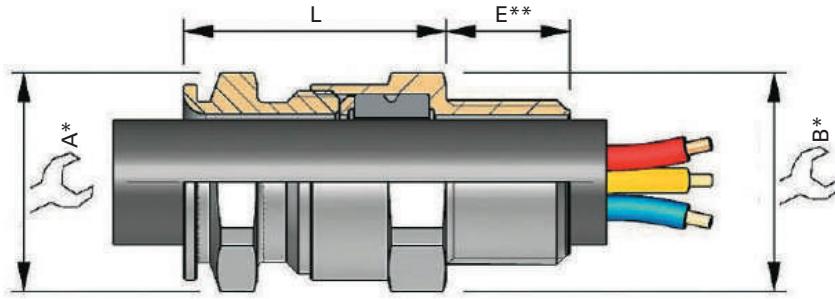
Features and benefits

- 1: Specifically formulated elastomer for IP sealing on outer sheath of cable
- 2: Additional external cable clamping for strain relief (optional).



ADE-1F2 - for non-armoured cable

Hazardous area cable glands



* For 'across corners' dimensions, multiply 'across flats' dimensions by 1.1

** For 'E' see thread dimension page 5.18

SERIES	THREAD SIZE	CABLE SEALING RANGE	MATERIAL	OPTION
ADE1	M25	3	NPN	

0 = XS
1 = S
2 = M
3 = L

CODES

K1	Accessories kit 1
K2	Accessories kit 2
K3	Accessories kit 3
BLANK	No option

NPN	Nickel-plated brass
SSN	Stainless steel
BZN	Bronze
ALN	Aluminium (not Group I)

KIT OPTIONS

K1	Kit 1 contents:
	• Locknut
	• Green composite washer
K2	Kit 2 contents:
	• Locknut
	• Green composite washer
	• Earth tag
	• Shroud
K3	Kit 3 contents:
	• Locknut
	• Green composite washer
	• Earth tag
	• Serrated washer

Ordering codes

SERIES	THREAD SIZE (ISO)	THREAD SIZE CODE (ISO)	THREAD SIZE (NPT)	THREAD SIZE CODE (NPT)	CABLE SEALING RANGE	CABLE SEALING RANGE ISO (NPT)			ADE GLAND SIZE	CATALOG NUMBER (ISO)	CATALOG NUMBER (NPT)	
						OUTER SHEATH MIN - MAX	A	B				L
ADE1	12*	M12	1/4**	N025	3	4.5 - 8.0	17	17	25.0	4	ADE1M123NPN	ADE1N0253NPN
ADE1	16*	M16	3/8**	N038	2	4.5 - 8.5	17	19	25.0	4	ADE1M162NPN	ADE1N0382NPN
ADE1	16*	M16	3/8**	N038	3	7.0 - 12.0	19	19	27.5	5	ADE1M163NPN	ADE1N0383NPN
ADE1	20	M20	1/2*	N050	0	2.8 - 5.5	15	24	24.0	3	ADE1M200NPN	ADE1N0500NPN
ADE1	20	M20	1/2*	N050	1	4.5 - 8.5	17	24	25.0	4	ADE1M201NPN	ADE1N0501NPN
ADE1	20	M20	1/2*	N050	2	7.0 - 12.0	19	24	27.5	5	ADE1M202NPN	ADE1N0502NPN
ADE1	20	M20	1/2*	N050	3	10.0 - 16.0 (15.5)	24	24	32.0	6	ADE1M203NPN	ADE1N0503NPN
ADE1	25	M25	3/4*	N075	1	7.0 - 12.0	19	30	27.5	5	ADE1M251NPN	ADE1N0751NPN
ADE1	25	M25	3/4*	N075	2	10.0 - 16.0	24	30	32.0	6	ADE1M252NPN	ADE1N0752NPN
ADE1	25	M25	3/4*	N075	3	13.5 - 20.5	30	30	36.5	7	ADE1M253NPN	ADE1N0753NPN
ADE1	32	M32	1*	N100	2	13.5 - 21.0	30	36	36.5	7	ADE1M322NPN	ADE1N1002NPN
ADE1	32	M32	1*	N100	3	18.0 - 27.5 (26.0)	41	41	46.0	8	ADE1M323NPN	ADE1N1003NPN
ADE1	40	M40	1 1/4*	N125	2	18.0 - 27.5 (26.0)	48	48	50.0	8	ADE1M402NPN	ADE1N1252NPN
ADE1	40	M40	1 1/4*	N125	3	23.0 - 34.0	48	48	50.0	9	ADE1M403NPN	ADE1N1253NPN
ADE1	50	M50	1 1/2*	N150	0	23.0 - 34.0	48	55	49.7	9	ADE1M500NPN	ADE1N1500NPN
ADE1	50	M50	1 1/2*	N150	1	29.0 - 41.0	55	55	52.0	10	ADE1M501NPN	ADE1N1501NPN
ADE1	50	M50	2*	N200	2	35.0 - 45.0 (48.0)	64	64	56.5	11	ADE1M502NPN	ADE1N2002NPN
ADE1	63	M63	-	-	2	35.0 - 48.0	64	67	56.5	11	ADE1M632NPN	-
ADE1	63	M63	2*	N200	3	42.0 - 56.0 (53.0)	72	72	60.0	12	ADE1M633NPN	ADE1N2003NPN
ADE1	75	M75	2 1/2*	N250	3	50.0 - 65.0 (62.5)	85	85	67.5	13	ADE1M753NPN	ADE1N2503NPN
ADE1	90	M90	3*	N300	2	58.0 - 74.0	95	95	69.0	14	ADE1M902NPN	ADE1N3002NPN
ADE1	90	M90	3*	N300	3	66.0 - 83.0 (78.0)	110	110	80.0	15	ADE1M903NPN	ADE1N3003NPN
ADE1	110	M110	3 1/2*	N350	2	75.0 - 93.0 (92.0)	120	120	80.0	16	ADE1M1102NPN	ADE1N3502NPN
ADE1	110	M110	4*	N400	3	85.0 - 104.0	135	135	90.0	17	ADE1M1103NPN	ADE1N4003NPN

* Not UL certified. Above catalog numbers are for nickel-plated brass; refer to order code diagram for other options.

All dimensions in mm.

ADE-1F2 DS - for non-armoured cable

Hazardous area cable glands

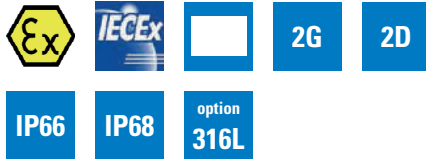


Suitable for the following cable types:

- Non-armoured cable
 - Marine shipboard cable; Type P cable
 - Tray cable: TC
- Double seal provides 100% of cable clamping.

Certifications and compliances

- **ATEX No. INERIS 12ATEX0032X**
Zones 1 and 2, Groups I, IIA, IIB and IIC
Zones 21 and 22, Groups IIIA, IIIB and IIIC
⊕ II2GD / Ex db IIC / Ex eb IIC / Ex tb IIIC
⊕ II3G Ex nRc IIC
⊕ IM2 / Ex db I / Ex eb I ; for mining applications
Brass or bronze size 8 to 17; NPT 1" to 4", ISO 32 to 110
Stainless steel size 4 to 17; NPT 3/8" to 4", ISO 16 to 110
- **IECEX No. IECEX INE 12.0025X**
Zones 1 and 2, Groups I, IIA, IIB and IIC
Zones 21 and 22, Groups IIIA, IIIB and IIIC
Ex db IIC / Ex eb IIC / Ex nRc IIC / Ex tb IIIC
Ex db I / Ex eb I ; for mining applications
Brass or bronze size 8 to 17; NPT 1" to 4", ISO 32 to 110
Stainless steel size 8 to 17; NPT 1" to 4", ISO 32 to 110



• UL: 3DJN E310130 Class I Zone 1*, AEx e II

- ⊕ ADE size 3 to 8, NPT 1/2" to 1 1/4" or ISO 20 to 40 with non-armoured cable
TC-ER-HL up to 1" diameter

• UL: 3DJN E310130 Class I Zone 2*, AEx e II, Ex e II

- ⊕ ADE size 3 to 17, NPT 1/2" to 4" or ISO 20 to 110 with non-armoured cable
ITC, MV, PLTC, TC-ER, TC-ER-HL, TC

• UL: 3LRC E314047 Class I Zone 2*, AEx e II, Ex e II

- ⊕ ADE size 3 to 17, NPT 1/2" to 4" or ISO 20 to 110 with non-armoured marine cable

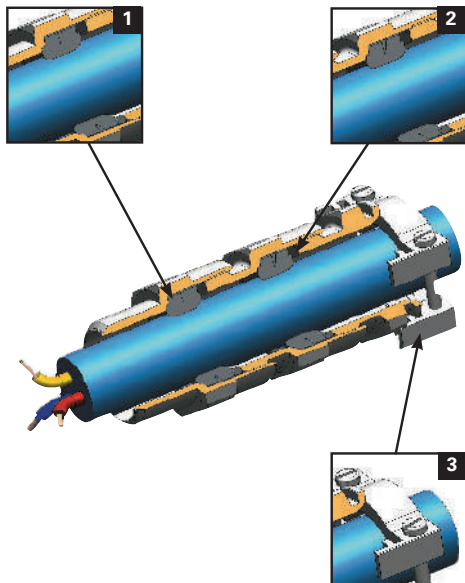
* Can be used in Div.2 provided that the enclosure contains no components that produce arcs or sparks.

Other certificates:

CEPEL 05.0558X
CCoE P360379-1
KOSHA 2015-BO-0249 to 0256
NANIO TC-RU C-FR.ГБ05.B.00858
NEPSI GYJ13.1082X
SABS MS/15-0314X

Shipping applications:

ABS 14-HS1274083-PDA
BV 40910/A0 BV
DNV TAE000010X
Lloyds 11/00072
DTS-01:1991



Technical specification

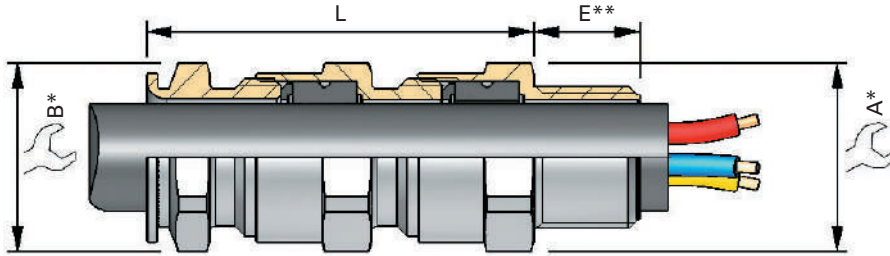
- Nickel-plated brass for superior corrosion resistance. 316L stainless steel, bronze and aluminum options available. It is recommended that a suitable lubricant is used on all threads of stainless steel and aluminum versions.
- Temperature range: -60 °C to +140 °C
- IP66 / IP68 according to the method of attachment and the condition of the equipment area, see page 2.5

Features and benefits

- 1: Flameproof and sealing on outer sheath of the cable
- 2: Environmental sealing and controlled pulling resistance on outer sheath of the cable.
- 3: Additional clamping for strain relief (optional).

ADE-1F2 DS - for non-armoured cable

Hazardous area cable glands



* For 'across corners' dimensions, multiply 'across flats' dimensions by 1.1

** For 'E' see thread dimension page 5.18

SERIES	THREAD SIZE	CABLE SEALING RANGE	MATERIAL	OPTION
ADE2	M25	3	NPN	

0 = XS
1 = S
2 = M
3 = L

CODES

K1	Accessories kit 1
K2	Accessories kit 2
K3	Accessories kit 3
BLANK	No option

NPN	Nickel-plated brass
SSN	Stainless steel
BZN	Bronze
ALN	Aluminum (not Group I)

KIT OPTIONS

K1	Kit 1 contents:
	• Locknut
	• Green composite washer
K2	Kit 2 contents:
	• Locknut
	• Green composite washer
K3	Kit 3 contents:
	• Locknut
	• Green composite washer

Ordering codes

SERIES	THREAD SIZE (ISO)	THREAD SIZE CODE (ISO)	THREAD SIZE (NPT)	THREAD SIZE CODE (NPT)	CABLE SEALING RANGE	CABLE SEALING RANGE ISO (NPT)			ADE GLAND SIZE	CATALOG NUMBER (ISO)	CATALOG NUMBER (NPT)	
						OUTER SHEATH MIN	MAX	A				
ADE2	12*	M12	-	-	3	4.5 - 8.0	17	17	42.0	4	ADE2M123NPN	-
ADE2	16*	M16	-	-	2	4.5 - 8.5	17	19	42.0	4	ADE2M162NPN	-
ADE2	16*	M16	-	-	3	7.0 - 12.0	19	19	47.0	5	ADE2M163NPN	-
ADE2	20	M20	1/2"	N050	0	2.7 - 5.5	15	24	42.0	3	ADE2M200NPN	ADE2N0500NPN
ADE2	20	M20	1/2"	N050	1	4.5 - 8.5	17	24	42.0	4	ADE2M201NPN	ADE2N0501NPN
ADE2	20	M20	1/2"	N050	2	7.0 - 12.0	19	24	47.0	5	ADE2M202NPN	ADE2N0502NPN
ADE2	20	M20	1/2"	N050	3	10.0 - 16.0 (15.5)	24	24	54.0	6	ADE2M203NPN	ADE2N0503NPN
ADE2	25	M25	3/4"	N075	1	7.0 - 12.0	19	30	47.0	5	ADE2M251NPN	ADE2N0751NPN
ADE2	25	M25	3/4"	N075	2	10.0 - 16.0	24	30	54.0	6	ADE2M252NPN	ADE2N0752NPN
ADE2	25	M25	3/4"	N075	3	13.5 - 20.5	30	30	63.0	7	ADE2M253NPN	ADE2N0753NPN
ADE2	32	M32	1"	N100	3	18.0 - 27.5 (26.0)	41	41	79.0	8	ADE2M323NPN	ADE2N1003NPN
ADE2	40	M40	1 1/4"	N125	3	23.0 - 34.0	48	48	86.0	9	ADE2M403NPN	ADE2N1253NPN
ADE2	50	M50	1 1/2"	N150	1	29.0 - 41.0	55	55	90.0	10	ADE2M501NPN	ADE2N1501NPN
ADE2	-	-	2"	N200	2	35.0 - 48.0	64	64	90.0	11	-	ADE2N2002NPN
ADE2	50	M50	-	-	2	35.0 - 45.0	64	64	99.0	11	ADE2M502NPN	-
ADE2	63	M63	2"	N200	3	42.0 - 56.0 (53.0)	72	72	106.0	12	ADE2M633NPN	ADE2N2003NPN
ADE2	75	M75	2 1/2"	N250	3	50.0 - 65.0 (62.5)	85	85	119.0	13	ADE2M753NPN	ADE2N2503NPN
ADE2	90	M90	3"	N300	2	58.0 - 74.0	95	95	123.0	14	ADE2M902NPN	ADE2N3002NPN
ADE2	90	M90	3"	N300	3	66.0 - 83.0 (78.0)	110	110	139.0	15	ADE2M903NPN	ADE2N3003NPN
ADE2	110	M110	3 1/2"	N350	2	75.0 - 93.0 (92.0)	120	120	139.0	16	ADE2M1102NPN	ADE2N3502NPN
ADE2	110	M110	4"	N400	3	85.0 - 104.0	135	135	156.0	17	ADE2M1103NPN	ADE2N4003NPN

* Not UL certified. Above catalog numbers are for nickel-plated brass; refer to order code diagram for other options.

All dimensions in mm.

ADE-1F2 A - for non-armoured cable

Hazardous area cable glands



Suitable for the following cable types:

- Non-armoured cable
- Marine shipboard cable; Type P cable
- Tray cable: TC

Integral clamping module provides 100% of cable clamping.

Certifications and compliances

• ATEX No. INERIS 12ATEX0032X

Zones 1 and 2, Groups I, IIA, IIB and IIC
Zones 21 and 22, Groups IIIA, IIIB and IIIC

⊕ II2GD / Ex db IIC / Ex eb IIC / Ex tb IIIC

⊕ II3G Ex nRc IIC

⊕ IM2 / Ex db I / Ex eb I ; for mining applications

Brass or bronze size 8 to 17; NPT 1" to 4", ISO 32 to 110

Stainless steel size 4 to 17; NPT 3/8" to 4", ISO 16 to 110

• IECEx No. IECEx INE 12.0025X

Zones 1 and 2, Groups I, IIA, IIB and IIC
Zones 21 and 22, Groups IIIA, IIIB and IIIC

Ex db IIC / Ex eb IIC / Ex nRc IIC / Ex tb IIIC

Ex db I / Ex eb I ; for mining applications

Brass or bronze size 8 to 17; NPT 1" to 4", ISO 32 to 110

Stainless steel size 8 to 17; NPT 1" to 4", ISO 32 to 110

• UL: 3DJN E310130 Class I Zone 1*, AEx e II

⊕ ADE size 3 to 8, NPT 1/2" to 1 1/4" or ISO 20 to 40 with non-armoured cable
TC-ER-HL up to 1" diameter

• UL: 3DJN E310130 Class I Zone 2*, AEx e II, Ex e II

⊕ ADE size 3 to 17, NPT 1/2" to 4" or ISO 20 to 110 with non-armoured cable
ITC, MV, PLTC, TC-ER, TC-ER-HL, TC

• UL: 3LRC E314047 Class I Zone 2*, AEx e II, Ex e II

⊕ ADE size 3 to 17, NPT 1/2" to 4" or ISO 20 to 110 with non-armoured marine cable

*Can be used in Div.2 provided that the enclosure contains no components that produce arcs or sparks.



Other certificates:

CEPEL 05.0558X

CCoE P360379-1

KOSHA 2015-BO-0249 to 0256

NANIO TC-RU C-FR.Γ505.B.00858

NEPSI GYJ13.1082X

SABS MS/15-0314X

Shipping applications:

ABS 14-HS1274083-PDA

BV 40910/A0 BV

DNV TAE000010X

Lloyds 11/00072

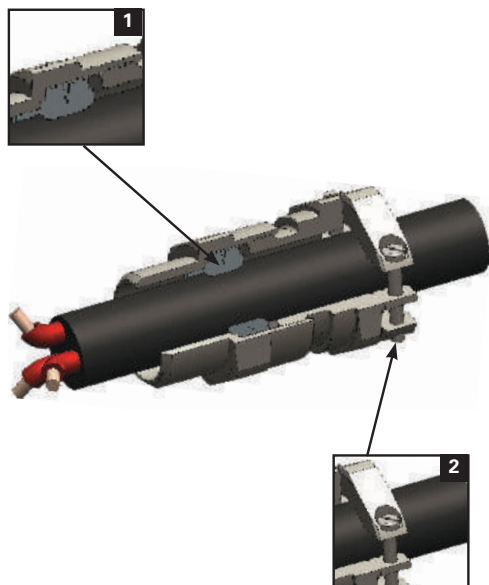
DTS-01:1991

Technical specification

- Nickel-plated brass for superior corrosion resistance. 316L stainless steel, bronze and aluminum options available. It is recommended that a suitable lubricant is used on all threads of stainless steel and aluminum versions.
- Temperature range: -60 °C to +140 °C
- IP66 / IP68 according to the method of attachment and the condition of the equipment area, see page 2.5

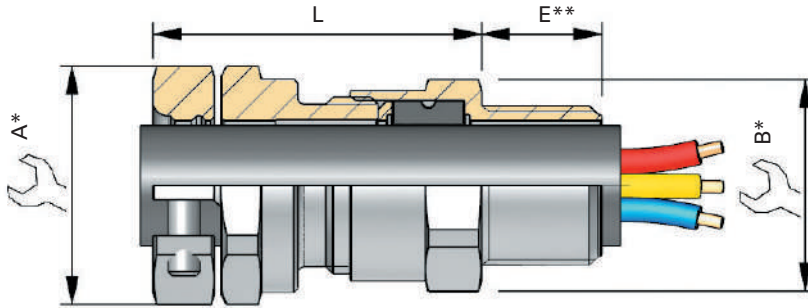
Features and benefits

- 1: Specifically formulated elastomer for IP sealing on outer sheath of cable.
- 2: Integrated external cable clamping for strain relief.



ADE-1F2 A - for non-armoured cable

Hazardous area cable glands



* For 'across corners' dimensions, multiply 'across flats' dimensions by 1.1

**For 'E' see thread dimension page 5.18

SERIES	THREAD SIZE	CABLE SEALING RANGE	MATERIAL	OPTION
ADE1A	M25	3	NPN	

- 0 = XS
- 1 = S
- 2 = M
- 3 = L

CODES	
K1	Accessories kit 1
K2	Accessories kit 2
K3	Accessories kit 3
BLANK	No option

NPN	Nickel-plated brass
SSN	Stainless steel
BZN	Bronze
ALN	Aluminum (not Group I)

KIT OPTIONS	
K1	Kit 1 contents:
	<ul style="list-style-type: none"> • Locknut • Green composite washer
K2	Kit 2 contents:
	<ul style="list-style-type: none"> • Locknut • Green composite washer • Earth tag • Shroud
	Kit 3 contents:
K3	<ul style="list-style-type: none"> • Locknut • Green composite washer • Earth tag • Serrated washer

Ordering codes

SERIES	THREAD SIZE (ISO)	THREAD SIZE CODE (ISO)	THREAD SIZE (NPT)	THREAD SIZE CODE (NPT)	CABLE SEALING RANGE	CABLE SEALING RANGE ISO (NPT)			ADE GLAND SIZE	CATALOG NUMBER (ISO)	CATALOG NUMBER (NPT)
						OUTER SHEATH MIN - MAX	A	B			
ADE1A	16*	M16	-	-	2	4.5 - 8.5	20	19	32.0	4	ADE1AM162NPN -
ADE1A	16*	M16	-	-	3	7.0 - 12.0	24	19	35.0	5	ADE1AM163NPN -
ADE1A	20	M20	1/2"	N050	0	2.8 - 5.5	15	24	28.0	3	ADE1AM200NPN ADE1AN0500NPN
ADE1A	20	M20	1/2"	N050	1	4.5 - 8.5	20	24	32.0	4	ADE1AM201NPN ADE1AN0501NPN
ADE1A	20	M20	1/2"	N050	2	7.0 - 12.0	24	24	35.0	5	ADE1AM202NPN ADE1AN0502NPN
ADE1A	20	M20	1/2"	N050	3	10.0 - (16.0) 15.5	27	24	40.0	6	ADE1AM203NPN ADE1AN0503NPN
ADE1A	25	M25	3/4"	N075	1	7.0 - 12.0	24	30	40.0	5	ADE1AM251NPN ADE1AN0751NPN
ADE1A	25	M25	3/4"	N075	2	10.0 - 16.0	27	30	40.0	6	ADE1AM252NPN ADE1AN0752NPN
ADE1A	25	M25	3/4"	N075	3	13.5 - 20.5	32	30	45.0	7	ADE1AM253NPN ADE1AN0753NPN
ADE1A	32	M32	1"	N100	3	18.0 - 27.5 (26.0)	41	41	55.0	8	ADE1AM323NPN ADE1AN1003NPN
ADE1A	40	M40	-	-	3	23.0 - 34.0	48	48	59.0	9	ADE1AM403NPN -

* Not UL certified. Above catalog numbers are for nickel-plated brass; refer to order code diagram for other options.

ADE-1F2 O-ring - for non-armoured cable

Hazardous area cable glands



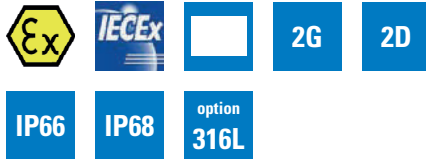
Suitable for the following cable types:

- Non-armoured cable
- Marine shipboard cable; Type P cable
- Tray cable: TC

Provides 25% of cable clamping. As per IEC60079 § A.2.3.2 for group II or III cable glands, "without a clamping device, additional clamping of the cable is needed to ensure that pulling & twisting is not transmitted to the terminations". We recommend using the certified ADE clamping module (page 2.29).

Certifications and compliances

- **ATEX No. INERIS 12ATEX0032X**
Zones 1 and 2, Groups IIA, IIB and IIC
Zones 21 and 22, Groups IIIA, IIIB and IIIC
⊕ IIC / Ex db IIC / Ex eb IIC / Ex tb IIC
⊕ IIC Ex nRc IIC
- **IECEX No. IECEX INE 12.0025X**
Zones 1 and 2, Groups IIA, IIB and IIC
Zones 21 and 22, Groups IIIA, IIIB and IIIC
Ex db IIC / Ex eb IIC / Ex nRc IIC / Ex tb IIIC



- **UL: 3DJN E310130 Class I Zone 1*, AEx e II**
⊕ ADE size 3 to 8, ISO 20 to 40 with non-armoured cable TC-ER-HL up to 1" diameter.
 - **UL: 3DJN E310130 Class I Zone 2*, AEx e II, Ex e II**
⊕ ADE size 3 to 17, ISO 20 to 110 with non-armoured cable ITC, MV, PLTC, TC-ER, TC-ER-HL, TC
 - **UL: 3LRC E314047 Class I Zone 2*, AEx e II, Ex e II**
⊕ ADE size 3 to 17, ISO 20 to 110 with non-armoured marine cable
- *Can be used in Div.2 provided that the enclosure contains no components that produce arcs or sparks.

Other certificates:

CEPEL 05.0558X
CCoE P360379-1
KOSHA 2015-BO-0245 to 0248
NANIO TC-RU C-FR.Γ505.B.00858
NEPSI GYJ13.1082X
SABS MS/15-0314X

Shipping applications:

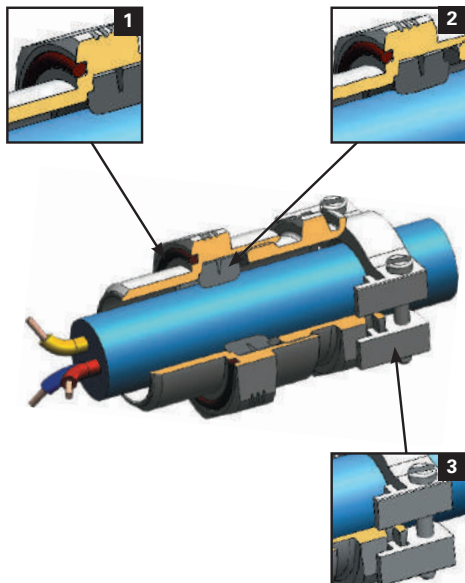
ABS 14-HS1274083-PDA
BV 40910/A0 BV
DNV TAE000010X
Lloyds 11/00072
DTS-01:1991

Technical specification

- Nickel-plated brass for superior corrosion resistance. 316L stainless steel option available. It is recommended that a suitable lubricant is used on all threads of stainless steel and aluminum versions.
- Temperature range: -60 °C to +140 °C
- IP66 / IP68 according to the method of attachment and the condition of the equipment area, see page 2.5

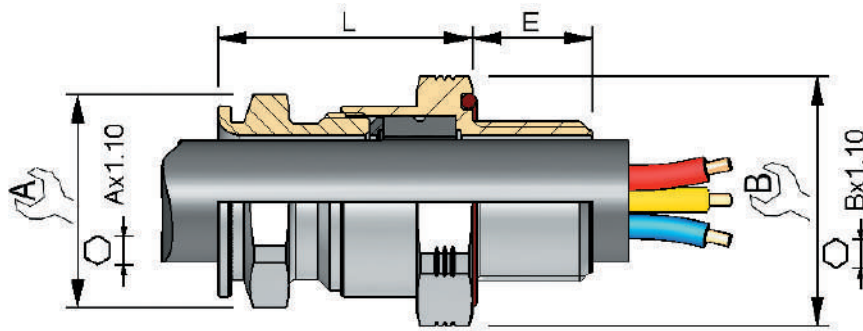
Features and benefits

- 1: Integrated O-ring eliminates need for externally fitted sealing washer.
- 2: Specifically formulated elastomer for IP sealing on outer sheath of cable.
- 3: Additional external cable clamping for strain relief (optional).



ADE-1F2 O-ring - for non-armoured cable

Hazardous area cable glands



* For 'across corners' dimensions, multiply 'across flats' dimensions by 1.1

** For 'E' see thread dimension page 5.18

SERIES	THREAD SIZE	CABLE SEALING RANGE	MATERIAL	OPTION
ADE10	M25	3	NPN	

0 = XS
1 = S
2 = M
3 = L

CODES	
BLANK	No option
NPN	Nickel-plated brass
SSN	Stainless steel

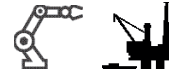
KIT OPTIONS	
K1	Kit 1 contents: • Locknut • Green composite washer
K2	Kit 2 contents: • Locknut • Green composite washer • Earth tag • Shroud
K3	Kit 3 contents: • Locknut • Green composite washer • Earth tag • Serrated washer

Ordering codes

SERIES	THREAD SIZE (ISO)	THREAD SIZE CODE (ISO)	CABLE SEALING RANGE	CABLE SEALING RANGE ISO OUTER SHEATH MIN - MAX	A	B	L	ADE GLAND SIZE	CATALOG NUMBER (ISO)
ADE10	20	M20	0	2.8 - 5.5	15	28	39.0	3	ADE10M200NPN
ADE10	20	M20	1	4.5 - 8.5	17	28	40.0	4	ADE10M201NPN
ADE10	20	M20	2	7.0 - 12.0	19	28	40.0	5	ADE10M202NPN
ADE10	20	M20	3	10.0 - 16.0	24	28	47.0	6	ADE10M203NPN
ADE10	25	M25	1	7.0 - 12.0	19	34	42.5	5	ADE10M251NPN
ADE10	25	M25	2	10.0 - 16.0	24	34	47.0	6	ADE10M252NPN
ADE10	25	M25	3	13.5 - 20.5	30	34	51.5	7	ADE10M253NPN
ADE10	32	M32	2	13.5 - 21.0	30	41	61.0	7	ADE10M322NPN
ADE10	32	M32	3	18.0 - 27.5	41	41	61.0	8	ADE10M323NPN
ADE10	40	M40	2	18.0 - 27.5	41	48	65.0	8	ADE10M402NPN
ADE10	40	M40	3	23.0 - 34.0	48	48	65.0	9	ADE10M403NPN
ADE10	50	M50	0	23.0 - 34.0	48	58	68.0	9	ADE10M500NPN
ADE10	50	M50	1	29.0 - 41.0	55	58	68.0	10	ADE10M501NPN
ADE10	50	M50	2	35.0 - 45.0	64	64	72.5	11	ADE10M502NPN
ADE10	63	M63	2	35.0 - 45.0	64	72	77.0	11	ADE10M632NPN
ADE10	63	M63	3	42.0 - 56.0	72	72	77.0	12	ADE10M633NPN

1F2 ADCC- for flexible and rigid conduit

Hazardous area cable glands



Suitable for the following cable types:

- Non-armoured cable in flexible conduit
- Non-armoured cable in rigid conduit

Certifications and compliances

• ATEX No. ITS 16ATEX18417X, INERIS 12ATEX0032X

Zones 1 and 2, Groups IIA, IIB and IIC
 Zones 21 and 22, Groups IIIA, IIIB and IIIC
 Ⓢ II2GD / Ex db IIC / Ex eb IIC / Ex tb IIIC

• IECEx No. IECEx ITS 16.0027X, IECEx INE 12.0025X

Zones 1 and 2, Groups IIA, IIB and IIC
 Zones 21 and 22, Groups IIIA, IIIB and IIIC
 Ex db IIC / Ex eb IIC / Ex nRc IIC / Ex tb IIIC

Other certificates:

NEPSI GYJ18.1100X
 SABS MS/18-0208X

Shipping applications:

ABS 14-HS1274083-PDA
 DNV TAE000010X
 DTS-01:1991

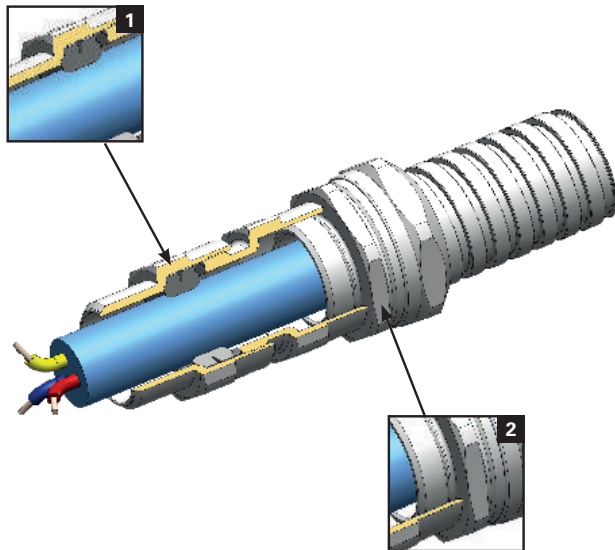


Technical specification

- Nickel-plated brass for superior corrosion resistance. 316L stainless steel option available. It is recommended that a suitable lubricant is used on all threads of stainless steel versions.
- Temperature range: -60 °C to +140 °C
- IP66 / IP68 according to the method of attachment and the condition of the equipment area.

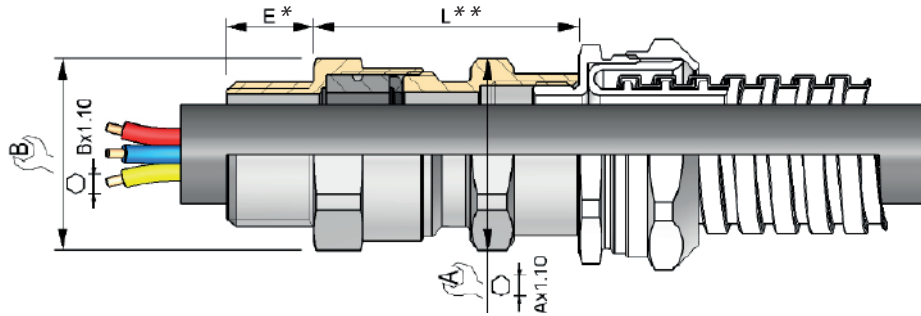
Features and benefits

- 1: Specifically formulated flameproof elastomer for IP sealing on outer sheath of cable
- 2: Female thread for flexible or rigid conduit - multiple female thread options available



1F2 ADCC- for flexible and rigid conduit

Hazardous area cable glands



* For 'E' see thread dimension page 5.18

** For 'L' dimensions see conduit gland dimension table on page 5.16

For 'across corners' dimensions, multiply 'across flats' dimensions by 1.1

SERIES	THREAD SIZE MALE	CABLE SEALING RANGE	THREAD SIZE FEMALE	MATERIAL	OPTION
ADCC	M25	3	M25	NPN	

CODES	
K1	Accessories kit 1
BLANK	No option

KIT OPTIONS	
K1	Kit 1 contents:
	• Locknut
	• Green composite washer

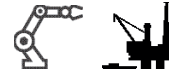
Code example: **ADCCM25M25NPN**
 cable gland ADCC in nickel-plated brass, male M25 x female M25, sealing range n°3

SERIES	MALE THREAD SIZE (ISO)		MALE THREAD SIZE (NPT)		CABLE SEALING RANGE	CABLE SEALING RANGE ISO (NPT) OUTER SHEATH MIN - MAX	FEMALE THREAD SIZE			DIMENSIONS		ADE GLAND SIZE
	THREAD SIZE	THREAD SIZE CODE	THREAD SIZE	THREAD SIZE CODE			ISO	NPT	BSPP	A	B	
ADCC	20	M20	1/2"	N050	0	2.8 - 5.5	M20	N050	G050	24.0	24.0	3
ADCC	20	M20	1/2"	N050	1	4.5 - 8.5	M20	N050	G050	24.0	24.0	4
ADCC	20	M20	1/2"	N050	2	7.0 - 12.0	M20	N050	G050	24.0	24.0	5
ADCC	20	M20	1/2"	N050	3	10.0 - 16.0 (15.5)	M20	N050	G050	24.0	24.0	6
ADCC	20	M20	1/2"	N050	3	10.0 - 16.0 (15.5)	M25	N075	G075	30.0	24.0	6
ADCC	25	M25	3/4"	N075	2	10.0 - 16.0	M25	N075	G075	30.0	30.0	6
ADCC	25	M25	3/4"	N075	3	13.5 - 20.5	M25	N075	G075	30.0	30.0	7
ADCC	25	M25	3/4"	N075	3	13.5 - 20.5	M32	N100	G100	41.0	30.0	7
ADCC	32	M32	1"	N100	2	13.5 - 20.5	M32	N100	G100	41.0	41.0	7
ADCC	32	M32	1"	N100	3	18.0 - 27.5 (26.0)	M32	N100	G100	41.0	41.0	8
ADCC	32	M32	1"	N100	3	18.0 - 27.5 (26.0)	M40	N125	G125	48.0	41.0	8
ADCC	40	M40	1 1/4"	N125	2	18.0 - 27.5	M40	N125	G125	48.0	48.0	8
ADCC	40	M40	1 1/4"	N125	3	23.0 - 34.0	M40	N125	G125	48.0	48.0	9
ADCC	40	M40	1 1/4"	N125	3	23.0 - 34.0	M50	N150	G150	55.0	48.0	9
ADCC	50	M50	1 1/2"	N150	1	23.0 - 34.0	M50	N150	G150	55.0	55.0	9
ADCC	50	M50	1 1/2"	N150	2	29.0 - 41.0	M50	N150	G150	55.0	55.0	10
ADCC	50	M50	-	-	3	35.0 - 45.0	M50	N150	G150	64.0	55.0	11
ADCC	50	M50	-	-	3	35.0 - 45.0	M63	N200	G200	72.0 (64.0)	55.0	11
ADCC	63	M63	2"	N200	2	35.0 - 48.0	M63	N200	G200	72.0 (64.0)	72.0	11
ADCC	63	M63	2"	N200	3	42.0 - 56.0 (53.0)	M63	N200	G200	72.0	72.0	12
ADCC	63	M63	2"	N200	3	42.0 - 56.0 (53.0)	M75	N250	G250	85.0	72.0	12
ADCC	75	M75	2 1/2"	N250	2	42.0 - 56.0	M75	N250	G250	85.0	85.0	12
ADCC	75	M75	2 1/2"	N250	3	50.0 - 65.0 (62.5)	M75	N250	G250	85.0	85.0	13
ADCC	75	M75	2 1/2"	N250	3	50.0 - 65.0 (62.5)	M90	N300	G300	95.0	95.0	13
ADCC	90	M90	3"	N300	2	58.0 - 74.0	M90	N300	G300	95.0	95.0	14
ADCC	90	M90	3"	N300	3	66.0 - 83.0 (78.0)	M90	N300	G300	110.0	110.0	15
ADCC	-	-	3 1/2"	N350	2	66.0 - 78.0	M90	N350	G350	110.0	110.0	15
ADCC	-	-	3 1/2"	N350	3	75.0 - 92.0	M110	N350	G350	120.0	120.0	16
ADCC	110	M110	-	-	2	75.0 - 93.0	M110	N350	G350	120.0	120.0	16
ADCC	110	M110	4"	N400	3	85.0 - 104.0	M110	N400	G400	135.0	135.0	17

All dimensions in mm.

1F2 ADCS - for rigid conduit

Hazardous area cable glands



Suitable for the following cable types:

- Non-armoured cable in rigid conduit

Certifications and compliances

- **ATEX No. ITS 16ATEX18417X, INERIS 12ATEX0032X**

Zones 1 and 2, Groups IIA, IIB and IIC
Zones 21 and 22, Groups IIIA, IIIB and IIIC

II2GD / Ex db IIC / Ex eb IIC / Ex tb IIIC

- **IECEX No. IECEX ITS 16.0027X, IECEX INE 12.0025X**

Zones 1 and 2, Groups IIA, IIB and IIC
Zones 21 and 22, Groups IIIA, IIIB and IIIC
Ex db IIC / Ex eb IIC / Ex nRc IIC / Ex tb IIIC

Other certificates:

NEPSI GYJ18.1100X

SABS MS/18-0208X

Shipping applications:

ABS 14-HS1274083-PDA

DNV TAE000010X

DTS-01:1991

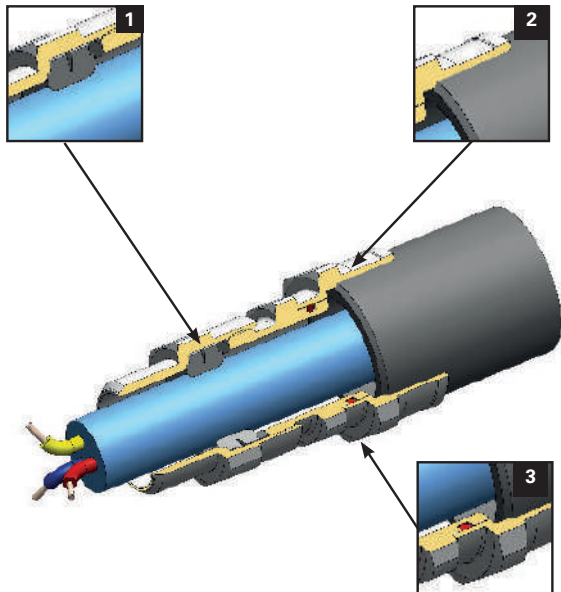


Technical specification

- Nickel-plated brass for superior corrosion resistance. 316L stainless steel option available. It is recommended that a suitable lubricant is used on all threads of stainless steel versions.
- Temperature range: -60 °C to +140 °C
- IP66 / IP68 according to the method of attachment and the condition of the equipment area.

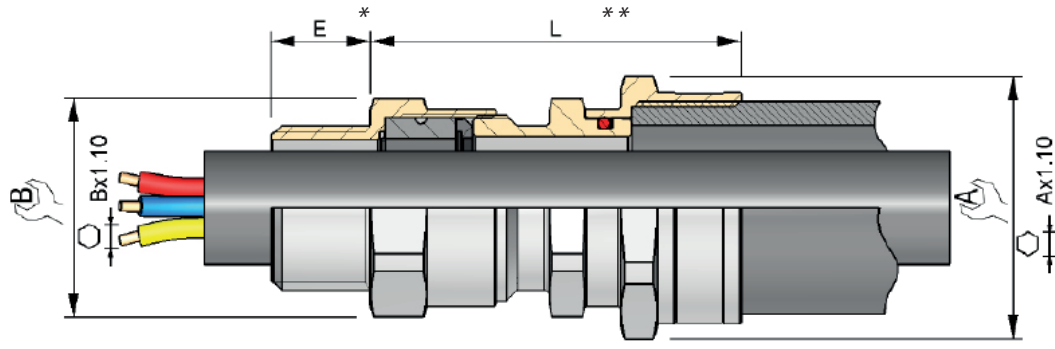
Features and benefits

- 1: Specifically formulated flameproof elastomer for IP sealing on outer sheath of cable
- 2: Female thread for rigid conduit - multiple female thread options available
- 3: Swivel connection providing easy installation for rigid conduit



1F2 ADCS - for rigid conduit

Hazardous area cable glands



* For 'E' see thread dimension page 5.18

** For 'L' dimensions see conduit gland dimension table on page 5.17

For 'across corners' dimensions, multiply 'across flats' dimensions by 1.1

SERIES	THREAD SIZE MALE	CABLE SEALING RANGE	THREAD SIZE FEMALE	MATERIAL	OPTION
ADCS	M25	3	M25	NPN	

SELECT → CODES

CODES	
K1	Accessories kit 1
BLANK	No option

SELECT → KIT OPTIONS

KIT OPTIONS	
K1	Kit 1 contents:
	• Locknut
	• Green composite washer

SELECT → MATERIAL

NPN	Nickel-plated brass
SSN	Stainless steel

SELECT → OPTION

0 = XS
1 = S
2 = M
3 = L

SELECT → ADCS = swivel connection

Code example: **ADCSM253M25NPN**
 cable gland ADCS in nickel-plated brass, male M25 x female M25, sealing range n°3

SERIES	MALE THREAD SIZE (ISO)		MALE THREAD SIZE (NPT)		CABLE SEALING RANGE	CABLE SEALING RANGE ISO (NPT)		FEMALE THREAD SIZE			DIMENSIONS ISO (NPT)		ADE GLAND SIZE
	THREAD SIZE	THREAD SIZE CODE	THREAD SIZE	THREAD SIZE CODE		MIN - MAX	ISO	NPT	BSPP	A	B		
ADCS	20	M20	1/2"	N050	0	2.8 - 5.5	M20	N050	G050	24.0 (27.0)	24.0	3	
ADCS	20	M20	1/2"	N050	1	4.5 - 8.5	M20	N050	G050	24.0 (27.0)	24.0	4	
ADCS	20	M20	1/2"	N050	2	7.0 - 12.0	M20	N050	G050	24.0 (27.0)	24.0	5	
ADCS	20	M20	1/2"	N050	3	10.0 - 16.0 (15.5)	M20	N050	G050	24.0 (27.0)	24.0	6	
ADCS	20	M20	1/2"	N050	3	10.0 - 16.0 (15.5)	M25	N075	G075	30.0	24.0	6	
ADCS	25	M25	3/4"	N075	2	10.0 - 16.0	M25	N075	G075	30.0	30.0	6	
ADCS	25	M25	3/4"	N075	3	13.5 - 20.5	M25	N075	G075	30.0	30.0	7	
ADCS	25	M25	3/4"	N075	3	13.5 - 20.5	M32	N100	G100	36.0 (41.0)	30.0	7	
ADCS	32	M32	1"	N100	2	13.5 - 20.5	M32	N100	G100	36.0 (41.0)	41.0	7	
ADCS	32	M32	1"	N100	3	18.0 - 27.5 (26.0)	M32	N100	G100	41.0	41.0	8	
ADCS	32	M32	1"	N100	3	18.0 - 27.5 (26.0)	M40	N125	G125	44.0 (48.0)	41.0	8	
ADCS	40	M40	1 1/4"	N125	2	18.0 - 27.5	M40	N125	G125	44.0 (48.0)	48.0	8	
ADCS	40	M40	1 1/4"	N125	3	23.0 - 34.0	M40	N125	G125	48.0	48.0	9	
ADCS	40	M40	1 1/4"	N125	3	23.0 - 34.0	M50	N150	G150	55.0	48.0	9	
ADCS	50	M50	1 1/2"	N150	1	23.0 - 34.0	M50	N150	G150	55.0	55.0	9	
ADCS	50	M50	1 1/2"	N150	2	29.0 - 41.0	M50	N150	G150	55.0	55.0	10	
ADCS	50	M50	-	-	3	35.0 - 45.0	M50	N150	G150	64.0	55.0	11	
ADCS	50	M50	-	-	3	35.0 - 45.0	M63	N200	G200	67.0	55.0	11	
ADCS	63	M63	2"	N200	2	35.0 - 48.0	M63	N200	G200	67.0	72.0	11	
ADCS	63	M63	2"	N200	3	42.0 - 56.0 (53.0)	M63	N200	G200	72.0	72.0	12	
ADCS	63	M63	2"	N200	3	42.0 - 56.0 (53.0)	M75	N250	G250	85.0	72.0	12	
ADCS	75	M75	2 1/2"	N250	2	42.0 - 56.0	M75	N250	G250	85.0	85.0	12	
ADCS	75	M75	2 1/2"	N250	3	50.0 - 65.0 (62.5)	M75	N250	G250	85.0	85.0	13	
ADCS	75	M75	2 1/2"	N250	3	50.0 - 65.0 (62.5)	M90	N300	G300	95.0	95.0	13	
ADCS	90	M90	3"	N300	2	58.0 - 74.0	M90	N300	G300	95.0	95.0	14	
ADCS	90	M90	3"	N300	3	66.0 - 83.0 (78.0)	M90	N300	G300	110.0	110.0	15	
ADCS	-	-	3 1/2"	N350	2	66.0 - 78.0	M90	N350	G350	110.0	110.0	15	
ADCS	-	-	3 1/2"	N350	3	75.0 - 92.0	M110	N350	G350	120.0	120.0	16	
ADCS	110	M110	-	-	2	75.0 - 93.0	M110	N350	G350	120.0	120.0	16	
ADCS	110	M110	4"	N400	3	85.0 - 104.0	M110	N400	G400	135.0	135.0	17	

All dimensions in mm.

ADE-1FC - for non-armoured cable

Hazardous area cable glands



Suitable for the following cable types:

- Non-armoured cable
- Marine shipboard cable; Type P cable
- Tray cable: TC

Sealing ring and TSC compound provides 100% of cable clamping

Certifications and compliances

• ATEX No. INERIS 12ATEX0032X

Zones 1 and 2, Groups I, IIA, IIB and IIC
Zones 21 and 22, Groups IIIA, IIIB and IIIC
Ⓜ IIC2GD / Ex db IIC / Ex eb IIC / Ex tb IIIC
Ⓜ IIC3 Ex nRc IIC

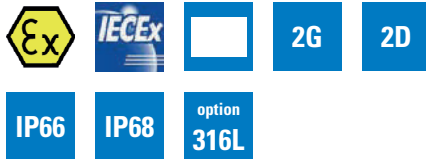
Ⓜ IM2 / Ex db I / Ex eb I ; for mining applications

Brass, stainless steel or bronze size 11 to 16; NPT 2" to 4", ISO 63 to 110

• IECEx No. IECEx INE 12.0025X

Zones 1 and 2, Groups I, IIA, IIB and IIC
Zones 21 and 22, Groups IIIA, IIIB and IIIC
Ex db IIC / Ex eb IIC / Ex nRc IIC / Ex tb IIIC
Ex db I / Ex eb I ; for mining applications

Brass, stainless steel or bronze size 11 to 16; NPT 2" to 4", ISO 63 to 110



• UL: 3DJN E310130 Class I Zone 2*, AEx e II, Ex e II

Ⓜ ADE size 4 to 16, NPT 1/2" to 4" or ISO 20 to 110 with non-armoured cable ITC, MV, PLTC, TC-ER, TC-ER-HL, TC and compound TSC

• UL: 3DJN E310130 Class I Division 1, Groups A, B, C and D

Ⓜ ADE size 4 to 9, NPT 1/2" to 1 1/4" or ISO 20 to 40 with non-armoured cable TC-ER-HL and compound TSC. ADE size 4 to 16, NPT 1/2" to 4" or ISO 20 to 110 with non-armoured cable ITC-HL and compound TSC

• UL: 3DJN E310130 Class I Division 2, Groups A, B, C and D

Ⓜ ADE size 4 to 16, NPT 1/2" to 4" or ISO 20 to 110 with non-armoured cable ITC, ITC-ER, ITC-HL, MV, PLTC, PLTC-ER, TC-ER, TC-ER-HL, TC and compound TSC

• UL: 4EC5 E324850 Class I Division 2, Groups A, B, C and D

Ⓜ ADE size 4 to 16, NPT 1/2" to 4" or ISO 20 to 110 with non-armoured marine cable and compound TSC

* Can be used in Div.2 provided that the enclosure contains no components that produce arcs or sparks

Other certificates:

CEPEL 05.0558X
CCoE P360379-1
KOSHA 2015-BO-0479 to 0482
NANIO TC-RU C-FR.ГБ05.B.00858
NEPSI GYJ13.1082X
SABS MS/15-0314X

Shipping applications:

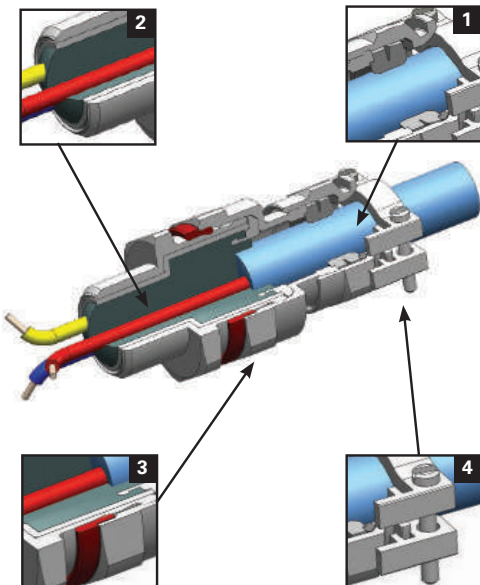
ABS 14-HS1274083-PDA
BV 40910/A0 BV
DNV TAE000010X
Lloyds 11/00072
DTS-01:1991

Technical specification

- Nickel-plated brass for superior corrosion resistance. 316L stainless steel, bronze and aluminum options available. It is recommended that a suitable lubricant is used on all threads of stainless steel and aluminum versions.
- Temperature range:
-60 °C to +80 °C
- IP66 / IP68 according to the method of attachment and the condition of the equipment area, see page 2.5
- Equipped with a 'deluge' seal.

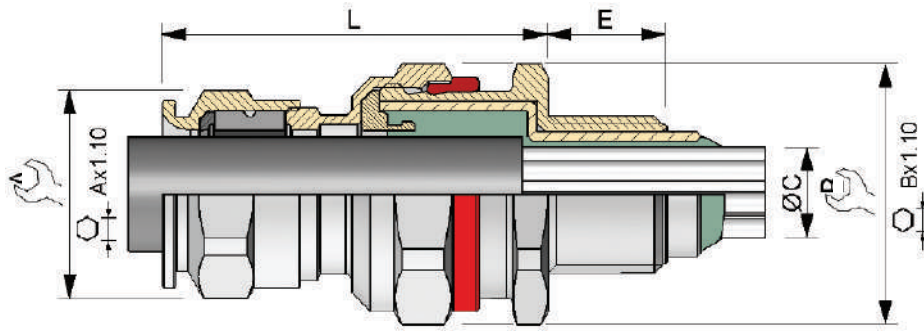
Features and benefits

- 1: Specifically formulated elastomer for IP sealing on outer sheath of cable
- 2: Sealing of cable conductors with compound barrier seal
- 3: Deluge seal provides enhanced ingress protection
- 4: Additional external cable clamping for strain relief (optional)



ADE-1FC - for non-armoured cable

Hazardous area cable glands



* For 'across corners' dimensions, multiply 'across flats' dimensions by 1.1

** For 'E' see thread dimension page 5.18

SERIES	THREAD SIZE	CABLE SEALING RANGE	MATERIAL	BARRIER	OPTION
ADE1C	M25	3	NP	SCN	

0 = XS
1 = S
2 = M
3 = L

CODES

K1	Accessories kit 1
K2	Accessories kit 2
K3	Accessories kit 3
BLANK	No option

SCN	Solid compound
NP	Nickel-plated brass
SS	Stainless steel

KIT OPTIONS

K1	Kit 1 contents: • Locknut • Green composite washer
K2	Kit 2 contents: • Locknut • Green composite washer • Earth tag • Shroud
K3	Kit 3 contents: • Locknut • Green composite washer • Earth tag • Serrated washer

Ordering codes

SERIES	THREAD SIZE (ISO)	THREAD SIZE CODE (ISO)	THREAD SIZE (NPT)	THREAD SIZE CODE (NPT)	CABLE SEALING RANGE	CABLE SEALING RANGE MIN - MAX	C=Ø MAX OVER CORES	MAX No. OF CORES	A	B	L	ADE GLAND SIZE	CATALOG NUMBER (ISO)	CATALOG NUMBER (NPT)
ADE1C	16*	M16	3/8**	N038	3	4.0 - 8.0	6.5	6	15	19	36.0	4	ADE1CM163NPSCN	ADE1CN0383NPSCN
ADE1C	20	M20	1/2"	N050	1	4.0 - 8.0	6.5	6	15	24	36.0	4	ADE1CM201NPSCN	ADE1CN0501NPSCN
ADE1C	20	M20	1/2"	N050	2	6.0 - 12.0	9.5	6	19	24	42.0	5	ADE1CM202NPSCN	ADE1CN0502NPSCN
ADE1C	20	M20	1/2"	N050	3	8.5 - 16.0	12.0	10	24	30	48.5	6	ADE1CM203NPSCN	ADE1CN0503NPSCN
ADE1C	25	M25	3/4"	N075	2	8.5 - 16.0	12.0	10	24	30	48.5	6	ADE1CM252NPSCN	ADE1CN0752NPSCN
ADE1C	25	M25	3/4"	N075	3	12.0 - 21.0	17.0	21	30	41	58.0	7	ADE1CM253NPSCN	ADE1CN0753NPSCN
ADE1C	32	M32	1"	N100	2	12.0 - 21.0	17.0	21	30	41	58.0	7	ADE1CM322NPSCN	ADE1CN1002NPSCN
ADE1C	32	M32	1"	N100	3	16.0 - 27.5	23.0	42	41	48	70.0	8	ADE1CM323NPSCN	ADE1CN1003NPSCN
ADE1C	40	M40	1 1/4"	N125	2	16.0 - 27.5	23.0	42	41	48	70.0	8	ADE1CM402NPSCN	ADE1CN1252NPSCN
ADE1C	40	M40	1 1/4"	N125	3	21.0 - 34.0	29.0	60	48	55	79.0	9	ADE1CM403NPSCN	ADE1CN1253NPSCN
ADE1C	50	M50	1 1/2"	N150	2	21.0 - 34.0	29.0	60	48	55	79.0	9	ADE1CM502NPSCN	ADE1CN1502NPSCN
ADE1C	50	M50	2"	N200	1	27.0 - 41.0	36.5	80	55	64	88.0	10	ADE1CM501NPSCN	ADE1CN2001NPSCN
ADE1C	63	M63	2"	N200	2	33.0 - 48.0	43.0	100	64	72	98.0	11	ADE1CM632NPSCN	ADE1CN2002NPSCN
ADE1C	63	M63	2"	N200	3	40.0 - 56.0	50.0	100	72	85	103.0	12	ADE1CM633NPSCN	ADE1CN2003NPSCN
ADE1C	-	-	2 1/2"	N250	2	40.0 - 56.0	50.0	100	72	85	103.0	12	-	ADE1CN2502NPSCN
ADE1C	75	M75	2 1/2"	N250	3	46.0 - 65.0	59.0	120	85	95	111.0	13	ADE1CM753NPSCN	ADE1CN2503NPSCN
ADE1C	-	-	3"	N300	1	46.0 - 65.0	59.0	120	85	95	111.0	13	-	ADE1CN3001NPSCN
ADE1C	90	M90	3"	N300	2	54.0 - 74.0	66.0	140	95	110	120.0	14	ADE1CM902NPSCN	ADE1CN3002NPSCN
ADE1C	-	-	3 1/2"	N350	2	54.0 - 74.0	66.0	140	95	110	120.0	14	-	ADE1CN3502NPSCN
ADE1C	90	M90	3"	N300	3	63.0 - 83.0	75.0	140	110	120	125.0	15	ADE1CM903NPSCN	ADE1CN0383NPSCN
ADE1C	-	-	3 1/2"	N350	3	63.0 - 83.0	75.0	140	110	120	125.0	15	-	ADE1CN3503NPSCN
ADE1C	110	M110	4"	N400	3	72.0 - 93.0	85.0	200	120	135	128.0	16	ADE1CM1103NPSCN	ADE1CN4003NPSCN

* Not UL certified. Above catalog numbers are for nickel-plated brass; refer to order code diagram for other options..

All dimensions in mm.

ADE-4F - for armoured cable

Hazardous area cable glands



Suitable for the following cable types:

- Steel wire armoured cable (SWA)
- Steel wire braided cable (SWB)
- Steel tape armoured cable (STA)
- Braided marine shipboard cable; Type P cable

Double seal provides 100% of cable clamping, including braided cables.

Certifications and compliances

• ATEX No. INERIS 12ATEX0032X

Zones 1 and 2, Groups I, IIA, IIB and IIC
Zones 21 and 22, Groups IIIA, IIIB and IIIC

⊕ II2GD / Ex db IIC / Ex eb IIC / Ex tb IIIC

⊕ II3G Ex nRc IIC

⊕ IM2 / Ex db I / Ex eb I ; for mining applications

Brass or bronze size 8 to 17; NPT 3/4" to 4", ISO 25 to 110

Stainless steel size 4 to 17; NPT 3/8" to 4", ISO 16 to 110

• IECEx No. IECEx INE 12.0025X

Zones 1 and 2, Groups I, IIA, IIB and IIC
Zones 21 and 22, Groups IIIA, IIIB and IIIC

Ex db IIC / Ex eb IIC / Ex nRc IIC / Ex tb IIIC

Ex db I / Ex eb I ; for mining applications

Brass or bronze size 8 to 17; NPT 3/4" to 4", ISO 25 to 110

Stainless steel size 4 to 17; NPT 3/8" to 4", ISO 16 to 110

• UL: 3DJN E310130 Class I Zone 2*, AEx e II, Ex e II

⊕ ADE size 4 to 17, NPT 1/2" to 4" or ISO 20 to 110 with armoured cable
ITC, MV, PLTC, TC-ER, TC-ER-HL, TC

• UL: 3LRC E314047 Class I Zone 2*, AEx e II, Ex e II

⊕ ADE size 4 to 17, NPT 1/2" to 4" or ISO 20 to 110 with armoured marine cable

* Can be used in Div.2 provided that the enclosure contains no components that produce arcs or sparks.



Other certificates:

CEPEL 05.0559X

CCoE P360379-1

KOSHA 2015-BO-0245 to 0248

NANIO TC-RU C-FR.ГБ05.B.00858

NEPSI GYJ13.1082X

SABS MS/15-0314X

Shipping applications:

ABS 14-HS1274083-PDA

BV 40910/A0 BV

DNV TAE000010X

Lloyds 11/00072

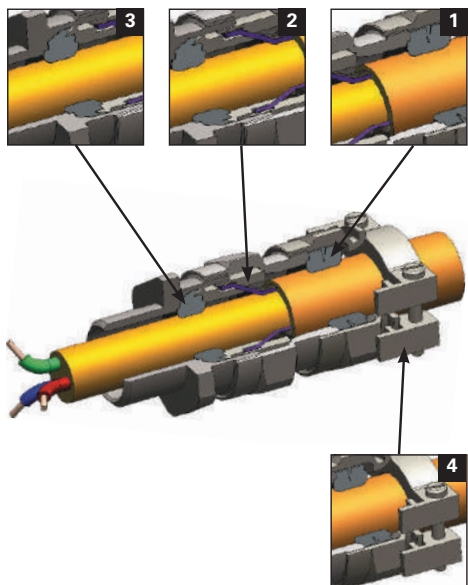
DTS-01:1991

Technical specification

- Nickel-plated brass for superior corrosion resistance. 316L stainless steel, bronze and aluminum options available. It is recommended that a suitable lubricant is used on all threads of stainless steel and aluminum versions.
- Temperature range: -60 °C to +140 °C
- IP66 / IP68 according to the method of attachment and the condition of the equipment area, see page 2.5

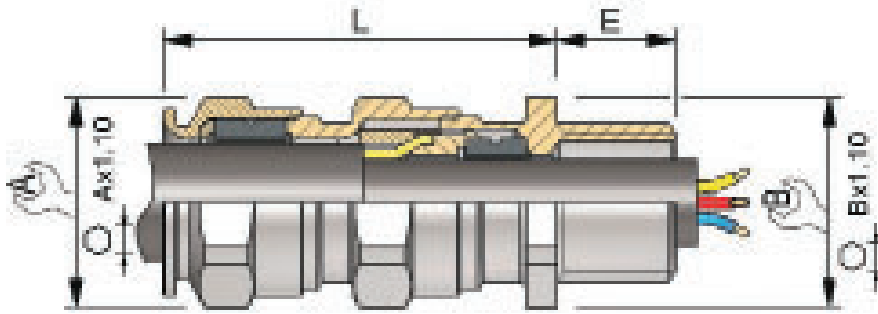
Features and benefits

- 1: Specifically formulated elastomer for IP sealing on outer sheath of cable
- 2: Universal clamping design for earthing and bonding of armour shield. Provides mechanical strength and is suitable for all armour shield types, with no requirement to reverse components that may introduce risk of incorrect installation.
- 3: Specifically formulated elastomer for flame path sealing on inner sheath of the cable.
- 4: Additional external cable clamping for strain relief (optional)



ADE-4F - for armoured cable

Hazardous area cable glands



* For 'across corners' dimensions, multiply 'across flats' dimensions by 1.1

** For 'E' see thread dimension page 5.18

SERIES	THREAD SIZE	CABLE SEALING RANGE	MATERIAL	OPTION
ADE4	M25	3	NPN	

0 = XS
1 = S
2 = M
3 = L

CODES

K1 Accessories kit 1
K2 Accessories kit 2
K3 Accessories kit 3
BLANK No option

NPN Nickel-plated brass
SSN Stainless steel
BZN Bronze
ALN Aluminum (not Group I)

KIT OPTIONS

K1 Kit 1 contents:
• Locknut
• Green composite washer

K2 Kit 2 contents:
• Locknut
• Green composite washer
• Earth tag
• Shroud

K3 Kit 3 contents:
• Locknut
• Green composite washer
• Earth tag
• Serrated washer

Ordering codes

SERIES	THREAD SIZE (ISO)	THREAD SIZE CODE (ISO)	THREAD SIZE (NPT)(NPT)	CABLE SEALING RANGE	CABLE SEALING RANGE			A	B	L	ADE GLAND SIZE	CATALOG NUMBER (ISO)	CATALOG NUMBER (NPT)	
					INNER SHEATH MIN - MAX	OUTER SHEATH MIN - MAX	ARMOUR MIN - MAX							
ADE4	12*	M12	1/4**	N025	3	4.5 - 8.0	7.0 - 12.0	0.2 - 0.9	19	19	46.0	5	ADE4M123NPN	ADE4N0253NPN
ADE4	16*	M16	3/8**	N038	1	2.8 - 5.5	4.5 - 8.5	0.2 - 0.9	17	19	41.0	4	ADE4M161NPN	ADE4N0381NPN
ADE4	16*	M16	3/8**	N038	2	4.5 - 8.0	7.0 - 12.0	0.2 - 0.9	19	19	46.0	5	ADE4M162NPN	ADE4N0382NPN
ADE4	16*	M16	3/8**	N038	3	7.0 - 12.0	10.0 - 16.0	0.2 - 1.3	24	24	51.0	6	ADE4M163NPN	ADE4N0383NPN
ADE4	20	M20	1/2"	N050	0	2.8 - 5.5	4.5 - 8.5	0.2 - 0.9	17	24	41.0	4	ADE4M200NPN	ADE4N0500NPN
ADE4	20	M20	1/2"	N050	1	4.5 - 8.0	7.0 - 12.0	0.2 - 0.9	19	24	46.0	5	ADE4M201NPN	ADE4N0501NPN
ADE4	20	M20	1/2"	N050	2	7.0 - 12.0	10.0 - 16.0	0.2 - 1.3	24	24	51.0	6	ADE4M202NPN	ADE4N0502NPN
ADE4	20	M20	1/2"	N050	3	10.0 - 15.5	13.5 - 21.0	0.2 - 1.3	30	30	57.5	7	ADE4M203NPN	ADE4N0503NPN
ADE4	25	M25	3/4"	N075	1	7.0 - 12.0	10.0 - 16.0	0.2 - 1.3	24	30	51.0	6	ADE4M251NPN	ADE4N0751NPN
ADE4	25	M25	3/4"	N075	2	10.0 - 15.5	13.5 - 21.0	0.2 - 1.3	30	30	57.5	7	ADE4M252NPN	ADE4N0752NPN
ADE4	25	M25	3/4"	N075	3	13.5 - 20.5	18.0 - 27.5	0.2 - 1.6	41	41	68.0	8	ADE4M253NPN	ADE4N0753NPN
ADE4	32	M32	1"	N100	2	13.5 - 21.0	18.0 - 27.5	0.2 - 1.6	41	41	68.0	8	ADE4M322NPN	ADE4N1002NPN
ADE4	32	M32	1"	N100	3	18.0 - 26.0	23.0 - 34.0	0.2 - 1.6	48	48	76.0	9	ADE4M323NPN	ADE4N1003NPN
ADE4	40	M40	1 1/4"	N125	2	18.0 - 27.5	23.0 - 34.0	0.2 - 1.6	48	48	76.0	9	ADE4M402NPN	ADE4N1252NPN
ADE4	40	M40	1 1/4"	N125	3	23.0 - 34.0	29.0 - 41.0	0.2 - 2.0	55	55	88.0	10	ADE4M403NPN	ADE4N1253NPN
ADE4	50	M50	1 1/2"	N150	2	23.0 - 34.0	29.0 - 41.0	0.2 - 2.0	55	55	88.0	10	ADE4M502NPN	ADE4N1502NPN
ADE4	50	M50	1 1/2"	N150	3	29.0 - 41.0	35.0 - 48.0	0.2 - 2.5	64	64	97.0	11	ADE4M503NPN	ADE4N1503NPN
ADE4	63	M63	2"	N200	2	35.0 - 48.0	42.0 - 56.0	0.2 - 2.5	72	72	102.0	12	ADE4M632NPN	ADE4N2002NPN
ADE4	63	M63	2"	N200	3	42.0 - 53.0	50.0 - 65.0	0.2 - 2.5	85	85	117.0	13	ADE4M633NPN	ADE4N2003NPN
ADE4	75	M75	2 1/2"	N250	2	42.0 - 56.0	50.0 - 65.0	0.2 - 2.5	85	85	117.0	13	ADE4M752NPN	ADE4N2502NPN
ADE4	75	M75	2 1/2"	N250	3	50.0 - 62.5	58.0 - 74.0	0.2 - 2.5	95	95	124.0	14	ADE4M753NPN	ADE4N2503NPN
ADE4	90	M90	3"	N300	1	58.0 - 74.0	66.0 - 83.0	0.2 - 3.2	110	110	133.0	15	ADE4M901NPN	ADE4N3001NPN
ADE4	90	M90	3"	N300	2	66.0 - 78.0	75.0 - 93.0	0.2 - 3.2	120	120	140.0	16	ADE4M902NPN	ADE4N3002NPN
ADE4	-	-	3 1/2"	N350	2	66.0 - 82.0	85.0 - 104.0	0.2 - 3.5	135	135	150.0	16/17	-	ADE4N3502NPN
ADE4	90	M90	-	-	3	66.0 - 83.0	85.0 - 104.0	0.2 - 3.5	135	135	150.0	16/17	ADE4M903NPN	-
ADE4	-	-	3 1/2"	N350	3	75.0 - 88.0	85.0 - 104.0	0.2 - 3.5	135	135	150.0	17	-	ADE4N3503NPN
ADE4	110	M110	4"	N400	3	75.0 - 93.0	85.0 - 104.0	0.2 - 3.5	135	135	150.0	17	ADE4M1103NPN	ADE4N4003NPN

* Not UL certified. Above catalog numbers are for nickel-plated brass; refer to order code diagram for other options.

All dimensions in mm.

ADE-5F - for armoured cable

Hazardous area cable glands



Suitable for the following cable types:

- Steel wire armoured cable (SWA)
- Steel wire braided cable (SWB)
- Steel tape armoured cable (STA)
- Braided marine shipboard cable; Type P cable
- Lead sheathed cable (with addition of earthing washer)

With inspectable clamping for wire or braid

Double seal provides 100% of cable clamping, including braided cables.

Certifications and compliances

• ATEX No. INERIS 12ATEX0032X

Zones 1 and 2, Groups I, IIA, IIB and IIC
Zones 21 and 22, Groups IIIA, IIIB and IIIC

⚡ II2GD / Ex db IIC / Ex eb IIC / Ex tb IIIC

⚡ II3G Ex nRc IIC

⚡ IM2 / Ex db I / Ex eb I ; for mining applications

Brass or bronze size 8 to 17; NPT 3/4" to 4", ISO 25 to 110

Stainless steel size 4 to 17; NPT 3/8" to 4", ISO 16 to 110

• IECEx No. IECEx INE 12.0025X

Zones 1 and 2, Groups I, IIA, IIB and IIC

Zones 21 and 22, Groups IIIA, IIIB and IIIC

Ex db IIC / Ex eb IIC / Ex nRc IIC / Ex tb IIIC

Ex db I / Ex eb I ; for mining applications

Brass or bronze size 8 to 17; NPT 3/4" to 4", ISO 25 to 110

Stainless steel size 4 to 17; NPT 3/8" to 4", ISO 16 to 110

• UL: 3DJN E310130 Class I Zone 2*, AEx e II, Ex e II

⚡ ADE size 4 to 17, NPT 1/2" to 4" or ISO 20 to 110 with armoured cable
ITC, MV, PLTC, TC-ER, TC-ER-HL, TC

• UL: 3LRC E314047 Class I Zone 2*, AEx e II, Ex e II

⚡ ADE size 4 to 17, NPT 1/2" to 4" or ISO 20 to 110 with armoured marine cable

* Can be used in Div.2 provided that the enclosure contains no components that produce arcs or sparks.



Other certificates:

CEPEL 05.0559X

CCoE P360379-1

KOSHA 2015-BO-0483 to 0490

NANIO TC-RU C-FR.ГБ05.В.00858

NEPSI GYJ13.1082X

SABS MS/15-0314X

Shipping applications:

ABS 14-HS1274083-PDA

BV 40910/A0 BV

DNV TAE000010X

Lloyds 11/00072

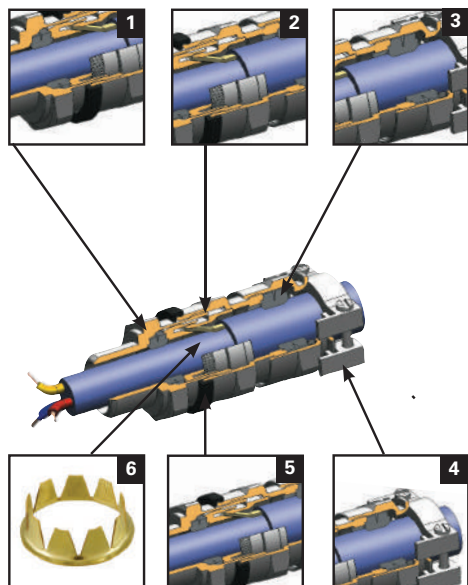
DTS-01:1991

Technical specification

- Nickel-plated brass for superior corrosion resistance. 316L stainless steel, bronze and aluminum options available. It is recommended that a suitable lubricant is used on all threads of stainless steel and aluminum versions.
- Temperature range: -60 °C to +140 °C
- IP66 / IP68 according to the method of attachment and the condition of the equipment area, see page 2.5

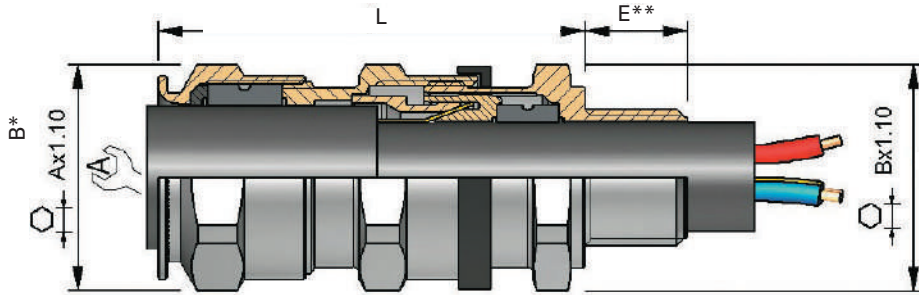
Features and benefits

- 1: Specifically formulated elastomer for flame path sealing on inner sheath of cable
- 2: Anti-rotation feature providing simplified inspectability of armour clamping and grounding system
- 3: Specifically formulated elastomer for IP sealing on outer sheath of cable
- 4: Additional external cable clamping for strain relief (optional)
- 5: Additional deluge seal available for ADE-5F gland sizes No.12 to No.17
- 6: Suitable for lead sheath cable with installation of simple washer (optional)



ADE-5F - for armoured cable

Hazardous area cable glands



* For 'across corners' dimensions, multiply 'across flats' dimensions by 1.1

** For 'E' see thread dimension page 5.18

SERIES	THREAD SIZE	CABLE SEALING RANGE	MATERIAL	OPTION
ADE5	M25	3	NPN	

- 0 = XS
1 = S
2 = M
3 = L

CODES

- K1 Accessories kit 1
- K2 Accessories kit 2
- K3 Accessories kit 3
- BLANK No option

KIT OPTIONS

- K1** Kit 1 contents:
- Locknut
 - Green composite washer
- K2** Kit 2 contents:
- Locknut
 - Green composite washer
 - Earth tag
 - Shroud
- K3** Kit 3 contents:
- Locknut
 - Green composite washer
 - Earth tag
 - Serrated washer

- NPN Nickel-plated brass
- SSN Stainless steel
- BZN Bronze
- ALN Aluminum (not Group I)

When the "DTS" prefix is specified before the "K" of the kit option, a deluge ring will be included. The deluge rings are available for sizes 12-17 only. (Ex: ADE5N2003NPN DTSK1)

Ordering codes

SERIES	THREAD SIZE (ISO)	THREAD SIZE CODE (ISO)	THREAD SIZE (NPT)(NPT)	THREAD SIZE CODE (NPT)	CABLE SEALING RANGE	CABLE SEALING RANGE INNER SHEATH MIN - MAX	CABLE SEALING RANGE OUTER SHEATH MIN - MAX	ARMOUR MIN - MAX	A	B	L	ADE GLAND SIZE	CATALOG NUMBER (ISO)	CATALOG NUMBER (NPT)
ADE5	12*	M12	1/4**	N025	3	4.5 - 8.0	7.0 - 12.0	0.2 - 0.9	19	19	55.0	5	ADE5M123NPN	ADE5N0253NPN
ADE5	16*	M16	3/8**	N038	2	4.5 - 8.0	7.0 - 12.0	0.2 - 0.9	19	19	55.0	5	ADE5M162NPN	ADE5N0382NPN
ADE5	16*	M16	3/8**	N038	3	7.0 - 12.0	10.0 - 16.0	0.2 - 1.2	24	24	57.0	6	ADE5M163NPN	ADE5N0383NPN
ADE5	20	M20	1/2"	N050	1	4.5 - 8.0	7.0 - 12.0	0.2 - 0.9	19	24	55.0	5	ADE5M201NPN	ADE5N0501NPN
ADE5	20	M20	1/2"	N050	2	7.0 - 12.0	10.0 - 16.0	0.2 - 1.2	24	24	57.0	6	ADE5M202NPN	ADE5N0502NPN
ADE5	20	M20	1/2"	N050	3	10.0 - 15.5	13.5 - 21.0	0.2 - 1.2	30	30	64.0	7	ADE5M203NPN	ADE5N0503NPN
ADE5	25	M25	3/4"	N075	1	7.0 - 12.0	10.0 - 16.0	0.2 - 1.2	24	30	57.0	6	ADE5M251NPN	ADE5N0751NPN
ADE5	25	M25	3/4"	N075	2	10.0 - 15.5	13.5 - 21.0	0.2 - 1.2	30	30	64.0	7	ADE5M252NPN	ADE5N0752NPN
ADE5	25	M25	3/4"	N075	3	13.5 - 20.5	18.0 - 27.5	0.2 - 1.6	41	41	75.0	8	ADE5M253NPN	ADE5N0753NPN
ADE5	32	M32	1"	N100	2	13.5 - 20.5	18.0 - 27.5	0.2 - 1.6	41	41	75.0	8	ADE5M322NPN	ADE5N1002NPN
ADE5	32	M32	1"	N100	3	18.0 - 26.0	23.0 - 34.0	0.2 - 1.6	48	48	83.0	9	ADE5M323NPN	ADE5N1003NPN
ADE5	40	M40	1 1/4"	N125	2	18.0 - 27.5	23.0 - 34.0	0.2 - 1.6	48	48	83.0	9	ADE5M402NPN	ADE5N1252NPN
ADE5	40	M40	1 1/4"	N125	3	23.0 - 34.0	29.0 - 41.0	0.2 - 2.0	55	55	90.0	10	ADE5M403NPN	ADE5N1253NPN
ADE5	50	M50	1 1/2"	N150	2	23.0 - 34.0	29.0 - 41.0	0.2 - 2.0	55	55	90.0	10	ADE5M502NPN	ADE5N1502NPN
ADE5	50	M50	1 1/2"	N150	3	29.0 - 41.0	35.0 - 48.0	0.2 - 2.5	64	64	99.0	11	ADE5M503NPN	ADE5N1503NPN
ADE5	63	M63	2"	N200	2	35.0 - 48.0	42.0 - 56.0	0.2 - 2.5	72	72	108.0	12	ADE5M632NPN	ADE5N2002NPN
ADE5	63	M63	2"	N200	3	42.0 - 53.0	50.0 - 65.0	0.2 - 2.5	85	85	120.0	13	ADE5M633NPN	ADE5N2003NPN
ADE5	75	M75	2 1/2"	N250	2	42.0 - 56.0	50.0 - 65.0	0.2 - 2.5	85	85	120.0	13	ADE5M752NPN	ADE5N2502NPN
ADE5	75	M75	2 1/2"	N250	3	50.0 - 62.5	58.0 - 74.0	0.2 - 2.5	95	95	128.0	14	ADE5M753NPN	ADE5N2503NPN
ADE5	90	M90	3"	N300	2	58.0 - 74.0	66.0 - 83.0	0.2 - 3.1	110	110	150.0	15	ADE5M902NPN	ADE5N3002NPN
ADE5	90	M90	3"	N300	3	66.0 - 78.0	75.0 - 93.0	0.2 - 3.1	120	120	160.0	16	ADE5M903NPN	ADE5N3003NPN
ADE5	110	M110	4"	N400	3	75.0 - 93.0	85.0 - 104.0	0.2 - 3.5	135	135	172.0	17	ADE5M1103NPN	ADE5N4003NPN

* Not UL certified. Above catalog numbers are for nickel-plated brass; refer to order code diagram for other options.

ADE-6F - for armoured cable

Hazardous area cable glands



Suitable for the following cable types:

- Steel wire armoured cable (SWA)
- Steel wire braided cable (SWB)
- Steel tape armoured cable (STA)
- Braided marine shipboard cable; Type P cable

With inspectable clamping for wire or braid.

Ensures 100% clamping of the armour of armoured cables. With braided cables the user must provide additional clamping, we recommend using the certified ADE clamping module (page 2.29).

Certifications and compliances

• ATEX No. INERIS 12ATEX0032X

Zones 1 and 2, Groups IIA, IIB and IIC
 Zones 21 and 22, Groups IIIA, IIIB and IIIC
 Ⓢ II2GD / Ex db IIC / Ex eb IIC / Ex tb IIIC
 Ⓢ II3G Ex nRc IIC

• IECEx No. IECEx INE 12.0025X

Zones 1 and 2, Groups IIA, IIB and IIC
 Zones 21 and 22, Groups IIIA, IIIB and IIIC
 Ex db IIC / Ex eb IIC / Ex nRc IIC / Ex tb IIIC

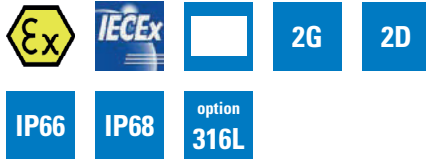
• UL: 3DJN E310130 Class I Zone 2*, AEx e II, Ex e II

Ⓢ ADE size 4 to 17, NPT 1/2" to 4" or ISO 20 to 110 with armoured cable
 ITC, MV, PLTC, TC-ER, TC-ER-HL, TC

• UL: 3LRC E314047 Class I Zone 2*, AEx e II, Ex e II

Ⓢ ADE size 4 to 17, NPT 1/2" to 4" or ISO 20 to 110 with armoured marine cable

* Can be used in Div.2 provided that the enclosure contains no components that produce arcs or sparks.



Other certificates:

CEPEL 05.0559X
 CCoE P360379-1
 KOSHA 2015-BO-0483 to 0490
 NANIO TC-RU C-FR.ГБ05.B.00858
 NEPSI GYJ13.1082X
 SABS MS/15-0314X

Shipping applications:

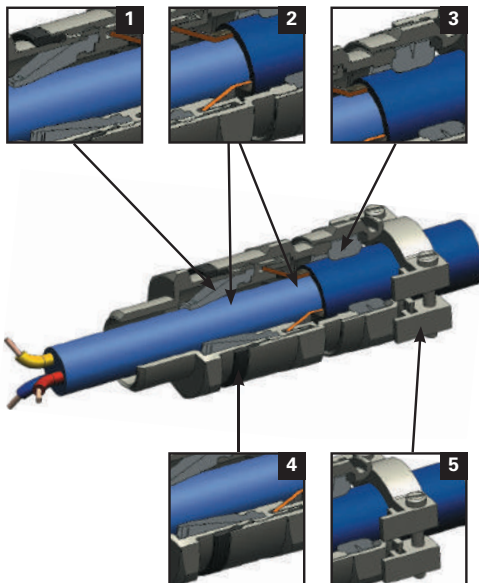
ABS 14-HS1274083-PDA
 BV 40910/A0 BV
 DNV TAE000010X
 Lloyds 11/00072
 DTS-01:1991

Technical specification

- Nickel-plated brass for superior corrosion resistance. 316L stainless steel, bronze and aluminum options available. It is recommended that a suitable lubricant is used on all threads of stainless steel and aluminum versions
- Temperature range: -60 °C to +80 °C
- IP66 / IP68 according to the method of attachment and the condition of the equipment area, see page 2.5
- Equipped with 'deluge' seal

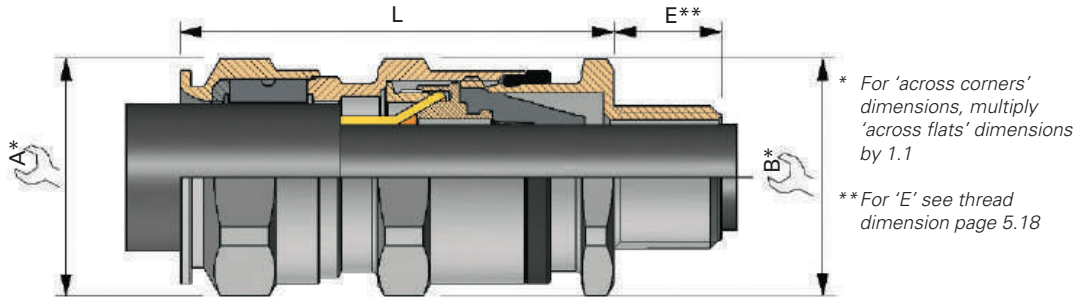
Features and benefits

- 1: Specifically formulated diaphragm seal offers cold flow protection when required and sealing on cable inner sheath
- 2: Universal clamping design for earthing and bonding of armour shield. Provides mechanical strength and is suitable for all armour shield types, with no requirement to reverse components that may introduce risk of incorrect installation. Fully inspectable
- 3: Specifically formulated elastomer for IP sealing on outer sheath of cable
- 4: Deluge performance to avoid water ingress through the thread
- 5: Additional external cable clamping for strain relief (optional)



ADE-6F - for armoured cable

Hazardous area cable glands



* For 'across corners' dimensions, multiply 'across flats' dimensions by 1.1

**For 'E' see thread dimension page 5.18

SERIES	THREAD SIZE	CABLE SEALING RANGE	MATERIAL	OPTION
ADE6	M25	3	NPN	

0 = XS
1 = S
2 = M
3 = L

CODES

K1	Accessories kit 1
K2	Accessories kit 2
K3	Accessories kit 3
BLANK	No option

KIT OPTIONS

K1	Kit 1 contents:
	• Locknut
	• Green composite washer
K2	Kit 2 contents:
	• Locknut
	• Green composite washer
	• Earth tag
K3	Kit 3 contents:
	• Locknut
	• Green composite washer
	• Earth tag
	• Serrated washer

NPS	Nickel-plated brass
SSS	Stainless steel
BZS	Bronze
ALS	Aluminum (not Group I)

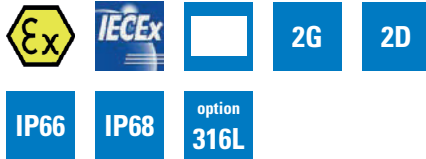
Ordering codes

SERIES	THREAD SIZE (ISO)	THREAD SIZE CODE (ISO)	THREAD SIZE (NPT)	THREAD SIZE CODE (NPT)	CABLE SEALING RANGE	CABLE SEALING RANGE		ARMOUR MIN - MAX	A	B	L	ADE GLAND SIZE	CATALOG NUMBER (ISO)	CATALOG NUMBER (NPT)
						INNER SHEATH MIN - MAX	OUTER SHEATH MIN - MAX							
ADE6	16*	M16	3/8**	N038	3	3.5 - 7.0	7.0 - 12.0	0.2 - 0.9	19	19	47.5	5	ADE6M163NPS	ADE6N0383NPS
ADE6	20	M20	1/2"	N050	1	3.5 - 7.0	7.0 - 12.0	0.2 - 0.9	19	19	47.5	5	ADE6M201NPS	ADE6N0501NPS
ADE6	20	M20	1/2"	N050	2	6.5 - 11.0	10.0 - 16.0	0.2 - 1.3	24	24	54.5	6	ADE6M202NPS	ADE6N0502NPS
ADE6	20	M20	1/2"	N050	3	9.0 - 14.5	13.5 - 21.0	0.2 - 1.3	30	30	60.5	7	ADE6M203NPS	ADE6N0503NPS
ADE6	25	M25	3/4"	N075	2	9.0 - 14.5	13.5 - 21.0	0.2 - 1.3	30	30	60.5	7	ADE6M252NPS	ADE6N0752NPS
ADE6	25	M25	3/4"	N075	3	12.0 - 19.5	18.0 - 27.5	0.2 - 1.6	41	41	74.0	8	ADE6M253NPS	ADE6N0753NPS
ADE6	32	M32	1"	N100	2	12.0 - 19.5	18.0 - 27.5	0.2 - 1.6	41	41	74.0	8	ADE6M322NPS	ADE6N1002NPS
ADE6	32	M32	1"	N100	3	17.5 - 26.0	23.0 - 34.0	0.2 - 1.6	48	48	83.0	9	ADE6M323NPS	ADE6N1003NPS
ADE6	40	M40	1 1/4"	N125	2	17.5 - 26.0	23.0 - 34.0	0.2 - 1.6	48	48	83.0	9	ADE6M402NPS	ADE6N1252NPS
ADE6	40	M40	1 1/4"	N125	3	23.0 - 33.0	29.0 - 41.0	0.2 - 2.0	55	55	92.0	10	ADE6M403NPS	ADE6N1253NPS
ADE6	50	M50	1 1/2"	N150	2	23.0 - 33.0	29.0 - 41.0	0.2 - 2.0	55	55	92.0	10	ADE6M502NPS	ADE6N1502NPS
ADE6	50	M50	2"	N200	3	28.5 - 41.0	35.0 - 48.0	0.2 - 2.5	64	64	104.0	11	ADE6M503NPS	ADE6N2003NPS

* Not UL certified. Above catalog numbers are for nickel-plated brass; refer to order code diagram for other options.

ADE-6FC - for armoured cable

Hazardous area cable glands



Suitable for the following cable types:

- Steel wire armoured cable (SWA)
- Steel wire braided cable (SWB)
- Steel tape armoured cable (STA)
- Braided marine shipboard cable; Type P cable

With inspectable clamping for wire or braid

Sealing ring and TSC compound provides 100% of cable clamping.

Certifications and compliances

• ATEX No. INERIS 12ATEX0032X

Zones 1 and 2, Groups I, IIA, IIB and IIC
Zones 21 and 22, Groups IIIA, IIIB and IIIC

⚡ II2GD / Ex db IIC / Ex eb IIC / Ex tb IIIC

⚡ II3G Ex nRc IIC

⚡ IM2 / Ex db I / Ex eb I ; for mining applications

Brass, stainless steel or bronze size 11 to 17; NPT 2" to 4", ISO 50 to 110

• IECEx No. IECEx INE 12.0025X

Zones 1 and 2, Groups I, IIA, IIB and IIC
Zones 21 and 22, Groups IIIA, IIIB and IIIC
Ex db IIC / Ex eb IIC / Ex nRc IIC / Ex tb IIIC
Ex db I / Ex eb I ; for mining applications

Brass, stainless steel or bronze size 11 to 17; NPT 2" to 4", ISO 50 to 110

• UL: 3DJN E310130 Class I Zone 2, AEx de II, Ex de II

⚡ ADE size 5 to 17, NPT 1/2" to 4" or ISO 20 to 110 with armoured cable ITC, MV, PLTC, TC-ER, TC-ER-HL, TC and compound TSC

• UL: 3DJN E310130 Class I Division 1, Groups A, B, C and D

⚡ ADE size 5 to 9, NPT 1/2" to 1 1/4" or ISO 20 to 40 with armoured cable TC-ER-HL and compound TSC
ADE size 5 to 17, NPT 1/2" to 4" or ISO 20 to 110 with armoured cable ITC-HL and compound TSC

• UL: 3DJN E310130 Class I Division 2, Groups A, B, C and D

⚡ ADE size 5 to 17, NPT 1/2" to 4" or ISO 20 to 110 with armoured cable PLTC, PLTC-ER, ITC, ITC-ER, ITC-HL, TC, TC-ER, TC-ER-HL, MV and compound TSC

• UL: 4EC5 E324850 Class I Division 1, Groups A, B, C and D

⚡ ADE size 5 to 17, NPT 1/2" to 4" or ISO 20 to 110 with armoured marine cable and compound TSC

* Can be used in Div.2 provided that the enclosure contains no components that produce arcs or sparks.

Other certificates:

CEPEL 05.0559X

CCoE P360379-1

KOSHA 2015-BO-0491 to 0494

NANIO TC-RU C-FR.ГБ05.B.00858

NEPSI GYJ13.1082X

SABS MS/15-0314X

Shipping applications:

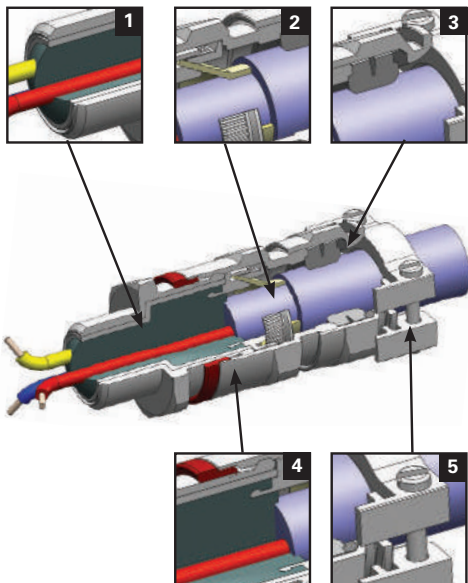
ABS 14-HS1274083-PDA

BV 40910/A0 BV

DNV TAE000010X

Lloyds 11/00072

DTS-01:1991



Technical specification

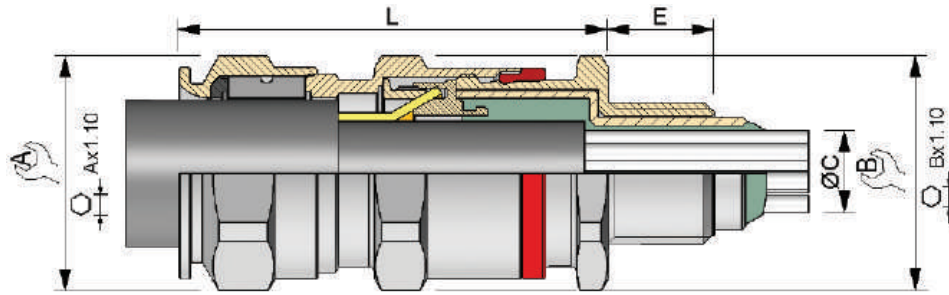
- Nickel-plated brass for superior corrosion resistance. 316L stainless steel, bronze and aluminum options available. It is recommended that a suitable lubricant is used on all threads of stainless steel and aluminum versions
- Temperature range:
-60 °C to +80 °C
- IP66 / IP68 according to the method of attachment and the condition of the equipment area, see page 2.5
- Equipped with 'deluge' seal

Features and benefits

- 1: Sealing of cable conductors with compound barrier seal
- 2: Universal clamping design for earthing and bonding of armour shield. Provides mechanical strength and is suitable for all armour shield types, with no requirement to reverse components that may introduce risk of incorrect installation. Fully inspectable
- 3: Specifically formulated elastomer for IP sealing on outer sheath of cable
- 4: Deluge performance to avoid water ingress through the thread
- 5: Additional external cable clamping for strain relief (optional)

ADE-6FC - for armoured cable

Hazardous area cable glands



* For 'across corners' dimensions, multiply 'across flats' dimensions by 1.1
 ** For 'E' see thread dimension page 5.18

SERIES	THREAD SIZE	CABLE SEALING RANGE	MATERIAL	BARRIER	OPTION	CODES		KIT OPTIONS	
ADE6C	M25	3	NP	SCN		K1	Accessories kit 1	K1	Kit 1 contents:
						K2	Accessories kit 2		• Locknut
						K3	Accessories kit 3		• Green composite washer
						BLANK	No option		Kit 2 contents:
								K2	• Locknut
									• Green composite washer
									• Earth tag
									• Shroud
								K3	Kit 3 contents:
						SCN	Solid compound		• Locknut
						NP	Nickel-plated brass		• Green composite washer
						SS	Stainless steel		• Earth tag
						BZ	Bronze		• Serrated washer

0 = XS
 1 = S
 2 = M
 3 = L

Ordering codes

SERIES	THREAD SIZE (ISO)	THREAD SIZE CODE (ISO)	THREAD SIZE (NPT)	THREAD SIZE CODE (NPT)	CABLE SEALING RANGE	OUTER SHEATH MIN - MAX	CONDUCTORS			MAX ARMOUR THICKNESS A	B	L	ADE GLAND SIZE	CATALOG NUMBER (ISO)	CATALOG NUMBER (NPT)	
							C=Ø MAX OVER CORES	Ø MAX INNER SHEATH	MAX No. CORES							
ADE6C	16*	M16	3/8**	N038	3	6.0 - 12.0	6.5	8.0	6	0.9	19	19	47.5	5	ADE6CM163NPSCN	ADE6CN038NPSCN
ADE6C	20	M20	1/2"	N050	1	6.0 - 12.0	6.5	8.0	6	0.9	19	24	47.5	5	ADE6CM201NPSCN	ADE6CN0501NPSCN
ADE6C	20	M20	1/2"	N050	2	8.5 - 16.0	9.5	12.0	6	1.2	24	24	54.5	6	ADE6CM202NPSCN	ADE6CN0502NPSCN
ADE6C	20	M20	1/2"	N050	3	12.0 - 21.0	12.0	16.0	10	1.2	30	30	60.5	7	ADE6CM203NPSCN	ADE6CN0503NPSCN
ADE6C	25	M25	3/4"	N075	2	12.0 - 21.0	12.0	16.0	10	1.2	30	30	60.5	7	ADE6CM252NPSCN	ADE6CN0752NPSCN
ADE6C	25	M25	3/4"	N075	3	16.0 - 27.5	17.0	21.0	21	1.6	41	41	74.0	8	ADE6CM253NPSCN	ADE6CN0753NPSCN
ADE6C	32	M32	1"	N100	2	16.0 - 27.5	17.0	21.0	21	1.6	41	41	74.0	8	ADE6CM322NPSCN	ADE6CN1002NPSCN
ADE6C	32	M32	1"	N100	3	21.0 - 34.0	23.0	27.5	42	1.6	48	48	83.0	9	ADE6CM323NPSCN	ADE6CN1003NPSCN
ADE6C	40	M40	1 1/4"	N125	2	21.0 - 34.0	23.0	27.5	42	1.6	48	48	83.0	9	ADE6CM402NPSCN	ADE6CN1252NPSCN
ADE6C	40	M40	1 1/4"	N125	3	27.0 - 41.0	29.0	34.0	60	2.0	55	55	92.0	10	ADE6CM403NPSCN	ADE6CN1253NPSCN
ADE6C	50	M50	1 1/2"	N150	2	27.0 - 41.0	29.0	34.0	60	2.0	55	55	92.0	10	ADE6CM502NPSCN	ADE6CN1502NPSCN
ADE6C	50	M50	2"	N200	1	33.0 - 48.0	36.5	41.0	80	2.5	64	64	104.0	11	ADE6CM501NPSCN	ADE6CN2001NPSCN
ADE6C	63	M63	2"	N200	2	40.0 - 56.0	43.0	48.0	100	2.5	72	72	108.0	12	ADE6CM632NPSCN	ADE6CN2002NPSCN
ADE6C	63	M63	2"	N200	3	46.0 - 65.0	50.0	56.0	100	2.5	85	85	118.0	13	ADE6CM633NPSCN	ADE6CN2003NPSCN
ADE6C	75	M75	2 1/2"	N250	2	46.0 - 65.0	50.0	56.0	100	2.5	85	85	118.0	13	ADE6CM752NPSCN	ADE6CN2502NPSCN
ADE6C	75	M75	2 1/2"	N250	3	54.0 - 74.0	59.0	65.0	120	2.5	95	95	124.0	14	ADE6CM753NPSCN	ADE6CN2503NPSCN
ADE6C	-	-	3"	N300	1	54.0 - 74.0	59.0	65.0	120	2.5	95	95	124.0	14	-	ADE6CN3001NPSCN
ADE6C	90	M90	3"	N300	2	63.0 - 83.0	66.0	73.0	140	3.1	110	110	133.0	15	ADE6CM902NPSCN	ADE6CN3002NPSCN
ADE6C	-	-	3 1/2"	N350	2	63.0 - 83.0	66.0	73.0	140	3.1	110	110	133.0	15	-	ADE6CN3502NPSCN
ADE6C	90	M90	3"	N300	3	72.0 - 93.0	75.0	82.0	140	3.1	120	120	137.0	16	ADE6CM903NPSCN	ADE6CN3003NPSCN
ADE6C	-	-	3 1/2"	N350	3	72.0 - 93.0	75.0	82.0	140	3.1	120	120	137.0	16	-	ADE6CN3503NPSCN
ADE6C	110	M110	4"	N400	3	85.0 - 104.0	85.0	92.0	200	3.5	135	135	142.0	17	ADE6CM1103NPSCN	ADE6CN4003NPSCN

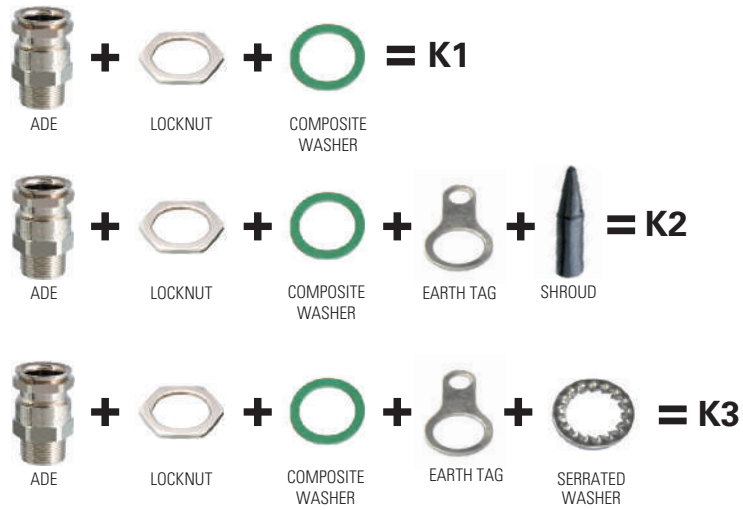
* Not UL certified. Above catalog numbers are for nickel-plated brass; refer to order code diagram for other options.

All dimensions in mm.

ADE cable gland kits

Hazardous area cable glands

ADE - CAP standard / DTS Kits



K1, K2 and K3 kits are available for all of the ADE range.

ADE-5F: Deluge seal kits (DTSK1, DTSK2, DTSK3) are suitable for ADE-5F glands sizes No.12 - No.17 only.

To order kits including deluge seal, add "DTS" to order code before the kit number; e.g. **ADE5M752NPNDTSK2**

ADE external clamping module - available with all ADE range



CABLE RANGE	SIZE	FOR HEXAGON	WIDTH	THICKNESS	CATALOG NUMBER
2.8 - 5.5	3	15	18.0	5.0	CAP810334
4.0 - 8.5	4	17	20.0	5.0	CAP810444
6.0 - 11.0	5	19	22.0	5.0	CAP810534
8.5 - 16.0	6	24	27.5	6.0	CAP810634
12.0 - 21.0	7	30	33.5	8.0	CAP810734
16.0 - 27.5	8	41	45.0	8.0	CAP810834
21.0 - 34.0	9	48	52.0	9.5	CAP810934
27.0 - 41.0	10	55	59.0	9.5	CAP811034
33.0 - 48.0	11	64	69.0	12.0	CAP811134
40.0 - 56.0	12	72	78.0	12.0	CAP811234
47.0 - 65.0	13	85	92.0	16.0	CAP811334
54.0 - 74.0	14	95	103.0	16.0	CAP811434
63.0 - 83.0	15	110	118.0	18.0	CAP811534
72.0 - 93.0	16	120	128.0	18.0	CAP811634

ADE clamping module – Material: nickel-plated brass and stainless steel washer and screws.

ADE-4F and 5F lead sheath washer



Ø OUTER LEAD SHEATH

GLAND SIZE	MIN	MAX	CATALOG NUMBER
5	4.5	7.5	CAP560530
6	7.0	11.0	CAP560630
7	10.0	15.0	CAP560730
8	13.5	20.0	CAP560830
9	18.0	26.5	CAP560930
10	23.0	32.5	CAP561030
11	29.0	39.5	CAP561130
12	35.0	46.5	CAP561230
13	42.0	54.5	CAP561330
14	50.0	61.0	CAP561430
15	58.0	72.5	CAP561530
16	66.0	81.5	CAP561630

ADE-4F/5F lead sheath washer – material: natural brass

ADE-5F deluge seal



SIZE	CATALOG NUMBER
12	CAP850012
13	CAP850013
14	CAP850014
15	CAP850015
16	CAP850016
17	CAP850017

HTL4 (high temperature thread lubricant)

FORMAT	CATALOG NUMBER
1 tube 120 ml	HTL4



HTL is a high temperature, anti-seize, conductive thread lubricant:

- Effective and stable from -55 °C to +980 °C (-70 °F to +1800 °F)
- Prevents seizure, galling, rust, galvanic action
- Maintains grounding continuity; should not be used on exposed current-carrying parts
- Compatible with all types of material

Solid compound TSC epoxy

FORMAT	ORDER UNIT	CATALOG NUMBER
10 tubes 15 ml (0.5 oz)	1 carton	TSC05
10 tubes 30 ml (1.0 oz)	1 carton	TSC1
5 tubes 120 ml (4.0 oz)	1 carton	TSC4

For use with ADE-1FC & 6FC cable glands



Mixing time: 5 minutes
 Application: by hand
 Full curing time: 24 hours
 Available for installation in any orientation

ADE accessories

Hazardous area cable glands

Green composite washers

THREAD SIZE (ISO)	D	E THICKNESS	ORDER UNIT	CATALOG NUMBER
10	15.0	1.2	20	CAP221045
12	18.0	1.2	20	CAP221245
16	22.0	1.2	20	CAP221645
20	27.0	1.2	20	CAP222045
25	35.0	1.5	20	CAP222545
32	43.0	1.5	10	CAP223245
40	55.0	1.5	10	CAP224045
50	69.0	1.5	1	CAP225045
63	82.0	2.0	1	CAP226345
75	94.0	2.0	1	CAP227545
80	100.0	2.0	1	CAP228045
90	110.0	2.0	1	CAP229045
100	119.0	2.0	1	CAP229945
110	130.0	2.0	1	CAP221145

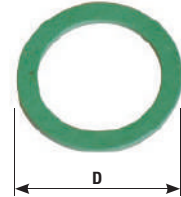
Temperature range: -60 °C to +140 °C.

Dimensions "D" subject to change

THREAD SIZE (NPT)	D	E THICKNESS	ORDER UNIT	CATALOG NUMBER
1/4"	18.0	1.5	20	CAP239014
3/8"	22.0	1.5	20	CAP239038
1/2"	31.0	1.5	20	CAP239012
3/4"	35.0	1.5	20	CAP239034
1"	43.0	1.5	20	CAP239010
1 1/4"	59.0	1.5	20	CAP239114
1 1/2"	69.0	1.5	10	CAP239112
2"	79.0	2.0	10	CAP239020
2 1/2"	94.0	2.0	1	CAP239212
3"	110.0	2.0	1	CAP239300
3 1/2"	119.0	2.0	1	CAP239312
4"	130.0	2.0	1	CAP239414

Temperature range: -60 °C to +140 °C.

Dimensions "D" subject to change



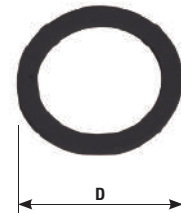
Black neoprene washers

THREAD SIZE (ISO)	D	E THICKNESS	ORDER UNIT	CATALOG NUMBER
10	15.0	1.2	20	CAP221049
12	18.0	1.2	20	CAP221249
16	22.0	1.2	20	CAP221649
20	24.0	1.2	20	CAP222049
25	30.0	1.5	20	CAP222549
32	42.0	1.5	10	CAP223249
40	52.0	1.5	10	CAP224049
50	63.0	1.5	1	CAP225049
63	77.0	2.0	1	CAP226349
75	90.0	2.0	1	CAP227549
80	102.0	2.0	1	CAP228049
90	106.0	2.0	1	CAP229049
100	116.0	2.0	1	CAP229949
110	126.0	2.0	1	CAP221149

Temperature range: -35 °C to +120 °C.

THREAD SIZE (NPT)	D	E THICKNESS	ORDER UNIT	CATALOG NUMBER
1/4"	20.0	1.5	20	CAP229014
3/8"	22.0	1.5	20	CAP229038
1/2"	27.0	1.5	20	CAP229012
3/4"	33.0	1.5	20	CAP229034
1"	41.0	1.5	20	CAP229010
1 1/4"	52.0	1.5	20	CAP229114
1 1/2"	57.0	1.5	10	CAP229112
2"	71.0	2.0	10	CAP229020
2 1/2"	85.0	2.0	1	CAP229212
3"	104.0	2.0	1	CAP229300
3 1/2"	120.0	2.0	1	CAP229312
4"	130.0	2.0	1	CAP229414

Temperature range: -40 °C to +100 °C.



Red neoprene washers

THREAD SIZE (ISO)	D	E THICKNESS	ORDER UNIT	CATALOG NUMBER
10	18.6	1.5	20	CAP221041
12	20.0	1.5	20	CAP221241
16	25.0	1.5	20	CAP221641
20	28.7	1.5	20	CAP222041
25	36.0	1.5	20	CAP222541
32	42.5	1.5	10	CAP223241
40	52.0	1.5	10	CAP224041
50	65.0	1.5	1	CAP225041
63	79.4	1.5	1	CAP226341
75	90.5	1.5	1	CAP227541
80	104.8	1.5	1	CAP228041
90	114.3	1.5	1	CAP229041
100	114.3	1.5	1	CAP229941
110	135.0	1.5	1	CAP221141

Temperature range: -30 °C to +80 °C. NPT versions available. Consult factory.

White neoprene washers

THREAD SIZE (ISO)	D	E THICKNESS	ORDER UNIT	CATALOG NUMBER
12	20.0	1.5	20	CAP221242
16	25.0	1.5	20	CAP221642
20	28.7	1.5	20	CAP222042
25	36.0	1.5	20	CAP222542
32	42.5	1.5	10	CAP223242
40	52.0	1.5	10	CAP224042
50	65.0	1.5	10	CAP224052
63	79.4	1.5	10	CAP226342
75	90.5	1.5	1	CAP227542
80	104.8	1.5	1	CAP228042
90	114.3	1.5	1	CAP229042
100	114.3	1.5	1	CAP229942
110	135.0	1.5	1	CAP221142

Temperature range: -30 °C to +75 °C. NPT versions available. Consult factory.

ADE accessories

Hazardous area cable glands

Locknut - nickel-plated brass and stainless steel 316L

THREAD SIZE (ISO)	ORDER UNIT	NICKEL-PLATED BRASS CATALOG NUMBER	ORDER UNIT	STAINLESS STEEL 316L CATALOG NUMBER	THREAD SIZE (NPT)	ORDER UNIT	NICKEL-PLATED BRASS CATALOG NUMBER	ORDER UNIT	STAINLESS STEEL 316L CATALOG NUMBER
10	20	CAP221094	1	CAP221099	1/4"	20	CAP280104	1	CAP280109
12	20	CAP221294	1	CAP221299	3/8"	20	CAP280114	1	CAP280119
16	20	CAP221694	1	CAP221699	1/2"	20	CAP280124	1	CAP280129
20	20	CAP222094	1	CAP222099	3/4"	20	CAP280134	1	CAP280139
25	20	CAP222594	1	CAP222599	1"	20	CAP280144	1	CAP280149
32	10	CAP223294	1	CAP223299	1 1/4"	20	CAP280154	1	CAP280159
40	10	CAP224094	1	CAP224099	1 1/2"	20	CAP280164	1	CAP280169
50	1	CAP225094	1	CAP225099	2"	1	CAP280174	1	CAP280179
63	1	CAP226394	1	CAP226399	2 1/2"	1	CAP280184	1	CAP280189
75	1	CAP227594	1	CAP227599	3"	1	CAP280194	1	CAP280199
80	1	CAP228094	1	CAP228099	3 1/2"	1	CAP280204	1	CAP280209
90	1	CAP229094	1	CAP229099	4"	1	CAP280214	1	CAP280219
100	1	CAP229994	1	CAP229999					
110	1	CAP221104	1	CAP221109					



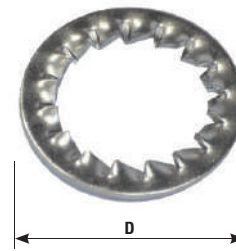
Earth tag - nickel-plated brass and stainless steel 316L (order unit = 1 pc)

THREAD SIZE (ISO)	A	B	C	D	NICKEL-PLATED BRASS CATALOG NUMBER	STAINLESS STEEL 316L CATALOG NUMBER	THREAD SIZE (NPT)	A	B	C	D	NICKEL-PLATED BRASS CATALOG NUMBER	STAINLESS STEEL 316L CATALOG NUMBER
10	48.8	30.0	6.75	24.5	CAP567014	CAP567019	1/4"	48.8	30.0	6.75	24.5	CAP567034	CAP567039
12	51.0	32.0	6.75	24.5	CAP567024	CAP567029	3/8"	50.5	30.0	6.75	25.4	CAP567044	CAP567049
16	48.5	30.0	6.5	24.5	CAP567034	CAP567039	1/2"	53.8	33.0	7.0	28.6	CAP567064	CAP567069
20	53.8	33.0	7.0	28.6	CAP567054	CAP567059	3/4"	61.5	36.0	10.5	34.0	CAP567084	CAP567089
25	61.5	36.0	10.5	34.0	CAP567074	CAP567079	1"	73.0	41.0	12.2	42.0	CAP567104	CAP567109
32	73.0	41.0	12.2	42.0	CAP567094	CAP567099	1 1/4"	86.5	44.5	13.5	54.0	CAP567134	CAP567139
40	86.5	44.5	13.5	54.0	CAP567124	CAP567129	1 1/2"	112.0	58.0	13.5	67.0	CAP567154	CAP567159
50	111.5	58.0	13.5	67.0	CAP567154	CAP567159	2"	126.0	67.0	13.5	77.0	CAP567174	CAP567179
63	125.5	67.0	13.5	77.0	CAP567184	CAP567189	2 1/2"	138.0	73.0	13.5	89.0	CAP567194	CAP567199
75	137.5	73.0	13.5	89.0	CAP567194	CAP567199	3"	161.0	85.0	13.5	114.0	CAP567214	CAP567219
80	156.1	87.5	13.5	97.2	CAP567204	CAP567209	3 1/2"	190.0	103.0	13.5	125.0	CAP567224	CAP567229
90	167.0	93.0	13.5	109.5	CAP567214	CAP567219	4"	210.0	117.8	13.5	140.0	CAP567244	CAP567249
100	190.0	103.0	13.5	125.0	CAP567224	CAP567229							
110	214.0	125.0	13.5	138.0	CAP567234	CAP567239							



Serrated washer - stainless steel

THREAD SIZE (ISO)	D	ORDER UNIT	STAINLESS STEEL CATALOG NUMBER	THREAD SIZE (NPT)	D	ORDER UNIT	STAINLESS STEEL CATALOG NUMBER
12	20.5	1	CAP280019	1/4"	24.0	1	CAP290109
16	25.5	20	CAP280069	3/8"	32.0	1	CAP290119
20	32.5	20	CAP280029	1/2"	38.0	1	CAP290129
25	39.5	20	CAP280259	3/4"	41.0	1	CAP290139
32	49.5	20	CAP280329	1"	49.0	1	CAP290149
40	64.5	1	CAP280409	1 1/4"	58.0	1	CAP290159
50	80.5	1	CAP280509	1 1/2"	70.0	1	CAP290169
63	100.0	1	CAP280639	2"	86.0	1	CAP290179
75	112.0	1	CAP280759	2 1/2"	100.0	1	CAP290189
80	120.0	1	CAP280089	3"	120.0	1	CAP290199
90	123.0	1	CAP280099				
100	140.0	1	CAP281009				
110	150.0	1	CAP281119				



Shroud - PVC

ADE SIZE	DIAMETER A	ORDER UNIT	ALL ADE (Except ADE-1FC)	ADE 1FC
3	16.0	1	CAP506030	
4	18.0	1	CAP506044	CAP506050
5	20.0	10	CAP506050	CAP506060
6	25.0	10	CAP506060	CAP506070
7	31.0	10	CAP506070	CAP506080
8	43.0	10	CAP506080	CAP506090
9	52.0	10	CAP506090	CAP506100
10	59.0	1	CAP506100	CAP506110
11	67.0	1	CAP506110	CAP506120
12	75.0	1	CAP506120	CAP506130
13	90.0	1	CAP506130	CAP506140
14	100.0	1	CAP506140	CAP506150
15	116.0	1	CAP506150	CAP506160
16	127.0	1	CAP506160	CAP506017
17	144.0	1	CAP506017	



NEWCAP MS-e

Hazardous area cable glands



Suitable for the following cable types:

- Non-armoured cable
- Braided cable (EMC applications)

Provides 25% of cable clamping, an external clamp is required to ensure that pulling and twisting does not affect the terminations.

Certifications and compliances

• ATEX No. INERIS 13ATEX0008X

Zones 1 and 2, Group IIC
Zones 21 and 22, Group IIIC

⊕ II2GD / Ex eb IIC / Ex tb IIIC

⊕ II3G Ex nRc IIC

• IECEx No. IECEx INE 13.0003X

Zones 1 and 2, Group IIC
Zones 21 and 22, Group IIIC

Ex eb IIC / Ex nRc IIC / Ex tb IIIC

Shipping applications:

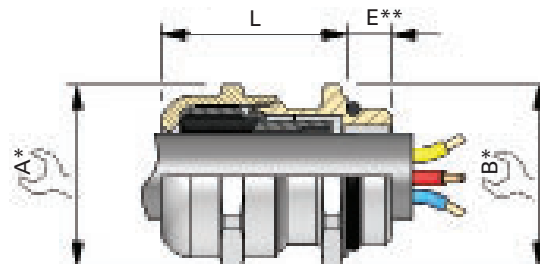
BV: 40910/A0 BV

DTS-01:1991



Technical specification

- Material: nickel-plated brass and stainless steel 316L
(It is recommended that a suitable lubricant is used on all threads of stainless steel versions)
- Ensures the electrical continuity of the braided armour (EMC application)
- Temperature range: -20 °C to +80 °C
- IP66 / IP68 tested 30m/7days on surface Ra 1.6µm max.



* For 'across corners' dimensions, multiply 'across flats' dimensions by 1.1

** For 'E' see thread dimension page 5.18

Ordering codes

THREAD SIZE (ISO)	BRAID THICKNESS	CABLE DIAMETER MIN - MAX	A	B	L	NEWCAP SIZE	NICKEL-PLATED BRASS CATALOG NUMBER	NICKEL-PLATED BRASS ¹⁾ LOCKNUT	STAINLESS STEEL 316L [*] CATALOG NUMBER	STAINLESS STEEL 316L ¹⁾ LOCKNUT
12	0.70	4.0 - 6.5	15	15	18.0	4	CAP192124V1	CAP221294	CAP192129V1	CAP221299
16	0.70	4.0 - 6.5	15	18	18.0	4	CAP192154V1	CAP221694	CAP192159V1	CAP221699
16	0.70	5.5 - 10.0	20	20	24.0	5	CAP192164V1	CAP221694	CAP192169V1	CAP221699
20	0.70	5.5 - 10.0	20	22	24.0	5	CAP192194V1	CAP222094	CAP192199V1	CAP222099
20	0.80	7.5 - 13.0	24	24	27.0	6	CAP192204V1	CAP222094	CAP192209V1	CAP222099
25	0.80	7.5 - 13.0	24	27	27.0	6	CAP192244V1	CAP222594	CAP192249V1	CAP222599
25	0.85	11.5 - 18.0	30	30	28.0	7	CAP192254V1	CAP222594	CAP192259V1	CAP222599
32	0.85	11.5 - 18.0	30	34	28.0	7	CAP192314V1	CAP223294	CAP192319V1	CAP223299
32	0.95	17.5 - 24.5	38	38	30.0	8	CAP192324V1	CAP223294	CAP192329V1	CAP223299
40	0.95	17.5 - 24.5	38	43	30.0	8	CAP192394V1	CAP224094	CAP192399V1	CAP224099
40	1.00	24.0 - 32.0	47	47	33.0	9	CAP192404V1	CAP224094	CAP192409V1	CAP224099
50	1.00	24.0 - 32.0	47	54	33.0	9	CAP192494V1	CAP225094	CAP192499V1	CAP225099
50	1.15	31.0 - 40.5	57	57	37.0	10	CAP192504V1	CAP225094	CAP192509V1	CAP225099
63	1.15	31.0 - 40.5	57	68	37.0	10	CAP192624V1	CAP226394	CAP192629V1	CAP226399
63	1.75	39.0 - 53.0	75	75	48.0	11	CAP192634V1	CAP226394	CAP192639V1	CAP226399

* Stainless steel 316L with long (15 mm) thread

¹⁾ Order unit for locknuts, see page 3.28

All dimensions in mm.



NEWCAP CT-e

Hazardous area cable glands

INTRODUCTION



Suitable for the following cable types:

- Non-armoured cable
- Braided cable (EMC applications)

Provides 25% of cable clamping, an external clamp is required to ensure that pulling and twisting does not affect the terminations.

Certifications and compliances

- **ATEX No. INERIS 13ATEX0008X**

Zones 1 and 2, Group IIC
Zones 21 and 22, Group IIIC

II2GD / Ex eb IIC / Ex tb IIIC

II3G Ex nRc IIC

- **IECEX No. IECEX INE 13.0003X**

Zones 1 and 2, Group IIC
Zones 21 and 22, Group IIIC

Ex eb IIC / Ex nRc IIC / Ex tb IIIC

Shipping applications:

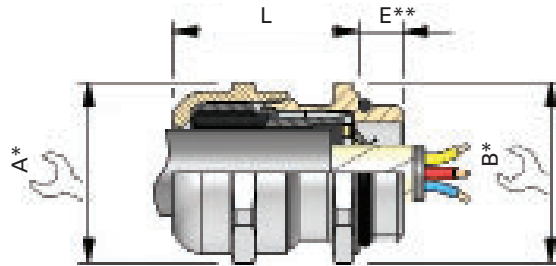
BV: 40910/A0 BV

DTS-01:1991



Technical specification

- Material: nickel-plated brass and stainless steel 316L
(It is recommended that a suitable lubricant is used on all threads of stainless steel versions)
- Ensures the electrical continuity of the braided armour (EMC application) without any interruption of the armour
- Temperature range: -20 °C to +80 °C
- IP66 / IP68 tested 30m/7days on surface Ra 1.6µm max.



* For 'across corners' dimensions, multiply 'across flats' dimensions by 1.1

** For 'E' see thread dimension page 5.18

Ordering codes

THREAD SIZE (ISO)	BRAID THICKNESS	DIAMETER ON SHIELD	CABLE DIAMETER MIN - MAX	A	B	L	NEWCAP SIZE	NICKEL-PLATED BRASS CATALOG NUMBER	NICKEL-PLATED BRASS ¹⁾ LOCKNUT	STAINLESS STEEL 316L* CATALOG NUMBER	STAINLESS STEEL 316L ¹⁾ LOCKNUT
12	0.70	3.0	4.0 - 6.5	15	15	18.0	4	CAP193124V1	CAP221294	CAP193129V1	CAP221299
16	0.70	3.0	4.0 - 6.5	15	18	18.0	4	CAP193154V1	CAP221694	CAP193159V1	CAP221699
16	0.70	4.5	5.5 - 10.0	20	20	24.0	5	CAP193164V1	CAP221694	CAP193169V1	CAP221699
20	0.70	4.5	5.5 - 10.0	20	22	24.0	5	CAP193194V1	CAP222094	CAP193199V1	CAP222099
20	0.80	6.0	7.5 - 13.0	24	24	27.0	6	CAP193204V1	CAP222094	CAP193209V1	CAP222099
25	0.80	6.0	7.5 - 13.0	24	27	27.0	6	CAP193244V1	CAP222594	CAP193249V1	CAP222599
25	0.85	10.0	11.5 - 18.0	30	30	28.0	7	CAP193254V1	CAP222594	CAP193259V1	CAP222599
32	0.85	10.0	11.5 - 18.0	30	34	28.0	7	CAP193314V1	CAP223294	CAP193319V1	CAP223299
32	0.95	15.0	17.5 - 24.5	38	38	30.0	8	CAP193324V1	CAP223294	CAP193329V1	CAP223299
40	0.95	15.0	17.5 - 24.5	38	43	30.0	8	CAP193394V1	CAP224094	CAP193399V1	CAP224099
40	1.00	20.5	24.0 - 32.0	47	47	33.0	9	CAP193404V1	CAP224094	CAP193409V1	CAP224099
50	1.00	20.5	24.0 - 32.0	47	54	33.0	9	CAP193494V1	CAP225094	CAP193499V1	CAP225099
50	1.15	27.5	31.0 - 40.5	57	57	37.0	10	CAP193504V1	CAP225094	CAP193509V1	CAP225099
63	1.15	27.5	31.0 - 40.5	57	68	37.0	10	CAP193624V1	CAP226394	CAP193629V1	CAP226399
63	1.75	34.5	39.0 - 53.0	75	75	48.0	11	CAP193634V1	CAP226394	CAP193639V1	CAP226399

* Stainless steel 316L with long (15 mm) thread

¹⁾ Order unit for locknuts, see page 3.28

All dimensions in mm.

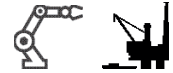
HAZARDOUS AREA ACCESSORIES

INDUSTRIAL CABLE GLANDS AND ACCESSORIES

TECHNICAL GUIDE

CEAG GHG Ex e black

Hazardous area cable glands



Suitable for the following cable types:

- Non-armoured cable
- Fixed equipment where cables are not subjected to traction or vibration

Certifications and marquages

- **ATEX No. PTB 14 ATEX 1015 X**

⊕ II 2G - Ex e IIC Gb
⊕ II 2D - Ex tb IIIC Db

- **IECEX No. IECEX PTB 14.0027X**

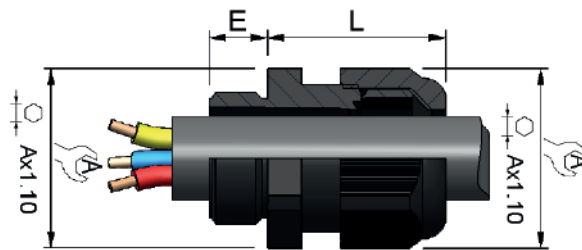
Ex eb IIC Gb
Ex eb IIC Db

Technical specification

- Material: polyamide
- Temperature range:
 - 20 °C to +70 °C (M12 to M32)
 - 55 °C to +70 °C (M40 to M63)
- Large cable connection area
- Low torque required for tightening
- Integrated sealing lip on thread
- Locknut available separately: see page ???



IP66



Ordering codes

THREAD SIZE (ISO)	CABLE DIAMETER SEAL			A	L	E	ORDER UNIT	CATALOG NUMBER
	1 + 2 + 3	1 + 2	1					
Ex e glands with short thread								
12	-	-	5.0 - 7.0	15.0	19.3	8.0	20	GHG 960 1955 R0001
16	-	5.5 - 7.0	7.0 - 10.0	20.0	23.0	8.0	20	GHG 960 1955 R0002
20	5.5 - 7.0	7.0 - 9.0	9.5 - 13.0	24.0	25.0	8.0	20	GHG 960 1955 R0003
25	8.0 - 10.0	10.0 - 13.0	13.5 - 17.5	29.0	29.5	8.0	20	GHG 960 1955 R0004
32	-	14.0 - 17.0	17.5 - 21.0	36.0	35.5	10.0	20	GHG 960 1955 R0005
Ex e glands with long thread								
12	-	-	5.0 - 7.0	15.0	19.3	12.0	20	GHG 960 1955 R0021
16	-	5.5 - 7.0	7.0 - 10.0	20.0	23.0	12.0	20	GHG 960 1955 R0022
20	5.5 - 7.0	7.0 - 9.0	9.5 - 13.0	24.0	25.0	13.0	20	GHG 960 1955 R0023
25	8.0 - 10.0	10.0 - 13.0	13.5 - 17.5	29.0	29.5	13.0	20	GHG 960 1955 R0024
32	-	14.0 - 17.0	17.5 - 21.0	36.0	35.5	15.0	20	GHG 960 1955 R0025
40	-	19.0 - 22.0	22.0 - 28.0	46.0	39.5	15.0	10	GHG 960 1955 R0026
50	-	24.0 - 28.0	28.0 - 35.0	55.0	44.0	16.0	10	GHG 960 1955 R0027
63	-	29.0 - 35.0	36.0 - 48.0 (1)	68.0	47.0	16.0	5	GHG 960 1955 R0028

(1) Size M63 is supplied with a specific additional seal for the clamping range 41.0 - 48.0 mm

All dimensions in mm.



CEAG GHG Ex e blue

Hazardous area cable glands



Suitable for the following cable types:

- Non-armoured cable
- Fixed equipment where cables are not subjected to traction or vibration
- The blue cap allows easy identification of intrinsically safe circuits

Certifications and marquages

• ATEX No. PTB 14 ATEX 1015 X

- II 2G - Ex e IIC Gb
- II 2D - Ex tb IIC Db

• IECEx No. IECEx PTB 14.0027X

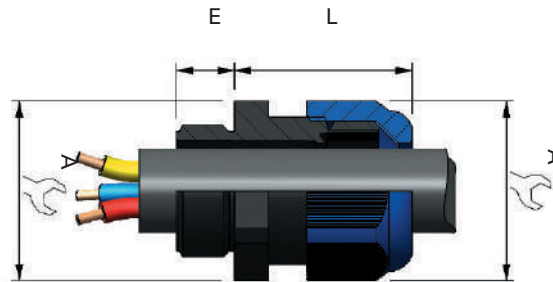
- Ex eb IIC Gb
- Ex eb IIC Db

Technical specification

- Material: polyamide
- Temperature range:
 - 20 °C to +70 °C (M12 to M32)
 - 55 °C to +70 °C (M40 to M63)
- Large cable connection area
- Low torque required for tightening.
- Integrated sealing lip on thread
- Locknut available separately: see page ???



IP66



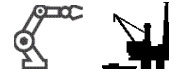
Ordering codes

THREAD SIZE (ISO)	CABLE DIAMETER SEAL			A	L	E	ORDER UNIT	CATALOG NUMBER
	1 + 2 + 3	1 + 2	1					
Ex e blue glands with short thread								
12	-	-	5.0 - 7.0	15.0	19.3	8.0	20	GHG 960 1955 R0101
16	-	5.5 - 7.0	7.0 - 10.0	20.0	23.0	8.0	20	GHG 960 1955 R0102
20	5.5 - 7.0	7.0 - 9.0	9.5 - 13.0	24.0	25.0	8.0	20	GHG 960 1955 R0103
25	8.0 - 10.0	10.0 - 13.0	13.5 - 17.5	29.0	29.5	8.0	20	GHG 960 1955 R0104
32	-	14.0 - 17.0	17.5 - 21.0	36.0	35.5	10.0	20	GHG 960 1955 R0105
Ex e blue glands with long thread								
12	-	-	5.0 - 7.0	15.0	19.3	12.0	20	GHG 960 1955 R0121
16	-	5.5 - 7.0	7.0 - 10.0	20.0	23.0	12.0	20	GHG 960 1955 R0122
20	5.5 - 7.0	7.0 - 9.0	9.5 - 13.0	24.0	25.0	13.0	20	GHG 960 1955 R0123
25	8.0 - 10.0	10.0 - 13.0	13.5 - 17.5	29.0	29.5	13.0	20	GHG 960 1955 R0124
32	-	14.0 - 17.0	17.5 - 21.0	36.0	35.5	15.0	20	GHG 960 1955 R0125
40	-	19.0 - 22.0	22.0 - 28.0	46.0	39.5	15.0	10	GHG 960 1955 R0126
50	-	24.0 - 28.0	28.0 - 35.0	55.0	44.0	16.0	10	GHG 960 1955 R0127
63	-	29.0 - 35.0	36.0 - 48.0 (1)	68.0	47.0	16.0	5	GHG 960 1955 R0128

(1) Size M63 is supplied with a specific additional seal for the clamping range 41.0 - 48.0 mm

Trumpet Ex e cable gland

Hazardous area cable glands



Suitable for the following cable types:

- Non-armoured cable
- Mobile/portable equipment (i.e: portable lamps)
- Cables subjected to vibration (i.e: BJ motor)

Certifications and marquages

• **ATEX No. PTB 00ATEX3121**

- II 2 G - Ex e II
- II 2 D - Ex tD A21 IP66

• **IECEX No. IECEX BKI 08.0007**

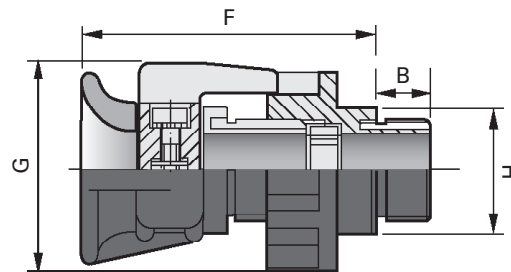
- Ex e II
- Ex tD A21 IP66 T85 °C

Technical specification

- Material: polyamide
- Temperature range: -40 °C to +85 °C
- Large cable connection area
- Low torque required for tightening
- Supplied with washer and locknut



IP66



Ordering codes

THREAD SIZE (ISO)	THREAD SIZE (ISO)	CABLE DIAMETER MIN - MAX	F	H	G	B	ORDER UNIT	CATALOG NUMBER
20	M20	8.0 - 13.0	64.0	27.0	47.0	15.0	10	GHG 960 1949 R0111
25	M25	11.0 - 16.0	65.0	32.0	51.0	15.0	10	GHG 960 1949 R0112
32	M32	15.0 - 20.0	80.0	41.0	68.0	15.0	10	GHG 960 1949 R0113
40	M40	19.0 - 27.0	86.0	50.0	81.0	15.0	10	GHG 960 1949 R0114
50	M50	28.0 - 34.0	95.0	60.0	96.0	16.0	1	GHG 960 1949 R0115
63	M63	38.0 - 46.0	105.0	75.0	107.0	16.0	1	GHG 960 1949 R0116

All dimensions in mm.





option
316L

Suitable for the following cable types:

- Metal Clad cable: MC, MC-HL
- Non-armoured cable and tray cable: ITC-HL, TC, TC-ER, TC-ER-HL, PLTC
- TECK cable

Certifications and compliances

- **cULus No. E122485**
Class I Division 1 Groups A, B, C, D
Class II Groups E, F, G
Class III
NEMA 6P (1/2" to 1 1/4" NPT or metric equivalent)
NEMA 4X (1/2" to 4" NPT or metric equivalent)
Nickel-plated brass and stainless steel 316L versions are NEMA 4X rated.

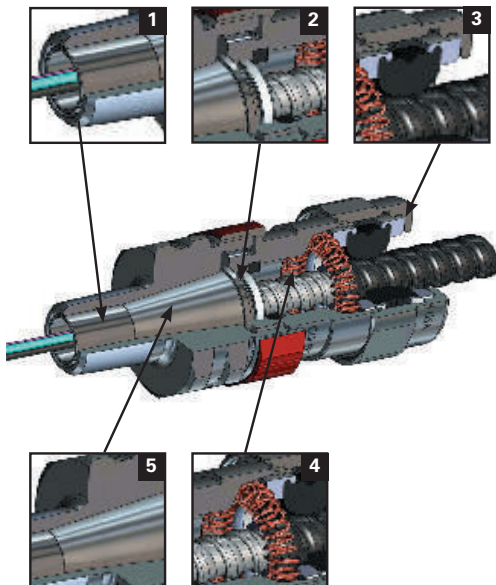
Technical specification

- Material: aluminium with neoprene O-ring, stainless steel 316L and nickel-plated brass
- Chico® LiquidSeal liquid compound with fast gel and cure times to reduce waiting time. Also available with regular TSC epoxy sealing compound*.
- Aluminum sizes 1/2" to 1 1/4" NPT available in bulk packs.
- Temperature range: -40 °C to +60 °C
- For specific temperature information, please contact your local representative.

*For details of Chico® LiquidSeal liquid compound, TSC epoxy sealing compound and Cold Shrink kits, please see page ??.

Features and benefits

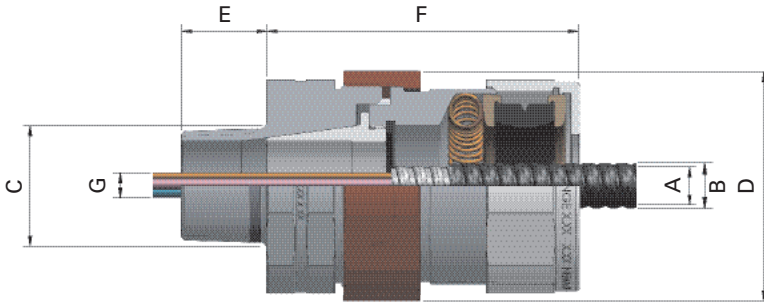
- 1: Choice of liquid or putty compound allows rapid curing and facilitates non-vertical applications. Includes compound dam.
- 2: Splined shaft ensures the two assemblies lock together and do not rotate, preventing need for two tools to be used.
- 3: Back nut / cap nut and environmental seal are captive, retaining entry end components.
- 4: Conical compound chamber ensures perfect flame path every time.
- 5: Integral union allows for a two-piece assembly gland, minimizing tightening and loosening of nuts, improving assembly time. Red anodized union nut is visible in any orientation for quick identification of Ex gland.



Terminator II TMCX

North American cable glands

INTRODUCTION



Cable gland TMCX II bulk packs

CATALOG NUMBER	DESCRIPTION	QUANTITY
TMCX050 0 BULK	1/2" TMCX II SIZE 0	20
TMCX050 1 BULK	1/2" TMCX II SIZE 1	20
TMCX050 2 BULK	1/2" TMCX II SIZE 2	20
TMCX075 0 BULK	3/4" TMCX II SIZE 0	15
TMCX075 1 BULK	3/4" TMCX II SIZE 1	15
TMCX075 2 BULK	3/4" TMCX II SIZE 2	15
TMCX100 0 BULK	1" TMCX II SIZE 0	15
TMCX100 1 BULK	1" TMCX II SIZE 1	10
TMCX100 2 BULK	1" TMCX II SIZE 2	10
TMCX125 1 BULK	1 1/4" TMCX II SIZE 1	10

SERIES	THREAD SIZE	CABLE SEALING RANGE	MATERIAL	SEALING TYPE	CODES
TMCX	050	1	NP	L	L Liquid compound BLANK TSC compound
					SELECT
					NP Nickel-plated brass SS Stainless steel BLANK Aluminum
					SELECT

The Terminator™ II TMCX in aluminum, sizes 1/2" to 1 1/4" NPT is also available in bulk packed glands without compound. For details of Chico® LiquidSeal liquid compound, TSC epoxy sealing compound and Cold Shrink kits, please see page ??

HAZARDOUS AREA CABLE GLANDS

HAZARDOUS AREA ACCESSORIES

Ordering codes

THREAD SIZE (NPT) 'C'	THREAD SIZE CODE (NPT)	THREAD SIZE (ISO) 'C'	THREAD SIZE CODE (ISO)	CABLE SEALING RANGE	OVER COND O.D MAX 'G'	ARMOUR O.D. 'A' MIN - MAX	CABLE O.D. 'B' † MIN - MAX	D	E	F	CATALOG NUMBER (NPT)	CATALOG NUMBER (ISO)
1/2"	050	20	M20	0	0.480	0.36-0.66	0.45-0.70	1.44	0.89	2.93	TMCX050 0	TMCXM20 0
1/2"	050	20	M20	1	0.480	0.40-0.86	0.49-0.90	1.75	1.00	3.05	TMCX050 1	TMCXM20 1
1/2"	050	20	M20	2	0.480	0.56-1.14	0.65-1.18	2.25	1.00	3.18	TMCX050 2	TMCXM20 2
3/4"	075	25	M25	0	0.713	0.36-0.66	0.45-0.70	1.63	0.90	2.93	TMCX075 0	TMCXM25 0
3/4"	075	25	M25	1	0.713	0.40-0.86	0.49-0.90	1.75	1.00	3.05	TMCX075 1	TMCXM25 1
3/4"	075	25	M25	2	0.713	0.56-1.14	0.65-1.18	2.25	1.00	3.18	TMCX075 2	TMCXM25 2
1"	100	32	M32	0	0.713	0.40-0.86	0.49-0.90	1.75	1.08	3.13	TMCX100 0	TMCXM32 0
1"	100	32	M32	1	0.939	0.56-1.14	0.65-1.18	2.25	1.08	3.18	TMCX100 1	TMCXM32 1
1"	100	32	M32	2	0.939	0.78-1.35	0.87-1.39	2.56	1.08	3.30	TMCX100 2	TMCXM32 2
1 1/4"	125	40	M40	1	1.172	0.78-1.35	0.87-1.39	2.56	1.08	3.30	TMCX125 1	TMCXM40 1
1 1/4"	125	40	M40	2	1.150	0.94-1.67	1.03-1.65	3.73	1.25	4.71	TMCX125 2	TMCXM40 2
1 1/2"	150	50	M50	1	1.370	0.94-1.67	1.03-1.65	3.73	1.25	4.71	TMCX150 1	TMCXM50 1
1 1/2"	150	50	M50	2	1.370	1.28-1.97	1.53-2.07	4.11	1.25	4.71	TMCX150 2	TMCXM50 2
2"	200	63	M63	1	1.760	1.28-1.97	1.53-2.07	4.11	1.25	4.71	TMCX200 1	TMCXM63 1
2"	200	63	M63	2	1.760	1.67-2.62	1.81-2.72	4.98	1.25	5.63	TMCX200 2	TMCXM63 2
2 1/2"	250	75	M75	1	2.140	1.67-2.62	1.81-2.72	4.98	1.81	5.63	TMCX250 1	TMCXM75 1
2 1/2"	250	75	M75	2	2.140	2.11-2.95	2.34-3.13	5.61	1.81	5.80	TMCX250 2	TMCXM75 2
3"	300	90	M90	1	2.690	2.11-2.95	2.34-3.13	5.61	1.81	5.80	TMCX300 1	TMCXM90 1
3"	300	90	M90	2	2.690	2.45-3.39	2.68-3.61	6.23	1.81	6.26	TMCX300 2	TMCXM90 2
3 1/2"	350	110	M110	1	3.130	2.45-3.39	2.68-3.61	6.23	1.94	6.26	TMCX350 1	TMCXM110 1
3 1/2"	350	110	M110	2	3.570	3.05-4.22	3.13-3.97	6.73	1.94	6.52	TMCX350 2	TMCXM110 2
4"	400	-	-	1	3.130	2.45-3.39	2.68-3.61	6.23	2.00	6.26	TMCX400 1	-
4"	400	-	-	2	3.570	3.05-4.22	3.13-3.97	6.73	2.00	6.52	TMCX400 2	-

† When making your cable selection based on cable O.D., be sure to also observe the Over Conductors O.D. dimension

‡ Minimum cable O.D. for CSA certification is 0.49 (12.45) for TMCX050 0 and TMCX075 0; 0.57 (14.48) for TMCX100 0.

INDUSTRIAL CABLE GLANDS AND ACCESSORIES

TECHNICAL GUIDE

Accessories for Terminator™ II TMCX

North American cable glands

Chico® LiquidSeal liquid compound

Mixing time: 2 minutes
 Application: pour/gun
 Gel time: 15-30 minutes*
 Full cure/return to service time: 2 hours*
 Available for installation in vertical position



Chico® LiquidSeal liquid compound

FORMAT	ORDER UNIT	CATALOG NUMBER
10 x 10 ml sachets	1 carton	LSC10
10 x 20 ml sachets	1 carton	LSC20
5 x 75 ml sachets	1 carton	LSC75



Chico® LiquidSeal 200ml cartridge

Easily and quickly pour multiple glands
 Self-mixing nozzles
 Gel time: 15-30 minutes*
 Full cure/return to service time: 2 hours*
 Can be stored between uses**

*at +20°C ambient temperature
 **additional tips may be required



Applicator gun

Applicator gun available at many retailers - ask for 200ml dual cartridge applicator gun.

DESCRIPTION	STANDARD CARTON QUANTITY	CATALOG NUMBER
200 ml. liquid compound cartridge and 3 mixing nozzles	1	LSC200CART
Replacement mixing nozzles	5	LSCTIP

Solid compound epoxy TSC

Mixing time: 5 minutes
 Application: by hand
 Full curing time: 24 hours
 Available for installation in any orientation



FORMAT	ORDER UNIT	CATALOG NUMBER
10 x 15 ml tubes (0.5 oz)	1 carton	TSC05
10 x 30 ml tubes (1.0 oz)	1 carton	TSC1
5 x 120 ml tubes (4.0 oz)	1 carton	TSC4

Cold Shrink™ corrosion protection kits

THREAD SIZE NPT (TMCX, TMC)	CATALOG NUMBER NPT TMCX II	CATALOG NUMBER ISO TMCX II	COLD SHRINK KIT
1/2"	TMCX050 0	TMCXM20 0	TMC-K1
1/2"	TMCX050 1	TMCXM20 1	TMC-K1
1/2"	TMCX050 2	TMCXM20 2	TMC-K1
3/4"	TMCX075 0	TMCXM25 0	TMC-K2
3/4"	TMCX075 1	TMCXM25 1	TMC-K2
3/4"	TMCX075 2	TMCXM25 2	TMC-K2
1"	TMCX100 0	TMCXM32 0	TMC-K3
1"	TMCX100 1	TMCXM32 1	TMC-K3
1"	TMCX100 2	TMCXM32 2	TMC-K3
1 1/4"	TMCX125 1	TMCXM40 1	TMC-K4
1 1/4"	TMCX125 2	TMCXM40 2	TMC-K4
1 1/2"	TMCX150 1	TMCXM50 1	TMC-K5
1 1/2"	TMCX150 2	TMCXM50 2	TMC-K5
2"	TMCX200 1	TMCXM63 1	TMC-K6
2"	TMCX200 2	TMCXM63 2	TMC-K6
2 1/2"	TMCX250 1	TMCXM75 1	TMC-K7
2 1/2"	TMCX250 2	TMCXM75 2	TMC-K7
3"	TMCX300 1	TMCXM90 1	TMC-K8
3"	TMCX300 2	TMCXM90 2	TMC-K8
3 1/2"	TMCX350 1	TMCXM110 1	TMC-K9
3 1/2"	TMCX350 2	TMCXM110 2	TMC-K9
4"	TMCX400 1	-	TMC-K10
4"	TMCX400 2	-	TMC-K10

Cold Shrink™ Corrosion Protection Kits are specially designed for Crouse-Hinds TMC, TMCX and TECK fittings to provide protection against corrosive elements like salt spray and moisture.

The TMC-K kit is made of a Cold Shrink material that is quick and easy to install on the gland. The Cold Shrink material is made of EPDM rubber that contains no chlorides or sulphurs. The protection kit installs easily over the gland without the use of a heat source to shrink the material tightly over the seal. The Cold Shrink material can be removed easily from the gland by simply cutting it off.

See ordering information for complete offering of TMC-K Cold Shrink kits for corrosion protection. Cold Shrink is a registered trademark of the 3M Company.



Suitable for the following cable types:

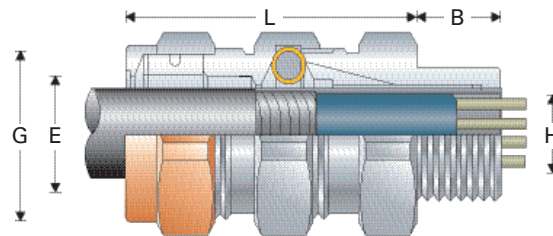
- Metal Clad cable: MC, MC-HL
- Tray cable: TC

Certifications and compliances

- **UL No. E122485**
Class I Division 1 Groups A, B, C, D
Class II
Class III
NEMA 4 and IP56
- **CSA No. LR13046**

Technical specification

- Material: aluminium with neoprene seal (nickel-plated brass on request)
- Stainless steel copper-plated spring provides grounding continuity of cable armour (MC cable only).
- Provides explosionproof compound seal on conductors and watertight seal on outer sheath of cable
- Temperature range: -25 °C to +60 °C
- IP56
- Cold Shrink™ Kit is available for extra protection in aggressive environments.
- Available with TSC epoxy sealing compound.



THREAD SIZE (NPT)	ARMOUR RANGE 'H' MIN - MAX	OUTER SHEATH 'E' MIN - MAX	ACROSS FLATS	ACROSS CORNERS 'G'	LENGTH 'L'	THREAD LENGTH 'B'	CATALOG NUMBER ALUMINIUM	COLD SHRINK KIT THREAD SIZE	CATALOG NUMBER
1/2"	0.44 - 0.65	0.49 - 0.78	1.25	1.38	2.63	0.75	TMCX165	1/2"	TMC-K1
3/4"	0.60 - 0.85	0.65 - 1.00	1.50	1.63	2.88	0.78	TMCX285	3/4"	TMC-K2
1"	0.80 - 1.12	0.85 - 1.31	1.88	2.00	3.13	0.94	TMCX3112	1"	TMC-K3
1 1/4"	1.10 - 1.40	1.15 - 1.62	2.25	2.44	3.13	0.97	TMCX4140	1 1/4"	TMC-K4
1 1/2"	1.33 - 1.61	1.38 - 1.78	2.50	2.75	3.38	0.97	TMCX5161	1 1/2"	TMC-K5
2"	1.57 - 2.06	1.63 - 2.31	3.25	3.50	5.31	1.00	TMCX6206	2"	TMC-K6
2 1/2"	1.93 - 2.47	1.99 - 2.72	3.75	4.00	6.06	1.44	TMCX7247	2 1/2"	TMC-K7
3"	2.45 - 3.02	2.52 - 3.28	4.50	4.88	6.06	1.44	TMCX8302	3"	TMC-K8
3 1/2"	2.95 - 3.52	3.02 - 3.78	5.00	5.38	7.75	1.63	TMCX9352	3 1/2"	TMC-K9
4"	3.50 - 4.02	3.58 - 4.28	5.50	5.88	8.31L	1.63	TMCX10402	4"	TMC-K10

All dimensions in inches, unless stated otherwise.



Suitable for the following cable types:

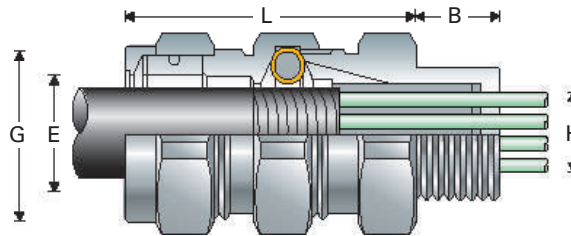
- Metal clad cable: MC
- TECK corrugated or interlocked steel or aluminum cable

Certifications and compliances

- UL Listed: UL File E36379
- CSA listed LR291
- NEMA 4 and IP56
- Suitable for wet locations

Technical specification

- Material: aluminium with neoprene seal
- Stainless steel copper-plated spring provides grounding continuity of cable armour (MC cable only).
- Watertight seal on outer sheath of cable
- Temperature range: -25 °C to +60 °C
- IP56
- Cold Shrink™ Kit is available for extra protection in aggressive environments.
- Available in NPT threadforms



THREAD SIZE (NPT)	ARMOUR RANGE 'H' MIN - MAX	OUTER SHEATH 'E' MIN - MAX	ACROSS FLATS	ACROSS CORNERS 'G'	LENGTH 'L'	THREAD LENGTH 'B'	CATALOG NUMBER ALUMINIUM
1/2"	0.44 - 0.65	0.49 - 0.78	1.25	1.38	2.38	0.75	TMC165
3/4"	0.60 - 0.85	0.65 - 1.00	1.50	1.63	2.63	0.78	TMC285
1"	0.80 - 1.12	0.85 - 1.31	1.88	2.00	3.13	0.94	TMC3112
1 1/4"	1.10 - 1.40	1.15 - 1.62	2.25	2.44	2.75	0.97	TMC4140
1 1/2"	1.33 - 1.61	1.38 - 1.78	2.50	2.75	3.38	0.97	TMC5161
2"	1.57 - 2.06	1.63 - 2.31	3.25	3.50	4.50	1.00	TMC6206
2 1/2"	1.93 - 2.47	1.99 - 2.72	3.75	4.00	4.75	1.44	TMC7247
3"	2.45 - 3.02	2.52 - 3.28	4.50	4.88	4.88	1.44	TMC8302
3 1/2"	2.95 - 3.52	3.02 - 3.78	5.00	5.38	5.38	1.63	TMC9352
4"	3.50 - 4.02	3.58 - 4.28	5.50	5.88	5.50	1.63	TMC10402

All dimensions in inches, unless otherwise stated



Suitable for the following cable types:

- TECK corrugated or interlocked steel or aluminum cable

Certifications and compliances

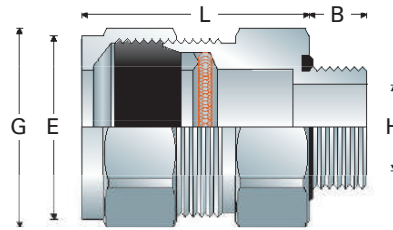
- **CSA Listed: LR13046**
CSA Type 4 and IP56
Class I
Class II Groups E, F, G
Class III

Technical specification

- Material: aluminium with neoprene seal as standard, steel, stainless steel and PVC coated* aluminium as an option
- Stainless steel copper-plated spring provides grounding continuity of cable armour (TECK cable only)
- Provides watertight seal on outer sheath of cable
- Has integral O ring seal on entry threads
- Temperature range: -25 °C to +60 °C
- IP56
- Cold Shrink™ Kit is available for extra protection in aggressive environments



option
316L



THREAD SIZE (NPT)	ARMOUR RANGE 'H' MIN - MAX	OUTER SHEATH 'E' MIN - MAX	ACROSS FLATS	ACROSS CORNERS 'G'	LENGTH 'L'	THREAD LENGTH 'B'	CATALOG NUMBER ALUMINIUM	CATALOG NUMBER STEEL	CATALOG NUMBER STAINLESS STEEL	CATALOG NUMBER COLD SHRINK KIT
1/2"	0.41 - 0.57	0.52 - 0.65	1.25	1.35	0.63	2.30	TECK050-1	TECK050-1S	TECK050-1SS	TMC-K1
1/2"	0.49 - 0.68	0.60 - 0.76	1.38	1.50	0.63	2.30	TECK050-2	TECK050-2S	TECK050-2SS	TMC-K1
1/2"	0.61 - 0.80	0.72 - 0.88	1.50	1.60	0.63	2.30	TECK050-3	TECK050-3S	TECK050-3SS	TMC-K1
1/2"	0.71 - 0.90	0.82 - 0.98	1.50	1.60	0.63	2.30	TECK050-4	TECK050-4S	TECK050-4SS	TMC-K1
3/4"	0.77 - 0.98	0.88 - 1.06	2.00	2.13	0.63	2.50	TECK075-5	TECK075-5S	TECK075-5SS	TMC-K2
3/4"	0.91 - 1.12	1.02 - 1.20	2.00	2.13	0.63	2.50	TECK075-6	TECK075-6S	TECK075-6SS	TMC-K2
1"	1.08 - 1.29	1.19 - 1.37	2.25	2.40	0.75	2.63	TECK100-7	TECK100-7S	TECK100-7SS	TMC-K3
1 1/4"	1.24 - 1.54	1.35 - 1.62	3.00	3.13	0.80	3.50	TECK125-8	TECK125-8S	-	TMC-K4
1 1/4"	1.39 - 1.54	1.50 - 1.62	3.00	3.13	0.80	3.40	TECK125-9	TECK125-9S	-	TMC-K4
1 1/4"	1.49 - 1.79	1.60 - 1.87	3.00	3.13	0.80	3.50	TECK125-10	TECK125-10S	-	TMC-K4
1 1/2"	1.59 - 1.88	1.70 - 1.96	3.75	3.60	0.80	3.80	TECK150-11	TECK150-11S	-	TMC-K5
1 1/2"	1.79 - 2.11	1.90 - 2.19	3.50	3.75	0.80	3.90	TECK150-12	TECK150-12S	-	TMC-K5
2"	1.79 - 2.11	1.90 - 2.19	3.75	4.00	0.82	4.00	TECK200-13	TECK200-13S	-	TMC-K6
2"	1.99 - 2.28	2.10 - 2.37	3.75	4.00	0.82	4.00	TECK200-14	TECK200-14S	-	TMC-K6
2"	2.19 - 2.48	2.30 - 2.56	4.13	4.40	0.87	4.00	TECK200-15	TECK200-15S	-	TMC-K6
2"	2.39 - 2.66	2.50 - 2.75	4.13	4.40	0.87	4.00	TECK200-16	TECK200-16S	-	TMC-K6
2 1/2"	2.24 - 2.56	2.38 - 2.64	4.50	4.75	1.30	5.00	TECK250-17	TECK250-17S	-	TMC-K7
2 1/2"	2.24 - 2.75	2.58 - 2.84	4.50	4.75	1.30	5.00	TECK250-18	TECK250-18S	-	TMC-K7
3"	2.64 - 2.97	2.79 - 3.06	4.60	4.90	1.40	5.00	TECK300-19	TECK300-19S	-	TMC-K8
3"	2.87 - 3.19	3.00 - 3.27	4.90	5.25	1.40	5.00	TECK300-20	TECK300-20S	-	TMC-K8
3"	3.04 - 3.39	3.21 - 3.48	5.00	5.25	1.40	5.00	TECK300-21	TECK300-21S	-	TMC-K8
3 1/2"	3.27 - 3.59	3.42 - 3.69	5.60	5.90	1.40	5.00	TECK350-22	TECK350-22S	-	TMC-K9
3 1/2"	3.44 - 3.77	3.61 - 3.87	5.50	5.90	1.40	5.00	TECK350-23	TECK350-23S	-	TMC-K9
4"	3.60 - 3.93	3.81 - 4.03	6.13	6.50	1.40	5.00	TECK400-24	TECK400-24S	-	TMC-K10
4"	3.75 - 4.06	3.96 - 4.18	6.13	6.50	1.40	5.00	TECK400-25	TECK400-25S	-	TMC-K10
4"	3.91 - 4.22	4.12 - 4.34	6.13	6.50	1.40	5.00	TECK400-26	TECK400-26S	-	TMC-K10

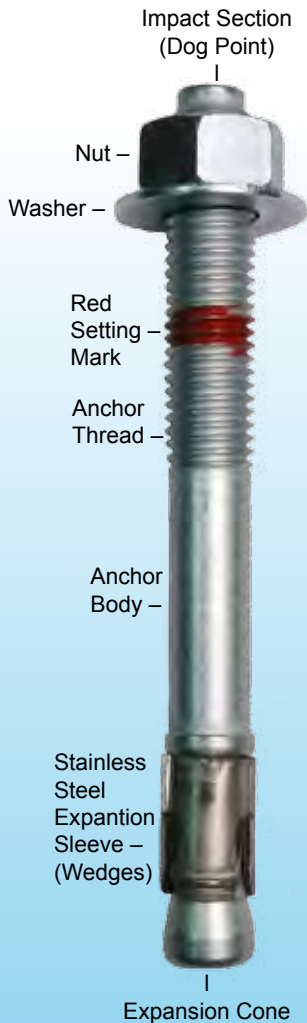
All dimensions in inches unless stated otherwise





product spotlight

SEISMIC ANCHOR KIT (AK101)



The Great Lakes' Seismic Anchor Kit consists of four torque-controlled expansion anchors which are especially suited for seismic and cracked concrete applications. Applicable base materials for installation include normal weight concrete, structural lightweight concrete and lightweight concrete over metal deck. Each kit comes with complete instructions.

Description

- Especially suited for seismic and cracked concrete (tension zone) applications
- Seismic qualifications tested in accordance with ACI 355.2 and ICC-ES AC 193
- Small minimum edge distance and spacing for maximum design flexibility
- Suitable for concrete over metal deck applications
- Rounded end for easy installation
- Meets ductility requirements of 318 D.3.3

Technical Data

- Carbon steel, electroplated zinc min 5 microns Listings/Approvals
- ICC-ES (International Code Council) ESR-1917
- FM (Factory Mutual)
- UL (underwriters Laboratories)
- Qualified under an NQA-1 nuclear quality program

International Building Codes

- 2003 IBC Compliant Anchor, 2006 IBC Compliant Anchor

Anchor Specs

- Hole diameter: 5/8"
- Anchor length: 6"
- Thread length: 2-3/4"
- Embedded depth: 4-1/2"
- Thread size: 5/8"
- Recommended installation torque 60 ft-lb. (81Nm)

Tool Requirements

- Drill - 5/8" drill bit

CORPORATE HEADQUARTERS

P.O. Box 551
Edinboro, PA 16412
1.866.TRY.GLCC
(1.866.879.4522)
Phone: 814.734.7303
Fax: 814.734.3907
glcc@greatcabinets.com

GREAT LAKES MANUFACTURING, INC.

1521 Enterprise Road
Corry, PA 16407
Phone: 814.734.2436
Fax: 814.665.7025
werackyourworld.com
glm@greatmanufacturing.net

WESTERN DISTRIBUTION

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Reno, NV 89502
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Fax: 775.829.9926
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GREAT LAKES HUNGARY KFT

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8000 Székesfehérvár
Hungary
Phone: 011 36 22 880 420
Fax: 011 36 22 880 429

VISIO STENCILS: CABINETS

The zip file "Cabinets_visio.zip" contains Visio Stencils for the following Great Lakes products:

ES Cabinets in the following sizes:

	RMU	H"	W"	D"	Visio Front View	Visio Top View
GL910ES-3048	48	91	30	48	X	X
GL910ES-3042	48	91	30	42	X	X
GL910ES-2448	48	91	24	48	X	X
GL910ES-2442	48	91	24	42	X	X
GL840ES-3248	44	84	32	48	X	X
GL840ES-3242	44	84	32	42	X	X
GL840ES-3240	44	84	32	40	X	X
GL840ES-3048	44	84	30	48	X	X
GL840ES-3042	44	84	30	42	X	X
GL840ES-2448	44	84	24	48	X	X
GL840ES-2442	44	84	24	42	X	X
GL790ES-3048	42	79	30	48	X	X
GL790ES-3042	42	79	30	42	X	X
GL790ES-2448	42	79	24	48	X	X
GL790ES-2442	42	79	24	42	X	X
GL480ES-2442	24	48	24	42	X	X

E Cabinets in the following sizes:

	RMU	H"	W"	D"	Visio Front View	Visio Top View
GL840E-2936	44	84	29	36	X	X
GL840E-2932	44	84	29	32	X	X
GL840E-2436	44	84	24	36	X	X
GL840E-2432	44	84	24	32	X	X
GL720E-2936	37	72	29	36	X	X
GL720E-2932	37	72	29	32	X	X
GL720E-2436	37	72	24	36	X	X
GL720E-2432	37	72	24	32	X	X
GL600E-2432	31	60	24	32	X	X
GL480E-2432	24	48	24	32	X	X
GL300E-2432	13	30	24	32	X	X

L Cabinets in the following sizes:

	RMU	H"	W"	D"	Visio Front View	Visio Top View
GL910L-3248	47	91*	32	48	X	X
GL910L-3242	47	91*	32	40	X	X
GL910L-2448	47	91*	24	48	X	X
GL910L-2442	47	91*	24	40	X	X
GL790L-3248	42	79*	32	48	X	X
GL790L-3242	42	79*	32	40	X	X
GL790L-2448	42	79*	24	48	X	X
GL790L-2442	42	79*	24	40	X	X

EZ Cabinets in the following sizes:

	RMU	H"	W"	D"	Visio Front View	Visio Top View
GL840EZ-3042	44	84	30	42	X	X
GL840EZ-2448	44	84	24	48	X	X
GL840EZ-2442	44	84	24	42	X	X
GL790EZ-3042	42	79	30	42	X	X
GL790EZ-2448	42	79	24	48	X	X

NEMA 12K Cabinets in the following sizes:

	RMU	H"	W"	D"	Visio Front View	Visio Top View
GL840N12-2442	45	84	24	42	X	X

VISIO STENCILS: CABINETS

The zip file "Cabinets_visio.zip" contains Visio Stencils for the following Great Lakes products:

Filler Panels for 19" Mounting

Part No.	Description	Visio Front View	Visio Top View
Screw Mount Filler Panels; one stencil (right click stencil to select size)			
1.75-FP19	1 RMU, 1.75"H	X	
3.50-FP19	2 RMU, 3.5"H	X	
5.25-FP19	3 RMU, 5.25"H	X	
7.00-FP19	4 RMU, 7.0"H	X	
8.75-FP19	5 RMU, 8.75"H	X	
14.00-FP19	8 RMU, 14.0"H	X	
Tool-less Filler Panels (use with 3/8" sq. rails only); one stencil (right click stencil to select size)			
1.75-FPTL19	1 RMU, 1.75"H	X	
3.50-FPTL19	2 RMU, 3.5"H	X	
5.25-FPTL19	3 RMU, 5.25"H	X	
7.00-FPTL19	4 RMU, 7.0"H	X	
8.75-FPTL19	5 RMU, 8.75"H	X	
14.00-FPTL19	8 RMU, 14.0"H	X	

Filler Panels for 23" Mounting

Part No.	Description	Visio Front View	Visio Top View
Screw Mount Filler Panels; one stencil (right click stencil to select size)			
1.75-FP23	1 RMU, 1.75"H	X	
3.50-FP23	2 RMU, 3.5"H	X	
5.25-FP23	3 RMU, 5.25"H	X	
7.00-FP23	4 RMU, 7.0"H	X	
8.75-FP23	5 RMU, 8.75"H	X	
14.00-FP23	8 RMU, 14.0"H	X	

Shelves for 19" Mounting

Part No.	Description	Visio Front View	Visio Top View
Stationary Shelves			
7206-FR-A28HD	17.5"W X 32"D, 1 RMU,	X	
7206-FR-A32HD	17.5"W x 32"D, 1 RMU,	X	
7206-FR-AHD	17.5"W x 22.225"D, 1 RMU,	X	
7206-FM	17.25"W x 18"D, 2 RMU, stationary	X	
7206-EIA	17.5"W x 18"D, 2 RMU,	X	
Sliding Shelves			
7206-FRSL-AHD	17.5"W x 22"D, 2 RMU	X	
7206-DR	16"W x 18.875"D, 4 RMU drawer	X	
7206-SL	16.343"W x 17.5"D, 3 RMU	X	
7206-PKB-MT	20.625"W x 8.5", 3 RMU, keyboard shelf	X	

Cable Management for 19" Mounting

	Description	Visio Front View	Visio Top View
CM-09	1 RMU, Double-sided	X	
CM-16	1 RMU, Single sided, plastic	X	
CM-17	2 RMU, Single sided, plastic	X	

Other Accessories

	Description	Visio Front View	Visio Top View
1.75FP19BG	1 RMU, 1.75"H, Brush Filler	X	
3.50FP19BG	2 RMU, 3.5"H, Brush Filler	X	
7217FT	Fan tray, 225 CFM, 19" EIA	X	
7219	Power strip, 19" EIA	X	

E CABINETS

Top Panels

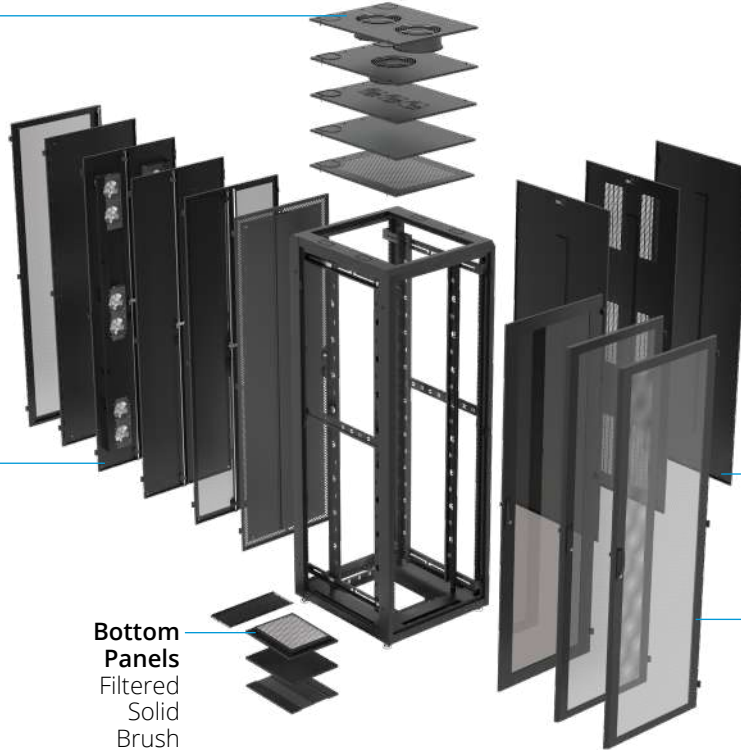
- Two, 550 CFM fans
- One, 550 CFM fan
- Three, 75 CFM fans
- Solid
- Perforated

Doors

- Vented solid
- Split mesh
- Split solid
- Split fan
- Solid
- Secure mesh

Bottom Panels

- Filtered
- Solid
- Brush



Side Panels

- Solid
- Vented
- Tamper resistant

Doors

- Mesh contour
- Mesh
- Plexi

84"H x 29"W x 32"D frame shown, four top cabinet knockouts are part of 29" frames only, not all accessories shown are compatible with smaller cabinets

Height	Width	Depth	Color	Mounting	Configuration	Example
GLXXXE-	XX	XX-	X-	XXXX	XX	Configured E cabinet
840 (44U, 84")	24	32	B (Black)	1032 (#1032 tapped)	MS (Mesh front/rear, solid top)	GL840E-2432-B-SQM6MS
720 (42U, 79")	29	36	W (White)	SQM6 (3/8" sq. M6)	P (Plexi front, PV solid rear, perf. top)	
600 (24U, 60")*						
480 (24U, 48")*						
300 (13U, 30")*						

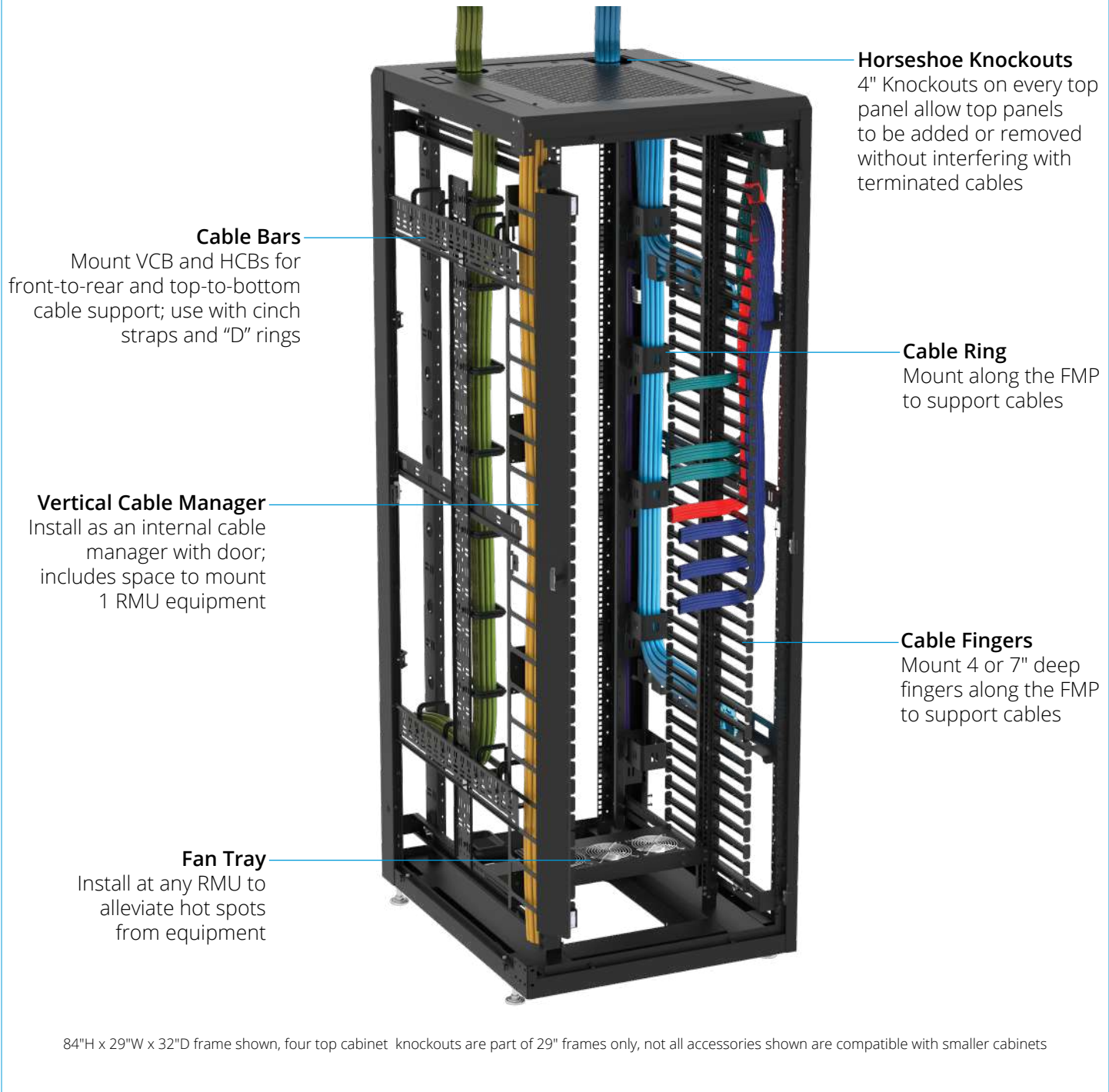
*60", 48" and 30" E cabinets available in 24"W and 32"D only; 600 lb. weight capacity

AN EXTENSIVE PORTFOLIO OF CABINETS FOR USE IN SMALL-TO-LARGE DEPLOYMENTS

- Power: Optional PDU brackets allow button mounting of PDUs, including PowerLok from Great Lakes
- Airflow: Choose optional 19" fan trays and/or appropriate top panels and doors to suit the application (i.e. fan top and mesh door)
- Connectivity: Integrated features and optional, quick-install accessories provide cable management support inside the cabinet; horseshoe knockouts on all top panels allow overhead cable access
- Security: Optional cabinet components and access control create a SEAL solution that deters and delays physical threats
- Flexible Mounting Profile: FMP, holes along the rail for zero-U accessory mounting
- Fully welded frame made with North American steel for superior strength
- Mounting rails support max static weight capacity of 2500 lbs. (1500 UL rating), except where noted
- Levelers included with every configuration; optional casters available
- Standards: UL2416, RoHS II



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View the complete Great Lakes product line at GreatCabinets.com
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Horseshoe Knockouts
4" Knockouts on every top panel allow top panels to be added or removed without interfering with terminated cables

Cable Bars
Mount VCB and HCBs for front-to-rear and top-to-bottom cable support; use with cinch straps and "D" rings

Cable Ring
Mount along the FMP to support cables

Vertical Cable Manager
Install as an internal cable manager with door; includes space to mount 1 RMU equipment

Cable Fingers
Mount 4 or 7" deep fingers along the FMP to support cables

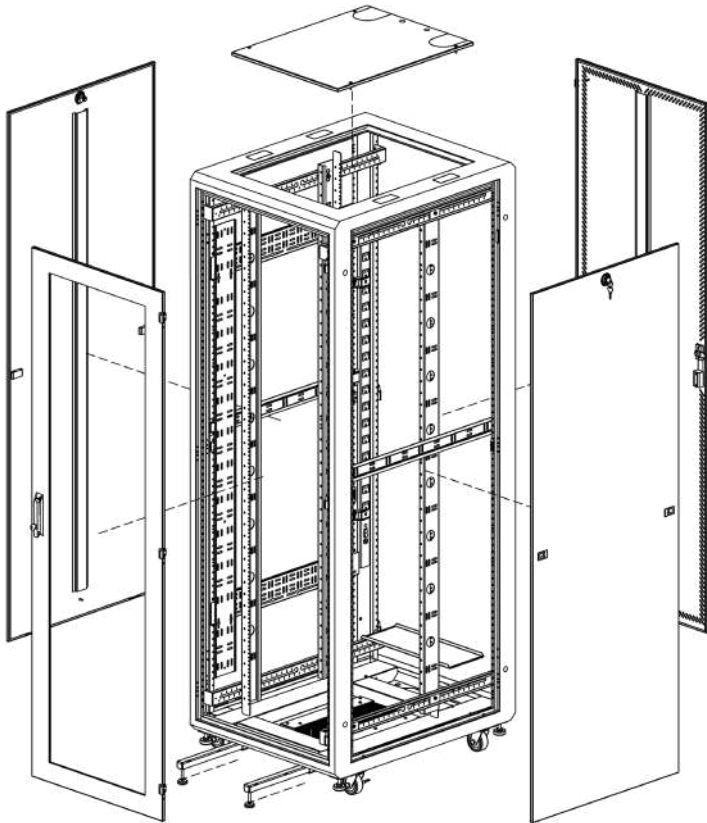
Fan Tray
Install at any RMU to alleviate hot spots from equipment

84"H x 29"W x 32"D frame shown, four top cabinet knockouts are part of 29" frames only, not all accessories shown are compatible with smaller cabinets

Find a complete portfolio of compatible accessories on th web.



E Series Cabinets
Installation Instructions
(UL60950-1/UL2416 E Series Equipment Cabinet/Rack)



GreatCabinets.com

1.866.879.4522

Instructions for the following Great Lakes Cabinets:
GL720E-2432, GL720E-2436, GL720E-2932, GL720E-2936, GL840E-2432,
GL840E-2436, GL840E-2932, GL840E-2936

PREFACE

This manual is provided to prevent service personnel from committing an act that results in the risk of fire, electric shock, or injury to persons. Only trained service personnel should receive, unpack, and assemble the E Series Cabinets. In addition, only trained service personnel should install equipment in cabinets.

SAFETY SYMBOLS USED IN THIS MANUAL

This manual provides general safety guidelines to be observed during installation, operation, and maintenance of the E Cabinet.



WARNING: Failure to follow directions in the warning could result in injury to persons or loss of life.



CAUTION: Failure to follow directions in the caution could result in damage to equipment or storage data.

SAFETY CONSIDERATIONS



WARNING: Improper handling and use of the E Cabinet could result in equipment damage, serious injury, or possible death.

Only trained service personnel should be used to remove the cabinet from the pallet. Also, be sure you have a sufficient number of service personnel. Do not attempt to move cabinets by yourself.

Only UL® Listed ITE (Information Technology Equipment) units should be installed inside the E Cabinet.

Be sure to read and follow all individual manufacturer equipment manuals for safety and installation instructions.

Proper spacing is required when installing electrical equipment to avoid electrical shock. Maintain minimum spacing between the accessories and components and the computer cabinet assembly for safe operation of the equipment when installed in accordance with the National Electric Code ANSI/NFPA 70-1999.

The ambient temperature operating range for the E Cabinet and accessories is +50 to +95° F (+10 to +35° C).

The non-operating temperature is -4 to +140° F (-20 to +60° C).

SERVICE

The E Series Cabinet should be repaired by personnel trained by Great Lakes, or returned to Great Lakes for repair or replacement. Contact Great Lakes Technical Support at 814.734.7303 or at GreatCabinets.com

WHAT'S INCLUDED

- E unit (assembled)
- Keys as needed (depending on configuration)
- (50) M6 cage nuts (3/8" square) and M6 screws (#10-32 tapped rails available, must be specified at time of order)
- This user's manual

This user's manual applies to the following Great Lakes cabinets:

Part No.	H	W	D	RMU
GL720E-2432	72	24	32	37
GL720E-2436	72	24	36	37
GL720E-2932	72	29	32	37
GL720E-2936	72	29	36	37
GL840E-2432	84	24	32	44
GL840E-2436	84	24	36	44
GL840E-2932	84	29	32	44
GL840E-2936	84	29	36	44

E weight capacity: 1500 lbs.

INSTALLATION

Receiving, Unpacking, and Removing the E Series Cabinet from the Pallet

Inspect and report any damage before receiving. Unpack the cabinet by carefully removing the corrugated carton and corners. Avoid damaging the cabinet when removing packaging.



WARNING: Only trained service personnel should be used to remove the cabinet from the pallet. Also, be sure you have a sufficient number of service personnel. Do not attempt to move cabinets by yourself.



WARNING: Be careful when moving cabinets before installation. Sudden stops and starts, excessive force, obstructed routes, and uneven floor surfaces may cause the cabinet to topple over.

Loading Equipment



WARNING: Only install equipment after the E Cabinet has been properly secured. Do not move the E Cabinet assembly while loaded.

Once in place at the desired/intended location, deploy the leveling feet for maximum stability.

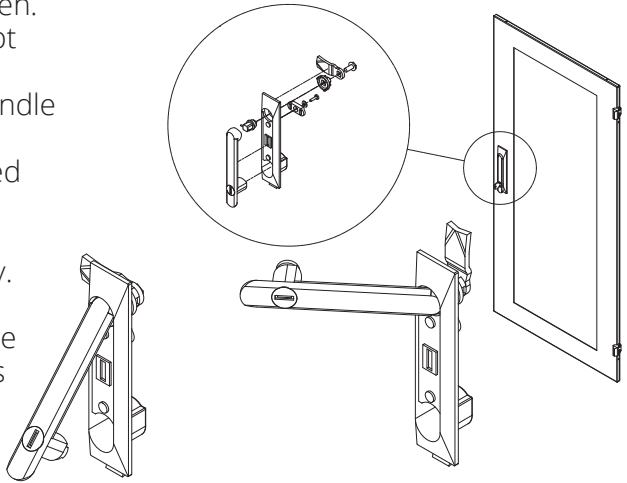
Rated or maximum load capacity for the E Cabinet is 1500 pounds on the floor or on leveling glides.

To maintain a uniform distribution of the mechanical load in the E Cabinet, load the heaviest equipment first, at the bottom of the E Cabinet and load the lighter units at the top.

OPERATING DOOR HANDLE

The door swing handles have been installed and no additional assembly is required. To operate the swing handle, lift up at the bottom of the handle to open. Swing the handle to the left or right to open.

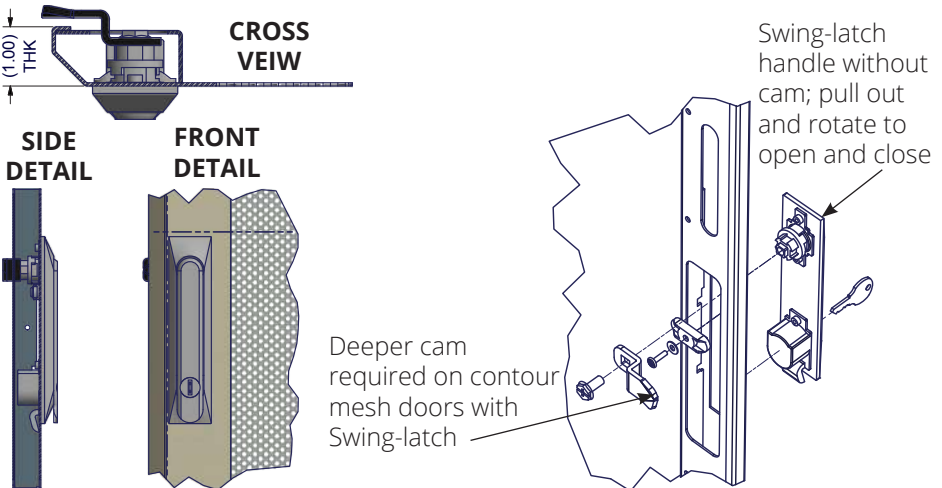
The handle must be kept in this position to close the door. Return the handle to the initial position and use the key provided to lock the handle. The lock on the side panels will accept the same key. The swing handles and doors are reversible. The exploded view shows its construction.



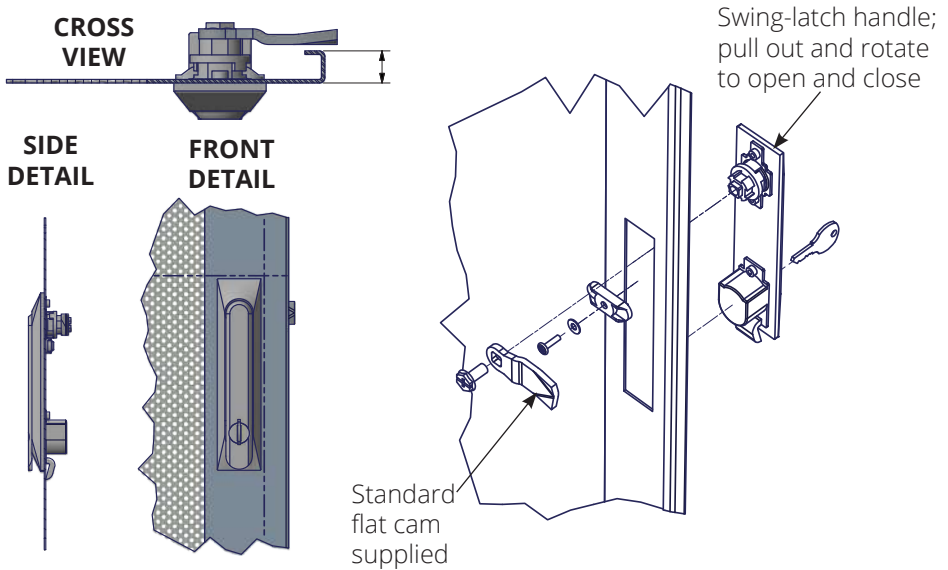
INTERCHANGING DOOR HANDLES

Door handles on all doors can be interchanged with any one of Great Lakes optional swing handles: CH-02 (three-digit combination lock and key); CH-03 (padlock with key lock); or CH-04 (padlock). When interchanging the handle, the type of door will determine the type of cam that is required to properly install the handle; when ordering the handle, Great Lakes will determine if additional cams are required.

ASSEMBLY OF SWING-LATCH HANDLE ON CONTOUR MESH DOOR

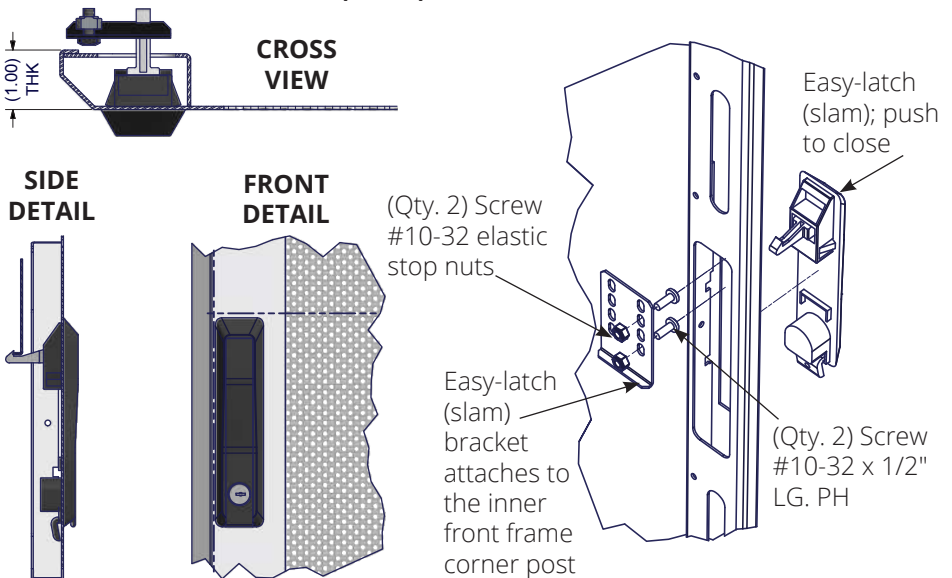


ASSEMBLY OF SWING-LATCH HANDLE ON ALL OTHER DOORS: STANDARD MESH, STEEL, PLEXIGLAS AND PERIMETER VENTED DOORS

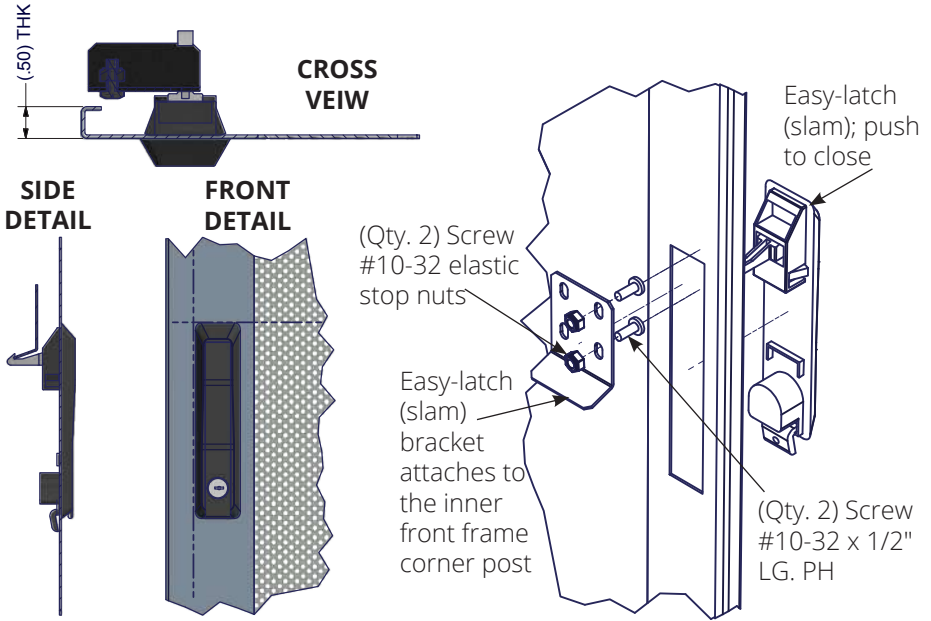


30"W contour mesh doors come standard with easy-latch (slam) handles. Door handles on 24"W contour mesh doors and all other 24" and 29/30"W doors can be replaced with the easy-latch (slam) handle. When interchanging the door handle, the type of door will determine the type of cam that is required to properly install the handle; when ordering the handle, Great Lakes will determine if additional cams are required. *Please note: The easy-latch (slam) is not compatible with 3 point latching (split doors).*

ASSEMBLY OF EASY-LATCH (SLAM) HANDLE ON CONTOUR MESH DOORS

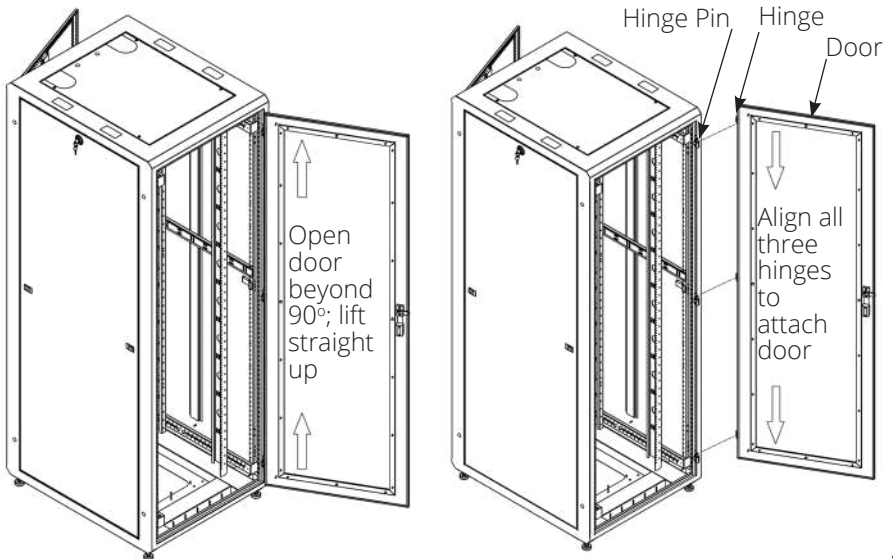


**ASSEMBLY OF EASY-LATCH (SLAM) HANDLE ON ALL OTHER DOORS:
STANDARD MESH, STEEL, PLEXIGLAS AND PERIMETER VENTED DOORS**



DOOR REMOVAL AND ATTACHMENT

Before removing the door, pull apart the quick disconnect grounding wires. Open the door beyond 90 degrees, grasp the door with both hands and carefully lift upward. When the door is free of all three hinge pins, pull the door away from the cabinet. To attach the door, align all three hinges of the door to their respective hinge pins on the cabinet and slowly slide the door down until seated.



FIELD REVERSIBLE FRONT & REAR DOORS

The front and rear doors are installed right hand hinged as standard from the manufacturer. Removing the hinges allows you to reverse the door by flipping them over and reinstalling the hinges using the universal mounting holes. Begin both screws, then tighten while maintaining perfect vertical alignment. See detail below. All cabinet frames and doors have provisions to be hinged right or left hand. If the door is reversed, the handle must be taken out, rotated 180°, and installed in the door again. See Operating Handle on page 5.

HINGE MOUNTING

Reversible Hinge (Female)

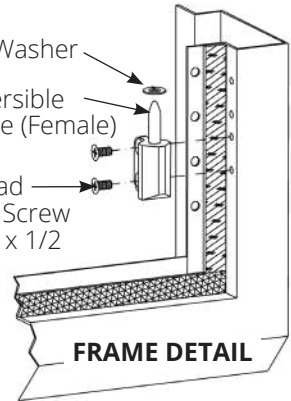
Flat Head Phillips Screw #10-32 x 1/2



Pivot Washer

Reversible Hinge (Female)

Flat Head Phillips Screw #10-32 x 1/2

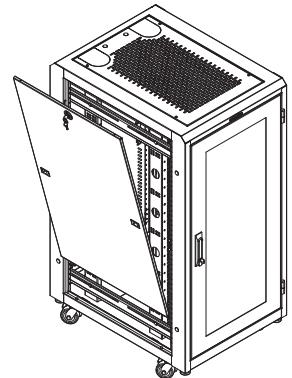
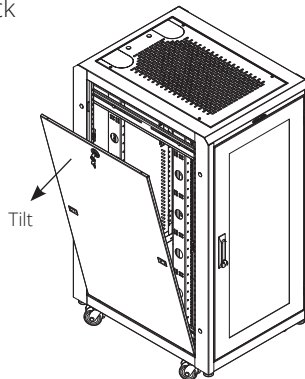
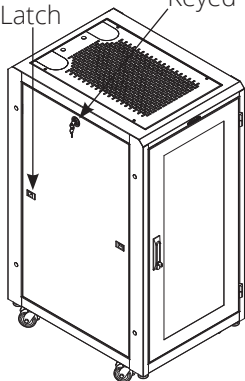


SIDE PANEL REMOVAL

Before removing the side panel, pull apart the quick disconnect grounding wires. The side panels are secured to the cabinet frame with two quick release latches and a keyed lock. Be sure to unlock the side panel. To remove the side panel, squeeze the quick release latches towards each other. Then tilt the top of the side panel out slightly and lift the side panel up a couple of inches until it is free. To install the side panel, reverse the process. Make sure the slots on the side panel engage with the two tabs at the bottom of the frame.

Slam Latch

Keyed Lock



CASTER AND LEVELER MOUNTING



CAUTION

- To install casters or levelers the cabinet must be tipped onto its side. The cabinet can be very heavy; several people will be required in this process. Please practice safe lifting techniques.
- DO NOT lay the cabinet on its front or back, this may damage the door hinges.
- Removing doors and sides will help reduce the weight of the cabinet.
- Before tipping, remove the side panels to prevent damage to the locks and latches.

ADJUSTABLE LEVELER MOUNTING

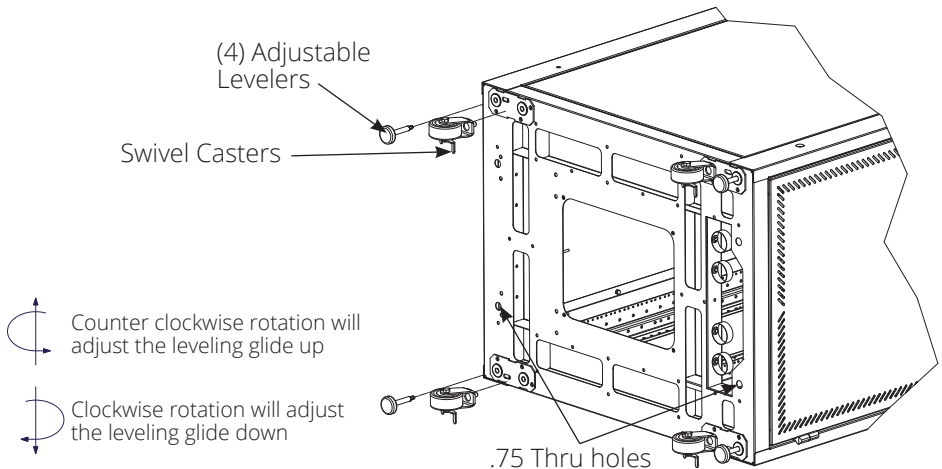
On the bottom of the cabinet there are eight threaded holes, two in each corner. The outside holes are threaded 1/2"-13 thds. and will accept the levelers. Once the levelers (7209-HD or 7209-4HD) are installed, the cabinet level can be adjusted with the use of a 5/8" open wrench when adjusting from the outside or a 3/8" closed wrench/socket when adjusting from the inside.

ANCHOR MOUNTING THRU HOLE

The middle .75 dia. thru holes are for securing the cabinet to the floor. These holes will accept a standard concrete anchor if desired; the Seismic Anchor Kit (AK101) is suggested.

CASTER MOUNTING

The four inside holes in each corner are threaded 1/2"-13 thds. to accept the casters. *Be sure to thread the caster into the bottom of the cabinet until it is firmly seated.*

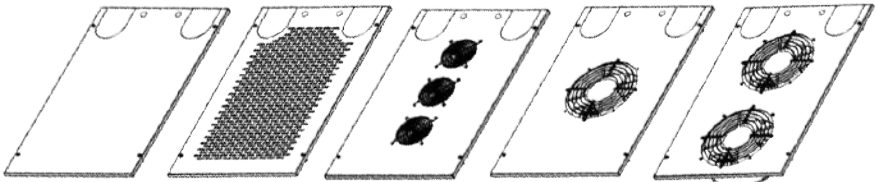
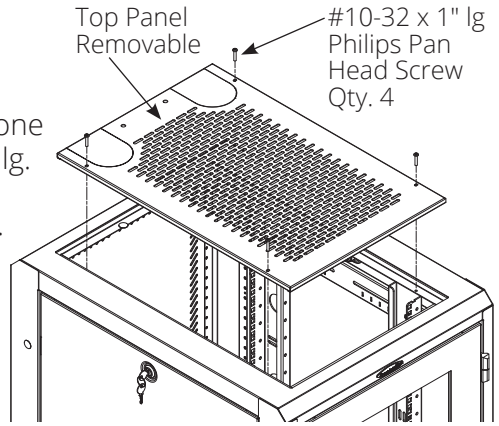


TOP PANEL MOUNTING

The top panel of the cabinet is installed at the manufacturer. Removing the top panel can be done by removing the four #10-32 x 1" lg. phillips pan head screws. Then simply lift the top panel out or off.

Top panels are available for 24"W (TPE-24) and 29"W (TPE-29) E Series Cabinets. There are 5 options for E Cabinets:

** indicates cabinet width in part number



TPE-S**
Solid

TPE-P**
Perforated

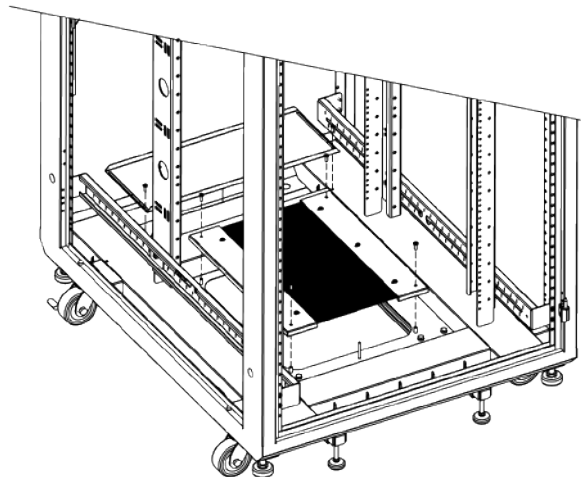
TPE-F**
Three,
75 CFM Fans

TPE-F10**
One, 10" 550
CFM Fan

TPE-2F10**
Two, 10" 550
CFM Fans

BOTTOM PANELS

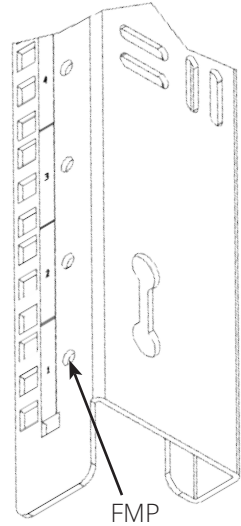
There are several styles of panels available for the bottom of your E Series cabinet. Optional panels are solid, filtered or brush grommet. These panels have foam gasketing for a positive seal and mount to four internally threaded studs using #10-32 x 1/2" lg. phillips pan head screws. The back opening can be covered with a solid metal cover. These covers are specific to the width of the cabinet.



MOUNTING RAILS

The vertical mounting rails (each cabinet has two pairs, 12 ga. steel, powder coated rails), come installed with all standard frames at 19" EIA 310-E. The 29"W E cabinet can be configured to 23" EIA mounting with an optional replacement bracket set. Universal cage nut rails (M6) are standard. Tapped #10-32 rails are available (must be specified at time of order).

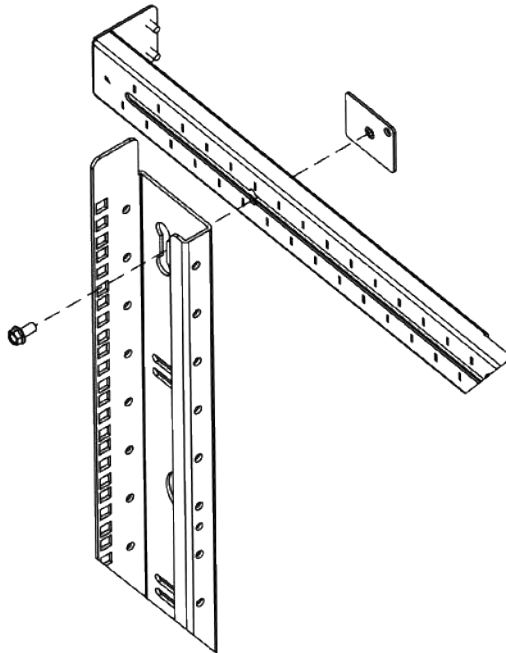
Rack Mount Units (RMU) are marked on rails for easy equipment mounting. Flexible Mounting Profile (FMP), round cable pass through holes, and vertical and horizontal cable tie down slots can be found on side of rails.



RAIL ADJUSTMENT

Rails are attached using a sliding nut plate and a 1/4"-20 hex head bolt. By loosening the top and bottom bolts with a 3/8" drive socket, the rails can be adjusted infinitely front and back.

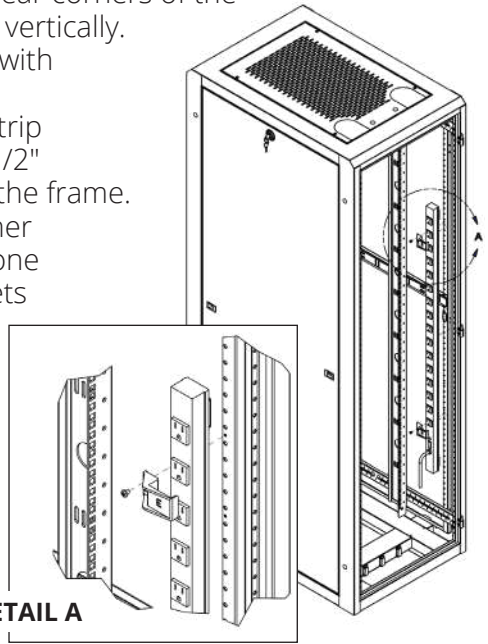
Do NOT attempt to adjust rails once equipment has been loaded.



STANDARD POWER STRIP MOUNTING

For your convenience, we have provided mounting brackets in the left rear and right rear corners of the cabinet for mounting power strips vertically.

Typically, any power strip shipped with an cabinet will be installed at the manufacturer. To install a power strip in the field, remove the #10-32 x 1/2" screws that secure the bracket to the frame. Place the power strip into the corner post of the frame and then place one bracket between the top two outlets and install the #10-32 x 1/2" screw into the threaded hole in the frame. Then place the other bracket over the power strip between the bottom two outlets and secure to the frame with the same type of screw.



POWER

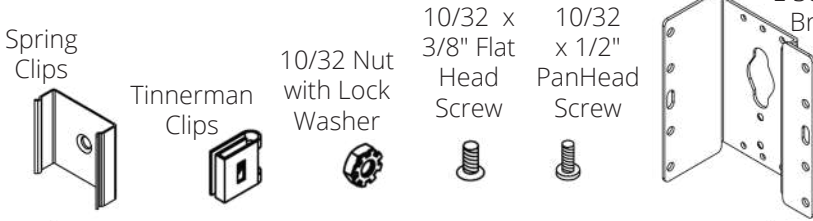
When using power distribution units (PDUs), each PDU should be connected to a committed branch circuit that is rated for the continuous load of all the equipment connected. When not using a PDU, each piece of equipment should be connected to a dedicated branch circuit.

OPTIONAL ACCESSORIES

UNIVERSAL POWER STRIP BRACKETS

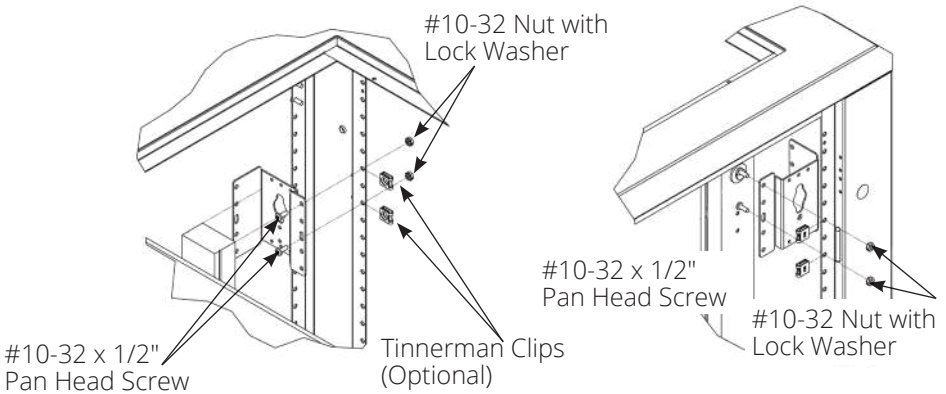
Great Lakes offers a universal power strip bracket kit. These brackets allow you to mount a PDU with button mounting. See drawing.

Part No. PSBKE
- E Series PDU
Brackets

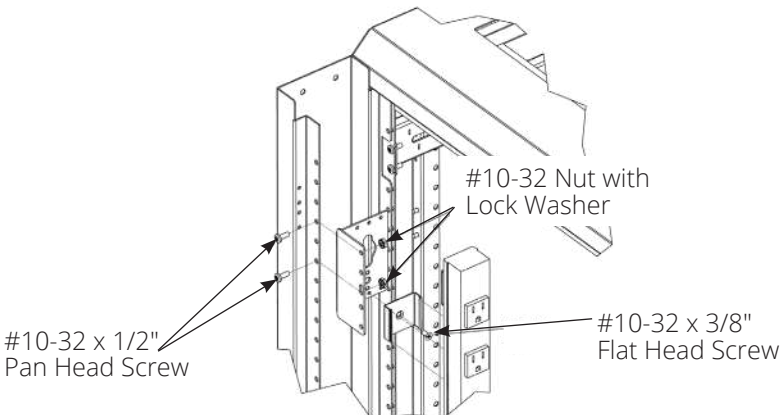


	PDU Bracket	Spring Clip	Tinnerman Clip	10/32 Nut w/Lock Washer	10/32 x 3/8" Flat Head Screw	10/32 x 1/2" Pan Head Screw
PSBKE	2	2	10	10	10	10

To mount Universal Power Strip Brackets in an E cabinet or cabinet extension, measure the required mounting distance top to bottom, install brackets, then install power strip.



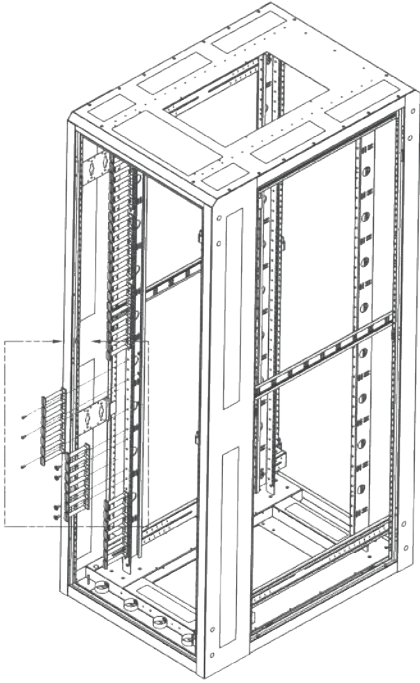
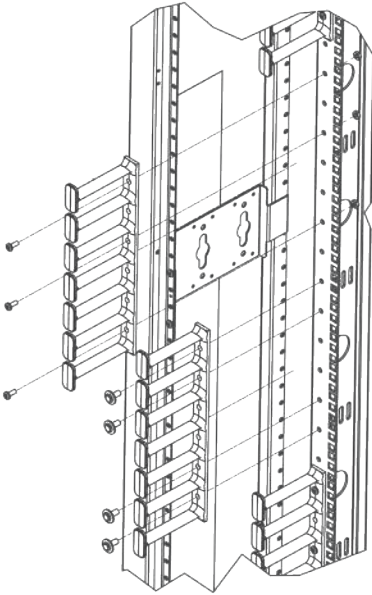
MOUNTING IN A CABINET EXTENSION



PLASTIC CABLE MANAGEMENT FINGERS

The CM-47 is a single section of 7 RMU "fingers" that mounts to the Flexible Mounting Profile (FMP) of cabinet rails. The ESC-K12 is a kit of 12 sections and the ENC-K24 is a kit of 24 sections. Fingers can be installed on the front or rear rails, but front rails must be recessed 4.5" for proper installation. It is recommended that each CM-47 be installed using 3 points of attachments. *Note: Installation drawing is shown in a Great Lakes ES Cabinet. Installation in a Great Lakes E Cabinet is identical.*

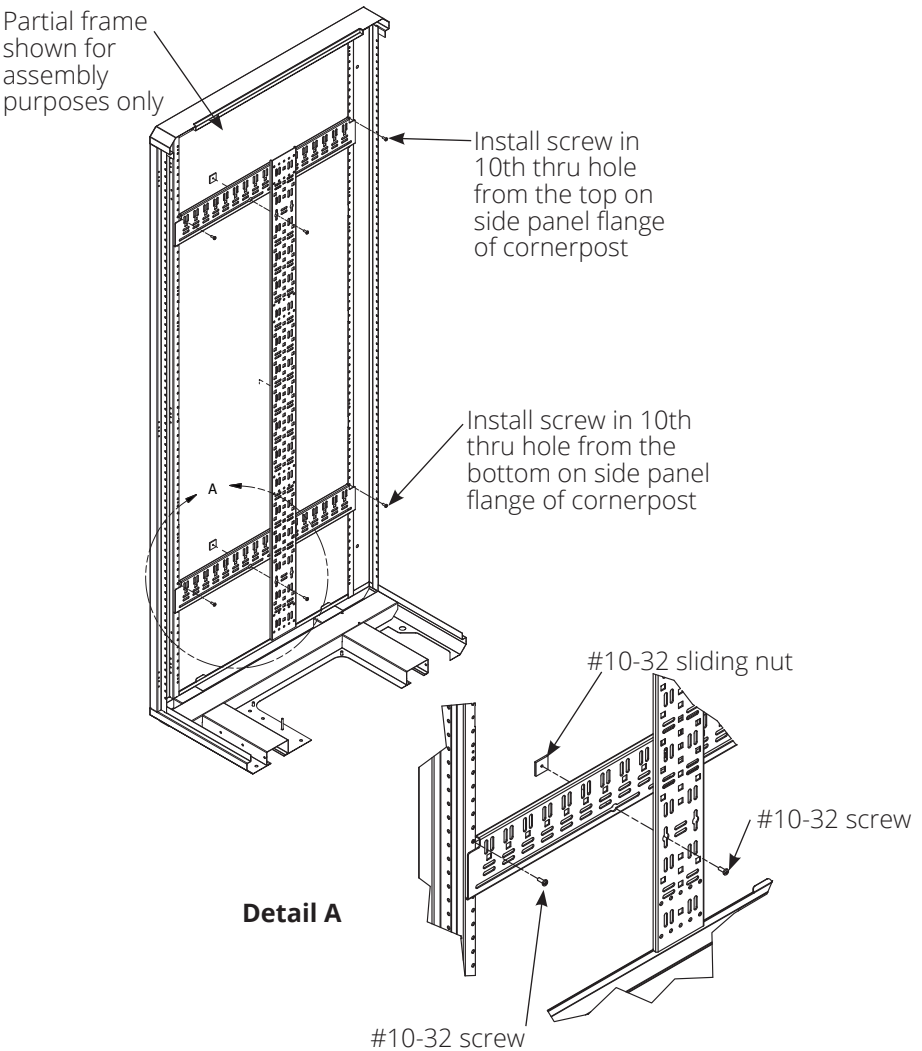
ESC-K12 Cable Management Rail Kit



CABLE MANAGEMENT BAR KITS

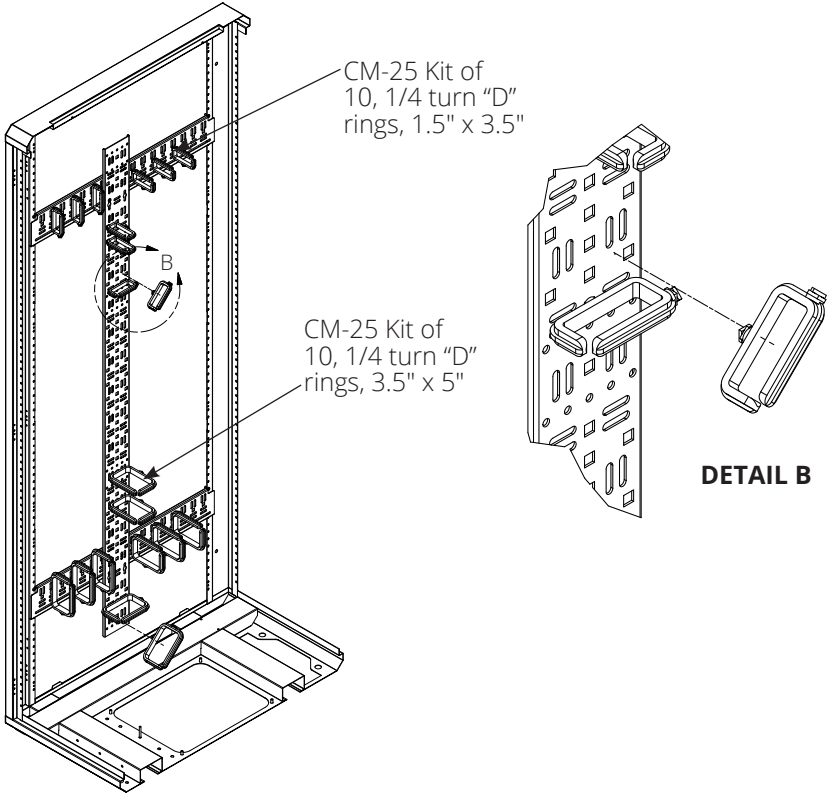
Vertical cable management bar kits include two horizontal cable bars (HCB) and one vertical cable bar (VCB). When ordered with an cabinet, these kits will come pre-installed. Cable bars run independently from 19" mounting rails and are infinitely adjustable front to back.

Single vertical and horizontal cable bars are also available. Additional horizontal bars can be installed alone (without a vertical bar), or in conjunction with a kit. Additional vertical bars can only mount when at least two horizontal bars are already installed. Refer to Detail A for installation of horizontal and vertical bars.



CABLE MANAGEMENT BAR KITS (continued)

All cable management bars are designed with a square hole pattern that is able to accept optional ¼ turn "D" rings. There are two sizes of "D" rings, both available in kits of 10. Actual location of "D" rings may vary based on customer desired location for installation. Refer to Detail B for installation of "D" rings.



Available Cable Management Bar Kits and Ring Kits include:

VCB-7232	Cable Management Bar Kit for 720E-32 cabinet
VCB-7236	Cable Management Bar Kit for 720E-36 cabinet
VCB-8432	Cable Management Bar Kit for 840E-32 cabinet
VCB-8436	Cable Management Bar Kit for 840E-36 cabinet
VCB-72*	Single Vertical Cable Bar for 72"H cabinet
VCB-84*	Single Vertical Cable Bar for 84"H cabinet
HCB-32	Single Horizontal Cable Bar for 32"D cabinet
HCB-36	Single Horizontal Cable Bar for 36"D cabinet

CM-25 Kit of 10 x ¼ turn "D" rings, 1.5" x 3.5"

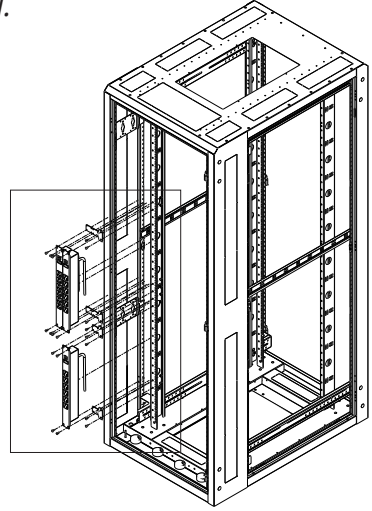
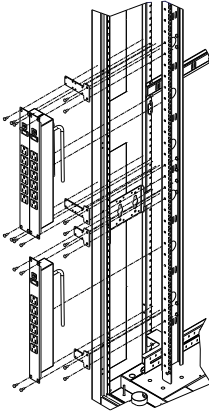
CM-26 Kit of 10 x ¼ turn "D" rings, 3.5" x 5"

**Note: Single vertical bars can only be installed when at least two horizontal bars are installed.*

ZERO RMU MOUNTING, ZR1 & ZR2

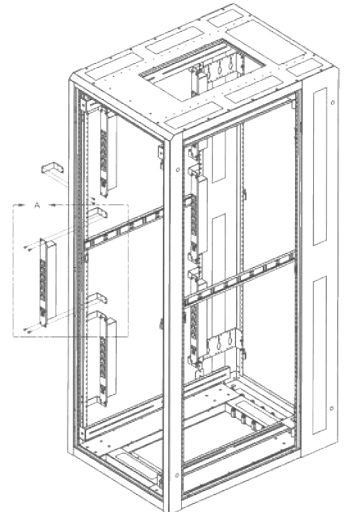
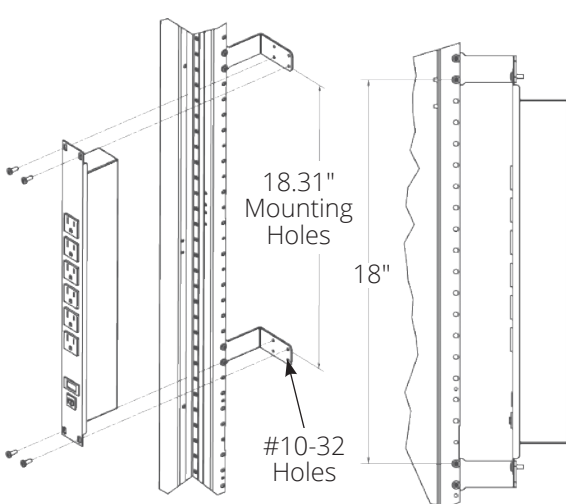
Both ZR bracket kits fit on the 29"W E cabinet. These allow for "0" RMU (outside of the EIA rail pattern) mounting of 19" rack mount power strip units or other 1 or 2 RMU equipment (such as patch panels). Install the bracket onto the rail or post toward the side panel. It is important to ensure you have 18.31" between the inner holes for 19" mounting.

Note: Installation drawing is shown in a Great Lakes ES Cabinet. Installation in a Great Lakes E Cabinet is identical.



PDU1 MOUNTING

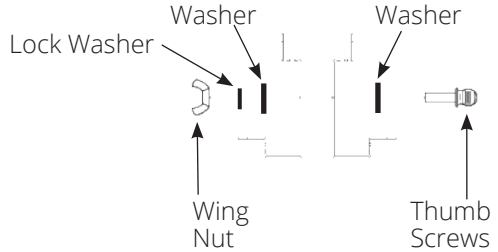
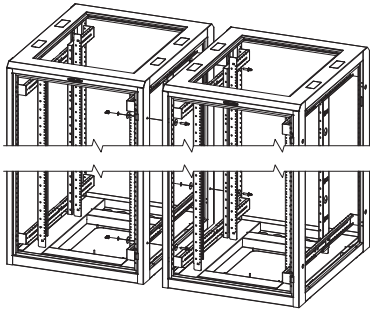
The 29"W E allows for "0" RMU mounting of 19" rack mount power strip units or other 1 RMU equipment (such as patch panels). You can mount up to twelve (12), 1 RMU pieces of equipment this way. Install the bracket into the side panel flange. Make sure you have 18.31" between the inner holes. (See detail B.) *Note: Installation drawing is shown in a Great Lakes ES Cabinet. Installation in a Great Lakes E Cabinet is identical.*



NETWORKING/GANGING

Cabinets can be networked using the following Great Lakes networking/ganging kit:

G101 Networking/Ganging Kit to gang two E Cabinets (pictured); no tools required



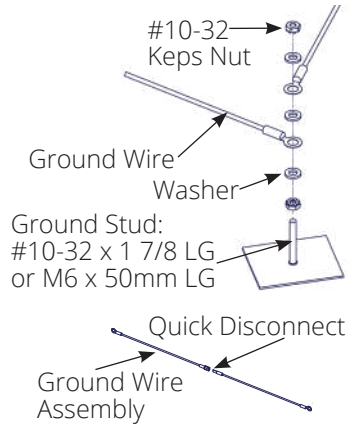
GROUNDING GROUNDING KIT, GR101

Grounding studs in our E Series cabinets provide a point to which the doors may be grounded to the cabinet and from which the cabinet may be connected to the facility's common ground. The studs are made from copper which is a conducting metal. E Cabinets have three ground studs in the frame: two in top and one in the bottom.

This kit allows you to ground the cabinet so that it is ready to be connected to the common building ground. The kit contains one 48" L ground wire assembly and five 24" L ground wire assemblies. Each assembly is made of two smaller wires that are connected (this allows a 'Quick Disconnect' when the wire must be removed).

Using the grounding wires supplied, connect one end to the copper ground stud on the side panels and/or doors and the other end to the copper ground stud on the cabinet frame. Once all wires have been connected to a frame stud, have at least one frame stud connected to the common building ground.

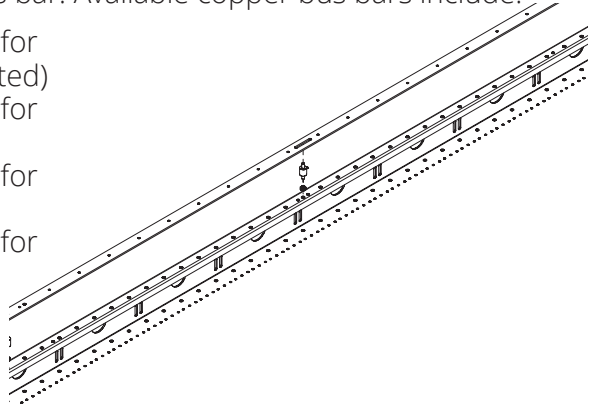
If a ground wire needs to be disconnected (e.g. when the cabinet door needs to be removed but is attached to the cabinet with the ground wire), simply pull apart the ground wires.



COPPER BUS BARS

It is important to note that grounding the cabinet does not ground the equipment mounted within it. In order for any individual devices and components mounted within an cabinet to be grounded, they must be connected to a copper bus bar. Available copper bus bars include:

- CBB-19 Copper Bus Bar for 19" rack mounting (Isolated)
- CBB-48 Copper Bus Bar for 48"H cabinets (Isolated)
- CBB-60 Copper Bus Bar for 72"H cabinets (Isolated)
- CBB-72 Copper Bus Bar for 84"H cabinets (Isolated)



PROTECTIVE GROUNDING

Protective grounding studs are provided along with grounding jumper wires that electrically bond the cabinet doors to the cabinet frame.



WARNING: To avoid injury to persons or loss of life, ground each cabinet individually to the dedicated branch circuit ground.

Connecting Main Protective Grounding Stud to the Dedicated Branch Circuit Ground

Connect the dedicated branch circuit ground connector to the main protective grounding stud located inside at the bottom rear of the cabinet frame using a listed ring or closed-loop terminal.

Connecting Main Protective Grounding Stud to the Protective Bonding Conductors

Connect the rear doors to the main protective grounding studs located inside at the bottom and top rear of the cabinet chassis using a listed ring or closed-loop terminal. Connect the front door to the grounding stud located inside at the bottom front of the cabinet frame using a listed ring or closed-loop terminal.

Parts Not Bonded to Protective Earthing Terminal

The following parts are not effectively bonded to the protective earthing terminal: rails and front to back rail horizontals. If these parts need to be bonded to the protective earthing terminal, do so in accordance with Article 250 of the National Electric Code.

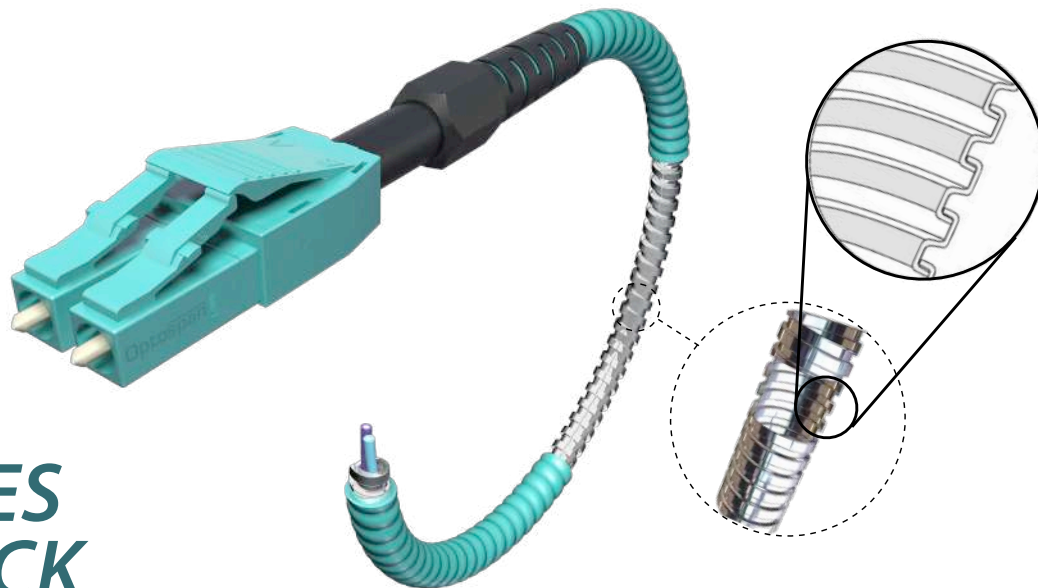


Thank you
for your
business!



ETSI Associate Member

FORM: #MS - 5.02-59, REV #1



STEELFLEX FIBER CABLES W/ OPTOLOCK

Mission Critical Networks
Military Grade for Harsh Environments

Exclusive OptoLock Mechanism
comprised of a steel metal tube locked
into place by overlapping links.

This results in an unmatched, rugged,
yet light weight cable, providing
maximum flexibility.

SPECIFICATIONS		Single Mode	Multimode	AVAILABILITY	
Maximum Attenuation	0.4dB/km@1310nm 0.3dB/km@1550nm		3.5dB/km@850nm 1.5dB/km@1300nm	Fiber Count	Duplex, 12, 24 (12x2)
Connector Performance				Connectors (Any Combination)	MTP/MPO, LC, SC, FC, ST, MTRJ, APC
Connector Type	PC	UPC	APC	PC	
Insertion Loss (dB)	≤ 0.3	≤ 0.2	≤ 0.3	≤ 0.3	Fiber (Yellow, Orange, Aqua)
Return Loss (dB)	≥ 45	≥ 50	≥ 65	—	
Operating Temperature	-40°C~+85°C			Core	9/125μm, 50/125μm, 62.5/125μm
Outside Diameter	4.8mm, 3.4mm Fan-Out Section			Jacket/Coating	Low Smoke Zero Halogen (LSZH)
Net Weight	~40kg/km			Stock Lengths (meters)	1, 2, 3, 5, 10, 15, 20, 25, 30, 40, 50, 100
Bending Strength	15 kgf			Maximum Continuous Length	300 meters up to 1000m.
Mechanical Shock	5 Nm				
Lateral Pressure	500 kgf				
Bending Radius (mm)	40				

INDESTRUCTIBLE MILITARY GRADE

Durable Military Grade outdoor rated cable with flexible steel tubing that is virtually unbreakable.

WITHSTANDS REPEATED BENDING

The flexible metal tube limits the bending radius, preventing the optical fiber from breaking.



PROTECTED FROM RODENT ATTACKS

The OptoLock mechanism protects delicate optical fibers from damage by rodents and birds.

HARSH ENVIRONMENT PROTECTION

Water, gas, chemical,
and weather proof

PATENTED TECHNOLOGY

Patented ruggedized technology offers the features of traditional patch cord, but with the protection & durability of armor

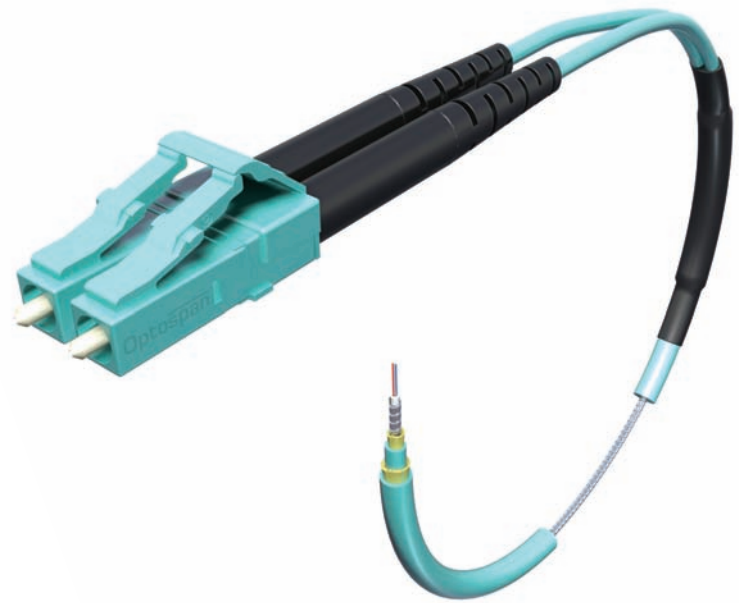
REGULATORY COMPLIANCE

- Conforms to IEC, EIA-TIA or Telcordia performance requirements
- REACH, SvHC and RoHS materials compliant

FIBERSHIELD™ STEELPATCH ARMORED CABLES

Ideal for Data Centers

ENGINEERED TO PROVIDE OVER FIVE TIMES THE STRENGTH OF TRADITIONAL FIBER OPTIC CABLES



SPECIFICATIONS

CONSTRUCTION

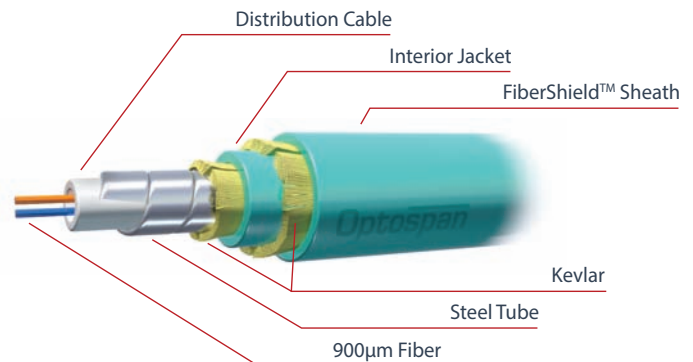
Fiber Count	2 (Duplex) or 1 (Simplex)	
Outer Jacket	4.5mm ± 0.2mm	
Inner Jacket	3.0mm ± 0.2mm	
Helical Armored Layer	2.2mm ± 0.1mm	
Optical Fibers	1.4mm ± 0.1mm	
Aramid Yarn	1100D (2x)	
Net-weight	33 Kb/km	

FIBER PERFORMANCE

Core Diameter	9.2 μm (OS2)	50 μm (OM4)
Cladding Diameter	125 ± 1 μm	
Cladding Non-Circularity %	≤ 0.7%	
Coating Diameter	245 ± 5 μm	
Zero Dispersion Wavelength	1302-1322 nm	

CABLE PERFORMANCE

Attenuation	Single-mode ≤ 0.3dB @ 1550nm, ≤ 0.4dB @ 1310nm Multimode ≤ 3.5dB @ 850nm, ≤ 1.5dB @ 1300nm	
Operating Temperature	-20°C ~ +60°C	
Bend Radius	Dynamic 90mm, Static 45mm	
Tensile	Long-Term 80N, Short-Term 150N	
Crush	Long-Term 150N/100mm Short-Term 500N/100mm	



SPECIALTY OPTIONS

LCElite™ Ultra Low Loss

UltraHD™ EZ-Tab

FieldSwitch™ Uniboot



Custom Configurations Available

AVAILABILITY

Connectors	LC, SC, FC, ST
Fiber Types	OM4 - 50/125μm 10G/100G (Aqua) OS2 - 9/125μm 10G/100G (Yellow)
Jacket/Coating	Riser (OFNR), Plenum (OFNP)
Stock Lengths (meters)	1, 2, 3, 5, 7, 10, 15, 20, 25, 30, 40 50, 60, 75, 100, 125, 150, 200, 300

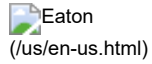
APPLICATION

- Fiber to desktop
- Harsh environments where a traditional fiber optic patch cable may fail
- Ideal for ceiling runs, raised floors, and runs between floors

COMPLIANCE

- MIL-STD-810F Compliant
- IEC Compliant





Capri Newcap "e" - Non armored cable glands

The NEWCAP "e" range is a metallic cable gland for non-armored cable approved for Exe applications: Newcap CT "e" and Newcap MS "e".

It features plated brass and stainless materials and an EMC protected version these glands have a wide range of uses.



Contact me about this product (https://content.eaton.com/en-us_LSD_Installation_Materials/us/en-us/catalog/conduit-cable-and-wire-management/capri-newcap-e)

(<https://www.eaton.com/>)

(<https://www.eaton.com/>)

(<https://www.eaton.com/>)

PROTECTION TYPE

Increased Safety Ex eb, Restricted Breathing Ex nR, Dust Ex tb

CONTINUOUS OPERATING TEMPERATURE

-20 °C to + 80 °C

CABLE TYPES

Non armoured cables, steel wire braided armoured cables

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Would you like to receive information about our products, certifications, documentations, etc.? Register by specifying "Conduit cable and wire management " in the "Products of Interest" menu.

Register here

(http://electricalsector.eaton.com/2019_ES_EMEA_EN_PreferenceCentri_ga=2.248729807.913311168.1646915834-853983509.1618323126)

Cable types

Non-armored cable

Protection category

ATEX



Cable with insulated conductors, with no layer of mechanical (metallic) protection.



Approved in accordance with EU directives for explosive atmospheres.



Braided marine shipboard cable

Cable designed for marine applications.



IECEX

Approved in accordance with international IEC standards for equipment in explosive atmospheres.

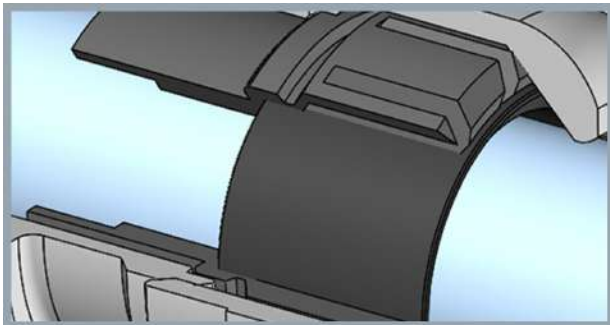


SWB - Steel Wire Braided cable

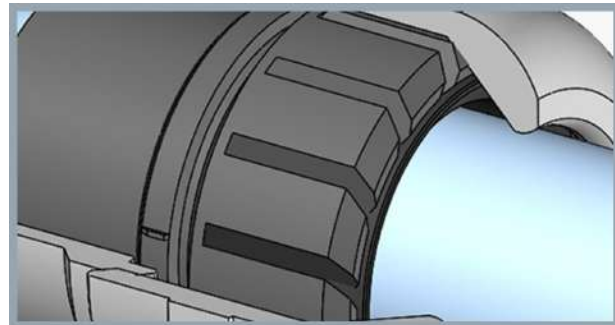
Steel wire braided cable to give mechanical and signal interference protection to conductors.

Other certificates: NEPSI & SABS

Shipping applications: ABS & DNV



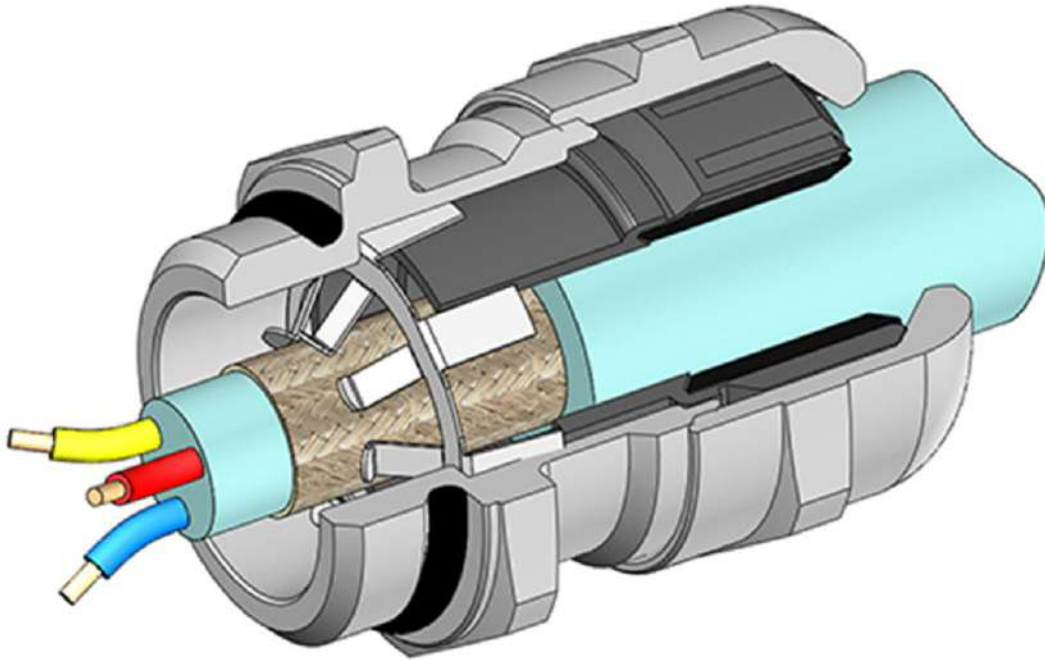
Neoprene sealing



Lamellas system

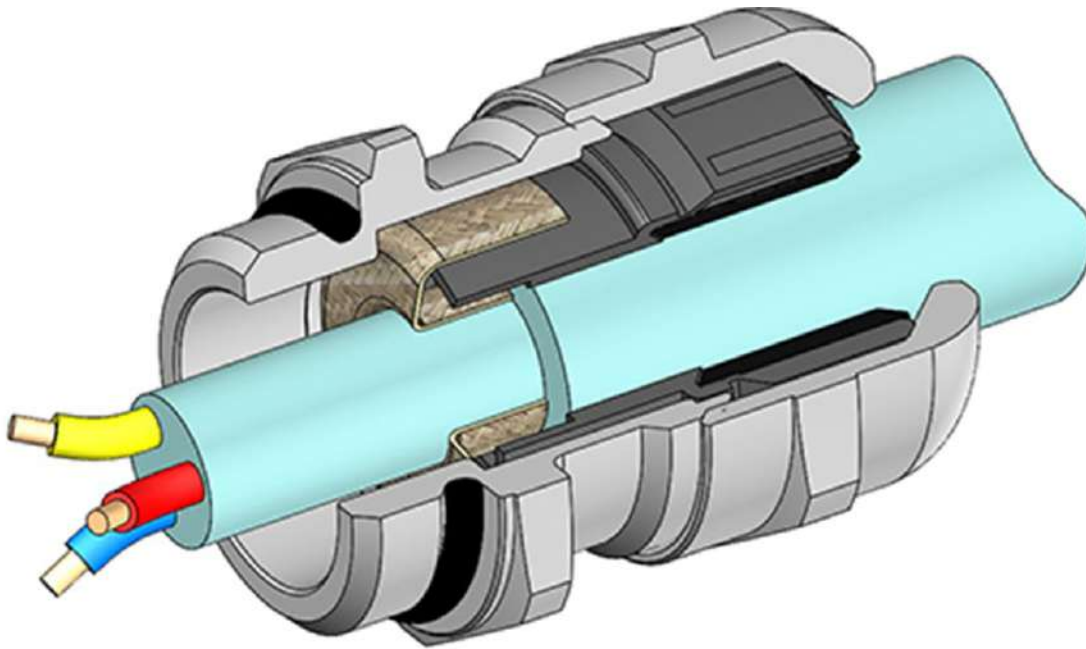
The best choice for typical operating temperatures and good resistance to many common chemicals. Provide better clamping efficiency on the cable.

EMC Protection



Option 1

Newcap CT ensures EMC protection without interrupting
the braided armor.



Option 2

Newcap MS ensures EMC protection by reversing the braided armor on the lamellas ring.

How to install a Capri Newcap CT-e cable gland with braided cable



How to install a Capri Newcap MS-e cable gland with non-armored cable or braided cable.



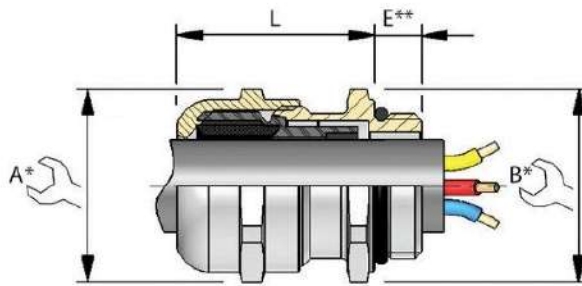
Capri - Over 60 years expertise and knowledge

For over 60 years, Capri has been known as a world-class solution in electrical termination for industrial and hazardous applications. Today, alongside Redapt and Raxton it continues to be at the forefront of innovation in the market.

Discover our journey and in-house expertise (</us/en-us/products/conduit-cable-wire-management/capri-raxton-and-redapt-products.html>)

Specifications

Capri NEWCAP MS-e - Ordering information



* For 'across corners' dimensions, multiply 'across flats' dimensions by 1.1

** For 'E' see thread dimension page 5.18

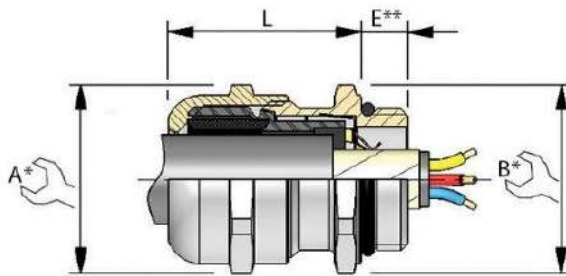
Ordering codes

THREAD SIZE (ISO)	BRAID THICKNESS	CABLE DIAMETER MIN - MAX	A	B	L	NEWCAP SIZE	NICKEL-PLATED BRASS CATALOG NUMBER	NICKEL-PLATED BRASS ¹⁾ LOCKNUT	STAINLESS STEEL 316L* CATALOG NUMBER	STAINLESS STEEL 316L ¹⁾ LOCKNUT
12	0.70	4.0 - 6.5	15	15	18.0	4	CAP192124V1	CAP221294	CAP192129V1	CAP221299
16	0.70	4.0 - 6.5	15	18	18.0	4	CAP192154V1	CAP221694	CAP192159V1	CAP221699
16	0.70	5.5 - 10.0	20	20	24.0	5	CAP192164V1	CAP221694	CAP192169V1	CAP221699
20	0.70	5.5 - 10.0	20	22	24.0	5	CAP192194V1	CAP222094	CAP192199V1	CAP222099
20	0.80	7.5 - 13.0	24	24	27.0	6	CAP192204V1	CAP222094	CAP192209V1	CAP222099
25	0.80	7.5 - 13.0	24	27	27.0	6	CAP192244V1	CAP222594	CAP192249V1	CAP222599
25	0.85	11.5 - 18.0	30	30	28.0	7	CAP192254V1	CAP222594	CAP192259V1	CAP222599
32	0.85	11.5 - 18.0	30	34	28.0	7	CAP192314V1	CAP223294	CAP192319V1	CAP223299
32	0.95	17.5 - 24.5	38	38	30.0	8	CAP192324V1	CAP223294	CAP192329V1	CAP223299
40	0.95	17.5 - 24.5	38	43	30.0	8	CAP192394V1	CAP224094	CAP192399V1	CAP224099
40	1.00	24.0 - 32.0	47	47	33.0	9	CAP192404V1	CAP224094	CAP192409V1	CAP224099
50	1.00	24.0 - 32.0	47	54	33.0	9	CAP192494V1	CAP225094	CAP192499V1	CAP225099
50	1.15	31.0 - 40.5	57	57	37.0	10	CAP192504V1	CAP225094	CAP192509V1	CAP225099
63	1.15	31.0 - 40.5	57	68	37.0	10	CAP192624V1	CAP226394	CAP192629V1	CAP226399
63	1.75	39.0 - 53.0	75	75	48.0	11	CAP192634V1	CAP226394	CAP192639V1	CAP226399

* Stainless steel 316L with long (15 mm) thread

All dimensions in mm.

Capri NEWCAP CT-e - Ordering information



* For 'across corners' dimensions, multiply 'across flats' dimensions by 1.1

** For 'E' see thread dimension page 5.18

Ordering codes

THREAD SIZE (ISO)	BRAID THICKNESS	DIAMETER ON SHIELD	CABLE DIAMETER MIN - MAX	A	B	L	NEWCAP SIZE	NICKEL-PLATED BRASS CATALOG NUMBER	NICKEL-PLATED BRASS ¹⁾ LOCKNUT	STAINLESS STEEL 316L [*] CATALOG NUMBER	STAINLESS STEEL 316L ¹⁾ LOCKNUT
12	0.70	3.0	4.0 - 6.5	15	15	18.0	4	CAP193124V1	CAP221294	CAP193129V1	CAP221299
16	0.70	3.0	4.0 - 6.5	15	18	18.0	4	CAP193154V1	CAP221694	CAP193159V1	CAP221699
16	0.70	4.5	5.5 - 10.0	20	20	24.0	5	CAP193164V1	CAP221694	CAP193169V1	CAP221699
20	0.70	4.5	5.5 - 10.0	20	22	24.0	5	CAP193194V1	CAP222094	CAP193199V1	CAP222099
20	0.80	6.0	7.5 - 13.0	24	24	27.0	6	CAP193204V1	CAP222094	CAP193209V1	CAP222099
25	0.80	6.0	7.5 - 13.0	24	27	27.0	6	CAP193244V1	CAP222594	CAP193249V1	CAP222599
25	0.85	10.0	11.5 - 18.0	30	30	28.0	7	CAP193254V1	CAP222594	CAP193259V1	CAP222599
32	0.85	10.0	11.5 - 18.0	30	34	28.0	7	CAP193314V1	CAP223294	CAP193319V1	CAP223299
32	0.95	15.0	17.5 - 24.5	38	38	30.0	8	CAP193324V1	CAP223294	CAP193329V1	CAP223299
40	0.95	15.0	17.5 - 24.5	38	43	30.0	8	CAP193394V1	CAP224094	CAP193399V1	CAP224099
40	1.00	20.5	24.0 - 32.0	47	47	33.0	9	CAP193404V1	CAP224094	CAP193409V1	CAP224099
50	1.00	20.5	24.0 - 32.0	47	54	33.0	9	CAP193494V1	CAP225094	CAP193499V1	CAP225099
50	1.15	27.5	31.0 - 40.5	57	57	37.0	10	CAP193504V1	CAP225094	CAP193509V1	CAP225099
63	1.15	27.5	31.0 - 40.5	57	68	37.0	10	CAP193624V1	CAP226394	CAP193629V1	CAP226399
63	1.75	34.5	39.0 - 53.0	75	75	48.0	11	CAP193634V1	CAP226394	CAP193639V1	CAP226399

* Stainless steel 316L with long (15 mm) thread

All dimensions in mm.

Download Links

Brochures

[↓](#) [Oil & Gas Global catalogue \(/content/dam/eaton/products/conduit-cable-and-wire-management/im/general/brochures/eaton-capri-external-brochures/eaton-oil-gas-global-catalogue-2018-en-us.pdf\)](/content/dam/eaton/products/conduit-cable-and-wire-management/im/general/brochures/eaton-capri-external-brochures/eaton-oil-gas-global-catalogue-2018-en-us.pdf)

2018 Edition

(PDF 62 MB, 09/09/2021)

Catalogs

[↓](#) [Capri ATEX Cable Glands Catalog \(/content/dam/eaton/products/conduit-cable-and-wire-management/im/general/brochures/2-ATEX%20Glands%2012-2019%20English.pdf\)](/content/dam/eaton/products/conduit-cable-and-wire-management/im/general/brochures/2-ATEX%20Glands%2012-2019%20English.pdf)

(PDF 4 MB, 09/08/2021)

Certification reports

[↓](#) [ATEX QAN Certificate \(/content/dam/eaton/products/conduit-cable-and-wire-management/im/general/certificates/eaton-atex-ici-e-qan-certificate.pdf\)](/content/dam/eaton/products/conduit-cable-and-wire-management/im/general/certificates/eaton-atex-ici-e-qan-certificate.pdf)

(PDF 1 MB, 06/07/2021)

[↓](#) [BV Marine & Offshore - Recognition \(/content/dam/eaton/products/conduit-cable-and-wire-management/im/general/capri-ade-series/eaton-bv-marine-offshore-recognition-newcap-ade-series-certificate.pdf\)](/content/dam/eaton/products/conduit-cable-and-wire-management/im/general/capri-ade-series/eaton-bv-marine-offshore-recognition-newcap-ade-series-certificate.pdf)

(PDF 604 KB, 11/24/2021)

[↓](#) [Capri cable gland's - Certification comparison \(/content/dam/eaton/products/conduit-cable-and-wire-management/im/general/capri-ade-series/eaton-capri-ade-international-cable-glands-certification-table.pdf\)](/content/dam/eaton/products/conduit-cable-and-wire-management/im/general/capri-ade-series/eaton-capri-ade-international-cable-glands-certification-table.pdf)

(PDF 256 KB, 09/08/2021)

[↓](#) [Capri NEWCAP e series - EU Declaration of Conformity Certificate \(/content/dam/eaton/products/conduit-cable-and-wire-management/im/capri/newcap-e/eaton-capri-newcap-e-declaration-of-conformity-certificate.pdf\)](/content/dam/eaton/products/conduit-cable-and-wire-management/im/capri/newcap-e/eaton-capri-newcap-e-declaration-of-conformity-certificate.pdf)

(PDF 217 KB, 03/16/2021)

[↓](#) [Capri NEWCAP series - Bureau Veritas Certificate \(/content/dam/eaton/products/conduit-cable-and-wire-management/im/capri/newcap-e/eaton-capri-bv-certificate-newcap-e-series.pdf\)](/content/dam/eaton/products/conduit-cable-and-wire-management/im/capri/newcap-e/eaton-capri-bv-certificate-newcap-e-series.pdf)

(PDF 586 KB, 09/08/2021)

[↓](#) [Capri NEWCAP series - Ex Certificate \(/content/dam/eaton/products/conduit-cable-and-wire-management/im/capri/newcap-e/eaton-capri-newcap-e-certificate.pdf\)](/content/dam/eaton/products/conduit-cable-and-wire-management/im/capri/newcap-e/eaton-capri-newcap-e-certificate.pdf)

(PDF 528 KB, 03/16/2021)

[↓](#) [Capri NEWCAP series - IECEx Certificate \(/content/dam/eaton/products/conduit-cable-and-wire-management/im/capri/newcap-e/eaton-capri-newcap-e-iecex-certificate.pdf\)](/content/dam/eaton/products/conduit-cable-and-wire-management/im/capri/newcap-e/eaton-capri-newcap-e-iecex-certificate.pdf)

(PDF 508 KB, 03/16/2021)

[↓](#) [Certificat ISO 14001 Nouan-le-Fuzelier \(/content/dam/eaton/products/conduit-cable-and-wire-management/im/general/certificates/eaton-certificate-iso-14001-nouan-le-fuzelier-en-us.pdf\)](/content/dam/eaton/products/conduit-cable-and-wire-management/im/general/certificates/eaton-certificate-iso-14001-nouan-le-fuzelier-en-us.pdf)

ISO 14001 Certificate Nouan-le-Fuzelier

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[DNV Management System Certificate \(/content/dam/eaton/products/conduit-cable-and-wire-management/im/general/certificate/eaton-capri-dnv-management-system-certificate.pdf\)](/content/dam/eaton/products/conduit-cable-and-wire-management/im/general/certificate/eaton-capri-dnv-management-system-certificate.pdf)

Nouan-le-Fuzelier, France

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[IECEx QAR Certificate \(/content/dam/eaton/products/conduit-cable-and-wire-management/im/general/certificates/eaton-iecex-qar-certificate.pdf\)](/content/dam/eaton/products/conduit-cable-and-wire-management/im/general/certificates/eaton-iecex-qar-certificate.pdf)

(PDF 246 KB, 06/07/2021)



[REACH Certificate - CAPRI Ranges \(/content/dam/eaton/products/conduit-cable-and-wire-management/im/general/certificates/eaton-capri-reach-certificate-en-gb.pdf\)](/content/dam/eaton/products/conduit-cable-and-wire-management/im/general/certificates/eaton-capri-reach-certificate-en-gb.pdf)

(PDF 350 KB, 12/06/2021)

Installation instructions



[NEWCAP e Regulatory instructions \(/content/dam/eaton/products/conduit-cable-and-wire-management/im/capri/newcap-e/eaton-capri-newcap-e-regulatory-instructions.pdf\)](/content/dam/eaton/products/conduit-cable-and-wire-management/im/capri/newcap-e/eaton-capri-newcap-e-regulatory-instructions.pdf)

(PDF 1 MB, 03/16/2021)

Technical data sheets



[Newcap CT "e" - Datasheet \(/content/dam/eaton/products/conduit-cable-and-wire-management/im/capri/newcap-e/eaton-newcap-ct-e-datasheet.pdf\)](/content/dam/eaton/products/conduit-cable-and-wire-management/im/capri/newcap-e/eaton-newcap-ct-e-datasheet.pdf)

(PDF 229 KB, 09/08/2021)



[Newcap MS "e" - Datasheet \(/content/dam/eaton/products/conduit-cable-and-wire-management/im/capri/newcap-e/eaton-newcap-ms-e-datasheet.pdf\)](/content/dam/eaton/products/conduit-cable-and-wire-management/im/capri/newcap-e/eaton-newcap-ms-e-datasheet.pdf)

(PDF 222 KB, 09/08/2021)

Videos and animations



[Newcap CT "e" - Assembly video \(/content/dam/eaton/products/conduit-cable-and-wire-management/im/capri/newcap-e/eaton-newcap-ct-e-assembly-video-en-us.mp4\)](/content/dam/eaton/products/conduit-cable-and-wire-management/im/capri/newcap-e/eaton-newcap-ct-e-assembly-video-en-us.mp4)

Newcap CT "e" - Vidéo de montage

(MP4 11 MB, 07/26/2022)



[Newcap MS "e" - Assembly video \(/content/dam/eaton/products/conduit-cable-and-wire-management/im/capri/newcap-e/eaton-newcap-ms-e-assembly-video-en-us.mp4\)](/content/dam/eaton/products/conduit-cable-and-wire-management/im/capri/newcap-e/eaton-newcap-ms-e-assembly-video-en-us.mp4)

Newcap MS "e" - Vidéo de montage

(MP4 11 MB, 07/26/2022)



[Questions before you buy \(https://content.eaton.com/en-us_LSD_Installation_Materials\)](https://content.eaton.com/en-us_LSD_Installation_Materials)

Contact us by completing the form link above.

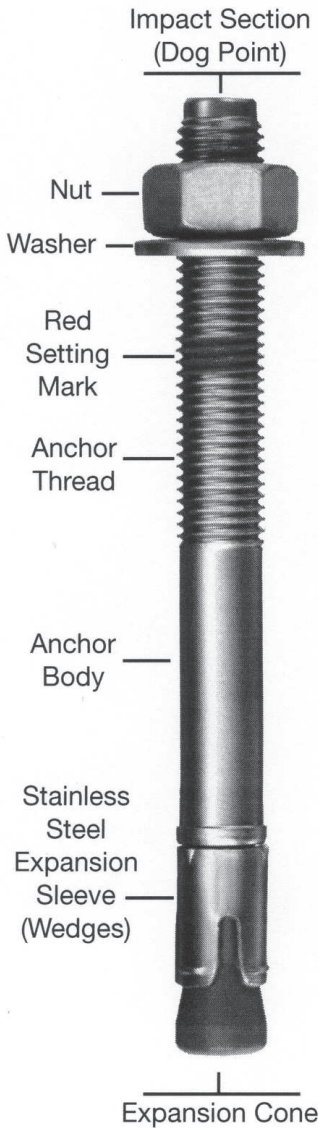
[Privacy, cookies & data protection policy \(/us/en-us/company/policies-and-statements/privacy-cookies-and-data-protection.html\)](/us/en-us/company/policies-and-statements/privacy-cookies-and-data-protection.html)

[Do not sell my data request \(CCPA and other states\) \(/us/en-us/forms/data-privacy/do-not-sell-data.html\)](/us/en-us/forms/data-privacy/do-not-sell-data.html)

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Seismic Anchor Kit



Great Lakes Case & Cabinet Co., Inc.
P.O. Box 551 • Edinboro, PA 16412
1-866-TRY-GLCC

www.WeRackYourWorld.com

Customer agrees to use product at own risk and hereby agrees to indemnify Great Lakes for any cost including attorney's fees, incurred by Great Lakes as a result, in whole or in part, of any violation by customer of any Federal, State or Local statute or regulation, or of any nationally accepted standard. It shall be Customer's sole responsibility to comply with all applicable laws and regulations regarding the handling, use transportation or disposal of products upon taking possession of same.

Anchor Installation Instructions (Part # AKI01)

Description

- Especially suited for seismic and cracked concrete (tension zone) applications
- Seismic qualifications tested in accordance with ACI 355.2 and ICC-ES AC 193
- Small minimum edge distance and spacing for maximum design flexibility
- Suitable for concrete over metal deck applications
- Rounded end for easy installation
- Meets ductility requirements of 318 D.3.3

Technical Data

Base Material

- Cracked and uncracked concrete
- Lightweight concrete
- Light to medium weight concrete over metal deck
- Anchor material
- Carbon steel, electroplated zinc min 5 microns Listings/Approvals
- ICC-ES (International Code Council) ESR-1917
- FM (Factory Mutual)
- UL (Underwriters Laboratories)
- Qualified under an NQA-I nuclear quality program

International Building Codes

2003 IBC Compliant Anchor
2006 IBC Compliant Anchor

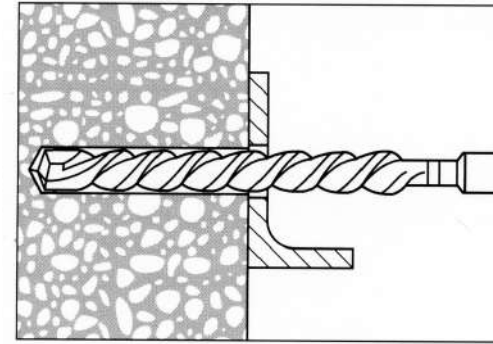
Anchor Specs

Hole diameter: 5/8"
Anchor length: 6"
Thread length: 2-3/4"
Embedded depth: 4-1/2"
Thread size: 5/8"

Tool Requirements

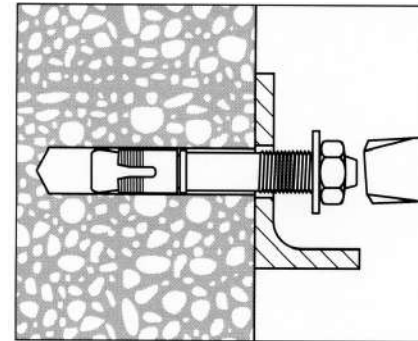
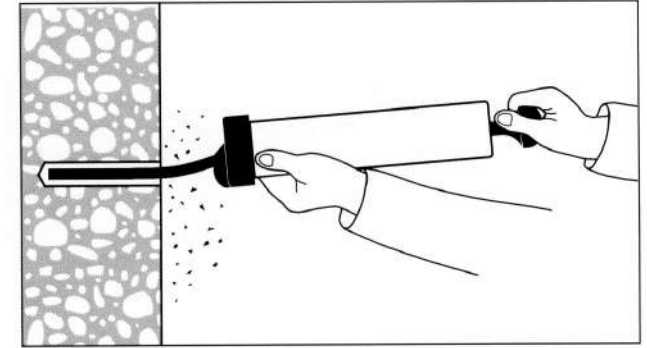
Drill
5/8" drill bit

Installation Instructions



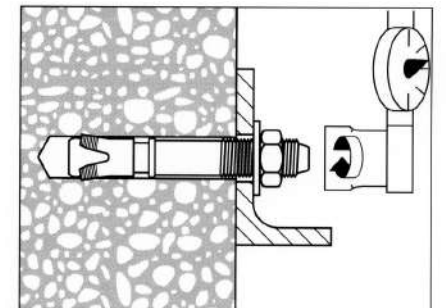
1. Hammer drill a hole to the same nominal diameter as the AK101 bolt (5/8). The hole depth must exceed the anchor embedment by at least 1/4 inch. The fixture may be used as a drilling template to ensure proper anchor location.

2. Clean hole.



3. Drive the AK101 anchor into the hole using a hammer. The anchor must be driven until at least 4 threads are below the surface of the fixture.

4. Tighten the nut to the recommended installation torque. 60 ft-lb. (81 Nm)



**Thank you
 for your
 business!**

*we pack
 your
 world!*

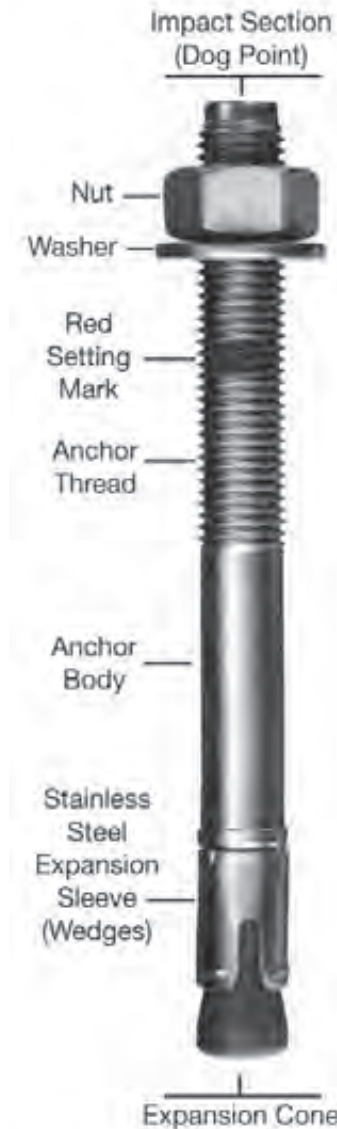


ISO 9001 : 2008 Registered

ETSI Associate Member

Customer agrees to use product at own risk and hereby agrees to indemnify Great Lakes for any cost including attorney's fees, incurred by Great Lakes as a result, in whole or in part, of any violation by customer of any Federal, State or Local statute or regulation, or of any nationally accepted standard. It shall be Customer's sole responsibility to comply with all applicable laws and regulations regarding the handling, use transportation or disposal of products upon taking possession of same.

Seismic Anchor Kit



**Anchor Installation Instructions
 (Part # AKI01)**

Description

- Especially suited for seismic and cracked concrete (tension zone) applications
- Seismic qualifications tested in accordance with ACI 355.2 and ICC-ES AC 193
- Small minimum edge distance and spacing for maximum design flexibility
- Suitable for concrete over metal deck applications
- Rounded end for easy installation
- Meets ductility requirements of 318 D.3.3

Technical Data - Base Material

- Cracked and uncracked concrete
- Lightweight concrete
- Light to medium weight concrete over metal deck Anchor material
- Carbon steel, electroplated zinc min 5 microns Listings/Approvals
- ICC-ES (International Code Council) ESR-1917
- FM (Factory Mutual)
- UL (Underwriters Laboratories)
- Qualified under an NQA-1 nuclear quality program

International Building Codes

2003 IBC Compliant Anchor or 2006 IBC Compliant Anchor

Anchor Specs

Hole diameter: 5/8" • Anchor length: 6" • Thread length: 2-3/4"
Embedded depth: 4-1/2" 8 Thread size: 5/8"

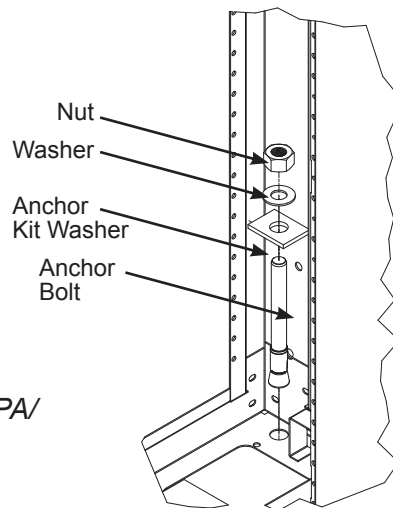
Tool Requirements

Drill and a 5/8" drill bit

OPA Approved

The Office of Statewide Health Planning and Development (OSHPD) has tested Great Lakes most popular products and have assigned pre-approval numbers to the products. ES and E Series enclosures, seismic enclosures, and 2 and 4 post racks have OPA numbers; the seismic anchor kit **MUST** be used for these products to be OPA approved. For complete OPA documents, visit <http://werackyourworld.com/resources/OPA/>

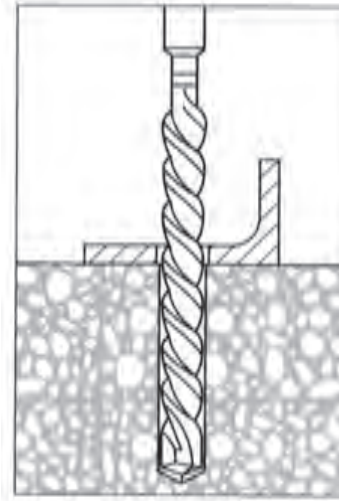
The seismic anchor kit can also be used with any Great Lakes enclosure or rack for increased stability.



Detail exploded installation view (some frame parts removed for clarity) E and ES Series Enclosures

Installation Instructions

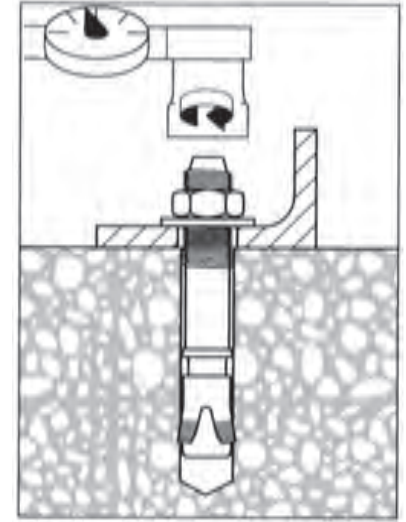
1. Hammer drill a hole to the same nominal diameter as the AK101 bolt (5/8). The hole depth must exceed the anchor embedment by at least 1/4 inch. The fixture may be used as a drilling template to ensure proper anchor location.



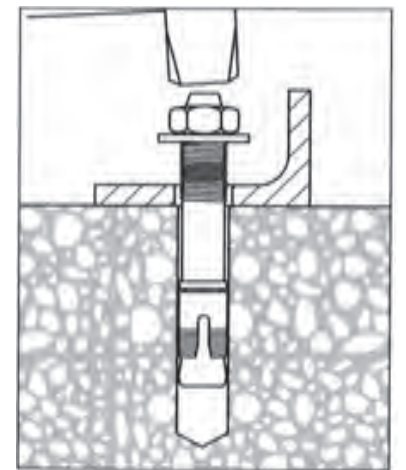
2. Clean hole.



3. Drive the AK101 anchor into the hole using a hammer. The anchor must be driven until at least 4 threads are below the surface of the fixture.



4. Tighten the nut to the recommended installation torque. 60 ft-lb. (81 Nm)



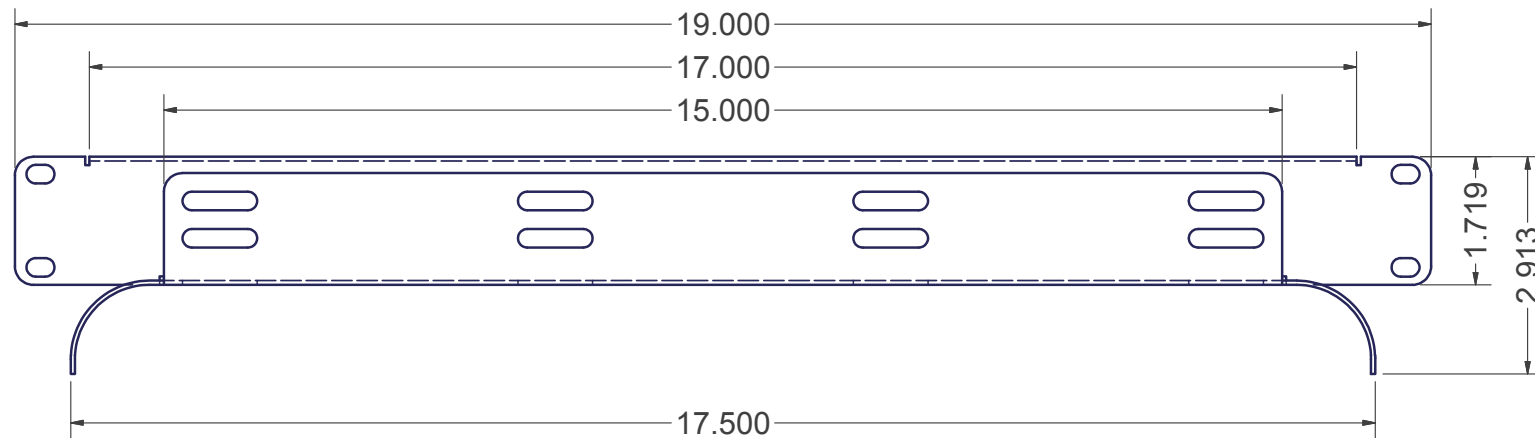
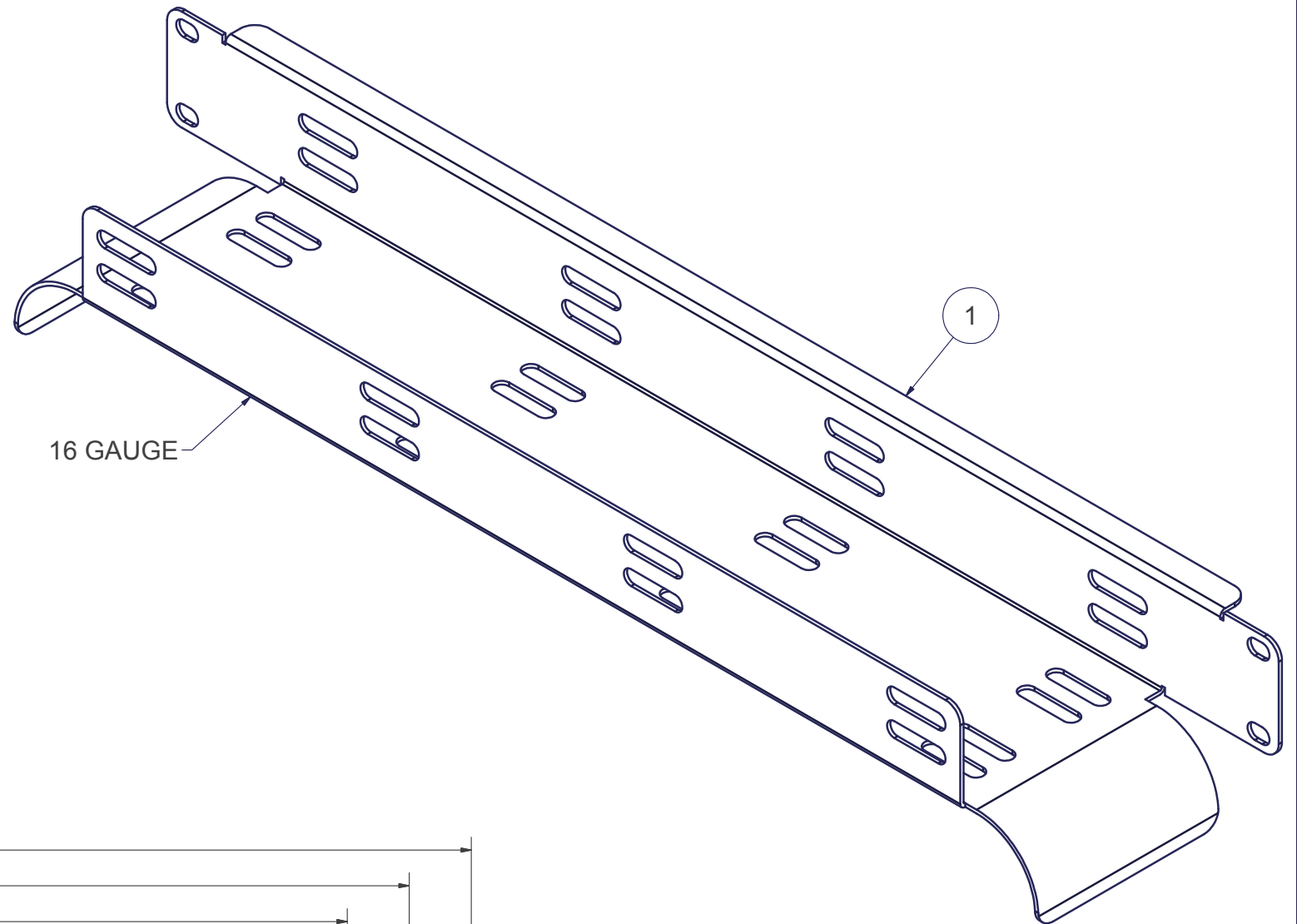
REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED
0	ECO-01777	8/1/2006	JL
1	ECO-02031	9/14/2007	WSS

Bill of Material					
ITEM	PART NUMBER	QTY	DESCRIPTION	FILE NAME	REV
1	CM073100	1	CABLE MANAGEMENT TROUGH w/ WATERFALL EDGES, 19" EIA, 1 RMU,	I004162.ipt	0

1 DELETED #10-32 & #12-24 HARDWARE

SPECIAL NOTES:

- 1) PACKAGE IN CORRUGATED PACKAGING TO BE APPROVED BY GLCC.
- 2) APPLY PART NUMBER LABEL ON OUTSIDE OF BOX.



INTERPRET DRAWING PER ASME Y14.5M-1994
DIMENSIONAL LIMITS APPLY AFTER APPLICATION OF FINISH
DRAWING NOT TO SCALE
TOLERANCE UNLESS OTHERWISE NOTED:
ANGULAR +/- 1°
.XXXX +/- .010
.XXX +/- .015
.XX +/- .030
.X FOR REF. ONLY
UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES

NOTICE:
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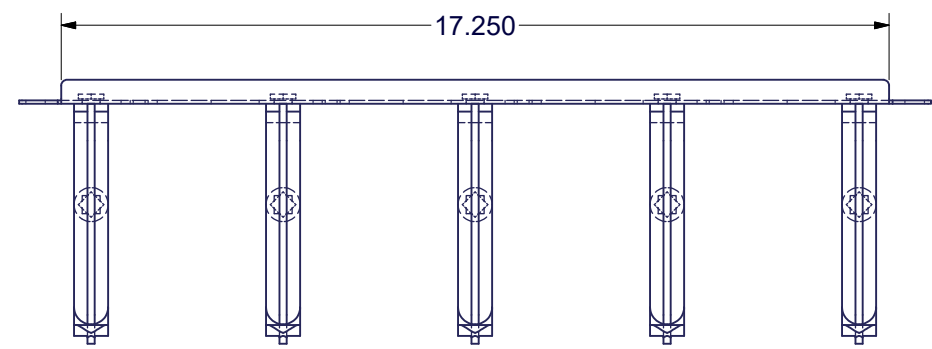
PART NUMBER:	CM073200
QTY PER UNIT:	1
MATERIAL TYPE:	-
MATERIAL GAUGE:	-
FINISH:	-
DRAWN	DATE
JL	8/1/2006
CHECKED & APP.	DATE
WSS	8-1-06

TITLE		CABLE MANAGEMENT TROUGH w/WATERFALL EDGES, 19" EIA, 1 RMU	
GREAT LAKES CASE & CABINET CO., INC.			
P.O. BOX 551 EDINBORO, PA 16412			
PHONE (814) 734-7303 FAX (814) 734-3907			
E-MAIL glcc@greatcabinets.com			
DWG NO:	I004161	REV	1
SHEET: 1 OF 1			

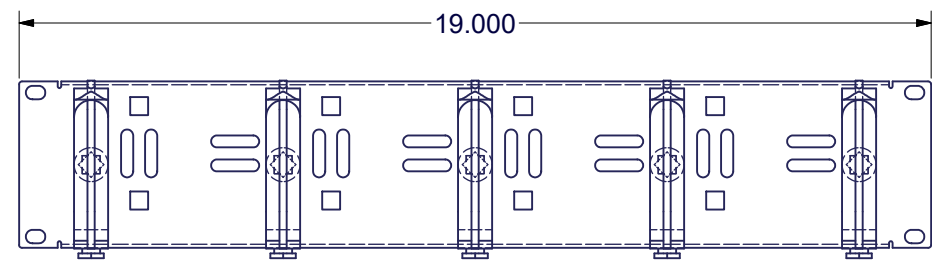


REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED
0	ECO-06340	10/7/2014	FED
3	ECO-07599	3/29/18	CND
4	ECO-07670	7/11/19	CND

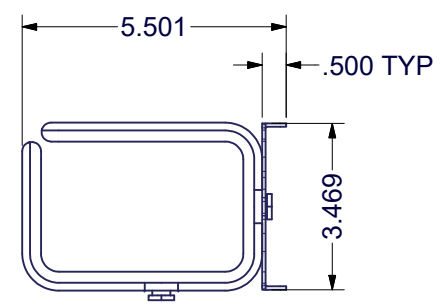
REV.2 I015181



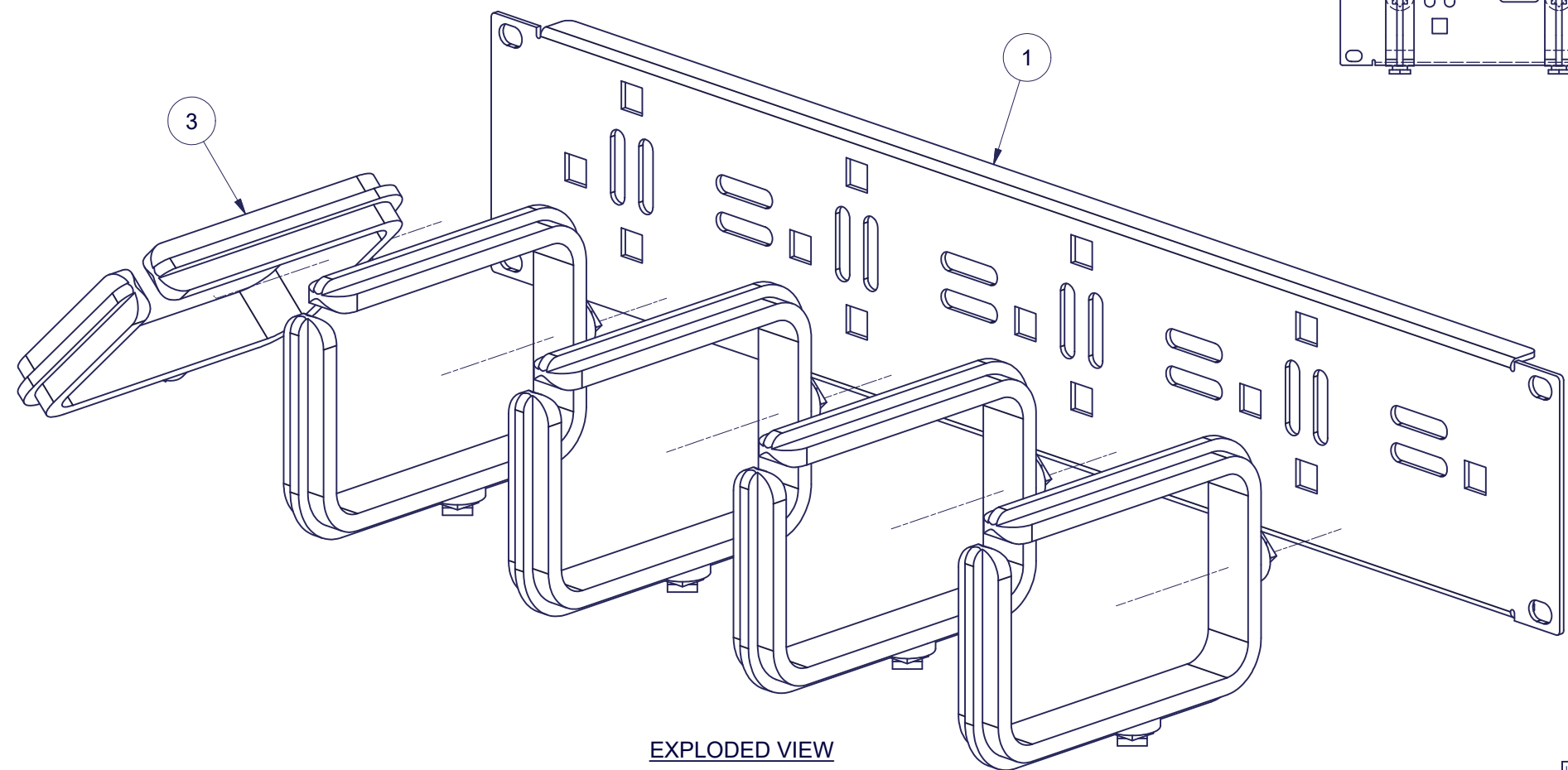
TOP VIEW



FRONT VIEW



END VIEW



EXPLODED VIEW

SPECIAL NOTE:

- 1) REFER TO PURCHASE ORDER - SPECIAL REQUIREMENTS MAY APPLY!
- 2) DO NOT ASSEMBLE, SHIP AS KIT OF PARTS

3 ONLY PART NUMBERS AND DESCRIPTION CHANGE

EST. WEIGHT :
N/A



INTERPRET DRAWING PER ASME Y14.5M-1994
DIMENSIONAL LIMITS APPLY
AFTER APPLICATION OF FINISH
DRAWING NOT TO SCALE
TOLERANCE UNLESS OTHERWISE NOTED:
ANGULAR +/- 1°
.XXXX +/- .010
.XXX +/- .015
.XX +/- .030
.X FOR REF. ONLY
UNLESS OTHERWISE SPECIFIED
ALL DIMENSIONS ARE IN INCHES

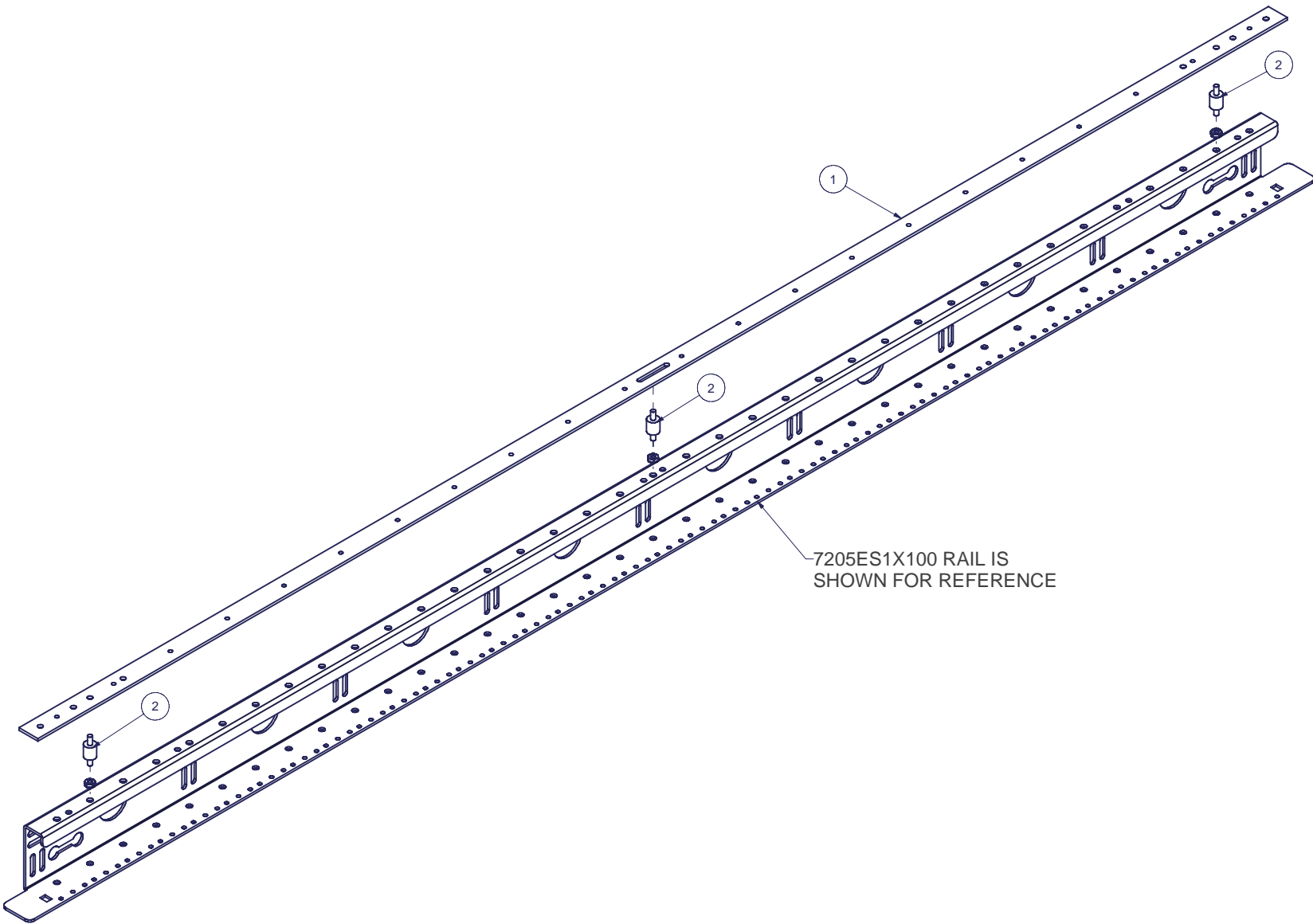
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PART NUMBER: CM04X200
QTY PER UNIT: 1
MATERIAL TYPE: CRS
MATERIAL GAUGE:
FINISH: POWDERCOATED
DRAWN: 10/7/2014
FED: 10/7/2014
CHECKED & APP. DATE: 10/7/2014
WSS

TITLE: 2 RMU x 19" EIA CABLE MANAGER WITH (5) PLASTIC CABLE RINGS
GREAT LAKES CASE & CABINET CO., INC.
P.O. BOX 551 EDINBORO, PA 16412
PHONE (814) 734-7303 FAX (814) 734-3907
E-MAIL glcc@greatcabinets.com
DWG NO: I022498
REV: 4
SHEET: 1 OF 1

REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED
3	ECO-01636	9/23/2005	JL
4	ECO-02431	11/14/08	CD

Bill of Material					
ITEM	PART NUMBER	QTY	DESCRIPTION	FILE NAME	REV
1	CBB72X100	1	COPPER BUS BAR - 66.00"L x 1.00"W, TAPPED #10-32	I003131.ipt	8
2	QM-7	3	ISOLATED STANDOFF - RICHCO QUIET MOUNT	QM7.ipt	-
3	H02-001	6	#10-32 KEPS NUT, ZINC RoHS	10-32NUT.iam	-



7205ES1X100 RAIL IS SHOWN FOR REFERENCE

INTERPRET DRAWING PER ASME Y14.5M-1994
 DIMENSIONAL LIMITS APPLY
 AFTER APPLICATION OF FINISH
 DRAWING NOT TO SCALE
 TOLERANCE UNLESS OTHERWISE NOTED:
 ANGULAR +/- 1'
 .XXXX +/- .010
 .XXX +/- .015
 .XX +/- .030
 .X FOR REF. ONLY

NOTICE:
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PART NUMBER:
CBB72X200
 QTY PER UNIT: 1
 MATERIAL TYPE:
 -
 MATERIAL GAUGE:
 -
 FINISH:
 -
 DRAWN DATE
 jaye 4/19/2005
 CHECKED & APP. DATE
 WSS 9-22-05

TITLE
66.0"L x 1.0"W COPPER BUS BAR, TAPPED #10-32 - ASSEMBLY
GREAT LAKES CASE & CABINET CO., INC.
 P.O. BOX 551 EDINBORO, PA 16412
 PHONE (814) 734-7303 FAX (814) 734-3907
 E-MAIL glcc@greatcabinets.com

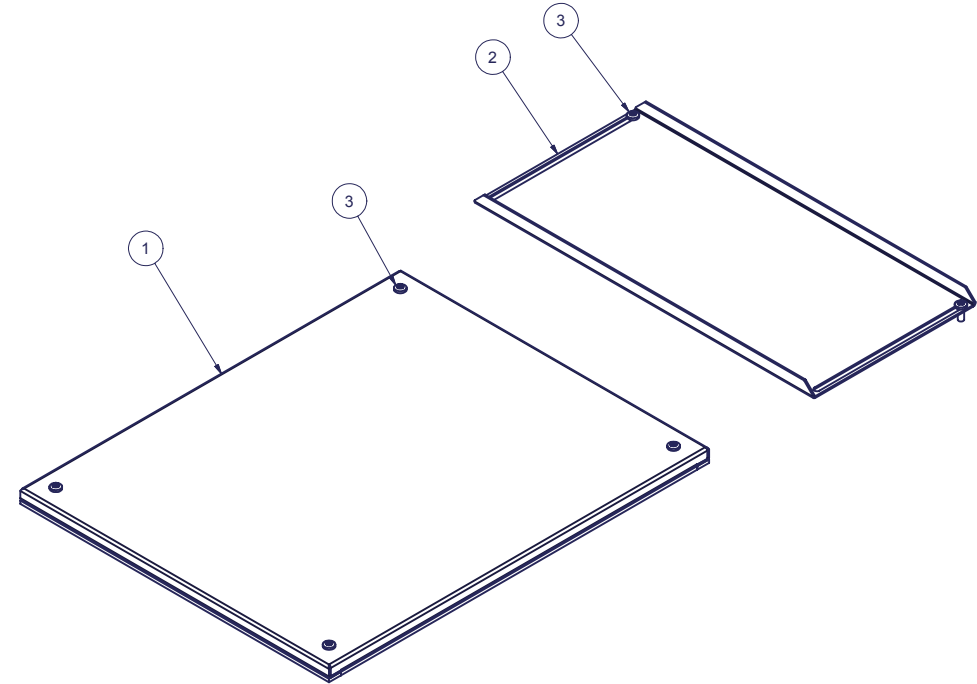
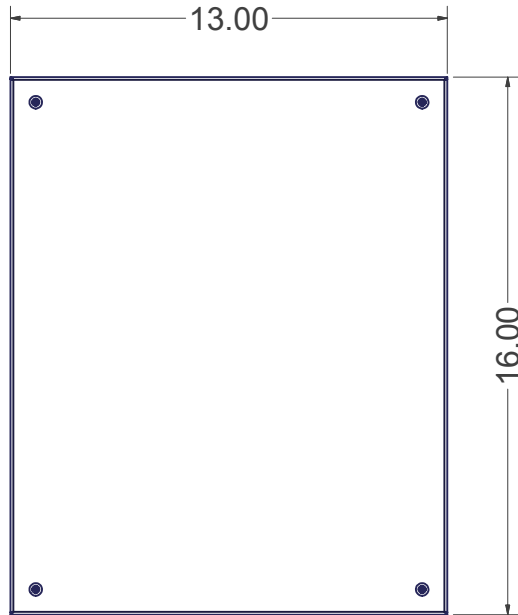
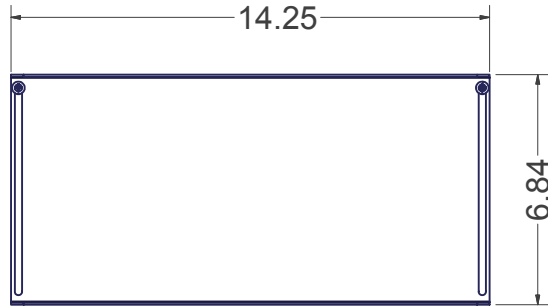


THIRD ANGLE PROJECTION
 UNLESS OTHERWISE SPECIFIED
 ALL DIMENSIONS ARE IN INCHES

DWG NO: I003130
 REV: 4
 SHEET: 1 OF 1

REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED
0	ECO-01412	6/1/2004	WSS
1	ECO-02683	10/9/2009	FED

Bill of Material						
ITEM	PART NUMBER	STOCK NUMBER	QTY	DESCRIPTION	FILE NAME	REV
1	BPESX100		1	BOTTOM PANEL, SOLID FOR E CABINETS, ASSEMBLY	I000490.iam	4
2	BPES24BX100		1	REAR COVER PLATE - 24"W ENHANCED	I000203.ipt	1
3	H01-078	H01-078	6	SCREW, 10-32x1/2" PH PAN TYPE 23 BLACK OXIDE/WAX RoHS	SCR1032X500BLK.ipt	-



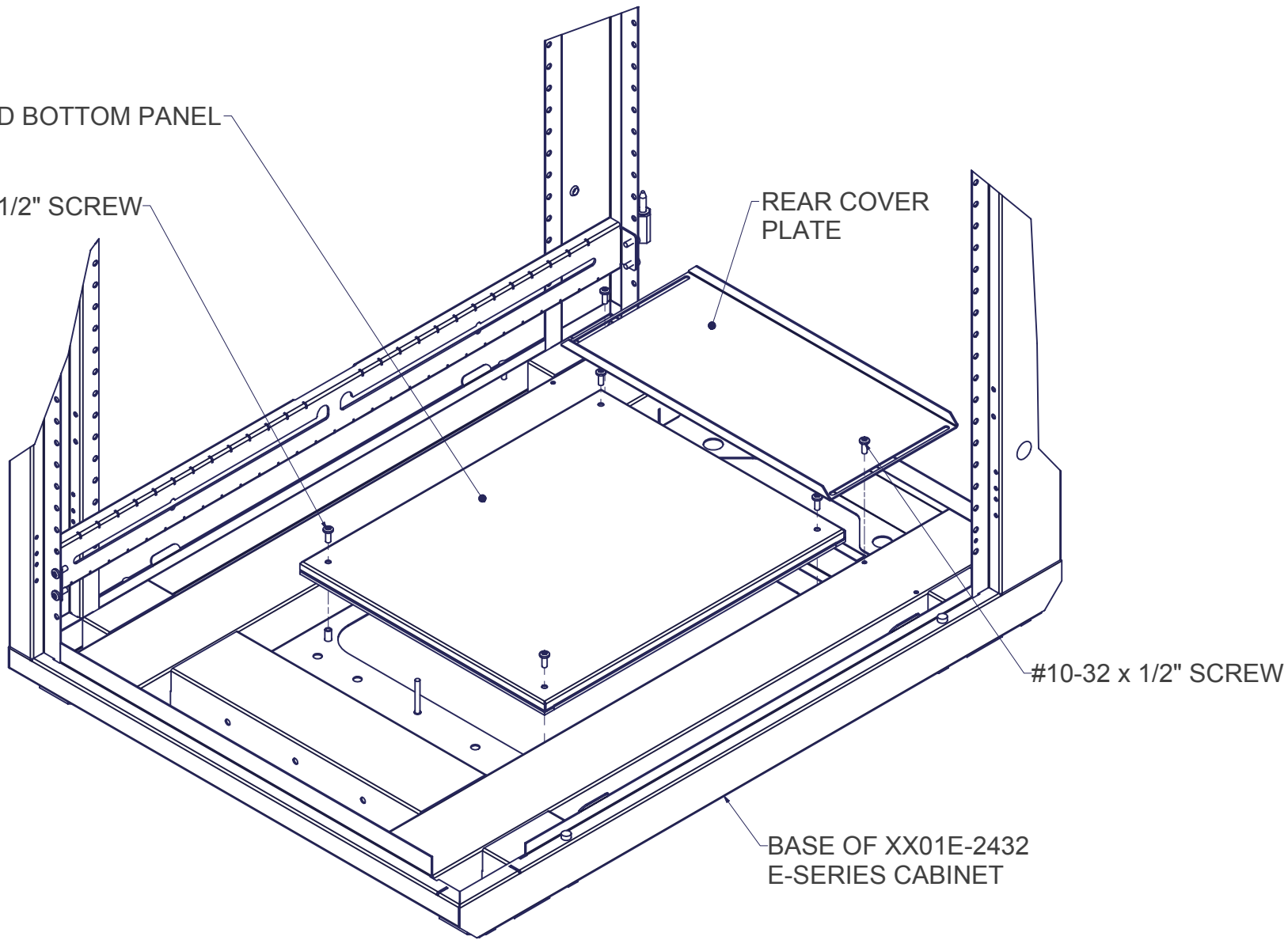
INTERPRET DRAWING PER ASME Y14.5M-1994 DIMENSIONAL LIMITS APPLY AFTER APPLICATION OF FINISH DRAWING NOT TO SCALE TOLERANCE UNLESS OTHERWISE NOTED: ANGULAR +/- 1° .XXXX +/- .010 .XXX +/- .015 .XX +/- .030 .X FOR REF. ONLY UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES

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PART NUMBER:	BPS24
QTY PER UNIT:	1
MATERIAL TYPE:	N/A
MATERIAL GAUGE:	#16 GA
FINISH:	N/A
DRAWN	DATE
WSS	5/28/2004
CHECKED & APP.	DATE
J.A.L.	6/1/04

TITLE	ENHANCED SOLID BOTTOM KIT - 24" WIDE FRAME.		
	GREAT LAKES CASE & CABINET CO., INC. P.O. BOX 551 EDINBORO, PA 16412 PHONE (814) 734-7303 FAX (814) 734-3907 E-MAIL glcc@greatcabinets.com		
DWG NO:	1002224	REV	1
		SHEET: 1 OF 2	





INTERPRET DRAWING PER ASME Y14.5M-1994
 DIMENSIONAL LIMITS APPLY
 AFTER APPLICATION OF FINISH
 DRAWING NOT TO SCALE
 TOLERANCE UNLESS OTHERWISE NOTED:
 ANGULAR +/- 1°
 .XXXX +/- .010
 .XXX +/- .015
 .XX +/- .030
 X FOR REF. ONLY



THIRD ANGLE
 PROJECTION

UNLESS OTHERWISE SPECIFIED
 ALL DIMENSIONS ARE IN INCHES

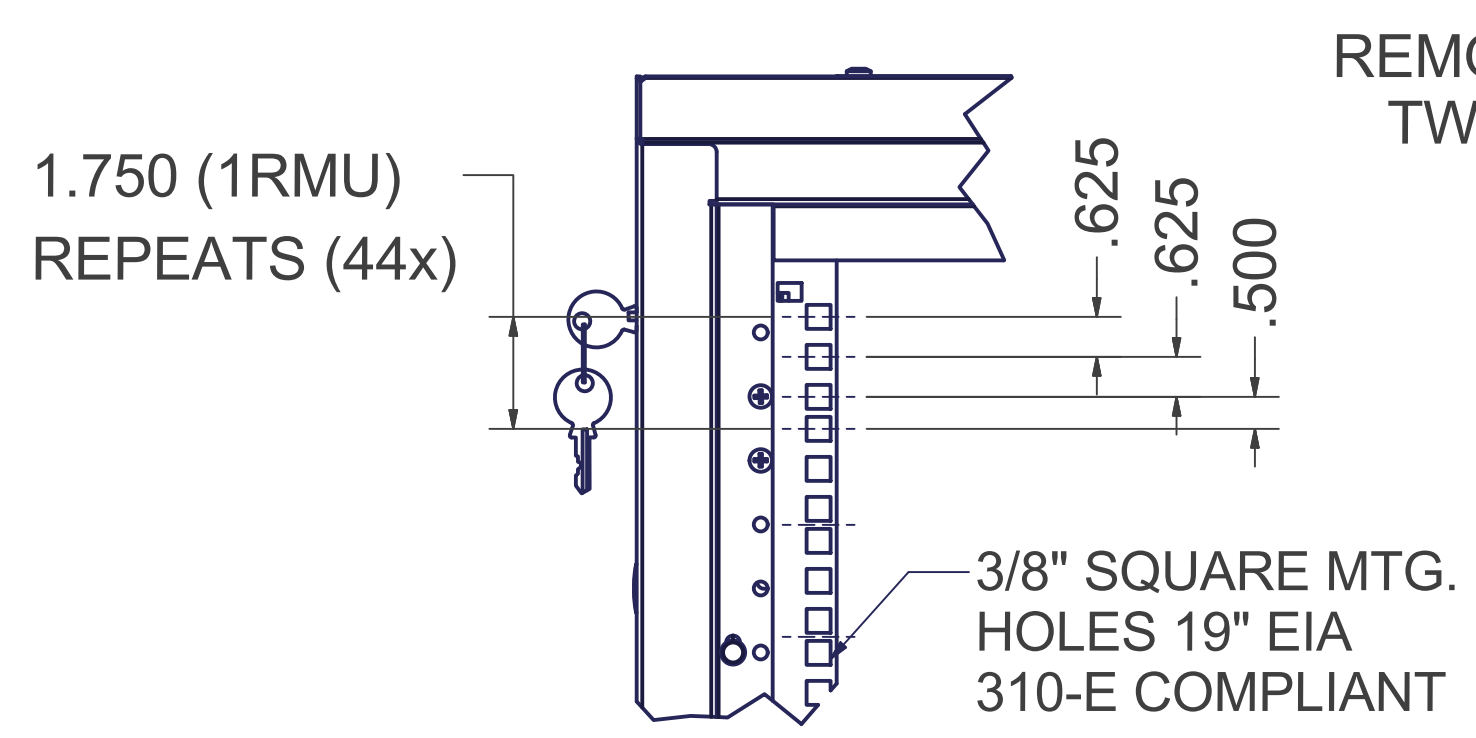
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PART NUMBER: BPS24	
QTY PER UNIT:	1
MATERIAL TYPE:	-
MATERIAL GAUGE:	-
FINISH:	-
DRAWN	DATE
JL	9/6/2005
CHECKED & APP.	DATE
WSS	9-7-05

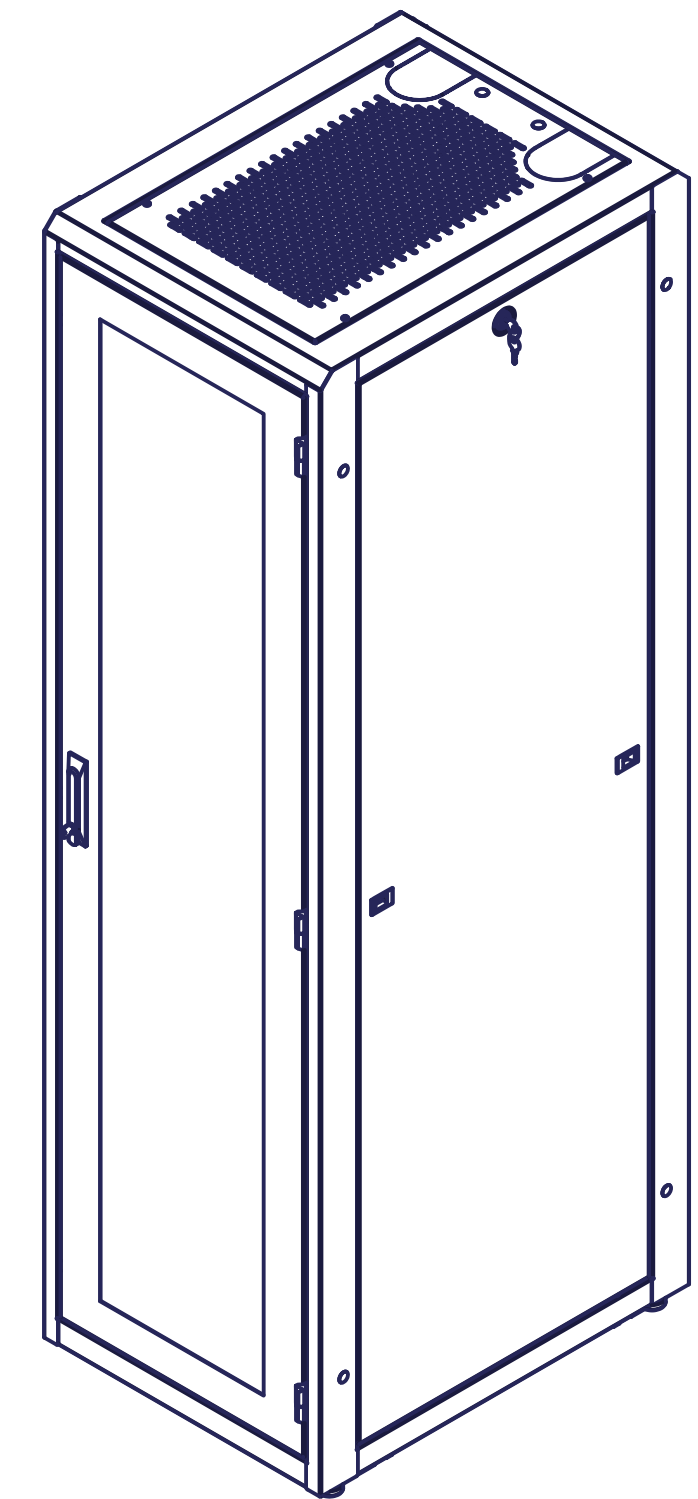
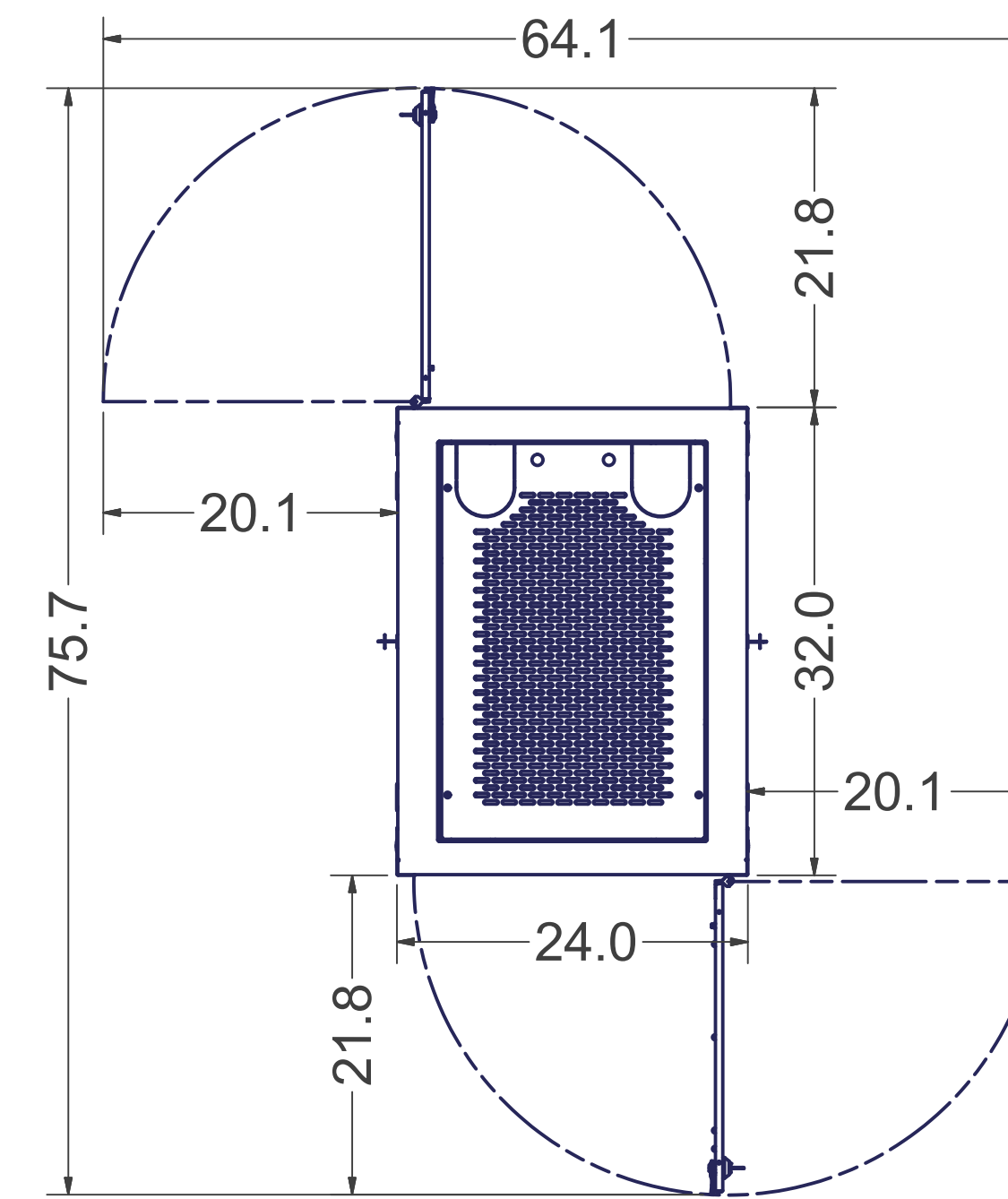
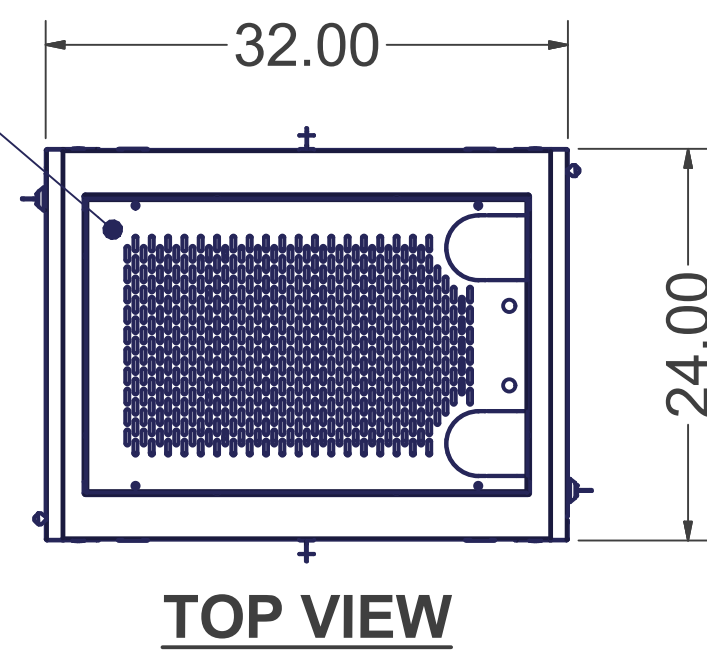
TITLE ENHANCED SOLID BOTTOM KIT - 24" WIDE FRAME	
GREAT LAKES CASE & CABINET CO., INC. P.O. BOX 551 EDINBORO, PA 16412 PHONE (814) 734-7303 FAX (814) 734-3907 E-MAIL glcc@greatcabinets.com	
DWG NO: 1002224	REV 1
SHEET: 2 OF 2	

8 7 6 5 4 3 2 1

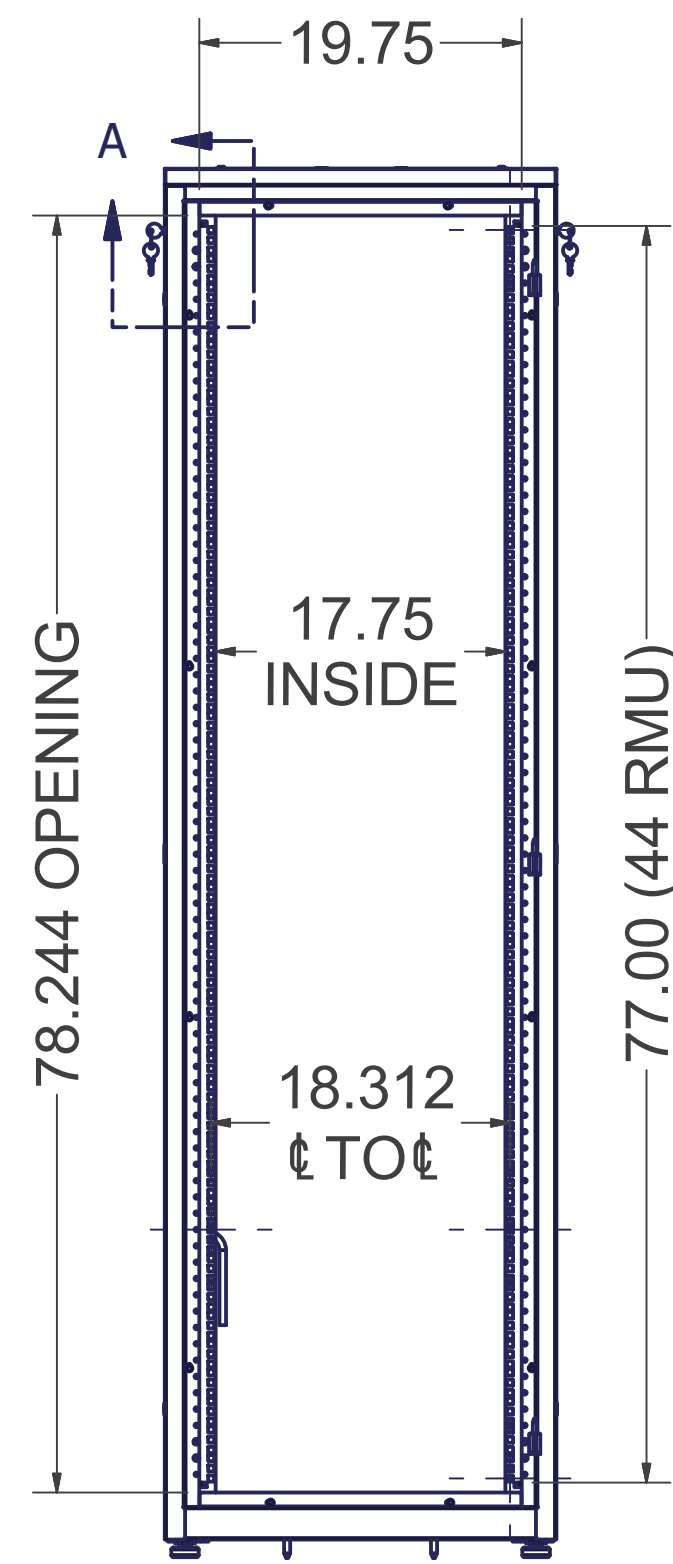


DETAIL A

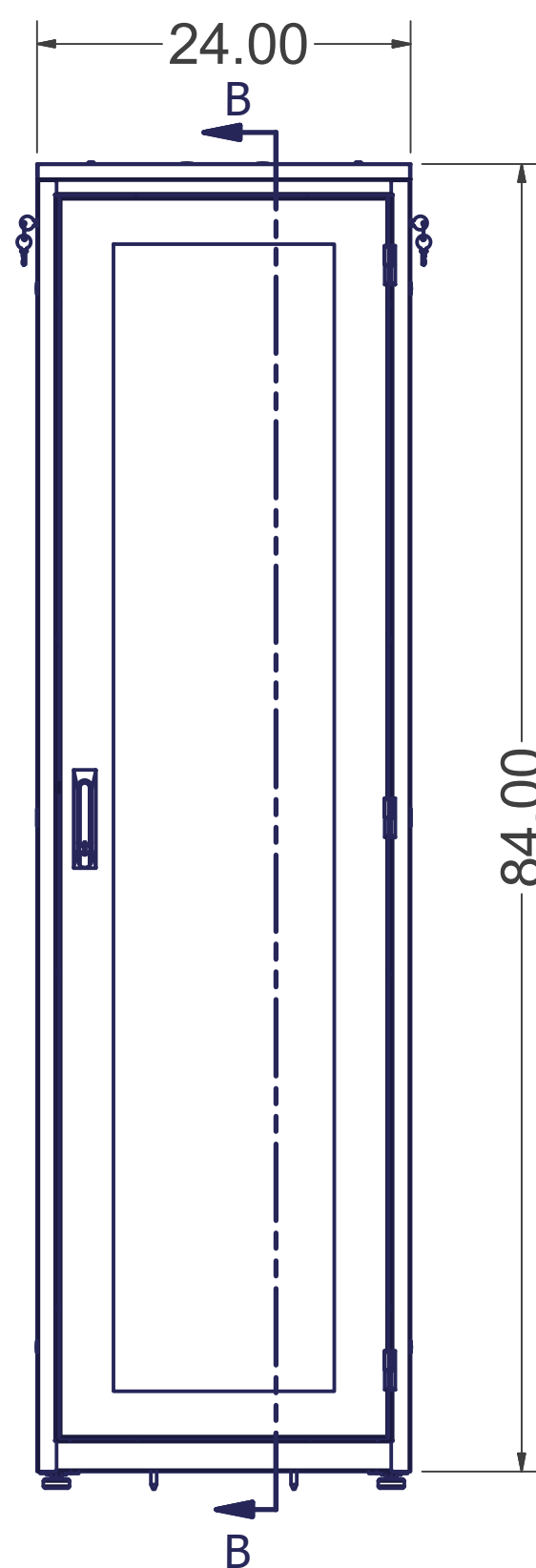
REMOVABLE VENTED TOP PANEL w/
TWO 4" HORSESHOE KNOCKOUTS



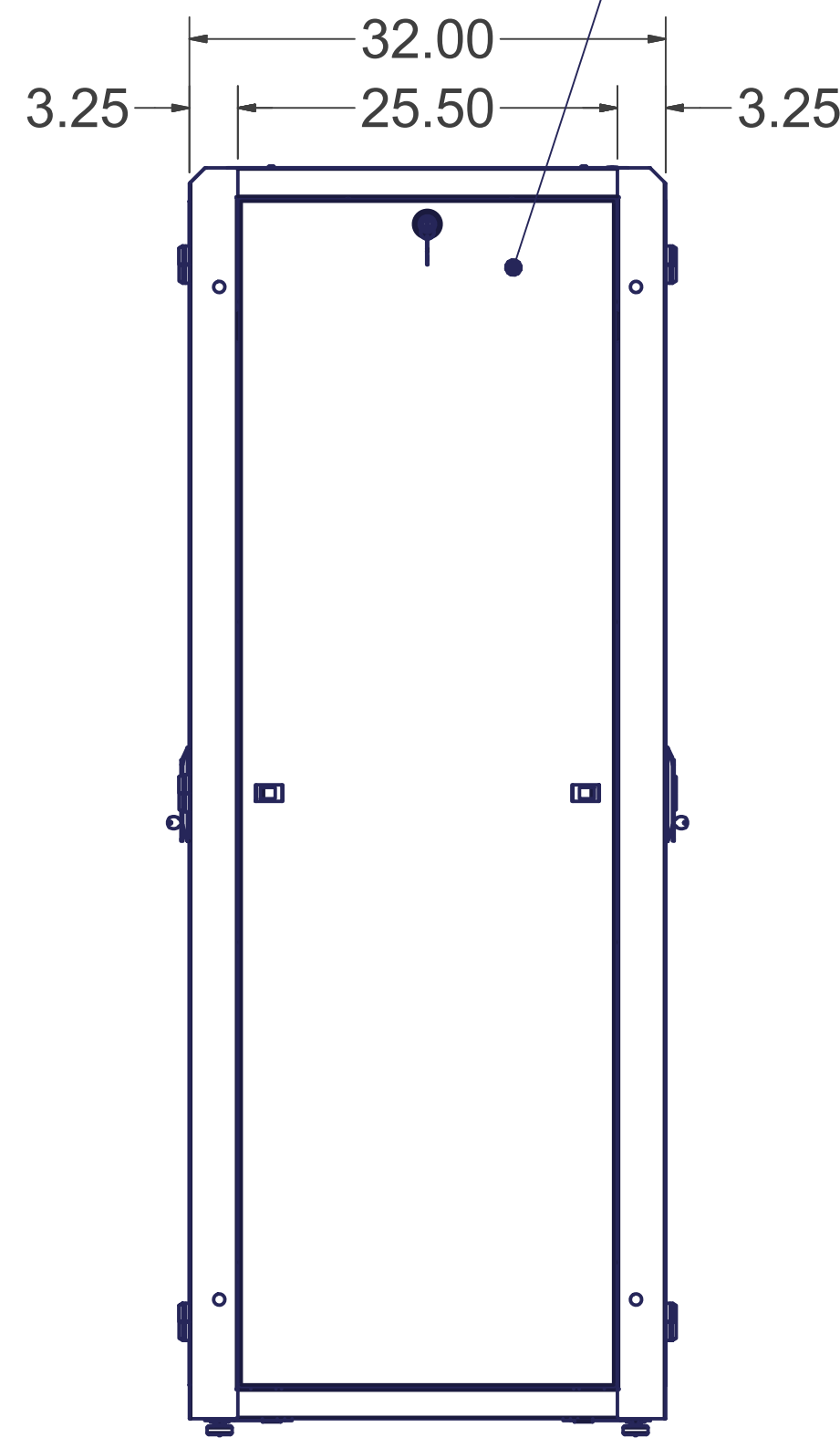
PAIR OF STANDARD SOLID LIFT OFF SIDE PANELS
(7910-36ELS) w/ LOCK & FINGER RELEASE LATCHES



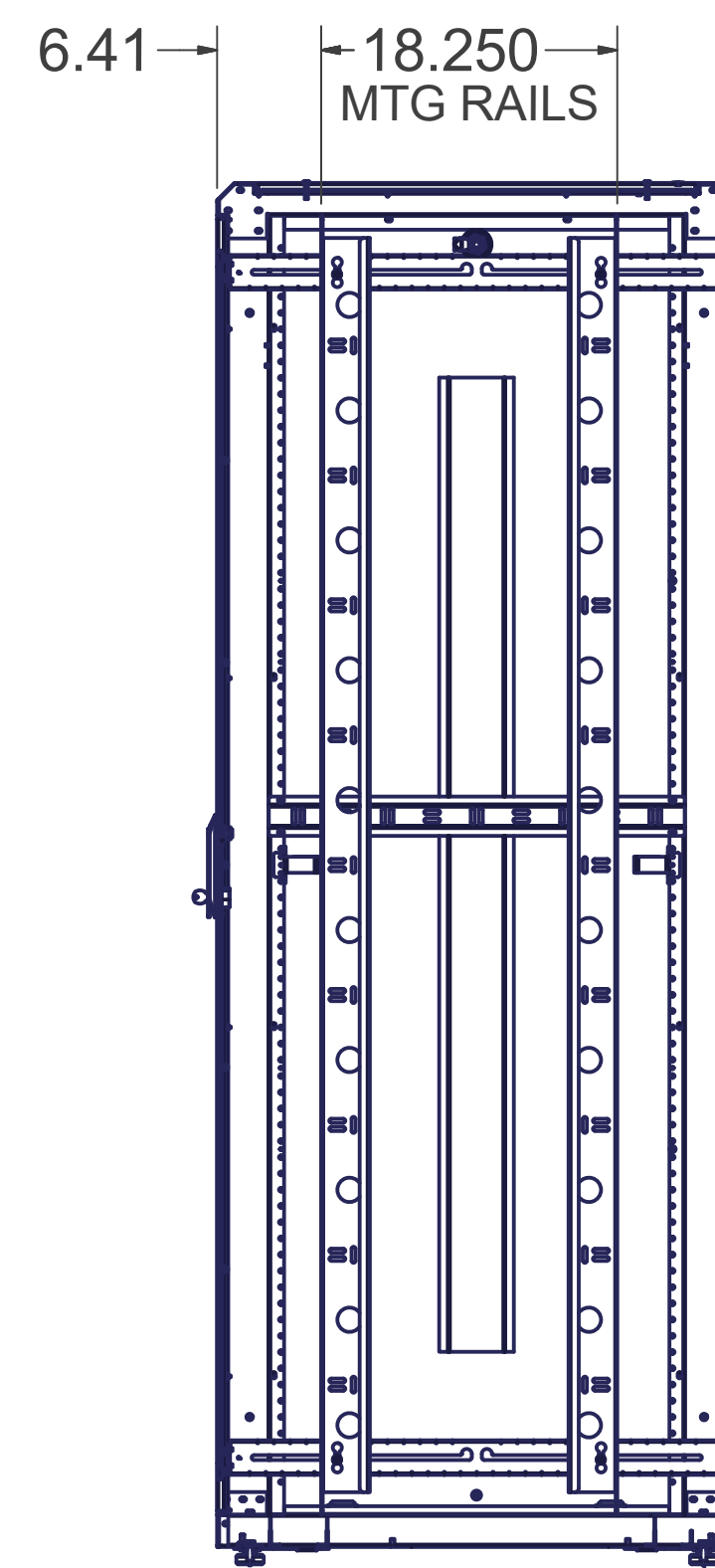
**FRONT VIEW w/
DOORS REMOVED**



FRONT VIEW



RIGHT SIDE VIEW



SECTION B-B

SPECIFICATIONS:

DIMENSIONS: 84"H X 24"W X 32"D

RACK SPACES: 44 RMU w/ NUMBERED RMU INDICATORS, 19" EIA 310-E COMPLIANT

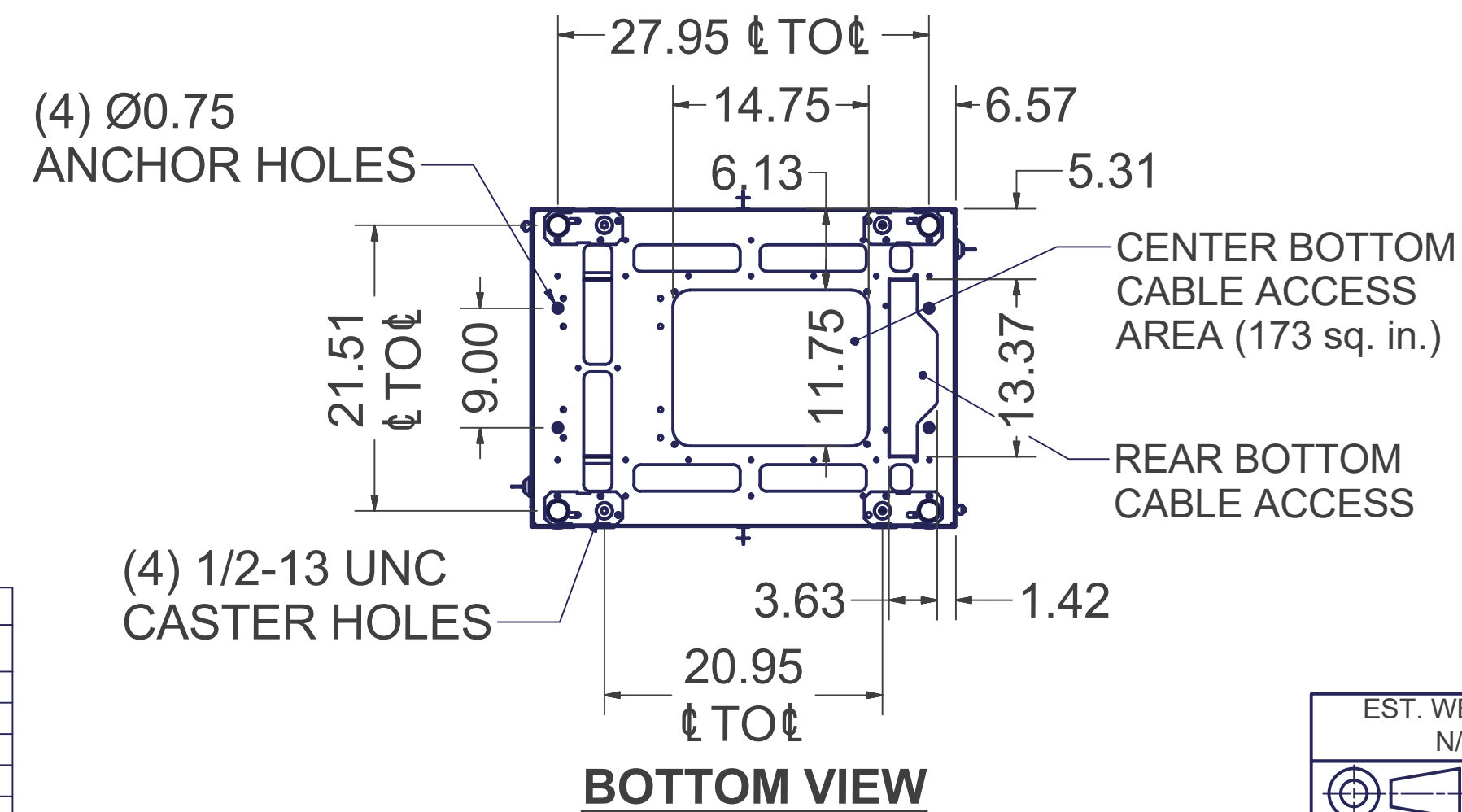
WEIGHT CAPACITY: 1500 LBS.

COLOR: DURABLE TEXTURE POWDER COATING

CONSTRUCTION: 2 PAIR MOUNTING RAILS, #12 GA. C.R.S.
FULLY WELDED FRAME, #16 GA. C.R.S.
DOOR, SIDE PANELS, TOP PANEL, #16 GA. C.R.S.

HARDWARE: PACKAGE OF QTY-50; M6 SCREWS AND CAGE NUTS, INCLUDED.

LEVELING GLIDES (4 INCLUDED)
1/2-13 UNC THREADED HOLES



POPULAR CONFIGURATIONS

GL840E-2432-X-xxxxMS: CABINET WITH FRONT AND REAR MESH DOORS, PAIR SOLID SIDES, SOLID TOP PANEL; REPLACE 'xxxx' WITH SQM6 OR 1032 TO DESIGNATE MOUNTING RAILS

GL840E-2432-X-xxxxMS: CABINET WITH FRONT PLEXI DOOR AND REAR PERIMETER VENTED SOLID DOOR, PAIR SOLID SIDES, PERFORATED TOP PANEL; REPLACE 'xxxx' WITH SQM6 OR 1032 TO DESIGNATE MOUNTING RAILS

ADDITIONAL CONFIGURATIONS AVAILABLE; SEE CHART TO THE LEFT

OPTIONS WITH * MAY NOT BE CONFIGURABLE
ON WEBSITE. CONTACT FOR MORE INFORMATION

E PART NUMBER LEGEND

COLOR	FRONT DOOR	REAR DOOR	SIDE PANEL	RAILS	TOP PANEL
B Black	0 None*	0 None*	0 None*	0 None*	0 None*
W White	6 Plexi (shown)	8 Perimeter Vented Steel	1 Single Solid	1 19" EIA 10-32 Rails	2 Fan Top
	7 Perimeter Vented Plexi	9 Solid	3 Pair Solid (shown)	5 19" M6 Cage Nuts (shown)	3 Solid Top
	A Mesh	A Mesh	4 Pair Vented		5 Perf. Top (shown)
	B Split Mesh	B Split Mesh			

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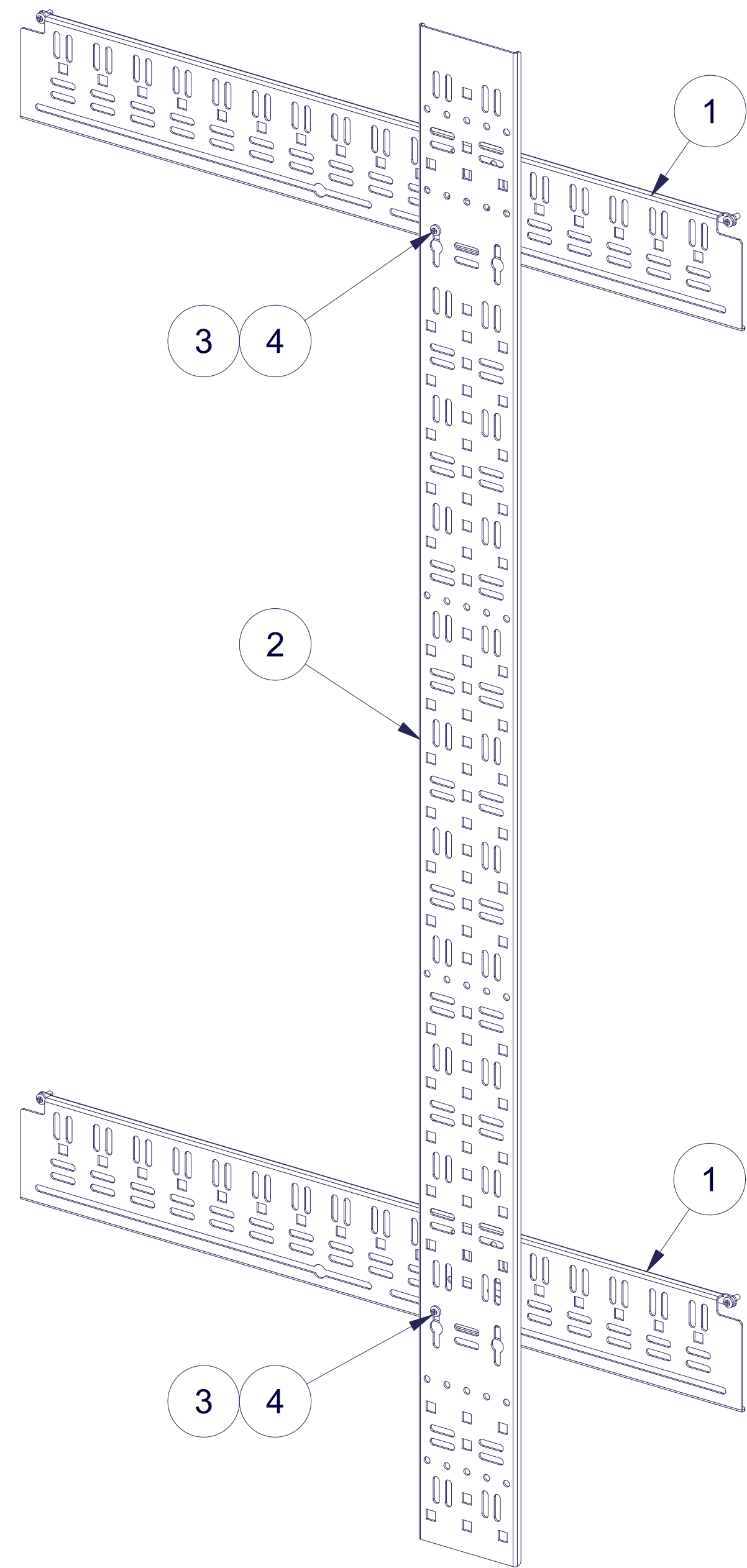
INTERPRET DRAWING PER ASME Y14.5M-1994
DIMENSIONAL LIMITS APPLY AFTER APPLICATION OF FINISH
DRAWING NOT TO SCALE
TOLERANCE UNLESS OTHERWISE NOTED:
ANGULAR +/- .1°
.XXXX +/- .010
.XXX +/- .015
.XX +/- .030
.X FOR REF. ONLY
UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES

PART NUMBER: 840E-2432-X-xxxxMS/P	TITLE: 84"H x 24"W x 32"D ENHANCED BASE UNIT ASSEMBLY
MATERIAL TYPE:	GREAT LAKES DATA RACKS & CABINETS P.O. BOX 551 EDINBORO, PA 16412 PHONE (814) 734-7303 FAX (814) 734-3907 E-MAIL info@greatcabinets.com
MATERIAL GAUGE:	
FINISH:	
DRAWN DATE CDM 3/13/2012	DWG NO: 840E-2432-X-xxxxMS/P
CHECKED & APP. DATE	REV
	SHEET: 1 OF 1

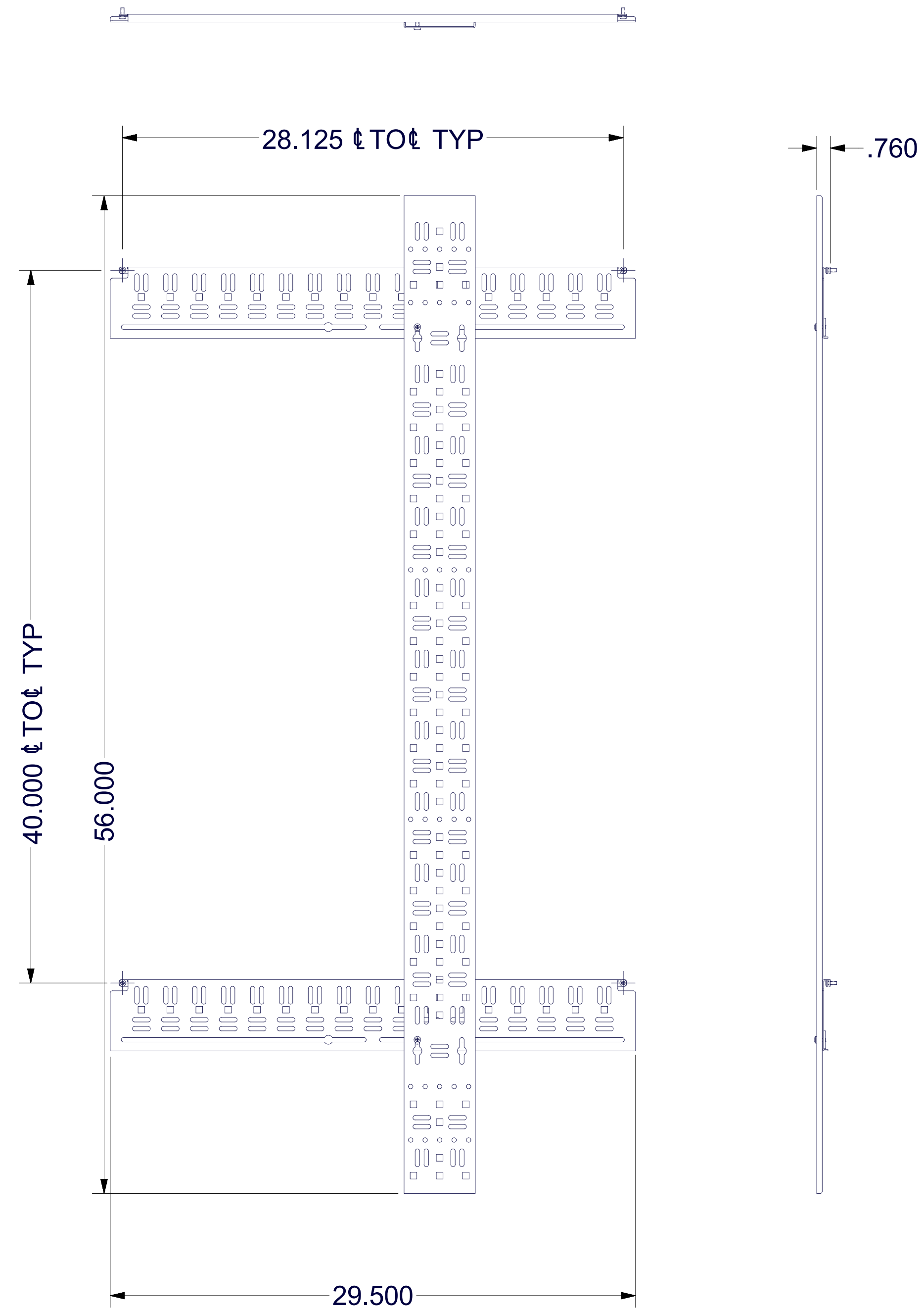
8 7 6 5 4 3 2 1

REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED
0	ECO-06340	10/3/2014	FED
1	ECO-06510	3/19/2015	VL

Bill of Material						
ITEM	PART NUMBER	STOCK #	QTY	DESCRIPTION	FILE NAME	Rev
1	HCB36x100		2	HORIZONTAL CABLE BAR FOR 36", 42" or 48"D 'E/' 'ES' ENCLOSURE	I022481.iam	1
2	VCB72X100		1	VERTICAL CABLE BAR FOR 72"H 'E/' 'ES' ENCLOSURE	I022483.iam	0
3	LBSNX100		2	SLIDING NUT FOR LACING BARS	I000631.ipt	2
4		H01-078	2	SCREW, 10-32x1/2" PH PAN TYPE 23 RBZ	SCR1032X500BLK.ipt	-
5	CM01		6	CABLE CINCH STRAP, 12"L x 3/4"W (NOT SHOWN)	CM01	-



ISO VIEW



SPECIAL NOTE:

- 1) REFER TO PURCHASE ORDER - SPECIAL REQUIREMENTS MAY APPLY!
- 2) PACK SEPARATELY & BULK SHIP AS A KIT UNLESS THIS UNIT IS TO BE MOUNTED AS PART OF A NEWLY BUILT ENCLOSURE.

EST. WEIGHT :
N/A



INTERPRET DRAWING PER ASME Y14.5M-1994
DIMENSIONAL LIMITS APPLY AFTER APPLICATION OF FINISH
DRAWING NOT TO SCALE
TOLERANCE UNLESS OTHERWISE NOTED:
ANGULAR +/- .1"
.XXXX +/- .010
.XXX +/- .015
.XX +/- .030
.X FOR REF. ONLY
UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES

NOTICE:

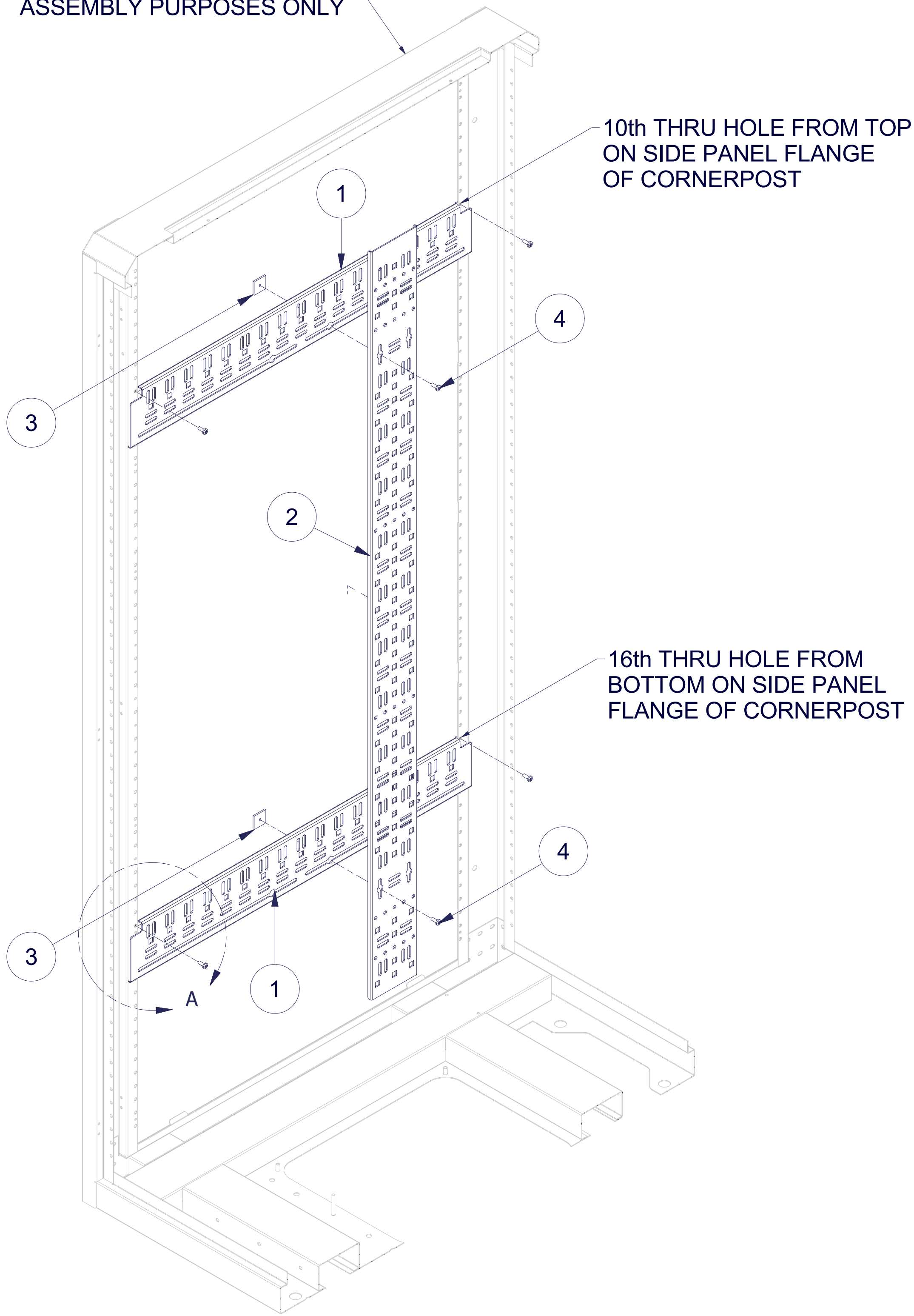
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PART NUMBER: VCB7236X200
QTY PER UNIT: 1
MATERIAL TYPE: CRS
MATERIAL GAUGE:
FINISH: POWDERCOATED
DRAWN: DATE: 10/3/2014
FED: DATE: 10/3/2014
CHECKED & APP. DATE: 10/3/2014
WSS

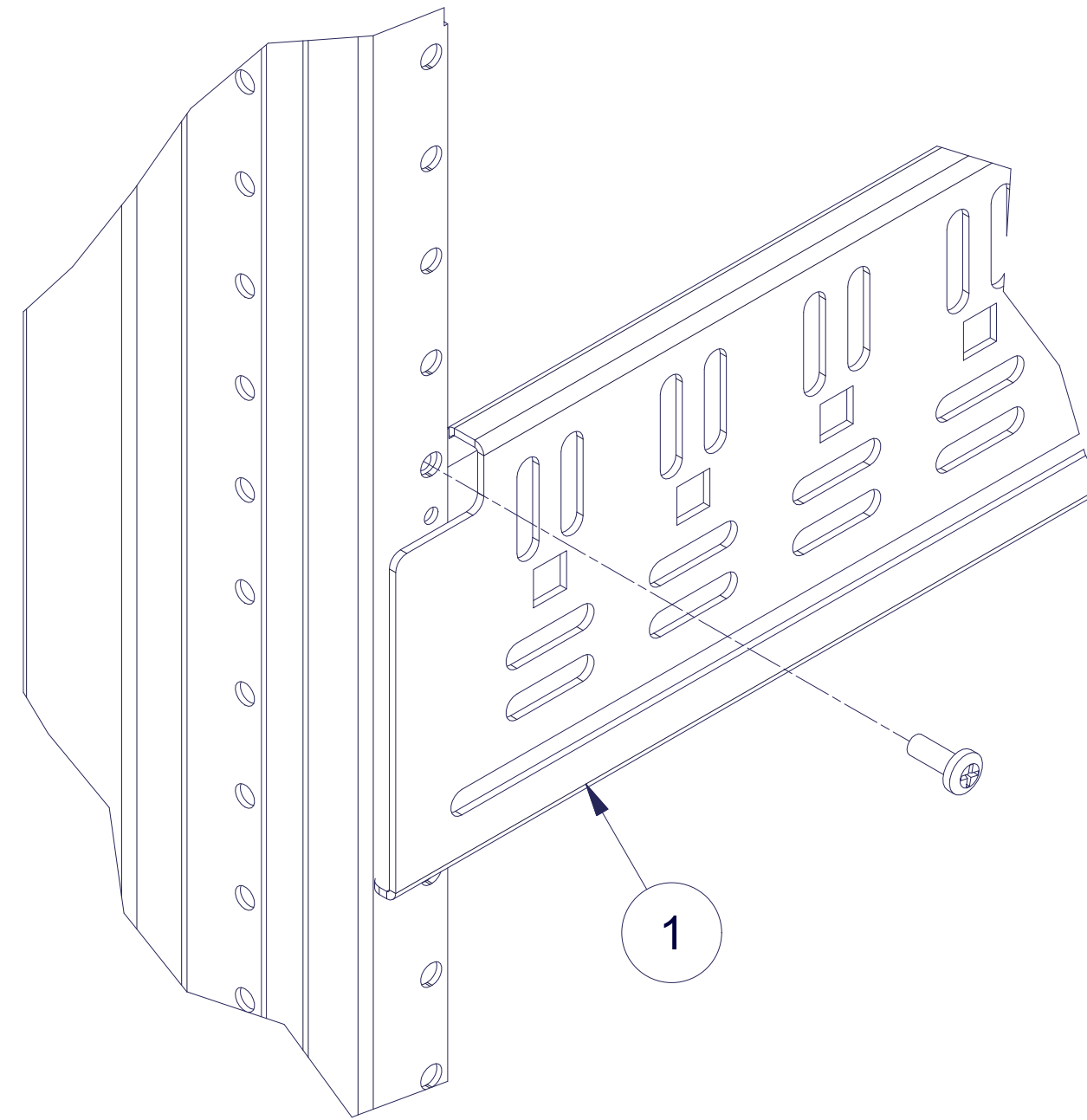
TITLE: VERTICAL CABLE BAR KIT FOR 72"H x 36"D, 'E/' 'ES' ENCLOSURE
GREAT LAKES CASE & CABINET CO., INC.
P.O. BOX 551 EDINBORO, PA 16412
PHONE (814) 734-7303 FAX (814) 734-3907
E-MAIL glcc@greatcabinets.com
DWG NO: I022490
REV: 1
SHEET: 1 OF 2

8 7 6 5 4 3 2 1

PARTIAL FRAME SHOWN FOR ASSEMBLY PURPOSES ONLY

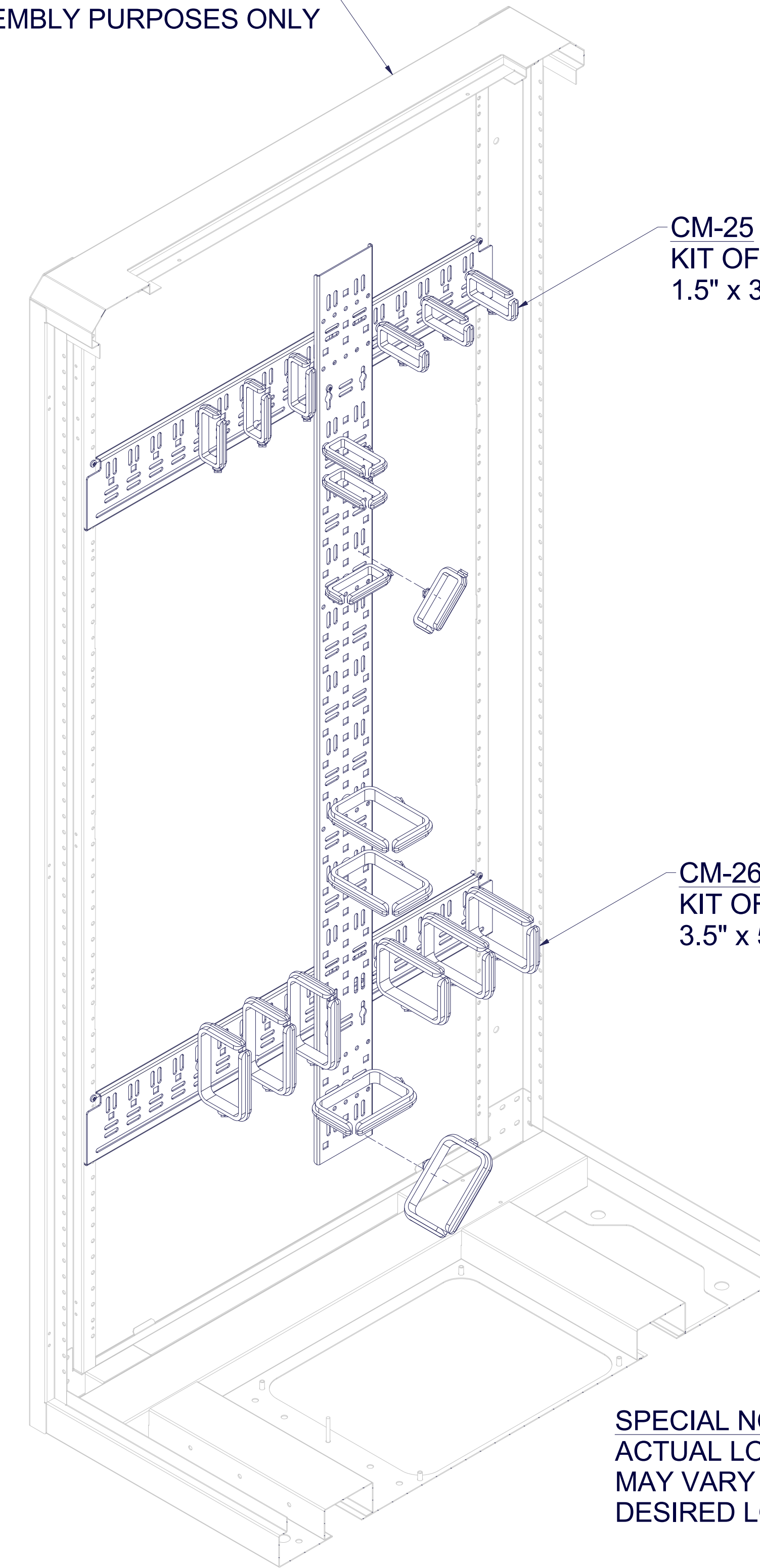


ISO VIEW



DETAIL A

PARTIAL FRAME SHOWN FOR ASSEMBLY PURPOSES ONLY



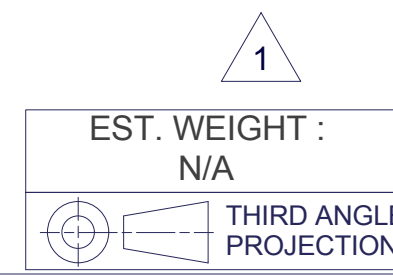
ISO VIEW

CM-25
KIT OF (10), 1/4 TURN "D" RINGS,
1.5" x 3.5" (OPTIONAL)

CM-26
KIT OF (10), 1/4 TURN "D" RINGS,
3.5" x 5" (OPTIONAL)

SPECIAL NOTE:
ACTUAL LOCATION OF "D" RINGS
MAY VARY BASED ON CUSTOMER
DESIRED LOCATION FOR INSTALLATION

8 7 6 5 4 3 2 1

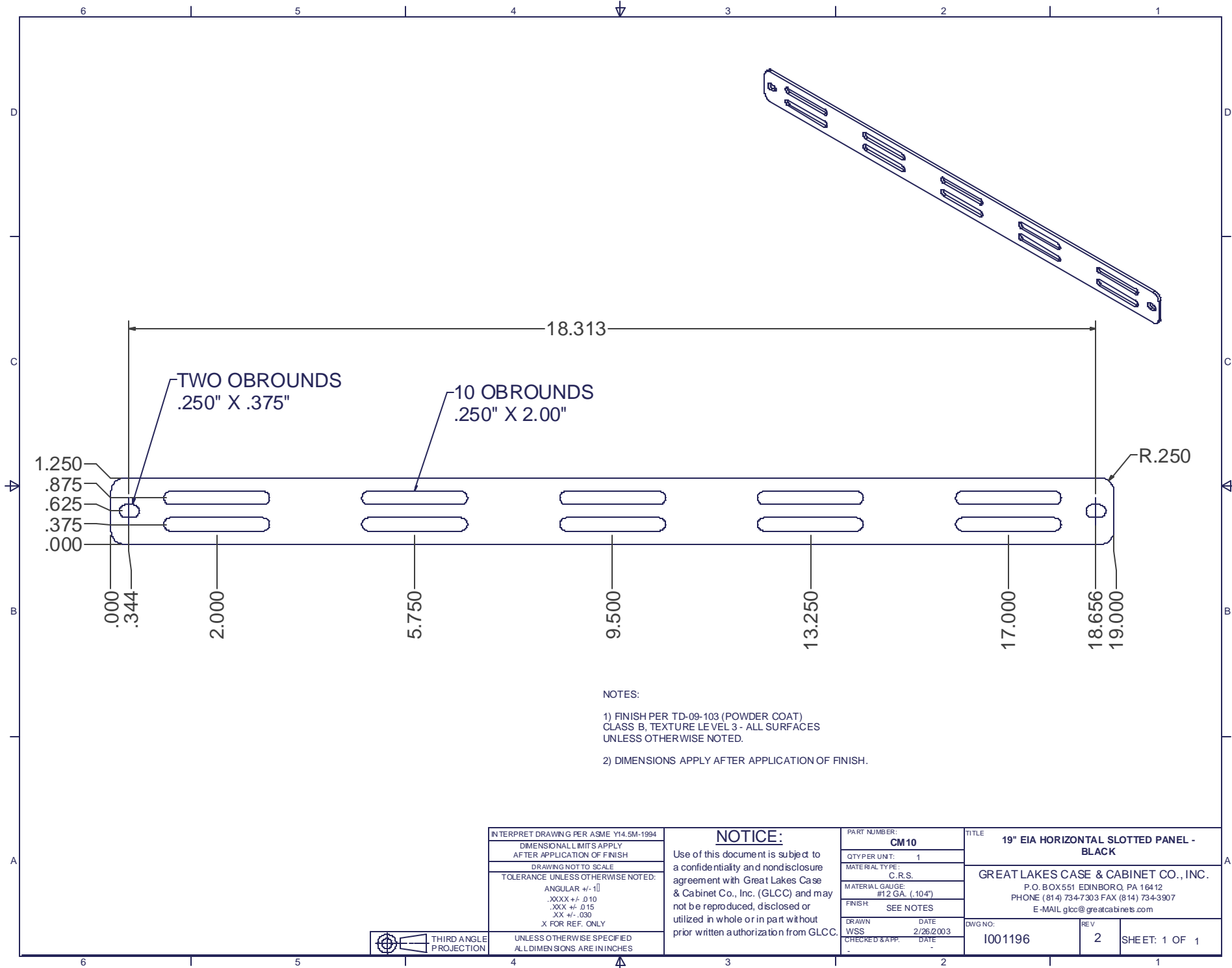


INTERPRET DRAWING PER ASME Y14.5M-1994
DIMENSIONAL LIMITS APPLY AFTER APPLICATION OF FINISH
DRAWING NOT TO SCALE
TOLERANCE UNLESS OTHERWISE NOTED:
ANGULAR +/- 1°
.XXXX +/- .010
.XXX +/- .015
.XX +/- .030
.X FOR REF. ONLY
UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES

NOTICE:
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PART NUMBER: VCB7236X200	QTY PER UNIT: 1
MATERIAL TYPE: CRS	MATERIAL GAUGE:
FINISH: POWDERCOATED	DATE: 10/3/2014
DRAWN: FED	CHECKED & APP. WSS

TITLE: VERTICAL CABLE BAR KIT FOR 72"H x 36"D, 'E'/'ES' ENCLOSURE	DWG NO: 1022490	REV: 1	SHEET: 2 OF 2
GREAT LAKES CASE & CABINET CO., INC. P.O. BOX 551 EDINBORO, PA 16412 PHONE (814) 734-7303 FAX (814) 734-3907 E-MAIL glcc@greatcabinets.com			



TWO OBROUNDS
.250" X .375"

10 OBROUNDS
.250" X 2.00"

R.250

1.250
.875
.625
.375
.000

.000
.344

2.000

5.750

9.500

13.250

17.000

18.656
19.000

18.313

- NOTES:
- 1) FINISH PER TD-09-103 (POWDER COAT) CLASS B, TEXTURE LEVEL 3 - ALL SURFACES UNLESS OTHERWISE NOTED.
 - 2) DIMENSIONS APPLY AFTER APPLICATION OF FINISH.



INTERPRET DRAWING PER ASME Y14.5M-1994 DIMENSIONAL LIMITS APPLY AFTER APPLICATION OF FINISH DRAWING NOT TO SCALE TOLERANCE UNLESS OTHERWISE NOTED: ANGULAR +/- 1° .XXXX +/- .010 .XXX +/- .015 XX +/- .030 X FOR REF. ONLY	UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES
--	---

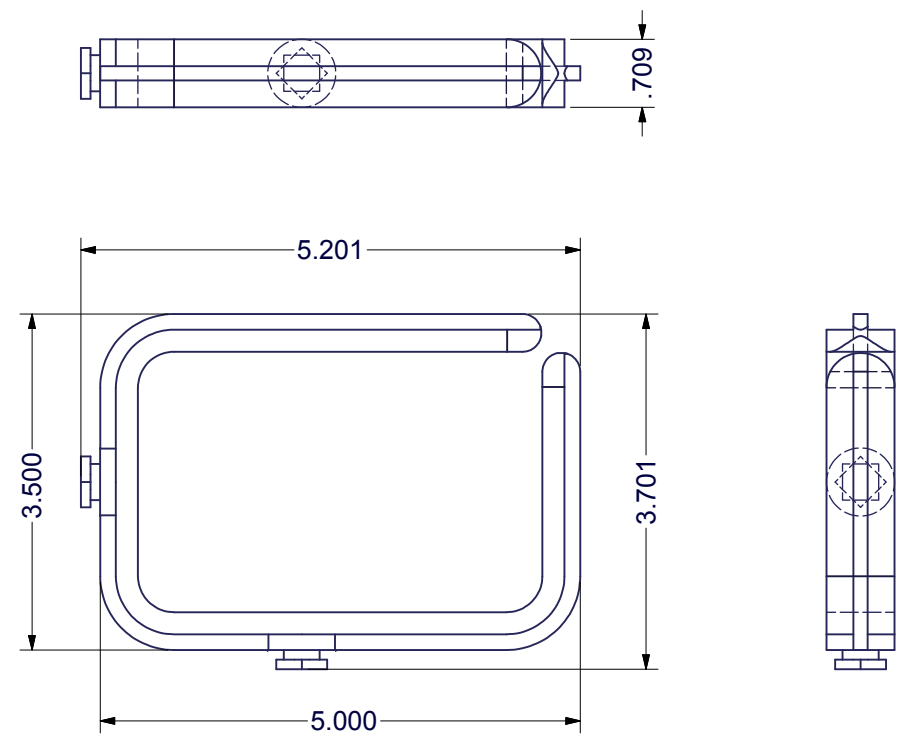
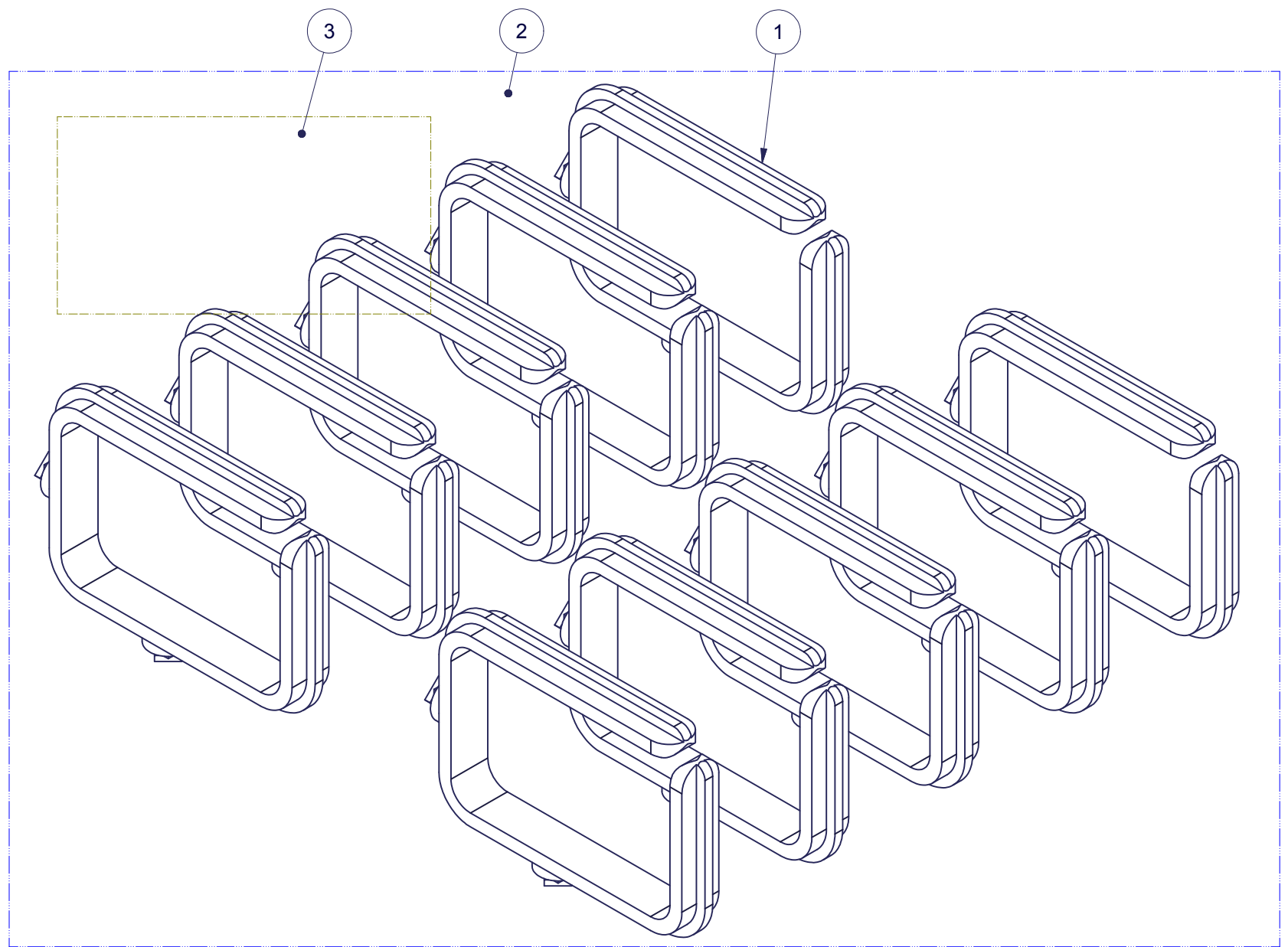
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PART NUMBER: CM 10	
QTY PER UNIT: 1	
MATERIAL TYPE: C.R.S.	
MATERIAL GAUGE: #12 GA. (.104")	
FINISH: SEE NOTES	
DRAWN: WSS	DATE: 2/26/2003
CHECKED & APP. -	DATE: -

TITLE 19" EIA HORIZONTAL SLOTTED PANEL - BLACK	
GREAT LAKES CASE & CABINET CO., INC. P.O. BOX 551 EDINBORO, PA 16412 PHONE (814) 734-7303 FAX (814) 734-3907 E-MAIL glcc@greatcabinets.com	
DWG NO: 1001196	REV 2
SHEET: 1 OF 1	

REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED
0	ECO-06483	2/23/2015	FED

Bill of Material						
ITEM	PART NUMBER	STOCK #	QTY	DESCRIPTION	FILE NAME	Rev
1	VP-145		10	1/4 TURN D-RING CABLE MANAGER, LARGE VERSION - SIEMON VP-145	VP-145.ipt	-
2			1	SEALABLE POLYETHYLENE BAG (AS REQUIRED)	-	-
3			1	LABLE FOR CM26X200 BAGGED KIT	-	-



SPECIAL NOTE:

- 1) BAG (QTY10) 'D' RINGS IN POLY BAG OR BOX AND ATTACH LABEL TO OUTSIDE AS SHOWN.

EST. WEIGHT :
0.99 lbmass



INTERPRET DRAWING PER ASME Y14.5M-1994
DIMENSIONAL LIMITS APPLY
AFTER APPLICATION OF FINISH
DRAWING NOT TO SCALE
TOLERANCE UNLESS OTHERWISE NOTED:
ANGULAR +/- 1°
.XXXX +/- .010
.XXX +/- .015
.XX +/- .030
.X FOR REF. ONLY
UNLESS OTHERWISE SPECIFIED
ALL DIMENSIONS ARE IN INCHES

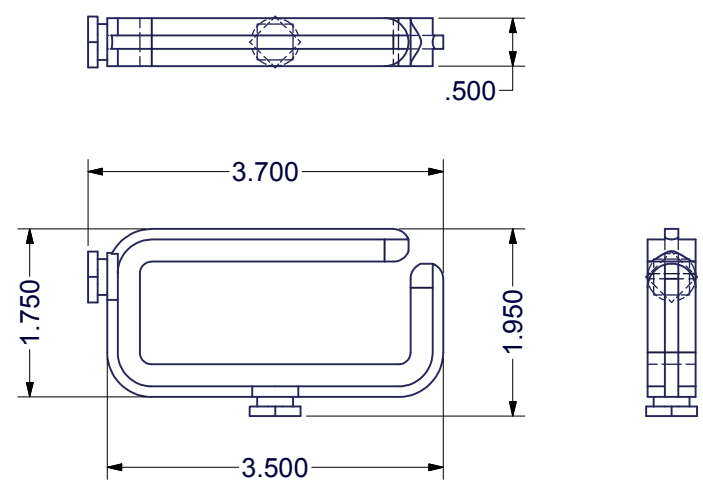
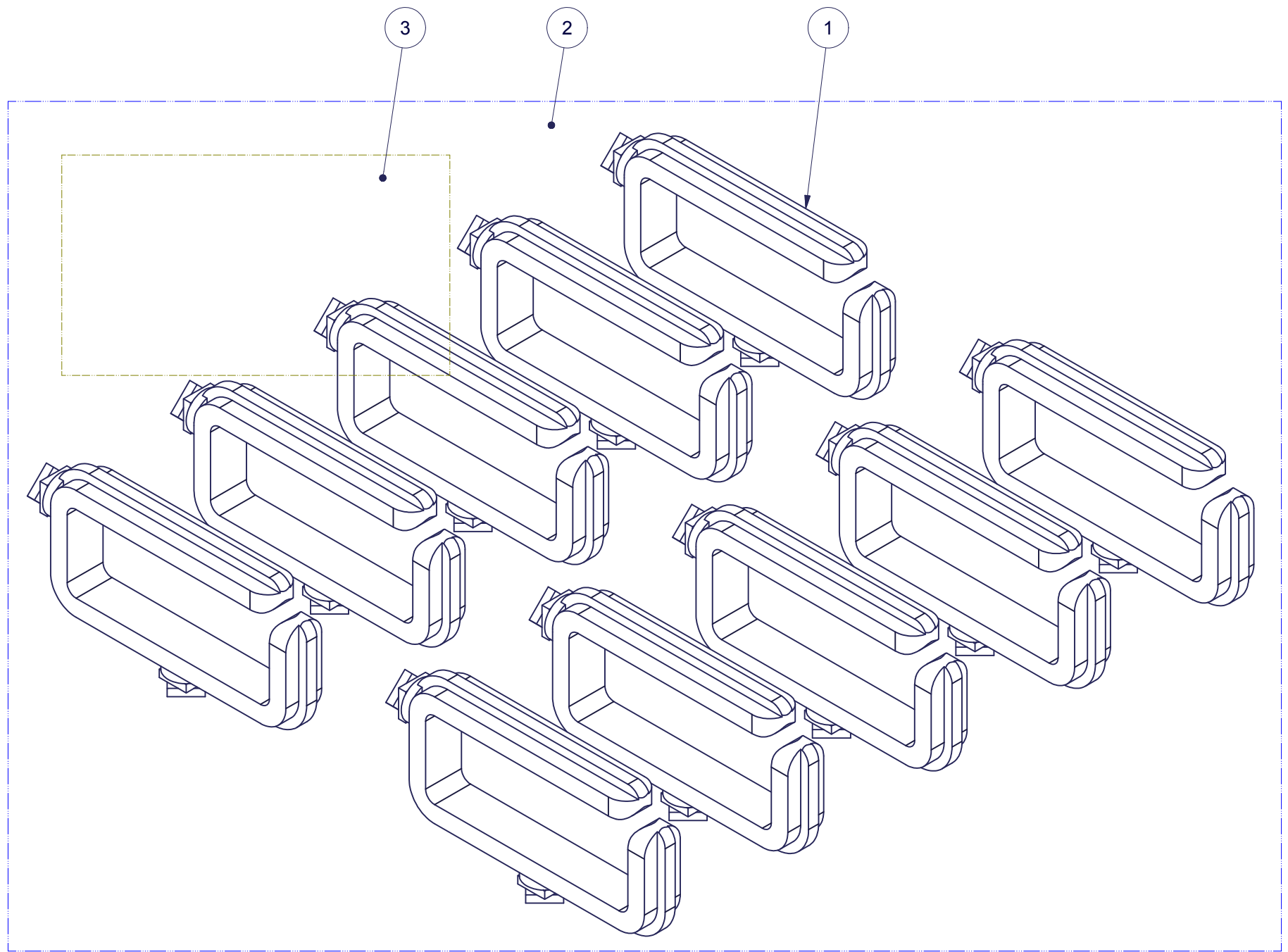
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PART NUMBER:
CM26X200
QTY PER UNIT: 1
MATERIAL TYPE:
SEE MAT'L LIST
MATERIAL GAUGE:
FINISH:
NONE
DRAWN
FED
CHECKED & APP.
WSS

TITLE
KIT OF (10) 3.5" X 5" 1/4 TURN 'D' RINGS
GREAT LAKES CASE & CABINET CO., INC.
P.O. BOX 551 EDINBORO, PA 16412
PHONE (814) 734-7303 FAX (814) 734-3907
E-MAIL glcc@greatcabinets.com
DWG NO:
1022971
REV
0
SHEET: 1 OF 1

REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED
0	ECO-06483	2/23/2015	FED

Bill of Material						
ITEM	PART NUMBER	STOCK #	QTY	DESCRIPTION	FILE NAME	Rev
1	VP-143		10	1/4 TURN D-RING CABLE MANAGER, SMALL VERSION - SIEMON VP-143	VP-143.ipt	-
2			1	SEALABLE POLYETHYLENE BAG (AS REQUIRED)	-	-
3			1	LABLE FOR CM25X200 BAGGED KIT	-	-



SPECIAL NOTE:

- 1) BAG (QTY10) 'D' RINGS IN POLY BAG OR BOX AND ATTACH LABEL TO OUTSIDE AS SHOWN.

EST. WEIGHT :
0.41 lbmass



INTERPRET DRAWING PER ASME Y14.5M-1994
DIMENSIONAL LIMITS APPLY
AFTER APPLICATION OF FINISH
DRAWING NOT TO SCALE
TOLERANCE UNLESS OTHERWISE NOTED:
ANGULAR +/- .1°
.XXXX +/- .010
.XXX +/- .015
.XX +/- .030
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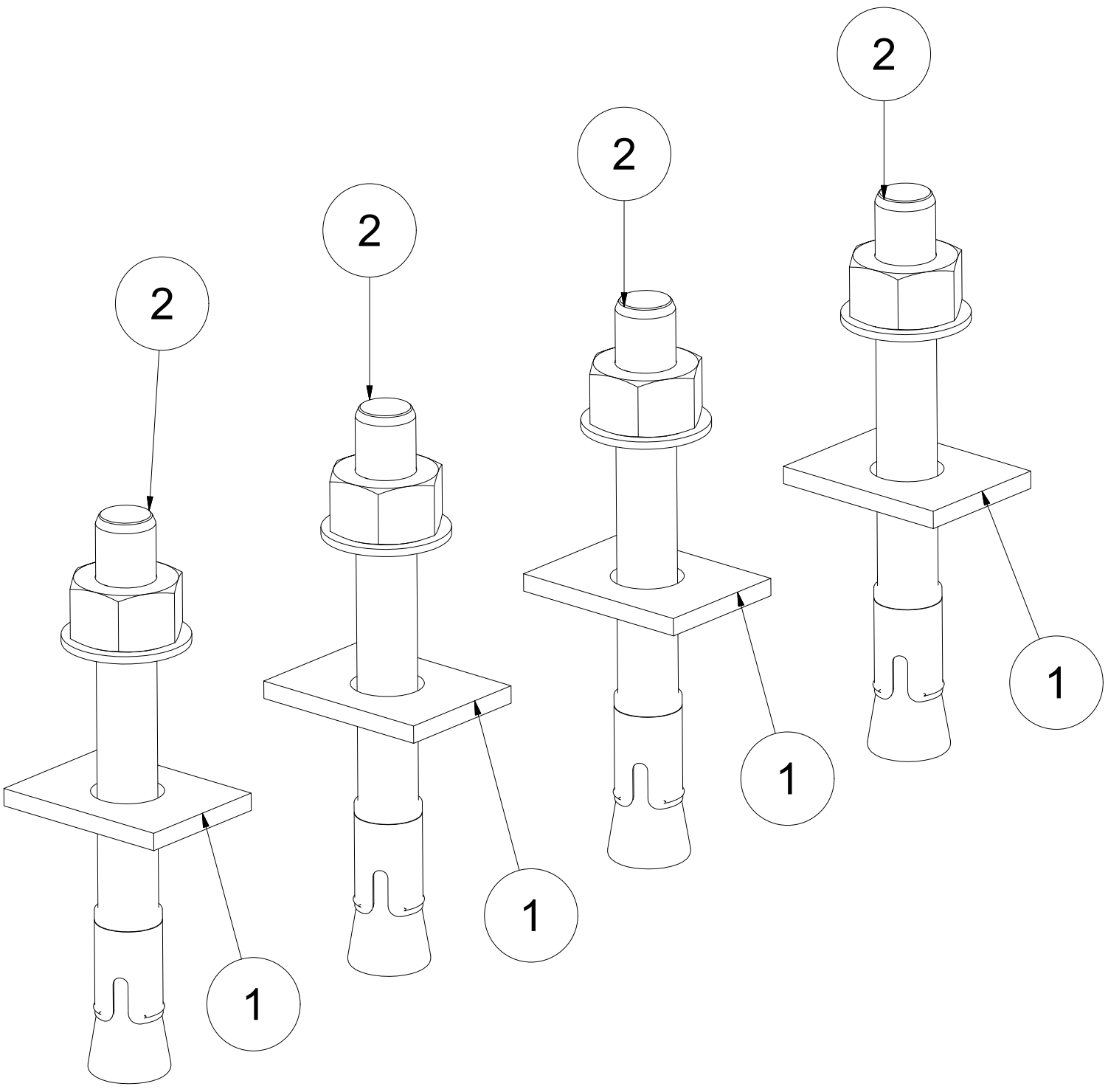
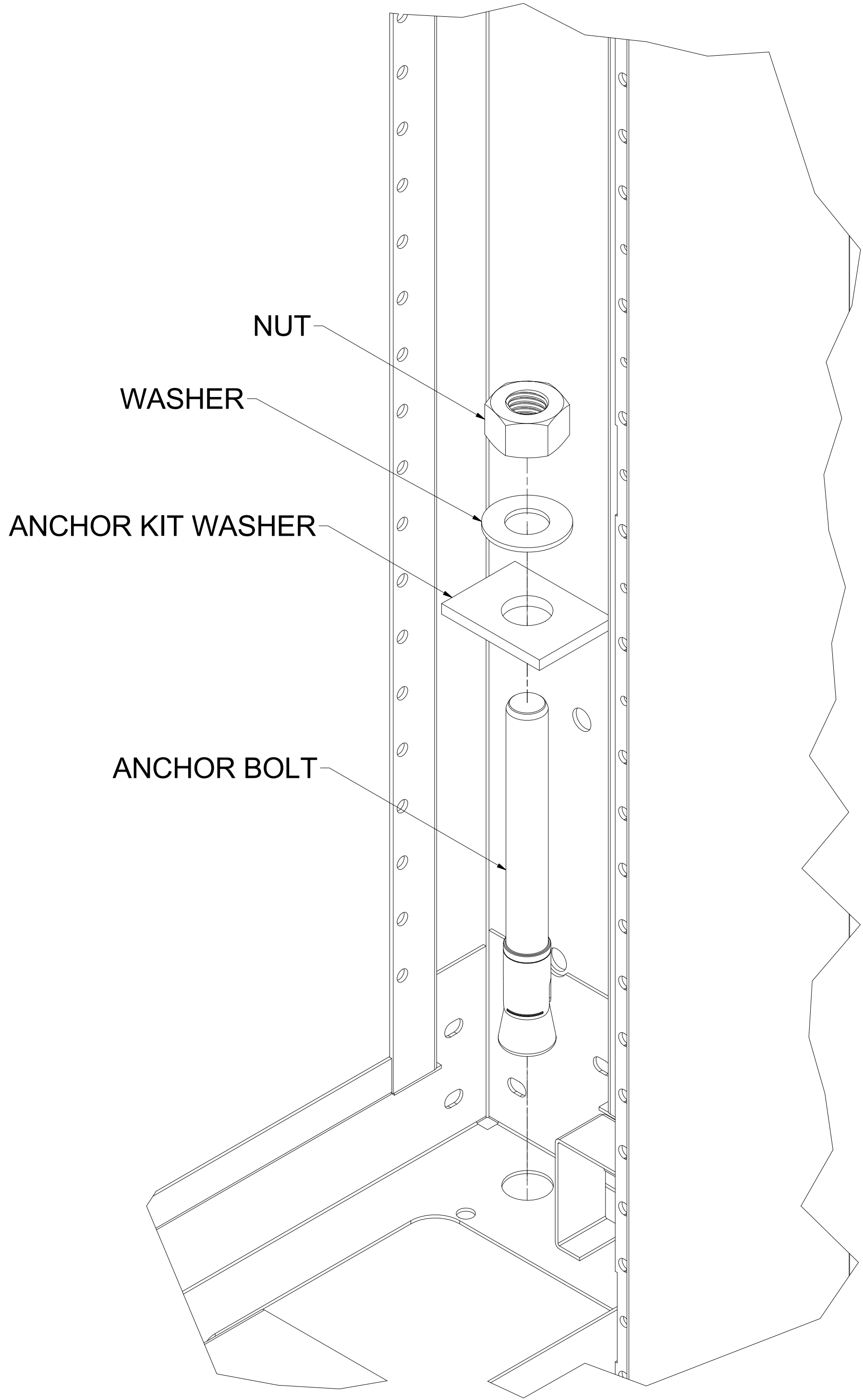
PART NUMBER:
CM25X200
QTY PER UNIT: 1
MATERIAL TYPE:
SEE MAT'L LIST
MATERIAL GAUGE:
FINISH:
NONE
DRAWN DATE: 2/23/2015
FED DATE: 2/23/2015
CHECKED & APP. DATE: 2/23/2015
WSS

TITLE
KIT OF (10) 1.5" X 3.5" 1/4 TURN 'D' RINGS
GREAT LAKES CASE & CABINET CO., INC.
P.O. BOX 551 EDINBORO, PA 16412
PHONE (814) 734-7303 FAX (814) 734-3907
E-MAIL glcc@greatcabinets.com
DWG NO: 1022970
REV: 0
SHEET: 1 OF 1

REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED
0	ECO-03570	10/26/2012	CDM
1	ECO-06637	7/23/2015	DJH

Bill of Material						
ITEM	PART NUMBER	STOCK NUMBER	QTY	DESCRIPTION	FILE NAME	REV
1	AK101X100		4	ANCHOR KIT WASHER	I017465.ipt	0
2			4	SEISMIC ANCHOR BOLT (AK101) HILTI # 387517	AK101.iam	
3			1	INSTALLATION INSTRUCTIONS: FORM # TD-09-124	-	-

SPECIAL NOTES:
1) PLACE ALL ITEMS IN A BAG BEFORE SHIPPING



DESCRIPTION:
ESPECIALLY SUITED FOR SEISMIC AND CRACKED CONCRETE (TENSION ZONE) APPLICATIONS. SEISMIC QUALIFICATIONS TESTED IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC 193. SMALL MINIMUM EDGE DISTANCE AND SPACING FOR MAXIMUM DESIGN FLEXIBILITY. SUITABLE FOR CONCRETE OVER METAL DECK APPLICATIONS. ROUNDED END FOR EASY INSTALLATION. MEETS DUCTILITY REQUIREMENTS OF 318 D.3.3.

TECHNICAL DATA:
BASE MATERIAL
CRACKED AND UNCRACKED CONCRETE.
LIGHTWEIGHT CONCRETE.
LIGHT TO MEDIUM WEIGHT CONCRETE OVER METAL DECK ANCHOR MATERIAL.
CARBON STEEL, ELECTROPLATED ZINC 5 MICRONS LISTING / APPROVALS.
ICC-ES (INTERNATIONAL CODE COUNCIL) ESR01917.
FM (FACTORY MUTUAL).
UL (UNDERWRITERS LABORATORIES).
QUALIFIED UNDER AN NQA-1 NUCLEAR QUALITY PROGRAM..

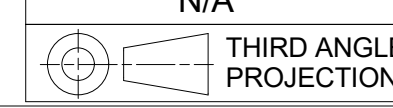
INTERNATIONAL BUILDING CODES:
2003 IBC COMPLIANT ANCHOR
2006 IBC COMPLIANT ANCHOR

ANCHOR SPECS:
HOLE DIAMETER: 5/8"
ANCHOR LENGTH: 6"
THREAD LENGTH: 2 3/4"
EMBEDDED DEPTH: 4 1/2"
THREAD SIZE: 5/8"

TOOL REQUIREMENTS:
DRILL
5/8" DRILL BIT

DETAIL EXPLODED INSTALLATION VIEW
(SOME FRAME PARTS REMOVED FOR CLARITY)
"E" AND "ES" SERIES ENCLOSURES

EST. WEIGHT :
N/A



INTERPRET DRAWING PER ASME Y14.5M-1994
DIMENSIONAL LIMITS APPLY
AFTER APPLICATION OF FINISH
DRAWING NOT TO SCALE
TOLERANCE UNLESS OTHERWISE NOTED:
ANGULAR +/- 1°
.XXXX +/- .010
.XXX +/- .015
.XX +/- .030
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PART NUMBER: AK101X200
QTY PER UNIT: 1
MATERIAL TYPE: SEE DETAILS
MATERIAL GAUGE: SEE DETAILS
FINISH: NONE
DRAWN: ChrisM DATE: 10/26/2012
CHECKED & APP.: WSS DATE: 10/29/2012

TITLE: SEISMIC ANCHOR KIT
GREAT LAKES CASE & CABINET CO., INC.
P.O. BOX 551 EDINBORO, PA 16412
PHONE (814) 734-7303 FAX (814) 734-3907
E-MAIL glcc@greatcabinets.com
DWG NO: 1017464
REV: 1
SHEET: 1 OF 1