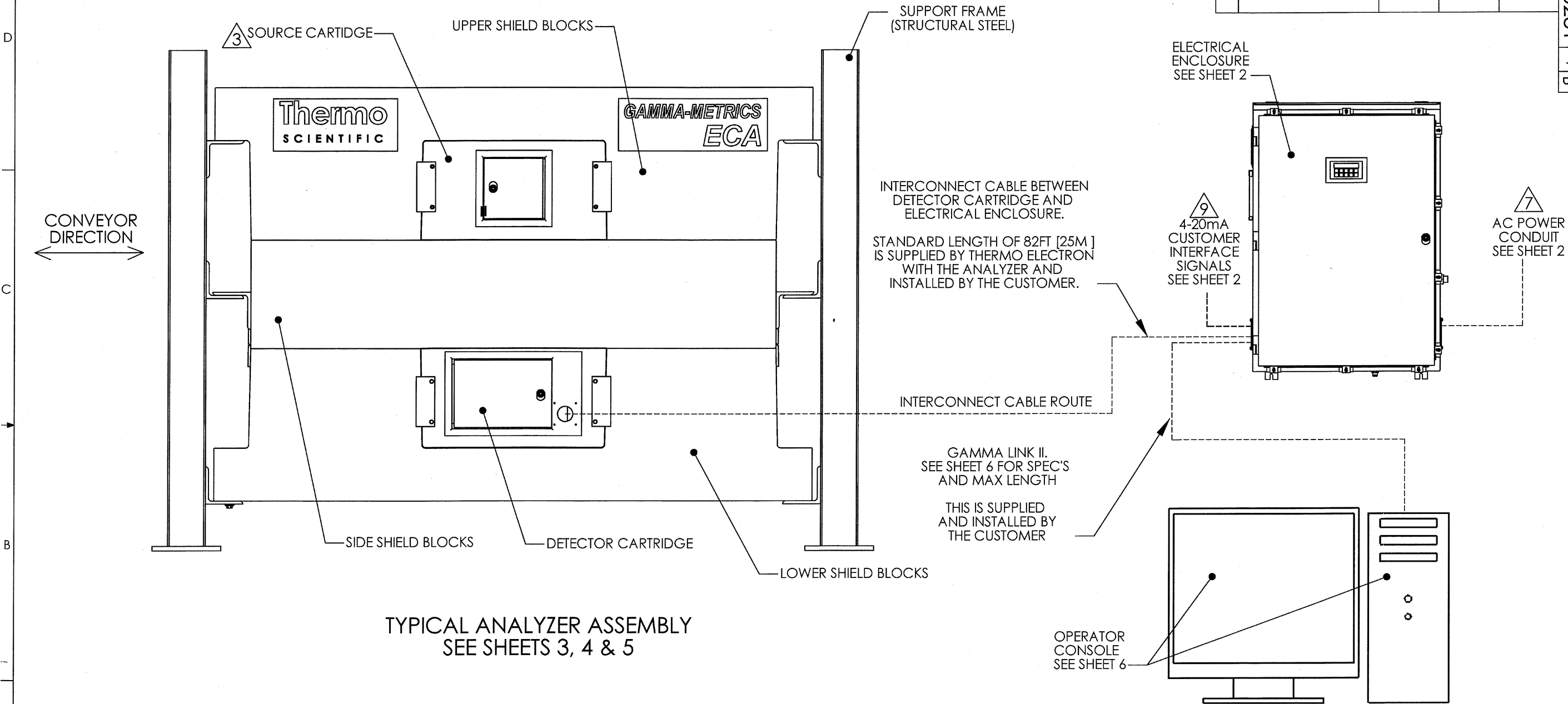


ECA OVERVIEW

REVISIONS				
REV.	DESCRIPTION	ORIGINATOR	PRIMARY ENGR	ENG VERIF
A	SEE DCN 10544	L. TOWNSEND 09/15/05	L. TOWNSEND 9/15/05	J. STRONSKI 9/24/05
B	SEE DCN 11060	R. RAMASWAMY 09/19/08	<i>R. Ramaswamy</i> 10/02/08	<i>J. Stronski</i> 10/02/08

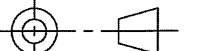
DWG NO. 480231
SH 1
REV B



4. THE CUSTOMER IS RESPONSIBLE FOR DESIGNING AND FABRICATING THE ECA SUPPORT STRUCTURE. THE SUPPORT STRUCTURE SHOULD BE DESIGNED AND CERTIFIED BY A REGISTERED CIVIL ENGINEER. IT IS IMPORTANT THAT THE ANALYZER PLATFORM BE DECOUPLED FROM VIBRATIONS INDUCED BY OTHER EQUIPMENT.
3. LOCATE THE SOURCE STORAGE CASK WITHIN 6' [2M] OF THE SOURCE DOOR PRIOR TO THE INSTALLATION OR REMOVAL OF SOURCES. SEE SITE PREPARATION MANUAL FOR FURTHER DETAILS.
2. THE SOURCE MODULE MAY BE ROTATED BY 180° TO POSITION THE SOURCE DOOR ON THE APPROPRIATE SIDE FOR SOURCE LOADING AND REMOVAL. THE DETECTOR MODULE MAY BE ROTATED BY 180° TO POSITION THE INTERCONNECT CABLE ON THE SAME SIDE AS THE ELECTRICAL ENCLOSURE.
1. CONFIGURATION AND PLACEMENT OF ADDITIONAL COMPONENTS SHALL BE DETERMINED BY THE CUSTOMER TO ACHIEVE THE INTENDED DESIGN CRITERIA. PLACEMENT OF A PLOW, TRAINING IDLERS, ETC. TO PREVENT DAMAGE TO THE ANALYZER SHALL BE THE RESPONSIBILITY OF THE CUSTOMER. REFER TO THE SITE PREPARATION MANUAL IN CONJUNCTION WITH THIS DOCUMENT.

NOTES: UNLESS OTHERWISE SPECIFIED.

USE THIS DOCUMENT IN CONJUNCTION WITH ECA SITE PREPARATION MANUAL 020435

MATERIAL		THIRD ANGLE PROJECTION 		UNLESS OTHERWISE SPECIFIED DIMENSION ARE IN INCHES		CAD GENERATED DRAWING. DO NOT MANUALLY UPDATE		ThermoFisher SCIENTIFIC			
FINISH				TOLERANCES ARE: DECIMALS: ANGLES:		APPROVALS					
N/A				NONE ±.5 ±1° X ±.1 ±.5° XX ±.06 XXX ±.030		L. TOWNSEND 03/25/04		SITE PREPARATION, ECA			
© COPYRIGHT 2008 THERMO SCIENTIFIC ALL RIGHTS RESERVED This document contains information proprietary to THERMO SCIENTIFIC and is not to be reproduced without written consent of THERMO SCIENTIFIC				M. EVANS 04/14/04		04/14/04					
				QA							
		NEXT ASSY	USED ON	DO NOT SCALE DRAWING				SIZE B	CAGE CODE OP1N9	DWG. NO. 480231	REV. B
SCALE: NONE REL DATE: 10/13/04 DCN NO. 10429 SHEET 1 OF 10											

ELECTRICAL ENCLOSURE - MECHANICAL REQUIREMENTS, POWER REQUIREMENTS, AND INTERFACE

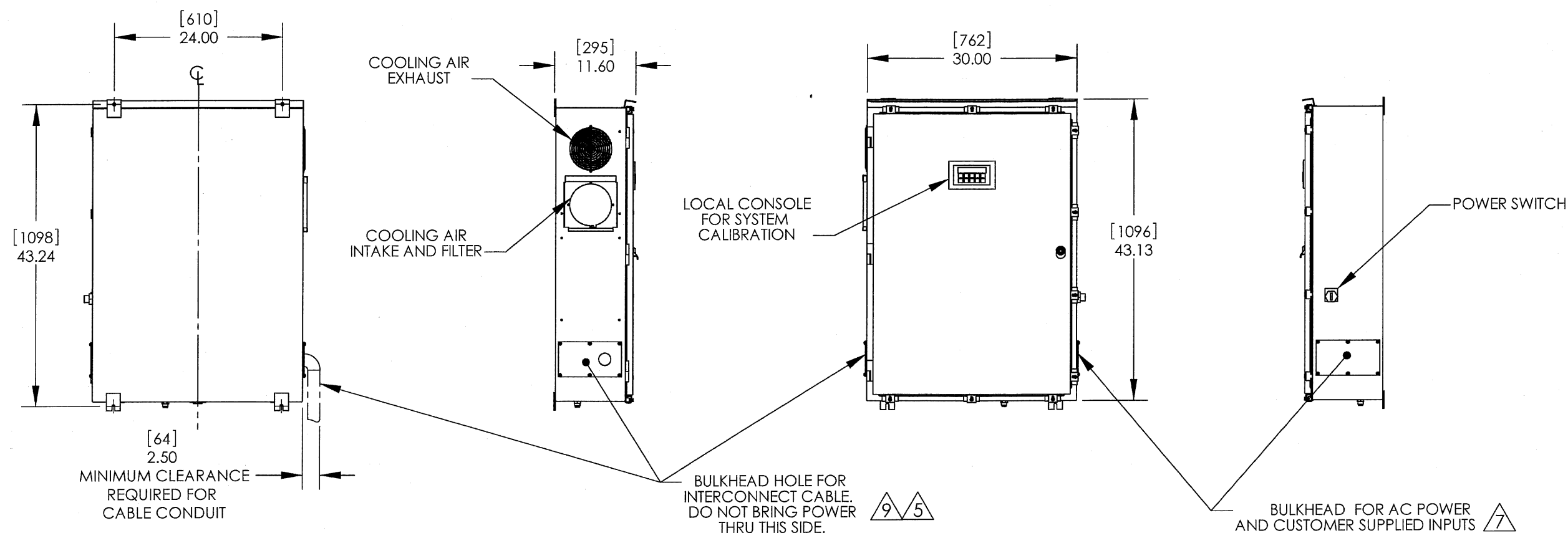
DWG NO. 480231
REV. 2 B

ALLOW APPROX [305] 12 IN. FOR
COOLING AIR INTAKE AND FILTER ACCESS.

FOR MAXIMUM AIR FILTER LIFE,
LOCATE ENCLOSURE IN AN AREA
WHERE DUST INTAKE WILL BE MINIMIZED.

ELECTRICAL ENCLOSURE LOCATION AND ORIENTATION
DETERMINED BY CUSTOMER SPACE AND MUST BE
LOCATED SUCH THAT THE FULL LENGTH OF THE
INTERCONNECT CABLE IS USED. ANY EXCESS CABLE
SHOULD NOT BE LOOPED OR COILED.

DOOR SWING CLEARANCE
TO BE AVAILABLE AT ALL TIMES



9. GAMMA LINK II AND OTHER SIGNALS, AS REQUIRED, ARE ROUTED IN SEPARATE CONDUITS. ALUMINUM ENCLOSURE BULKHEAD PLATE MAY BE REMOVED AND MODIFIED TO ACCEPT SIGNAL INTERCONNECT CONDUITS.

8. APPROXIMATE WEIGHT OF ELECTRICAL ENCLOSURE IS 100 POUNDS [45.4Kg].

7. POWER REQUIREMENTS FOR ELECTRICAL ENCLOSURE:
230 VAC $\pm$ 10%; 50/60 Hz $\pm$ 5%; 5 AMP SINGLE PHASE, 2-WIRE WITH GND. POWER SUPPLIED THROUGH BULKHEAD ON RIGHT SIDE OF ENCLOSURE.
ALUMINUM ENCLOSURE BULKHEAD PLATE MAY BE REMOVED AND MODIFIED TO ACCEPT CUSTOMER'S POWER CONDUIT.

6. THE ELECTRICAL ENCLOSURE MUST BE CONNECTED TO EARTH BY A CONDUCTOR NO SMALLER THAN AWG #6 OR 4 MM DIA. THIS CONNECTION SHALL BE AS DIRECT AS POSSIBLE.

5. ROUTING OF THE INTERCONNECT CABLE FROM DETECTOR CARTRIDGE TO ELECTRICAL ENCLOSURE IS THE CUSTOMER'S RESPONSIBILITY. PROTECT CABLE FROM CRUSHING DAMAGE.
CABLE OUTER DIAMETER IS ϕ 1.65" [ϕ 42MM] AND MIN BEND RADIUS = 14" [356MM]. CONDUIT IS ANAMET ANACONDA TYPE UA, SUITABLE FOR OUTDOOR USE.

NOTES: (CONTINUED FROM SHEET 1)

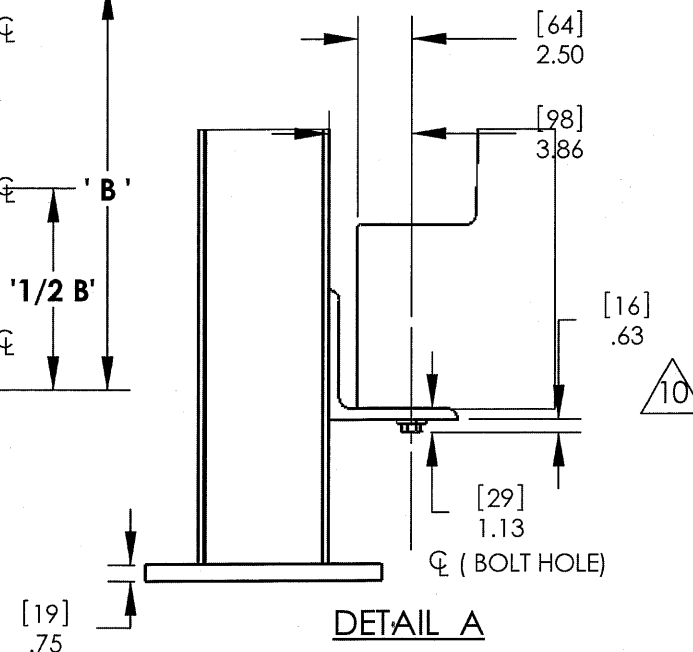
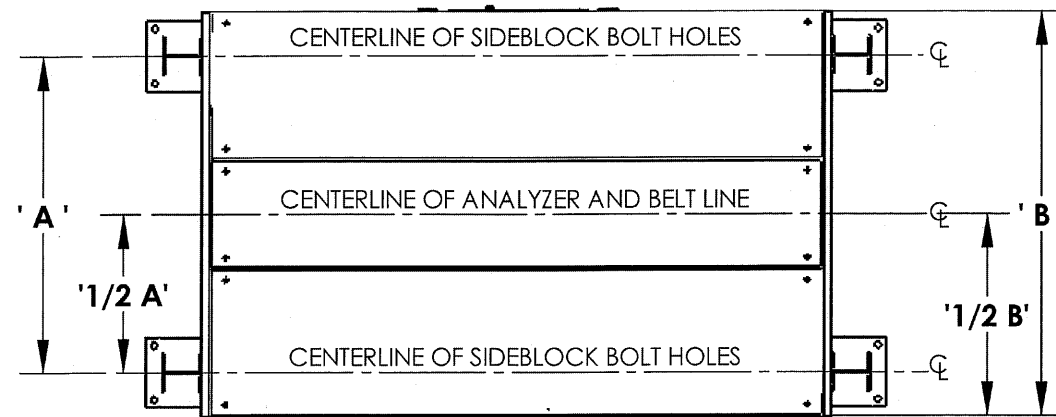
ThermoFisher
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SITE PREPARATION,
ECA

DIMENSION
LEGEND

[XXX] - MM
XX.X - IN

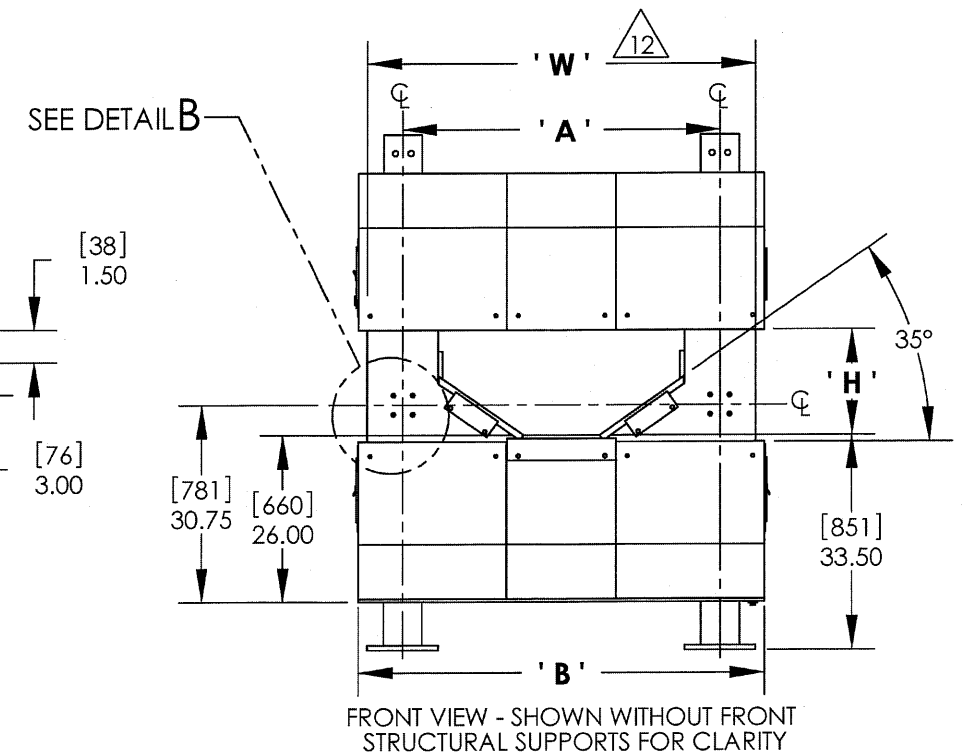
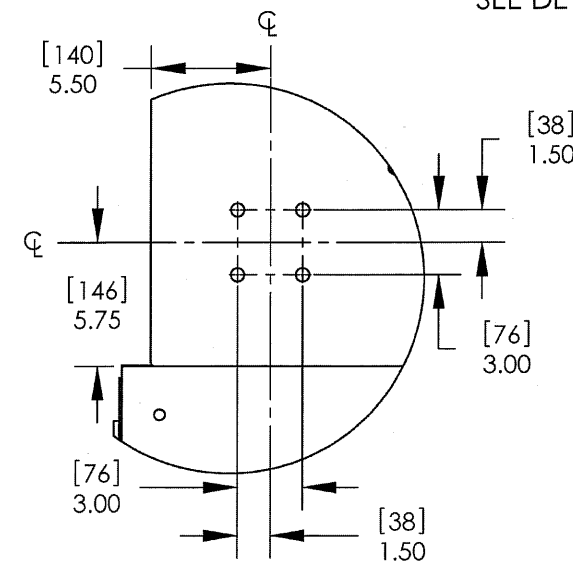
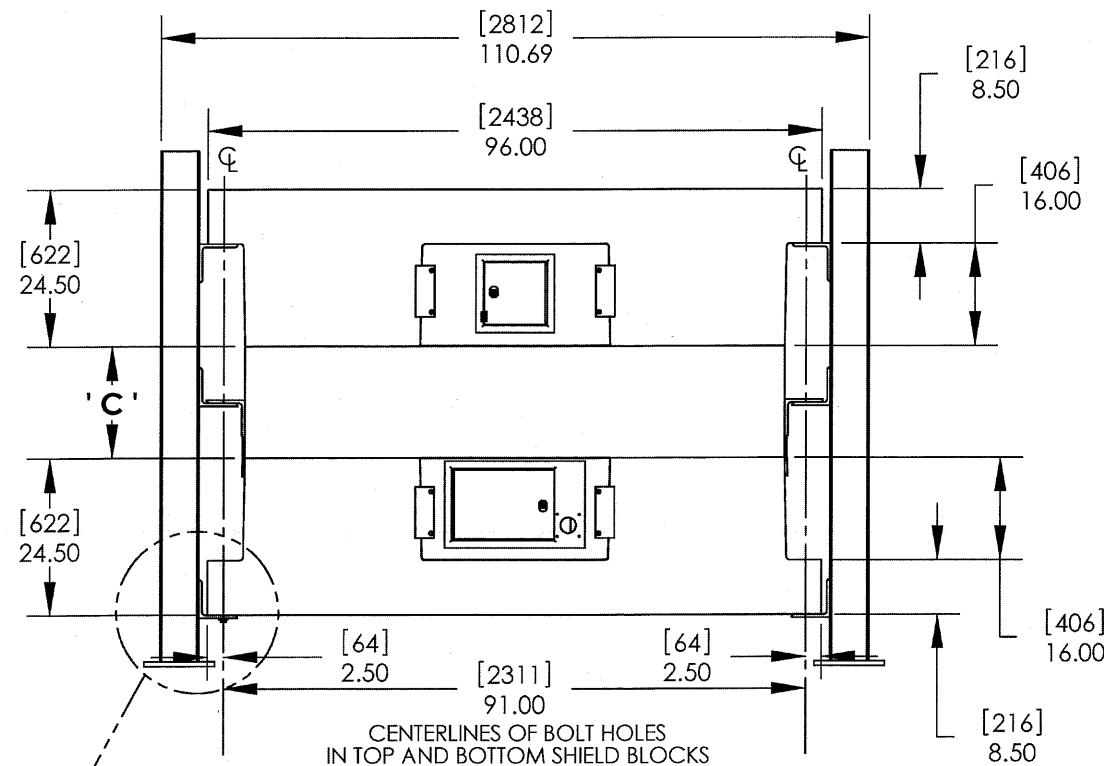
SIZE B	CAGE CODE OP1N9	DWG. NO. 480231	REV. B
SCALE: NONE		REL DATE: 10/13/04 DCN NO.10429 SHEET 2 OF 10	



ENGLISH ECA SIZES							
BELT WIDTH	35° IDLERS 6" ROLL DIA (CEMA)	INCHES					WEIGHT (lbs)
		A	B	C	W	H	
30	C	50.90	63	15.4	61.09	14.37	8300
36	C	51.55	63	15.4	62.55	14.37	8300
42	C	58.09	69	17.4	69.09	16.37	9200
48	C	60.65	69	18.4	71.65	17.40	9200
54	C	69.32	80	18.4	80.32	17.40	10800
60	D	71.33	80	20.4	82.33	19.37	10800
72	E	82.38	92	22.4	93.38	21.38	13200

METRIC ECA SIZES						
BELT WIDTH	MILLIMETERS					WEIGHT (kgs)
	A	B	C	W	H	
800	1309.31	1600.2	391.16	1588.71	365.0	3800
900	1309.31	1600.2	391.16	1588.71	365.0	3800
1000	1372.31	1600.2	441.96	1651.71	415.8	3800
1200	1540.44	1752.6	441.96	1819.84	415.8	4200
1400	1760.82	2032.0	518.16	2040.22	492.0	4900
1600	2052.40	2336.8	619.76	2331.80	594.1	6000
1800	2309.82	2616.2	619.76	2589.22	594.1	7700

THESE DIMENSIONS ARE APPROXIMATE AND ARE GIVEN FOR PRELIMINARY ENGINEERING LAYOUT PLANNING. CUSTOMER SPECIFIC VALUES ARE LOCATED ON SHEET 10 WHICH WILL BE PROVIDED BY A TECHNICAL SERVICE REPRESENTATIVE



SEE DETAIL A

13. TOP AND BOTTOM SHIELD BLOCK ASSEMBLIES ARE CUSTOMER SPECIFIC AND MAY BE ARRANGED IN 3 (SHOWN), 4 OR 5 BLOCK CONFIGURATIONS.
12. NOMINAL SIZE SHOWN. IN SOME CONFIGURATIONS, DIMENSION 'W' MAY BE WIDER OR NARROWER THAN THE TOP AND BOTTOM SHIELD BLOCK ASSEMBLIES.
11. FINE TUNING OF SIDE BLOCK POSITION SHOULD BE DONE IN THE FIELD WITH ACTUAL WEAR LINERS IN PLACE. REFER TO SITE PREPARATION MANUAL.
10. FASTENERS PROTRUDE AN ADDITIONAL 0.63" FROM UNDERSIDE OF ECA.

NOTES: (CONTINUED FROM SHEET 2)

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SITE PREPARATION,
ECA

DIMENSION
LEGEND
[XXX] - MM
XX.X - IN

SIZE B CAGE CODE OP1N9 DWG. NO. 480231 REV. B
SCALE: NONE REL DATE: 10/13/04 DCN NO. 10429 SHEET 3 OF 10

FRAME FASTENER INFORMATION

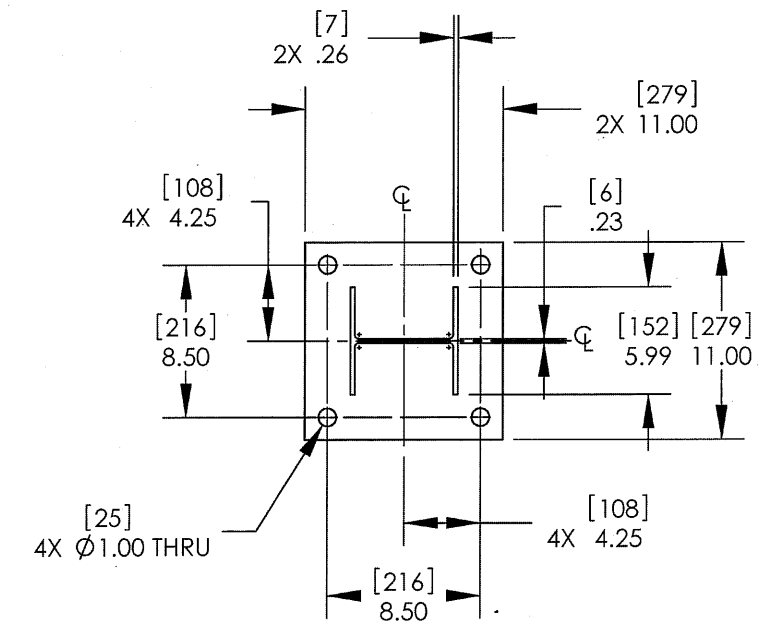
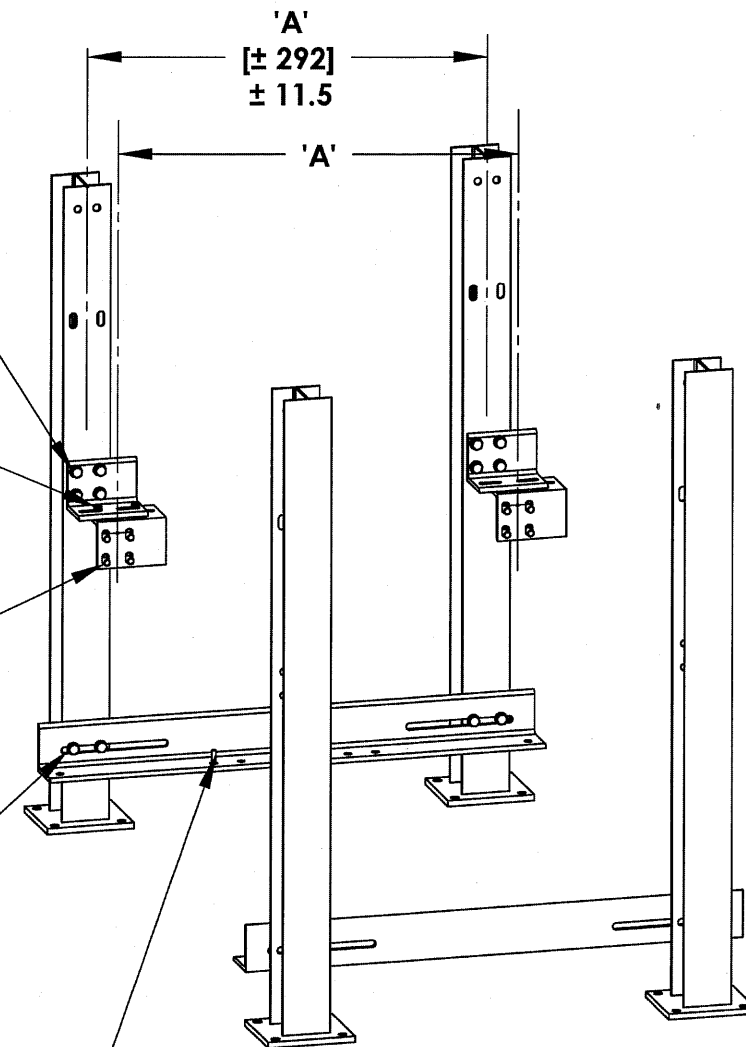
4 LOCATIONS:
4X M20 - 2.5 X 50 HEX SCREW
4X M20 HEX NUT
8X M20 FLAT WASHER
4X M20 LOCK WASHER

4 LOCATIONS:
2X M12 - 1.75 X 50 HEX SCREW
2X M12 HEX NUT
2X M20 FLAT WASHER
2X M20 LOCK WASHER

4 LOCATIONS:
4X M20 - 2.5 X 40 HEX SCREW
4X M20 FLAT WASHER
4X M20 LOCK WASHER

4 LOCATIONS LOWER ANGLES,
4 LOCATIONS UPPER ANGLES:
4X M20 - 2.5 X 50 HEX SCREW
4X M20 HEX NUT
8X M20 FLAT WASHER
4X M20 LOCK WASHER

6 - 10 LOCATION LOWER ANGLES,
6 - 10 LOCATIONS UPPER ANGLES:
M12 - 1.75 X 60 HEX SCREW
1/2" X 2" OD OR M12 X 50 OD
LARGE FLAT WASHER
M12 LOCK WASHER



VERTICAL SUPPORT BEAM, FOOT,
BOLT CONFIGURATION DIMENSIONS

ThermoFisher
SCIENTIFIC

SITE PREPARATION,
ECA

DIMENSION
LEGEND

[XXX] - MM
XX.X - IN

SIZE B	CAGE CODE OP1N9	DWG. NO. 480231	REV. B
SCALE: NONE		REL DATE: 10/13/04 DCN NO.10425 SHEET 4 OF 10	

**ANALYZER COMPONENTS:
WEIGHTS AND LIFT POINTS
(EXPLODED VIEW)**

MODULAR BLOCK - APPROXIMATE WEIGHTS				
BELT SIZE		SOURCE CARTRIDGE	DETECTOR CARTRIDGE	SIDE SHIELD BLOCKS
INCHES	MM			
30	800	1100 lbs	800 lbs	525 lbs
36	900	[500 kg]	[365 kg]	[240 kg]
42	1200	1210 lbs	880 lbs	600 lbs
48		[550 kg]	[400 kg]	[275 kg]
54	1400	1530 lbs	1120 lbs	710 lbs
60		[700 kg]	[510 kg]	[325 kg]
72	1600	2240 lbs	1625 lbs	830 lbs
		[1020 kg]	[740 kg]	[380 kg]
	1800	3660 lbs	2660 lbs	1000 lbs
		[1665 kg]	[1210 kg]	[455 kg]

DWG NO.

480231

SH

5

B

REV

TYPICAL MODULAR SHIELD BLOCK
APPROXIMATE WEIGHT:
17 INCH WIDE - 610 LBS [KG]
23 INCH WIDE - 830 LBS [KG]

FOR UPPER BLOCKS,
USE THESE LIFT POINTS WITH
(4) - M12 X 37 EYEBOLTS

SIDE BLOCK LIFT POINTS USE
(2) - M20 X 40 EYEBOLTS
(2) - M12 X 37 EYEBOLTS

GRAPHITE SIDE WEAR LINER -
USED WITH TWO POLY SIDE LINERS
(BOTH SIDES)

MAY BE EITHER ONE PIECE POLY
SIDE WEAR LINER
OR TWO PIECE POLY SIDE WEAR LINERS -
USED WITH GRAPHITE SIDE WEAR LINER
(BOTH SIDES)

MAY BE ONE PIECE POLY CENTER WEAR LINER
OR TWO PIECES POLY CENTER WEAR LINER -
USED WITH GRAPHITE CENTER WEAR LINER

GRAPHITE CENTER WEAR LINER -
USED WITH TWO PIECES POLY
CENTER WEAR LINER

FOR LOWER BLOCKS,
USE THESE LIFT POINTS WITH
(4) - M12 X 37 EYEBOLTS

DETECTOR CARTRIDGE
LIFTING LUGS NOT SHOWN;
SEE SEE SOURCE CARTRIDGE

TYPICAL
SIDE SHIELD BLOCK

17. SEE DWG 480250 FOR HARDWARE
AND ASSY SPECIFICS.

16. FOR LIFTING SOURCE AND DETECTOR CARTRIDGE USE:
(4) 480245-001 LIFTING LUG
(4) M12-1.75 X 40 HEX HD SCREW

15. USE STANDARD RIGGING EQUIPMENT TO LIFT BLOCKS INTO PLACE USING THE INDICATED
LIFT POINTS AND HARDWARE. FIRMLY HAND-TIGHTEN EYEBOLTS AGAINST FIBERGLASS
SURFACE TO MINIMIZE BENDING LOAD AND RISK OF DAMAGE TO INTERNAL NUT PLATES.

14. TORQUE FOR DRY THREADS: M20-2.5 - FOR FIBERGLASS JOINTS USE 70 lbs-ft [95 N-m], FOR STEEL JOINTS USE 133 lbs-ft [180 N-m]
(FOR LUBRICATED THREADS REDUCE VALUES BY 20%); M12-1.75, FOR FIBERGLASS JOINTS USE 30 lbs-ft [41 N-m], FOR STEEL JOINTS USE 45 lbs-ft [61 N-m]

NOTES: (CONTINUED FROM SHEET 4)

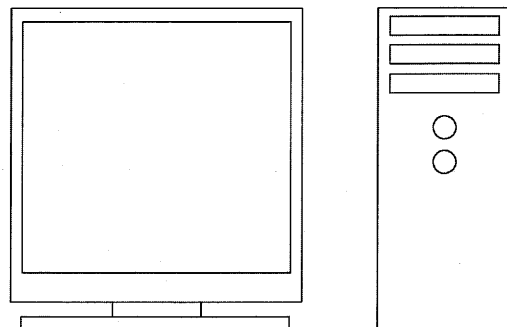
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OPERATOR CONSOLE

USUALLY LOCATED IN THE CONTROL ROOM



120 VAC $\pm$ 10%; 50/60 Hz $\pm$ 5%; 2.5 AMP SINGLE PHASE

OR

230 VAC $\pm$ 10%; 50/60 Hz $\pm$ 5%; 2.5 AMP SINGLE PHASE

IN THE CASE WHERE THE REMOTE DIAGNOSTICS FEATURE IS SUPPORTED WITH TELEPHONE SERVICE, A DEDICATED PHONE LINE CONNECTED TO THE MODEM INSIDE THE OPERATOR CONSOLE IS REQUIRED. THERE MUST BE NO OPERATOR INTERVENTION ON THE MODEM TELEPHONE LINE. IT MUST ALSO BE A DIRECT CONNECT WITHOUT GOING THROUGH A SWITCHBOARD OR SWITCHING SYSTEM. PROPER OPERATION OF THIS LINE IS ESSENTIAL FOR THERMO SCIENTIFIC CUSTOMER SERVICE TO SUPPORT YOUR OPERATION. THE CABLING SHOULD BE ROUTED TO THE RJ-11 JACK ON THE UPS WHICH PROVIDES SURGE PROTECTION FOR THE MODEM.

IF REMOTE DIAGNOSTICS IS SUPPORTED BY ETHERNET, THE CUSTOMER MUST SUPPLY THE NETWORK MEDIA CONNECTION TO THE ENCLOSURE.

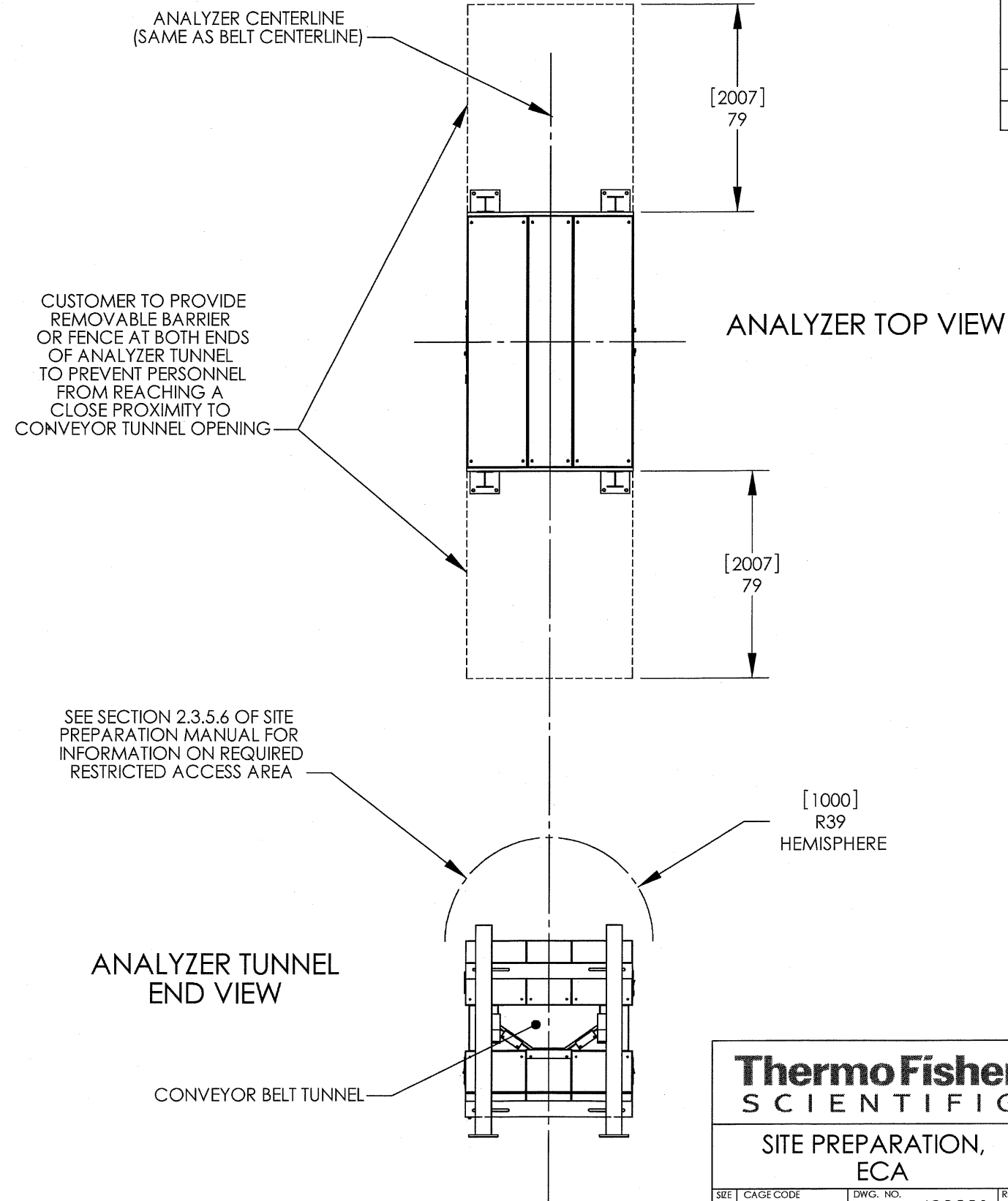
INTERCONNECT DESCRIPTION - GAMMA LINK II

COMMUNICATION LINK BETWEEN OPERATOR
CONSOLE AND ELECTRICAL ENCLOSURE

THE GAMMA LINK II CAN BE EITHER RS-422 OR FIBER-OPTIC:

1. FOR THE RS-422 OPTION, THE OPERATOR CONSOLE AND ELECTRICAL ENCLOSURE ARE CONNECTED BY 2 OR MORE SHIELDED, TWISTED PAIRS OF AWG-24 OR LARGER WIRES. (BELDON 8104 OR EQUIVALENT) THESE ARE SUPPLIED BY THE CUSTOMER. THIS DATA WIRE IS NOT TO BE RUN INSIDE CONDUIT WITH ANY POWER CABLE OF ANY VOLTAGE AND SHOULD BE ELECTRICALLY ISOLATED FROM BOTH THE ELECTRICAL ENCLOSURE AND OPERATOR CONSOLE AND FEATURE SURGE PROTECTION. THE MAXIMUM CABLE RUN IS 2000 METERS. ON A CASE BY CASE BASIS, THIS DISTANCE CAN BE INCREASED BY LOWERING THE COMMUNICATION BAUD RATE, USING LOWER CAPACITANCE CABLE, OR CHANGING THE PROTOCAOL (MODEMS OR CONVERTERS).
2. FOR THE FIBER-OPTIC OPTION, THE OPERATOR CONSOLE AND ELECTRICAL ENCLOSURE ARE CONNECTED BY CUSTOMER PROVIDED FIBER-OPTIC CABLE. THE CABLE SHOULD BE 62.5 / 125 MULTIMODE GRADED INDEX TERMINATED WITH ST CONNECTORS. THE MINIMUM OF 2 FIBERS ARE REQUIRED, ONE FOR DATA, EACH DIRECTION. THE CABLE SHOULD HAVE A LINE ATTENUATION OF 3dB/kmAT AT THE 850 nm WAVELENGTH. THE NORMAL MAXIMUM CABLE RUN DISTANCE IS 3000 METERS. DISTANCES UP TO 4000 METERS ARE POSSIBLE, BUT THIS ASSUMES MINIMAL ATTENUATION IN THE FIBER-OPTIC CABLE WHICH MAY NOT BE THE CASE IF THERE ARE ADDITIONAL SPLICES IN THE LINK.

ANALYZER RADIATION SAFETY CONSIDERATIONS



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DWG. NO. 480231
REV. 6 B

EXAMPLE OF INSTALLATION

- LEVEL CONVEYOR

- 2-FT OFF FLOOR

ANALYZER BED MUST BE CENTERED TO THE TROUGHING IDLERS AND SET 3/8 INCH [10MM] BELOW THE BELT SURFACE HEIGHT OF THE NEAREST CENTER IDLERS. ALIGNMENT TOLERANCE IS +/- 1/8 INCH [5 MM] IN BOTH DIRECTIONS FROM THIS VIEW.

OPTIONAL CUSTOMER-PROVIDED SUNSHADE.

CUSTOMER'S CONVEYOR SYSTEM

RETURN BELT SHOULD CLEAR UNDERSIDE OF ANALYZER BY MORE THAN 1 INCH [25 MM] SEE SHTS 3 AND 9

MAINTAIN CLEARANCE AT ONE END OF ANALYZER FOR LOADING AND UNLOADING OF STANDARDS. THESE ARE 72 IN. [1829MM] LONG AND WEIGH 50 LB [23 KG]

EXAMPLE OF CUSTOMER-PROVIDED CONCRETE FOOTING WITH OPTIONAL MOUNTING

MAINTAIN A MINIMUM 36 IN [940 MM] ACCESS CLEARANCE IN VICINITY OF DOORS TO ALLOW FOR DETECTOR REMOVAL (BOTH SIDES) AND SOURCE REPLENISHMENT (ONE SIDE)

CONVEYOR C-CHANNEL MAY BE BOLTED OR WELDED TO ANALYZER SUPPORT STEEL

22. FINAL ALIGNMENT OF THE SLIDER BELT WITH RESPECT TO THE TROUGHING IDLERS MAY BE ACCOMPLISHED BY SHIMMING NEARBY IDLERS, SHIMMING THE LOWER SHIEDL BLOCKS OR ADJUSTING THE MOUNTING NUTS.

21. THE CUSTOMER MUST PROVIDE A STORAGE LOCATION NEAR THE ANALYZER FOR STORAGE OF REFERENCE STANDARDS. SEE SHEET 9 FOR REFERENCE STANDARDS DETAILS.

20. THE MAXIMUM HEIGHT OF MATERIAL ON THE BELT (INCLUDING THE BELT THICKNESS) MUST NOT EXCEED THAT FOR WHICH THE ANALYZER HAS BEEN SIZED. CUSTOMER IS ADVISED TO INSTALL AN UPSTREAM SAFETY SWITCH TO STOP BELT MOTION TO PREVENT EXCESSIVELY-HIGH MATERIAL FROM REACHING AND SUBSEQUENTLY CAUSING POTENTIAL DAMAGE TO THE ANALYZER.

19. TO PREVENT CONVEYOR BELT FROM CONTACTING AND POSSIBLY DAMAGING THE ANALYZER TUNNEL, TRAINING IDLERS SHALL BE PLACED UPSTREAM FROM THE ANALYZER. THE PLACEMENT, QUANTITY, AND CONFIGURATION OF THE TRAINING IDLERS SHALL BE THE RESPONSIBILITY OF THE CUSTOMER.

18. EITHER OR BOTH "CARRY" AND "RETURN" BELT RUNS MAY BE ADJUSTED VERTICALLY TO OBTAIN THE REQUIRED RUNNING CLEARANCE WITH THE ANALYZER. CUSTOMER SHOULD DETERMINE THE OPTIMAL DISTRIBUTION FOR THEIR PARTICULAR CASE. SEE SHT 9 FOR FURTHER DETAILS. FINAL VERTICAL ALIGNMENT WITH THE ANALYZER MAY ALSO BE FINE-TUNED BY SHIMMING NEARBY CARRY IDLERS.

NOTES: (CONTINUED FROM SHEET 5)

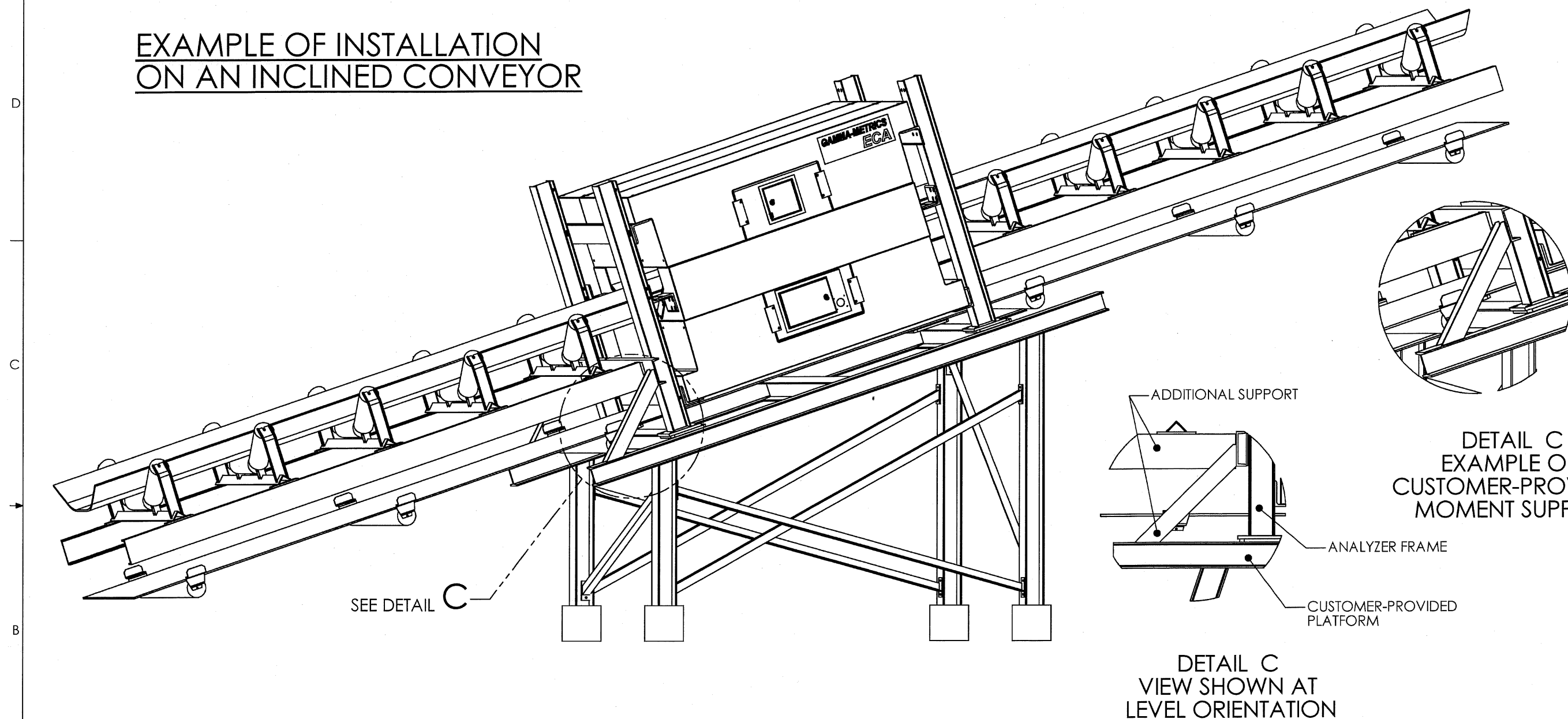
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ECA

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REV. 7 B

EXAMPLE OF INSTALLATION ON AN INCLINED CONVEYOR



DETAIL C
EXAMPLE OF
CUSTOMER-PROVIDED
MOMENT SUPPORT

DETAIL C
VIEW SHOWN AT
LEVEL ORIENTATION

25. AS PART OF THE DESIGN OF THE SUPPORTING STRUCTURE, THE CUSTOMER MUST CONSIDER PROVIDING SAFE PERSONNEL ACCESS TO THE SOURCE AND DETECTOR AREAS, AND ACCESS FOR THE PRACTICAL MANUAL LOADING AND UNLOADING OF REFERENCE STANDARDS. SEE SHEETS 3 AND 6 FOR ACCESS CLEARANCES, AND SHEET 9 FOR SIZE AND WEIGHT DETAILS OF THE STANDARDS.
24. DESIGN OF THE SUPPORT STRUCTURE FOR THE ANALYZER IS THE RESPONSIBILITY OF THE CUSTOMER. THE EXAMPLE BELOW IS SIMPLISTIC AND HAS NOT BEEN ANALYZED FOR STRUCTURAL INTEGRITY, OR USED AT ANY PARTICULAR SITE.
23. THE ANALYZER MAY BE INCLINED AT AN ANGLE UP TO 18° IN THE DIRECTION OF THE BELT RUN AS REQUIRED BY THE CHOSEN INSTALLATION LOCATION. HOWEVER, WHEN INSTALLED AT AN ANGLE IT IS NECESSARY FOR THE CUSTOMER TO DETERMINE IF THE SUPPORT PROVIDED TO THE ANALYZER MOUNTING PADS CAN SAFELY SUSTAIN THE MOMENT LOADING PRESENTED.

THE MAXIMUM POTENTIAL MOMENT DUE TO THE ANALYZER STATIC WEIGHT CAN BE REASONABLY ESTIMATED BY ASSUMING THAT THE TOTAL WEIGHT OF THE ANALYZER IS APPLIED AT A DISTANCE HALF WAY UP THE HEIGHT OF THE END FRAME, MULTIPLIED BY THE SINE OF THE INSTALLED ANGLE. ANY APPLICABLE ENVIRONMENTAL DESIGN FACTORS SUCH AS THOSE FOR EARTHQUAKE AND WIND LOADING MAY BE THEN APPLIED, IN ADDITION TO A DESIGN SAFETY FACTOR. THE MAXIMUM WEIGHT FOR A PARTICULAR ANALYZER SERIES AND THE FRAME DIMENSIONS CAN BE FOUND ON SHEETS 3 & 10.

BASED ON THE RESULTING MOMENT AND DIRECT LOAD APPLIED TO THE CUSTOMER'S CHOSEN MOUNTING METHOD, IT MAY BE NECESSARY TO PROVIDE ADDITIONAL MOMENT SUPPORT TO THE END FRAMES AT ONE OR BOTH ENDS. THE ECA MAY BE ORDERED WITHOUT END FRAMES IF THE CUSTOMER PREFERS TO INTERFACE DIRECTLY WITH THE SHIELD BLOCKS.

NOTES: (CONTINUED FROM SHEET 7)

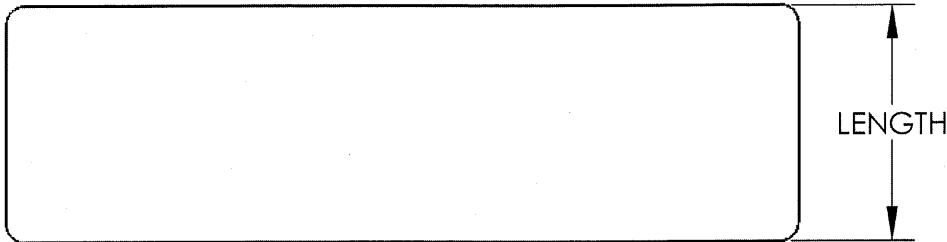
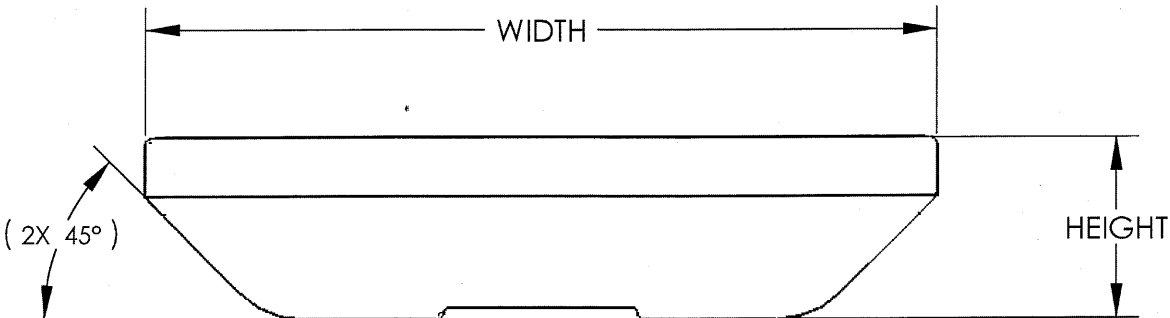
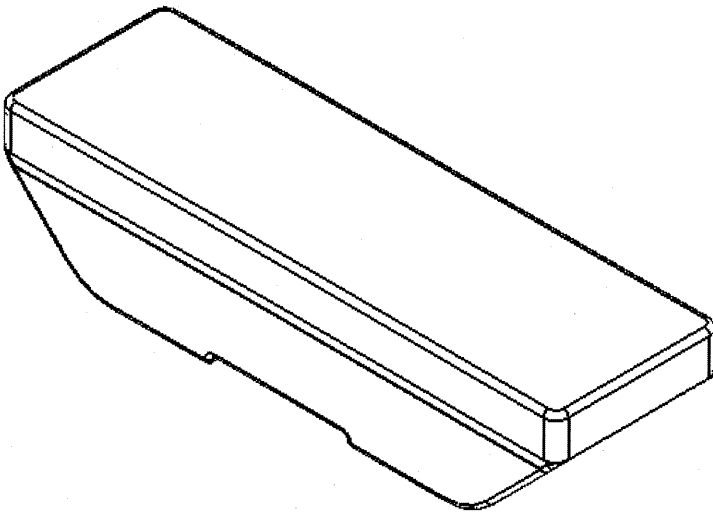
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ECA

SIZE	DWG. CODE	DWG. NO.	REV.
B	OP1N9	480231	B
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CUSTOMER REFERENCE
STANDARDS

BELT WIDTH		LENGTH		HEIGHT		WIDTH		QTY REQUIRED
(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	
30	800	13.11	333	6.22	158	20.27	515	6
36	900	13.11	333	4.49	114	17.83	453	6
42	1000	13.11	333	4.84	123	22.56	573	6
48	1200	7.87	200	6.06	154	26.45	672	10
54	1400	7.87	200	6.38	162	29.09	739	10
60	1600	5.63	143	6.93	176	33.23	844	14
72	1800	5.63	143	7.52	191	35.98	914	14



27. CUSTOMER REFERENCE STANDARDS WEIGH APPROXIMATELY 50 LBS EACH.
26. THE CUSTOMER REFERENCE STANDARDS STORAGE AREA SHOULD BE OUT OF THE DIRECT SUNLIGHT AND PROVIDE PROTECTION FROM PHYSICAL DAMAGE.
TO FACILITATE THE LOADING AND UNLOADING OF THE REFERENCE STANDARDS, THE STORAGE AREA SHOULD BE LOCATED AS CLOSE TO THE ANALYZER AS POSSIBLE
- NOTES: (CONTINUED FROM SHEET 8)

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ECA

SIZE B	CAGE CODE OP1N9	DWG. NO. 480231	REV. B
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THIS SHEET IS TO BE REPLACED BY ONE
PROVIDED BY THE THERMO SCIENTIFIC
COAL TECHNICAL SPECIALIST WHEN
THE ECA MECHANICAL CONFIGURATION
IS FINALIZED

ThermoFisher SCIENTIFIC			
SITE PREPARATION, ECA			
SIZE B	CAGE CODE OP1N9	DWG. NO. 480231	REV. B
SCALE 1:32	REL DATE 10/13/04	DCN NO. 10425	SHEET 10 OF 10