



U.S. Department
of Transportation
**Pipeline and
Hazardous Materials
Safety Administration**

**IAEA CERTIFICATE OF COMPETENT AUTHORITY
SPECIAL FORM RADIOACTIVE MATERIALS
CERTIFICATE USA/0363/S-96, REVISION 8**

East Building, PHH-23
1200 New Jersey Avenue Southeast
Washington, D.C. 20590

This certifies that the sources described have been demonstrated to meet the regulatory requirements for special form radioactive material as prescribed in the regulations of the International Atomic Energy Agency¹ and the United States of America² for the transport of radioactive material.

1. Source Identification - QSA Global, Inc. Model Nos. X38/1, X38/3, and X38/4.
2. Source Description - Cylindrical double encapsulations constructed of Type 316L stainless steel and tungsten inert gas or laser seal welded. Approximate outer diameters are 12.8 mm (0.5 in.) for the Models X38/1 and X38/3; and 12.9 mm (0.5 in.) for the Model X38/4. All Models are approximately 19.3 mm (0.76 in.) in length. Minimum wall thickness of the outer capsule for all Models is 0.6 mm (0.024 in.). Construction shall be in accordance with attached AEA Technology Drawing Nos. RBA61765, Rev. A (Model X38/1); RBA61769, Rev. A (Model X38/3); or RBA61759, Rev. A (Model X38/4).
3. Radioactive Contents - No more than either 95 GBq (2.6 Ci) of Cesium-137 or 12 TBq (324 Ci) of Cobalt-60 for the Model X38/1. No more than 37 GBq (1.0 Ci) of Cesium-137 for the Model X38/3. No more than 426 GBq (11.5 Ci) of Cesium-137 for the Model X38/4. The Cs-137 is in the form of a ceramic bead or pellet. The Co-60 is in the form of a metal.
4. Quality Assurance - Records of Quality Assurance activities required by Paragraph 310 of the IAEA regulations¹ shall be maintained and made available to the authorized officials for at least three years after the last shipment authorized by this certificate. Consignors in the United States exporting shipments under this certificate shall satisfy the applicable requirements of Subpart H of 10 CFR 71.
5. Expiration Date - This certificate expires on March 31, 2022.

¹ "Regulations for the Safe Transport of Radioactive Material, 1996 Edition (Revised), No. TS-R-1 (ST-1, Revised)," published by the International Atomic Energy Agency (IAEA), Vienna, Austria.

² Title 49, Code of Federal Regulations, Parts 100-199, United States of America.

CERTIFICATE USA/0363/S-96, REVISION 8


This certificate is issued in accordance with paragraph 804 of the IAEA Regulations and Section 173.476 of Title 49 of the Code of Federal Regulations, in response to the March 24, 2017 petition by QSA Global, Inc., Burlington, MA, and in consideration of other information on file in this Office.

Certified By:



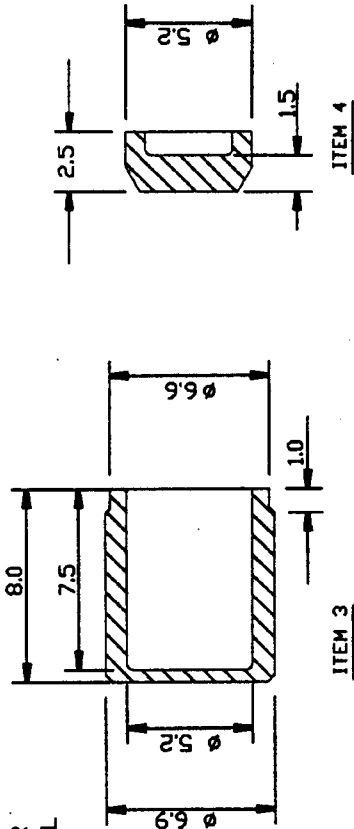
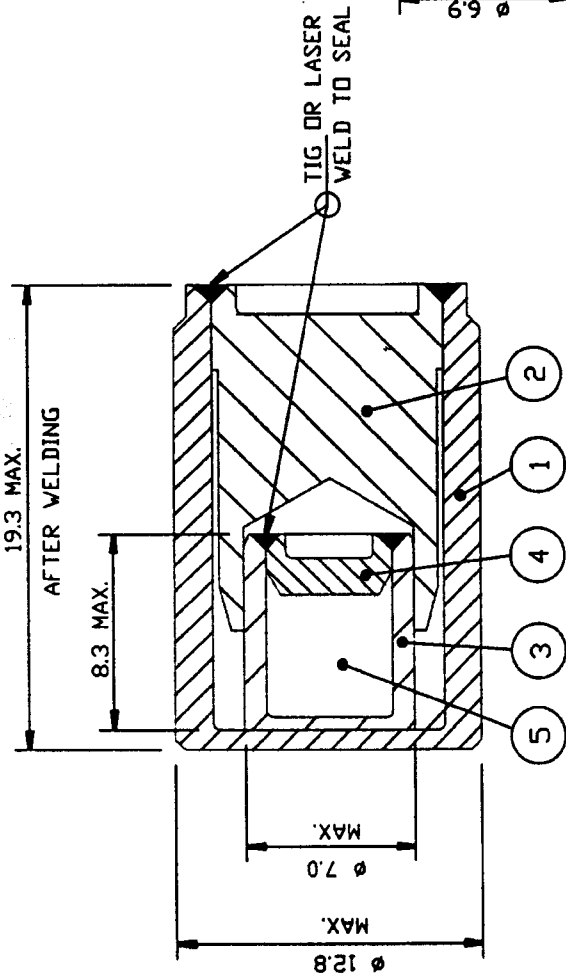
Apr 06 2017

(DATE)

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William Schoonover
Acting Associate Administrator for Hazardous Materials Safety

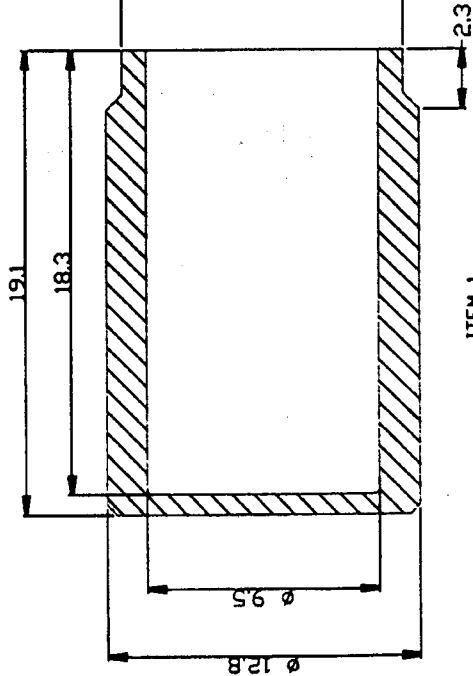
Revision 8 - Issued to extend the expiration date.

Item #	Description	Qty.
1	SHEATH BODY STAINSTL.	1
2	SHEATH LID STAINSTL.	1
3	CELL BODY (X19) STAINSTL.	1
4	CELL LID (X19) STAINSTL.	1
5	ACTIVE MATERIAL	AR



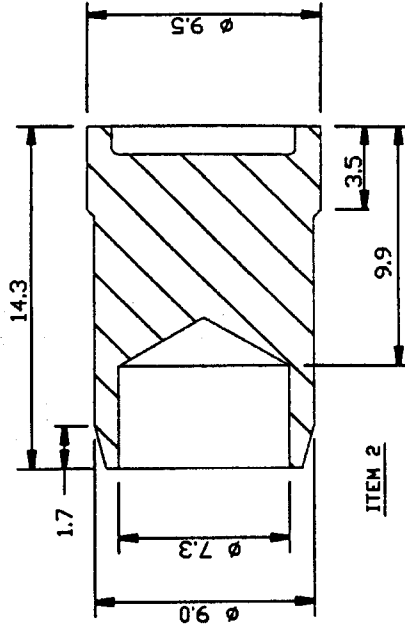
ITEM 3

ITEM 4



ITEM 1

ITEM 2



APPROVALS

Michael D. B. 15/11/07
R. P. 18 Nov 07

DIMENSIONS IN MILLIMETERS
 UNLESS OTHERWISE STATED TOLERANCES:

X ±0.5
 XX ±0.1
 XXX ±0.05
 ANGULAR ±5°

INTERNAL ∇
 EXTERNAL ∇



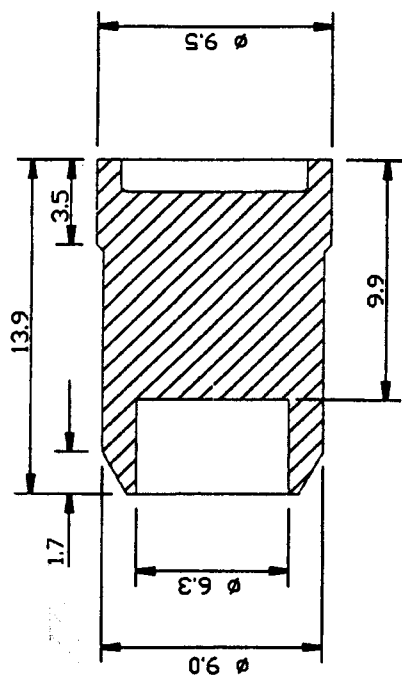
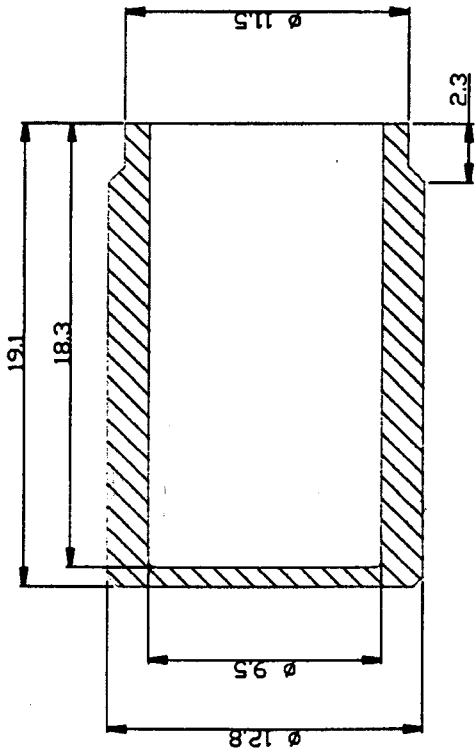
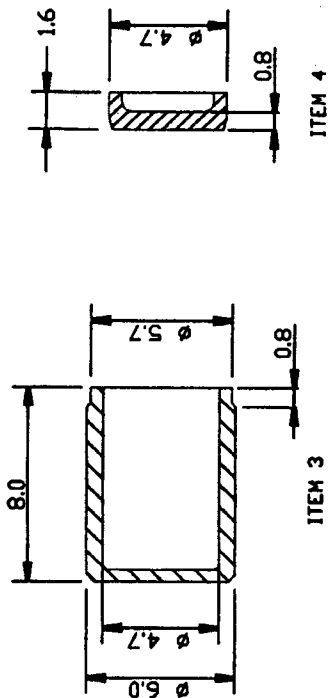
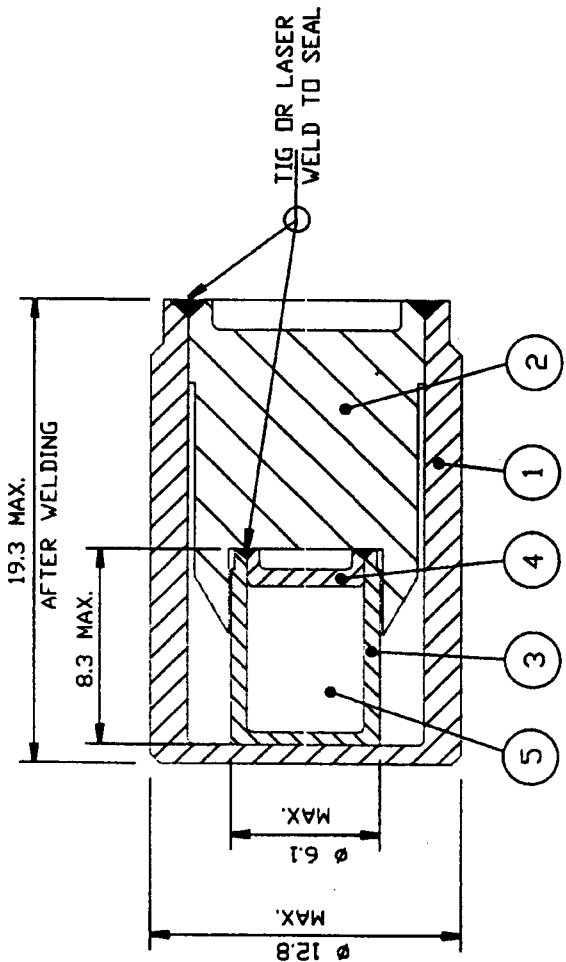
DESCRIPTIVE
DRAWING

TITLE X38/1 CAPSULE ASSEMBLY

SIZE	DWG. NO.	REV
A	RBA61765	A
SCALE: NONE		SHEET 1 OF 1

ERF # 390

Item #	Description	Qty.
1	SHEATH BODY STAINSTL.	1
2	SHEATH LID STAINSTL.	1
3	CELL BODY (X8 SHEATH)	1
4	CELL LID (X8 SHEATH)	1
5	ACTIVE MATERIAL	AR



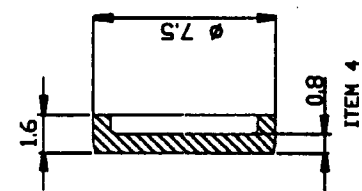
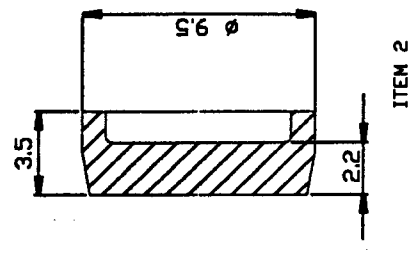
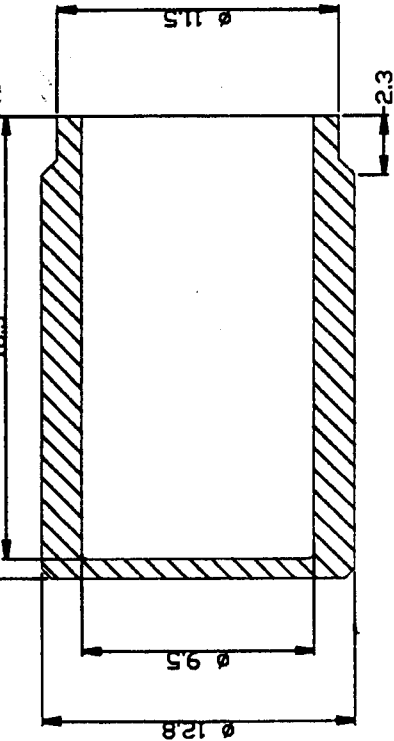
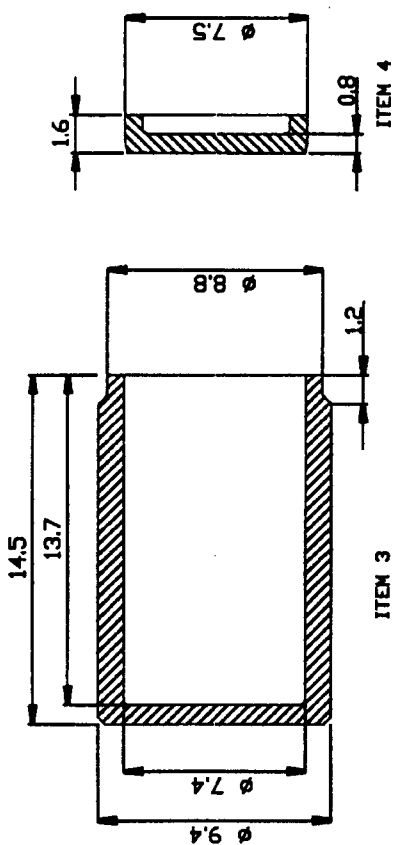
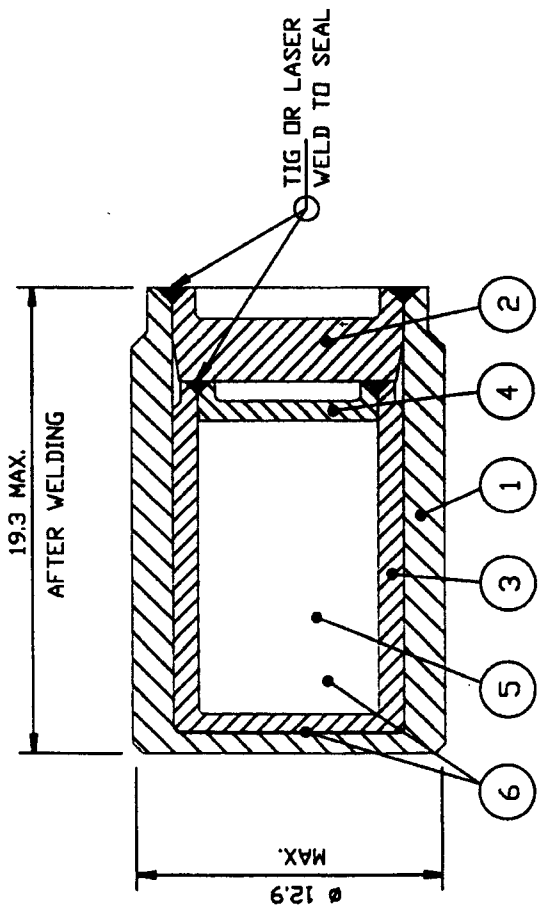
ITEM 1

ITEM 2

		DESCRIPTIVE DRAWING	
APPROVALS <i>[Signatures]</i>		TITLE X38/3 CAPSULE ASSEMBLY	
DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE STATED TOLERANCES: X ±0.5 XX ±0.1 XXX ±0.05 ANGULAR ±5°		SIZE A	DWG. NO. RBA61769
18 MAY 07		SCALE: NONE	REV A
390		SHEET 1 OF 1	

ERF # 390

Item #	Description	Qty.
1	SHEATH BODY STAIN.STL.	1
2	SHEATH LID STAIN.STL.	1
3	CELL BODY (X1165) STAIN.STL.	1
4	CELL LID (X1165) STAIN.STL.	1
5	ACTIVE MATERIAL	AR
6	CERAMIC FIBER PACKING	AR



AEATECHNOLOGY QSA 40 NORTH AVE. BURLINGTON, MA 01803		DESCRIPTIVE DRAWING	
APPROVALS <i>[Signature]</i> <i>[Signature]</i>		TITLE X38/4 CAPSULE ASSEMBLY	
DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE STATED TOLERANCES: X ±0.5 XX ±0.1 XXX ±0.05 ANGULAR ±5°		SIZE A	
INTERNAL <input checked="" type="checkbox"/> EXTERNAL <input type="checkbox"/>		SCALE: NONE	
ERF # 390		SHEET 1 OF 1	
DWG. NO. RBA61759		REV A	



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**Pipeline and
Hazardous Materials
Safety Administration**

CERTIFICATE NUMBER: USA/0363/S-96, Revision 8

ORIGINAL REGISTRANT(S):

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