



U.S. Department  
of Transportation

**Research and  
Special Programs  
Administration**

400 Seventh Street, S.W.  
Washington, D.C. 20590

OCT 12 1995

Mr. John A. Del Grosso  
Director of Technical Services  
Exxel/Atmos, Inc.  
33 Schoolhouse Road  
Somerset, NJ 08873

Dear Mr. Del Grosso:

This is in reply to your letter of August 23, 1995, requesting confirmation that your company's low pressure (less than 40 psi), non-aerosol dispensing system is not regulated as a compressed gas packaging under the Hazardous Materials Regulations (49 CFR Parts 171-180). You provided no information on the contents of the container.

The drawings you enclosed show the system consists of a pleated inner plastic bottle fitted with a valve and surrounded with a rubber sleeve that is placed inside of an outer container. You stated the pressure of the expanded rubber sleeve on the contents of the bottle causes the contents to be expelled through the valve using no gas propellant. Based on the information you provided, if the internal pressure of the container is under 40 psi, and no hazardous material is contained in the package, the package is not regulated under the HMR. See definition of "hazardous material" in 49 CFR 171.8.

Thank you for your inquiry. I hope this information is helpful.

Sincerely,

*Beth L. Romo*

*for* Hattie L. Mitchell, Chief  
Exemptions and Regulations Termination  
Office of Hazardous Materials Standards

**Exxel / ATMOS<sup>TM</sup>, Inc.**

33 Schoolhouse Road • Somerset, NJ 08873 • (908) 560-3655 Fax (908) 560-0119

*Martin*  
4/14  
File: 173.115  
SC: 518, 118  
RECEIVED  
9/14/95  
EM

August 23, 1995

Mr. Edward Mazzullo  
U.S. Department of Transportation  
Office of Hazardous Materials Standards DHM-10  
400 7th Street SW  
Washington, DC 20590-0001

Dear Mr. Mazzullo,

I called your office today and spoke with Ms. Eileen Martin. She is very knowledgeable, and was courteous and helpful. She recommended I write to request a letter of interpretation from your office for our unique non-aerosol dispensing system.

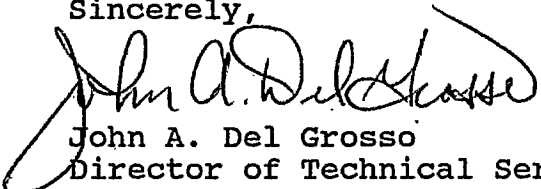
Our customers frequently request from us DOT information with regard to any regulations that may apply to this package when it is being shipped after filling. Ms. Martin's opinion was that this dispensing system would not be regulated because of the low operating pressure. I am certain a written response from your office would greatly enhance our information packet we send to our potential customers.

ATMOS is a low pressure (less than 40 psi) dispensing system which utilizes pressure from an expandable rubber sleeve to squeeze the products from the container when the dispensing actuator is pressed. There are no compressed gas propellants used at any time with this dispensing system.

Enclosed is an information packet for the ATMOS package. I have included detailed article drawings and a description of the ATMOS package. Please call me at (908) 560-3655 if you need anything further to complete this request.

Thank you for your consideration. I look forward to hearing from you soon.

Sincerely,

  
John A. Del Grosso  
Director of Technical Services

## Section 1 ATMOS Overview

### *The ATMOS System*

ATMOS is a unique, gas-free aerosol dispensing system that delivers a variety of benefits:

- Safety
- Purity
- Convenience (360° continuous spray)

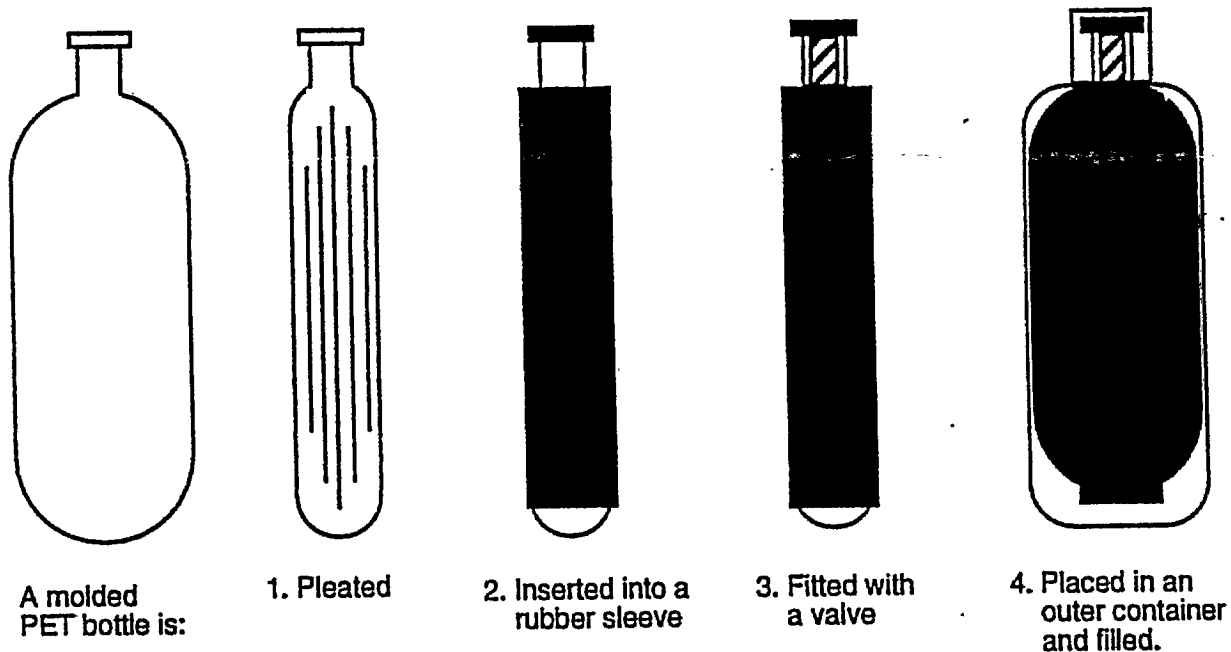
The cost effective ATMOS package is adaptable to a wide range of product viscosities and is able to accommodate a broad array of outer packaging designs.

### *How ATMOS Works*

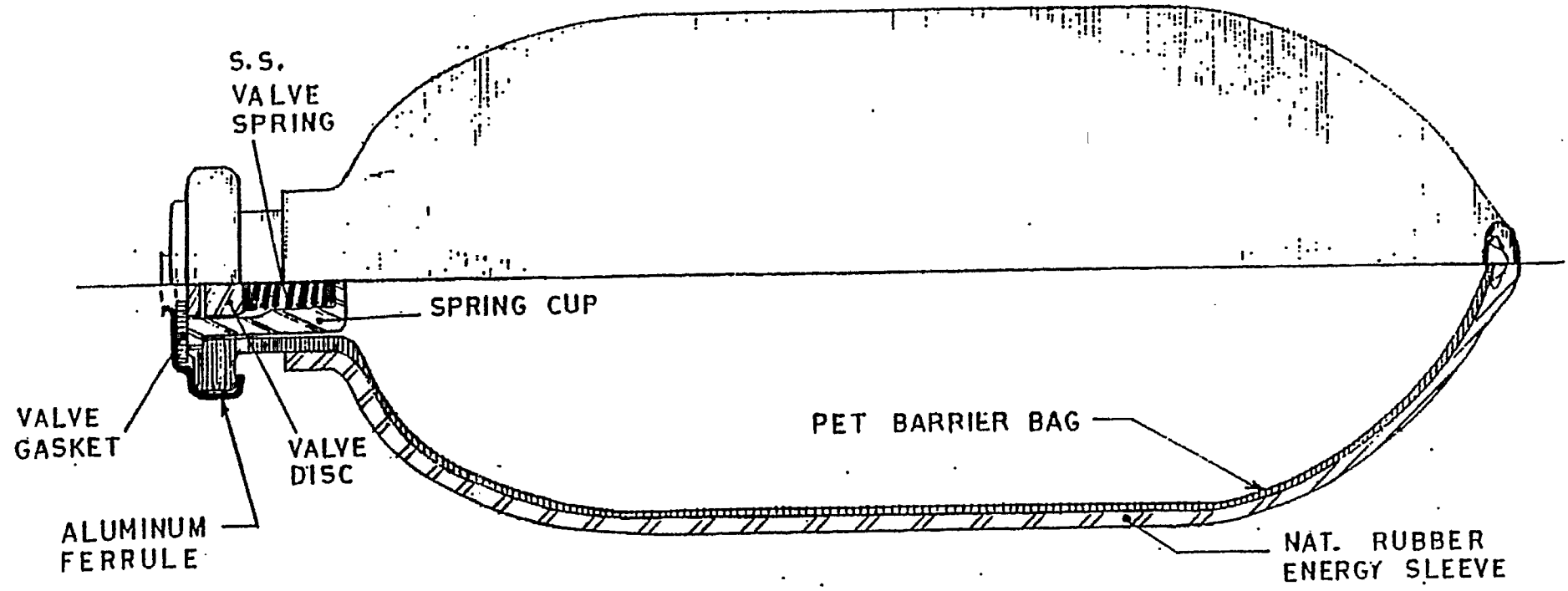
ATMOS is best described as a package within a package.

The five step process starts with a polyethylene terephthalate (PET) plastic bottle (the recyclable kind used to make soda bottles) that is pleated and fitted with a valve. The bottle is inserted into a rubber sleeve, placed in an outer container made from recyclable plastic, metal, glass and other materials, then filled with product. The contents are injected under pressure, which expands the bottle and stretches the rubber sleeve. The rubber's propensity to contract provides the pressure to produce the spray. The figure below shows this process.

## ATMOS™: The Continuous Dispensing System



DATE	BY	REVISION RECORD	DR.	CK.



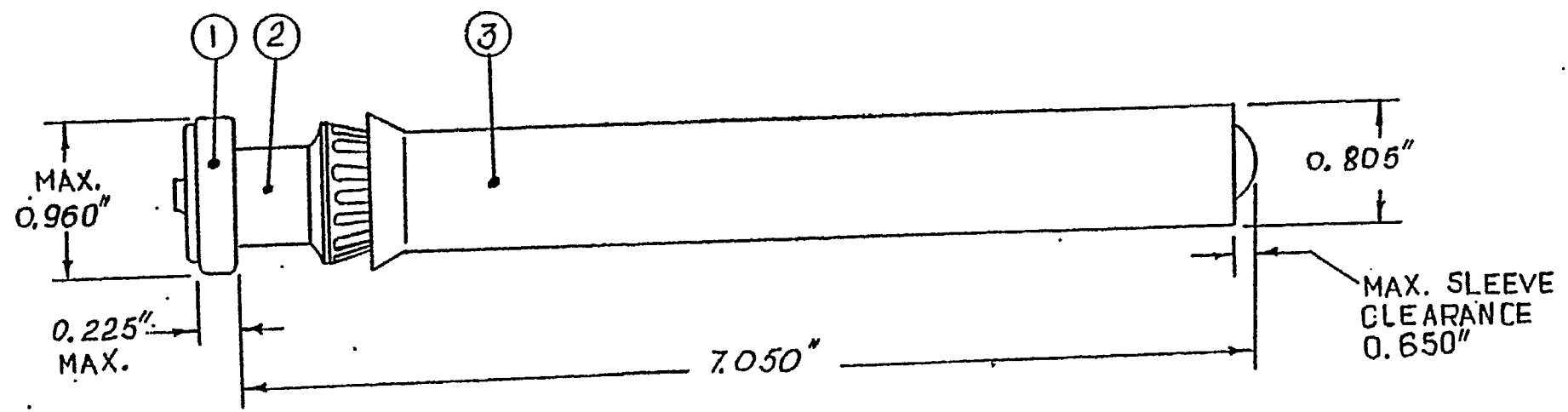
TOLERANCES (EXCEPT AS NOTED)	EXXEL		
DECIMAL ±	MATERIAL: AS SHOWN	SCALE	DRAWN BY <i>[Signature]</i>
FRACTIONAL ±	TITLE POWER ASSEMBLY COMPONENTS		
ANGULAR ±	DATE 11-9-87	DRAWING NUMBER P. I. B. 2.0 DWG. B	
			APPROVED BY <i>[Signature]</i>

BRUNING 40-21

APPENDIX A

ITEM	DESCRIPTION
1	VALVE FERRULE
2	BARRIER BAG
3	ENERGY SLEEVE

DATE	SYM	REVISION RECORD	DR.	CK.
1/29/88	D	MAX. FILL WAS 7.7 FL. OZ.	G.P.	
	D	TITLE CHANGE	G.P.	
	E	ADD FLARE DIM.	G.P.	



**NOTES**

- 1. DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.
- 2. DO NOT SCALE DRAWING.

TOLERANCES (EXCEPT AS NOTED)		EXXEL		
DECIMAL	±	MAXIMUM FILL: 230 ML.	SCALE	DRAWN BY
FRACTIONAL			FULL	APPROVED BY
ANGULAR	±	TITLE 230 ML. POWER ASSEMBLY		REV. E
		DATE 10-13-88	DRAWING NUMBER P. I. B. 3 - DWG. B	

**APPENDIX G**

BRUNING 40-21