



3M™ Scott™ 30-Year Cylinder

Question

Why did 3M Scott introduce the 30-year life cylinder?

Answers

3M™ Scott™ Fire & Safety responded to the fire service need to extend the useful cylinder life beyond that of the traditional aluminum-lined, carbon-wrapped 15-year cylinder. The introduction of the 30-year life cylinder reinforces the commitment of 3M™ Scott™ Fire & Safety to provide our customers with a selection of products that allows them to select the option that provides the best value across the life of their product.

Question

What are the benefits of the 30-year life cylinder?

Answers

The 30-year life cylinder provides an option for those departments looking to “stretch their dollar.” With a life expectancy up to 30 years*, departments may not be as likely to replace cylinders as frequently, thus providing a lower cost of ownership.

Question

What duration and pressure ratings are available in the 30-year life cylinder?

Answers

There are three different cylinder durations available—30-minute, 45-minute, and 60-minute — based on the NIOSH breathing rate of 40 liters per minute. The 30-year life cylinder is only available with a 4500 psig pressure rating.

Question

Is it easy to identify a 3M™ Scott™ Fire & Safety 30-year life cylinder?

Answers

Yes, 3M™ Scott™ Fire & Safety has placed a 1 ¼" (31.75 mm) blue band around the top of each 30-year life cylinder for easy identification.

Question

Is the material construction the same as that of a traditional 15-year carbon composite cylinder?

Answers

No, the 30-year life cylinder utilizes additional carbon as part of its construction. This is due to the more stringent testing that the 30-year life cylinder must endure as part of the DOT approval process. The fiberglass and gel coat are identical to that of a traditional 15-year cylinder.

Question

How does the weight compare to that of a traditional 15-year carbon composite cylinder?

Answers

The 30-year life cylinder is slightly heavier than a traditional 15-year carbon composite cylinder. This is due to the difference in material construction.

	15 Year Cylinder**	30 Year Cylinder**	Weight Change**	% Increase
30-Minute	7.65	8.05	2.50	5.23%
45-Minute	10.05	10.85	1.10	7.96%
60-Minute	12.65	13.95	1.74	10.28%

**CGA cylinders were empty and weights are in pounds.

Questions and Answers

Question

Can the 30-year life cylinders be used on any 3M™ Scott™ Air-Pak™ SCBA?

Answers

The 30-year life cylinders are currently approved on the 3M™ Scott™ Air-Pak™ X3 Pro SCBA, certified to the NFPA 1981, 2018 Edition standard, in addition to a multitude of other SCBA configurations.

Note: the 30-year life cylinders are not Transport Canada (TC) approved and are restricted from use and transport into Canada.

SCBA Model	NFPA 1981 Standard
3M™ Scott™ Air-Pak™ X3 Pro SCBA	2018 Edition
3M™ Scott™ Air-Pak™ X3 Pro SCBA	2013 Edition
3M™ Scott™ Air-Pak™ X3 SCBA	2013 Edition
3M™ Scott™ Air-Pak™ 75 SCBA	2013 Edition
3M™ Scott™ Air-Pak™ Wireframe SCBA	2013 Edition
3M™ Scott™ Air-Pak™ 75 SCBA	2007 Edition
3M™ Scott™ Air-Pak™ Wireframe SCBA	2007 Edition
3M™ Scott™ Air-Pak™ NxG7 SCBA	2007 Edition
SCBA Model	NFPA 1986 Standard
3M™ Scott™ X3-21 Pro SCBA	2017 Edition
SCBA Model	
3M™ Scott™ Air-Pak™ 75i SCBA	
3M™ Scott™ Industrial SCBA (ISCBA)	

Question

What are the hydrostatic testing requirements for the 30-year life cylinders?

Answers

The 30-year life cylinders have the same hydrostatic testing requirements as any other traditional composite cylinder used in the fire service. It is necessary to hydrostatically test the cylinders a minimum of every five years.

Question

What is the service life for the 30-year life cylinders?

Answers

The service life is defined as a maximum of 30 years, as dictated by the Department of Transportation's policy for composite cylinders, Special Permit 14232.

Question

What additional testing requirements must the 30-year life cylinder undergo?

Answers

The qualification program mandated by the US DOT under Special Permit 14232 requires that a sample of 30 cylinders *from the first year of manufacture* of each cylinder size be collected from the field and tested at 10 years of service. Then a second sample of 30 cylinders *from the first year of manufacture* is also collected and tested at 15 years of service. Upon successful completion of the mandated tests at both ten and fifteen years of service, all cylinders of that design can continue as normal in the field beyond the standard life of 15 years to a maximum of 30 years. Should the sample batch of cylinders fail the design qualification testing at either the 10 or 15 year intervals, the 30-year cylinder design will be remanded to a 15-year approval.

Question

If my department purchases the 30-year life cylinders, will we be required to send them in for any additional testing at any time during or after the 15-year life to maintain approvals?

Answers

No. The additional testing required under the special permit is performed by Luxfer, the cylinder manufacturer. Luxfer gathers samples from the field and replaces them with new cylinders in order to meet the special permit requirements. The requirements to perform ongoing testing are expected to be complete by the end of 2024 for all cylinder types (e.g., pressure and duration) included in the special permit.

Note: Users are still required to perform hydrostatic testing and other inspection criteria according to our User Instructions.



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