



3M™ Scott™ 5.5 Cylinders

Question

Why did Scott introduce the 5.5 cylinder platform?

Answer

Scott Safety listened to the fire service concerning the need to reduce the weight of the complete SCBA. Our world-class engineers determined the best path to accomplishing this goal was through increasing the pressure of the cylinder to 5500psi which allows cylinder sizes and weights to be dramatically reduced.

Question

What are the benefits of the 5.5 cylinders?

Answer

To put it simply, the benefits are lighter and smaller profile cylinders that result in increased safety of the Air-Pak SCBA wearer. The other benefit is the ability to add additional air capacity without sacrificing the weight or size of the cylinder.

With the changes in the NFPA 1981, 2013 edition standard requiring a new 33% EOSTI, the ability to add additional air capacity has become an important consideration.

Question

What sizes of the 5.5 cylinders are being manufactured?

Answer

There are four different cylinder durations available: 30-minute, 45-minute, 60-minute and 75-minutes (see images above).

Question

How much lighter are the cylinders?

Answer

The 5.5 cylinders provide a weight reduction of approximately 10%. To put it in more concrete terms, the reduction in weight can be as much as 1.41 pounds depending on the time duration of the cylinder.



30-Min. 45-Min. 60-Min. 75-Min.

	4.5 Cylinder*	5.5 Cylinder*	Weight Reduction*	% Decrease
30-Minute	7.72	6.69	0.83	11%
45-Minute	9.68	8.73	0.95	9%
60-Minute	12.32	10.91	1.41	11%
75-Minute	-	13.28	-	-

*AP 75 cylinders were empty and weights are in pounds.

Question

Is the profile of the cylinder reduced as well?

Answer

Yes, the increased pressure has allowed the diameter of the cylinders to be reduced as well. The reduced profile results in a shift in the center of gravity which increases the comfort of the complete Air-Pak SCBA. Additionally, in some cases, the overall length of the cylinder was reduced as well to help avoid interference with helmets.

Question

Can the 5.5 cylinders be used on any Scott Air-Pak SCBA?

Answer

The 5.5 cylinders are approved on the Air-Pak X3, Air-Pak 75, and Air-Pak NxG7 SCBA.

Question

Can I use the 5.5 cylinders on my existing Air-Pak SCBA I have in use today?

Answer

In order to make a current 4.5 SCBA compatible with a 5.5 cylinder, changes are required to the console, HUD electronics, pneumatics, and pressure reducer. The extent of these changes may make an upgrade kit cost prohibitive versus replacement costs, so although Scott does not currently offer upgrade kits to 5.5, the components required can be purchased individually and installed by a Scott authorized service center.

Question

Which other products can I use with the 5.5 cylinders?

Answer

Currently, the following products are compatible with the 5.5 cylinder technology - RIT-Pak III, TRC-1 Air Cart, and Mobile Air Cart.

Question

What are the hydrotest requirements for the 5.5 cylinders?

Answer

The 5.5 cylinders have the same requirements as any other 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 time for the 5.5 cylinders?

Answer

The service time is 15 years dictated by the Department of Transportation's policy for composite cylinders.

Question

Will the 5.5 cylinders fit in my current truck seats?

Answer

The sizes of the cylinders were chosen to optimize weight and profile but consideration was also given to how the units will integrate with existing products in the field. Scott Safety has worked with the leading seat and bracket manufacturers to ensure that existing components deployed in the field will accept the 5.5 cylinders.

Question

Will my current compressors be capable of filling a 5.5 cylinder?

Answer

The 5.5 cylinders can be filled using any 6000 psi or larger compressor. The RevolveAir Charge Station has been tested and approved to be used for the higher pressure cylinders. After the launch of the 5.5 cylinders in August 2012, Scott Safety began to work with other charge station manufacturers to aid in testing of their respective product lines.

Question

How can I upgrade my RevolveAir to charge 5.5 cylinders?

ANSWER

In order to upgrade your RevolveAir, only a few minor changes are needed to the pneumatic components of the charge station. An upgrade kit, part number AB16-0807, will be made available for the RevolveAir charge station.

Question

Is there a difference in fill times for the 5.5 cylinders?

Answer

Scott Safety has conducted testing of filling comparable duration 4.5 and 5.5 cylinders using a mobile compressor, the Liberty I, to determine the effects of filling the higher pressure cylinders. The results of the test determined that the same number of cylinders can be filled in a one hour time frame.

Additional tests were conducted to determine the effects on cascade systems. The testing proved to reduce the number cylinders that can be filled by approximately 40%.

For more information, please see Scott Safety's white paper, "Filling 5500psi Cylinders."

Question

Is it easy to identify a Scott Safety 5.5 cylinder?

Answer

Yes, Scott Safety has placed a 1 1/4" red band around the top of each 5.5 cylinder for easy identification.

Question

Can a 75' cylinder be used on my Air-Pak X3 or Air-Pak 75 SCBA?

Answer

There will be limitations as to which configurations that can be used with a 75' cylinder. The NIOSH maximum weight for an SCBA is 35 pounds. The additional air in a 75' cylinder causes an SCBA with a PASS device to exceed the NIOSH maximum. However, for HAZMAT and industrial applications where a PASS device is not needed, the 75' cylinder is excellent choice.

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