

# 3M Scott Cylinders





Over the years, breathing air cylinders have been providing SCBA users with a supply of fresh air. The original cylinders were made of steel and quite heavy. But today, advances in technology have enabled cylinders to become much lighter and less burdensome to the SCBA user. 3M Scott offers a complete assortment of cylinders to meet the needs and demands of all SCBA users – aluminum cylinders for infrequently used SCBA to carbon-wrapped cylinders for daily use. In addition, 3M Scott offers a variety of cylinders for its escape products.

#### 5.5 Cylinder:

## The lightest and smallest cylinders used on self-contained breathing apparatus.

The best way to understand the needs of SCBA users is to simply listen. 3M Scott did just that by visiting SCBA users from across North America. The participants included fire chiefs, SCBA technicians, safety officers and firefighters. It was not exclusive to the fire service, as representatives from the military, general industry and law enforcement were also included. The overwhelming attribute that users requested was a reduction in weight, followed closely by a reduction in profile.

The engineers of 3M Scott determined the best manner to accomplish this was to increase the pressure of the cylinders to 5500 psig, which resulted in the 5.5 cylinder, an "industry first." The 5.5 cylinder has more than a 10% reduction in weight and profile as compared to a traditional 4500 psig cylinder and is available in 30, 45, 60 and 75-minute durations.

The construction maintains an aluminum liner wrapped with layers of carbon fibers and fiberglass, and sealed with a protective epoxy resin coating, which makes the cylinder easier to clean.

The overall result is a lighter "3M™ Scott™ Air-Pak™ SCBA that helps to reduce user fatigue, increase productivity and decrease injuries.

#### **Accessory Items:**

#### Customs Logo I.D. Bands

3M Scott offers its customers the ability to customize their new carbon cylinders by adding a personalized logo. This custom logo is printed on white paper, and protected by the fiberglass wrap and epoxy resin.

- Maltese cross or customer-provided graphic
- Greater visibility
- Easy to identify
- Reduces cylinders being misplaced in mutual aid scenarios
- Twenty-five cylinder minimum order





#### **Cylinder Offerings**

#### **Aluminum Cylinder**

- Aluminum cylinders are built to the Department of Transportation (DOT) and Transport Canada (TC) specifications
- 2216 psig working pressure
- Rated for 30-minute duration, based on NIOSH breathing rates
- Hydrostatic testing to be performed every five years
- Unlimited life expectancy

#### Carbon Cylinder

- Carbon cylinders are built to DOT and TC specifications
- 2216, 4500 and 5500 psig working pressures
- Lightweight, composite cylinder consisting of an aluminum alloy inner shell with a total overwrap of carbon fiber, fiberglass and epoxy resin
- Rated for 30, 45, 60 and 75 (5.5 only) minute durations based on NIOSH breathing rates
- Luminescent band provides enhanced visibility
- 75-minute cylinder is ideal for Rapid Intervention Team (RIT) and extended-duration operations
- Hydrostatic testing to be performed every five years
- 15-year life expectancy

#### ST7 Tough Cylinder

- ST7 Tough cylinders are built to DOT and TC specifications
- Built extremely tough and durable
- Provides added protection against abrasion and abuse
- 4500 psig working pressure
- Rated for 30, 45 and 60-minute durations based on NIOSH breathing rate
- Luminescent band provides enhanced visibility
- Hydrostatic testing to be performed every five years
- 15-year life expectancy

#### **Escape Cylinder**

- 2216 psig aluminum cylinders available in 3-minute or 5-minute durations with unlimited life expectancy
- Carbon cylinders available in 3000 psig (5-minute or 10-minute durations) and 4500 psig (15-minute duration)
- 15-year life expectancy for carbon cylinders

#### 30-Year Life Cylinder

- 30-year cylinders (available in the US only) are built to DOT specifications
- 4500 psig working pressure
- Lightweight, composite cylinder consisting of an aluminum alloy inner shell with a total overwrap of carbon fiber, fiberglass and epoxy resin
- Rated for 30, 45 and 60-minute durations based on NIOSH breathing rates
- Luminescent band provides enhanced visibility
- Hydrostatic testing to be performed every five years
- Up to a 30-year life expectancy

### Accessory Items:

To help prevent damage and improve durability of the cylinder, 3M Scott offers several protective solutions.

#### **Cylinder Sleeves**

Protective sleeves are offered for 2216 psig, 4500 psig, and 5500 psig carbon cylinders, and will accommodate multiple cylinder sizes, to include 30, 45, 60 and 75-minute durations.

- Constructed of a specially-compounded fire-retardant-grade of clear, high-durometer, PVC/ Plastisol that meets or exceeds the flammability standards of ASTM D-568
- Easy to use and install over the cylinder, forming a protective barrier
- Certified to NFPA 1981, as an accessory to the 3M<sup>™</sup> Scott<sup>™</sup> Air-Pak<sup>™</sup> SCBA

#### Cylinder End Caps

Protective end caps are offered for 4500 psig carbon cylinders and will accommodate 30 and 45-minute rated durations.

- Protects the crown areas of carbon cylinders
- Easy to install and remains firmly adhered to cylinder
- Easily removed and reused as necessary (i.e. hydrostatic testing)
- Can be purchased individually or as a set
- Certified to NFPA 1981, as an accessory to the 3M<sup>™</sup> Scott<sup>™</sup> Air-Pak<sup>™</sup> SCBA

#### **Cylinder Valves**







CGA Threaded Cylinders

Snap-Change Cylinders

ACS Cylinders

Description		Duration	Air Capacity		Volume	Dimensions			Weight		
Part Number	Pressure (psig)	Minutes (at 40 LPM)	Cubic Feet (SCF)	Liters	H <sub>2</sub> 0 (in³)	Length less Valve (in)	Length with Valve (in)	External Diameter (in)	Empty Cylinder with Valve (lbs.)	Full Cylinder with Valve (lbs.)	
Escape Cylinder (CGA Threaded)											
Aluminum											
801935-03	2216	5	7	203	83	9.3	12.4	4.4	4.7	5.3	
805031-01	2216	3 or 5	7	203	83	9.3	12.4	4.4	4.9	5.4	
Carbon-Wrapped											
200779-03	4500	15	24	666	148	14.3	17.4	4.7	5.3	7.0	
805947-02	3000	5	8	219	68	9.3	12.4	4.0	3.3	3.9	
805948-02	3000	10	17	487	151	13.9	17.0	4.6	4.4	5.7	
200779-01	4500	15	24	666	148	14.5	17.6	4.8	5.5	7.2	
ELSA Cylinder											
Aluminum											
8007200	2216	5	8	225	92	10.0	13.0	4.4	5.1	5.7	
8007201	3000	10	15	432	134	14.7	17.8	4.4	8.0	9.1	
8007202	3000	15	24	678	210	15.1	18.2	5.3	9.5	11.3	

Description		Duration	on Air Capacity		Volume	Dimensions			Weight	
Part Number	Pressure (psig)	Minutes (at 40 LPM)	Cubic Feet (SCF)	Liters	H <sub>2</sub> O (in³)	Length less Valve (in)	Length with Valve (in)	External Diameter (in)	Empty Cylinder with Valve (lbs.)	Full Cylinder with Valve (lbs.)
CGA Threaded	Cylinders									
Aluminum										
804101-01	2216	30	45	1267	517	21	24.0	6.8	17.7	21.0
Carbon-Wrappe	ed									
804840-01	2216	30	45	1282	523	20.6	23.7	6.7	8.3	11.6
804721-01	4500	30	45	1285	285	18.5	21.6	5.5	7.7	11.1
804722-01	4500	45	67	1886	418	20.4	23.5	6.3	10.1	15.0
804723-01	4500	60	88	2482	550	21.7	24.7	7.0	12.7	19.2
200930-01	5500	30	43	1213	233	19.3	22.4	5.0	6.9	10.0
200969-01	5500	45	64	1819	349	19.3	22.4	6.1	9.1	13.8
200972-01	5500	60	86	2424	465	21.6	24.7	6.6	11.1	17.4
200975-01	5500	75	107	3029	581	22.6	25.7	7.2	13.8	21.7
Carbon-Wrappe	ed Short and Stu	ıbby								
804722-01A	4500	45	66	1877	416	18.2	21.3	6.8	10.4	15.3
Carbon-Wrappe	ed ST7									
804721-11	4500	30	45	1285	285	18.5	21.6	5.5	7.7	11.1
804722-11	4500	45	67	1886	418	20.4	23.5	6.3	10.1	15.0
804723-11	4500	60	88	2482	550	21.7	24.7	7.0	12.7	19.2
Carbon-Wrappe	ed 30-Year									
804721-35	4500	30	45	1285	285	18.8	21.9	5.6	8.1	11.5
804722-35	4500	45	67	1886	418	20.8	23.9	6.5	10.9	15.8
804723-35	4500	60	88	2482	550	21.8	24.9	7.1	14.0	20.5
Snap-Change C	Cylinders									
Carbon-Wrappe	ed									
200131-01	2216	30	45	1282	523	20.6	23.7	6.7	8.6	11.9
200128-01	4500	30	45	1285	285	18.5	21.6	5.5	8.1	11.4
200129-01	4500	45	67	1886	418	20.4	23.5	6.3	10.4	15.3
200130-01	4500	60	88	2482	550	21.7	24.7	7.0	13.1	19.5
200967-01	5500	30	43	1213	233	19.3	22.4	5.0	7.2	10.3
200970-01	5500	45	64	1819	349	19.3	224	6.1	9.4	14.1
200973-01	5500	60	86	2424	465	21.6	24.7	6.6	11.4	17.7
200976-01	5500	75	107	3029	581	22.6	25.7	7.2	14.1	22.0
Carbon-Wrappe	ed Short and Stu	ıbby								
200129-01A	4500	45	66	1877	416	18.2	21.3	6.8	10.8	15.6
Carbon-Wrappe	ed ST7									
200128-11	4500	30	45	1285	285	18.5	21.6	5.5	8.1	11.4
200129-11	4500	45	67	1886	418	20.4	23.5	6.3	10.4	15.3
200130-11	4500	60	88	2482	550	21.7	24.7	7.0	13.1	19.5
Carbon-Wrappe	ed 30-Year									
200128-35	4500	30	45	1285	285	18.8	21.9	5.6	8.5	11.8
200129-35	4500	45	67	1886	418	20.8	23.9	6.5	11.3	16.2
200130-35	4500	60	88	2482	550	21.8	24.9	7.1	14.4	20.8
ACSi Cylinders	(90-Degree Co	GA Threaded)								
Aluminum										
200874-01	2216	30	45	1267	517	20.9	24.0	6.8	17.7	21.0
Carbon-Wrappe	ed									
200873-01	2216	30	45	1282	523	20.6	23.7	6.7	8.3	11.6
200870-01	4500	30	45	1285	285	18.5	21.6	5.5	7.8	11.2
200871-01	4500	45	67	1886	418	20.4	23.5	6.3	10.2	15.1
200872-01	4500	60	88	2482	550	21.7	24.8	6.9	12.8	19.3

