

# 3M<sup>™</sup> Scott<sup>™</sup> Cylinders





## **3M<sup>™</sup> Scott<sup>™</sup> Fire & Safety 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 wearer. 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 cylinders in 30', 45', 60' and 75' durations (a 3M Scott Fire & Safety exclusive).

#### 5.5 Cylinder: The lightest and smallest cylinders used on self-contained breathing apparatus

The best way to understand the needs of Air-Pak SCBA users is to simply listen. 3M Scott Fire & Safety 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 Fire & Safety determined the best manner to accomplish this was to increase the pressure of the cylinders to 5500 psig, which created the new 5.5 cylinders, an "industry first." The result is a cylinder that has more than a 10% reduction in weight and profile in a traditional form familiar to SCBA users.

Another benefit to the 5.5 cylinder offering is the ease of integration into your department without the need of costly infrastructure changes. 3M Scott Fire & Safety has worked with leading truck seat and SCBA bracket manufacturers to ensure these products work with the existing products in the market. The construction continues to be an aluminum liner wrapped with layers of carbon fibers and fiberglass all sealed with a protective epoxy resin coating which makes the cylinder easier to clean. The 5.5 cylinders are available in 30' 45', 60' and 75' durations.

The overall result is a lighter Air-Pak SCBA that reduces fatigue of the wearer, increases productivity and decreases 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, 3000, 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 an epoxy resin
- Rated for 30', 45', 60' and 75' (5.5 only) durations based on NIOSH breathing rates
- Luminescent band provides greater visibility
- 75' cylinder is ideal for 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' durations based on NIOSH breathing rate
- Luminescent band provides greater visibility
- Hydrostatic testing to be performed every five years
- 15-year life expectancy

#### **30-Year Life Cylinder**

- 30-Year Life Cylinders 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 an epoxy resin
- Rated for 30', 45', and 60' durations based on NIOSH breathing rates
- Luminescent band provides greater visibility
- Hydrostatic testing to be performed every five years
- Up to a 30-year life expectancy

#### **Cylinder Valves**





ACS Cylinders



Snap-Change Cylinders

### 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 psi, 4500 psi, and 5500 psi carbon cylinders and will accommodate multiple cylinder sizes, to include 30', 45', and 60' rated durations.

- Constructed of a specially compounded fire retardant grade of clear, high durometer, PVC/ Plastisol that meets or exceeds the flammability standards of the ASTM D-568
- Easy to use and install over the cylinder, forming a thick barrier and watertight seal
- Improves durability and extends cylinder life
- NFPA 1981, 2013 compliant as an accessory for our Air-Pak X3 Pro, Air-Pak X3 SCBA and Air-Pak 75 SCBA

#### **Cylinder End Caps**

Protective end caps are offered for 4500 psi carbon cylinders and will accommodate 30' and 45' 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
- Improves durability and extends cylinder life
- NFPA 1981, 2013 compliant as an accessory for our Air-Pak X3 Pro, Air-Pak X3 SCBA and Air-Pak 75 SCBA

CGA Threaded Cylinders

## **Specifications and Ordering information**

| Description       |              | Duration Air Capacity  |     | apacity | Volume    | Dimensions                       |                                  |                       | We                    | Weight               |  |
|-------------------|--------------|------------------------|-----|---------|-----------|----------------------------------|----------------------------------|-----------------------|-----------------------|----------------------|--|
| Part Number       | Pressure     | Minutes<br>(at 40 lpm) | SCF | Liters  | H2O (in3) | Length in Inches<br>(less Valve) | Length in Inches<br>(with Valve) | Diameter in<br>Inches | With Valve<br>(Empty) | With Valve<br>(Full) |  |
| CGA Threaded C    | Cylinders    |                        |     |         |           |                                  |                                  |                       |                       |                      |  |
| Aluminum          |              |                        |     |         |           |                                  |                                  |                       |                       |                      |  |
| 804101-01         | 2216         | 30                     | 45  | 1274    | 517       | 20.95                            | 24.05                            | 6.75                  | 17.85                 | 21.29                |  |
| Carbon-Wrapped    |              |                        |     |         |           |                                  |                                  |                       |                       |                      |  |
| 804840-01         | 2216         | 30                     | 45  | 1274    | 514       | 20.45                            | 23.55                            | 6.59                  | 8.15                  | 11.59                |  |
| 805044-01         | 3000         | 30                     | 62  | 1756    | 521       | 20.70                            | 23.80                            | 6.78                  | 10.35                 | 15.09                |  |
| 804721-01         | 4500         | 30                     | 45  | 1274    | 285       | 18.40                            | 21.50                            | 5.44                  | 7.65                  | 11.09                |  |
| 804722-01         | 4500         | 45                     | 65  | 1841    | 418       | 20.30                            | 23.40                            | 6.26                  | 10.05                 | 15.02                |  |
| 804723-01         | 4500         | 60                     | 87  | 2464    | 550       | 21.65                            | 24.75                            | 6.90                  | 12.65                 | 19.31                |  |
| 200930-01         | 5500         | 30                     | 45  | 1274    | 223       | 19.10                            | 22.20                            | 4.94                  | 6.84                  | 10.28                |  |
| 200969-01         | 5500         | 45                     | 66  | 1869    | 349       | 19.12                            | 22.22                            | 6.00                  | 8.94                  | 13.98                |  |
| 200972-01         | 5500         | 60                     | 87  | 2464    | 465       | 21.43                            | 24.53                            | 6.53                  | 11.04                 | 17.69                |  |
| 200975-01         | 5500         | 75                     | 111 | 3143    | 581       | 22.41                            | 25.51                            | 7.15                  | 13.74                 | 22.23                |  |
| Carbon-Wrapped Sh | ort & Stubby |                        |     |         |           |                                  |                                  |                       |                       |                      |  |
| 804722-01A        | 4500         | 45                     | 65  | 1841    | 416       | 18.00                            | 21.10                            | 6.79                  | 10.35                 | 15.32                |  |
| Carbon-Wrapped ST | 7            |                        |     |         |           |                                  |                                  |                       |                       |                      |  |
| 804721-11         | 4500         | 30                     | 45  | 1274    | 285       | 18.40                            | 21.50                            | 5.47                  | 7.75                  | 11.19                |  |
| 804722-11         | 4500         | 45                     | 65  | 1841    | 418       | 20.30                            | 23.40                            | 6.29                  | 10.05                 | 15.02                |  |
| 804723-11         | 4500         | 60                     | 87  | 2464    | 550       | 21.60                            | 24.70                            | 6.93                  | 12.75                 | 19.41                |  |
| Carbon-Wrapped 30 | -Year        | 1                      |     |         |           |                                  |                                  |                       | 1                     |                      |  |
| 804721-35         | 4500         | 30                     | 45  | 1274    | 285       | 18.40                            | 21.50                            | 5.49                  | 8.05                  | 11.49                |  |
| 804722-35         | 4500         | 45                     | 65  | 1841    | 418       | 20.30                            | 23.40                            | 6.31                  | 10.55                 | 15.52                |  |
| 804723-35         | 4500         | 60                     | 87  | 2464    | 550       | 21.65                            | 24.75                            | 7.00                  | 13.95                 | 20.61                |  |
| Snap-Change C     |              |                        |     |         |           |                                  | -                                |                       |                       |                      |  |
| Carbon-Wrapped    | ,            |                        |     |         |           |                                  |                                  |                       |                       |                      |  |
| 200131-01         | 2216         | 30                     | 45  | 1274    | 514       | 20.45                            | 23.70                            | 6.59                  | 8.50                  | 11.94                |  |
| 200128-01         | 4500         | 30                     | 45  | 1274    | 285       | 18.40                            | 21.50                            | 5.44                  | 8.00                  | 11.44                |  |
| 200129-01         | 4500         | 45                     | 65  | 1841    | 418       | 20.30                            | 23.40                            | 6.26                  | 10.40                 | 15.37                |  |
| 200130-01         | 4500         | 60                     | 87  | 2464    | 550       | 21.65                            | 24.75                            | 6.90                  | 13.00                 | 19.66                |  |
| 200967-01         | 5500         | 30                     | 45  | 1274    | 223       | 19.10                            | 22.20                            | 4.94                  | 7.15                  | 10.59                |  |
| 200970-01         | 5500         | 45                     | 66  | 1869    | 349       | 19.12                            | 22.22                            | 6.00                  | 9.25                  | 14.30                |  |
| 200973-01         | 5500         | 60                     | 87  | 2464    | 465       | 21.43                            | 24.53                            | 6.53                  | 11.35                 | 18.01                |  |
| 200976-01         | 5500         | 75                     | 111 | 1343    | 581       | 22.41                            | 25.51                            | 7.15                  | 14.05                 | 22.54                |  |
| Carbon-Wrapped Sh |              | 15                     |     | 1040    | 501       | 22.41                            | 23.51                            | 7.15                  | 14.00                 | 22.04                |  |
| 200129-01A        | 4500         | 45                     | 65  | 1841    | 416       | 18.00                            | 21.30                            | 6.79                  | 10.70                 | 15.67                |  |
| Carbon-Wrapped ST |              | 45                     | 00  | 1041    | 410       | 10.00                            | 21.00                            | 0.75                  | 10.70                 | 10.07                |  |
| 200128-11         | 4500         | 30                     | 45  | 1274    | 285       | 18.40                            | 21.50                            | 5.47                  | 8.10                  | 11.54                |  |
| 200128-11         | 4500         | 45                     | 65  | 1274    | 418       | 20.30                            | 23.40                            | 6.29                  | 10.40                 | 15.37                |  |
| 200129-11         | 4500         | 45<br>60               | 87  | 2464    | 550       | 21.60                            | 23.40                            | 6.93                  | 13.10                 | 19.76                |  |
| Carbon-Wrapped 30 |              | 60                     | 07  | 2404    | 550       | 21.00                            | 24.70                            | 0.93                  | 13.10                 | 19.76                |  |
| 200128-35         | 4500         | 30                     | 45  | 1274    | 285       | 18.40                            | 21.50                            | 5.49                  | 8.40                  | 11.84                |  |
|                   |              |                        |     |         |           |                                  |                                  |                       |                       |                      |  |
| 200129-35         | 4500         | 45                     | 65  | 1841    | 418       | 20.30                            | 23.40                            | 6.31                  | 10.90                 | 15.87                |  |
| 200130-35         | 4500         | 60                     | 87  | 2464    | 550       | 21.65                            | 24.75                            | 7.00                  | 14.30                 | 20.96                |  |
| ACS Cylinders     |              |                        |     |         |           |                                  |                                  |                       |                       |                      |  |
| Aluminum          |              |                        |     |         |           |                                  |                                  |                       |                       |                      |  |
| 200874-01         | 2216         | 30                     | 45  | 1274    | 517       | 20.95                            | 24.05                            | 6.75                  | 18.00                 | 21.44                |  |
| Carbon-Wrapped    |              |                        |     |         |           |                                  |                                  |                       |                       |                      |  |
| 200873-01         | 2216         | 30                     | 45  | 1274    | 514       | 20.45                            | 23.70                            | 6.59                  | 8.30                  | 11.74                |  |
| 200870-01         | 4500         | 30                     | 45  | 1274    | 285       | 18.40                            | 21.50                            | 5.44                  | 7.80                  | 11.24                |  |
| 200871-01         | 4500         | 45                     | 65  | 1841    | 418       | 20.30                            | 23.40                            | 6.26                  | 10.20                 | 15.17                |  |
| 200872-01         | 4500         | 60                     | 87  | 2464    | 550       | 21.65                            | 24.75                            | 6.90                  | 12.80                 | 19.46                |  |



#### 3M Scott Fire & Safety

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