



**TECHNICAL DATA**

**OXEO INERT GAS PILOT CYLINDER ASSEMBLY**

The Viking Corporation | 210 N Industrial Park Drive | Hastings MI 49058

Viking Special Hazards | Technical Services: 877-384-5464 | Email: techsvcs@vikingcorp.com | www.vikinggroupinc.com

The technical data described herein is for components of the Viking Oxexo PR Fire Extinguishing Systems.

Visit the Viking website for the latest edition of the technical data and system manuals.

**1. DESCRIPTION**

The Oxexo inert gas fire extinguishing system uses Nitrogen stored in the system's pilot container(s) until system activation. The container assembly includes a seamless steel cylinder filled with Nitrogen gas, assembled with the following components:

- Cylinder valve with burst disc, protective cylinder cap, and valve cap.
- The 80L cylinder is available for a 2901 psi pressure rating.
- Cylinders are designed, manufactured, and labeled in accordance with the UN ISO-9809\_2 USA for use in the United States and Canada.
- Cylinders can only be installed in the upright position.
- Each cylinder is equipped with a special pressure differential valve:
  - Valve operates according to the differential pressure principle and has a piston and a brass housing.
  - Includes a burst disc to protect from excessive pressure.

An optional manual release assembly with pneumatic discharge pressure switch can be ordered separately for installation in the piping:

- The pneumatic discharge pressure switch is required with manual release installation per NFPA 2001.
- The status of the pressure switch can be monitored by the fire agent release control panel.

A cylinder nameplate label is attached to the extinguishing agent container:

- Contains maintenance and filling information, as well as information about the filling quantity.

Protective caps are used to protect sensitive components (e.g. valves) of the extinguishing agent containers:

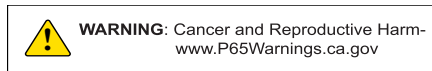
- protects the valves from damage during transport.

**NOTE: The protective valve caps must be attached before each transport.**

Standing extinguishing agent cylinders are for use with unistrut cylinder racking. Racking assembly setup is required before cylinders may be installed.



Designation	Nominal Volume	Part no.
Oxexo Pilot Cylinder 2901 psi	80.0 L	4003404



**2. LISTINGS AND APPROVALS**



cULus Listed - EX5248 (Oxexo PR LCP)



FM Approved: Oxexo PR LCP



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### 3. TECHNICAL DATA

3.1 - Specifications and Ratings	
Parameter	Value
Pilot gas	Nitrogen (99.9% agent purity minimum)
Maximum permissible overfill pressure for quick opening valve type QRV-TD	2901 psi at 59 °F (200 bar at 15 °C)
Nitrogen operating pressure at 70 °F (21 °C)	3002 psi (207 bar)
Operating temperature	-4 °F to 122 °F (-20 °C to +50 °C)
Filling center	Purity cylinder gases
Transport	See safety data sheets
Valve Specifications*	
Pilot pressure of integrated pneumatic release device	Minimum: 116 psi (8 bar) Maximum: 5221 psi (360 bar)
QRV-TD minimum flow cross-sectional area	0.1589 in <sup>2</sup> (102.5 mm <sup>2</sup> )
*Valve type in accordance with EN12094-4: type 2 and ATR D2/11: type C (valve for multiple uses, maximum 100 releases)	

3.2 - Material standards	
Description	Material
Cylinder	Seamless steel, powder coated red RAL 3000
Valve housing, caps, plugs, miscellaneous parts	Brass
Pilot valve, screws, closing piston, seal holder	Stainless steel
Seating seal, damper	PA6
Elastomer seal	EPDM
Springs	Stainless steel
Burst disk device	Nickel, copper alloy
Protective cap	DIN EN ISO 11117, large version
Thread	DIN EN ISO 11117, W80
Thread, cylinder valve	ISO 11363-1, 25E
Tested overpressure	6526 psi (450 bar)



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#### Marking

See Figure 2 for nameplate example.

#### Steel Cylinder Marking

- UN Model regulations for use and transport in the USA and Canada
- ISO 13769

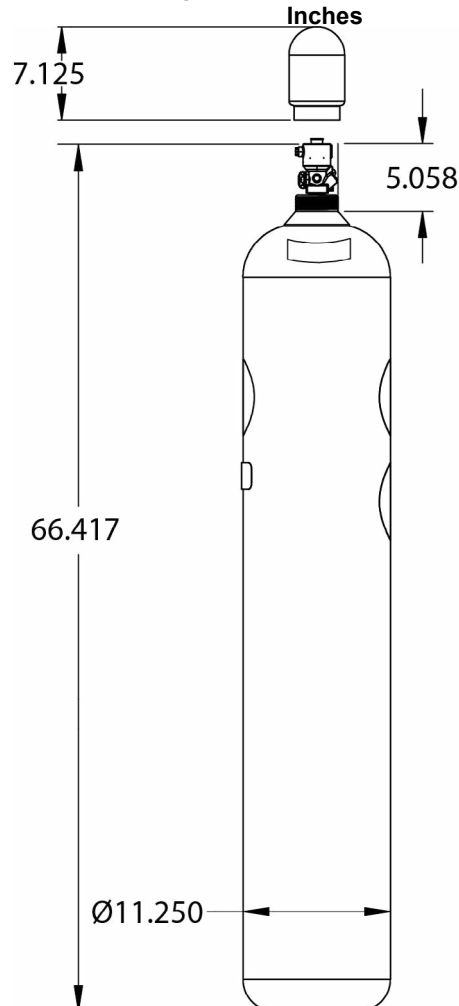
#### Additional marking

Owner embossing

#### Ordering Information

The cylinders are filled according to the ordering designations. Pilot cylinders are completely assembled and filled. For a complete system, the following must be ordered separately: release devices, optional manual release assembly with pneumatic discharge pressure switch, discharge nozzles, hose or NPT connections, contact gauges, and warning signs. An approved release control panel with compatible detection system is also required.

Figure 1: Dimension Drawing



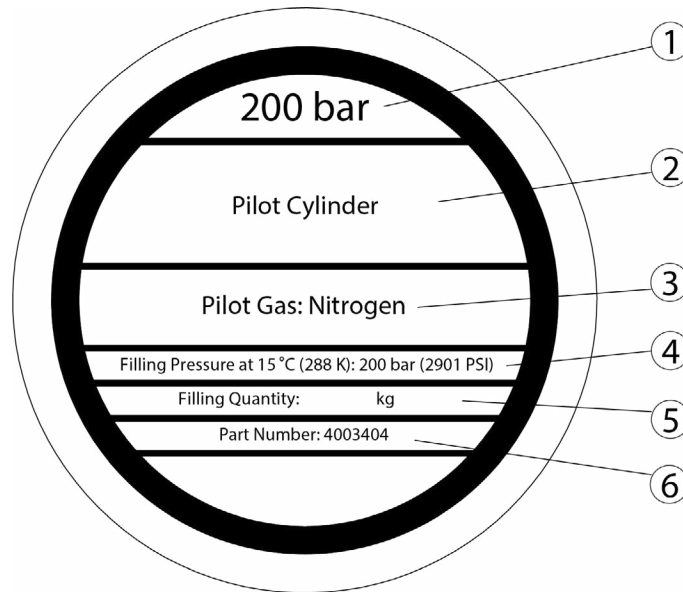


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**Figure 2: Pilot Cylinder Label**



**NOTE: French and Spanish versions of the above label are located on the opposite side of the pilot cylinder.**