

## Cylinders w. INERGEN

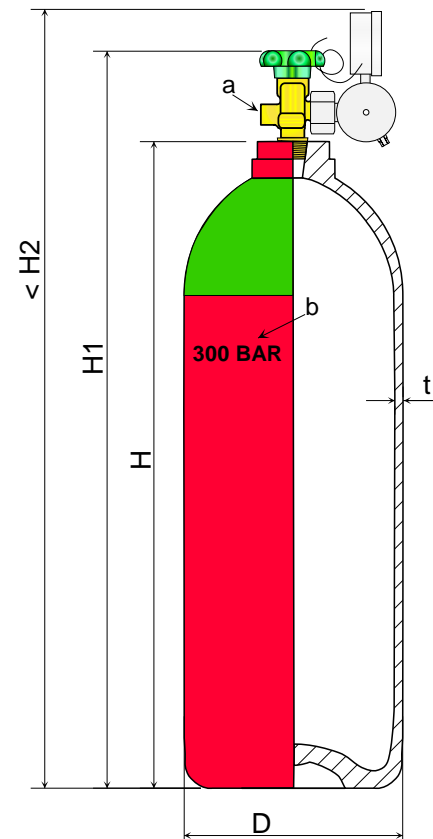
### Item numbers covered by this datasheet

200600	Cylinder	02-200	W24
200601	Cylinder	05-200	W24
200602	Cylinder	10-200	W24
200604	Cylinder	20-200	W24
200609	Cylinder	30-300	M25
200610	Cylinder	50-200	W24
200615	Cylinder	50-300	M25
200616	Cylinder	80-200	W24
200624	Cylinder	80-300	M25
200628	Cylinder	140-200	W24
200642	Cylinder	140-300	M25

### Variants

All variants are marked with  $\pi$  (Pi) and  $\rho$  (Rho).

- 8: Customer specific versions
- 21: DNV approved cylinder
- 22: DNV UN-USA approved cylinder
- 23: EAC GOST-R cylinder
- 24: GOST-K cylinder
- 25: BV approved cylinder
- 26: CCOE approved cylinder
- 27: Australian registered cylinder
- 28: ABS approved cylinder
- 60: For UL listed systems (NFPA compliant)
- 62: For FM approved systems (NFPA compliant)



Not all variants are available for all cylinders, for combination of approvals and listings, please contact Fire Eater.

## General

Steel cylinders with INERGEN and Ci Hand Wheel Valve for use in Fire Eater INERGEN fire suppression systems.

This datasheet is a summary of the available cylinders.

## Specifications

### Heights:

H1 = H + 100mm

H2 ≤ H + 170mm

### Material:

Steel: 34CrMo4 (EN 10083)

### Cylinder thread:

25E (W28.8 x 1/14)

### Color:

Cylinder:

Red (RAL 3000)

Shoulder:

Bright Green (RAL 6018), ADR EN1089-3 INERT gas

### Paint:

Type:

Two layers, powder, free from isocyanides and lead

1'st layer:

Zinc dust, thermosetting epoxy

2'nd layer:

Polyester, stove hardened

### Standards & Approvals:

EN1964-2, ISO9809-2

TPED EC1999/36, TPED 2010/35 EU.

### Temperatures:

Work/storage

-50°C to +80°C (increased burst disc pressure may be required)

Table 1

Item	Valve outlet	Capacity				Pressure		Dimensions			Mass
		Water	INERGEN		Fill @ 15°C	Test	Diam.	Wall	Height	Filled	
		Litre	m <sup>3</sup> @ 21°C	Kg	Bar	Bar	mm	mm	mm	Kg	
200600	02-200	W24.32	2	0.4	0.6	200	300	ø102*	2.5	345	4
200601	05-200	W24.32	5	1.1	1.5	200	300	ø140	3.7	465	11
200602	10-200	W24.32	10	2.1	3.0	200	300	ø140	3.7	815	18
200604	20-200	W24.32	20	4.2	6.0	200	300	ø204	4.9	815	38
200609	30-300	M25x1.5	30	8.7	12.4	300	450	ø229	6.2	970	60
200610	50-200	W24.32	50	10.5	14.9	200	300	ø229	4.85	1480	67
200615	50-300	M25x1.5	50	14.6	20.7	300	450	ø229	6.2	1520	85
200616	80-200	W24.32	80	16.8	23.8	200	300	ø267	5.65	1710	110
200624	80-300	M25x1.5	80	23.3	33.1	300	450	ø267	7.3	1780	140
200628	140-200	W24.32	140	29.4	41.7	200	450	ø360	10.2	1745	245
200642	140-300	M25x1.5	140	40.8	58.0	300	450	ø360	10.2	1745	260

The stated wall thickness is the minimum allowable and may vary from different manufacturers.

\*The 2-200 cylinder has spherical bottom.

## Marking

The colors of the cylinder and shoulder are part of the cylinder marking and should only be changed under observation of the local regulations such as ADR, IMDG etc.

## Stampings

Cylinder shoulder stamping (see drawing as *example*, generally the shoulder is divided in three sections)

### Fire Eater + serial number

This serial number is used for tracking at Fire Eater and should be used for any questions raised on the cylinder.

Cylinder valve thread (25E), logo of manufacturer, manufacturer's serial number, test methods.

Wall thickness, mass of empty cylinder without valve & paint. Water volume of cylinder, working pressure (300), hydraulic test pressure (450).

Standard for the construction, country of origin, Pi for TPED compliance, 4 digit Notified Body number for the construction approval.

Date of manufacturing/testing (2014/02), year for next test/inspection (23)

Additional approvals or local authority approval markings if required.

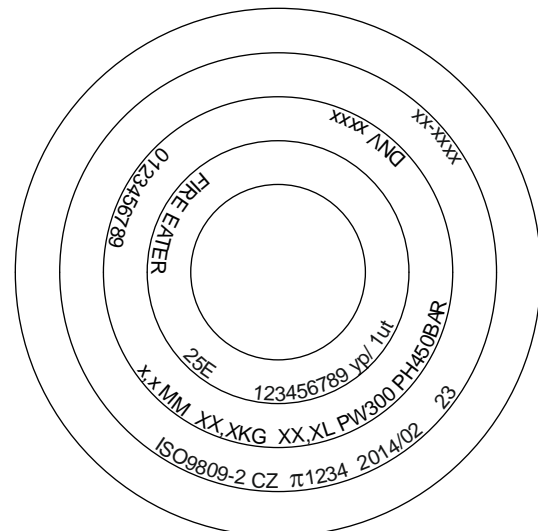
## Label

The cylinder collar is provided with a barcode label with the serial number of the cylinder.

The cylinder shoulder is provided with a filling label (banana label) with the ADR diamond positioned in the direction of the valve outlet, Information: INERGEN, IG541, UN1956 Compressed gas N.O.S (Nitrogen, Argon)

On the cylindrical part a label with respectively "200 bar" (yellow or black) or "300 bar" (green or black) is fitted to identify the system.

Additional labels may be fitted depending on variant and approval status.



## Installation

INERGEN cylinders may be located inside or outside the protected space. When cylinders are placed inside the protected area, a remote source of activation must be placed outside the protected space.

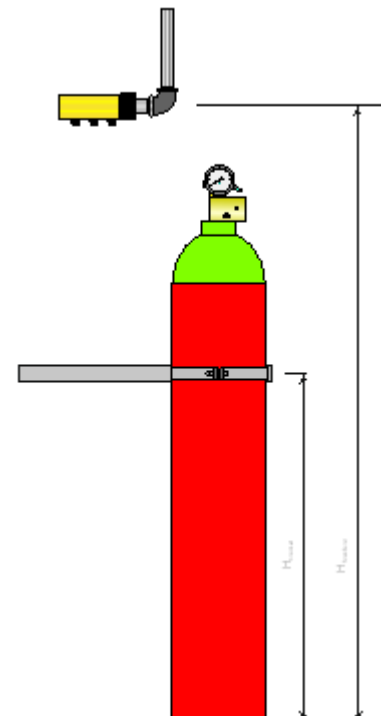
The cylinders should be installed so that they can be easily removed after use for recharging.

Cylinders should be installed indoors. If located outdoors, cylinders must be protected using appropriate weather protection. Do not install the cylinders where they are exposed to direct sunlight.

Cylinders may be installed horizontally or vertically. They should not be installed with the valve pointing downward as the valve could be blocked in case of dirt inside the cylinders.

Both steel brackets and wooden brackets are available. For land-based systems minimum one bracket for each cylinder is required.

For marine and offshore installations where vibrations and/or earthquakes may occur, or when discharge nozzles are fitted directly to the cylinder, minimum two cylinder brackets per cylinder are required.



### CAUTION

The valve cap is not to be used as a lifting device. Use a crate or trolley for lifting the cylinder.

Do not remove the valve cap before the cylinder has been securely fastened. Use the diamond to point the cylinder outlet in the right direction.

Do not leave the cylinder unattended freely standing as it may fall over. Lay down the cylinder or use a chain to prevent it from falling.

### Recommended bracket and manifold heights

**Table 2**

	Height bracket	Height manifold
30 litres	700	1400
50 litres	1100*	1850
80 litres	1400*	2100
140 litres	1400*	2100

\*These bracket heights will clear cylinder labeling

If two brackets are used, the lower should be placed approx. 200mm from the cylinder foot.

## Maintenance

The cylinders should be kept clean and dry. Water and ordinary detergent are used for cleaning cylinders. High pressure cleaner may be used if heavily soiled. Steam cleaners should not be used due to the elevated temperatures.

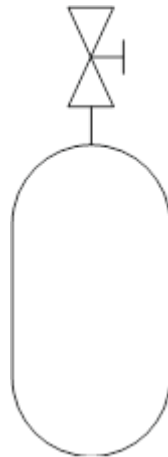
## Routine testing

Cylinders are subject to regulation by local authorities' rules, and the test intervals are as required by local law.

The cylinders are designed for a period retest interval of 10 years per ADR regulation. If the cylinder carries the original filling by Fire Eater and original seals with date stamps are intact, extended retest period for up to 15 years may be acceptable for local authorities.

## PID Symbol

Most cylinder drawings are available in the file formats: .sat, .stp, .dwf.



## Replaceable parts

The INERGEN cylinder may be refilled by Fire Eater or an authorized filling station. Description of special procedures for the filling is available.

If the hand wheel valve is removed from the cylinder (e.g. at time of testing etc.) it is to be discarded and replaced with a new hand wheel valve. If a used hand wheel valve is installed, there is a great risk of leakage or damage to the valve, which may over time lead to stress corrosion in the valve.

## Standards & approvals

TPED 2010/35/EC, ADR/RID

EN1964-1/2, ISO 9809-1/2

TUV, DNV, GOST-R, CCoE, OSHA