

Fire safety with GENIE® gas cylinder.

How to act in case of fire.

High Density Polyethylene (HDPE) plastic used in GENIE®'s jacket is a combustible material, and when exposed to fire, the material may melt. It burns by forming flaming drops. Incomplete thermal decomposition or burning may release hazardous products and/or flammable vapours, such as ethylene, ethane, carbon monoxide, or propane. Combustion of gases may contain phosphorous pentoxide, phosphoric acid and hydrogen bromide.

Fire-fighters should wear self-contained breathing apparatus, when putting out a fire with GENIE® cylinders involved. When GENIE®'s themselves are on fire, suitable extinguishing media are water (preferably spray), CO₂, foam or dry chemical. High volume water jets must not be used.

The jacket is designed to keep the GENIE® cylinders upright, so when the jacket melts, exposing the pressure vessel within, the cylinder might topple. Spilled HDPE may create slipping hazard on any hard smooth surface, so all loose HDPE should be swept up immediately and collected into a suitable container and labelled properly, later to be disposed of in compliance with legislation. Today, GENIE® gas cylinders contain pressurized argon, argon/CO₂ mixture or nitrogen.

Meets EN 12245 standard.

GENIE® cylinders are manufactured according to the EN 12245 standard. This European Standard specifies minimum requirements for the materials, design, and construction, prototype testing and routine manufacturing inspections of composite gas cylinders for compressed, liquefied and dissolved gases. To meet this standard, the cylinder needs to pass two tests and GENIE® did.

- I. Fire resistance test: the cylinder has to withstand fire for at least two minutes without bursting.
- II. High velocity impact (bullet) test: the cylinder has to remain in one piece and not produce particles, when impacted and penetrated by a bullet.

The cylinder was tested without the HDPE jacket, as it and other plastic accessories have no relevance in these tests (since they are not part of the pressure vessel).

GENIE® specifications

	Water capacity (litres)	Vessel working pressure (bar)	Diameter (mm)	Height (mm)	Empty weight (kg)
GENIE® 10 L	10	300	320	569	16.2
GENIE® 20 L	20	300	320	662	20.7

If you have any questions about GENIE® gas cylinders and their reactions in a fire, please contact Per Abrahamsson.

Best regards,



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