



NITROGEN CYLINDER CENTRAL SYSTEM

AN EFFECTIVE NITROGEN TOPPING UP SOLUTION ↓

Effective Nitrogen topping up solution can prevent the cargo contamination, fire and explosion in the cargo spaces. The Maritime Protection Nitrogen Cylinder Central system compensates the loss of nitrogen during voyage and ensures a safe positive pressure in the ullage space at all times. The system has sufficient capacity for purging operations when required. It can be an ideal upgrade solution for ships that already have a high capacity combustible inert gas generator, allowing a small padding option with dry & high purity nitrogen.

FEATURES

- PURITY RANGE 95 - 99.996% VOL. N₂
- ENGINEERING AND CLASS APPROVALS ON REQUEST
- CLEAN AND DRY NITROGEN FOR INERTING, PADDING, PURGING AND CARGO CHANGE OPERATIONS. SUITABLE FOR A WIDE RANGE OF CARGO TYPES
- EASY TO INSTALL, OPERATE AND MAINTAIN
- CAN BE INSTALLED IN SAFE OR HAZARDOUS AREA
- NO ELECTRICAL POWER REQUIRED
- MINIMUM SPACE REQUIREMENTS
- LESS MAINTENANCE



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Benefits

- Safe operation when transporting dangerous cargo
- Safe and clean preservation of valuable cargo
- No moving parts
- Our service organisation assists in key areas around the world
- Higher flexibility for cargo/ charter contracts for the vessel

Applications

The system is commonly used on:

- Product tanker
- Oil/ Product tanker
- Product/ Chemical tanker
- Chemical tanker
- Offshore Supply Vessel/ LFL class

In conjunction with vessel's "Padding and Stripping system" it can be used as a nitrogen compensation.

In conjunction with vessel's "Inerting & Purging system", it can be used for inerting cargo tanks, taking into account correct amount of cylinders in the bank and assure of correct inert gas flow.

System description

The Survitec Cylinder Central system is a storage type system with a central cylinder bank and distribution lines equipped with pressure reducing devices. The cylinders are fixed to the bulkhead with specially designed fastening assemblies (racks). These assemblies are easy to install and allow easy access and exchange of empty cylinders. Each cylinder is connected to the manifold via a high pressure hose and a non-return valve. The valve enables isolation, exchange or removal of any cylinder without interfering with the operation of the system. The Survitec Nitrogen Cylinder Central system's standard manifolds are made of stainless steel and brass, with inlets for either two or four cylinders. The manifolds can easily be connected to each other to create a collector pipe for a larger system.

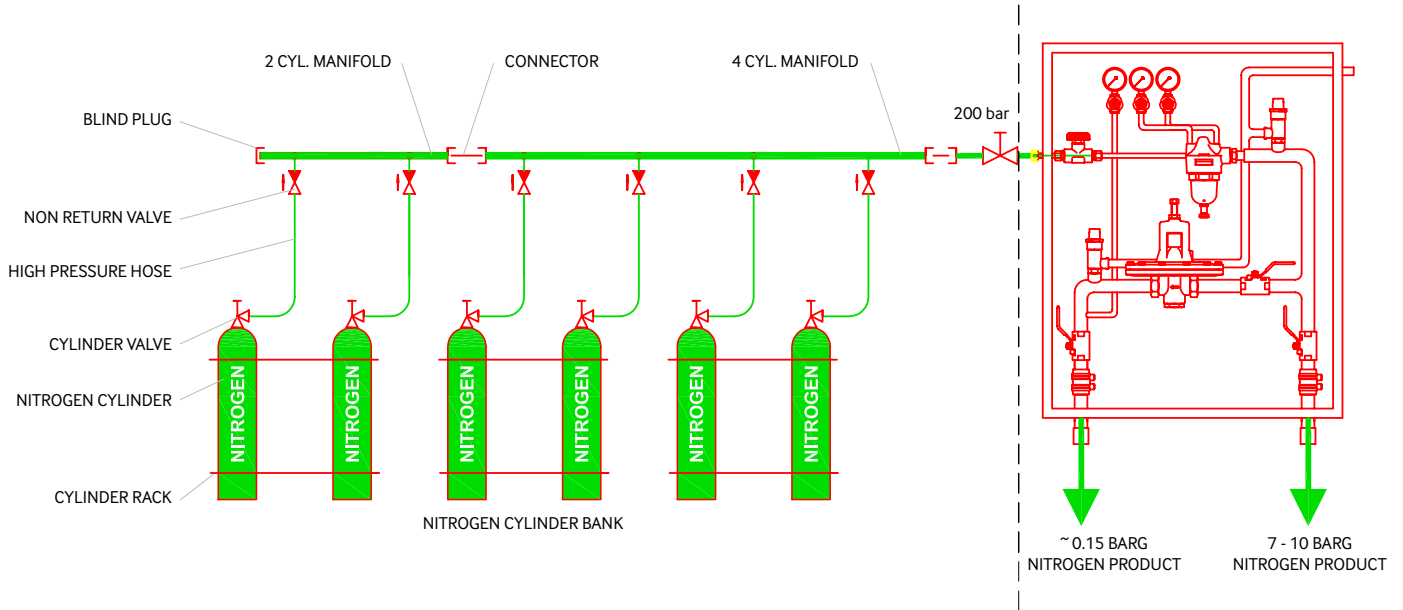
Survitec's standard nitrogen cylinders are of 50L capacity, designed for a filling pressure of 200 bar, which results in an available capacity of 10 Nm³. In order to provide specified pressure, nitrogen gas from cylinders flows through regulators in reduction station. The reduction station has two stages of pressure reduction from 200bar to 7-10 / 0.15bar.

Approvals

The Survitec Nitrogen Cylinder system can satisfy IMO International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code) and International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk (IGF Code), which means will be suitable for all ship applications referring to chemical, offshore supply vessels and LNG Dual Fuel.

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Standard configuration



System arrangement

TECHNICAL DATA	
Manifolds	<ul style="list-style-type: none"> Nominal working pressure 200 bar DN 12
Fasteners	racks for 1 cyl./ 2 cyl. / 4 cyl. and more if necessary
High pressure hoses	<ul style="list-style-type: none"> Normal working pressure 200 bar Test pressure 300 bar ¼" BSP
Non-return valves	¼" BSP
Reduction station	Pressure outlet 7-10 bar/ ~0.15 bar

Cylinders

TECHNICAL DATA					
Cylinder type	N-1030	N-1050	N-5030	N-5045	N-5050
Product No	714 905 232	717 905 602	714 905 208	717 905 600	717 905 601
Purity	99.90%	99.999%	99.90%	99.995%	99.999%
Application	Inerting	Inerting	Inerting	Inerting	Inerting
Colour	Green	Green/Orange	Green	Green/White	Green/White
Water capacity [L]	10	10	50	50	50
Gas capacity [Kg]	2.3	2.3	11.5	11.5	11.5
Gas capacity [Nm ³]	2	2	10.2	10.2	10.2
Filling pressure [Bar]	200	200	200	200	200
Empty weight [Kg] appr.	18	18	81	81	81
Gross weight [Kg] appr.	20	20	92	92	92
Overall length [mm] appr.	1000	1000	1690	1690	1690
Outside diameter [mm]	140	140	230	230	230
Valve outlet connection	W24,32mm x 1/14" for all Nitrogen purities				
Valve type	Forged brass with bursting disc, inlet filter and positive pressure cartridge.				

SETTING THE GLOBAL STANDARD FOR OVER 160 YEARS

Protecting over 1 million lives across the globe every day, our critical safety and survival solutions help marine, aviation, offshore, and defence personnel get home safely if the worst happens.

Taking responsibility for the entire product lifecycle – from precision engineering and R&D, to manufacturing and servicing – we never compromise when it comes to safety and survival. Committed to protecting lives, we know the small things matter.



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