Span Gases

BACKGROUND

As regulatory bodies continue to enact additional monitoring, reporting, and verification requirements ships will continue to be equipped with evermore sophisticated instruments to monitor onboard atmospheres. These instruments are critical for measuring dangerous levels of oxygen, flammable gas, toxic gas, exhaust emissions, and other atmospheres required to ensure compliance. In order to make certain these instruments are working as designed, calibration gases are essential as part of onboard verification. Certified calibration gases, or span gases from Drew Marine used for calibrating these instruments ensures that they accurately measure an atmospheric sample.

Once the gas content is certified by laboratory analysis, the gases stay mixed for long periods of time (eg: oxygen/ nitrogen mixtures are stable for a three to five year period). Explosion limit gas mixtures sometimes undergo slow oxidation, but typically stay within tolerance for at least two years.

The volume of gas per 10-litercylinder is approximately 1.38 cubic meters (49 cubic feet). Certification of gas mixtures, which is mandatory for onboard use, is provided by Drew Marine. Like welding gases, cylinders are sold separately, and can be even-exchanged.

In order to maintain strict control over the filling and refilling process, Drew Marine limits the ports where stock of these gases is held. The initial delivery ports are Houston/ New Orleans, Rotterdam/Antwerp, Sharjah and Singapore. Quality control for this type of product is considerable to ensure the consistency and the reliability of the results for our customers.

Specific gas requirements will be readily available and in stock or can be brought in with three to five days' notice. Storage of a spare cylinder can also be considered as another option. Gas regulators are readily available in delivery ports, and are an integral part in supporting of the purity level requirement and the calibration process.

Contact your Drew Marine representative for additional products and support services.

Note: Analytical tolerances and delivery of span gases: Certified span gases are supplied with a certificate of composition. For example, an order of 2% oxygen in nitrogen results in a mixture with tolerance that is ± 5% of 2% oxygen. Since a tolerance of 5% of 2% oxygen is 0.10% oxygen, the acceptable oxygen content will be ≥ ± 0.10%, or 1.90% to 2.10%.

RESIDUAL PRESSURE VALVE

In conjunction with our dedicated span gas cylinders, Drew Marine also incorporates the use of residual pressure valves. Drew Marine has led the industry with the introduction of residual pressure valves (RPV) installed on Drew Marine cylinders, either when first manufactured or when a valve on a cylinder is being replaced. The RPV will retain a small amount of pressure in the cylinder, even if the user does not close the valve once the cylinder has been depleted. The primary purpose of the RPV is to prevent the entry of water or water vapor into the cylinder.

The result is the elimination of internal cylinder corrosion and contamination of the gas subsequently charged into the cylinder during refilling. The end result is a consistent, high purity level of gas product that can be maintained over the life of the cylinder, as there is very little internal cylinder exposure to the atmosphere. No special tools or adapters are required for the connection of standard pressure regulation equipment to cylinders equipped with RPVs. All Drew Marine top valves are chrome-plated to reduce corrosion caused by the harsh marine environment.

Contact your Drew Marine representative for more information

Continued on Page 2

PCN	Mix Description	Cyl Size
0799215	1% O_2 in N_2	10 liter
0799223	2% O_2 in N_2	10 liter
0799249	4% O_2 in N_2	10 liter
0799256	8% O_2 in N_2	10 liter
0799165	2.5% CH_4 50% LEL in Air	10 liter
0799181	CH_4 99.995%	10 liter
0799199	CH_4 80% LEL in N_2	10 liter
0799306	CH_4 80% Vol in N_2	10 liter
0799371	CH_4 60% LEL in Air	10 liter
0799207	N_2 99.999%	10 liter
0799231	1% PROPANE in N_2	10 liter
0799355	C_3H_8 35% LEL in Air	10 liter
0799363	C_3H_8 35% LEL in N_2	10 liter
9079014	Regulator with flow meter	N/A

SPAN GAS FOR SCRUBBER ANALYZER

Monitoring of exhaust gas emission is crucial for compliance with MARPOL Annex VI regulations on sulphur emissions. For the maritime industry Continuous Emission Monitoring systems (CEMS) are a growing importance in line with the IMO guidelines on Exhaust Gas Cleaning Systems (EGCS). In order to make certain there instruments are working as designed, calibration gases are essential as part of on board verification. Drew Marine is offering a selected range of span gases in 10L Aluminum refillable cylinder or in disposable aluminum cylinder. These span gases are available in Singapore, Houston, Rotterdam and Fujairah.

FEATURES

- Available in 10L Aluminum or Disposable Cylinder
- Certificate are pasted onto the cylinder
- SDS are available in soft copy upon request

PCN	Description	Cyl Size	Contents (Liters)	Cyl Dimensions (mm)	Pressure (Bar)
0799389	160 PPM SO_2, 8 % CO_2 BAL N_2	10L	1500	700x175	150
0799397	40 PPM SO_2, 8% CO_2 BAL N_2	10L	1500	700 X 175	150
0545030	Single stage S/S regulator	N/A	1500	N/A	N/A

PCN	Description	Contents (Liters)	Dimensions (mm)	Dimension Aluminum Cylinder	Pressure (Bar)
0799314	280 PPM SO_2, 8% CO_2 BAL N_2	116	381 X 89		70
0799322	40 PPM SO_2, 8% CO_2 BAL N_2	116	381 X 89		70
0799330	8%CO_2 BAL N_2	116	381 X 89		70
9002080	MODEL 715 REGULATOR (0.5LPM)	N/A	N/A		N/A

Contact your Drew Marine representative for more information

Continued on Page 3

Drew Marine®

400 Captain Neville Drive
Waterbury, CT 06705 USA
1-973-526-5700
Drew-Marine.com