

| SPECIFICATIONS | | | | | | |
|------------------|---|--------|-------------------------|-------------------------|-------------------------|--------------------------------------|
| | Diameter | Length | Density | Sulfur Loading Capacity | | |
| | (mm) | (mm) | (lbs./ft ³) | (wt%) | (lbs Sulfur / lb of cg) | (lbs Sulfur / ft ³ of cg) |
| cg4 | 4.5 | 5-15 | 51.27 | >25% | 0.25 | 12.8 |
| cg5 | 2.5 | 3-12 | 52.55 | >25% | 0.25 | 13.1 |
| Packaging | cg4 and cg5 are shipped in 2000 pound Super Sacks. (cg4 at 39ft ³ and cg5 at 38ft ³) | | | | | |



ACP Technologies Inc.

ACP Technologies Inc., an international chemical technology developer, has been providing Sulfur Adsorbents to the natural gas industry in Canada, the US, and overseas for over 15 years. ACP continues development of its desulfurization technologies with several potential enhancements undergoing field testing.

ACP, on behalf of its distributor, Univar, carries inventory of its **cg4** and **cg5** desulfurization material in Canada and the US.

In addition to this technology, ACP has developed technologies for the cost-effective removal of VOCs, for the direct oxidation production of Hydrogen Peroxide, and for production of Carboxylic Acids.

www.acp-cg.com



Rev. 06: 2/2012

cg4 and **cg5** are distributed exclusively in North America by Univar Inc.

2600 So. Garfield Ave. Commerce, CA 90040 • (323) 837-7130 univarus.com



CLEAN-GAS

cg₄[®] **cg₅**[®]

DRY H₂S REMOVAL SYSTEM

www.acp-cg.com



THE CLEAN-GAS FAMILY OF PRODUCTS

ACP Technologies provides a superior dry pelletized adsorbent material for the safe and efficient removal of Hydrogen Sulfide (H₂S) from gas streams. **cg4** is a large pellet that is typically specified when pressure drop is a guiding parameter. In all other situations, we recommend our smaller pellet - **cg5**. Both products are constituted of the same material and work in exactly the same way.

APPLICATIONS FOR cg4 AND cg5

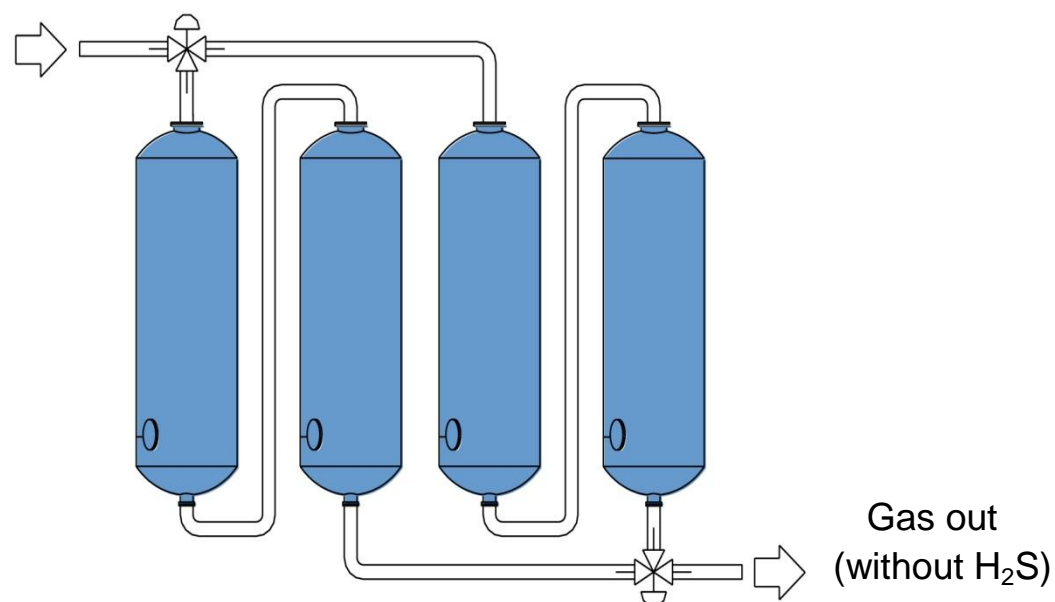
cg4 and **cg5** are specifically formulated for applications where Hydrogen Sulfide (H₂S) concentrations range from very low to 2,500 ppm and where sulfur removal of up to 500 pounds per day is desired. Typical uses include:

- Primary Gas Sweetening and Sales
- Gas Storage
- Fuel Gas for Compressor Stations
- Gas Plants
- Instrument and Control Gas
- Vent Gas

LEAD / LAG DESIGN FOR cg4 AND cg5

Gas in
(with H₂S)

All vessels are filled with cg material. After the lead vessels are spent, lag vessels become lead.



Gas out
(without H₂S)

cg₄ and **cg₅** are registered trademarks

FEATURES & BENEFITS OF cg4 AND cg5

- **Removes H₂S** and most mercaptans from gas streams.
- **High capacity** provides longer runs (often 2 to 2.5 times as long as competing products).
- **Longer run times** mean fewer change-outs and less waste product to handle; hence, lower run costs.
- **Does not agglomerate** in the vessel; spent granules flow easily out of the vessel, and vessels are easy to clean.
- **Forgiving**; can tolerate water and O₂ gas in the flow stream. Product maintains its integrity over the length of run.
- **Manufactured product**; hence, predictable performance.
- **Environmentally Safe**. Non-toxic, odor-free, and no leachable heavy metals. Non-pyrophoric under prescribed handling conditions. Can be disposed of inexpensively (even land farmed in some jurisdictions).
- **Slightly alkaline** product reduces potential corrosion of carbon steel piping and vessels.

HOW cg4 AND cg5 WORK

cg4 and **cg5** are true adsorbents with high surface capacity, able to chemically bond with the H₂S in the gas stream. The pellets are not coated and contain adsorptive capacity to the core of the pellet.

As the sorbent works, it reacts with the gas and turns into iron sulfide



The ideal process conditions for the reaction are:

Inlet stream temperatures from 32°F to 140°F

Ambient temperatures from -35°F to 140°F

Relative humidity 85-100%

Optimum Vessel Sizing (Height to Diameter) 3:1 to 6:1

Gas flow velocity, gas composition, H₂S concentration, temperature, and pressure all affect the length of the working zone.