

# GAS BOOSTERS

*Energy-saving gas transfer and pressurization solutions for industrial gases*

# Haskel®

## BENEFITS OF USING HASKEL GAS BOOSTERS

Most industrial gases (nitrogen, oxygen, helium, hydrogen, argon, etc.) are commonly delivered under pressure at 2,000 — 2,600 psi in steel cylinders. If the gas is to be used at low pressure, like in welding, the pressurized supply is easily piped and controlled to the point of use with simple valving. However, if end-use requires the gas under pressure, the supply cylinder pressure cannot be utilized after it has fallen to the level of the end-use pressure. Therefore, the gas remaining will be wasted unless it is boosted.

If the application requires a pressure greater than common supply cylinder pressures, a booster can often be justified not only because of utilization of the gas, but also because it will eliminate the need to purchase the gas in higher volumes, a more costly option in 3,600 or 6,000 psi supply cylinders.

Large industrial gas users can further reduce gas costs by purchasing and storing their gas as a liquid in low pressure insulated containers (dewars). The gas will vaporize when exposed to ambient temperature. Usually a simple finned assembly developing 50 to 150 psi is used with a booster, which provides the additional pressure needed.

## FOR THOSE WHO USE GAS CYLINDERS

Gas Boosters designed to save time and money if you:

- Buy gas in high pressure cylinders (e.g., O<sub>2</sub>, N<sub>2</sub>, He, breathing air, N<sub>2</sub>O, CO<sub>2</sub>, CO, H<sub>2</sub>, CH<sub>4</sub>, C<sub>2</sub>H<sub>4</sub>, D<sub>2</sub>, Ne, Ar, SF<sub>6</sub>, or natural gas)
- Send cylinders back to the supplier still containing valuable gas
- Develop a process requiring a continuous flow that can only be obtained by cascading multiple cylinders of gas

Haskel can supply a gas booster that not only will allow you to use 90 to 95% of the gas in your



When high flow rates at high pressures are needed, the booster can charge a receiver to an even higher pressure level, storing a volume of gas available for rapid release at a constant pressure through a pressure reducing valve.

Aerosol-type gases (propane, CO<sub>2</sub>, nitrous oxide, halons, SF<sub>6</sub>, etc.) can be boosted as a liquid or gas in controlled applications. Consult your Haskel Gas Booster distributor for specific recommendations.

purchased cylinders, but will also maintain your process pressure when cylinder pressure drops to as low as 30 psig. (Minimum level is usually selected in each application based on specific cost and availability of the purchased gas.) If your process requires large storage volume to supply flow, and the required pressure is greater than that available from liquefied gas containers with vaporizers, Haskel can supply a gas booster to raise gas pressure from the vaporizer to process pressure in a smooth, continuous flow at pressures between 2,000 to 15,000 psi. Gas Boosters for pressures to 36,000 are available as well.