aerospace
climate control
electromechanical
filtration
fluid & gas handling
hydraulics
pneumatics
process control
sealing & shielding

Gas Blending System

Innovative, economical mixing and dilution system generates precise gas blends for analytical applications.

Parker

ENGINEERING YOUR SUCCESS.

INNOVATIVE GAS BLENDING SYSTEM SAVES 20%* OVER THE PURCHASE OF PRE-BLENDED GAS

Only from Parker Instrumentation Products Division (IPD): An innovative, multi-function system that allows users to blend – or dilute – as many as five component gases to produce customized gas mixtures, saving significantly over the cost of custom pre-blended gas.

GAS BLENDING
Applications:

Analytical Standards for Instrumentation

- Gas chromatography
- Fourier Transform Infrared (FTIR)
- Mass Spectroscopy (MS)
- Process instrumentation (GC, O_2, H_2, CO_2, moisture, CEMS, etc.)
- Automotive (welding and laser processes)

Blending for Process Applications

Used to create customized gaseous mixtures for analytical applications, Parker's Gas Blending System draws from five separate pure gas sources to generate a controlled blend across a broad concentration range.

Automatic or manual dynamic mixing allows the creation of multiple gas concentrations in real time, minimizing inventory of multi-component custom gas cylinders. The use of modular sampling components provides a sophisticated, yet standardized mixing platform for specialty blend and inert gases. High precision gas blending provides an efficient and cost-effective approach for calibration and validation of analytical systems. One Parker blending system can replace expensive gas standards.

*Actual costs and potential savings will vary with location, gases used, and gas supplier.

Parker's Gas Blending System consists of a single chassis supporting up to five (5) gas streams controlled either manually (Parker IPD Volumetric Flow Controllers) or electronically (Mass Flow Controllers). The system also includes a check valve to prevent back flow, a pressure gauge, and pressure regulators to provide pressure stability.

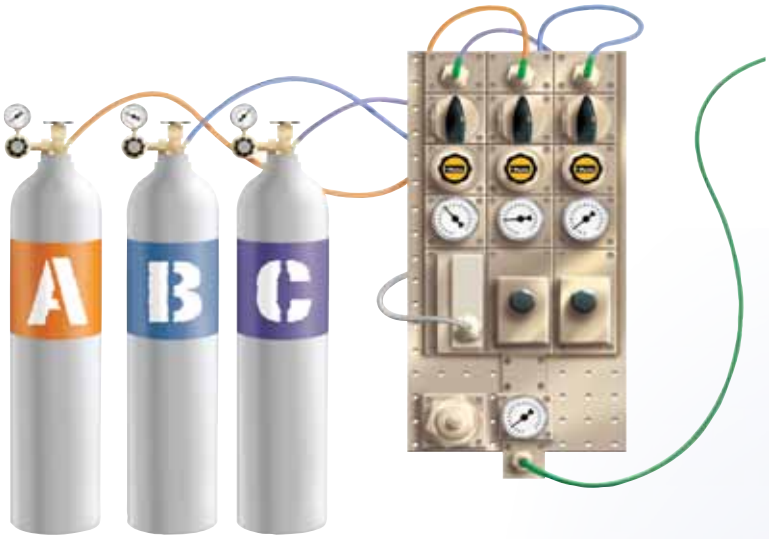
FEATURES	BENEFITS
• Multiple stream integration	• Ability to provide a range of gas concentrations
• Volumetric and mass flow controller options	• Variable flow control
• Compact size	• Fits in small areas when space is an issue
• Manual or remote operation	• Flexibility in operational architecture
• Interfacing with analytical equipment simplified	• Analytical hardware may be mounted to the blending system or located remotely

Dilution, Calibration in Laboratories

Parker IPD's Gas Blending System can also be used for gas dilution, varying the concentration of both pure gases and pre-blended gases. A broad range of dilution ratios (1:1 – 10,000:1 standard) allows calibration of most analyzer ranges from one cylinder of each gas type, minimizing gas costs, transport costs, and handling labor.

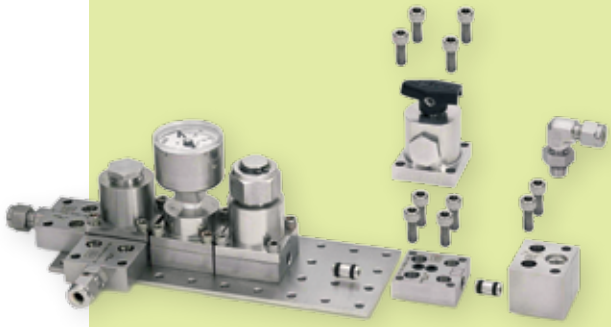
From higher percent to parts per billion (ppb) levels, our Gas Blending System can achieve a variable range of concentrations to exact gas standards for quick multi-point, multi-scale automatic calibrations.

BLEND OR DILUTE UP TO 5 GASES TO CREATE A CUSTOMIZED MIXTURE



SPECIFICATIONS

Inlet pressure: 500 psig standard; higher upon request
Maximum outlet flow rate: 20 slpm
Operational temperature: 0º-80ºC (32º-176ºF)
Operational modes: Manual or electronic
Communication protocol: Analog, Device Net, RS-485
Maximum number of gases: 5



TOTAL MODULARITY

Parker's Gas Blending System is built on a Parker IntraFlow™ platform, an ISA/ANSI SP76.00.02 compliant modular sample conditioning solution that minimizes space requirements and lowers maintenance costs by allowing standardization of components. Consequently, additional gas circuits can be added later, reducing investment and protecting against obsolescence. Micro-analytical measurement sensors can also be added to enable remote monitoring through Parker Pilot Pro™, a communications interface designed to link plant process control operations and analyzer maintenance networks to facilitate critical process control decision-making.

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