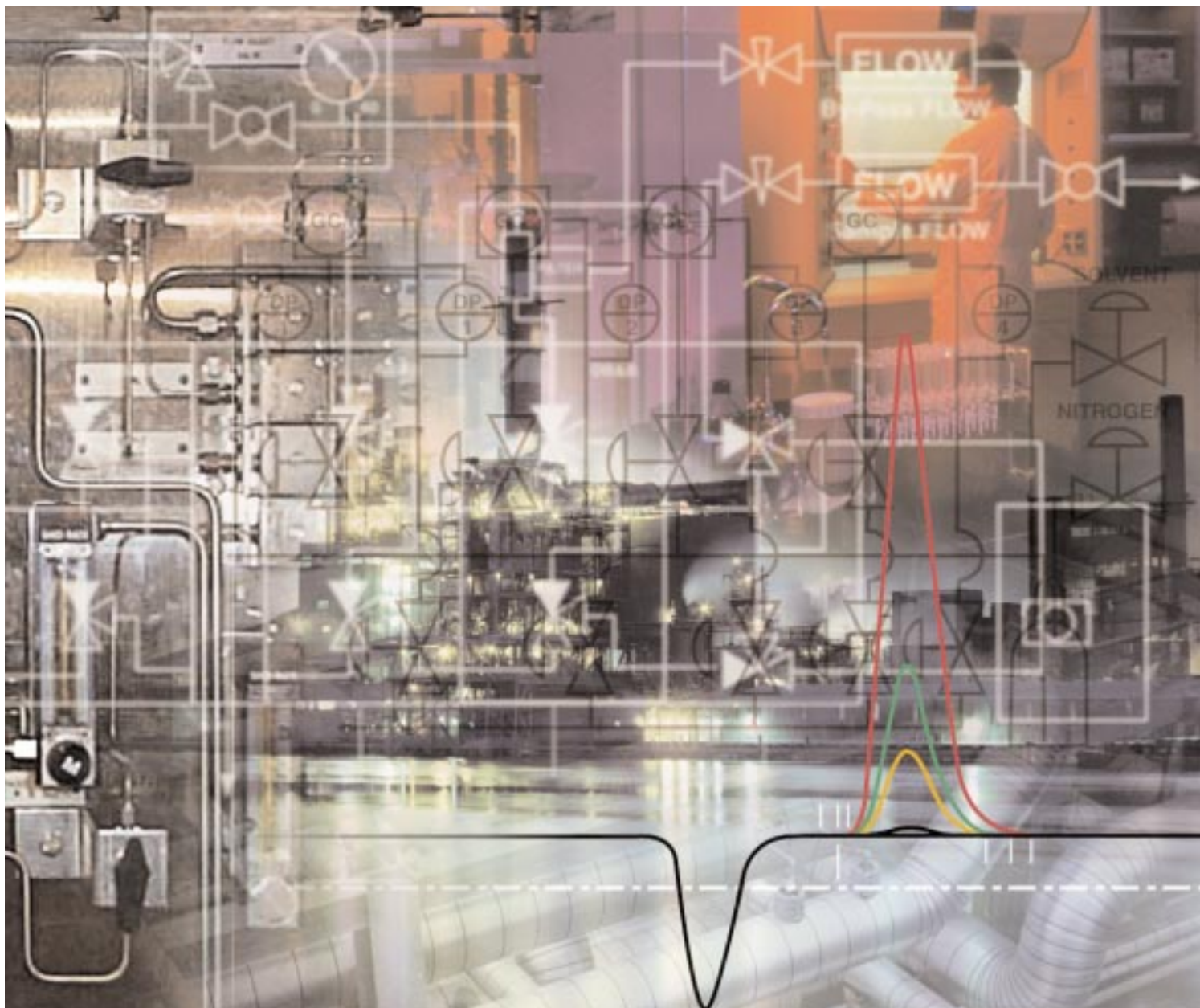




System Solutions For **Process Analysis**



*Your Resource for Process Analysis
Components, Systems and Solutions*

Process Analysis: A Focus

Parker means components and systems that work

To accurately monitor the quality of your product, trends in your process or compliance with environmental regulations, your analyzer needs a dependable sample system. With more than 2,700 product lines, Parker Hannifin is the only manufacturer that provides such an extensive range of products for every step of lab, online process and emission analysis.

Solving sample system problems is our goal. Our design engineers continuously seek customer input, resulting in many user-friendly product features. We manufacture the

industry's broadest product offering in 316 stainless steel (available with Silcosteel® for sulfur analysis) and many special alloys, PFA/PTFE and other polymers. Inside your analyzer you are likely to find our highly engineered miniature solenoid valve systems controlling gas flow- we've even designed the Smallest Valve on Planet Earth™: The X-Valve™.

Through work with the ISA Analysis Division, IFPAC, the PAA and other forums, we continuously improve our product offering to provide you with reliable sample system solutions.



Laboratory Analysis

Parker provides high-quality, high-purity products and systems that increase the accuracy of your analysis and decrease unnecessary downtime, both critical aspects of your lab's integrity.

Parker Balston® zero air, hydrogen, nitrogen, TOC, FT-IR and pure air generators eliminate the handling and cost of compressed gas cylinders. Parker Veriflo® cylinder gas changeover systems provide continuous gas flow for your specialty gas needs.

Sample extraction from sample systems is easily accomplished with our non-spill couplers and braided metal hose assemblies plumbed with our 3-way manifold valves. Parker's DOT-rated sample cylinders, complete with shutoff valves and rupture discs, fulfill your sample transport needs.

On-Line Process Analysis

Sample extraction, transport, conditioning, stream switching, analysis and disposal- all the elements of your system are available from Parker.

Our high-cycle life valves and regulators precisely control flow with minimal dead volume. Parker filters are available for a wide range of pressures, sampling times and media. Parker was the first to introduce the Suparcase™ ferrule hardening process to compression fittings that solved the problem of environment induced ferrule corrosion failure. The Parker R-Max™ stream switching system has provided system designers with flow path options limited only by the imagination.

Parker engineers have actively participated in the New Sample System/Sensor (NeSSI) project since its inception and manufacture the broadest range of ISA surface mount compliant components available from a single source.

Environmental Analysis

Parker can assist you in maintaining your facility's compliance with increasingly demanding emissions regulations by providing you with complete CEMS sampling systems. From the heat trace tubing running down the stack to your CEMS, Parker will help you continuously monitor your emissions with reliable performance.

Products for Any Application

Parker makes more than 500,000 components to meet your system needs

Group	Product(s)	Sample Obtainment & Transport	Sample Conditioning System	Stream Switching	Laboratory	Specialty Gasses	Emission Monitoring	Instrument Air Systems
Automation								
	Filters, Regulators, Lubricators							•
	Pilot Solenoid Valves		•	•		•	•	•
Climate & Industrial Controls								
	Solenoid Valves	•	•	•	•	•	•	•
Hydraulics								
	Accumulators		•				•	
Instrumentation								
	ChangeOver System				•	•		
	Compressed Gas Cylinder Fittings (CGA, DIN, JIS)					•		
	Check Valves	•	•		•	•	•	
	Dual Heat Transfer Coils		•		•			
	Flow Meters		•		•		•	
	Gauge Protectors		•		•		•	
	High Integrity & High Purity Fittings & Valves		•	•	•	•		
	Instrumentation Fittings (Stainless Steel & PFA/PTFE)	•	•	•	•	•	•	•
	Instrumentation Valves (Stainless Steel & PFA/PTFE)	•	•	•	•	•	•	•
	Miniature Solenoid Valves		•	•	•		•	•
	Regulators (Stainless Steel & PFA/PTFE)	•	•		•	•	•	•
	Sample Cylinders & Accessories		•		•			
	Stream Switching Valves		•	•			•	
	Tee Filters	•	•		•	•	•	
	PFA/PTFE Tubing	•	•	•	•	•	•	•
	Tube Fabrication Tools	•	•	•	•	•	•	•
	Vent Recovery						•	
Filtration								
	ASIC 'Performer' Transducers & Transmitters		•					
	Gas & Liquid Sample Filters	•	•	•	•	•	•	•
	Gas Generators				•			
	Guard Filters	•	•	•	•	•	•	•
	Compressed Air Dryers				•			•
	Coalescing Filters	•	•	•	•	•	•	•
	Filters (Stainless Steel, PFA/PTFE & Other Polymers)	•	•	•	•	•	•	•
Fluid Connectors								
	Pneumatic Fittings & Valves			•	•		•	•
	Heat Trace Tube Bundles & Installation Accessories	•	•		•		•	
	Insulated Tubing	•					•	
	Flexible Metal Hose					•		
	Quick Couplers		•		•			
	Metal & Plastic Tubing Bundles							•
Seal Group								
	O-Rings	•	•	•	•	•	•	•



Gas and Liquid Sample Filters
Balston® sample and membrane filters are designed specifically to protect process analyzers and monitoring equipment from sample impurities.

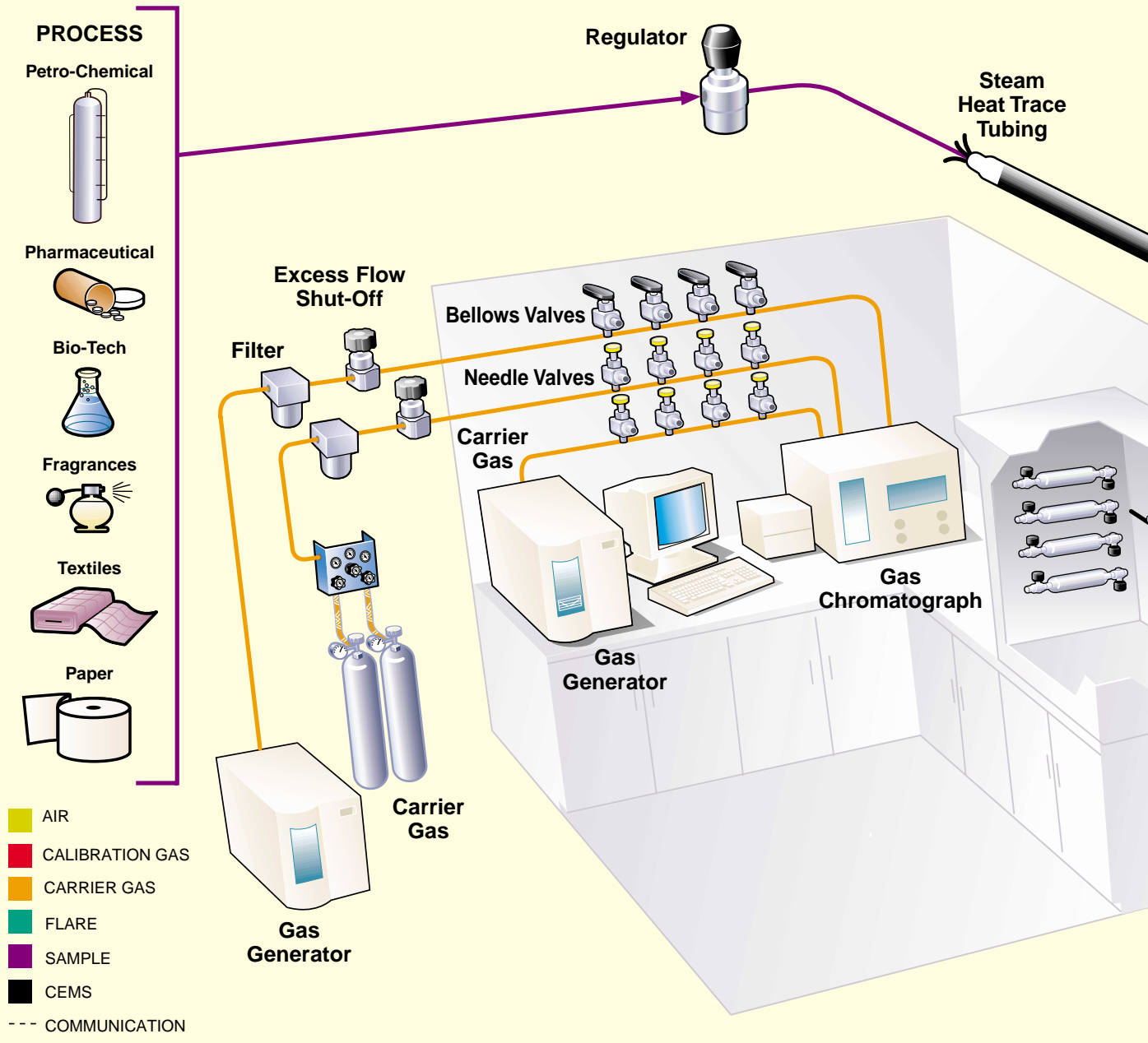


Regulators
The AVR, IR4000, 5000 and 6000 regulator families are engineered specifically for process analytic systems. Key standard features are reduced internal volume, no internal threads and a Hastelloy C-22® diaphragm.



Heat Trace/Tube Bundling
Our pre-insulated, steam or electric traced tubing bundles transport the sample from extraction to the sample conditioning system. A full range of controllers and installation accessories are also available.

short trim



Excess Flow Valve
Compressed carrier gases such as hydrogen can pose a serious safety hazard if a system component fails. Our Excess Flow Valve has an automatic diaphragm shutoff when flowrates exceed a specified setting.



Gas and Zero Air Generators
Balston® gas and zero air generators increase accuracy of analysis, and reduce service and maintenance costs. Eliminating compressed gas cylinders reduces lab floor space and labor requirements.



High Integrity Fittings and Valves
Light molecular gasses used as carrier gas are expensive. High integrity gas system components with face seal fittings and packless diaphragm or bellows sealed valves provide the lowest leak rates available.



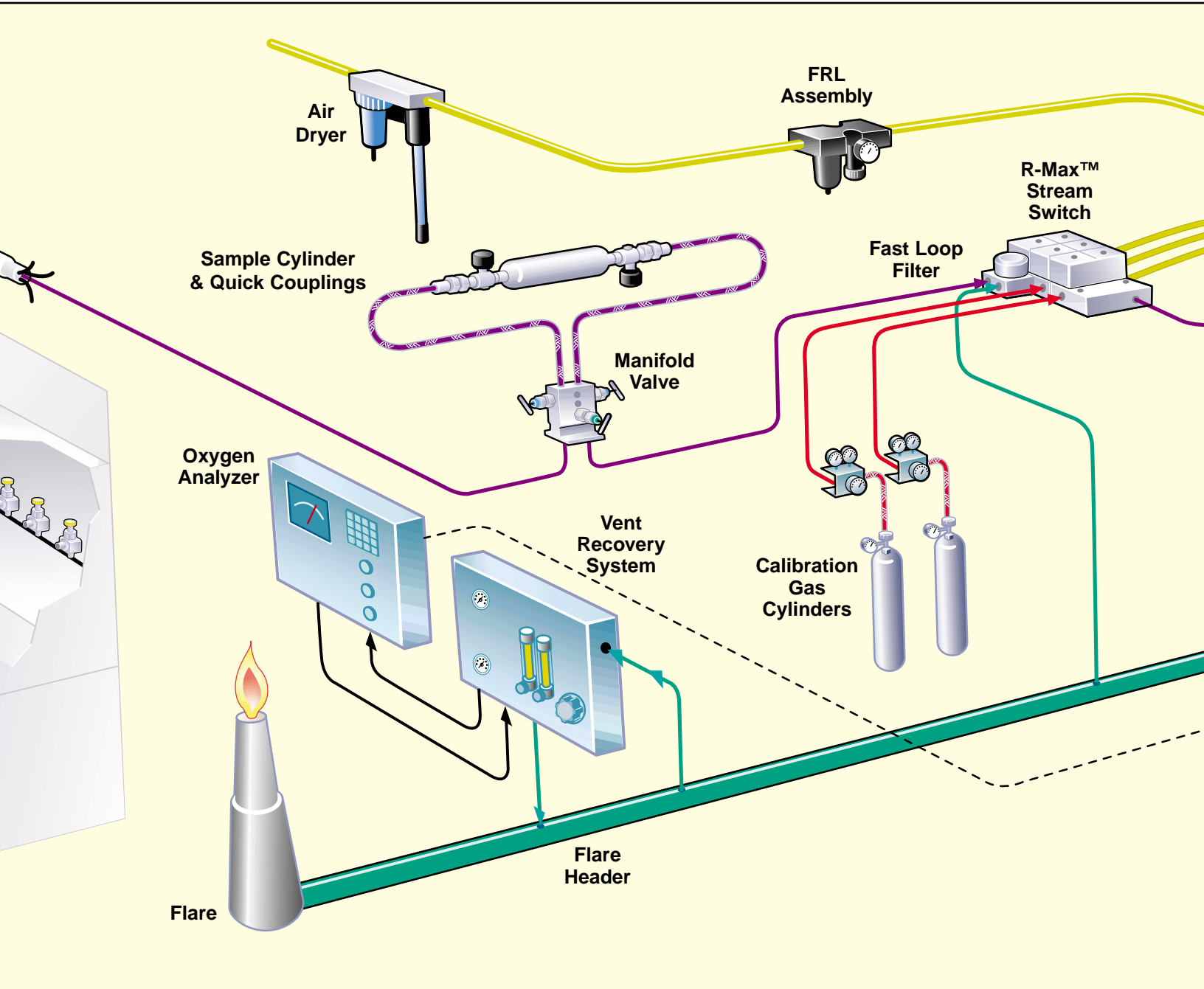
Instrumentation Fittings
Single and double ferrule compression fittings are available in stainless steel and a broad range of other alloys. Our Supercase™ ferrules are hardened to grip the tubing with excellent resistance to corrosion.



ASIC Performer Transducers and Transmitters
Using the latest in thin film sensor technology, the Performer uses simple to install micro-electrical connection and offers high stability with very low drift throughout six pressure ranges.



Filters, Regulators, Lubricators
Filters, Regulators, and Lubricators prepare compressed air for pilot valves and other pneumatic devices. Parker air preparation devices are available in a broad range of pressure ranges and materials.



O-Rings
Parker's engineered seals play an important role in the safe and reliable operation of equipment in all industries around the globe. Perfluorinated elastomers provide the broadest range of chemical resistance with temperature ratings up to 600° F (315° C). Ask about our Material Selector CD.



Analyzer Pressure Regulation and Vent Recovery System
This system is engineered to meet the needs of continuous gas analyzers. The combination of pressure and flow control provides analyzer cell stability of less than 0.1psi (.007 bar) regardless of up or downstream effects.



Quick Couplers
Our non-spill FS series and general-purpose instrumentation quick couplings are available with a variety of elastomer seals for proper fluid compatibility.



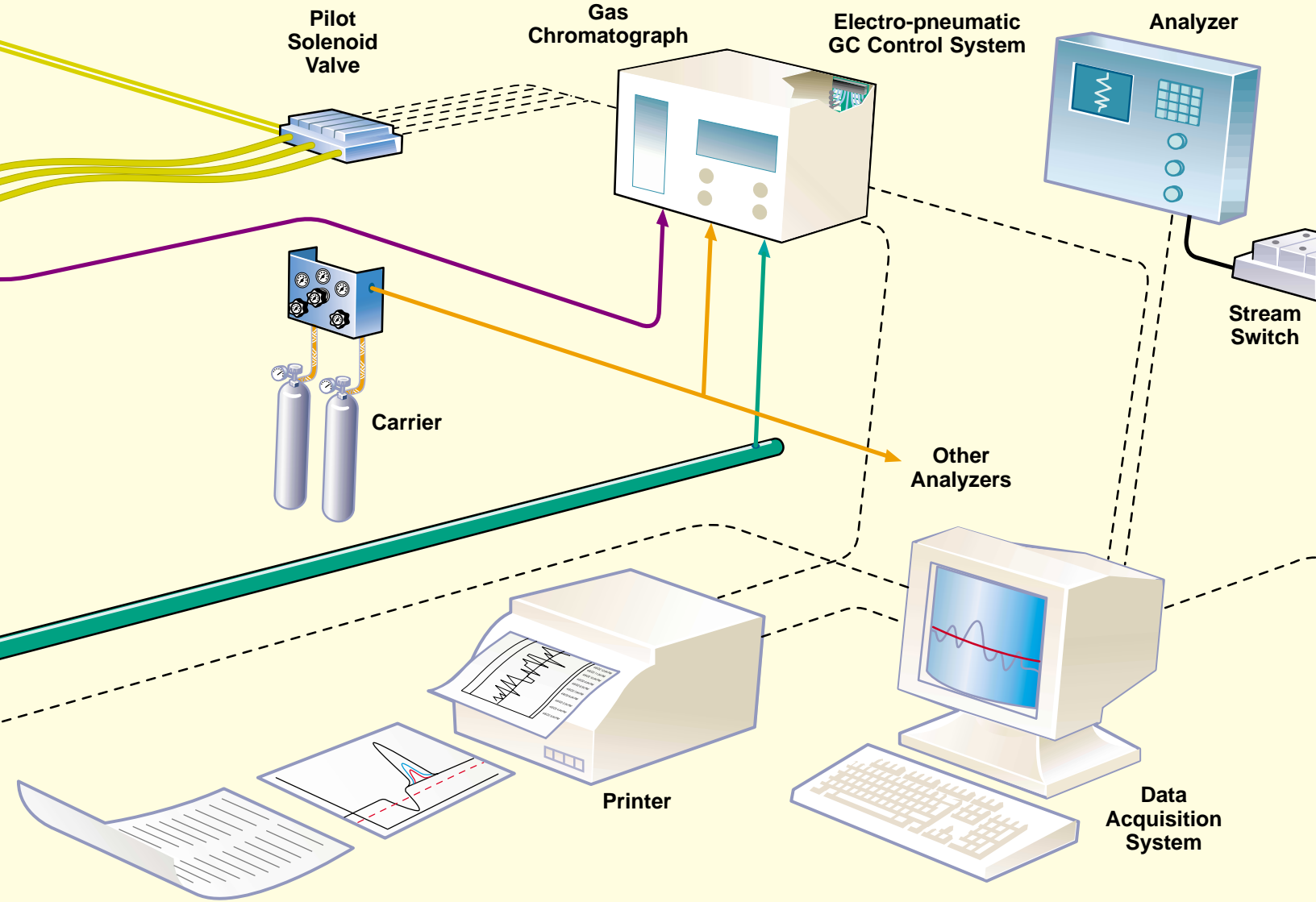
Parker R-Max™ Stream Switching System
 The Parker R-Max™ integrates both switching and filtering into a compact modular assembly. The system can control both gas and liquid streams and has been engineered with many user-friendly features.



Pilot Solenoid Valves
 Compact, serial addressable, manifold mounted 2-, 3- and 4-way solenoid controlled air valves to drive actuators, stream switching valves, and process valves.



Solenoid Valves
 Skinner, Lucifer and Gold Ring™ solenoid valves control fluids and gasses in air dryers, power plants and other industrial and petrochemical applications.



Instrumentation Valves
 Manual, pneumatic & electrically actuated ball valves are available with many port configurations and packings. Full range of needle, metering and check valves, as well as manifolds and sample cylinders for grab sample stations are available.



Cylinder Gas Products
 A full range of stainless steel CGA, DIN, JIS and British Standard cylinder connections, cross and tee purges, manifolds and pigtails are available for compressed gas cylinder hookup. From cylinder source to point of use, Parker offers one-stop shopping.



Flexible Metal Hose
 Metal hose assemblies with welded CGA fittings provide a flexible connection between a compressed gas cylinder and process line. Ideal for light molecular gasses commonly used for carrier gasses.



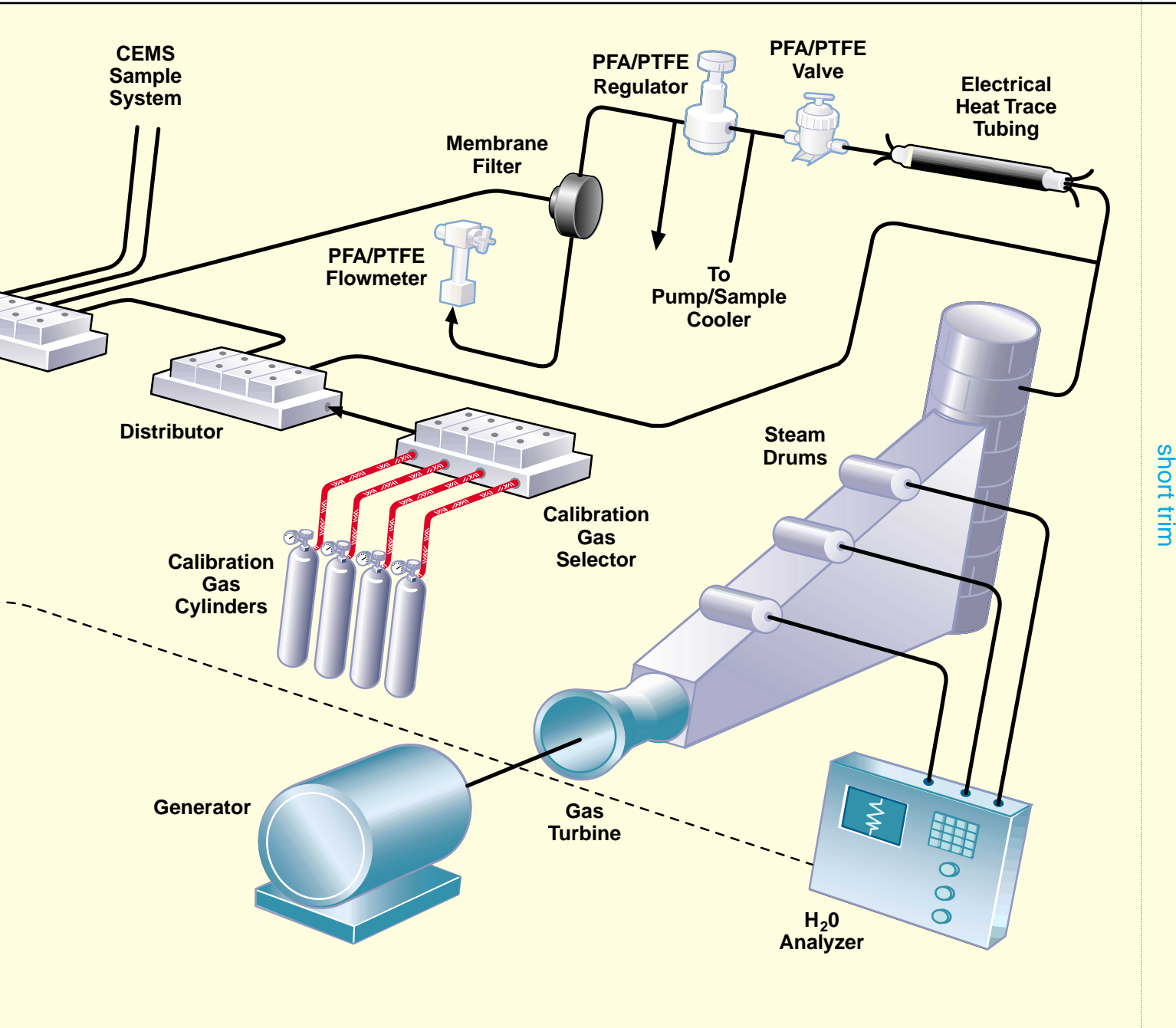
Miniature Solenoid Valves
Miniature solenoid valves for CEMS stream switching and flow control. Body materials are available in 316 stainless steel, PTFE and PEEK with orifice ranges from .031"-.093" for liquid or gas service. 12 or 24 VDC continuous duty solenoid operators.



Accumulators
Accumulators are suitable for storing energy under pressure making them ideal for probe blowback applications on continuous emission monitoring systems.



Membrane Filter
Balston® membrane filters combine absolute membrane filtration down to 0.01 µm, with an integral pre-filter to protect the membrane. Ideal for use on gas chromatographs, mass spectrometers, oxygen and moisture analyzers.



short trim



Cylinder ChangeOver System
The Cylinder ChangeOver system is a compact module designed for continuous gas flow. A unique 2-in-1 regulator with a common control knob automatically directs the flow of gas from two separate sources.



PFA/PTFE Fittings and Flow Control
Full range gripper, flare and welded fittings as well as stream switching, ball, needle, check, solenoid, metering and diaphragm valves. We also manufacture pneumatic bellows pumps, gauge protectors, regulators, flow meters and aspirators for your CEMS or chlorinated sample line applications.



PFA/PTFE Tubing
Extruded PFA, PTFE, ETFE, FEP, MFA tube lengths and coils are available for single line sample transport or inclusion in heat traced bundles.

Premier Customer Service Initiatives...

Premier Customer Service

Parker's premier customer service leads the industry in response. In addition to assured product quality, Parker fosters a culture of employee empowerment, letting our people do whatever is necessary to get the job done for you.

An Eye Toward the Environment

Parker Hannifin Corporation pays great attention to its environmental responsibilities by utilizing ecologically friendly manufacturing processes and an extensive recycling program. We are also implementing the ISO 14000 series of environmental management standards at many of our facilities around the world.

Industry-Leading Technical Support and Training

The Parker network of application specialists, support professionals and distributor personnel can provide expert technical assistance where and when you need it. We provide state-of-the-art technical classes and materials to corporations, universities, government agencies and individuals which stress active participation by students to increase their confidence and understanding of motion and control technology.

Field Sales Team

Parker's highly trained field sales force provides expert assistance in your product selection, working hand-in-hand with your local Parker distributor. These experts are strategically located throughout the world to work with you on product application issues.

Worldwide Distribution Network

With over 7,500 distributors, our worldwide distribution network is the strongest in the industry. They provide comprehensive technical support and after-sales service. This global support provides optimum service for global power projects.

**We're Where You Are
...Worldwide.**

• **To order products, CD's and other product information:**

In North America call toll-free 1-800-C-PARKER (1-800-272-7537)

**In Europe call toll-free 00-800-C-PARKER-H (00-800-2727537-4)
or (44-1442-238100)**

• **Visit us on the web at www.parker.com**



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