



# FOCUSED ON BOTTLING EXCELLENCE

Parker gas filtration and separation solutions  
for the soft drink bottling industry



ENGINEERING YOUR SUCCESS.

# FOCUSED ON OVERCOMING INDUSTRY CHALLENGES

The global soft drinks market is one of the most dynamic and fast-moving sectors in the industry. With new brands constantly entering the market, packaging innovation and complexity, and ever-evolving consumer tastes, the challenges faced by the industry are more difficult than ever before.

Satisfying customer expectations of quality and price places huge pressure on producers to streamline operations and maximise efficiency – it is therefore vital to find more effective solutions at every stage of the process in order to remain competitive.

## The expert solution for soft drinks

Whether it be the purification of compressed air and CO<sub>2</sub> or the on-site generation of Nitrogen, Parker play a key role in delivering excellent beverage quality and production efficiency. Working with household-name soft drink brands, bottling partners and OEM's around the world, we enable customers to succeed in this highly competitive marketplace.





## FOCUSED ON THE BEST RESULTS AT EVERY STAGE OF THE PROCESS

We understand the various challenges faced by the bottling industry: contamination during carbonation; PET bottle quality; ambient air displacement and contaminant removal still pose the biggest threats for soft drink manufacturers.

Parker covers the key applications, with solutions that are designed to offer the best purity, reliability and energy efficiency, together with the lowest total cost of ownership.

### Carbonation

Carbonated drinks continue to dominate beverage markets around the world. The 'fizz' from the addition of CO<sub>2</sub> is a vital element of the bottling process. But along with effervescence, it brings an ever-present risk of product contamination – with potentially expensive consequences in the shape of product recall, off-flavours and reputational damage.

### PET bottle blowing

PET remains one of the principle bottling formats, used throughout the beverage industry. And whether blow molding takes place under aseptic conditions within the filling process, or in a separate area, inadequately treated compressed air can have a serious impact on machine performance and PET bottle quality, such as clouding, loss of strength and internal bubbles and pockmarks.

### Process nitrogen

Food grade nitrogen is required for effective ambient air displacement to prevent oxidation at various stages throughout the bottling process, including blanketing, purging, counter pressure and pressure transfer.

### Process compressed air

From process automation to packaging, compressed air is a vital utility in all bottling plants. It is essential to provide clean, dry, oil-free (ISO 8573-1 class 0) air for all bottling applications in order to keep compressed air contaminant-free and efficient – and production flowing smoothly.

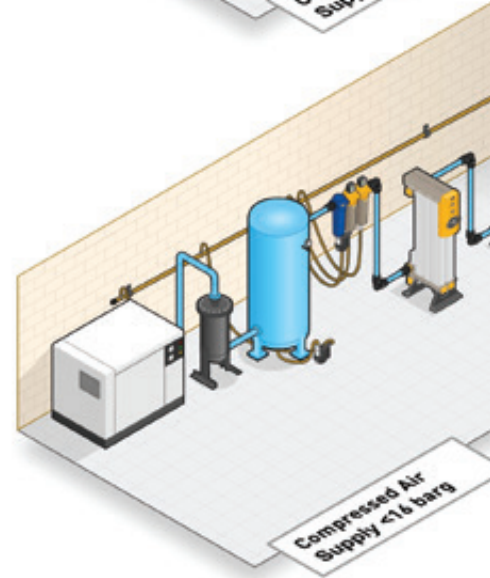
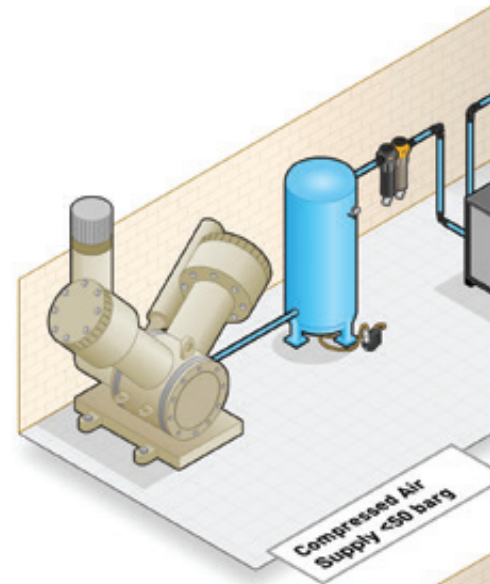


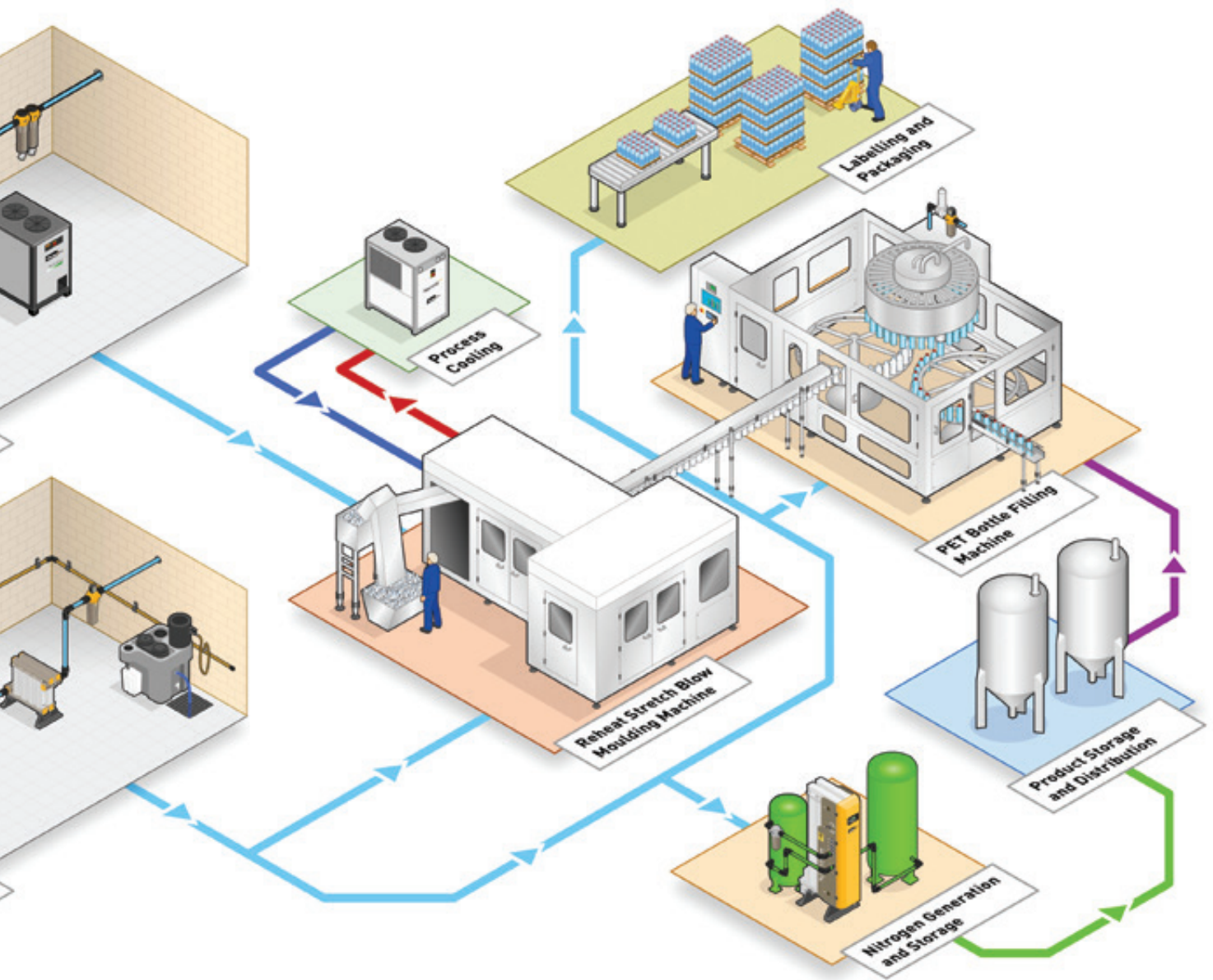
# THE COMPLETE SOLUTION FROM A SINGLE, INDUSTRY-LEADING MANUFACTURER

From energy-efficient compressed air treatment and PET bottling process cooling, nitrogen generation and storage to CO<sub>2</sub> treatment, Parker provides a seamless range of expert solutions, providing maximum technical synergy and ensuring consistency and quality, every step of the way.

Parker offer expert solutions at every stage of the bottling process.

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# FOCUSED ON WORLD-LEADING BEVERAGE PROCESSING AND PACKAGING SOLUTIONS

Being the partner of choice for some of the world's largest drinks brands and bottlers, Parker has developed a range of specialist solutions with a focus on quality, consistency, energy efficiency and cost-effectiveness.

## PET BOTTLE BLOWING

Inadequately treated compressed air can have serious implications on the PET bottle blowing process, meaning a reliable supply of clean, dry, technically oil-free air and highly accurate temperature control is critical.

Parker offers solutions for efficient and high quality PET blow molding and processing: from a range of high-pressure filters and dryers to combat air contamination, to chillers that ensure cost-effective and precise temperature control.



## PARKER SOLUTIONS

### HYPERCHILL PLUS

A range of high performance industrial process chillers offering extreme efficiency and reliability.

- Compact and configurable
- Easy to install and operate
- Maximum up-time
- Low energy consumption

### HDK-MT

The most compact, durable and reliable high-pressure dryer on the market.

- Robust and compact
- Maximum energy efficiency
- Corrosion resistant components

### IP50

Highly efficient filters that provide a level of protection tailored to your applications.

- Ease of installation
- Compact housing design

“Parker is our partner of choice as they offer a huge range of cost-effective and high quality solutions.”

## CO<sub>2</sub> PROTECTION

It's very easy for harmful CO<sub>2</sub> contamination to take place at various steps of the carbonation process – for example, in transit from production site, with plasticisers and phthalates leached from delivery and transfer hoses into storage vessels.

Parker's advanced filtration and adsorption technologies will help you to overcome CO<sub>2</sub> contamination at every stage. Our tried and tested solutions, such as the Parker PCO2, enables bottlers to meet strict ISBT quality standards.







## PARKER SOLUTIONS

### PCO2

The tried and tested CO<sub>2</sub> protection of choice for high quality producers.

The benchmark solution for use in bottling plants, Parker's PCO2 offers advanced, multi-layer protection against the harmful effects of contaminated CO<sub>2</sub> in the drinks carbonation process. It has a three-layer adsorbent cartridge, together with advanced filtration designed to remove CO<sub>2</sub> contamination and ensure ISBT guidelines for CO<sub>2</sub> quality in the bottle is met.

Already installed in many of the world's bottling plants, the PCO2 requires only moderate capital investment, simple installation and easy, regular maintenance, making it a practical solution for every size of operation. And with a modular design, it offers the flexibility to expand in order to cope with increased factory throughput.

## ISBT QUALITY GUIDELINES FOR BEVERAGE GRADE CO<sub>2</sub>

Purity	99.9% v/v min.
Moisture (H <sub>2</sub> O)	20 ppm v/v max.
Oxygen (O <sub>2</sub> )	30 ppm v/v max.
Nitrogen Monoxide (NO)	2.5 ppm v/v max.
Nitrogen Dioxide (NO <sub>2</sub> )	2.5 ppm v/v max.
Methanol (MeOH)	10 ppm v/v max.
Total Volatile Hydrocarbons (THC) (as methane)	50 ppm v/v max. (including 20 ppm v/v max. as Total Non-Methane Hydrocarbons [TNMHC])
Acetaldehyde (AA)	0.2 ppm v/v max.
Aromatic Hydrocarbon (AHC)	20 ppb v/v max.
Total Sulfur Content (TSC as S)	0.1 ppm v/v max. (total sulphur-containing impurities excluding sulfur dioxide)
Sulfur Dioxide (SO <sub>2</sub> )	1 ppm v/v max.



## INERT GAS PROTECTION

Soft drinks are very susceptible to oxidation, so it is crucial to remove oxygen from the manufacturing and packaging process. In order to do this, it is important to provide a constant, continuous and pure supply of food grade nitrogen for oxygen displacement.

Parker NITROSource is the world's most energy-efficient on-site nitrogen gas generator, offering total control over supply and the lowest total lifetime cost of ownership. And our adsorption dryers provide energy-efficient performance control and monitoring that's second to none.

## PARKER SOLUTIONS

### NITROSOURCE

Ensuring a constant, 24/7 supply of nitrogen that's both stable and pure – on-tap whenever it is needed – your production line will never run out of nitrogen, ensuring maximum 'up time'.

And unlike cylinder or bulk supply, there are no delivery or service charges, no wasted gas, no safety issues and no unexpected price rises. Instead you can plan ahead, on the basis of low energy consumption and running costs.

Lowest total cost of ownership

Enjoy energy saving technology, matching compressed air flow to the nitrogen outlet flow and purity, and lower cost of maintenance, with the Carbon Molecular Sieve delivering nitrogen efficiently to ensure longer working life.

Food grade gas, food industry compliance

A risk-free choice for bottling: material, design and experience combines to provide a reliable and food industry compliant supply of food and beverage grade gas quality, on demand.

Expands with your demand

Parker NITROSource has a modular design, which means you can simply add extra generators as your requirement grows.

## PARKER SOLUTIONS

### DRYING SOLUTIONS

Advanced compressed air tandem drying technology and heatless compressed air desiccant dryers.

- Ultimate energy efficiency
- Lowest lifetime cost
- Constant dew point performance
- Compact design
- Reliable, dry, oil-free air
- Maximum energy efficiency
- Space saving and light weight
- Modular and flexible





“Compressed air contamination removal is essential in order to keep production running smoothly and efficiently.”

Operations Manager, Beverage Company

## CONTAMINATION REMOVAL

With ten different types of major contaminant and four risk-points in the compressed air system, it can be easy for contamination to take place during the bottling process. This can cause numerous problems; therefore contamination must be reduced both quickly and efficiently.

Parker engineers the ideal filtration and drying solutions for compressed air contamination removal, offering high quality, reliable and cost-effective contamination removal to energy efficient adsorption dryers and market-leading refrigerant dryers.



## PARKER SOLUTIONS

### FILTERS

Compact and modular oil vapour removal filters designed to offer maximum up-time.

- Compact, light-weight design
- Increased up-time and energy efficiency
- Low energy consumption
- Lowest total cost of ownership
- Guaranteed lifetime air quality



### REFRIGERATION AIR DRYERS

A range of refrigerated air drying solutions using advanced refrigeration technology.

- Superior efficiency
- Low operating costs
- Extremely compact and reliable design

### TANDEM AIR DRYER

Advanced compressed air tandem drying technology.

- Ultimate energy efficiency
- Lowest lifetime cost
- Constant dew point performance
- Compact design

### HEATLESS AIR DRYER

Heatless compressed air desiccant dryers.

- Reliable dry, oil-free air
- Maximum energy efficiency
- Space saving and lightweight
- Modular and flexible

# FOCUSED ON INNOVATION AND QUALITY FOR OEMS

At Parker, we work closely with customers' design teams to ensure that their requirements are fully satisfied from the outset.

We bring unparalleled expertise in compressed air treatment and gas generation, as well as vast technical know-how gained at the sharp end of global manufacturing, including PET bottling, carbonation, process nitrogen and process compressed air. By combining our experience with our customers, we are able to develop tailored engineering solutions.

From project brief to final assembly, we work hand in glove with OEM partners to ensure outstanding system performance and efficiency. With world-class innovation, unique product specification and quality assured manufacturing, Parker means success is built-in.

- Complete compressed air treatment and gas generation system design
- Customised solutions for OEM partners including product branding
- Global engineering know-how and world-class manufacturing expertise

**FOR MORE INFORMATION OR A  
DETAILED DISCUSSION ABOUT YOUR  
SPECIFIC REQUIREMENTS PLEASE  
CONTACT PARKER OR AN AUTHORISED  
PARKER DISTRIBUTOR.**





# Parker Worldwide

## Europe, Middle East, Africa

**AE – United Arab Emirates,**  
Dubai

Tel: +971 4 8127100  
parker.me@parker.com

**AT – Austria,** St. Florian

Tel: +43 (0)7224 66201  
parker.austria@parker.com

**AZ – Azerbaijan,** Baku

Tel: +994 50 2233 458  
parker.azerbaijan@parker.com

**BE/NL/LU – Benelux,**

Hendrik Ido Ambacht  
Tel: +31 (0)541 585 000  
parker.nl@parker.com

**BG – Bulgaria,** Sofia

Tel: +359 2 980 1344  
parker.bulgaria@parker.com

**BY – Belarus,** Minsk

Tel: +48 (0)22 573 24 00  
parker.poland@parker.com

**CH – Switzerland,** Etoy

Tel: +41 (0)21 821 87 00  
parker.switzerland@parker.com

**CZ – Czech Republic,** Klecany

Tel: +420 284 083 111  
parker.czechrepublic@parker.com

**DE – Germany,** Kaarst

Tel: +49 (0)2131 4016 0  
parker.germany@parker.com

**DK – Denmark,** Ballerup

Tel: +45 43 56 04 00  
parker.denmark@parker.com

**ES – Spain,** Madrid

Tel: +34 902 330 001  
parker.spain@parker.com

**FI – Finland,** Vantaa

Tel: +358 (0)20 753 2500  
parker.finland@parker.com

**FR – France,** Contamine s/Arve

Tel: +33 (0)4 50 25 80 25  
parker.france@parker.com

**GR – Greece,** Piraeus

Tel: +30 210 933 6450  
parker.greece@parker.com

**HU – Hungary,** Budaörs

Tel: +36 23 885 470  
parker.hungary@parker.com

**IE – Ireland,** Dublin

Tel: +353 (0)1 466 6370  
parker.ireland@parker.com

**IL – Israel**

Tel: +39 02 45 19 21  
parker.israel@parker.com

**IT – Italy,** Corsico (MI)

Tel: +39 02 45 19 21  
parker.italy@parker.com

**KZ – Kazakhstan,** Almaty

Tel: +7 7273 561 000  
parker.easteurope@parker.com

**NO – Norway,** Asker

Tel: +47 66 75 34 00  
parker.norway@parker.com

**PL – Poland,** Warsaw

Tel: +48 (0)22 573 24 00  
parker.poland@parker.com

**PT – Portugal**

Tel: +351 22 999 7360  
parker.portugal@parker.com

**RO – Romania,** Bucharest

Tel: +40 21 252 1382  
parker.romania@parker.com

**RU – Russia,** Moscow

Tel: +7 495 645-2156  
parker.russia@parker.com

**SE – Sweden,** Spånga

Tel: +46 (0)8 59 79 50 00  
parker.sweden@parker.com

**SK – Slovakia,** Banská Bystrica

Tel: +421 484 162 252  
parker.slovakia@parker.com

**SL – Slovenia,** Novo Mesto

Tel: +386 7 337 6650  
parker.slovenia@parker.com

**TR – Turkey,** Istanbul

Tel: +90 216 4997081  
parker.turkey@parker.com

**UA – Ukraine,** Kiev

Tel: +48 (0)22 573 24 00  
parker.poland@parker.com

**UK – United Kingdom,** Warwick

Tel: +44 (0)1926 317 878  
parker.uk@parker.com

**ZA – South Africa,** Kempton Park

Tel: +27 (0)11 961 0700  
parker.southafrica@parker.com

## North America

**CA – Canada,** Milton, Ontario

Tel: +1 905 693 3000

**US – USA,** Cleveland

Tel: +1 216 896 3000

## Asia Pacific

**AU – Australia,** Castle Hill

Tel: +61 (0)2-9634 7777

**CN – China,** Shanghai

Tel: +86 21 2899 5000

**HK – Hong Kong**

Tel: +852 2428 8008

**IN – India,** Mumbai

Tel: +91 22 6513 7081-85

**JP – Japan,** Tokyo

Tel: +81 (0)3 6408 3901

**KR – South Korea,** Seoul

Tel: +82 2 559 0400

**MY – Malaysia,** Shah Alam

Tel: +60 3 7849 0800

**NZ – New Zealand,** Mt Wellington

Tel: +64 9 574 1744

**SG – Singapore**

Tel: +65 6887 6300

**TH – Thailand,** Bangkok

Tel: +662 186 7000

**TW – Taiwan,** Taipei

Tel: +886 2 2298 8987

## South America

**AR – Argentina,** Buenos Aires

Tel: +54 3327 44 4129

**BR – Brazil,** Sao Jose dos Campos

Tel: +55 800 727 5374

**CL – Chile,** Santiago

Tel: +56 2 623 1216

**MX – Mexico,** Toluca

Tel: +52 72 2275 4200

### EMEA Product Information Centre

Free phone: 00 800 27 27 5374

(from AT, BE, CH, CZ, DE, DK, EE, ES, FI, FR, IE, IL,  
IS, IT, LU, MT, NL, NO, PL, PT, RU, SE, SK, UK, ZA)

### US Product Information Centre

Toll-free number: 1-800-27 27 537

[www.parker.com/gsf](http://www.parker.com/gsf)

Your local authorized Parker distributor

