

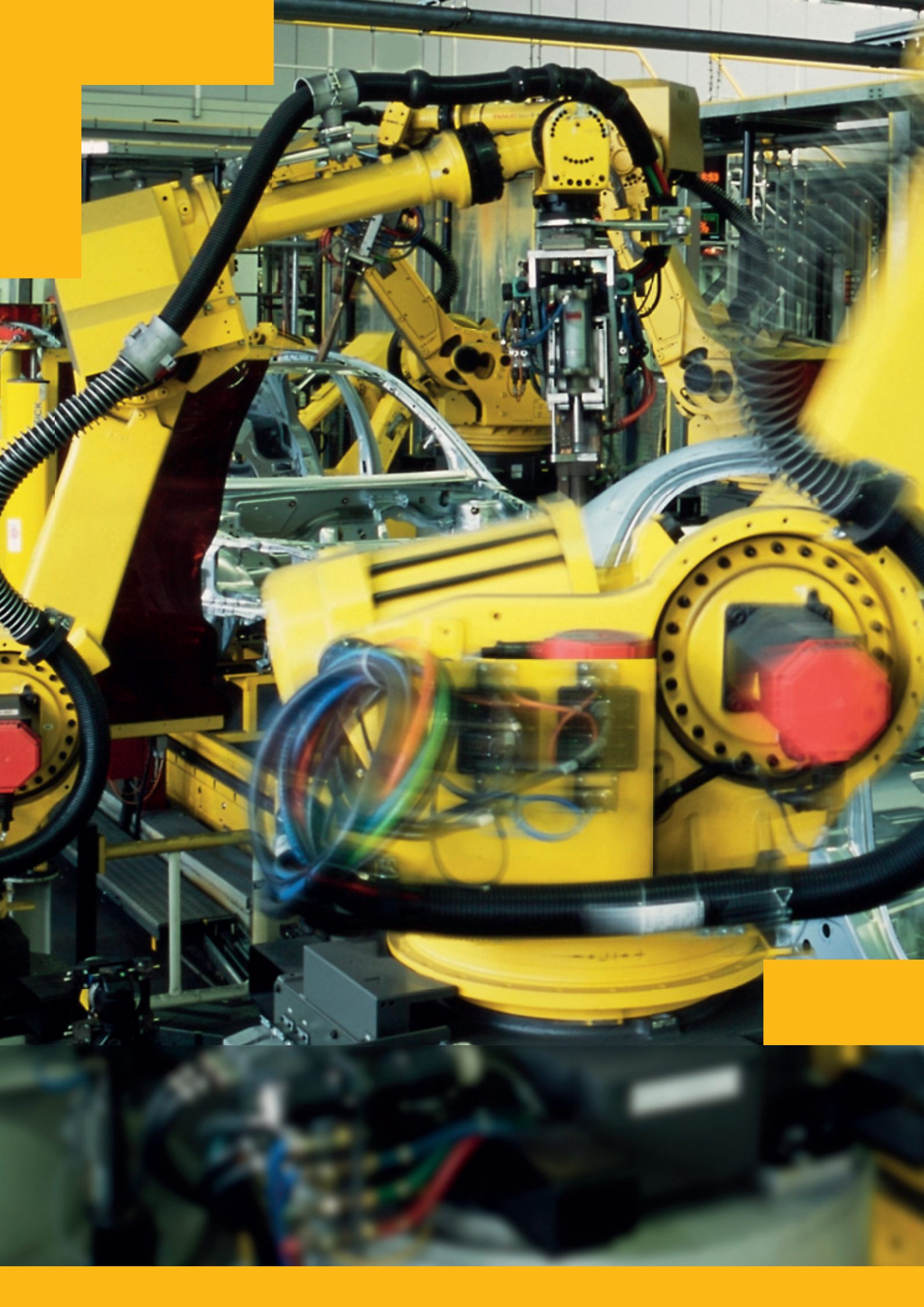


FOCUSED ON TOTAL EFFICIENCY

The complete solution for compressed air treatment



ENGINEERING YOUR SUCCESS.



FOCUSED ON PRODUCTIVITY

Compressed air is the lifeblood of a modern factory, with the compressor room at its heart. And as a major centre of energy consumption and cost, the efficiency of the compressed air system has a significant bearing on productivity and profitability as a whole.

Effective purification is a critical element in the compressed air treatment process. Contaminants such as particulates, oil, water and micro-organisms represent a constant threat. And unless they are systematically removed, the quality of air delivery will be severely hampered – regardless of the performance of the compressor itself.

Parker has a complete range of air treatment, offering a best-in-class solution at every stage in the process – for every pressure, dewpoint, and flow rate.

World-leading expertise

Through our brands Parker domnick hunter, Parker Hiross and Parker Zander, we offer over 140 years' combined expertise in compressed air treatment. It means that we are able to provide industry-leading technology for filtration, refrigeration and adsorption drying.

We can tailor the purification system to suit precise needs, optimising performance whatever the scale or type of production, air volume or variation in demand. And we are able to specify the most cost effective solution for each phase of the purification process.

Parker aims to provide a blueprint for the optimal design of an effective compressed air treatment system, explaining the importance of the different purification technologies, and signposting the appropriate Parker equipment for each application.



PARKER SOLUTIONS FOR COMPRESSED AIR TREATMENT INCLUDE:

- Cooling and chilling
- Water separators
- Filtration
- Oil vapour removal
- Drying
- Condensate management
- Distribution piping

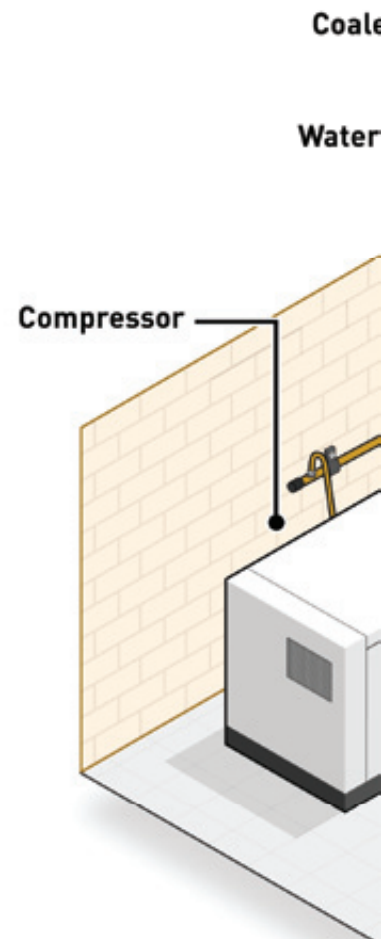
FOCUSED ON THE COMPRESSED AIR SYSTEM

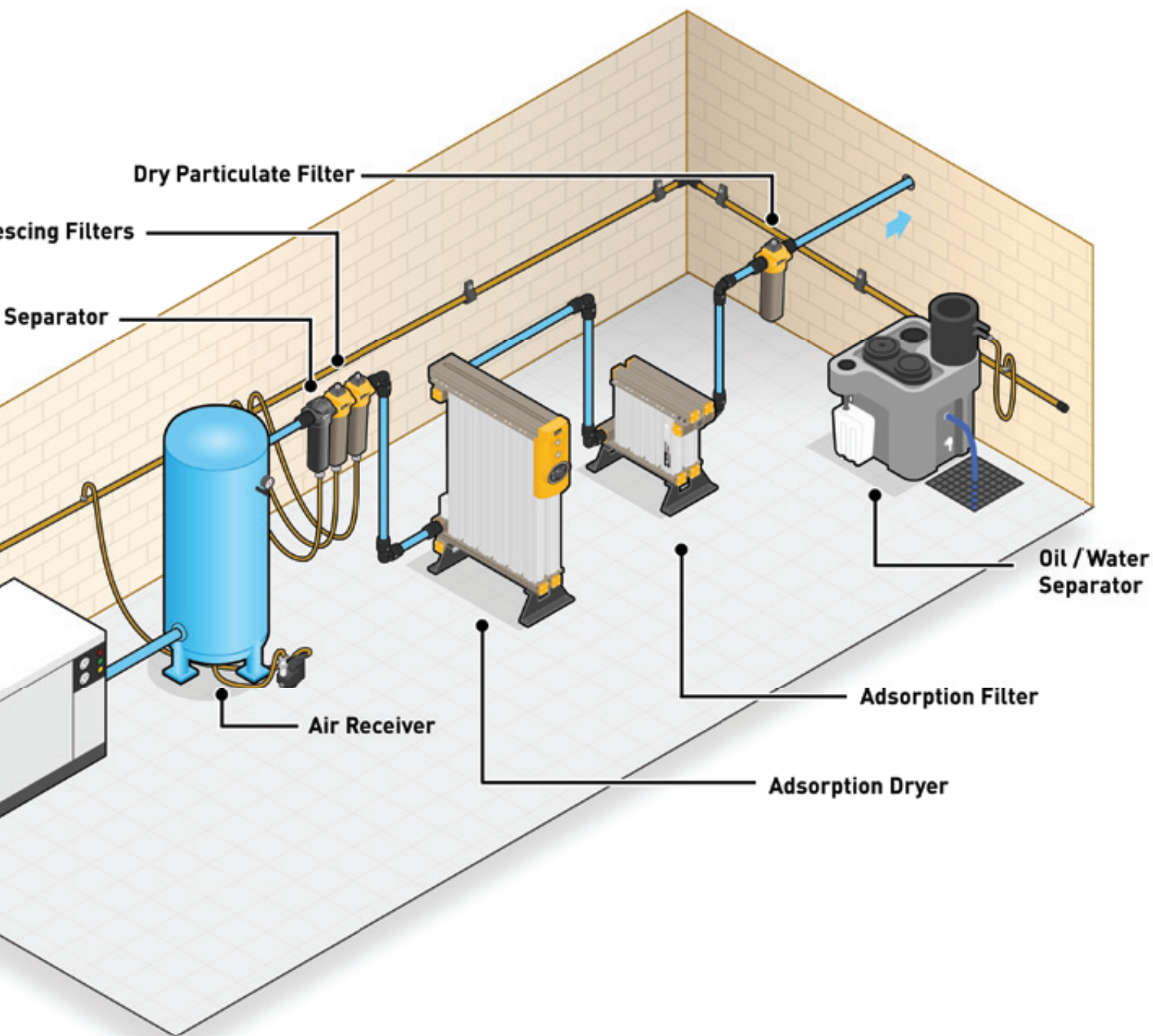
Each compressed air system operates on the same basic principles, with broadly uniform requirements for air generation, storage, purification and distribution. Although the capacity and detailed specification of the system will vary, based on the scale and complexity of production.

For example, depending on the level of demand, facilities may contain more than one compressor. Typically, they are sited within a designated compressor room, but in some decentralised systems, smaller air compressors are located at the point of use.

Within any compressed air system, there are ten major contaminants to contend with, originating from four different sources. Therefore, all of the purification technologies must always be present, and installed in the correct order.

- Compressor
- After cooler
- Wet air receiver
- Water separator
- Coalescing filters
- Oil vapour removal (OVR)
- Dryer
- Dry particulate filters
- Dry air receiver







WATER SEPARATORS

Water separators play an important role in removing bulk liquids (oil & water) from the compressed air system.

Specified as part of the aftercooler (or sometimes the wet air receiver), they remove the condensed water vapour which is created as the compressed air cools down. Water separators are also fitted to refrigeration dryers, again to deal with bulk liquid, and ahead of coalescing filters to protect against liquid contamination.

FILTERS

This is an all-important filtration stage, designed to protect dryers and downstream applications from six different contaminants - water aerosols, oil aerosols, atmospheric dirt, rust, pipscale, and micro-organisms.

Coalescing filters are installed in pairs, with the first acting as a general purpose filter, protecting the second, high efficiency filter. For adsorption drying, both filters are installed before the dryer. Whereas for refrigeration drying, filters are located before and after the dryer.

OIL-X series high performance filter

The result of a comprehensive development programme, the Parker domnick hunter OIL-X series takes compressed air filtration to a new level. Offering market-leading energy efficiency with an industry leading 125mbar initial saturated differential pressure, it means reduced energy consumption, and significant cost savings.

- Consistent air quality – OIL-X filtration performance has been third-party validated to ISO 8573-1:2010 with coalescing and dry particulate filter performance guaranteed for 12 months.
- Air quality guarantee is extended when filter elements are serviced annually.



OIL-X IP50 series intermediate pressure filter

Specially designed for applications from 21 to 50 bar g (725 psi g). Third-party validated, and ideally suited for food and beverage, pharmaceutical and P.E.T. applications - FDA Title 21 compliance and EC1935-2004 exempt.

GH series high pressure filter

Easy to install, low maintenance and engineered to deliver dependable high efficiency filtration for applications from 51 bar, right up to 350 bar.

OIL VAPOUR REMOVAL

In any compressed air system, effective oil vapour removal is an essential process. Even with oil-free compressors, traces of oil are likely to be present from the air intake. Filtration can be located either upstream or downstream from the dryer, in the compressor room or at the point of use.

OVR series oil vapour filter

Parker domnick hunter OVR oil vapour removal filters are designed to deliver outstanding performance when applications require compressed air to meet ISO 8573-1 Class 0 or Class 1 - either in the compressor room, or at point of use (to protect critical applications).

- Compact, modular and manufactured from extruded aluminium, the Parker domnick hunter OVR is smaller and lighter than equivalent carbon towers.
- Third-party performance validated by Lloyds Register (ISO 8573-1:2010 Class 0 for total oil), when tested in accordance with ISO 8573-2 & ISO 8573-5.



FOCUSED ON DRYING

Water in its gaseous form will pass through any filtration and unless dealt with, it will remain as a harmful contaminant that can cool and condense into liquid within the compressed air system. Effective drying is therefore an essential part of any compressed air treatment system.

Parker have a comprehensive range of adsorption and refrigeration dryers ideally suited to any application, and designed for small, medium and high flow rates. With modular systems enabling operators to build capacity as required.

CDAS HL Clean Dry Air System

Combining sophisticated OIL-X filtration technology with an optimised drying system, the Parker Zander CDAS is designed to deliver consistent high performance and air quality over an extended period.

- Air quality third-party validated to ISO 7183 and ISO 8573-1.
- Specialist desiccant filling ensures a consistent dewpoint and contributes to the lowest differential pressure in the market.
- Advanced energy saving technology and flow management, together with unique filter media means reduced energy consumption and lower running costs.
- Corrosion protected filter housing, guaranteed for 10 years, plus low service and maintenance, maximum productivity and longer operational life.



OFAS HL Oil Free Air System

High efficiency adsorption drying for oil-free compressors.

Parker Zander OFAS is third-party validated by Lloyds Register to provide ISO 8573-1 Class 0 with respect to total oil from both oil lubricated and oil-free compressors - ensuring the highest quality air at the point of use, at a fraction of the cost of a dedicated oil-free compressor.





MXLE series low energy dryer

The Parker MXLE features vacuum assisted purge regeneration and an Integrated Energy Management System to deliver lower energy costs - and around 17% more compressed air (than a heatless equivalent) to be used across the plant.

- Certified to ISO 7183, and third-party tested to deliver air quality to ISO 8573-1.
- Modular design and multi-banking provide the flexibility to meet increased demand for air.
- 60% lower energy consumption than a comparative heatless dryer, 39% lower energy consumption than a comparative heat regenerative dryer.
- FDA Title 21 compliant, and EC1935-2004 exempt – making it ideally suited for food and beverage, and pharmaceutical applications.





MiDAS series small flow dryer

Parker PNEUDRI MiDAS is a high efficiency, small flow adsorption dryer with a compact design, which means that it can be seamlessly integrated with equipment, and is ideal for point of use applications.

- Providing pressure dewpoints of -70°C and -40°C , eliminating corrosion and inhibiting the growth of micro-organisms.
- Clean, oil-free air in accordance with all editions of ISO 8573-1, the international standard for compressed air quality.
- Easy and flexible installation, low maintenance costs, reduced downtime, and enhanced productivity.



HDK-MT series high pressure dryer

With a unique, compact and robust design, the Parker Zander HDK-MT is precision engineered to deliver high quality compressed air for high pressure applications up to 350 bar.

- Compact, robust, durable design for maximum pulsation and vibration resistance.
- Pre-mounted with Parker GH series filters, incorporating tie-rod fixed filter elements - providing reliable operation under pressure.
- Corrosion-resistant materials, including hard coated aluminium valve blocks, seamless vessels and stainless steel fittings - ideal for harsh environments.
- Small footprint - suited for installation in tight spaces, including compressor skids, ships, platforms and containers.



Antares series tandem technology dryer

Compact, innovative and energy efficient tandem technology dryers, fully integrating refrigeration and adsorption technologies to enable the efficient delivery of high quality air, even at low consumption levels.

- High efficiency – offering up to 60% less energy consumption than traditional heatless desiccant dryers.
- High flexibility - the dewpoint is easily adjustable between 5°C and -70°C.
- Low maintenance, minimum downtime and high energy efficiency mean low overall cost of ownership.

Starlette Plus-E series small flow refrigerated dryer

High efficiency refrigeration drying in a highly compact format. The Parker Hiross Starlette Plus is designed for every type of industrial application, offering reliable dewpoint control between +3°C and +10 °C.

- State-of-the-art PlusPack heat exchangers and the most compact dimensions of any system in its class.
- Outstanding dewpoint control and the lowest possible pressure drops, for consistently efficient air delivery.
- High operating limits, handling volume flows up to 360m³ @ 7 bar g as standard.





Polestar Smart series high flow refrigerated dryer

Energy saving, direct-expansion refrigeration dryers. Offering high efficiency for large flow applications, and engineered to provide low pressure drops and lower operating costs.

- Patented SmartSave energy saving technology precisely modulates operation for prevailing conditions – ensuring accurate dewpoint monitoring and optimised power consumption.
- All-in-one aluminium SmartPack heat exchanger enables free flow of air, for reduced pressure drop and running costs.
- Ideal for volume flow up to 21600m³/h @ 7 bar g (PoleStar Smart) or 7200m³/h @ 40 bar g (PoleStar Smart HP).





KE-MT series large flow heatless dryer

The Parker KE-MT series adsorption dryers are designed to supply high quality dry compressed air, reliably and efficiently, down to a pressure dewpoint of -70°C . Ideally suited to industrial applications, the KE-MT units can also be supplied with an additional activated carbon filled vessel, for use in laboratory, food and beverage and pharmaceutical applications.

- Capable of volume flows of up to $6100\text{m}^3/\text{h}$ at operating conditions of 7 bar g.
- Extremely robust design with a self-cleaning function.
- High quality desiccant materials to ensure consistent outlet dewpoint.
- Large bore, positive sealing non-return valves ensuring continuous operation and high reliability.
- Multi-tronic microprocessor to precisely and continuously detect relevant operating and loading state of desiccant, allowing optimal utilisation of the available drying capacity.
- Available with energy saving Dewpoint Dependant Switching (DDS) to enable a lengthened drying phase and therefore avoiding the unnecessary use of purge air for regeneration, providing significant energy savings.
- In combination with pre- and after- filters provides air quality in accordance with ISO 8573-1.



MX series heatless dryer

Parker MX is a highly compact heatless dryer, offering maximum flexibility and reliability, together with efficient drying performance.

Modular construction means that the MX series can be half the size of conventional dryers, but with the potential to multi-bank for the economical addition of extra capacity as demand increases.

- Engineered to deliver clean, dry, oil-free air in accordance with all editions of ISO 8573-1.
- 'Snowstorm' desiccant filling ensures consistent dewpoint performance, and enables 100% of the material to be used for drying – helping to reduce maintenance costs.
- Modular design offers 100% standby at a fraction of the cost of twin tower formats, and means individual dryers can be isolated for easy, efficient servicing.



WVM series vacuum heat regenerated dryer

Parker Zander WVM is an energy efficient heat regenerated compressed air drying solution ideally suited for large scale compressed air applications where typically high volume flows and low pressure dewpoint's are required.

- Zero process air loss during regeneration.
- Providing volume flows of up to 14500m³/h and pressure dewpoints down to -70°C.
- Energy management system fitted as standard.
- Electrical heaters can be replaced with heat exchangers, enabling steam or other available process heat sources to be used for heat regeneration – delivering even higher energy savings, and reducing running costs.



Condensate oil water separator

Condensed water and oil mix within the compressed air system to form an acidic, oily sludge known as 'compressor condensate'. This condensate must be treated to bring oil levels within legal limits before disposal. Parker ES2000 series oil water separators are designed to enable the efficient, economical separation of oil from water – allowing 99.9% of the total condensate to be disposed of via a foul sewer, without cost.

- Supports you in meeting effluent discharge regulations, and in achieving ISO 14001 certification.
- Leaves residual clean water (up to 99.9% of the total condensate) to be discharged cost-free into a foul drain.
- Easy installation, operation and maintenance – maximum uptime and rapid payback.

Mechanical and electronic condensate drains

Parker offers a complete range of float drains and electronic level sensing drains, designed to provide energy efficient condensate removal. Classified as 'Zero Air Loss' they do not discharge compressed air when draining condensate, which means significant energy and cost savings for the user.





AIR DISTRIBUTION

Compressed air distribution piping can be complex, costly to maintain, and a source of air contamination through degradation and rust. Modern solutions combine ease and speed of installation with 'clean' materials and construction, for consistently good quality air delivery.

Transair piping solutions

Parker Transair is an advanced piping system, specifically developed for reliable and leak-free compressed air delivery. Manufactured in powder coated aluminium, Transair is designed to be lightweight, strong and resistant to corrosion – even in aggressive environments.

- Featuring push-to-connect fittings, it is easy and quick to install, and allows for straightforward changes to network design, or replacement of sections.
- All piping is extruded and calibrated to exacting tolerances, specifically required for push-to-connect fittings.
- The smooth inner pipe surface is designed for optimum pressure and minimum energy wastage – and consistently delivers clean compressed air, helping to maximise equipment lifespan, and minimize filtration changes.
- Transair can also be integrated into existing copper and steel compressed air pipe systems without compromising performance, making it perfect for upgrades or expansion projects.



SOLUTIONS YOU CAN RELY ON

Parker is the world-leader in compressed air purification. We invented the filtration technology that remains the industry benchmark, and we were the first to introduce the modular dryer – creating new possibilities for capacity and flexibility.

Through our specialist brands, Parker domnick hunter, Parker Zander and Parker Hiross, we deliver the most efficient solutions for each component of the compressed air purification system – designed to enable our customers to enjoy the best quality air together with lowest cost of operation.

As part of a global engineering corporation, we are also able to offer outstanding levels of service and technical support, helping customers to work efficiently and maintain productivity, wherever they operate.

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

"Parker are able to provide a cost effective solution for every stage of the compressed air system, allowing me to keep operations running efficiently."

Operations Director, UK





Parker | domnick
hunter

FOCUSED ON
FILTRATION AND
SEPARATION

Parker | Hiross

FOCUSED ON
REFRIGERATION
AND COOLING

Parker | Zander

FOCUSED ON
ADSORPTION

Parker Worldwide

Europe, Middle East, Africa

AE – United Arab Emirates, Dubai

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

AT – Austria, Wiener Neustadt

Tel: +43 (0)2622 23501-0
parker.austria@parker.com

AT – Eastern Europe, Wiener Neustadt

Tel: +43 (0)2622 23501 900
parker.easteurope@parker.com

AZ – Azerbaijan, Baku

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

BE/LU – Belgium, Nivelles

Tel: +32 (0)67 280 900
parker.belgium@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, Athens

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

NL – The Netherlands, Oldenzaal

Tel: +31 (0)541 585 000
parker.nl@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

