



COMPRESSED AIR AND PROCESS FILTRATION PRODUCT OVERVIEW



PURIFICATION OF COMPRESSED AIR, GASES AND LIQUIDS

Compressed Air Purification

Donaldson delivers a complete system of filtration and separation products for compressed air systems. Donaldson's technology in the field of compressed air, gas, and fluid separation extends from the compressor room to all points of use in the factory. Components are designed and matched for optimal performance. Donaldson's engineering service leads new products from concept to reality. The product portfolio covers industrial filters, refrigeration and adsorption dryers and condensate treatment.

Process Filtration

Where quality requirements are exceptionally high, Donaldson has a selection of process filters which will enable you to reach maximum purity standards. For these purposes Donaldson supplies pre and sub-micro filters for liquids, for compressed air, gases and sterile air systems.

Adsorption Dryer and System Solutions

Processing concepts consisting of filtration and drying are an integral part of various compressed air applications. Donaldson designs and manufactures complete solutions that are tailor-made to individual customer requirements. This guarantees high reliability and simultaneously efficient operation.

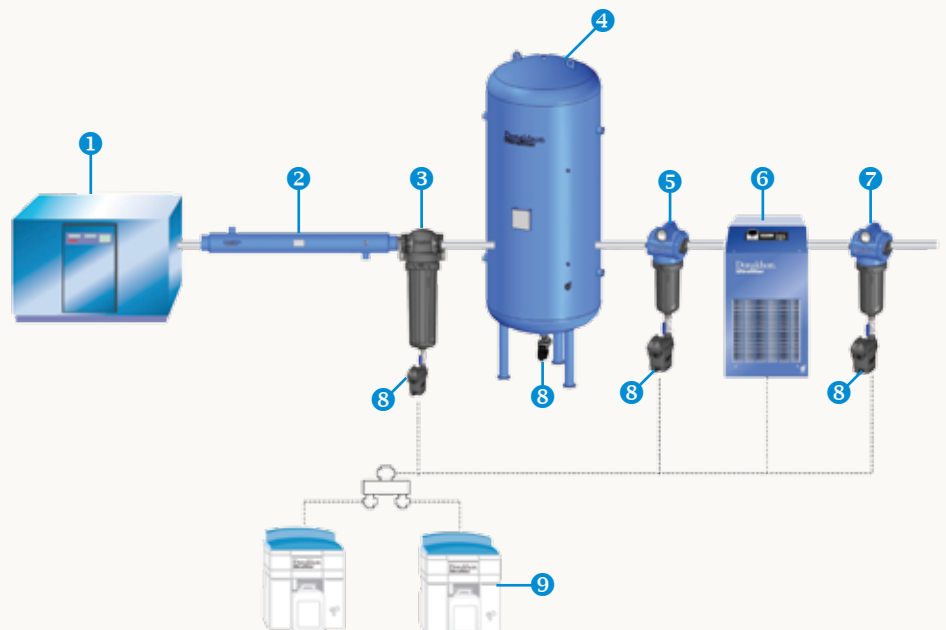
Service

A network that provides filtration solutions that help protect people's lives, that enhance equipment performance and protect the environment.

Compressed Air Purification System

- 1 Compressor
- 2 Aftercooler
- 3 Cyclone separator
- 4 Compressed air receiver vessel
- 5 Compressed air pre filter
- 6 Refrigeration compressed air dryer
- 7 Compressed air post filter
- 8 Condensate drain Ultramat
- 9 Condensate treatment system Ultrasep

- Compressed air
- - - Condensate



A reliable discharge and treatment is guaranteed on all condensate collection points within a compressed air purification system

INDUSTRIAL AND PROCESS FILTRATION



Ultrafilter DF

- Flow rate from 35m³/hr to 1100 m³/hr
- Flow-optimised filter housing and filter element design
- Validated filter performance according to DIN ISO 125800-1
- Outer and inner surfaces protected against corrosion
- Simple installation and operation
- Economiser function with digital differential pressure gauge

High Pressure Filter Housing HD

- Working pressure 20 bar_g to 400 bar_g
- Suitable for compressed air and technical gases

Vacuum Filter VAK / MVAK "Medical"

- Including drain flask (medical)

Silicone Free Filters

- Specifically designed for use in the automotive and paint industries

Up to 60%
Installation space
can be reduced in
comparison to three
filter combination.



'NEW' DF-T (Three) Stage Filter

This unique filter element combines 3 high efficiency purification stages in one single element.

- Sub-Micro coalescence filter
- Activated carbon adsorbent
- High efficiency particle filter (class 1 acc. to ISO8573-1:2010)
- Nominal flow rates up to 110 m³/hr @ 7 bar_g
- Economiser offers control of filter lifetime and differential pressure
- Compact space saving solution for point of use application
- Service advantages vs. multiple housing combination



DF-C Cyclone Separator

- DF-C Cyclone Separator will remove abrasive contamination (solid & liquid particles) from the flow of air pressure
- Low differential pressure and simultaneously lowered requirements of energy, the cyclone separator offers substantial cost savings
- High retention rates over large flow range
- The bayonet fixing between housings head and housing bowl makes for ease of inspection and cleaning of housing
- Housing cannot be opened under pressure due to bayonet lock - high safety during operation



AG & SG Filter Housings

- Flow rate from 1440 m³/hr to 2880 m³/hr (AG) and from 1080 m³/hr to 38400 m³/hr (SG)
- Low pressure drop
- Include differential pressure gauge and condensate drain
- SG available with ATEX specification
- Maximum working pressure 16 bar_g

AG-Z & SG-Z Cyclone Separators

- Innovative spin insert improves efficiency
- Flow optimised filter housing design
- Cost efficient removal of bulk water, particles and oil droplets
- Retention rate >99% for particle size of 10 micron and larger
- Include UFM-D condensate drain



Filter Elements

Available as prefilter, microfilter submicrofilter, activated carbon filter

- Binder-free Syntec XP media
- Low differential pressure
- High dirt holding capacity
- Longer service life
- Lowest filtration costs

Competitor Filter Elements

Experience Donaldson quality and performance in your existing compressed air filter housings

- Improved filtration efficiency
- Lower differential pressure
- Longer service life
- Lower filtration costs

PROCESS FILTRATION



Process Filter Housings

- Industrial quality air and gas/steam housings P-EG
- High capacity steam housings P-EGS
- Sanitary gas housings PG-EG
- Industrial, sanitary, pharma quality liquid housings PF-EG
- Vent filter housings
- Disposable laboratory filters UFTD
- Industrial quality PP liquid housings P-KG



Process Filter Elements

- Sterile compressed air filters P-SRF, P-SRF N
- Sterile tank vent filters P-BE
- Sterile membrane liquid filters PF-BEV, PF-PT, PF-PES
- Depth liquid filters PP, PP 100
- Steam filters P-GS VE
- High capacity gas, steam, liquid filters P-GSL, P-GSLN
- Competitor replacements in P7, P9, DOE connection

Low Pressure Sterile Air Systems P-SLF

- Cost effective generation of sterile air from 35 - 900 m³/hr
- May be used stationary or mobile
- Includes blower and filtration system in a stainless steel cabinet



PROCESS FILTER INTEGRITY TESTER

FTC Filter Test Centre

- Integrity and efficiency test centre for sterile depth filters
- DOP (Dispersed Oil Particulate) test

Membra-Check

- Integrity test centre for membrane filters
- Bubble point test, WIT, diffusion test

Laboratory Services

- Bubble Point Tests, Forward Flow Test, Pressure Hold Test, WIT Water Intrusion Test for membrane filters
- DOP test for sterile depth filters P-SRF N, P-SRF, P-BE
- With test certificate
- Air quality tests including bacterial counts

COMPRESSED AIR DRYERS



HIGH EFFICIENCY REFRIGERATION DRYERS

Buran DC

- Flow rate 20 m³/hr to 1650 m³/hr
- Reliable pressure dew point +3 °C
- Corrosion resistant aluminium heat exchanger
- Environmentally friendly refrigerant R407c /R134a with high overload capacity

Boreas DV AP/WP "Variopulse"

- Flow rate 1800 m³/hr to 28500 m³/hr
- Load dependent control with frequency converter
- Corrosion resistant aluminium heat exchanger
- Environmentally friendly refrigerant R134a with high overload capacity
- Available aircooled and watercooled



HIGH EFFICIENCY REFRIGERATION DRYERS/ MEMBRANE DRYERS

SH Custom-Built Refrigeration Dryer

- Designed and built according to customer requirements
- Use of semi-hermetic screw compressors

Bora DHP

- Flow rate 25 m³/hr to 5,000 m³/hr
- Working pressure 50 bar_g
- Ideal for PET applications
- Environmental friendly refrigerant R134a/R404a with high overload capacity

Membrane Dryer VarioDry FRL

- Point-of-use compressed air dryer
- No electrical power supply necessary
- PDP reduction up to 20 Kelvin (k)



HEATLESS HIGH EFFICIENCY ADSORPTION DRYERS

Ultrapac 2000

- Complete purification package with pre and afterfilter
- Desiccant cartridges
- Compact, space saving design
- Flow rate 5 m³/hr to 100 m³/hr
- PDP -40°C / -70°C

Ultrapac HED/ALD/MSD "Classic"

- Complete purification package with pre and afterfilter
- Flow rate 5 m³/hr to 8750 m³/hr
- PDP -40°C / -70°C
- Available in "tropical" version
- Up to 1000 m³/hr in cabinet construction



Oilfreepac OFF

- Complete purification package for oilfree air
- 17 sizes available

Activated Carbon Adsorber AKC

- Residual oil content <0.003 mg/m³
- Activated Carbon Lifetime > 10,000 hrs
- Includes residual oil indicator

High Pressure Adsorption Dryer HLP

- Working pressure 25 bar_g to 400 bar_g
- Complete purification package including pre and afterfilter

Breathing Air System ALG

- Package includes adsorption dryer
- Removal of CO, CO₂, NO_x and SO₂
- Complies with international standards



HEAT REGENERATED HIGH EFFICIENCY ADSORPTION DRYERS

HRS-L "Zero-Loss" (PDP: -70 °C)

- No loss of compressed air
- Low noise level
- Consistent pressure dew point
- No over sizing of compressor
- Desorption in counterflow
- Valves and key components "made in Germany"

HRE (PDP: -40 °C)

- Low investment cost
- Average cooling air consumption 2%
- Desorption in counterflow

HRI CO₂ (PDP: -50 °C)

- Ideal for CO₂ recovery plants
- Adsorption dryer / deodoriser package

CONDENSATE MANAGEMENT

Reliable Condensate Discharge without Pressure Losses

You will achieve an especially safe and reliable condensate discharge without pressure loss when using the electronically level-controlled condensate drains. The range is distinguished by a compact design and is available in five sizes. A rugged housing design, a low noise development during the discharging process and a high resistance against dirt are only a few of the performance features of the condensate drain. All condensate drains are easy to maintain and functionally tested by the manufacturer.



UFM-D Electronic Zero-Loss Drains

- Reliable operation
- No purge air loss due to electronic control
- Simple installation
- High pressure version UFM-DHP up to 40 bar_g available

Minimum Expenditure with Service and Maintenance

- Complete replacement of all wear parts and pressurised parts with one-handed operation*
- Only one spare part is needed
- No assembly of seals and individual parts is required

*Applies to the condensate drains sizes UFM-D03, UFM-D05 and UFM-D10

Oil/Water Separators reduce Disposal Costs

With an oil content of 5% on average, condensate is too harmful to the environment and must not pass into the wastewater without purification. The specified critical value by legislation is at a maximum of 20 mg/l (measured according to DIN EN ISO 9377-2) - some local regulations of today are even more restrictive. Ultrasep Superplus N oil/water separators fulfil these requirements, reduce disposal costs and protect the environment. Donaldson provides the optimal solution for each application in seven sizes for compressor capacities ranging from 120 Nm³/hr to 7,200 Nm³/hr.



UFS-SP Oil-Water Separators

- Residual oil content 10 mg/l or less
- 7 models available for optimal sizing

Ultra-Aqua UFA Oil-Water Separator with Crossflow Membrane Filtration

- For emulsified compressed air condensate
- Residual oil content < 5 mg/l
- Automatic cleaning during operation

ACCESSORIES, SPARE PARTS and SERVICES



AFTERCOOLERS AND DEMISTERS

Air/Water Cooled Aftercoolers UFK-L, UFK-W

- Ensures an energy efficient compressed air system
- Contributes to long pre and afterfilter service life
- Improves compressor efficiency
- Lowers operation cost for downstream equipment

Demisters

- Cost efficient removal of bulk water, particles and oil droplets
- Retention rate 99% for particle sized > 10 micron
- Including UFM-D condensate drain



MEASUREMENT SERVICES AND EQUIPMENT

- Volume flow measurement with consumption profile
- Pressure dew point measurement
- Leakage measurements
- Oil aerosol measurement
- Differential pressure management
- Compressed air condensate analysis

Ultraphone Leakage Detector Pressure Dewpoint Meters

- Stationary
- Portable

Massflowmeters for CA and N₂

- Stationary
- Portable



SERVICES, SPARE PARTS AND CONSUMABLES

- Compressed air audits with detailed analysis and optimisation action plan
- Commissioning
- Preventative maintenance agreements
- Servicing
- Compressed air leak localisation

Desiccant

- Silica gel
- Activated alumina
- Molecular sieve
- Specialty desiccants

Desiccant Replacements for Other Brands of Adsorption Dryers

- Dewpoint dependent and control retrofits for energy savings

Donaldson offers a wide variety of solutions to reduce your energy costs, improve your productivity, guarantee production quality and help preserve the environment.

PRODUCTS

- Activated carbon filters
- Adsorption dryers
- Breathing-air units
- Cartridge filters
- Condensate drains
- Cyclone separators
- Demisters
- Disposable filters
- Elements
- Emulsion separators
- Filters
- Fine Filters
- Filter housing
- High-performance filters
- High-pressure filters
- Medical vacuum filters
- Micro filters
- Oil/vapour absorbers
- Oil/water separators
- Oil/water separation systems
- Pre-filters
- Process filter elements
- Process filter housing
- Pure gas filters
- Refrigeration compressed air dryers
- Service Kits
- Silicon-free filters
- Steam filters
- Sterile filters
- Sub-micro filters
- System solution
- Vacuum filters
- Vent filters

SERVICES

- Air Audit - Detailed analysis with optimisation action plan
- Air flow measurement
- Air Performance - Optimisation of compressed air networks
- Air Survey - Analysis of compressed air systems
- Condensate sampling
- Dew point measurement
- Differential pressure measurement
- Integrity tests
- Leak localisation
- Maintenance agreement
- Oil-aerosol measurement
- Service agreement

* Please note that not all products and/or services are available within all regions. Contact a Donaldson representative for more information.

Donaldson
Ultrafilter™

Total Filtration Service

A comprehensive range of services especially designed to keep your production at peak performance and at the lowest total cost of ownership.



Donaldson
FILTRATION SOLUTIONS

Donaldson Australasia Pty Ltd
PO Box 153, Wyong NSW 2259

Freecall: 1800 345 837
Ph: +61 2 4350 2000
Fax: +61 2 4351 2036

Donaldson New Zealand
PO Box 14-770 Panmure 1741 Auckland

Ph: +64 9 579 2790
Fax: +64 9 579 0322

General Brochure 12CAPS003 (06/12)

© 2012 Donaldson Company, Inc. All rights Reserved. Information in this document is subject to change without notice.

Printed in Australia.