Piccolo 243

Nitrogen Membrane Module

Product Information Sheet

Parker hollow-fibre membrane modules produce nitrogen gas from compressed air to offer a cost-effective, reliable and safe alternative to traditional cylinder or liquid nitrogen gas supplies.

Nitrogen is used as a clean, dry, inert gas primarily for removing oxygen from products and/or processes.

Parker modules can be built into a custom-made nitrogen generator or can be integrated with your (production) process to provide an on-demand, continuous source of nitrogen gas. Gas which can be used in a wide range of industries including food, beverage, pharmaceutical, laboratory, chemical, heat treatment, electronics, transportation, oil & gas, mining and marine.

Manufacture Information:

Parker Filtration & Separation B.V.
domnick hunter Industrial Division
Oude Kerkstraat 4
4878 AA Etten-Leur
The Netherlands

Tel: +31 (0)76 508 53 00
Fax: +31 (0)76 508 53 33
Email: pfsinfo@parker.com

Benefits:

- **Less membrane modules needed per nitrogen system**
  More nitrogen per fibre is produced from Parker hollow-fibre membranes than any other in the world
- **Use of low pressure standard industrial compressor**
  No high pressure compressor needed to obtain required nitrogen flow
- **Energy savings**
  Operation at a low pressure requires less energy
- **Reduced CO_2 emissions**
  No heater required to open polymer membrane structure, thus reducing the energy consumption
- **Robust fibre**
  Most tolerant fibre to particle contamination
- **Large membrane diameter**
  Lowest membrane module pressure drop
- **Strong engineering plastic**
  Life-expectancy of more than 10 years
- **Factory membrane ageing, pre-delivery**
  No performance decrease over time due to fibre ageing
- **Quick start-up time**
  Required nitrogen purity is produced instantly, no time needed to heat-up
- **Flexible mounting arrangements**
  Can be mounted horizontal or vertical
- **Low noise operation**
  Radiated noise generated by membrane technology is extremely low
- **No maintenance required**
  No user serviceable parts
- **Small system footprint**
  Less modules needed to produce nitrogen requirements

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Performance data

Performance data is based on 20°C feed-air temperature and 1013 mbar ambient pressure

Nitrogen purity %[1]	Minimum nitrogen flow rate in l/min [2]			
	98	97	96	95
4 bar g	1.5	2.4	3.5	4.3
5 bar g	1.8	3.0	4.3	5.3
6 bar g	2.1	4.0	5.3	5.6
7 bar g	2.5	4.7	6.2	6.5
8 bar g	2.8	5.2	6.8	7.9
9 bar g	3.0	5.7	7.5	9.3
10 bar g	3.4	6.1	8.1	9.6
11 bar g	3.9	6.4	8.7	9.9
12 bar g	4.3	6.8	9.3	10.2

Maximum nitrogen flow rate = minimum flow rate + 30%

1. Parker membranes separate oxygen from pressurised air. The composition of the product is determined by measuring the residual oxygen content. The nitrogen content is calculated by subtracting the residual oxygen content from 100 %. Air is composed of nitrogen (78.1%), oxygen (20.9 %), Argon (0.9 %), CO_2 (0.03 %), and some trace inert gases. Therefore it should be born in mind that the value that is normally called the nitrogen content actually is the inert gas content.
2. l/min refers to conditions at 1013mbar(a) and 20°C

Ambient Conditions

Ambient temperature	+2°C to +50°C
Ambient pressure	atmospheric
Air quality	clean air without contaminants

Feed-air Conditions

Maximum operating pressure	12.0 bar g
Min. / Max. operating temperature	+2°C / +50°C
Maximum oil vapour content	<0.01 mg/m^3
Particles	filtered at 0.01 μm cut off
Relative humidity	<100% (non condensing)

Flow Rate Corrections

Nitrogen flow rate at feed temperatures other than 20ºC	Use bulletin S3.1.059*
Feed-air consumption at feed-air temperatures other than 20ºC	Use bulletin S3.1.059*

* version number may vary, make sure to use the most recent version

Material

Housing	Aluminum

Services on Request

3D model CAD STEP file

Weight, Dimensions and Connections

Model	
Dimensions H x ØW (mm)	374 x Ø40
Weight	0.55 kg
Connection inlet / outlet	G$^1/_8$" female / G$^1/_8$" male
Dimensional drawing	Refer to K3.1.379

Note

Parker membrane systems produce both nitrogen and oxygen enriched air. Nitrogen enriched air can cause suffocation and oxygen enriched air causes increased fire hazards. The oxygen enriched air is available at ambient pressure and pressure build-up of enriched oxygen at the outlet must be prevented, otherwise a serious (reversible) decrease in performance will result. The nitrogen enriched air produced should be treated as pressurised air.

For more information please contact your local sales office or visit **www.parker.com**

Parker has a continuous policy of product development and although the company reserves the right to changes specifcations, it attemps to keep customers informed of any alterations.

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Catalogue: S3.1.049d
05/11

FILCO®, spol. s r.o.
Dvorská 464/103
CZ-503 11 Hradec Králové
tel.: +420 495 436 233
info@filco.cz,
www.filco.cz
Váš lokální distributor Parker

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HiFluxx TT304

Nitrogen Membrane Module

Product Information Sheet

Parker hollow-fibre membrane modules produce nitrogen gas from compressed air to offer a cost-effective, reliable and safe alternative to traditional cylinder or liquid nitrogen gas supplies.

Nitrogen is used as a clean, dry, inert gas primarily for removing oxygen from products and/or processes.

Parker modules can be built into a custom-made nitrogen generator or can be integrated with your (production) process to provide an on-demand, continuous source of nitrogen gas. Gas which can be used in a wide range of industries including food, beverage, pharmaceutical, laboratory, chemical, heat treatment, electronics, transportation, oil & gas, mining and marine.

Manufacture Information:

Parker Filtration & Separation B.V.
domnick hunter Industrial Division
Oude Kerkstraat 4
4878 AA Etten-Leur
The Netherlands

Tel: +31 (0)76 508 53 00
Fax: +31 (0)76 508 53 33
Email: pfsinfo@parker.com

Benefits:

- **Less membrane modules needed per nitrogen system**
  More nitrogen per fibre is produced from Parker hollow-fibre membranes than any other in the world
- **Use of low pressure standard industrial compressor**
  No high pressure compressor needed to obtain required nitrogen flow
- **Energy savings**
  Operation at a low pressure requires less energy
- **Reduced CO_2 emissions**
  No heater required to open polymer membrane structure, thus reducing the energy consumption
- **Robust fibre**
  Most tolerant fibre to particle contamination
- **Large membrane diameter**
  Lowest membrane module pressure drop
- **Strong engineering plastic**
  Life-expectancy of more than 10 years
- **Factory membrane ageing, pre-delivery**
  No performance decrease over time due to fibre ageing
- **Quick start-up time**
  Required nitrogen purity is produced instantly, no time needed to heat-up
- **Flexible mounting arrangements**
  Can be mounted horizontal or vertical
- **Low noise operation**
  Radiated noise generated by membrane technology is extremely low
- **No maintenance required**
  No user serviceable parts
- **Small system footprint**
  Less modules needed to produce nitrogen requirements

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Performance data

Performance data is based on 20°C feed-air temperature and 1013 mbar ambient pressure

Nitrogen purity %[1]	Minimum nitrogen flow rate in m³/hr [2]					
	99.5	99	98	97	96	95
4 bar g	0.50	0.74	1.13	1.49	1.79	2.28
5 bar g	0.62	0.93	1.41	1.86	2.24	2.85
6 bar g	0.77	1.17	1.78	2.36	2.93	3.55
7 bar g	0.90	1.37	2.08	2.75	3.41	4.14
8 bar g	1.03	1.57	2.37	3.14	3.90	4.73
9 bar g	1.16	1.73	2.66	3.54	4.45	5.39
10 bar g	1.28	1.96	2.97	3.93	4.88	5.92
11 bar g	1.36	2.07	3.19	4.25	5.32	6.48
12 bar g	1.43	2.18	3.41	4.57	5.77	7.05

Nitrogen purity %	Feed-air consumption at minimum nitrogen flow rate in m³/hr [2]					
	99.5	99	98	97	96	95
4 bar g	3.82	4.17	4.63	5.06	5.37	5.92
5 bar g	4.78	5.21	5.79	6.33	6.71	7.40
6 bar g	5.93	6.46	7.12	7.78	8.48	9.23
7 bar g	6.92	7.53	8.30	9.07	9.90	10.8
8 bar g	7.91	8.61	9.49	10.4	11.3	12.3
9 bar g	9.01	9.71	10.9	11.7	12.9	14.0
10 bar g	10.0	11.0	12.2	13.0	14.1	15.4
11 bar g	11.6	12.4	13.7	14.9	16.0	17.5
12 bar g	12.2	13.1	14.7	16.0	17.3	19.0

Maximum pressure drop <0.8 bar.
Maximum nitrogen flow rate = minimum flow rate + 10%

1. Parker membranes separate oxygen from pressurised air. The composition of the product is determined by measuring the residual oxygen content. The nitrogen content is calculated by subtracting the residual oxygen content from 100 %. Air is composed of nitrogen (78.1%), oxygen (20.9 %), Argon (0.9 %), CO2 (0.03 %), and some trace inert gases. Therefore it should be born in mind that the value that is normally called the nitrogen content actually is the inert gas content.

2. m³/hr refers to conditions at 1013mbar(a) and 20°C

Ambient Conditions

Ambient temperature	+2°C to +50°C
Ambient pressure	atmospheric
Air quality	clean air without contaminants

Feed-air Conditions

Maximum operating pressure	13.0 bar g
Min. / Max. operating temperature	+2°C / +50°C
Maximum oil vapour content	<0.01 mg/m³
Particles	filtered at 0.01 µm cut off
Relative humidity	<100% (non condensing)

Flow Rate Corrections

Nitrogen flow rate at feed temperatures other than 20°C	Use bulletin S3.1.059*
Feed-air consumption at feed-air temperatures other than 20°C	Use bulletin S3.1.059*

* version number may vary, make sure to use the most recent version

Material

Housing	Aluminum

Services on Request

3D model CAD STEP file

Weight, Dimensions and Connections

Dimensions H x W x D	388 x 200 x 63 mm
Weight	5.7 kg
Connection inlet / outlet	G3/8" female
Vent	G3/8" female
Dimensional drawing	Refer to K3.1.352

Note
Parker membrane systems produce both nitrogen and oxygen enriched air. Nitrogen enriched air can cause suffocation and oxygen enriched air causes increased fire hazards. The oxygen enriched air is available at ambient pressure and pressure build-up of enriched oxygen at the outlet must be prevented, otherwise a serious (reversible) decrease in performance will result. The nitrogen enriched air produced should be treated as pressurised air.

For more information please contact your local sales office or visit **www.parker.com**

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05/11

FILCO®, spol. s r.o.
Dvorská 464/103
CZ-503 11 Hradec Králové
tel.: +420 495 436 233
info@filco.cz,
www.filco.cz
Váš lokální distributor Parker

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HiFluxx DT304

Nitrogen Membrane Module

Parker hollow-fibre membrane modules produce nitrogen gas from compressed air to offer a cost-effective, reliable and safe alternative to traditional cylinder or liquid nitrogen gas supplies.

Nitrogen is used as a clean, dry, inert gas primarily for removing oxygen from products and/or processes.

Parker modules can be built into a custom-made nitrogen generator or can be integrated with your (production) process to provide an on-demand, continuous source of nitrogen gas. Gas which can be used in a wide range of industries including food, beverage, pharmaceutical, laboratory, chemical, heat treatment, electronics, transportation, oil & gas, mining and marine.

Manufacture Information:

Parker Filtration & Separation B.V.
domnick hunter Industrial Division
Oude Kerkstraat 4
4878 AA Etten-Leur
The Netherlands

Tel: +31 (0)76 508 53 00
Fax: +31 (0)76 508 53 33
Email: pfsinfo@parker.com

Benefits:

- **Less membrane modules needed per nitrogen system**
  More nitrogen per fibre is produced from Parker hollow-fibre membranes than any other in the world
- **Use of low pressure standard industrial compressor**
  No high pressure compressor needed to obtain required nitrogen flow
- **Energy savings**
  Operation at a low pressure requires less energy
- **Reduced CO_2 emissions**
  No heater required to open polymer membrane structure, thus reducing the energy consumption
- **Robust fibre**
  Most tolerant fibre to particle contamination
- **Large membrane diameter**
  Lowest membrane module pressure drop
- **Strong engineering plastic**
  Life-expectancy of more than 10 years
- **Factory membrane ageing, pre-delivery**
  No performance decrease over time due to fibre ageing
- **Quick start-up time**
  Required nitrogen purity is produced instantly, no time needed to heat-up
- **Flexible mounting arrangements**
  Can be mounted horizontal or vertical
- **Low noise operation**
  Radiated noise generated by membrane technology is extremely low
- **No maintenance required**
  No user serviceable parts
- **Small system footprint**
  Less modules needed to produce nitrogen requirements

Performance data

Nitrogen Purity %	Minimum nitrogen[1] flow rate in m^3/hr [2] (CFM)[2]					
	99.5	99	98	97	96	95
4 bar g (58 psi g)	0.29 (0.17)	0.47 (0.28)	0.75 (0.44)	1.00 (0.59)	1.26 (0.74)	1.55 (0.91)
5 bar g (72.5 psi g)	0.36 (0.21)	0.59 (0.35)	0.94 (0.55)	1.25 (0.74)	1.57 (0.92)	1.94 (1.14)
6 bar g (87 psi g)	0.47 (0.28)	0.75 (0.44)	1.19 (0.7)	1.61 (0.95)	2.00 (1.18)	2.43 (1.43)
7 bar g (101.5 psi g)	0.55 (0.32)	0.88 (0.52)	1.39 (0.82)	1.87 (1.1)	2.33 (1.37)	2.84 (1.67)
8 bar g (116 psi g)	0.62 (0.36)	1.00 (0.59)	1.59 (0.94)	2.14 (1.26)	2.67 (1.57)	3.24 (1.91)
9 bar g (130.5 psi g)	0.71 (0.42)	1.14 (0.67)	1.79 (1.05)	2.44 (1.44)	3.03 (1.78)	3.68 (2.17)
10 bar g (145 psi g)	0.78 (0.46)	1.25 (0.74)	1.99 (1.17)	2.68 (1.58)	3.33 (1.96)	4.05 (2.38)
11 bar g (159.5 psi g)	0.83 (0.49)	1.35 (0.79)	2.14 (1.26)	2.89 (1.7)	3.63 (2.14)	4.44 (2.61)
12 bar g (174 psi g)	0.89 (0.52)	1.46 (0.86)	2.30 (1.35)	3.11 (1.83)	3.94 (2.32)	4.83 (2.84)

Nitrogen Purity %	Feed-air consumption at minimum nitrogen flow rate in m^3/hr [2] (CFM)[2]					
	99.5	99	98	97	96	95
4 bar g (58 psi g)	2.56 (1.51)	2.78 (1.64)	3.16 (1.86)	3.41 (2.01)	3.77 (2.22)	4.03 (2.37)
5 bar g (72.5 psi g)	3.20 (1.88)	3.47 (2.04)	3.95 (2.32)	4.26 (2.51)	4.72 (2.78)	5.04 (2.97)
6 bar g (87 psi g)	3.93 (2.31)	4.29 (2.52)	4.89 (2.88)	5.30 (3.12)	5.80 (3.41)	6.32 (3.72)
7 bar g (101.5 psi g)	4.58 (2.7)	5.00 (2.94)	5.70 (3.35)	6.18 (3.64)	6.76 (3.98)	7.37 (4.34)
8 bar g (116 psi g)	5.24 (3.08)	5.72 (3.37)	6.52 (3.84)	7.06 (4.16)	7.73 (4.55)	8.43 (4.96)
9 bar g (130.5 psi g)	5.93 (3.49)	6.53 (3.84)	7.33 (4.31)	8.05 (4.74)	8.78 (5.17)	9.57 (5.63)
10 bar g (145 psi g)	6.55 (3.86)	7.14 (4.2)	8.15 (4.8)	8.83 (5.2)	9.66 (5.69)	10.5 (6.18)
11 bar g (159.5 psi g)	7.50 (4.41)	8.13 (4.79)	9.22 (5.43)	10.1 (5.94)	10.9 (6.42)	11.5 (6.77)
12 bar g (174 psi g)	7.99 (4.7)	8.73 (5.14)	9.89 (5.82)	10.9 (6.42)	11.8 (6.95)	12.5 (7.36)

Maximum pressure drop <0.8 bar (12 psi)
Maximum nitrogen flow rate = minimum flow rate + 10%
Values between brackets are indicative imperial values

[1] Parker membranes separate oxygen from pressurised air. The composition of the product is determined by measuring the residual oxygen content. The nitrogen content is calculated by subtracting the residual oxygen content from 100 %. Air is composed of nitrogen (78.1%), oxygen (20.9 %), Argon (0.9 %), CO_2 (0.03 %), and some trace inert gases. Therefore it should be born in mind that the value that is normally called the nitrogen content actually is the inert gas content.
[2] m^3/hr (CFM) refers to conditions at 1013 mbar(a) (14.7 psi a) and 20°C (68°F)

Ambient Conditions

Ambient temperature	+2°C to +50°C (+36°F to +122°F)
Ambient pressure	atmospheric
Air quality	clean air without contaminants

Feed-air Conditions

Maximum operating pressure	13.0 bar g (189 psi g)
Min. / Max. operating temperature	+2°C to +50°C (+36°F to +122°F)
Maximum oil vapour content	<0.01 mg/m^3 (<0.01 ppm (w))
Particles	filtered at 0.01 µm cut off
Relative humidity	<100% (non condensing)

Flow Rate Corrections

Nitrogen flow rate at feed temperatures other than 20°C (68°F)	Use bulletin S3.1.059*
Feed-air consumption at feed-air temperatures other than 20°C (68°F)	Use bulletin S3.1.059*

* version number may vary, make sure to use the most recent version

Material

Housing	Aluminum

Services on Request

3D model CAD STEP file

Weight, Dimensions, Connections and Part Number

Dimensions H x W x D	386 x 145 x 63 mm (15.2” x 5.7” x 2.48”)
Weight	4 kg (8.8 lb)
Connection inlet / outlet	G 3/8” female to ISO 228
Vent	G 3/8” female to ISO 228
Dimensional drawing	Refer to K3.1.349
Part number	159.003471

Note

Parker membrane systems produce both nitrogen and oxygen enriched air. Nitrogen enriched air can cause suffocation and oxygen enriched air causes increased fire hazards. The oxygen enriched air is available at ambient pressure and pressure build-up of enriched oxygen at the outlet must be prevented, otherwise a serious (reversible) decrease in performance will result. The nitrogen enriched air produced should be treated as pressurised air.

For more information please contact your local sales office or visit **www.parker.com**

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FILCO®, spol. s r.o.
Dvorská 464/103
CZ-503 11 Hradec Králové
tel.: +420 495 436 233
info@filco.cz,
www.filco.cz
Váš lokální distributor Parker

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Product Information Sheet

HiFluxx ST604

Nitrogen Membrane Module

Parker hollow-fibre membrane modules produce nitrogen gas from compressed air to offer a cost-effective, reliable and safe alternative to traditional cylinder or liquid nitrogen gas supplies.

Nitrogen is used as a clean, dry, inert gas primarily for removing oxygen from products and/or processes.

Parker modules can be built into a custom-made nitrogen generator or can be integrated with your (production) process to provide an on-demand, continuous source of nitrogen gas. Gas which can be used in a wide range of industries including food, beverage, pharmaceutical, laboratory, chemical, heat treatment, electronics, transportation, oil & gas, mining and marine.

Manufacture Information:

Parker Filtration & Separation B.V.
domnick hunter Industrial Division
Oude Kerkstraat 4
4878 AA Etten-Leur
The Netherlands

Tel: +31 (0)76 508 53 00
Fax: +31 (0)76 508 53 33
Email: pfsinfo@parker.com

Benefits:

- **Less membrane modules needed per nitrogen system**
  More nitrogen per fibre is produced from Parker hollow-fibre membranes than any other in the world
- **Use of low pressure standard industrial compressor**
  No high pressure compressor needed to obtain required nitrogen flow
- **Energy savings**
  Operation at a low pressure requires less energy
- **Reduced CO_2 emissions**
  No heater required to open polymer membrane structure, thus reducing the energy consumption
- **Robust fibre**
  Most tolerant fibre to particle contamination
- **Large membrane diameter**
  Lowest membrane module pressure drop
- **Strong engineering plastic**
  Life-expectancy of more than 10 years
- **Factory membrane ageing, pre-delivery**
  No performance decrease over time due to fibre ageing
- **Quick start-up time**
  Required nitrogen purity is produced instantly, no time needed to heat-up
- **Flexible mounting arrangements**
  Can be mounted horizontal or vertical
- **Low noise operation**
  Radiated noise generated by membrane technology is extremely low
- **No maintenance required**
  No user serviceable parts
- **Small system footprint**
  Less modules needed to produce nitrogen requirements

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Performance data

Nitrogen Purity %	Minimum nitrogen[1] flow rate in m^3/hr [2] (CFM)[2]				
	99	98	97	96	95
4 bar g (58 psi g)	0.39 (0.23)	0.65 (0.38)	0.88 (0.52)	1.11 (0.65)	1.40 (0.82)
5 bar g (72.5 psi g)	0.48 (0.28)	0.81 (0.48)	1.10 (0.65)	1.39 (0.82)	1.74 (1.02)
6 bar g (87 psi g)	0.61 (0.36)	1.05 (0.62)	1.42 (0.84)	1.80 (1.06)	2.19 (1.29)
7 bar g (101.5 psi g)	0.72 (0.42)	1.22 (0.72)	1.66 (0.98)	2.10 (1.24)	2.56 (1.51)
8 bar g (116 psi g)	0.82 (0.48)	1.39 (0.82)	1.90 (1.12)	2.40 (1.41)	2.92 (1.72)
9 bar g (130.5 psi g)	0.93 (0.55)	1.61 (0.95)	2.19 (1.29)	2.77 (1.63)	3.39 (2)
10 bar g (145 psi g)	1.02 (0.6)	1.74 (1.02)	2.37 (1.39)	3.00 (1.77)	3.65 (2.15)
11 bar g (159.5 psi g)	1.12 (0.66)	1.91 (1.12)	2.62 (1.54)	3.33 (1.96)	4.07 (2.4)
12 bar g (174 psi g)	1.22 (0.72)	2.09 (1.23)	2.87 (1.69)	3.66 (2.15)	4.48 (2.64)

Nitrogen Purity %	Feed-air consumption at minimum nitrogen flow rate in m^3/hr [2] (CFM)[2]				
	99	98	97	96	95
4 bar g (58 psi g)	2.47 (1.45)	2.80 (1.65)	3.09 (1.82)	3.34 (1.97)	3.63 (2.14)
5 bar g (72.5 psi g)	3.08 (1.81)	3.50 (2.06)	3.86 (2.27)	4.17 (2.45)	4.53 (2.67)
6 bar g (87 psi g)	3.81 (2.24)	4.39 (2.58)	4.83 (2.84)	5.21 (3.07)	5.70 (3.35)
7 bar g (101.5 psi g)	4.44 (2.61)	5.12 (3.01)	5.64 (3.32)	6.08 (3.58)	6.65 (3.91)
8 bar g (116 psi g)	5.08 (2.99)	5.86 (3.45)	6.44 (3.79)	6.95 (4.09)	7.60 (4.47)
9 bar g (130.5 psi g)	5.86 (3.45)	6.74 (3.97)	7.46 (4.39)	8.04 (4.73)	8.82 (5.19)
10 bar g (145 psi g)	6.45 (3.8)	7.32 (4.31)	8.06 (4.74)	8.69 (5.11)	9.50 (5.59)
11 bar g (159.5 psi g)	7.41 (4.36)	8.42 (4.96)	9.16 (5.39)	9.98 (5.87)	10.6 (6.24)
12 bar g (174 psi g)	8.05 (4.74)	9.18 (5.4)	10.0 (5.89)	11.0 (6.47)	11.7 (6.89)

Maximum pressure drop <0.3 bar (4 psi)
Maximum nitrogen flow rate = minimum flow rate + 30%
Values between brackets are indicative imperial values

1. Parker membranes separate oxygen from pressurised air. The composition of the product is determined by measuring the residual oxygen content. The nitrogen content is calculated by subtracting the residual oxygen content from 100 %. Air is composed of nitrogen (78.1%), oxygen (20.9 %), Argon (0.9 %), CO_2 (0.03 %), and some trace inert gases. Therefore it should be born in mind that the value that is normally called the nitrogen content actually is the inert gas content.
2. m^3/hr (CFM) refers to conditions at 1013 mbar(a) (14.7 psi a) and 20°C (68°F)

Ambient Conditions

Ambient temperature	+2°C to +50°C (+36°F to +122°F)
Ambient pressure	atmospheric
Air quality	clean air without contaminants

Feed-air Conditions

Maximum operating pressure	13.0 bar g (189 psi g)
Min. / Max. operating temperature	+2°C to +50°C (+36°F to +122°F)
Maximum oil vapour content	<0.01 mg/m^3 (<0.01 ppm (w))
Particles	filtered at 0.01 µm cut off
Relative humidity	<100% (non condensing)

Flow Rate Corrections

Nitrogen flow rate at feed temperatures other than 20°C (68°F)	Use bulletin S3.1.059*
Feed-air consumption at feed-air temperatures other than 20°C (68°F)	Use bulletin S3.1.059*

* version number may vary, make sure to use the most recent version

Material

Housing	Aluminum

Services on Request

3D model CAD STEP file

Weight, Dimensions, Connections and Part number

Dimensions H x W x D	757 x 80 x 63 mm (29.8" x 3.15" x 2.48")
Weight	3.2 kg (7 lb)
Connection inlet / outlet	G 3/8" female to ISO 228
Vent	G 3/8" female to ISO 228
Dimensional drawing	Refer to K3.1.344
Part Number	159.003468

Note
Parker membrane systems produce both nitrogen and oxygen enriched air. Nitrogen enriched air can cause suffocation and oxygen enriched air causes increased fire hazards. The oxygen enriched air is available at ambient pressure and pressure build-up of enriched oxygen at the outlet must be prevented, otherwise a serious (reversible) decrease in performance will result. The nitrogen enriched air produced should be treated as pressurised air.

For more information please contact your local sales office or visit **www.parker.com**

Parker has a continuous policy of product development and although the company reserves the right to changes specifications, it attempts to keep customers informed of any alterations.

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Catalogue: S3.1.064d 08/14

FILCO®, spol. s r.o.
Dvorská 464/103
CZ-503 11 Hradec Králové
tel.: +420 495 436 233
info@filco.cz,
www.filco.cz
Váš lokální distributor Parker

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HiFluxx TT604

Nitrogen Membrane Module

Product Information Sheet

Parker hollow-fibre membrane modules produce nitrogen gas from compressed air to offer a cost-effective, reliable and safe alternative to traditional cylinder or liquid nitrogen gas supplies.

Nitrogen is used as a clean, dry, inert gas primarily for removing oxygen from products and/or processes.

Parker modules can be built into a custom-made nitrogen generator or can be integrated with your (production) process to provide an on-demand, continuous source of nitrogen gas. Gas which can be used in a wide range of industries including food, beverage, pharmaceutical, laboratory, chemical, heat treatment, electronics, transportation, oil & gas, mining and marine.

Manufacture Information:

Parker Filtration & Separation B.V.
domnick hunter Industrial Division
Oude Kerkstraat 4
4878 AA Etten-Leur
The Netherlands

Tel: +31 (0)76 508 53 00
Fax: +31 (0)76 508 53 33
Email: pfsinfo@parker.com

Benefits:

- **Less membrane modules needed per nitrogen system**
  More nitrogen per fibre is produced from Parker hollow-fibre membranes than any other in the world
- **Use of low pressure standard industrial compressor**
  No high pressure compressor needed to obtain required nitrogen flow
- **Energy savings**
  Operation at a low pressure requires less energy
- **Reduced CO_2 emissions**
  No heater required to open polymer membrane structure, thus reducing the energy consumption
- **Robust fibre**
  Most tolerant fibre to particle contamination
- **Large membrane diameter**
  Lowest membrane module pressure drop
- **Strong engineering plastic**
  Life-expectancy of more than 10 years
- **Factory membrane ageing, pre-delivery**
  No performance decrease over time due to fibre ageing
- **Quick start-up time**
  Required nitrogen purity is produced instantly, no time needed to heat-up
- **Flexible mounting arrangements**
  Can be mounted horizontal or vertical
- **Low noise operation**
  Radiated noise generated by membrane technology is extremely low
- **No maintenance required**
  No user serviceable parts
- **Small system footprint**
  Less modules needed to produce nitrogen requirements

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Performance data

Performance data is based on 20°C feed-air temperature and 1013 mbar ambient pressure

Nitrogen purity %[1]	Minimum nitrogen flow rate in m³/hr[2]					
	99.5	99	98	97	96	95
4 bar g	1.05	1.55	2.32	3.06	3.75	4.49
5 bar g	1.32	1.94	2.90	3.83	4.69	5.62
6 bar g	1.62	2.41	3.64	4.82	6.02	7.20
7 bar g	1.89	2.81	4.25	5.62	7.02	8.40
8 bar g	2.16	3.22	4.85	6.42	8.02	9.60
9 bar g	2.41	3.60	5.54	7.23	8.97	11.1
10 bar g	2.71	4.02	6.07	8.03	10.0	12.0
11 bar g	2.89	4.31	6.62	8.80	10.9	13.2
12 bar g	3.07	4.60	7.17	9.58	11.8	14.3

Nitrogen purity %	Feed-air consumption at minimum nitrogen flow rate in m³/hr[2]					
	99.5	99	98	97	96	95
4 bar g	8.21	8.68	9.51	10.4	11.2	12.1
5 bar g	10.3	10.8	11.9	13.0	14.1	15.2
6 bar g	12.5	13.5	14.9	16.4	17.4	18.7
7 bar g	14.6	15.8	17.4	19.1	20.4	21.8
8 bar g	16.7	18.0	19.9	21.8	23.3	25.0
9 bar g	19.3	20.5	22.7	24.6	26.9	28.8
10 bar g	21.6	22.9	24.9	27.3	30.1	31.2
11 bar g	24.6	26.3	28.5	30.8	33.8	35.6
12 bar g	26.1	28.1	30.8	33.5	36.5	38.7

Maximum pressure drop <0.8 bar.
Maximum nitrogen flow rate = minimum flow rate + 10%

[1.] Parker membranes separate oxygen from pressurised air. The composition of the product is determined by measuring the residual oxygen content. The nitrogen content is calculated by subtracting the residual oxygen content from 100 %. Air is composed of nitrogen (78.1%), oxygen (20.9 %), Argon (0.9 %), CO_2 (0.03 %), and some trace inert gases. Therefore it should be born in mind that the value that is normally called the nitrogen content actually is the inert gas content.

[2.] m³/hr refers to conditions at 1013mbar(a) and 20°C

Ambient Conditions

Ambient temperature	+2°C to +50°C
Ambient pressure	atmospheric
Air quality	clean air without contaminants

Feed-air Conditions

Maximum operating pressure	13.0 bar g
Min. / Max. operating temperature	+2°C / +50°C
Maximum oil vapour content	<0.01 mg/m³
Particles	filtered at 0.01 µm cut off
Relative humidity	<100% (non condensing)

Flow Rate Corrections

Nitrogen flow rate at feed temperatures other than 20°C	Use bulletin S3.1.059*
Feed-air consumption at feed-air temperatures other than 20°C	Use bulletin S3.1.059*

* version number may vary, make sure to use the most recent version

Material

Housing	Aluminum

Services on Request

3D model CAD STEP file

Weight, Dimensions and Connections

Dimensions H x W x D	758 x 200 x 63 mm
Weight	8.3 kg
Connection inlet / outlet	G³/₈" female
Vent	G³/₈" female
Dimensional drawing	Refer to K3.1.353

Note

Parker membrane systems produce both nitrogen and oxygen enriched air. Nitrogen enriched air can cause suffocation and oxygen enriched air causes increased fire hazards. The oxygen enriched air is available at ambient pressure and pressure build-up of enriched oxygen at the outlet must be prevented, otherwise a serious (reversible) decrease in performance will result. The nitrogen enriched air produced should be treated as pressurised air.

For more information please contact your local sales office or visit **www.parker.com**

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FILCO®, spol. s r.o.
Dvorská 464/103
CZ-503 11 Hradec Králové
tel.: +420 495 436 233
info@filco.cz,
www.filco.cz

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HiFluxx DT604

Nitrogen Membrane Module

Parker hollow-fibre membrane modules produce nitrogen gas from compressed air to offer a cost-effective, reliable and safe alternative to traditional cylinder or liquid nitrogen gas supplies.

Nitrogen is used as a clean, dry, inert gas primarily for removing oxygen from products and/or processes.

Parker modules can be built into a custom-made nitrogen generator or can be integrated with your (production) process to provide an on-demand, continuous source of nitrogen gas. Gas which can be used in a wide range of industries including food, beverage, pharmaceutical, laboratory, chemical, heat treatment, electronics, transportation, oil & gas, mining and marine.

Manufacture Information:

Parker Filtration & Separation B.V.
domnick hunter Industrial Division
Oude Kerkstraat 4
4878 AA Etten-Leur
The Netherlands

Tel: +31 (0)76 508 53 00
Fax: +31 (0)76 508 53 33
Email: pfsinfo@parker.com

Benefits:

- **Less membrane modules needed per nitrogen system**
  More nitrogen per fibre is produced from Parker hollow-fibre membranes than any other in the world
- **Use of low pressure standard industrial compressor**
  No high pressure compressor needed to obtain required nitrogen flow
- **Energy savings**
  Operation at a low pressure requires less energy
- **Reduced CO_2 emissions**
  No heater required to open polymer membrane structure, thus reducing the energy consumption
- **Robust fibre**
  Most tolerant fibre to particle contamination
- **Large membrane diameter**
  Lowest membrane module pressure drop
- **Strong engineering plastic**
  Life-expectancy of more than 10 years
- **Factory membrane ageing, pre-delivery**
  No performance decrease over time due to fibre ageing
- **Quick start-up time**
  Required nitrogen purity is produced instantly, no time needed to heat-up
- **Flexible mounting arrangements**
  Can be mounted horizontal or vertical
- **Low noise operation**
  Radiated noise generated by membrane technology is extremely low
- **No maintenance required**
  No user serviceable parts
- **Small system footprint**
  Less modules needed to produce nitrogen requirements

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Performance data

Nitrogen Purity %	Minimum nitrogen[1] flow rate in m^3/hr [2] (CFM)[2]					
	99.5	99	98	97	96	95
4 bar g (58 psi g)	0.76 (0.45)	1.13 (0.67)	1.69 (0.99)	2.23 (1.31)	2.76 (1.62)	3.36 (1.98)
5 bar g (72.5 psi g)	0.95 (0.56)	1.41 (0.83)	2.12 (1.25)	2.78 (1.64)	3.46 (2.04)	4.19 (2.47)
6 bar g (87 psi g)	1.19 (0.7)	1.77 (1.04)	2.67 (1.57)	3.35 (1.97)	4.37 (2.57)	5.27 (3.1)
7 bar g (101.5 psi g)	1.39 (0.82)	2.07 (1.22)	3.11 (1.83)	3.91 (2.3)	5.09 (3)	6.15 (3.62)
8 bar g (116 psi g)	1.59 (0.94)	2.36 (1.39)	3.56 (2.1)	4.46 (2.63)	5.82 (3.43)	7.03 (4.14)
9 bar g (130.5 psi g)	1.75 (1.03)	2.63 (1.55)	4.03 (2.37)	5.30 (3.12)	6.60 (3.88)	8.00 (4.71)
10 bar g (145 psi g)	1.99 (1.17)	2.95 (1.74)	4.45 (2.62)	5.58 (3.28)	7.28 (4.28)	8.79 (5.17)
11 bar g (159.5 psi g)	2.08 (1.22)	3.14 (1.85)	4.80 (2.83)	6.22 (3.66)	7.93 (4.67)	9.62 (5.66)
12 bar g (174 psi g)	2.17 (1.28)	3.33 (1.96)	5.16 (3.04)	6.87 (4.04)	8.58 (5.05)	10.4 (6.12)

Nitrogen Purity %	Feed-air consumption at minimum nitrogen flow rate in m^3/hr [2] (CFM)[2]					
	99.5	99	98	97	96	95
4 bar g (58 psi g)	5.79 (3.4)	6.21 (3.66)	6.95 (4.09)	7.57 (4.46)	8.02 (4.72)	8.72 (5.13)
5 bar g (72.5 psi g)	7.24 (4.3)	7.77 (4.57)	8.69 (5.11)	9.46 (5.57)	10.0 (5.89)	10.9 (6.42)
6 bar g (87 psi g)	8.94 (5.3)	9.56 (5.63)	10.7 (6.3)	11.4 (6.7)	12.7 (7.5)	13.7 (8.1)
7 bar g (101.5 psi g)	10.4 (6.1)	11.2 (6.59)	12.5 (7.4)	13.3 (7.8)	14.8 (8.7)	16.0 (9.4)
8 bar g (116 psi g)	11.9 (7)	12.7 (7.5)	14.2 (8.4)	15.2 (8.9)	16.9 (9.9)	18.3 (10.8)
9 bar g (130.5 psi g)	13.3 (7.8)	14.5 (8.5)	16.1 (9.5)	18.0 (10.6)	19.1 (11.2)	20.8 (12.2)
10 bar g (145 psi g)	15.1 (8.9)	16.2 (9.5)	17.8 (10.5)	19.0 (11.2)	21.1 (12.4)	22.9 (13.5)
11 bar g (159.5 psi g)	17.3 (10.2)	18.5 (10.9)	20.2 (11.9)	21.2 (12.5)	23.8 (14)	25.0 (14.7)
12 bar g (174 psi g)	18.0 (10.6)	19.6 (11.5)	21.7 (12.8)	23.4 (13.8)	25.7 (15.1)	27.2 (16)

Maximum pressure drop <0.8 bar (12 psi)
Maximum nitrogen flow rate = minimum flow rate + 10%
Values between brackets are indicative imperial values

1. Parker membranes separate oxygen from pressurised air. The composition of the product is determined by measuring the residual oxygen content. The nitrogen content is calculated by subtracting the residual oxygen content from 100 %. Air is composed of nitrogen (78.1%), oxygen (20.9 %), Argon (0.9 %), CO_2 (0.03 %), and some trace inert gases. Therefore it should be born in mind that the value that is normally called the nitrogen content actually is the inert gas content.
2. m^3/hr (CFM) refers to conditions at 1013 mbar(a) (14.7 psi a) and 20°C (68°F)

Ambient Conditions

Ambient temperature	+2°C to +50°C (+36°F to +122°F)
Ambient pressure	atmospheric
Air quality	clean air without contaminants

Feed-air Conditions

Maximum operating pressure	13.0 bar g (189 psi g)
Min. / Max. operating temperature	+2°C to +50°C (+36°F to +122°F)
Maximum oil vapour content	<0.01 mg/m^3 (<0.01 ppm (w))
Particles	filtered at 0.01 µm cut off
Relative humidity	<100% (non condensing)

Flow Rate Corrections

Nitrogen flow rate at feed temperatures other than 20°C (68°F)	Use bulletin S3.1.059*
Feed-air consumption at feed-air temperatures other than 20°C (68°F)	Use bulletin S3.1.059*

* version number may vary, make sure to use the most recent version

Material

Housing	Aluminum

Services on Request

3D model CAD STEP file

Weight, Dimensions, Connections and Part number

Dimensions H x W x D	758 x 145 x 63 mm (29.84” x 5.7” x 2.48”)
Weight	6 kg (13.2 lb)
Connection inlet / outlet	G 3/8” female to ISO 228
Vent	G 3/8” female to ISO 228
Dimensional drawing	Refer to K3.1.350
Part Number	159.003472

Note
Parker membrane systems produce both nitrogen and oxygen enriched air. Nitrogen enriched air can cause suffocation and oxygen enriched air causes increased fire hazards. The oxygen enriched air is available at ambient pressure and pressure build-up of enriched oxygen at the outlet must be prevented, otherwise a serious (reversible) decrease in performance will result. The nitrogen enriched air produced should be treated as pressurised air.

For more information please contact your local sales office or visit **www.parker.com**

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Catalogue: S3.1.065e 08/14

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FILCO®, spol. s r.o.
Dvorská 464/103
CZ-503 11 Hradec Králové
tel.: +420 495 436 233
info@filco.cz,
www.filco.cz

Váš lokální distributor Parker

HiFluxx ST608

Nitrogen Membrane Module

Product Information Sheet

Parker hollow-fibre membrane modules produce nitrogen gas from compressed air to offer a cost-effective, reliable and safe alternative to traditional cylinder or liquid nitrogen gas supplies.

Nitrogen is used as a clean, dry, inert gas primarily for removing oxygen from products and/or processes.

Parker modules can be built into a custom-made nitrogen generator or can be integrated with your (production) process to provide an on-demand, continuous source of nitrogen gas. Gas which can be used in a wide range of industries including food, beverage, pharmaceutical, laboratory, chemical, heat treatment, electronics, transportation, oil & gas, mining and marine.

Manufacture Information:

Parker Filtration & Separation B.V.
domnick hunter Industrial Division
Oude Kerkstraat 4
4878 AA Etten-Leur
The Netherlands

Tel: +31 (0)76 508 53 00
Fax: +31 (0)76 508 53 33
Email: pfsinfo@parker.com

Benefits:

- **Less membrane modules needed per nitrogen system**
  More nitrogen per fibre is produced from Parker hollow-fibre membranes than any other in the world
- **Use of low pressure standard industrial compressor**
  No high pressure compressor needed to obtain required nitrogen flow
- **Energy savings**
  Operation at a low pressure requires less energy
- **Reduced CO_2 emissions**
  No heater required to open polymer membrane structure, thus reducing the energy consumption
- **Robust fibre**
  Most tolerant fibre to particle contamination
- **Large membrane diameter**
  Lowest membrane module pressure drop
- **Strong engineering plastic**
  Life-expectancy of more than 10 years
- **Factory membrane ageing, pre-delivery**
  No performance decrease over time due to fibre ageing
- **Quick start-up time**
  Required nitrogen purity is produced instantly, no time needed to heat-up
- **Flexible mounting arrangements**
  Can be mounted horizontal or vertical
- **Low noise operation**
  Radiated noise generated by membrane technology is extremely low
- **No maintenance required**
  No user serviceable parts
- **Small system footprint**
  Less modules needed to produce nitrogen requirements

Parker

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Performance data

Performance data is based on 20°C feed-air temperature and 1013 mbar ambient pressure

Nitrogen purity %[1]	Minimum nitrogen flow rate in m³/hr [2]				
	99	98	97	96	95
4 bar g	1.34	2.25	3.07	3.87	4.82
5 bar g	1.67	2.81	3.84	4.84	6.02
6 bar g	2.14	3.72	4.99	6.48	7.91
7 bar g	2.49	4.34	5.82	7.56	9.23
8 bar g	2.85	4.96	6.65	8.65	10.6
9 bar g	3.36	5.81	7.85	10.0	12.2
10 bar g	3.56	6.21	8.32	10.8	13.2
11 bar g	4.01	6.96	9.46	12.2	14.9
12 bar g	4.46	7.71	10.6	13.5	16.6

Nitrogen purity %	Feed-air consumption at minimum nitrogen flow rate in m³/hr [2]				
	99	98	97	96	95
4 bar g	9.08	10.1	11.1	12.0	13.0
5 bar g	11.4	12.7	13.8	15.0	16.3
6 bar g	14.1	16.0	17.5	19.5	20.6
7 bar g	16.5	18.7	20.4	22.7	24.0
8 bar g	18.8	21.3	23.3	25.9	27.4
9 bar g	21.8	25.0	27.5	30.0	31.8
10 bar g	23.2	26.7	29.1	32.4	34.3
11 bar g	27.7	31.3	34.1	36.5	40.2
12 bar g	30.8	34.7	38.2	40.6	44.9

Maximum pressure drop <0.3 bar.
Maximum nitrogen flow rate = minimum flow rate + 30%

[1]. Parker membranes separate oxygen from pressurised air. The composition of the product is determined by measuring the residual oxygen content. The nitrogen content is calculated by subtracting the residual oxygen content from 100 %. Air is composed of nitrogen (78.1%), oxygen (20.9 %), Argon (0.9 %), CO_2 (0.03 %), and some trace inert gases. Therefore it should be born in mind that the value that is normally called the nitrogen content actually is the inert gas content.
[2]. m³/hr refers to conditions at 1013mbar(a) and 20°C

Ambient Conditions

Ambient temperature	+2°C to +50°C
Ambient pressure	atmospheric
Air quality	clean air without contaminants

Feed-air Conditions

Maximum operating pressure	13.0 bar g
Min. / Max. operating temperature	+2°C / +50°C
Maximum oil vapour content	<0.01 mg/m³
Particles	filtered at 0.01 µm cut off
Relative humidity	<100% (non condensing)

Flow Rate Corrections

Nitrogen flow rate at feed temperatures other than 20°C	Use bulletin S3.1.059*
Feed-air consumption at feed-air temperatures other than 20°C	Use bulletin S3.1.059*

* version number may vary, make sure to use the most recent version

Material

Housing	Aluminum

Services on Request

3D model CAD STEP file

Weight, Dimensions and Connections

Dimensions H x Ø D	736 x 114 mm
Weight	5.3 kg
Connection inlet / outlet	G ¾" female
Vent	G 1" female
Dimensional drawing	Refer to K3.1.346

Note

Parker membrane systems produce both nitrogen and oxygen enriched air. Nitrogen enriched air can cause suffocation and oxygen enriched air causes increased fire hazards. The oxygen enriched air is available at ambient pressure and pressure build-up of enriched oxygen at the outlet must be prevented, otherwise a serious (reversible) decrease in performance will result. The nitrogen enriched air produced should be treated as pressurised air.

For more information please contact your local sales office or visit **www.parker.com**

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FILCO®, spol. s r.o.
Dvorská 464/103
CZ-503 11 Hradec Králové
tel.: +420 495 436 233
info@filco.cz,
www.filco.cz

Váš lokální distributor Parker

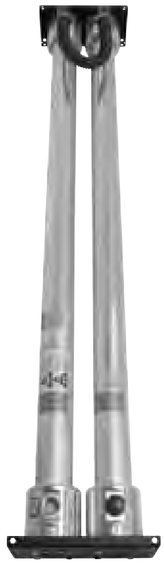
HiFluxx DT1506-8

Nitrogen Membrane Module

Parker hollow-fibre membrane modules produce nitrogen gas from compressed air to offer a cost-effective, reliable and safe alternative to traditional cylinder or liquid nitrogen gas supplies.

Nitrogen is used as a clean, dry, inert gas primarily for removing oxygen from products and/or processes.

Parker modules can be built into a custom-made nitrogen generator or can be integrated with your (production) process to provide an on-demand, continuous source of nitrogen gas. Gas which can be used in a wide range of industries including food, beverage, pharmaceutical, laboratory, chemical, heat treatment, electronics, transportation, oil & gas, mining and marine.



Manufacture Information:

Parker Filtration & Separation B.V.
domnick hunter Industrial Division
Oude Kerkstraat 4
4878 AA Etten-Leur
The Netherlands

Tel: +31 (0)76 508 53 00
Fax: +31 (0)76 508 53 33
Email: pfsinfo@parker.com

Benefits:

- **Less membrane modules needed per nitrogen system**
  More nitrogen per fibre is produced from Parker hollow-fibre membranes than any other in the world
- **Use of low pressure standard industrial compressor**
  No high pressure compressor needed to obtain required nitrogen flow
- **Energy savings**
  Operation at a low pressure requires less energy
- **Reduced CO_2 emissions**
  No heater required to open polymer membrane structure, thus reducing the energy consumption
- **Robust fibre**
  Most tolerant fibre to particle contamination
- **Large membrane diameter**
  Lowest membrane module pressure drop
- **Strong engineering plastic**
  Life-expectancy of more than 10 years
- **Factory membrane ageing, pre-delivery**
  No performance decrease over time due to fibre ageing
- **Quick start-up time**
  Required nitrogen purity is produced instantly, no time needed to heat-up
- **Flexible mounting arrangements**
  Can be mounted horizontal or vertical
- **Low noise operation**
  Radiated noise generated by membrane technology is extremely low
- **No maintenance required**
  No user serviceable parts
- **Small system footprint**
  Less modules needed to produce nitrogen requirements

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Performance data

Nitrogen Purity %	Minimum nitrogen[1] flow rate in m^3/hr [2] (CFM)[2]					
	99.5	99	98	97	96	95
4 bar g (58 psi g)	2.31 (1.36)	3.63 (2.14)	6.25 (3.68)	8.6 (5.05)	10.9 (6.42)	13.2 (7.8)
5 bar g (72.5 psi g)	3.41 (2.01)	5.36 (3.15)	9.2 (5.43)	12.7 (7.47)	16.1 (9.48)	19.5 (11.5)
6 bar g (87 psi g)	4.46 (2.63)	7.01 (4.13)	12.1 (7.12)	16.6 (9.77)	21.0 (12.4)	25.5 (15)
7 bar g (101.5 psi g)	5.25 (3.09)	8.25 (4.86)	14.2 (8.36)	19.5 (11.5)	24.7 (14.5)	30.0 (17.7)
8 bar g (116 psi g)	6.30 (3.71)	9.90 (5.83)	17.0 (10)	23.4 (13.8)	29.6 (17.4)	36.0 (21.2)
9 bar g (130.5 psi g)	7.35 (4.33)	11.6 (6.83)	19.9 (11.7)	27.3 (16.1)	34.6 (20.4)	42.0 (24.7)
10 bar g (145 psi g)	8.4 (4.94)	13.2 (7.8)	22.7 (13.4)	31.2 (18.4)	39.5 (23.2)	48.0 (28.3)
11 bar g (159.5 psi g)	9.5 (5.56)	14.9 (8.8)	25.6 (15.1)	35.1 (20.7)	44.5 (26.2)	54.0 (31.8)
12 bar g (174 psi g)	10.5 (6.18)	16.5 (9.7)	28.4 (16.7)	39.0 (23)	49.4 (29.1)	60.0 (35.3)
13 bar g (188.5 psi g)	11.0 (6.47)	17.3 (10.2)	29.8 (17.5)	41.0 (24.1)	51.9 (30.5)	63.0 (37.1)

Nitrogen Purity %	Feed-air consumption at minimum nitrogen flow rate in m^3/hr [2] (CFM)[2]					
	99.5	99	98	97	96	95
4 bar g (58 psi g)	19.6 (11.5)	22.9 (13.5)	26.9 (15.8)	30.0 (17.7)	32.6 (19.2)	34.3 (20.2)
5 bar g (72.5 psi g)	29.0 (17.1)	33.8 (19.9)	39.7 (23.4)	44.4 (26.1)	48.2 (28.4)	50.7 (29.8)
6 bar g (87 psi g)	37.9 (22.3)	44.2 (26)	51.9 (30.5)	58.0 (34.1)	63.0 (37.1)	66.3 (39)
7 bar g (101.5 psi g)	44.6 (26.3)	52.0 (30.6)	61.1 (36)	68.3 (40.2)	74.1 (43.6)	78 (45.9)
8 bar g (116 psi g)	53.6 (31.5)	62.4 (36.7)	73.3 (43.1)	81.9 (48.2)	88.9 (52.3)	93.6 (55.1)
9 bar g (130.5 psi g)	62.5 (36.8)	72.8 (42.8)	85.5 (50.3)	95.6 (56.3)	104 (61.2)	109 (64.2)
10 bar g (145 psi g)	71.4 (42)	83.2 (49)	97.7 (57.5)	109 (64.2)	119 (70)	125 (73.6)
11 bar g (159.5 psi g)	80.3 (47.3)	93.6 (55.1)	110 (64.7)	123 (72.4)	133 (78.3)	140 (82.4)
12 bar g (174 psi g)	89.3 (52.6)	104 (61.2)	122 (71.8)	137 (80.6)	148 (87.1)	156 (91.8)
13 bar g (188.5 psi g)	93.7 (55.1)	109 (64.2)	128 (75.3)	143 (84.2)	156 (91.8)	164 (96.5)

Maximum pressure drop <0.8 bar (12 psi)
Maximum nitrogen flow rate = minimum flow rate + 10%.
Values between brackets are indicative imperial values

1. Parker membranes separate oxygen from pressurised air. The composition of the product is determined by measuring the residual oxygen content. The nitrogen content is calculated by subtracting the residual oxygen content from 100%. Air is composed of nitrogen (78.1%), oxygen (20.9%), Argon (0.9%), CO_2 (0.03%), and some trace inert gases. Therefore it should be born in mind that the value that is normally called the nitrogen content actually is the inert gas content.
2. m^3/hr (CFM) refers to conditions at 1013 mbar(a) (14.7 psi a) and 20°C (68°F)

Ambient Conditions

Ambient temperature	+2°C to +50°C (+36°F to +122°F)
Ambient pressure	atmospheric
Air quality	clean air without contaminants

Feed-air Conditions

Maximum operating pressure	13.0 bar g (189 psi g)
Min. / Max. operating temperature	+2°C to +50°C (+36°F to +122°F)
Maximum oil vapour content	<0.01 mg/m^3 (<0.01 ppm (w))
Particles	filtered at 0.01 µm cut off
Relative humidity	<100% (non condensing)

Flow Rate Corrections

Nitrogen flow rate at feed temperatures other than 20°C (68°F)	Use bulletin S3.1.059*
Feed-air consumption at feed-air temperatures other than 20°C (68°F)	Use bulletin S3.1.059*

* Version number may vary, make sure to use the most recent version

Mechanical Design Housing

Design pressure	13 bar g (189 psi g)
Design temperature	50°C (122°F)

Material

Housing	Aluminum

Services on Request

3D model CAD STEP file

Weight, Dimensions, Connections and Part Numbers

Model	**4 - 8 bar g (58 - 116 psi g)**	**9 - 13 bar g (117 - 190 psi g)**
Dimensions H x W x D	1705 x 296 x 208 mm (67.1" x 11.7" x 8.2")	1705 x 296 x 208 mm (67.1" x 11.7" x 8.2")
Weight	15 kg (33.1 lb)	15 kg (33.1 lb)
Connection inlet / outlet	G3/4" female to ISO 228	G3/4" female to ISO 228
Vent	G 1" female to ISO 228	2x G 1" female to ISO 228
Dimensional drawing	Refer to K3.1.356	Refer to K3.1.357
Part Numbers	159.003226	159.003233

Note

Parker membrane systems produce both nitrogen and oxygen enriched air. Nitrogen enriched air can cause suffocation and oxygen enriched air causes increased fire hazards. The oxygen enriched air is available at ambient pressure and pressure build-up of enriched oxygen at the outlet must be prevented, otherwise a serious (reversible) decrease in performance will result. The nitrogen enriched air produced should be treated as pressurised air.

For more information please contact your local sales office or visit **www.parker.com**

Parker has a continuous policy of product development and although the company reserves the right to changes specifications, it attempts to keep customers informed of any alterations.

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Catalogue: S3.1.034j 07/14

FILCO®, spol. s r.o.
Dvorská 464/103
CZ-503 11 Hradec Králové
tel.: +420 495 436 233
info@filco.cz,
www.filco.cz
Váš lokální distributor Parker

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HiFluxx ST1508

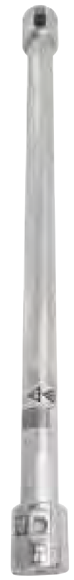
Nitrogen Membrane Module

Product Information Sheet

Parker hollow-fibre membrane modules produce nitrogen gas from compressed air to offer a cost-effective, reliable and safe alternative to traditional cylinder or liquid nitrogen gas supplies.

Nitrogen is used as a clean, dry, inert gas primarily for removing oxygen from products and/or processes.

Parker modules can be built into a custom-made nitrogen generator or can be integrated with your (production) process to provide an on-demand, continuous source of nitrogen gas. Gas which can be used in a wide range of industries including food, beverage, pharmaceutical, laboratory, chemical, heat treatment, electronics, transportation, oil & gas, mining and marine.



Manufacture Information:

Parker Filtration & Separation B.V.
domnick hunter Industrial Division
Oude Kerkstraat 4
4878 AA Etten-Leur
The Netherlands

Tel: +31 (0)76 508 53 00
Fax: +31 (0)76 508 53 33
Email: pfsinfo@parker.com

Benefits:

- **Less membrane modules needed per nitrogen system**
  More nitrogen per fibre is produced from Parker hollow-fibre membranes than any other in the world
- **Use of low pressure standard industrial compressor**
  No high pressure compressor needed to obtain required nitrogen flow
- **Energy savings**
  Operation at a low pressure requires less energy
- **Reduced CO_2 emissions**
  No heater required to open polymer membrane structure, thus reducing the energy consumption
- **Robust fibre**
  Most tolerant fibre to particle contamination
- **Large membrane diameter**
  Lowest membrane module pressure drop
- **Strong engineering plastic**
  Life-expectancy of more than 10 years
- **Factory membrane ageing, pre-delivery**
  No performance decrease over time due to fibre ageing
- **Quick start-up time**
  Required nitrogen purity is produced instantly, no time needed to heat-up
- **Flexible mounting arrangements**
  Can be mounted horizontal or vertical
- **Low noise operation**
  Radiated noise generated by membrane technology is extremely low
- **No maintenance required**
  No user serviceable parts
- **Small system footprint**
  Less modules needed to produce nitrogen requirements

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Performance data

Performance data is based on 20°C feed-air temperature and 1013 mbar ambient pressure

Nitrogen purity %[1]	Minimum nitrogen flow rate in m^3/hr[2]					
	99.5	99	98	97	96	95
4 bar g	2.07	2.95	4.84	6.60	8.8	11.0
5 bar g	3.06	4.36	7.15	9.75	13.0	16.3
6 bar g	4.00	5.70	9.35	12.8	17.0	21.3
7 bar g	4.70	6.70	11.0	15.0	20.0	25.0
8 bar g	5.17	7.37	12.1	16.5	22.0	27.5
9 bar g	6.11	8.71	14.3	19.5	26.0	32.5
10 bar g	6.58	9.38	15.4	21.0	28.0	35.0
11 bar g	7.52	10.7	17.6	24.0	32.0	40.0
12 bar g	7.99	11.4	18.7	25.5	34.0	42.5
13 bar g	8.46	12.1	19.8	27.0	36.0	45.0

Nitrogen purity %	Feed-air consumption at minimum nitrogen flow rate in m^3/hr[2]					
	99.5	99	98	97	96	95
4 bar g	17.6	18.6	20.8	23.1	26.4	28.6
5 bar g	26.0	27.4	30.7	34.1	39.0	42.3
6 bar g	34.0	35.9	40.2	44.6	51.0	55.3
7 bar g	40.0	42.2	47.3	52.5	60.0	65.0
8 bar g	43.9	46.4	52.0	57.8	66.0	71.5
9 bar g	51.9	54.9	61.5	68.3	78.0	84.5
10 bar g	55.9	59.1	66.2	73.5	84.0	91.0
11 bar g	63.9	67.5	75.7	84.0	96.0	104
12 bar g	67.9	71.8	80.4	89.3	102.0	111
13 bar g	71.9	76.0	85.1	94.5	108.0	117

Maximum pressure drop <0.3 bar.
Maximum nitrogen flow rate = minimum flow rate + 30%

[1.] Parker membranes separate oxygen from pressurised air. The composition of the product is determined by measuring the residual oxygen content. The nitrogen content is calculated by subtracting the residual oxygen content from 100 %. Air is composed of nitrogen (78.1%), oxygen (20.9 %), Argon (0.9 %), CO_2 (0.03 %), and some trace inert gases. Therefore it should be born in mind that the value that is normally called the nitrogen content actually is the inert gas content.
[2.] m^3/hr refers to conditions at 1013mbar(a) and 20°C

Ambient Conditions

Ambient temperature	+2°C to +50°C
Ambient pressure	atmospheric
Air quality	clean air without contaminants

Feed-air Conditions

Maximum operating pressure	13.0 bar g
Min. / Max. operating temperature	+2°C / +50°C
Maximum oil vapour content	<0.01 mg/m^3
Particles	filtered at 0.01 µm cut off
Relative humidity	<100% (non condensing)

Flow Rate Corrections

Nitrogen flow rate at feed temperatures other than 20°C	Use bulletin S3.1.059*
Feed-air consumption at feed-air temperatures other than 20°C	Use bulletin S3.1.059*

*version number may vary, make sure to use the most recent version

Mechanical Design Housing

Design pressure	15 bar g
Design temperature	65°C

membrane operating limits are lower

Material

Housing	Aluminum

Services on Request

Material certificates EN10204-3.1 on housing material (for Stainless Steel only)
3D model CAD STEP file

Weight, Dimensions and Connections

Dimensions H x Ø D	1655 x 114 mm
Weight	6.8 kg
Connection inlet / outlet	G3/4" female
Vent	G 1" female
Dimensional drawing	Refer to K3.1.330

Note

Parker membrane systems produce both nitrogen and oxygen enriched air. Nitrogen enriched air can cause suffocation and oxygen enriched air causes increased fire hazards. The oxygen enriched air is available at ambient pressure and pressure build-up of enriched oxygen at the outlet must be prevented, otherwise a serious (reversible) decrease in performance will result. The nitrogen enriched air produced should be treated as pressurised air.

For more information please contact your local sales office or visit **www.parker.com**

Parker has a continuous policy of product development and although the company reserves the right to changes specifcations, it attemps to keep customers informed of any alterations.

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FILCO®, spol. s r.o.
Dvorská 464/103
CZ-503 11 Hradec Králové
tel.: +420 495 436 233
info@filco.cz,
www.filco.cz
Váš lokální distributor Parker

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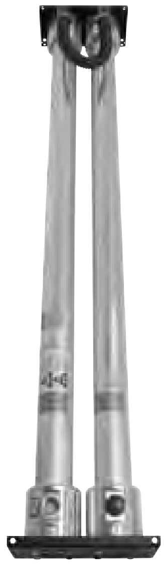
HiFluxx DT1508

Nitrogen Membrane Module

Parker hollow-fibre membrane modules produce nitrogen gas from compressed air to offer a cost-effective, reliable and safe alternative to traditional cylinder or liquid nitrogen gas supplies.

Nitrogen is used as a clean, dry, inert gas primarily for removing oxygen from products and/or processes.

Parker modules can be built into a custom-made nitrogen generator or can be integrated with your (production) process to provide an on-demand, continuous source of nitrogen gas. Gas which can be used in a wide range of industries including food, beverage, pharmaceutical, laboratory, chemical, heat treatment, electronics, transportation, oil & gas, mining and marine.



Manufacture Information:

Parker Filtration & Separation B.V.
domnick hunter Industrial Division
Oude Kerkstraat 4
4878 AA Etten-Leur
The Netherlands

Tel: +31 (0)76 508 53 00
Fax: +31 (0)76 508 53 33
Email: pfsinfo@parker.com

Benefits:

- **Less membrane modules needed per nitrogen system**
  More nitrogen per fibre is produced from Parker hollow-fibre membranes than any other in the world
- **Use of low pressure standard industrial compressor**
  No high pressure compressor needed to obtain required nitrogen flow
- **Energy savings**
  Operation at a low pressure requires less energy
- **Reduced CO_2 emissions**
  No heater required to open polymer membrane structure, thus reducing the energy consumption
- **Robust fibre**
  Most tolerant fibre to particle contamination
- **Large membrane diameter**
  Lowest membrane module pressure drop
- **Strong engineering plastic**
  Life-expectancy of more than 10 years
- **Factory membrane ageing, pre-delivery**
  No performance decrease over time due to fibre ageing
- **Quick start-up time**
  Required nitrogen purity is produced instantly, no time needed to heat-up
- **Flexible mounting arrangements**
  Can be mounted horizontal or vertical
- **Low noise operation**
  Radiated noise generated by membrane technology is extremely low
- **No maintenance required**
  No user serviceable parts
- **Small system footprint**
  Less modules needed to produce nitrogen requirements

Performance data

Nitrogen Purity %	Minimum nitrogen[1] flow rate in m^3/hr [2] (CFM)[2]					
	99.5	99	98	97	96	95
4 bar g (58 psi g)	3.08 (1.81)	4.84 (2.85)	8.36 (4.92)	11.4 (6.71)	14.5 (8.53)	17.6 (10.4)
5 bar g (72.5 psi g)	4.55 (2.68)	7.15 (4.21)	12.4 (7.3)	16.9 (9.95)	21.5 (12.7)	26.0 (15.3)
6 bar g (87 psi g)	5.95 (3.5)	9.35 (5.5)	16.2 (9.53)	22.1 (13)	28.1 (16.5)	34.0 (20)
7 bar g (101.5 psi g)	7.00 (4.12)	11.0 (6.47)	19.0 (11.2)	26.0 (15.3)	33.0 (19.4)	40.0 (23.5)
8 bar g (116 psi g)	8.40 (4.94)	13.2 (7.77)	22.8 (13.4)	31.2 (18.4)	39.6 (23.3)	48.0 (28.3)
9 bar g (130.5 psi g)	9.80 (5.77)	15.4 (9.06)	26.6 (15.7)	36.4 (21.4)	46.2 (27.2)	56.0 (33)
10 bar g (145 psi g)	11.2 (6.59)	17.6 (10.4)	30.4 (17.9)	41.6 (24.5)	52.8 (31.1)	64.0 (37.7)
11 bar g (159.5 psi g)	12.6 (7.42)	19.8 (11.7)	34.2 (20.1)	46.8 (27.5)	59.4 (35)	72.0 (42.4)
12 bar g (174 psi g)	14.0 (8.24)	22.0 (12.9)	38.0 (22.4)	52.0 (30.6)	66.0 (38.8)	80.0 (47.1)
13 bar g (188.5 psi g)	14.7 (8.65)	23.1 (13.6)	39.9 (23.5)	54.6 (32.1)	69.3 (40.8)	84.0 (49.4)

Nitrogen Purity %	Feed-air consumption at minimum nitrogen flow rate in m^3/hr [2] (CFM)[2]					
	99.5	99	98	97	96	95
4 bar g (58 psi g)	26.2 (15.4)	30.5 (18)	35.9 (21.1)	40.0 (23.5)	43.6 (25.7)	45.8 (27)
5 bar g (72.5 psi g)	38.7 (22.8)	45.0 (26.5)	53.1 (31.3)	59.2 (34.8)	64.4 (37.9)	67.6 (39.8)
6 bar g (87 psi g)	50.6 (29.8)	58.9 (34.7)	69.4 (40.8)	77.4 (45.6)	84.2 (49.6)	88.4 (52)
7 bar g (101.5 psi g)	59.5 (35)	69.3 (40.8)	81.7 (48.1)	91.0 (53.6)	99.0 (58.3)	104 (61.2)
8 bar g (116 psi g)	71.4 (42)	83.2 (49)	98.0 (57.7)	109 (64.2)	119 (70)	125 (73.6)
9 bar g (130.5 psi g)	83.3 (49)	97.0 (57.1)	114 (67.1)	127 (74.7)	139 (81.8)	146 (85.9)
10 bar g (145 psi g)	95.2 (56)	111 (65.3)	131 (77.1)	146 (85.9)	158 (93)	166 (97.7)
11 bar g (159.5 psi g)	107 (63)	125 (73.6)	147 (86.5)	164 (96.5)	178 (105)	187 (110)
12 bar g (174 psi g)	119 (70)	139 (81.8)	163 (95.9)	182 (107)	198 (117)	208 (122)
13 bar g (188.5 psi g)	125 (73.6)	146 (85.9)	172 (101)	191 (112)	208 (122)	218 (128)

Maximum pressure drop <0.8 bar (12 psi)
Maximum nitrogen flow rate = minimum flow rate + 10%.
Values between brackets are indicative imperial values

1. Parker membranes separate oxygen from pressurised air. The composition of the product is determined by measuring the residual oxygen content. The nitrogen content is calculated by subtracting the residual oxygen content from 100%. Air is composed of nitrogen (78.1%), oxygen (20.9 %), Argon (0.9 %), CO_2 (0.03 %), and some trace inert gases. Therefore it should be born in mind that the value that is normally called the nitrogen content actually is the inert gas content.
2. m^3/hr (CFM) refers to conditions at 1013 mbar(a) (14.7 psi a) and 20°C (68°F).

Ambient Conditions

Ambient temperature	+2°C to +50°C (+36°F to +122°F)
Ambient pressure	atmospheric
Air quality	clean air without contaminants

Mechanical Design Housing

Design pressure	13 bar g (189 psi g)
Design temperature	50°C (122°F)

Feed-air Conditions

Maximum operating pressure	13.0 bar g (189 psi g)
Min. / Max. operating temperature	+2°C to +50°C (+36°F to +122°F)
Maximum oil vapour content	<0.01 mg/m^3 (<0.01 ppm (w))
Particles	filtered at 0.01 µm cut off
Relative humidity	<100% (non condensing)

Material

Housing	Aluminum

Services on Request

Material certificates EN10204-3.1 on housing material (for Stainless Steel only)
3D model CAD STEP file

Flow Rate Corrections

Nitrogen flow rate at feed temperatures other than 20°C (68°F)	Use bulletin S3.1.059*
Feed-air consumption at feed-air temperatures other than 20°C (68°F)	Use bulletin S3.1.059*

* Version number may vary, make sure to use the most recent version

Weight, Dimensions, Connections and Part Number

Model	**4 - 8 bar g (58 - 116 psi g)**	**9 - 13 bar g (117 - 190 psi g)**
Dimensions H x W x D	1705 x 296 x 201 mm (67.1" x 11.7" x 7.9")	1705 x 296 x 145 mm (67.1" x 11.7" x 5.7")
Weight	16 kg (35.3 lb)	16 kg (35.3 lb)
Connection inlet / outlet	G3/4" female to ISO 228	G3/4" female to ISO 228
Vent	G 1" female to ISO 228	2x G 1" female to ISO 228
Dimensional drawing	Refer to K3.1.335	Refer to K3.1.336
Part Number	159.003114	159.003234

Note

Parker membrane systems produce both nitrogen and oxygen enriched air. Nitrogen enriched air can cause suffocation and oxygen enriched air causes increased fire hazards. The oxygen enriched air is available at ambient pressure and pressure build-up of enriched oxygen at the outlet must be prevented, otherwise a serious (reversible) decrease in performance will result. The nitrogen enriched air produced should be treated as pressurised air.

For more information please contact your local sales office or visit **www.parker.com**

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FILCO®, spol. s r.o.
Dvorská 464/103
CZ-503 11 Hradec Králové
tel.: +420 495 436 233
info@filco.cz,
www.filco.cz
Váš lokální distributor Parker

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HiFluxx ST6010

Nitrogen Membrane Module

Product Information Sheet

Parker hollow-fibre membrane modules produce nitrogen gas from compressed air to offer a cost-effective, reliable and safe alternative to traditional cylinder or liquid nitrogen gas supplies.

Nitrogen is used as a clean, dry, inert gas primarily for removing oxygen from products and/or processes.

Parker modules can be built into a custom-made nitrogen generator or can be integrated with your (production) process to provide an on-demand, continuous source of nitrogen gas. Gas which can be used in a wide range of industries including food, beverage, pharmaceutical, laboratory, chemical, heat treatment, electronics, transportation, oil & gas, mining and marine.

Manufacture Information:

Parker Filtration & Separation B.V.
domnick hunter Industrial Division
Oude Kerkstraat 4
4878 AA Etten-Leur
The Netherlands

Tel: +31 (0)76 508 53 00
Fax: +31 (0)76 508 53 33
Email: pfsinfo@parker.com

Benefits:

- **Less membrane modules needed per nitrogen system**
  More nitrogen per fibre is produced from Parker hollow-fibre membranes than any other in the world
- **Use of low pressure standard industrial compressor**
  No high pressure compressor needed to obtain required nitrogen flow
- **Energy savings**
  Operation at a low pressure requires less energy
- **Reduced CO_2 emissions**
  No heater required to open polymer membrane structure, thus reducing the energy consumption
- **Robust fibre**
  Most tolerant fibre to particle contamination
- **Large membrane diameter**
  Lowest membrane module pressure drop
- **Strong engineering plastic**
  Life-expectancy of more than 10 years
- **Factory membrane ageing, pre-delivery**
  No performance decrease over time due to fibre ageing
- **Quick start-up time**
  Required nitrogen purity is produced instantly, no time needed to heat-up
- **Flexible mounting arrangements**
  Can be mounted horizontal or vertical
- **Low noise operation**
  Radiated noise generated by membrane technology is extremely low
- **No maintenance required**
  No user serviceable parts
- **Small system footprint**
  Less modules needed to produce nitrogen requirements

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Performance data

Performance data is based on 20°C feed-air temperature and 1013 mbar ambient pressure

Nitrogen purity % [1]	Minimum nitrogen flow rate in m^3/hr [2]				
	99	98	97	96	95
4 bar g	2.21	3.61	4.92	6.28	7.76
5 bar g	2.76	4.52	6.15	7.85	9.70
6 bar g	3.39	5.92	8.02	10.2	12.8
7 bar g	3.96	6.90	9.35	12.0	14.9
8 bar g	4.52	7.89	10.7	13.7	17.1
9 bar g	5.39	9.01	12.3	15.7	19.2
10 bar g	5.66	9.86	13.4	17.1	21.3
11 bar g	6.24	10.8	14.8	18.9	23.6
12 bar g	6.83	11.7	16.2	20.8	25.8

Nitrogen purity %	Feed-air consumption at minimum nitrogen flow rate in m^3/hr [2]				
	99	98	97	96	95
4 bar g	14.4	16.3	17.7	19.5	21.0
5 bar g	17.9	20.3	22.1	24.3	26.2
6 bar g	22.4	25.4	28.1	30.7	33.3
7 bar g	26 .1	29.7	32.7	35.9	38.8
8 bar g	29.9	33.9	37.4	41.0	44.4
9 bar g	35.1	39.6	43.0	47.0	51.9
10 bar g	36.8	43.4	46.8	51.2	57.6
11 bar g	43.7	49.7	54.7	58.7	63.6
12 bar g	47.8	54.0	60.0	64.5	69.6

Maximum pressure drop <0.3 bar.
Maximum nitrogen flow rate = minimum flow rate + 30%

1. Parker membranes separate oxygen from pressurised air. The composition of the product is determined by measuring the residual oxygen content. The nitrogen content is calculated by subtracting the residual oxygen content from 100 %. Air is composed of nitrogen (78.1%), oxygen (20.9 %), Argon (0.9 %), CO_2 (0.03 %), and some trace inert gases. Therefore it should be born in mind that the value that is normally called the nitrogen content actually is the inert gas content.
2. m^3/hr refers to conditions at 1013mbar(a) and 20°C

Ambient Conditions

Ambient temperature	+2°C to +50°C
Ambient pressure	atmospheric
Air quality	clean air without contaminants

Feed-air Conditions

Maximum operating pressure	13.0 bar g [3]
Min. / Max. operating temperature	+2°C / +50°C [3]
Maximum oil vapour content	<0.01 mg/m^3
Particles	filtered at 0.01 µm cut off
Relative humidity	<100% (non condensing)

3. combination of high operating pressure and high operating temperature can reduce the life time expectancy of the membrane module

Flow Rate Corrections

Nitrogen flow rate at feed temperatures other than 20°C	Use bulletin S3.1.059*
Feed-air consumption at feed-air temperatures other than 20°C	Use bulletin S3.1.059*

* version number may vary, make sure to use the most recent version

Mechanical Design Housing

Design pressure	15 bar g
Design temperature	50°C

membrane operating limits are lower

Material

Housing	Aluminum

Services on Request

3D model CAD STEP file

Weight, Dimensions and Connections

Dimensions H x Ø D	736 x 139 mm
Weight	8.1 kg
Connection inlet / outlet	G 1" female
Vent	G 1" female
Dimensional drawing	Refer to K3.1.347

Note

Parker membrane systems produce both nitrogen and oxygen enriched air. Nitrogen enriched air can cause suffocation and oxygen enriched air causes increased fire hazards. The oxygen enriched air is available at ambient pressure and pressure build-up of enriched oxygen at the outlet must be prevented, otherwise a serious (reversible) decrease in performance will result. The nitrogen enriched air produced should be treated as pressurised air.

For more information please contact your local sales office or visit **www.parker.com**

Parker has a continuous policy of product development and although the company reserves the right to changes specifcations, it attemps to keep customers informed of any alterations.

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FILCO®, spol. s r.o.
Dvorská 464/103
CZ-503 11 Hradec Králové
tel.: +420 495 436 233
info@filco.cz,
www.filco.cz
Váš lokální distributor Parker

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HiFluxx ST15020

Nitrogen Membrane Module

Product Information Sheet

Parker hollow-fibre membrane modules produce nitrogen gas from compressed air to offer a cost-effective, reliable and safe alternative to traditional cylinder or liquid nitrogen gas supplies.

Nitrogen is used as a clean, dry, inert gas primarily for removing oxygen from products and/or processes.

Parker modules can be built into a custom-made nitrogen generator or can be integrated with your (production) process to provide an on-demand, continuous source of nitrogen gas. Gas which can be used in a wide range of industries including food, beverage, pharmaceutical, laboratory, chemical, heat treatment, electronics, transportation, oil & gas, mining and marine.

Manufacture Information:

Parker Filtration & Separation B.V.
domnick hunter Industrial Division
Oude Kerkstraat 4
4878 AA Etten-Leur
The Netherlands

Tel: +31 (0)76 508 53 00
Fax: +31 (0)76 508 53 33
Email: pfsinfo@parker.com

Benefits:

- **Less membrane modules needed per nitrogen system**
  More nitrogen per fibre is produced from Parker hollow-fibre membranes than any other in the world
- **Use of low pressure standard industrial compressor**
  No high pressure compressor needed to obtain required nitrogen flow
- **Energy savings**
  Operation at a low pressure requires less energy
- **Reduced CO_2 emissions**
  No heater required to open polymer membrane structure, thus reducing the energy consumption
- **Robust fibre**
  Most tolerant fibre to particle contamination
- **Large membrane diameter**
  Lowest membrane module pressure drop
- **Strong engineering plastic**
  Life-expectancy of more than 10 years
- **Factory membrane ageing, pre-delivery**
  No performance decrease over time due to fibre ageing
- **Quick start-up time**
  Required nitrogen purity is produced instantly, no time needed to heat-up
- **Flexible mounting arrangements**
  Can be mounted horizontal or vertical
- **Low noise operation**
  Radiated noise generated by membrane technology is extremely low
- **No maintenance required**
  No user serviceable parts
- **Small system footprint**
  Less modules needed to produce nitrogen requirements

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Performance data

Performance data is based on 20°C feed-air temperature and 1013 mbar ambient pressure

Nitrogen purity %[1]	Nominal nitrogen flow rate in m^3/hr^2				
	99	98	97	96	95
4 bar g	24.0	39.0	53.0	71.0	89.0
5 bar g	35.0	58.0	78.0	105	131
6 bar g	46.0	75.0	103	137	171
7 bar g	54.0	89.0	121	161	201
8 bar g	59.0	97.0	133	177	221

Nitrogen purity %	Feed-air consumption at nominal nitrogen flow rate in m^3/hr^2				
	99	98	97	96	95
4 bar g	161	175	191	220	239
5 bar g	238	259	283	324	353
6 bar g	289	324	359	411	445
7 bar g	340	381	423	483	523
8 bar g	374	419	465	531	576

Maximum pressure drop <0.3 bar.

1. Parker membranes separate oxygen from pressurised air. The composition of the product is determined by measuring the residual oxygen content. The nitrogen content is calculated by subtracting the residual oxygen content from 100 %. Air is composed of nitrogen (78.1%), oxygen (20.9 %), Argon (0.9 %), CO2 (0.03 %), and some trace inert gases. Therefore it should be born in mind that the value that is normally called the nitrogen content actually is the inert gas content.
2. m^3/hr refers to conditions at 1013mbar(a) and 20°C

Above tables reflect nominal flow rates. The nitrogen output of each individual module can vary +/- 15%. For selection purposes, calculation should be done based on nominal conditions without taking the variation into account. When ordering modules, it is necessary that the total modules needed for each individual project are clearly mentioned per order-line on the order-intake-form. Parker will assure that the total output flow rate (sum of the individual selected membranes flow rates) will be minimum the total nominal flow rate. The compressor selection can be done on the total calculated nominal flow rate without taking any variation into account.

Example:
Your project requires 1515 Nm^3/hr nitrogen at 8 bar g inlet pressure, 95% purity and 20°C inlet temperature. You will need 7 modules. Parker will ensure a minimum total product flow of 1515 Nm^3/hr. However, individual module performance can still vary +/-15%. The compressor should be selected on a total air consumption of 7 x 576 = 4032 Nm^3/hr.

Ambient Conditions

Ambient temperature	+2°C to +50°C
Ambient pressure	atmospheric
Air quality	clean air without contaminants

Feed-air Conditions

Maximum operating pressure	8.0 bar g
Min. / Max. operating temperature	+2°C / +50°C
Maximum oil vapour content	<0.01 mg/m^3
Particles	filtered at 0.01 µm cut off
Relative humidity	<100% (non condensing)

Flow Rate Corrections

Nitrogen flow rate at feed temperatures other than 20°C	Use bulletin S3.1.059*
Feed-air consumption at feed-air temperatures other than 20°C	Use bulletin S3.1.059*

*version number may vary, make sure to use the most recent version

Mechanical Design Housing

Design pressure	8 bar g
Design temperature	65°C

membrane operating limits are lower

Material

Housing	Aluminum

Services on Request

3D model CAD STEP file

Weight, Dimensions and Connections

Dimensions H x Ø D	1740 x 280 mm
Weight	46 kg
Connection inlet / outlet	G 2 1/2" female
Vent	100 mm OD
Dimensional drawing	K3.1.339

Note
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FILCO®, spol. s r.o.
Dvorská 464/103
CZ-503 11 Hradec Králové
tel.: +420 495 436 233
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