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# NO TROUBLES WITH BUBBLES ANYMORE 

## - prevent bubble formation in your fluidic system with BIOTECH DEGASi® line of degassers.

Dissolved gasses in a fluidic system can often cause troubles. When the pressure or the temperature changes, the dissolved gasses can form bubbles which affect the accuracy, precision and performance of your equipment. On-line degassing is a very efficient way of removing dissolved gasses from the liquid and preventing bubble formation.

## WHAT IS THE FUNDAMENTAL DIFFERENCE BETWEEN A DEGASSER AND A DEBUBBLER?

The Degasser removes gasses dissolved in the mobile phase/ flow systems. The Debubbler catches and removes bubbles visible to your eyes. For further information regarding debubblers - contact us!

## BIOTECH DEGASi ${ }^{\circledR}$ SERIES ARE DESIGNED TO REMOVE DISSOLVED GASSES FROM A SOLVENT

 The degassers can be employed in all type of applications where gasses dissolved in the operating liquid may interfere with the use of the system. Degassing is an absolute requirement to get optimal performance out of your analytical instrumentation or chromatography system! The use of a BIOTECH DEGASi® system will save you time and money by avoiding interruptions in your production. The BIOTECH DEGASi® line is easy to use and provides reliable continuous operation for many years. The extremely low internal volume of the Systec $A F^{T M}$ tubing used in the degasser provides for quick equilibration and very short startup times, compared to the use of a degasser which uses PTFE ${ }^{\circledR}$ degassing channels with the same degassing efficiency. The product range includes eight different degassers where you select a model depending on the flow rate and what type of solvent used.
## A BIOTECH DEGASi®

| Systec AF ${ }^{\text {TM }}$ Internal Volume | $480 \mu \mathrm{l}$ | $480 \mu \mathrm{l}$ | $100 \mu \mathrm{l}$ |
| :---: | :---: | :---: | :---: |
| No of Channels | 1-6 | 1-6 | 1-6 |
| Biocompatible Flow Path | Yes | No, Stented | Yes |
| Approximate Max Flow Per Channel (ml/min) | 3 | 3 | 0.5 |
| Inner Dimension Flow Path (mm) | 1.14 | 1.14 | 1.14 |

## FOR EVERY APPLICATION



SEMI-PREP

| 925 M | $5.3 / 13.8 \mathrm{ml}$ | 23 ml | 285 M | 60 ml (silicone) |
| :---: | :---: | :---: | :---: | :---: |
| 1-6 | 2 | 2 or 4 | 2,4,6 | 1 |
| Yes | No/Yes | Yes | Yes | Yes |
| 6 | 15/50 | 75-100 | 2 | 500 |
| 1.14 | 1.91 | N/A | 0.89 | N/A |

## GET RID OF DISSOLVED GASSES WITH OUR DEGASi®-LINE

The critical component of the vacuum degasser is a short length of Systec $\mathrm{AF}^{\text {TM }}$ tubing through which the solvent flows. This tubing is located in a chamber where a partial vacuum is maintained by a vacuum pump that is constantly running at a low speed. Dissolved gasses migrate across the tubing wall under a concentration gradient produced by the vacuum as the solvent flows within the tubing in accordance with Henry's law. The gasses are expelled from the system and the chamber is maintained at a constant, preset vacuum level by varying the vacuum pump speed as needed. A special
port in the vacuum pump continually flushes the pump head with a small "bleed" of air to remove any solvent vapors which may enter the pump from the vacuum chamber. This air bleed eliminates the need for any solenoid valves within the system. This patented design results in zero vacuum "hysteresis".
It is not necessary to totally eliminate the dissolved gas, it only needs to be reduced to a concentration that is below the saturation point of the mixture. Typically, $-50 \%$ must be removed.

## DEGASSING EXPLAINED



THE PRINCIPLE OF OUR DEGASi®-LINE

Dissolved gasses are actively removed from a flowing liquid stream by vacuum via the Systec $A F^{T M}$ membrane.

# THE DEGASSING CHAMBER THE HEART OF OUR DEGASi ${ }^{\circledR}$-LINE 

## THE SECRET REVEALED

The Systec AF ${ }^{T M}$ membrane is an essential part of the degassing process. Systec AF $^{\text {TM }}$ consists of an amorphous perfluorinated copolymer. Through the highly permeable membrane the dissolved gasses are removed, by applying vacuum on the outside of the membrane, while the liquid stays on the inside.
The flow path is inert and most of our different degassing chambers have a biocompatible flow path. Every vacuum chamber is manufactured with the highest quality and tested individually to ensure top-of-the-line performance.
Depending on your needs regarding conditions such as type of solvents and flow rates, we can help you determine the size of the vacuum chamber that will be optimal for your application.


# INCREASE THE QUALITY USING SYSTEC ${ }^{\circledR}$ ZHCR AND SYSTEC AFTM 



## SYSTEC® ZHCR VACUUM PUMP

Introducing the ZHCR ${ }^{\circledR}$ (Zero Hysteresis Constant Run) stepper motor driven vacuum pump, designed and developed for membrane degassing of HPLC mobile phase and other fluids used in Analytical Instrumentation.
Employing a micro-stepping closed loop vacuum control strategy permits the pump to maintain a constant vacuum level set-point* by varying the RPM of the stepper motor. The pump initially runs at a high speed which provides for a quick pull down and, as it approaches the vacuum control point, the RPM is gradually reduced until the desired vacuum level is reached. This patented control strategy allows the On-Line Degasser to maintain a virtually constant vacuum that is unaffected by varying degassing loads. As a consequence, fluctuations in baseline due to vacuum hysteresis are eliminated by not having the pump repeatedly stop and start as is done in many older and existing systems.


Typical Degassing Fluctuations from Vaccum Sources
Fluctuations in detector baseline of a single-speed pump compared to the patented technology of the Systec ZHCR $^{\circledR}$ pump.* UV detector baseline fluctuations are minimal when compared to traditional stop and start vacuum sources.
*Vacuum chamber consists of $285 \mu l$ of Systec $A F^{\text {TM }}$ tubing: flow rate is $1 \mathrm{ml} / \mathrm{min}$, eluent is methanol; wavelength is 215 $n m$.

## SYSTEC AF™ MEMBRANE

The new Systec AF $^{\text {rM }}$ membrane is 50x more permeable and outperforms the older Teflon ${ }^{\circledR}$ PTFE membranes used in many other degassing systems today. This translates into the ability to use shorter tubing for removal of dissolved gasses.

- Ultra-high degassing efficiency
- Low volume
- Considerably shorter equilibration times
- Very easy to prime
- Short vacuum pull-down times, typically 30 seconds
- Single lumen design for consistent degassing
- Inert flow path
- Excellent chemical compatibility flow path
- Long lifetime

Degassing Efficiency: Residual air for Systec Mini-chambers (percent dissolved air vs. Flowrate)


Plot shows remaining dissolved air in methanol using a selection of Systec Mini-Chambers*. The range of chambers and specifications offered provide ample solutions for system designs.

* Water and Methanol mixtures between $30 \%$ and $70 \%$ methanol will outgas when more than $38 \%$ dissolved air remains in each of the solvents. Other water and organic mobile phases being mixed using a low pressure gradient system will undergo similar outgassing.



## DEGASi® PLUS SERIES

Our latest addition to the DEGASi® ${ }^{\circledR}$ standalone series is the DEGASi ${ }^{\circledR}$ PLUS. It can be equipped for a wide range of applications, depending on what kind of performance you need.

## "It's small, smart \& silent..."

## THE FIRST CHOICE

DEGASi® PLUS is a further development of degassers such as:

- DEGASi® ${ }^{\text {Classic }}$
- DEGASi®Micro
- DEGASi®GPC
- DEGASi®Semi-Prep

FEATURES

- Much smaller footprint, height • Parallel connected vacuum chambers
- New vacuum pump using a smart • Easier accessibility and visibility board •Easier troubleshooting and re-
- Allmost silent
- Available with 1-6 channels
placement of parts
- Short leadtime

The old DEGASi ${ }^{\circledR}$ CLASSIC and old DEGASi ${ }^{\circledR}$ GPC are still avaliable:


Old DEGASi® ${ }^{\circledR}$ CLASSIC

| Part Number | Number of <br> Channels | Internal <br> Volume | Part number | Number of <br> Channels | Internal <br> Volume |
| :--- | :---: | :---: | :---: | :---: | :---: |
| OOO1-6352-A | 2 | $480 \mu \mathrm{l}$ | $0001-6622$ | 2 | $480 \mu \mathrm{l}$ |
| OOO1-6353-A | 3 | $480 \mu \mathrm{l}$ | $0001-6623$ | 3 | $480 \mu \mathrm{l}$ |
| OOO1-6354-A | 4 | $480 \mu \mathrm{l}$ | $0001-6624$ | 4 | $480 \mu \mathrm{l}$ |
| 0001-6355-A | 5 | $480 \mu \mathrm{l}$ | $0001-6625$ | 5 | $480 \mu \mathrm{l}$ |



All DEGASi® PLUS Units are deliverd with a Systec ZHCR Vacuum Pump with Smart Board


## DEGASi® ${ }^{\circledR}$ LUS CLASSIC

This is the first choice for most applications in analytical instrumentation and chromatography.
This state-of-the-art stand alone degasser will provide you with trouble free and efficient degassing day after day.

## "an all-round degasser for most applications in your lab...".



## THE FIRST CHOICE

With the highly permeable Systec $A F^{T M}$ membrane an internal degasser chamber volume of only $480 \mu \mathrm{l}$ is sufficient, to give you excellent degassing efficiency up to flow rates of approximately $3 \mathrm{ml} / \mathrm{min}$. The time the liquid spends inside the vacuum chamber is correlated to the degassing efficiency, so with higher flow rate the degassing efficiency will be lowered. In many cases the $480 \mu \mathrm{l}$ vacuum chamber can be used at $5 \mathrm{ml} / \mathrm{min}$ with sufficient degassing.

| Part Number | Number of Channels | Internal Volume |
| :---: | :---: | :---: |
| 0003-6351-A | 1 | $480 \mu \mathrm{l}$ |
| 0003-6352-A | 2 | $480 \mu$ |
| 0003-6353-A | 3 | 480 н |
| 0003-6354-A | 4 | $480 \mu$ |
| 0003-6355-A | 5 | $480 \mu$ |
| 0003-6356-A | 6 | 480 ${ }^{\text {I }}$ |

## PRODUCT FEATURES

- Ultra-high degassing efficiency
- Fits every system
- Long life expectancy 5+ years continuous (24/7) running capacity
- Easy to prime
- Almost silent
- Closed loop vacuum control means constant vacuum (variable RPM)
- ZHCR ${ }^{\circledR}$ patented control eliminates baseline fluctuations
- Excellent chemical compatibility flow path
- Biocompatible flow path
- Continuous vacuum system monitoring to ensure optimum operational conditions are maintained
- Advanced error and leak checking functions
- CE \& RoHS compliant

GENERAL SPECIFICATIONS

Degassing Channel Tubing:
Systec AF ${ }^{\text {TM }}$ (0.045" ID)

## Maximum Channel Pressure:

70 PSI
Wetted Materials:
Systec AF ${ }^{\text {TM }}$, PEEK, Glass-filled PTFE Liquid Connection:
1/4"-28 UNF threaded flat-bottom port
Size (L x H x W):
$245 \times 111 \times 59 \mathrm{~mm}$

POWER REQUIREMENTS
USING SUPPLIED AC ADAPTER

24 V Power supply included.
Required input to power supply:
110-240 V 50/60 HZ
Wall Sockets: 4 supplied with AC Adapter, Interchangeable: North America, Japan, U.K., Continental Europe, Australia


## DEGASi® PLUS GPC

is the right choice of degasser if you are working with $100 \%$ organic solvents in your fluidic line. Example of application areas where this degasser is successfully used are GPC (Gel Permeation Chromatography) and Normal Phase Chromatography.

## "when you are using 100 \% organic solvents in your fluidic line..."

## WHAT IS UNIQUE

DEGASi® GPC uses the same $480 \mu \mathrm{l}$ Systec $A F^{\text {™ }}$ degassing membrane as used in DEGASi ${ }^{\oplus}$ Classic. The main difference compared with the DEGASi® Classic is that we use a stented version of the vacuum chamber in the DEGASi® GPC.
The stent is a short piece of a stainless steel tube placed inside the ends of the degassing membrane, in order to make the internal ferrule in the bulkhead to get a better grip. This solution makes an even more secure internal connection

| Part Number | Number of Channels | Internal Volume |
| :---: | :---: | :---: |
| 0003-6621 | 1 | $480 \mu \mathrm{l}$ |
| 0003-6622 | 2 | 480 بl |
| 0003-6623 | 3 | 480 بl |
| 0003-6624 | 4 | $480 \mu \mathrm{l}$ |
| 0003-6625 | 5 | $480 \mu \mathrm{l}$ |
| 0003-6626 | 6 | $480 \mu \mathrm{l}$ |

when working with $100 \%$ organic solvents in the fluidic line.

PRODUCT FEATURES

- Ultra-high degassing efficiency
- Fits every system
- Long life expectancy $5+$ years continuous (24/7) running capacity
- Easy to prime
- Almost silent
-Closed loop vacuum control means constant vacuum (variable RPM)
- ZHCR ${ }^{\circledR}$ patented control eliminates baseline fluctuations
- Excellent chemical compatibility flow path
- Continuous vacuum system monitoring to ensure optimum operational conditions are maintained
- Advanced error and leak checking functions
-CE \& RoHS compliant


GENERAL SPECIFICATIONS

Degassing Channel Tubing:
Systec AF ${ }^{\text {TM }}$ (0.045" ID)
Maximum Channel Pressure:
70 PSI

## Wetted Materials:

Systec AF ${ }^{\text {TM }}$, PPS, Glass-filled PTFE
Stainless Steel
Liquid Connection:
1/4"-28 UNF threaded flat-bottom port
Size (L x H x W):
$245 \times 111 \times 59 \mathrm{~mm}$
POWER REQUIREMENTS
USING SUPPLIED AC ADAPTER

24 V Power supply included.
Required input to power supply:
110-240 V 50/60 HZ

Wall Sockets: 4 supplied with AC
Adapter, Interchangeable: North
America,Japan, U.K., Continental
Europe, Australia


## DEGASi® PLUS MICRO

Are you working with very low flow rates? Do you want to minimize the dead volumes inside your system? Then DEGASi® MICRO is your number one choice of degasser. With only $100 \mu \mathrm{l}$ internal volume you minimize the internal volume while still keeping excellent degassing efficiency up to approximately 0.5 : $\mathrm{ml} / \mathrm{min}$.

## "an outstanding degasser

## PRODUCT FEATURES

- Ultra-high degassing efficiency
- Fits every system
- Long life expectancy 5+ years continuous (24/7) running capacity
- Easy to prime
- Almost silent
- Closed loop vacuum control means constant vacuum (variable RPM)
- ZHCR ${ }^{\circledR}$ patented control eliminates - CE \& RoHS compliant baseline fluctuations
- Excellent chemical compatibility flow path
- Biocompatible flow path
- Continuous vacuum system monitoring to ensure that optimal operational conditions are maintained
- Advanced error and leak checking functions


## for very low flow rates.

## ВІОТЕСН

 DEGASi MICRO

GENERAL SPECIFICATIONS

## Degassing Channel Tubing: Systec AF ${ }^{\text {MM }}$ (0.045" ID)

## Maximum Channel Pressure: 70 PSI

## Wetted Materials:

Systec AF ${ }^{\text {TM }}$, PEEK, Glass-filled PTFE Liquid Connection:
1/4"-28 UNF threaded flat-bottom port
Size (L x H x W):
$245 \times 111 \times 59 \mathrm{~mm}$
POWER REQUIREMENTS
USING SUPPLIED AC ADAPTER

24 V Power supply included.
Required input to power supply:
110-240 V 50/60 HZ
Wall Sockets: 4 supplied with AC
Adapter, Interchangeable: North
America,Japan, U.K., Continental
Europe, Australia


## DEGASi® PLUS SEMI-PREP

When working with higher flow rates, up to $6 \mathrm{ml} / \mathrm{min}$, we strongly recommend DEGASi® ${ }^{\circledR}$ SEMI-PREP equipped with $925 \mu$ degassing chambers. These chambers can be used up to $10 \mathrm{ml} / \mathrm{min}$ but with a bit lower degassing efficiency.

## "manages higher flow rates

## PRODUCT FEATURES

- Ultra-high degassing efficiency
- Fits every system
- Long life expectancy: 5+ years continuous (24/7) running capacity
- Easy to prime
- Almost silent
- Closed loop vacuum control means constant vacuum (variable RPM)
- ZHCR ${ }^{\circledR}$ patented control eliminates baseline fluctuations

| Part Number | Number of Channels | Internal Volume |
| :---: | :---: | :---: |
| 0003-6351-L | 1 | $925 \mu \mathrm{l}$ |
| 0003-6352-L | 2 | $925 \mu \mathrm{l}$ |
| 0003-6353-L | 3 | $925 \mu \mathrm{l}$ |
| 0003-6354-L | 4 | $925 \mu \mathrm{l}$ |
| 0003-6355-L | 5 | $925 \mu \mathrm{l}$ |
| 0003-6356-L | 6 | $925 \mu$ |

- Excellent chemical compatibility flow path
- Biocompatible flow path
- Continuous vacuum system monitoring to ensure optimal operational conditions are maintained
- Advanced error and leak checking functions
- CE \& RoHS compliant



## GENERAL SPECIFICATIONS

## Degassing Channel Tubing: Systec AF ${ }^{\text {TM }}$ (0.045" ID) <br> Maximum Channel Pressure: 70 PSI

Wetted Materials:
Systec AF ${ }^{T M}$, PEEK, Glass-filled PTFE
Liquid Connection:
1/4"-28 UNF threaded flat-bottom port
Size ( x H $\times$ W) :
$245 \times 111 \times 59 \mathrm{~mm}$

POWER REQUIREMENTS
USING SUPPLIED AC ADAPTER

24 V Power supply included.
Required input to power supply:
110-240 V 50/60 HZ
Wall Sockets: 4 supplied with AC Adapter, Interchangeable: North America, Japan, U.K., Continental Europe, Australia


## DEGASi® PREP

This is the vacuum degassing system for analytical instrumentation and UHPLC/HPLC. It removes dissolved gasses at flow rates up to approximately $50 \mathrm{ml} / \mathrm{min}$ per channel. Built for the rigorous of modern preparative and semi-prep scale UHPLC/HPLC, its unique design assures reliable continuous operation and the highest level of continuous performance available. The low internal volume of each Systec $A F^{\top M}$ channel offers quick equilibration and short startup times compared with PTFE degassers.

## "the best degassing efficiency for demanding applications"

## PRODUCT FEATURES

- Ultra-high degassing efficiency
- Low volume, easy to prime
- Dual lumen design for low-flow resistance
- ZHCR ${ }^{\circledR}$ patented control eliminates baseline fluctuations
- Inert flow path
- Long life expectancy 5+ years continuous (24/7) running capacity
- Continuous vacuum system monitoring to ensure that optimal operational conditions are maintained.

| Part Number | Number of Channels | Channel Volume (ml) | Approximate max flow per channel ( $\mathrm{ml} / \mathrm{min}$ ) | Pressure Drop ( $\mathrm{mmHg} / \mathrm{ml} / \mathrm{min}$ ) |
| :---: | :---: | :---: | :---: | :---: |
| 0001-2053 | 2 | 5.3 | 15 | 0.02 |
| 0001-6484 | 2 | 13.8 | 50 | 0.47 |

GENERAL SPECIFICATIONS
Degassing Channel Tubing:
Systec AF ${ }^{\text {M }}$ (0.075" ID)
Maximum Channel Pressure:
70 PSI

## Wetted Materials:

Systec AF™, PEEK, Glass-filled PTFE,
Stainless Steel (p/n 2053)

## Liquid Connection:

1/4"-28 UNF threaded flat-bottom port
Size (L x H x W):
Mod 6484: 296x163x79 mm
Mod 2053: 195x100x175 mm
POWER REQUIREMENTS
USING SUPPLIED AC ADAPTER

24 V Power supply included.
Required input to power supply:
$110-240$ V 50/60 HZ
Wall Sockets: 4 supplied with AC Adapter, Interchangeable: North America,Japan, U.K., Continental Europe, Australia


## DEGASi® ${ }^{\circledR}$ PREP +

uses a revolutionary new technology that makes it possible to degass organic solutions with higher flows in a cost effective manner. That means you can get increased capacity at a lower price. DEGASi ${ }^{\circledR}$ PREP + is a perfect choice for efficient degassing of many types of liquids at high flow rates, up to $\mathbf{7 5 - 1 0 0 ~ m l} /$ min per chamber.

## "The world's first high flow rate, in-line degasser, for organic solvents"

Biotech in co-operation with IDEX H\&S are proud to announce the world's first in-line, membrane degasser ready to use with aggressive media and organic solvents, while maintaining flow-rates up to $300 \mathrm{ml} / \mathrm{min}$ and above.
Available configurations: Stand alone, OEM open frame and 1-4 channels.

## PRODUCT FEATURES

- Ultra-high degassing efficiency
- New cost effective technology


## APPLICATIONS

- Preparative HPLC
- Flash chromatography
- High-throughput applications
- Dispensing applications
- Ink degassing - all types of ink including organic solvent based ink and UV-ink



GENERAL SPECIFICATIONS

## Recommenden Flow Rate:

## $75-100 \mathrm{~mL} / \mathrm{min}$ (per channel)

## Maximum Flow Rate:

$200 \mathrm{ml} / \mathrm{min}$ (per channel)
Maximum Channel Pressure:
50 PSI
Wetted Materials:
Systec AF ${ }^{\text {TM }}$, FEP, Tefzel, PTFE and
Glass-filled PPS
Liquid Connection:
1/4"-28 Female Port
Pressure Drop:
0.0226.kPa/ml/min

Size (L x H x W):
$260 \times 110 \times 150 \mathrm{~mm}$ (1- and 2-channel)
260x110x290 mm (4-channel)
POWER REQUIREMENTS
USING SUPPLIED AC ADAPTER

Required input to power supply:
$110-240$ V 50/60 HZ
Wall Sockets: 4 supplied with AC
Adapter, Interchangeable: North America,Japan, U.K., Continental Europe, Australia


## DEGASi® ${ }^{\circledR}$ COMPACT

is a new line of stand alone degassers which combine the cutting edge Systec AF $^{\text {TM }}$ technology with a very small footprint at an affordable cost.

## "stand alone on-line degasser with the smallest footprint available"



DEGASi® ${ }^{\circledR}$ COMPACT is available with 2,4 and 6 degassing channels in a housing with only $167 \times 59 \mathrm{~mm}$ footprint.
This is possible due to the development of a new single stage vacuum pump with a small built in control board and new $285 \mu \mathrm{l}$ Systec AF ${ }^{\text {TM }}$ vacuum chambers.
Closed-loop control with a continuously running vacuum pump gives a very smooth baseline. The speed of the pump
is varied to maintain an exact vacuum level inside the vacuum chambers.
The degasser is equipped with built in error detection functionalities. A bi-color diode on the front panel gives information about the performance.
The extremely low internal volume of $285 \mu$ l provides very fast priming and start up. Despite the small size of the unit, it has an expected life time of more than 6 years.

GENERAL SPECIFICATIONS
Degassing Channel Tubing:
Systec AF ${ }^{\text {TM }}$ (0.035" ID)
Maximum Channel Pressure: 70 PSI

## Wetted Materials:

Systec AF ${ }^{\text {TM }}$, PPS, PEEK, Glass-filled PTFE

## Liquid Connection:

1/4"-28 UNF threaded flat-bottom port Size (L x H x W):
$167 \times 111 \times 59 \mathrm{~mm}$

POWER REQUIREMENTS
USING SUPPLIED AC ADAPTER

24 V Power supply included.
Required input to power supply:
110-240 V 50/60 HZ
Wall Sockets: 4 supplied with AC Adapter, Interchangeable: North America, Japan, U.K., Continental Europe, Australia


## DEGASi® HIGH FLOW

It doesn't matter if you work with very high flow applications in fields like chemical analyses, biotechnology or sensitive processes on the manufacturing side, DEGASi® HIGH FLOW degasser will meet your expectations.


## "An excellent choice for high-throughput applications..."

GENERAL SPECIFICATIONS

## Recommenden Flow Rate:

$500 \mathrm{ml} / \mathrm{min}$
Maximum Channel Pressure:
14 PSI
Wetted Materials:
Silicicone, PVC, Nitrile Rubber Liquid Connection:
Barb for ID 8 mm tubing Applicable Solvents:
Deonized water, pure water, neutral buffer
Size (L x H x W):
315x140x95 mm
POWER REQUIREMENTS
USING SUPPLIED AC ADAPTER
24 V power supply inciuded.
Required input to power supply: 110-240 V 50/60 HZ
Wall Sockets: 4 supplied with AC
Adapter, Interchangeable: North America, Japan, U.K., Continental Europe, Australia

## DEGASSING SPARE PARTS \& UPGRADES



We keep an extensive stock in order to support our customers. Supplying spare parts and replacements to a wide range of instruments and brands in the shortest time possible. We always keep a wide variety of vacuum pumps, degassing chambers, control boards and other accessories on stock in order to simplify replacement and maintenance for our customers. As an alternative to a repair we can also offer a suitable Degasser from our comprehensive DEGASi line of Stand Alone Degassers.
More information is available on our website, or just give us a call.

## Degasser Spare Parts for DEGASi Series

| Part Number | Description | Used within |
| :---: | :---: | :---: |
| 9000-1471 | Systec ZHCR Vacuum Pump | DEGASi Classic, GPC, Micro, Semi-Prep |
| 9000-1585 | Systec ZHCR Single Stage Vacuum Pump | DEGASi Compact |
| 9000-1920 | Systec ZHCR Vacuum Pump with Smart Board | DEGASi PLUS series |
| 9000-1922 | Systec ZHCR Vacuum Pump with Smart Board, Prep | DEGASi Prep+ |
| 9000-1000 | $100 \mu \mathrm{l}$ Systec AF Degassing Chamber | DEGASi Micro and PLUS Micro |
| 9000-1004 | $480 \mu \mathrm{l}$ Systec AF Degassing Chamber | DEGASi Classic and PLUS Classic |
| 9000-1184 | $480 \mu$ Systec AF GPC Degassing Chamber | DEGASi GPC and PLUS GPC |
| 9000-1009 | $925 \mu$ Systec AF Degassing Chamber | DEGASi Semi-Prep and PLUS Semi-Prep |
| 9000-1810 | 285 [ S Systec AF Degassing Chamber | DEGASi Compact |
| 9000-1985 | Systec Prep Degassing Chamber $100 \mathrm{ml} / \mathrm{min}$ | DEGASi Prep+ |
| 9000-1056 | PC-board with LED's | DEGASi Classic, GPC, Micro, Semi-Prep |

## DEGASSER TUBING KITS

Ready-to-send kits with the tubing in desired lengths and the fittings you need; attached, labeled and packed! We help you choose the best fittings and tubing for every application!

## WE HELP YOU EVERY STEP OF THE WAY:

- Wide selection of fittings and tubing
- Filters, tools, tubing markers and accessories
- Labeling with your logo and company details
- Packaging in boxes or plastic bags
- Long experience in this business
- We help you to find solutions for your needs

super flangeless

one piece super flangless superfangless


| rrt Num | Degasser Tubing Kits For 1/8" OD Tubing (1/4"-28 Threaded Nuts) |
| :---: | :---: |
| 0704 , manpomis | Tubing, 5 m FEP Tubing $1 / 8^{\prime \prime} \mathrm{OD} \times 1 / 16^{\prime \prime} \mathrm{ID}$ |
| 1208 | Flangeless Fittings, 10 pcs PPS Nuts + 12 pcs ETFE ferrules 1/8" ID |
| 1408 | Superflangeless Fittings, 10 pcs PEEK Nuts + 10 pcs ETFE ferrules 1/8" ID |
| 1608 | One-piece Superflangeless Fittings, 10 pcs PEEK nuts with integrated PEEK ferrule 1/8"ID |
| Part Number | Degasser Tubing Kits For 1/16" OD Tubing ( $1 / 4^{\prime \prime}$ "-28 Threaded Nuts) |
| 0716 | Tubing, 5 m FEP Tubing $1 / 16^{\prime \prime}$ OD $\times 0.75 \mathrm{~mm}$ ID |
| 1216 | Flangeless Fittings, 10 pcs PEEK Nuts +12 pcs ETFE ferrules 1/16"ID |
| 1416 | Superflangeless Fittings, 10 pcs PEEK Nuts +10 pcs ETFE ferrules 1/16"ID |
| 1616 | One-piece Superflangeless Fittings, 10 pcs PEEK nuts with integrated PEEK ferrule 1/16"ID |

## SPECIAL TAILORED OEM DEGASSERS



Except for our unique range of DEGASi® Standalone degassers, Biotech offers custom made degassing modules to fit your need. Biotech supplies degassing modules to some of the world's largest instrument
 manufacturers.
We design according to your requests and needs, continuously developing new models for different applications, always assisting our customers with ideas and solutions along the way.
We have degassers for a wide range of applications such as high flow, low flow and nasty organic solvents.

## DEGASSING APPLICATIONS

## BIOTECHNOLOGY <br> INSTRUMENTATION



## ANALYTICAL INSTRUMENTATION

Get the best performance out of your instrumentation. Wide range of application areas

```
- Chromatography -HPLC/UHPLC
    -GPC
    -Preparative
    -Flash
```

Biosensor instrumentation, as well as other scientific and medical instrumentation, often gives the user extremely high sensitivity and performance in the analysis work. It is easy to understand that the results can be completely ruined by a small air bubble.

## PROCESS INDUSTRY

In critical processes and manufacturing, the correct flow rate is of high importance. Air bubbles could be detrimental. With proper degassing, optimal results can be secured in the process. We customize degassers for flow rates from microlitres per minute up to cubic metres per hour.

## INK PRINTERS

Get a perfect print without blind spots. Improve the printing quality with our long life degassing solutions.


A view of Biotech's Swedish headquarters located on the beautiful peninsula Onsala, just south of Gothenburg.

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