

Worldwide at home

Our sales companies and representatives ensure local customer support in over 100 countries

www.gfps.com

Argentina / Southern South America

Georg Fischer Central Plastics
Sudamérica S.R.L.
Buenos Aires, Argentina
Phone +54 11 4512 02 90
gfcentral.ps.ar@georgfischer.com
www.gfps.com/ar

Australia

George Fischer Pty Ltd
Riverwood NSW 2210 Australia
Phone +61 (0) 2 9502 8000
australia.ps@georgfischer.com
www.gfps.com/au

Austria

Georg Fischer
Rohrleitungssysteme GmbH
3130 Herzogenburg
Phone +43 (0) 2782 856 43-0
austria.ps@georgfischer.com
www.gfps.com/at

Belgium / Luxembourg

Georg Fischer NV/SA
1070 Bruxelles/Brüssel
Phone +32 (0) 2 556 40 20
be.ps@georgfischer.com
www.gfps.com/be

Brazil

Georg Fischer Sist. de Tub. Ltda.
04795-100 São Paulo
Phone +55 (0) 11 5525 1311
br.ps@georgfischer.com
www.gfps.com/br

Canada

Georg Fischer Piping Systems Ltd
Mississauga, ON L5T 2B2
Phone +1 (905) 670 8005
Fax +1 (905) 670 8513
ca.ps@georgfischer.com
www.gfps.com/ca

China

Georg Fischer Piping Systems Ltd
Shanghai 201319
Phone +86 21 3899 3899
china.ps@georgfischer.com
www.gfps.com/cn

Denmark / Iceland

Georg Fischer A/S
2630 Taastrup
Phone +45 (0) 70 22 19 75
info.dk.ps@georgfischer.com
www.gfps.com/dk

Finland

Georg Fischer AB
01510 VANTAA
Phone +358 (0) 9 586 58 25
Fax +358 (0) 9 586 58 29
info.fi.ps@georgfischer.com
www.gfps.com/fi

France

Georg Fischer SAS
95932 Roissy Charles de Gaulle Cedex
Phone +33 (0) 1 41 84 68 84
fr.ps@georgfischer.com
www.gfps.com/fr

Germany

Georg Fischer GmbH
73095 Albershausen
Phone +49 (0) 7161 302-0
info.de.ps@georgfischer.com
www.gfps.com/de

India

Georg Fischer Piping Systems Ltd
400 076 Mumbai
Phone +91 224007 2001
branchoffice@georgfischer.com
www.gfps.com/in

Indonesia

George Fischer Pte Ltd -
Representative Office
Phone +62 21 2900 8564
Fax +62 21 2900 8566
sgp.ps@georgfischer.com
www.gfps.com/sg

Italy

Georg Fischer S.p.A.
20063 Cernusco S/N (MI)
Phone +39 02 921 861
it.ps@georgfischer.com
www.gfps.com/it

Japan

Georg Fischer Ltd
556-0011 Osaka,
Phone +81 (0) 6 6635 2691
jp.ps@georgfischer.com
www.gfps.com/jp

Korea

Georg Fischer Piping Systems
271-3 Seohyeon-dong Bundang-gu
Seongnam-si, Gyeonggi-do
Seoul 463-824
Phone +82 31 8017 1450
Fax +82 31 8017 1454
kor.ps@georgfischer.com
www.gfps.com/kr

Malaysia

Georg Fischer (M) Sdn. Bhd.
40460 Shah Alam, Selangor Darul Ehsan
Phone +60 (0) 3 5122 5585
Fax +603 5122 5575
my.ps@georgfischer.com
www.gfps.com/my

Mexico / Northern Latin America

Georg Fischer S.A. de C.V.
Apodaca, Nuevo Leon
CP66636 Mexico
Phone +52 (81) 1340 8586
Fax +52 (81) 1522 8906
mx.ps@georgfischer.com
www.gfps.com/mx

Middle East

Georg Fischer
Piping Systems (Switzerland) Ltd
Dubai, United Arab Emirates
Phone +971 4 289 49 60
gcc.ps@georgfischer.com
www.gfps.com/int

Netherlands

Georg Fischer N.V.
8161 PA Epe
Phone +31 (0) 578 678 222
nl.ps@georgfischer.com
www.gfps.com/nl

New Zealand

Georg Fischer Ltd
13 Jupiter Grove, Upper Hutt 5018
PO Box 40399, Upper Hutt 5140
Phone +64 (0) 4 527 9813
nz.ps@georgfischer.com
www.gfps.com/nz

Norway

Georg Fischer AS
1351 Rud
Phone +47 67 18 29 00
no.ps@georgfischer.com
www.gfps.com/no

Philippines

Georg Fischer Pte Ltd
Representative Office
Phone +632 571 2365
Fax +632 571 2368
sgp.ps@georgfischer.com
www.gfps.com/sg

Poland

Georg Fischer Sp. z o.o.
05-090 Sekocin Nowy
Phone +48 (0) 22 31 31 0 50
poland.ps@georgfischer.com
www.gfps.com/pl

Romania

Georg Fischer
Piping Systems (Switzerland) Ltd
020257 Bucharest - Sector 2
Phone +40 (0) 21 230 53 80
ru.ps@georgfischer.com
www.gfps.com/int

Russia

Georg Fischer
Piping Systems (Switzerland) Ltd
Moscow 125047
Phone +7 495 258 60 80
ru.ps@georgfischer.com
www.gfps.com/ru

Singapore

Georg Fischer Pte Ltd
11 Tampines Street 92, #04-01/07
528 872 Singapore
Phone +65 6747 0611
Fax +65 6747 0577
sgp.ps@georgfischer.com
www.gfps.com/sg

Spain / Portugal

Georg Fischer S.A.
28046 Madrid
Phone +34 (0) 91 781 98 90
es.ps@georgfischer.com
www.gfps.com/es

Sweden

Georg Fischer AB
117 43 Stockholm
Phone +46 (0) 8 506 775 00
info.se.ps@georgfischer.com
www.gfps.com/se

Switzerland

Georg Fischer
Rohrleitungssysteme [Schweiz] AG
8201 Schaffhausen
Phone +41 (0) 52 631 30 26
ch.ps@georgfischer.com
www.gfps.com/ch

Taiwan

Georg Fischer Co., Ltd
San Chung Dist., New Taipei City
Phone +886 2 8512 2822
Fax +886 2 8512 2823
www.gfps.com/tw

United Kingdom / Ireland

Georg Fischer Sales Limited
Coventry, CV2 2ST
Phone +44 (0) 2476 535 535
uk.ps@georgfischer.com
www.gfps.com/uk

USA / Caribbean

Georg Fischer LLC
Tustin, CA 92780-7258
Phone +1 (714) 731 88 00
Toll Free 800 854 40 90
us.ps@georgfischer.com
www.gfpiping.com

Vietnam

Georg Fischer Pte Ltd
Representative Office
136E Tran Vu, Ba Dinh District, Hanoi
Phone +84 4 3715 3290
Fax +84 4 3715 3285
sgp.ps@georgfischer.com
www.gfps.com/sg

International

Georg Fischer
Piping Systems (Switzerland) Ltd
8201 Schaffhausen/Switzerland
Phone +41 (0) 52 631 30 03
Fax +41 (0) 52 631 28 93
info.export@georgfischer.com
www.gfps.com/int

Comprehensive package for you

Microalgae Product Range

The technical data are not binding. They neither constitute expressly warranted characteristics nor guaranteed properties nor a guaranteed durability. They are subject to modification. Our General Terms of Sale apply.

PBR-concepts allow a very efficient cultivation process

GF Piping Systems is the world's leading photo-bioreactor system supplier. Our comprehensive portfolio extends from individual components and fabricated subassemblies to complete contract manufacturing of PBR systems. Choose GF Piping Systems for your PBR pipes, fittings, manual and actuated valves, sensors and instrumentation. Benefit from customized spool pieces and headers or from turnkey manufacturing capabilities meeting your entire system need. With GF Piping Systems as your partner, you can rely on high-quality products, expert workmanship, design assistance and integrity to protect intellectual property.

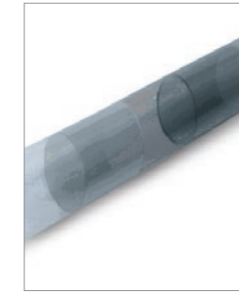
Our comprehensive portfolio

We offer a wide selection of standard Schedule 40 and 80 PVC pipes from 1/8" to 24", plus the EnviroKing UV and the clear PVC pipe family in the dimension range 1/2" to 12".



System range

Choose Dekadur G, EnviroKing UV ThinWall or Schedule 40.



Customized Filter

Adapt the light source to the specific needs of your algae strain.



Static Mixer

Improve temperature and nutrient mixing with simple ID installation.



Push-Fit Jointing

Extend pipe length with Push-Fit twin socket jointing.



Designed U-Bends

Decrease pressure losses and increase light exposure.

Dekadur G

+ Benefits

- Optimal thermoforming
- Smooth inner surfaces reducing surface build up
- Dedicated optical properties for algae growth
- Superior chemical resistance (pH shifts, CIP process)
- Compatibility with optical functionalizers
- Variable jointing possibilities (welding, solvent cement, push-fit)
- Flexible concepts for durable UV protection
- European food approval available upon request
- Pipes can be dimensioned according to well-established DIN 8061/62 standards for PVC-U pressure pipes up to T = 40°C

Range (mm)

Pipe Size *	Pipe Codes	Bends Codes	O.D.	Average I.D.	Min. Wall
63	325063097	325063082	63	60.6	1.2
110	325110065	325110070	110	106.6	1.7

* Other dimensions available upon request

EnviroKing UV - ThinWall

+ Benefits

EnviroKing ThinWall is a low-pressure containment pipe, manufactured in IPS sizes and specifically optimized for use in photo-bioreactor applications.

- Improved transmission characteristics
- Chemical and corrosion-resistant
- Non-conductive
- Lightweight, easy to handle and install
- Lower overall costs of installation than glass, acrylic or other transparent alternatives
- Compatible with standard Schedule PVC fittings and valves

Range (inches)

Pipe Size	Pipe Codes	Nominal Pipe Size	O.D.	Average I.D.	Min. Wall	Nominal Wt./Ft.	Max. W.P. PSI **
2	HTW00200EK1000	2	2.375	2.173	0.091	0.456	80
3	HTW00300EK1000	3	3.500	3.210	0.135	0.966	80
4	HTW00400EK1000	4	4.500	4.134	0.173	1.569	80
6	HTW00600EK1000	6	6.625	6.251	0.172	2.391	70
8	HTW00800EK1000	8	8.625	8.251	0.172	3.134	53
10	HTW01000EK1000	10	10.750	10.376	0.172	3.923	43
12	HTW01200EK1000	12	12.750	12.376	0.172	4.666	36

** Pressure ratings shown are for water, non-shock at 73°F

EnviroKing UV - Schedule 40

+ Benefits

In addition to ThinWall, EnviroKing UV is also manufactured in IPS sizes to Schedule 40 dimensions, which provide sufficient wall thickness for algae systems.

- Chemical and corrosion-resistant
- Non-conductive
- Lightweight, easy to handle and install
- Lower overall costs of installation than glass, acrylic or other transparent alternatives
- Manufactured in IPS dimensions
- Fully compatible with standard Schedule PVC pipes, fittings and valves

Range (inches)

Pipe Size	Pipe Codes	Nominal Pipe Size	O.D.	Average I.D.	Min. Wall	Nominal Wt./Ft.	Max. W.P. PSI **
1/2	H0400050EK1000	1/2	0.840	0.602	0.109	0.170	300
3/4	H0400075EK1000	3/4	1.050	0.804	0.113	0.226	240
1	H0400100EK1000	1	1.315	1.029	0.133	0.333	220
1 1/4	H0400125EK1000	1 1/4	1.660	1.360	0.140	0.450	180
1 1/2	H0400150EK1000	1 1/2	1.900	1.590	0.145	0.537	170
2	H0400200EK1000	2	2.375	2.047	0.154	0.720	140
2 1/2	H0400250EK1000	2 1/2	2.875	2.445	0.203	1.136	150
3	H0400300EK1000	3	3.500	3.042	0.216	1.488	130
3 1/2	H0400350EK1000	3 1/2	4.000	3.521	0.226	1.789	120
4	H0400400EK1000	4	4.500	3.998	0.237	2.118	110
6	H0400600EK1000	6	6.625	6.031	0.280	3.733	90

** Pressure ratings shown are for water, non-shock at 73°F