Gas Filtration Products

PROCESS FILTRATION

Schroeder INDUSTRIES
Advanced Fluid Conditioning Solutions®

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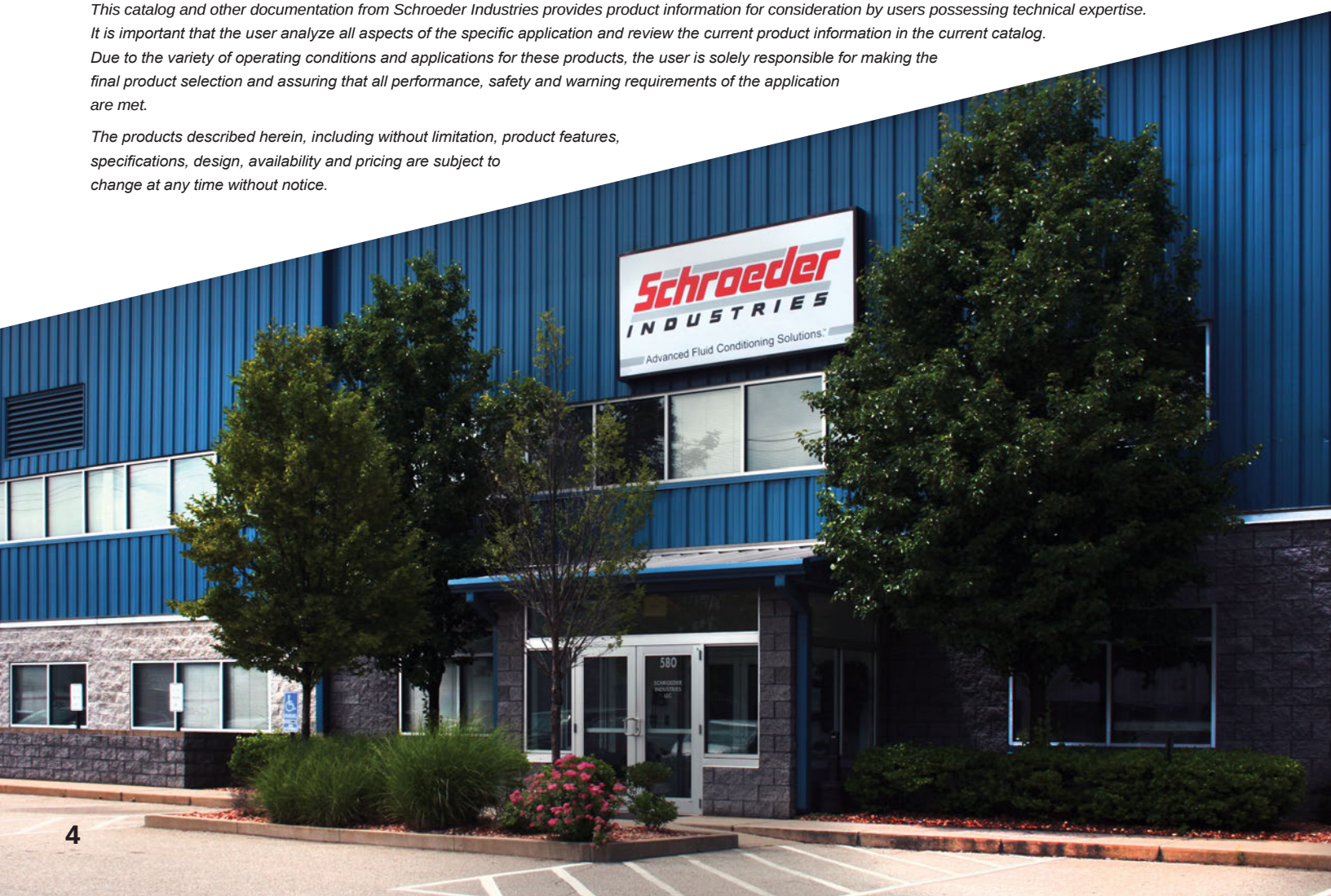
Contents at a Glance

Introduction to Schroeder Industries

Headquartered in Leetsdale, PA, Schroeder Industries is a family company backed 76 years of industrial innovations. Our core values, company culture and ingenuity have made us a leader in the field of industrial filtration. Today, Schroeder now serves almost every market where high efficiency fluid filtration is required, with over 100 partners worldwide.

Our wide range of Advanced Fluid Conditioning Solutions®, combined with our expertise in development, manufacturing, sales and service, allows Schroeder to provide comprehensive filtration concepts – from individual filter components to the complete system.



Areas of Application

- Offshore and marine
- Petrochemical industry / refinery
- Pipelines
- Power plants
- Booster stations
- Compressor stations
- Gas turbines
- Industrial pumps
- Hydrogen applications

Media to be Filtered

The aim is the reliable removal of particles (sand, rust, abrasion, paraffins, asphaltene, etc.) and fluids (aerosols, oil mist, condensate, etc.).

- Seal gas / inert gas / buffer gas
- Fuel gas
- Heating and cooling gas
- Flushing gas
- Other technical gases

Components Protected

- Sealing systems for turbo compressors
- Turbine blades
- Injection nozzles
- Pistons
- Valves

The Challenge

Fluid or particulate contaminations of gas can significantly impair the service life of major components of systems and plants.

This can result in costly maintenance and repair work, or even complete downtime.

Typical problems caused solid and fluid aerosols becoming deposited on components include:

- Erosion
- Deposits
- Fouling
- Corrosion

The Schroeder Solution

Our filtration strategies are geared towards your specific requirements, based on established standard solutions or specially developed components and systems.

→ Wide product portfolio

- Particle filter
- Coalescence filter
- Pre-separator

→ Compact and maintenance-friendly filter design

→ High-quality filter element technology produced in-house

→ Optimised filter dimensioning

→ Customised designs and special solutions

→ Worldwide service and sales

→ Continuous development in Schroeder's own research and development facilities

NOTE:

The information in this brochure relates to the operating conditions and applications described. For applications and operating conditions not described, please contact the relevant technical department. Subject to technical modifications.

Updated Model Codes for Process Filtration Products

How To: Use Model Codes

Old Model Code

Schroeder's old model code appeared cluttered and less intuitive:

How to Build a Valid Model Number for a High Efficiency (PPH) Bag Element:

BOX 1	BOX 2	BOX 3	BOX 4	BOX 5

Example: NOTE: One option per box

BOX 1	BOX 2	BOX 3	BOX 4	BOX 5	
PEH	5H	2	F	H	= PEH5H2FH

BOX 1

Bag Type	
PEH =	Polyester High Efficiency
PPH =	Polypropylene High Efficiency

BOX 2

Micron Rating	
1H =	1m High Efficiency
2H =	2m High Efficiency
5H =	5m High Efficiency

BOX 3

Bag Size
1
2

BOX 4

Collar Type	
S =	Galvanized Steel
F =	F Flange
OSS =	OSS Flage

BOX 5

Options	
H =	Handles (standard)

New Model Code

Over time, the model codes within this catalog will be updated to a new format. In the new format, each model code category will occupy its own row.

For particularly complex model codes with many categories and selections within, the model code options may be organized into two columns. The columns are read in the following order: Left column, top down, right column, top down.

How to Build a Valid Model Number for a Schroeder High Efficiency Bag Element:

PEH	–	5H	–	2	–	F	–	H	= PEH5H2FH
Bag Type		Micron Rating		Bag Size		Collar Type		Options	

Bag Type

PEH = Polyester High Efficiency
PPH = Polypropylene High Efficiency

Micron Rating

1H = 1m High Efficiency
2H = 2m High Efficiency
5H = 5m High Efficiency

Bag Size

1
2

Collar Type

S = Galvanized Steel
F = F Flange
OSS = OSS Flange

Options

H = Handles (standard)

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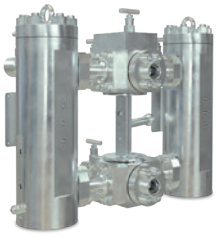
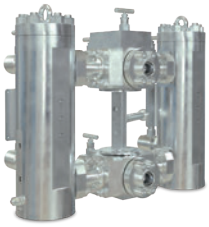
Schroeder Gas Filters Overview

Gas Filter GF series All gas filters in the GF series are available with particle and coalescence filter elements (except GFS)		**Filter type**	**Standard pressure range***
GFS		Single / duplex screen basket filter	Up to 16 bar
GFL		Single / duplex inline filter	Up to 16 bar
GFH		Single inline filter	Up to 1050 bar
GF1		Single inline filter	Up to 1000 bar
GF2		Single inline filter	Up to 700 bar
GF3		Single inline filter	Up to 400 bar
GF4		Single / duplex inline filter	Up to 100 bar
FGF		Single inline filter	Up to 250 bar

Schroeder Gas Filters Overview

Gas Particle Filter		Filter type	Standard pressure range*
GPF		Single / duplex inline filter	Up to 250 bar

Gas Coalescer Filter		Filter type	Standard pressure range*
GCF		Single / duplex inline filter	Up to 250 bar
GCF with integrated cyclone pre-separator		Single / duplex inline filter	Up to 250 bar

Pre-separator		Filter type	Standard pressure range*
GCS		Cyclone pre-separator	Up to 250 bar
GDS		Demister Separator	Up to 250 bar

Schroeder Filter Elements

Particle Filter Elements

Screen Basket	
Available for filter type:	• GFS
Filter material, filtration ratings:	• Wire mesh, 25 µm – 500 µm • Perforated plate, 1000 µm – 10000 µm

Chemicron® metal fiber fleece & wire mesh	
Available for filter type:	• GFS, GFL, GFH, GF1, GF2, GF3, GF4, FGF, GPF
Filter material, filtration ratings:	• Chemicron® metal fiber fleece, 0.1 µm – 25 µm • Wire mesh, 25 µm – 500 µm

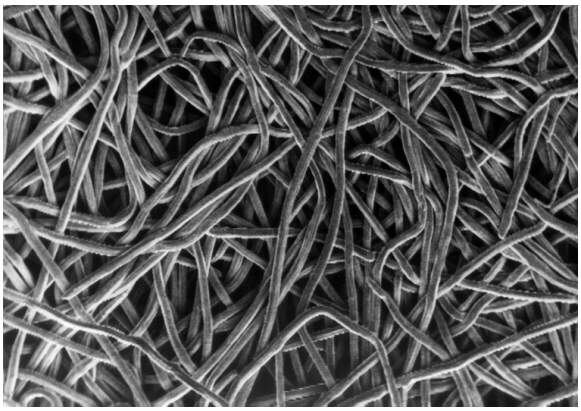
Processmicron® glass fiber fleece	
Available for filter type:	• GFS, GFL, GFH, GF1, GF2, GF3, GF4, FGF, GPF
Filter material, filtration ratings:	• Processmicron® glass fiber fleece, 0.1 µm – 25 µm

Coalescence Filter Elements

Chemicron® metal fiber	
Available for filter type:	• GFL, GF1, GF2, GF3, GF4, FGF, GCF
Filter material, filtration ratings:	• Chemicron® metal fiber fleece, 0.1 µm – 25 µm

Processmicron® glass fiber fleece	
Available for filter type:	• GFL, GF2, GF3, GF4, FGF, GCF
Filter material, filtration ratings:	• Processmicron® glass fiber fleece, 0.1 µm – 25 µm

Chemicron® metal fiber



Technical data

- Filter material: stainless steel (1.4404)
- Filtration rating: 0.1 µm to 25 µm
- Temperature: up to max +750°F (+400 °C)

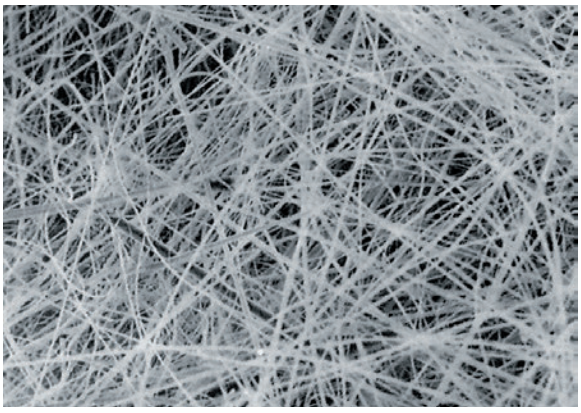
Special features

- Depth filter material (absolute retention rate)
- Pore size is continuously reduced from contaminated side to clean side → particles of various sizes are deposited in the depth structure of the filter layers with minimum influence on the flow behaviour
- Sintered stainless steel fibers – no fiber migration possible
- Very high chemical, mechanical and thermal stability
- Easy to pleat
- High porosity: up to 80%

Advantages

- Minimum pressure loss thanks to very high porosity
- No electrostatic charge buildup
- No fiber migration
- Very high pressure stability
- Increased filter element service life
- Very large filter area when fleece folded in star shape

Processmicron® glass fiber fleece



Technical data

- Filter material: combination of microglass fiber media and wire mesh (1.4404)
- Filtration rating: 0.1 µm to 20 µm absolute
- Temperature: up to max +210 °F (+100 °C)

Special features

- Depth filter material (absolute retention rate)
- Pore size is continuously reduced from contaminated side to clean side → particles of various sizes are deposited in the depth structure of the filter layers with minimum influence on the flow behaviour
- Good chemical, mechanical and thermal stability

Advantages

- Low pressure loss thanks to high porosity
- No fiber migration
- High pressure stability
- High filter element life expectancy
- Very large filter area when fleece folded in star shape

Gas Filter, Inline

GFL

Model No. in photograph:
GFLX-50E1

Features and Benefits

- **Features:**
  - Separation of solid contaminants or aerosols from process gases
  - Also available as switchable duplex filter (GFLD)
  - Filtration ratings from 0.1 to 500 µm
  - Filter material: Chemicron® metal fiber fleece, wire mesh, or Processmicron® glass fiber fleece
  - Standard pressure range up to 16 bar
- **Benefits:**
  - High filtration performance
  - Easy handling
  - Robust filter materials are ideal for long-term operation
  - Optionally regenerable or disposable filter elements possible
  - Low operating costs
  - Numerous equipment variants
- **Areas of application:**
  - Use in process engineering and chemical plants
  - Effective filtration of process gases and protection of downstream plant components such as compressors, fittings, check or control valves

Technical Specifications

Temperature Range:	-50 °F / +560 °F (-46 °C / +295 °C)
Max Pressure:	230 PSI (16 Bar)
Connection Size:	2 - 40 Inch (DN50 – DN1000)
Housing Material:	316 Stainless Steel and Carbon Steel
Filter Material and Filtration Rating:	Chemicron® metal fiber fleece, 0.1 µm – 25 µm Processmicron® glass fiber fleece, 0.1 µm – 25 µm Wire mesh, 20 µm – 500 µm

How to Build a Valid Model Number for a Schroeder GFL:

Filter Type	–	Filter Material	–	Size	Material	–	Pressure Rating	–	Connection Type	Connection Size	–	Filtration Rating	–	Equipment	–	Clogging Indicator	–	Modification Number	–	Seal Material	–	Modification Number
	–		–			–		–			–		–		–		–		–		–	

Filter Type

GFLP =	Particle Filter
GFLC =	Coalescer Filter
GFLDP =	Duplex Particle Filter (for size 250 and below)
GFLDC =	Duplex Coalescer Filter (for size 250 and below)

Filter Material

B =	Processmicron® glass fiber fleece with PA bonded end caps
M =	Chemicron® metal fiber fleece with PA bonded end caps
MG =	Chemicron® metal fiber fleece with stainless steel crimped end caps
D =	Wire mesh with PA bonded end caps
DG =	Wire mesh with stainless steel crimped end caps* only suitable for particle filtration

Size

50
85
130
250
520
650
1500
2500

Material

E1 =	Stainless steel vessel A2 / Gr. 304
E2 =	Stainless steel vessel A4 / Gr. 316
4 =	Carbon steel vessel with epoxy internal coating
5 =	Carbon steel vessel without internal coating

Pressure Rating

A =	90 PSI (6 Bar)
B =	145 PSI (10 Bar)
C =	230 PSI (16 Bar)
D =	360 PSI (25 Bar)
E =	580 PSI (40 Bar)
F =	910 PSI (63 Bar)
G =	1450 PSI (100 Bar)

Connection Type

F =	EN Flange
A =	ASME RF Flange
R =	ASME RTJ Flange

Connection Size

DN40 or 1 1/2" =	Available connection size for filter size 50x
DN50 or 2" =	Available connection size for filter size 85x
DN80 or 3" =	Available connection size for filter size 130x
DN100 or 4" =	Available connection size for filter size 250x
DN150 or 6" =	Available connection size for filter size 520x
DN200 or 8" =	Available connection size for filter size 650x
DN300 or 12" =	Available connection size for filter size 1500x
DN400 or 16" =	Available connection size for filter size 2500x

Filtration Rating (Select micron rating based on filter material)

B =	**0.1 / 1 / 3 / 5 / 10 / 20 / 25 / 40 / 60 (absolute)**
M/MG =	**0.1 / 1 / 3 / 5 / 10 / 20 / 25 / 40 / 60 (absolute)**
D/DG =	**10 / 25 / 40 / 60 / 100 / 150 / 200 / 250**

Equipment

0 =	without additional equipment
1 =	cover plate lifting device
2 =	vent and drain ball valve
3 =	drain ball valve
4 =	combination 1 and 2
5 =	combination 1 and 3

Clogging Indicator

0 =	without clogging indicator
1 =	visual indicator (PVD 2 B.1)
2 =	visual-electrical indicator (PVD 2 D.0)
6 =	electrical clogging indicator (PVD 2 C.0)
7 =	visual-electrical indicator (0...100 mbar)

Seal Material

V =	O-Ring FKM EDR
VS =	O-Ring FKM standard
H =	O-Ring HNBR LT EDR
NS =	O-Ring NBR standard
N =	O-Ring HNBR EDR
RT =	stainless steel RTJ ring (Gr. 316)
A =	O-Ring FEPM EDR
SG =	graphite filled spiral wound gasket acc. EN 1514-2
K =	O-Ring FFKM EDR
SP =	PTFE filled spiral wound gasket acc. EN 1514-2
F =	O-Ring FVMQ EDR
KS =	flat seal acc. EN1514-1 (NBR fiber-bound)

Modification Number

1 =	Latest version is always supplied

Gas Filter, Model 1

GF1

Compact inline gas filter for applications up to 1,000 bar

Features:

- Filtration Ratings from 0.1 to 500 µm
- Filter material: Chemicron® metal fiber fleece, wire mesh or Processmicron® glass fiber fleece
- Available as coalescence and particulate filter

Advantages:

- Minimum pressure loss
- Maintenance-friendly filter service without line dismantling
- No contamination of the clean side during filter element change
- TÜV tested
- Best filtrate quality
- Extremely robust stainless steel filter element technology
- High pressure stability
- No resins used
- No static charge

Areas of Application:

- Filtration technology for hydrogen filling stations up to 1,000 bar

Technical Specifications

Temperature Range:	-40 °F / +185 °F (-40 °C / +85 °C)
Max Pressure:	14,500 PSI (1000 Bar)
Connection Type:	UNF, VOSS Lok
Housing Material:	Duplex (1.4462)
Filter Material and Filtration Rating:	Chemicron® metal fiber fleece, 0.1 µm – 25 µm Wire mesh, 20 µm – 500 µm

How to Build a Valid Model Number for a Schroeder GF1:

	–		–		–		–		–		–		–	
Filter Type		Design		Element Type		Filter Material		Filtration Rating		Connection		Seal Material		Modification Number

Filter Type

GF1 = Gas Filter GF1

Design

1 = Standard Design
2 = With reservoir (for coalescer only)
3 = With liquid sensor (for coalescer only)
4 = Mobile (875 bar)

Element Type

P = Particle Filter Element
A = Absorber Filter Element
C = Coalescer Filter Element

Filter Material

M = Chemicron®
D = Wire Mesh

Filtration Rating (Select micron rating based on filter material)

M = **0.1 / 0.3 / 1 / 3 / 5 / 10 / 20**
D = **25 / 40 / 60 / 100 / 150 / 200**

Connection (Inlet and Outlet)

A0 = 7/16" - 20 UNF rated to 15,225 psi (1,050 bar)
A1 = 9/16" - 18 UNF rated to 15,225 psi (1,050 bar)
A2 = 13/16" - 16 UNF rated to 15,225 psi (1,050 bar)
V0 = VOSSLok 40, 6mm rated to 12,690 psi (875 bar)
V1 = VOSSLok 40, 10mm rated to 12,690 psi (875 bar)
V2 = VOSSLok 40, 12mm rated to 12,690 psi (875 bar)

Seal Material

P = O-ring PU EDR
V = O-ring FKM EDR
H = O-ring HNBR LT EDR
K = O-ring FFKM

Modification Number

1 = Inlet and outlet on top
2 = Inline design

GF1 Elements and Seals

PF1/CF1/AF1 GF1 Seal Kit

How to Build a Valid Model Number for a Schroeder PF1/CF1/AF1:

	–		–		–		–		–	
Element Type		Design		Filter Material		Filtration Rating		Seal Material		Modification Number

Element Type

PF1HQ = Particle Filter Element
CF1HQ = Coalescer Filter Element
AF1HQ = Adsorber Filter Element

Design

1 = Standard Design

Filter Material

M = Chemicron® metal fiber fleece
D = Wire Mesh

Filtration Rating (Select micron rating based on filter material)

M = **0.3 / 1 / 3 / 5 / 10 / 20**
D = **25 / 40 / 60 / 100 / 150 / 200**

Seal Material

V = O-ring FKM EDR
H = O-ring HNBR LT EDR
K = O-ring FFKM
P = O-ring PU EDR

Modification Number

0 = Latest Provided

How to Build a Valid Model Number for a Schroeder GF1 Seal Kit:

	–		–	
Element Type		Seal Material		Modification Number

Element Type

GF1 = GF1 Seal Kit

Seal Material

V = O-ring FKM EDR
H = O-ring HNBR LT EDR
K = O-ring FFKM
P = O-ring PU EDR

Modification Number

0 = Latest Provided

Gas Filter, Model 2

GF2

Compact inline gas filter for applications up to 700 bar

Features:

- Filtration Ratings from 0.1 to 500 µm
- Filter material: Chemicron® metal fiber fleece, wire mesh or Processmicron® glass fiber fleece
- Available as coalescence and particulate filter

Advantages:

- Best filtrate quality
- High defined separation efficiency and contamination retention capacity
- Excellent differential pressure stability
- Extremely robust stainless steel filter element technology
- High pressure stability
- Highest resistance through non-utilisation of adhesives or grouting
- Maintenance-friendly filter service without line dismantling
- No contamination of the clean side during filter element change

Areas of Application:

- Effective filtration of process gases and protection of downstream plant components such as compressors, fittings, check or control valves

Technical Specifications

Temperature Range:	-50.8 °F / +455 °F (-46 °C / +235 °C)
Max Pressure:	10,150 PSI (700 Bar)
Connection Type:	G, NPT, UNF
Housing Material:	Duplex (1.4462)
Filter Material and Filtration Rating:	Chemicron® metal fiber fleece, 0.3 µm – 20 µm Processmicron® glass fiber fleece, 0.3 µm – 20 µm Wire mesh, 25 µm – 200 µm

Gas Filter, Model 2

Model code updated: 1.19.22

GF2

How to Build a Valid Model Number for a Schroeder GF2:

	–		–		–		–		–		–		–	
Filter Type		Design		Element Type		Filter Material		Filtration Rating		Connection (Inlet, Outlet)		Seal Material		Modification Number

Filter Type

GF2 = Gas Filter GF2

Design

1 = Standard Design

Element Type

P = Particle Filter Element
A = Absorber Filter Element
C = Coalescer Filter Element

Filter Material

M = Chemicron® metal fiber fleece
D = Wire Mesh
B = Processmicron® Glass fiber fleece

Filtration Rating (Select micron rating based on filter material)

M = **0.3 / 1 / 3 / 5 / 10 / 20**
D = **25 / 40 / 60 / 100 / 150 / 200**
B = **0.3 / 1 / 3 / 5 / 10 / 20**

Connection (Inlet and Outlet)

G0 = G 1/4 rated to 10,150 psi (700 bar)
G1 = G 1/2 rated to 9,135 psi (630 bar)
N0 = NPT 1/4" rated to 10,150 psi (700 bar)
N1 = NPT 1/2" rated to 9,135 psi (630 bar)
A0 = 7/16" - 20 UNF rated to 10,150 psi (700 bar)
A1 = 9/16" - 18 UNF rated to 10,150 psi (700 bar)
A2 = 13/16" - 16 UNF rated to 10,150 psi (700 bar)

Seal Material

V = O-ring FKM EDR
H = O-ring HNBR LT EDR
N = O-ring HNBR EDR
A = O-ring FEPM
K = O-ring FFKM
F = O-ring FVMQ
VS = O-ring FKM standard
NS = O-ring NBR standard

Modification Number

1 = Latest Supplied

How to Build a Valid Model Number for a Schroeder PF2/CF2/AF2:

	–		–		–		–		–	
Element Type		Design		Filter Material		Filtration Rating		Seal Material		Modification Number

Element Type

PF2 = Particle Filter Element
CF2 = Coalescer Filter Element
AF2 = Adsorber Filter Element

Design

1 = Standard Design

Filter Material

M = Chemicron® metal fiber fleece
D = Wire Mesh
B = Processmicron® glass fiber fleece

Filtration Rating (Select micron rating based on filter material)

M = **0.3 / 1 / 3 / 5 / 10 / 20**
D = **25 / 40 / 60 / 100 / 150 / 200**
B = **0.3 / 1 / 3 / 5 / 10 / 20**

Seal Material

V = O-ring FKM EDR
H = O-ring HNBR LT EDR
N = O-ring HNBR EDR
A = O-ring FEPM
K = O-ring FFKM
F = O-ring FVMQ
VS = O-ring FKM standard
NS = O-ring NBR standard

Modification Number

0 = Latest Provided

How to Build a Valid Model Number for a Schroeder GF2 Seal Kit:

	–		–	
Element Type		Seal Material		Modification Number

Element Type

GF2 = GF2 Seal Kit

Seal Material

V = O-ring FKM EDR
H = O-ring HNBR LT EDR
N = O-ring HNBR EDR
A = O-ring FEPM
K = O-ring FFKM
F = O-ring FVMQ
VS = O-ring FKM standard
NS = O-ring NBR standard

Modification Number

0 = Latest Provided

Gas Filter, Model 3

GF3

Compact inline gas filter for applications up to 400 bar

Features:

- Filtration Ratings from 0.1 to 500 µm
- Filter material: Chemicron® metal fiber fleece, wire mesh or Processmicron® glass fiber fleece
- Available as coalescence and particulate filter

Advantages:

- Best filtrate quality
- High defined separation efficiency and contamination retention capacity
- Excellent differential pressure stability
- Extremely robust stainless steel filter element technology
- High pressure stability
- Highest resistance through non-utilisation of adhesives or grouting
- Maintenance-friendly filter service without line dismantling
- No contamination of the clean side during filter element change

Areas of Application:

- Effective filtration of process gases and protection of downstream plant components such as compressors, fittings, check or control valves

Technical Specifications

Temperature Range:	-50.8 °F / +455 °F (-46 °C / +235 °C)
Max Pressure:	5,800 PSI (400 Bar)
Connection Type:	GThread, NPT, SAE Flange, ASME Flange, EN Flange
Housing Material:	316 Stainless Steel
Filter Material and Filtration Rating:	Chemicron® metal fiber fleece, 0.1 µm – 25 µm Processmicron® glass fiber fleece, 0.1 µm – 25 µm Wire mesh, 20 µm – 500 µm

How to Build a Valid Model Number for a Schroeder GF3:

Filter Type	Element Type	Filter Material	Size	Type of Connection	Connection Sizes	Pressure Range of Flange	Filtration Rating	Clogging Indicator	X - Pressure of Clogging Indicator	Seal Material	Modification Number

Filter Type

GF3 = Gas Filter GF3

Element Type

P = Particle Filter Element
C = Coalescer Filter Element

Filter Material

M = Chemicron® metal fiber fleece
D = Wire Mesh
B = Processmicron® Glass fiber fleece

Size

010 150 bar max pressure
030 400 bar max pressure
060 400 bar max pressure
160 400 bar max pressure
330 400 bar max pressure
660 400 bar max pressure
990 400 bar max pressure

Type of Connection

G = BSP thread (DIN 228-1)
N = NPT thread (ASME B1.20.1)
S = SAE flange (6000 PSI)
A = ASME flange (B 16.5)
F = EN flange (EN 1092-1)

Connection Sizes (Select based on Size and Type of Connection)

	Size:	G	N	S	A	F
0	010	1/4"	1/4"	-	-	-
1	010 / 030	1/2"	1/2"	-	1/2"	15
2	060	3/4"	3/4"	-	3/4"	20
3		-	-		1"	25
4	160	1 1/4"	1 1/4"	-	1 1/4"	32
5		-	-		1 1/2"	40
5	330 / 660/ 990	1 1/2"	1 1/2"	1 1/2"	1 1/2"	40
6		2"	2"	2"	2"	50

Pressure Range of Flange (Add behind size)

	A	F	G, N or S
0	-	6	x
1	-	10	-
2	150	16	-
3	-	25	-
4	300	40	-
5	600	63	-
6	900	100	-
7	-	160	-
8	1500	250	-
9	-	320	-
S	2500	400	-

Filtration Rating (Select micron rating based on filter material)

M = **0.3 / 1 / 3 / 5 / 10 / 20 / 30 (absolute)**
D = **10 / 40 / 60 / 100 / 250**
B = **0.3 / 1 / 3 / 5 / 10 / 20**

Clogging Indicator

0 = without indicator
1 = visual indicator (PVD X B.1)
2 = visual-electrical indicator (PVD X D.0/-L24)
6 = electrical indicator (PVD X C.0)

X - Pressure of Clogging Indicator (bar)

P1 / P1.5 / P2 / P3 / P5 / P8

Seal Material

V = O-ring FKM EDR
H = O-ring HNBR LT EDR
N = O-ring HNBR EDR
A = O-ring FEPM
K = O-ring FFKM
VS = FKM
FS = FVMQ
MS = VMQ

Modification Number

1 = Latest Supplied

Elements and Seals for GF3

PF3/CF3 GF3 Seal Kit

How to Build a Valid Model Number for a Schroeder PF3/CF3:

	–		–		–		–		–	
Element Type		Size		Filter Material		Filtration Rating		Seal Material		Modification Number

Element Type

PF3 = Particle Filter Element
CF3 = Coalescer Filter Element

Size

010 / 030 / 060 / 160 / 330 / 660 / 990

Filter Material

M = Chemicron® metal fiber fleece
D = Wire Mesh
B = Processmicron® glass fiber fleece

Filtration Rating (Select micron rating based on filter material)

M = **0.3 / 1 / 3 / 5 / 10 / 20**
D = **25 / 40 / 60 / 100 / 150 / 200**
B = **0.3 / 1 / 3 / 5 / 10 / 20**

Seal Material

V = O-ring FKM EDR
H = O-ring HNBR LT EDR
N = O-ring HNBR EDR
A = O-ring FEPM
K = O-ring FFKM
FS = O-ring FVMQ
VS = O-ring FKM standard
NS = O-ring NBR standard

Modification Number

0 = Latest Provided

How to Build a Valid Model Number for a Schroeder GF1 Seal Kit:

	–		–	
Element Type		Seal Material		Modification Number

Element Type

GF3 = GF3 Seal Kit

Seal Material

V = O-ring FKM EDR
H = O-ring HNBR LT EDR
N = O-ring HNBR EDR
A = O-ring FEPM
K = O-ring FFKM
FS = O-ring FVMQ
VS = O-ring FKM standard
NS = O-ring NBR standard

Modification Number

0 = Latest Provided

Gas Filter, Model 4

GF4

Compact inline gas filter for applications up to 100 bar

Features:

- Stainless steel filter
- Also available as switchable duplex filter (GF4D)
- Filtration ratings from 0.1 to 500 µm
- Filter material: Chemicron® metal fiber fleece, wire mesh or Processmicron® glass fiber Fleece
- Available as coalescence and particulate filter

Advantages:

- Compact design with high flow rates
- No pressure loss during changeover
- Simple filter element change
- High contamination retention capacity
- High fluid compatibility

Areas of Application:

- Effective filtration of process gases and protection of downstream plant components such as compressors, fittings, check- or control valves

Technical Specifications

Temperature Range:	-50.8 °F / +455 °F (-46 °C / +235 °C)
Max Pressure:	1,450 PSI (100 Bar)
Connection Type:	G
Housing Material:	316 Stainless Steel
Filter Material and Filtration Rating:	Chemicron® metal fiber fleece, 0.1 µm – 25 µm Processmicron® glass fiber fleece, 0.1 µm – 25 µm Wire mesh, 20 µm – 500 µm

Gas Filter, Model 4

Model code updated: 1.19.22

GF4

How to Build a Valid Model Number for a Schroeder GF4:

Filter Type	Element Type	Filter Material	Size	Type of Connection	Connection Sizes	Pressure Range of Flange	Filtration Rating	Clogging Indicator	Pressure of Clogging Indicator	Seal Material	Modification Number

Filter Type

GGF4 = Single Filter
GF4D = Duplex Filter

Element Type

P = Particle Filter Element
C = Coalescer Filter Element

Filter Material

M = Chemicron® metal fiber fleece
D = Wire Mesh
B = Processmicron® Glass fiber fleece

Size

0 = Short Filter Bowl
1 = Medium Filter Bowl
2 = Long Filter Bowl
3 = Very Long Filter Bowl

Type of Connection

G = BSP thread (DIN 228-1)
S = SAE flange (6000 PSI) - Double Filter Only
A = ASME flange (B 16.5)
F = EN flange (EN 1092-1)

Connection Sizes (Select based on Size and Type of Connection)

	G	A	F	S
1	1/2"	1/2"	15	-
2	3/4"	3/4"	20	-
3	1"	1"	25	1"

Pressure Range of Flange (Add behind size)

	A	F
1	-	6
2	-	10
3	150	16
4	-	25
5	300	40
6	600	63
7	900	100

Filtration Rating

M = **0.1 / 1 / 2 / 3 / 5 / 10 / 20 (absolute)**
D = **25 / 40 / 60 / 100 / 150 / 200 / 250**
B = **0.1 / 1 / 2 / 3 / 5 / 10 / 20**

Clogging Indicator

0 = without indicator
1 = visual indicator (PVD X B.1)
2 = visual-electrical indicator (PVD X D.0/-L24)
6 = electrical indicator (PVD X C.0)

Pressure of Clogging Indicator (bar)

P1 / P1.5 / P2 / P3 / P5 / P8

Seal Material

V = O-ring FKM EDR
H = O-ring HNBR LT EDR
N = O-ring HNBR EDR
A = O-ring FEPM
K = O-ring FFKM
F = O-ring FVMQ EDR
xS = For non EDR seal add "S"

Modification Number

1 = Latest Supplied

How to Build a Valid Model Number for a Schroeder PF4/CF4:

	–		–		–		–		–	
Element Type		Size		Filter Material		Filtration Rating		Seal Material		Modification Number

Element Type

PF4 = Particle Filter Element
CF4 = Coalescer Filter Element

Size

0 / 1 / 2 / 3

Filter Material

M = Chemicron® metal fiber fleece
D = Wire Mesh
B = Processmicron® glass fiber fleece

Filtration Rating (Select micron rating based on filter material)

M = **0.1 / 1 / 2 / 3 / 5 / 10 / 20 (absolute)**
D = **25 / 40 / 60 / 100 / 150 / 200 / 250**
B = **0.1 / 1 / 2 / 3 / 5 / 10 / 20**

Seal Material

V = O-ring FKM EDR
H = O-ring HNBR LT EDR
N = O-ring HNBR EDR
A = O-ring FEPM
K = O-ring FFKM
F = O-ring FVMQ EDR
xS = For non EDR seal add "S"

Modification Number

0 = Latest Provided

How to Build a Valid Model Number for a Schroeder GF4 Seal Kit:

	–		–	
Element Type		Seal Material		Modification Number

Element Type

GF4 = GF4 Seal Kit

Seal Material

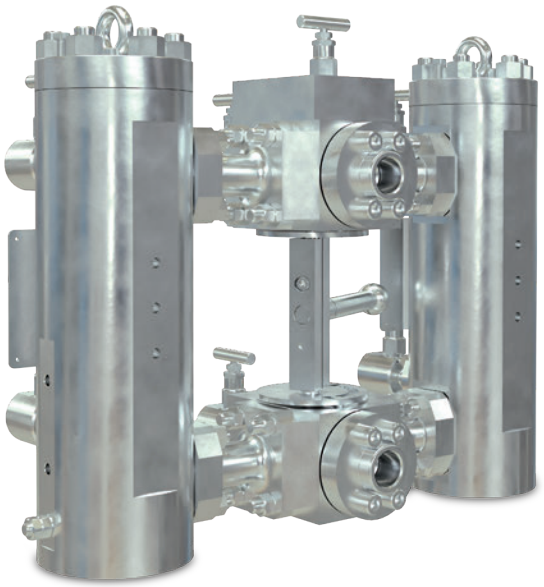
V = O-ring FKM EDR
H = O-ring HNBR LT EDR
N = O-ring HNBR EDR
A = O-ring FEPM
K = O-ring FFKM
F = O-ring FVMQ EDR
xS = For non EDR seal add "S"

Modification Number

0 = Latest Provided

Gas Coalescing Filter

GCF



GCF without integrated Cyclone Pre-separator

Features:

- Single or double inline filter
- Robust design made of high-quality Stainless steel
- Double Block and Bleed variant for applications with high pressures and hazardous gases
- Low-Pressure variant available for applications with low pressures (to approx. 50 bar)
- Filtration ratings from 0.1 to 25 µm
- Standard pressure range up to 250 bar
- Filter material: Chemicron® metal fiber Fleece or Processmicron® glass fiber fleece

Advantages:

- Pressure-loss-optimised design
- Reliable Filtration of fluid and particulate contamination down to 0.1 µm
- Compact design
- Double-sealing design for hazardous gases
- No welded parts
- No pressure loss caused by switchover process
- Simple filter element change
- High contamination retention capacity
- No reduction in cross-section (particularly change-over valve and filter element)

Areas of Application:

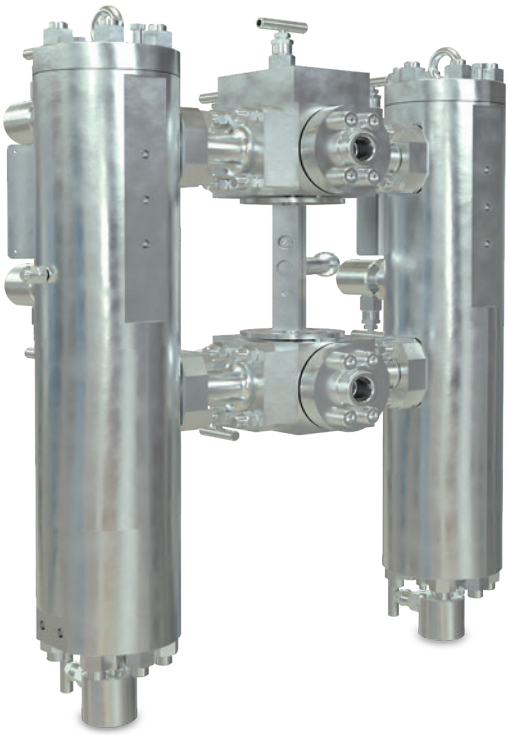
- Particle and Aerosol Separation for the filtration of humid gases

Technical Specifications

Temperature Range:	-50.8 °F / +455 °F (-46 °C / +235 °C)
Max Pressure:	3,625 PSI (250 Bar)
Connection Size:	1/2" to 2" (DN 15 to DN 50)
Housing Material:	316 Stainless Steel
Filter Material and Filtration Rating:	Chemicron® metal fiber fleece, 0.1 µm – 25 µm Processmicron® glass fiber fleece, 0.1 µm – 25 µm

Gas Coalescing Filter

GCF



GCF with integrated Cyclone Pre-separator

Features:

- Efficient pre-separation of fluids and coarse contamination by means of integrated cyclone pre-separator
- Single or duplex inline filter
- Robust design made of high-quality stainless steel
- Double Block and Bleed variant for applications with high pressures and hazardous gases
- Filtration ratings from 0.1 to 25 µm
- Standard pressure range up to 250 bar
- Filter material: Chemicron® metal fiber Fleece or Processmicron® glass fiber fleece

Advantages:

- Significant increase in service life of the filter elements thanks to integrated cyclone pre-separator
- Pressure-loss-optimized design
- Reliable separation of fluid and particulate contaminants down to 0.1 µm
- Compact design
- Double-sealing design for hazardous gases
- No welded parts
- No pressure loss caused by switchover process
- Simple filter element change
- High contamination retention capacity
- No reduction in cross-section (particularly change-over valve)

Areas of Application:

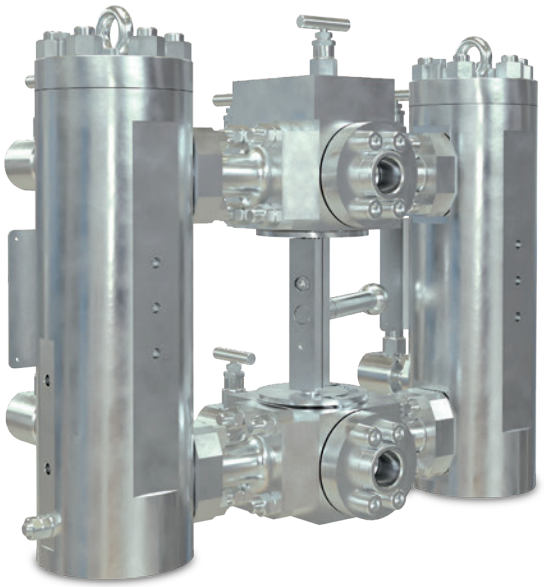
- Applications, where moist gases and a large amount of aerosols, oil mists or condensate can be expected

Technical Specifications

Temperature Range:	-50.8 °F / +455 °F (-46 °C / +235 °C)
Max Pressure:	3,625 PSI (250 Bar)
Connection Size:	1/2" to 2" (DN 15 to DN 50)
Housing Material:	316 Stainless Steel
Filter Material and Filtration Rating:	Chemicron® metal fiber fleece, 0.1 µm – 25 µm Processmicron® glass fiber fleece, 0.1 µm – 25 µm

Gas Particle Filter

GPF



GPF for particle Separation

Features:

- Single or duplex inline filters
- Robust design made of high-quality Stainless steel
- Double Block and Bleed variant available for applications with high pressures or hazardous gases
- Low-Pressure variant available for applications with low pressures (approx. up to 50 bar)

Advantages:

- Pressure-loss-optimized design
- Reliable filtration of particulate contamination down to 0.1 µm
- Compact design
- Double-sealing design for hazardous gases
- No welded parts
- No pressure loss caused by switchover process
- Simple filter element change
- High contamination retention capacity
- No reduction in cross-section (particularly change-over valve and filter element)

Areas of Application:

- Effective filtration of process gases and protection of down-stream plant components such as compressors, fittings, check- or control valves

Technical Specifications

Temperature Range:	-50.8 °F / +455 °F (-46 °C / +235 °C)
Max Pressure:	3,625 PSI (250 Bar)
Connection Size:	1/2" to 2" (DN 15 to DN 50)
Housing Material:	316 Stainless Steel
Filter Material and Filtration Rating:	Chemicron® metal fiber fleece, 0.1 µm – 25 µm Processmicron® glass fiber fleece, 0.1 µm – 25 µm

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Gas Particle / Coalescing Filter

GCF / GPF

How to Build a Valid Model Number for a Schroeder GCF/GPF:

Filter Type	Version	Size	Options	Inlet/Outlet Connections	Auxiliary Connection 1	Auxiliary Connection 2	Auxiliary Connection 3	Auxiliary Connection 4	Design Code	Seal Material	Modification Number

Filter Type

GCF = Gas coalescer filter
GPF = Gas particle filter

Version

D = Duplex filter, Single Block
S = Single filter
B = Double filter, Double Block (except sizes 15 and 20-2)

Size

	Main Connection Size	Auxiliary Connections
15 =	DN 15	(1/2")
20 =	DN 20	(3/4")
25 =	DN 25	(1")
40 =	DN 40	(1 1/2")
50 =	DN 50	(2")

Options

0 = Without integrated cyclone pre-seperator
1 = With integrated cyclone pre-seperator (except sizes 15 and 20-2)
2 = Low pressure version (not combinable with DBB)

Inlet / Outlet Connections

Main Connections	Pressure Ranges (readjusted)	Counter flange (readjusted)
A = ASME flange (B16.5 RF)	**1 =** PN 16	**0 =** Plastic plugs
F = DIN flange (1092-1)	**2 =** PN 40	**1 =** Blind flange / screw plug
S = SAE flange (6000 PSI)	**3 =** PN 63	
N = NPT-F female thread	**4 =** PN 100	
G = Metric female pipe thread	**5 =** PN 160	
R = ASME flange (B16.5 RTJ)	**6 =** PN 250	
B = Buttweld	**7 =** PN 320	
K = Socketweld	**8 =** PN 400	
W = Swagelok	**9 =** PN 500	

Auxiliary Connection 1

Main Connections	Pressure Ranges (readjusted)
0 = Not Used	**0 =** Without Valve
A = ASME Flange (B16.5 RF)	**1 =** Single Block (Plastic Plug)
F = DIN Flange (1092-1)	**2 =** Single Block and Bleed (Plastic Plug)
S = SAE Flange (6000 PSI)	**3 =** Double Block (Plastic Plug)
N = NPT-F Female Thread	**4 =** Double Block and Bleed (Plastic Plug)
G = Metric Female Pipe Thread	**5 =** Without Valve with Closure (Flange / Screw Plug)
R = ASME Flange (B16.5 RTJ)	**6 =** Single Block with Closure (Flange / Screw Plug)
B = Butt Weld	**7 =** Single Block with Bleed and Closure (Flange / Screw Plug)
K = Socket Weld	**8 =** Double Block with Closure (Flange / Screw Plug)
W = Swagelok	**9 =** Double Block with Bleed and Closure (Flange / Screw Plug)

Auxiliary Connection 2

Main Connections	Pressure Ranges (readjusted)
0 = Not Used	**0 =** Without Valve
A = ASME Flange (B16.5 RF)	**1 =** Single Block (Plastic Plug)
F = DIN Flange (1092-1)	**2 =** Single Block and Bleed (Plastic Plug)
S = SAE Flange (6000 PSI)	**3 =** Double Block (Plastic Plug)
N = NPT-F Female Thread	**4 =** Double Block and Bleed (Plastic Plug)
G = Metric Female Pipe Thread	**5 =** Without Valve with Closure (Flange / Screw Plug)
R = ASME Flange (B16.5 RTJ)	**6 =** Single Block with Closure (Flange / Screw Plug)
B = Butt Weld	**7 =** Single Block with Bleed and Closure (Flange / Screw Plug)
K = Socket Weld	**8 =** Double Block with Closure (Flange / Screw Plug)
W = Swagelok	**9 =** Double Block with Bleed and Closure (Flange / Screw Plug)

Auxiliary Connection 3

Main Connections	Pressure Ranges (readjusted)
0 = Not Used	**0 =** Without Valve
A = ASME Flange (B16.5 RF)	**1 =** Single Block (Plastic Plug)
F = DIN Flange (1092-1)	**2 =** Single Block and Bleed (Plastic Plug)
S = SAE Flange (6000 PSI)	**3 =** Double Block (Plastic Plug)
N = NPT-F Female Thread	**4 =** Double Block and Bleed (Plastic Plug)
G = Metric Female Pipe Thread	**5 =** Without Valve with Closure (Flange / Screw Plug)
R = ASME Flange (B16.5 RTJ)	**6 =** Single Block with Closure (Flange / Screw Plug)
B = Butt Weld	**7 =** Single Block with Bleed and Closure (Flange / Screw Plug)
K = Socket Weld	**8 =** Double Block with Closure (Flange / Screw Plug)
W = Swagelok	**9 =** Double Block with Bleed and Closure (Flange / Screw Plug)

Auxiliary Connection 4

Main Connections	Pressure Ranges (readjusted)
0 = Not Used	**0 =** Without Valve
A = ASME Flange (B16.5 RF)	**1 =** Single Block (Plastic Plug)
F = DIN Flange (1092-1)	**2 =** Single Block and Bleed (Plastic Plug)
S = SAE Flange (6000 PSI)	**3 =** Double Block (Plastic Plug)
N = NPT-F Female Thread	**4 =** Double Block and Bleed (Plastic Plug)
G = Metric Female Pipe Thread	**5 =** Without Valve with Closure (Flange / Screw Plug)
R = ASME Flange (B16.5 RTJ)	**6 =** Single Block with Closure (Flange / Screw Plug)
B = Butt Weld	**7 =** Single Block with Bleed and Closure (Flange / Screw Plug)
K = Socket Weld	**8 =** Double Block with Closure (Flange / Screw Plug)
W = Swagelok	**9 =** Double Block with Bleed and Closure (Flange / Screw Plug)

Design Code

A = 0.3 / 1 / 3 / 5 / 10 / 20 / 30 (absolute)
U = 10 / 40 / 60 / 100 / 250
P = 0.3 / 1 / 3 / 5 / 10 / 20

(continued on following page)

(GCF/GPF model code builder cont.)

Seal Material

V =	O-Ring FKM EDR
H =	O-Ring HNBR LT EDR
N =	O-Ring HNBR EDR
A =	O-Ring FEPM EDR
K =	O-Ring FFKM EDR
F =	O-Ring FVMQ EDR
NS =	O-Ring NBR standard
VS =	O-Ring FKM standard

Modification Number

1 =	All sizes with cyclone pre-separator / size 15
2 =	From size 20 up without pre-seperator

GCF / GPF Seal Kit

How to Build a Valid Model Number for a Schroeder GCF / GPF:

	–		–		–		–		–		–	
Element Type		**Size**		**Additional Designation**		**Filtration Rating**		**Filter Material**		**Seal Material**		**Modification Number**

Element Type

PF =	Particle filter element
CF =	Coalescing filter element

Size

15 =	DN 15 (1/2")
20 =	DN 20 (3/4")
25 =	DN 25 (1")
40 =	DN 40 (1 1/2")
50 =	DN 50 (2")

Additional Designation (readjusted)

N =	Low pressure version

Filtration Rating

0.1 / 1 / 2 / 3 / 10 / 25

Filter Material

PF =	Particle filter element
CF =	Coalescing filter element

Seal Material

V =	O-ring FKM EDR
H =	O-ring HNBR LT EDR
N =	O-ring HNBR EDR
A =	O-ring FEPM EDR
K =	O-ring FFKM EDR
F =	O-ring FVMQ EDR
NS =	O-Ring NBR standard
VS =	O-Ring FKM standard

Modification Number

0 =	Latest Supplied

How to Build a Valid Model Number for a Schroeder GCF / GPF Seal Kit:

	–		–		–		–	
Element Type		**Seal Kit Design**		**Additional Designation**		**Seal Material**		**Modification Number**

Filter Type

PF =	Particle filter element
CF =	Coalescing filter element

Seal Kit Design

S =	Single Filter
D =	Duplex Filter

Additional Designation (readjusted)

N =	Low pressure version

Seal Material

V =	O-ring FKM EDR
H =	O-ring HNBR LT EDR
N =	O-ring HNBR EDR
A =	O-ring FEPM EDR
K =	O-ring FFKM EDR
F =	O-ring FVMQ EDR
NS =	O-Ring NBR standard
VS =	O-Ring FKM standard

Modification Number

0 =	Latest Supplied

Schroeder INDUSTRIES
Advanced Fluid Conditioning Solutions®

Specification Form - Gas Filters

Company:		Tel.:	
Name:		Fax:	
Address:		Mobile:	
		Email:	

Application: (attach sketch as required)

Gas:

Gas components For gas mixtures please state all components with their composition percentages, or attach the gas analysis for a more precise calculation.	Mol %

Operating data:

Operating pressure:	Design data:	Operating temp.:	Flow single:
P_{min} bar (g)	P_{design} bar (g)	T_{min} °C	Mark applicable measuring unit with a cross
P_{min} bar (g)	P_{design} °C	T_{min} °C	/ Kg/h Nm3/h scfm @ 273 K & 1,013 bar(a)
			normal design

Design data:

Filter Type:	Pre-separator:	Design code:	Filter Element:	Materials:
				Shell:
Single filter Double filter	Yes No	AD 2000 EN 13445 ASME U-Stamp	Particle Coalescence	Filter element:
		Other:	Filtration rating:	Sealing device:

Connection size:	Maximum permitted differential pressure at cleaner element:
DN INCH	$P_{max. clean}$ mbar with flow of: Kg/h Nm3/h scfm @ 273 K & 1,013 bar(a)
Mark applicable measuring unit with a cross	Mark applicable measuring unit with a cross

Explosion protection:

If explosion protection is required, please request the ATEX specifications form!

Without	ATEX	IEC Ex

Comments / Accessories:

Notes

2023 | L-5095

Working with over 100 partners worldwide, Schroeder Industries remains at the forefront in the fields of fluid conditioning, diagnostics, and specialized energy products. Our process filtration division provides exceptional products and services benefiting a broad range of industrial applications, including:

- **Agriculture**
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- **Industrial**
- **Machine Tool**
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- **Offshore**
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- **Power Generation**
- **Sewage Water and Waste Water Treatment**
- **Steel Making**
- **Thermal Transfer**

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