

purgas TGA

Filter series TGA PN16/PN25/PN50



Brief description

Purgas filters from Parker offer you a wide selection of separation techniques for solid and liquid particles as well as vapours from critical industrial gases and natural gasses, as standard.

The TGA filter series is available for pressure levels PN16, PN25 and PN50. They are characterised by the employment of high-quality materials, thorough cleaning and production methods, as well as the traceability of the products.

The housings consist of aluminium casting, internally and externally chromated, and they also have an additional epoxy coating on their exterior. All TGA filters are equipped with a stainless steel needle valve on the outlet, as standard.

A variety of different elements are available for the separation: separator/demister inserts, surface filter elements for coarse separation, micro filter elements for depth filtration, as well as cartridge inserts for the adsorption of oil vapours and moisture.

Optionally, filters from the TGA series can be supplied in a dissipative design with classification based on Ex II 2G.



Applications

- Critical industrial gases and natural gases classified in fluid group 1 as per PED (DGRL) 97/23/EC
- Zone 1 and zone 2 as per ATEX 94/9/EC

Design and purchased parts package

- Ready-for-operation filter with nominal pressure 16 bar (up to 120°C / 248°F), 25 bar (up to 80°C/176°F) or 50 bar (up to 80°C/176°F); maximum operating temp. depends on element/seal selected
- Includes filter element/insert/cartridge
- Includes needle valve as outlet
- Internal thread connection as per DIN ISO 228 (BSP-P) or as per ANSI B 1.20.1 (NPT-F)
- FEPM seal as standard, optional FKM, EPDM, NBR, CR, etc.
- Connection bores prepared for differential pressure gauges (sealed)
- Wetted surfaces, cleaned to be oil and grease-free
- Filter with ATEX option in a dissipative design, individually tested, earthing points prepared



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Product specification

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Particle filtration

Element	Scope of application	Efficiency grade in % ¹⁾	Fineness in µm	Operating temp. in °C	Material
S	Separation of fluids (wall flow) over wide pressure/flow areas, wear-free, ideal for employment on intermediate- or aftercoolers of compressors.	98.5	–	1.5 - 120	PPS ²⁾
P ³⁾	Coarse separation of solid particles from dry gas flows.	99.99	3	1.5 - 60	Impregnated cellulose
PL12	Coarse separation of solid particles. Element reusable after ultrasound cleaning.	99.99	12	1.5 - 120	Stainless steel mesh
PL25		99.99	25		
PL12NX	Coarse separation of solid and liquid particles, also for high-temperature usage.	99.99	12	1.5 - 120	Stainless steel mesh, aramid coat
PL25NX		99.99	25		
C ³⁾	Micro filtration of solid and liquid particles.	99.9999	1	1.5 - 80	Borosilicate microfibre
CF ³⁾		99.99999	0.01		
CSF ³⁾		99.99999	0.01		
CHTCR	Micro filtration of liquid particles, with increased loads, also for high-temperature usage.	99.9999	1	1.5 - 120	Borosilicate microfibre, aramid coat
CFHTCR		99.99999	0.01		
CSFHTCR		99.99999	0.01		

¹⁾ As per nominal capacity. ²⁾ Polyphenylene sulphide.

³⁾ Additional code letter E for an ATEX-suitable element with stainless steel end caps, if deviating from its standard.

Oil adsorption

Element / cartridge	Area of application	Residual oil content in mg/m ³ ¹⁾²⁾	Operating temp. in °C	Material
A ³⁾	Adsorption of oil vapour, volatile organic components (VOCs) and odorous matter. With light loads.	0.003	1.5 - 40	Activated carbon mesh
KA (Model ⁴⁾ TK_A)	Adsorption of oil vapour, volatile organic components (VOCs) and odorous matter. With increased loads.	0.003	1.5 - 40	Activate carbon granules
KDG (Model ⁴⁾ TK_DG)	Adsorption of oil vapour at higher temperatures.	0.003	40 - 80	Silica gel granules

¹⁾ m³ referring to 1 bar (a), 20°C. ²⁾ Predrying required.

³⁾ Additional code letter E for an ATEX-suitable element with stainless steel end caps, if deviating from its standard.

⁴⁾ Models for cartridges are required for the ordering of single cartridges as spare parts.

Water vapour adsorption

Cartridge	Area of application	Residual vapour in mg/m ³ ¹⁾²⁾	Operating temp. in °C	Material
KMD (Model ³⁾ TK_DG)	Adsorption of water vapour at higher temperatures.	150	1.5 - 55	3Å molecular sieve granule
KMS (Model ³⁾ TK_DG)		150	1.5 - 55	4Å molecular sieve granule
KMZ		150	1.5 - 55	10Å molecular sieve granule

¹⁾ m³ referring to 1 bar (a), 20°C. ²⁾ Prefiltration required.

³⁾ Models for cartridges are required for the ordering of single cartridges as spare parts.

Product specification

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Available filter fittings

Housing	Size (TGA)																																							
	102			104			106			108			110			112			114			116			118			120			122			124						
Nominal pressure (PS)	16	25	50	16	25	50	16	25	50	16	25	50	16	25	50	16	25	50	16	25	50	16	25	50	16	25	50	16	-	-	9	-	-	8	-	-				
Nominal temperature (TS)	120	80	80	120	80	80	120	80	80	120	80	80	120	80	80	120	80	80	120	80	80	120	80	80	120	80	80	120	80	80	120	80	80	120	80	80				
Connection sizes (G)	1/4			1/4			3/8			1/2			3/4			1			1 1/2			1 1/2			2			2			2 1/2			3						
Outlet - needle valve	EV05/64DTG																		EV07/64DTG																					
Element series	Without ATEX																																							
S																																								
P/C/CF/CSF/A																																								
CHTCR/CFHTCR/CSFHTCR																																								
PL12/PL25																																								
PL12NX/PL25NX																																								
KA																																								
KDG																																								
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KMS																																								
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Element series	With ATEX																																							
PE/CE/CFE/CSFE/AE																																								
CHTCR/CFHTCR/CSFHTCR																																								
PL12/PL25																																								
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● = Available

Application: Natural gases

Medium	ATEX	Natural gases													
Products		10	16	25	50	100	250	350	CNG	Propane	Methane	Biomethane	Raw biogas		
Composition												Gas distribution system quality			
TGA	●		●	●	●				●	●	●	●			

● = Available

Application: Industrial gases

Medium	ATEX	Pressure levels (bar)							Industrial gases					
		10	16	25	50	100	250	350	Critical gases				Inert gases	
Products									O ₂	CO ₂			N ₂	He
Relative humidity[%]									< 1.5	> 1.5	< 1.5	> 1.5		
TGA	●		●	●	●				●		●		●	●

● = Available

Approval

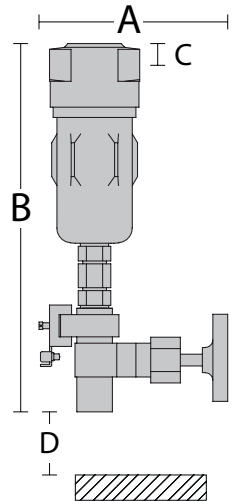
With CE marking as per Directive 97/23/EC (PED) for fluid group 1; where applicable, no marking is permitted as per art. 3, para. 3. Optionally with CE marking as per Directive 94/9/EC (ATEX) in line with Ex II 2G (for zones 1 and 2).

Product specification

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Dimensions and weight

Type	Performance (m³/h)	Connection (BSP-P)	Dimensions (mm)				Weight (kg)			Element 1)	Cartridge 1)
			A	B	C	D	PN 16	PN 25	PN 50		
TGA 102	Depends on medium, upon request	G ¼	120	249	14	60	0.75	0.75	0.75	TA30_	TKA08_
TGA 104		G ¼	134	309	21	75	1.1	1.1	1.1	TA 50_	TKA12_
TGA 106		G	134	309	21	90	1.1	1.1	1.1	TA 70_	TKA12_
TGA 108		G ½	134	379	21	160	1.4	1.4	1.4	TA 90_	TKA18_
TGA 110		G ¾	155	416	43	135	4.1	4.1	4.1	TB 10_	TKB16_
TGA 112		G 1	155	516	43	235	4.1	4.1	4.1	TB 20_	TKB23_
TGA 114		G 1 ½	155	616	43	335	5.3	5.3	5.3	TB 30_	TKB33_
TGA 116		G 1 ½	155	816	43	525	6.5	6.5	6.5	TB 50_	TKB53_
TGA 118		G 2	172	797	48	520	8.9	8.9	8.9	TC 50_	
TGA 120		G 2	172	1047	48	770	12			TC 75_	
TGA 122		G 2 ½	250	1024	74	600	24.2			TC 60_	
TGA 124		G 3	250	1174	74	750	26.6			TC 75_	



Product key Example for a filter with the nominal pressure PN16 (PN9/PN8)

Filter	Size	/	Nominal pressure	Element series	Accessories	-	Connection	/	Options
TGA	102	/	16	S		-	B BSP		
TGA	104	/	16	P		-	N NPT	/	C CR seals
TGA	...	/	16	C		-	B	/	D EPDM seals
TGA	120	/	16	H		-	B	/	O ₂ Oxygen design
TGA	122	/	9	...		-	B	/	P NBR seals
TGA	124	/	8	KMS		-	B	/	V FKM seals

Available accessories ATEX-suitable

Locking screw on the outlet	V	VTG08/100/MV (TGA102-116), VTG/5/356/MV (TGA118-124)
Autodrain	KF	11LD/28TG
Differential pressure gauge	D	HZD80/50RTGG (not for TGA102)
Differential pressure gauge with potential-free contact	DE	HZDE80/50RTGG (not for TGA102)

Example of an order ...

... for a filter up to 9 bar, 2 1/2" NPT connection, ATEX-suitable to zone 1, housing and element seals in EPDM, including TC60CSFHTR element, including 11LD/28TG autodrain instead of EV07/640TG mounted on the outlet:

Filter	Size	/	Nominal pressure	Element series	Accessories	-	Connection	/	Options
TGA	122	/	9	CSFHTR	KF	-	N	/	AD

EMEA Product Information Centre

Free phone: 00 800 27 27 5374

(from AT, BE, CH, CZ, DE, DK, EE, ES, FI, FR, IE, IL, IS, IT, LU, MT, NL, NO, PL, PT, RU, SE, SK, UK, ZA)

US Product Information Centre

Toll-free number: 1-800-27 27 537

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