WALKER FILTRATION

HYDROGEN

Hydrogen Gas Filters

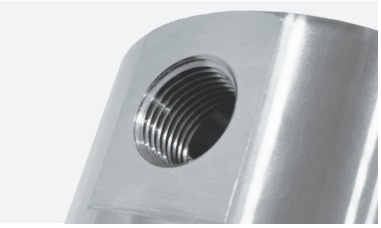
Models | 50H02500N to 50H20010N, 100H02500N to 100H20010N, 350H02500N to 350H20000N

Flow Rates 159 SCFM (270 Nm³/hr) up to 22189 SCFM (37700 Nm³/hr)

Walker Filtration's 725, 1450 and 5075 psig Hydrogen Filters provide a comprehensive range of high efficiency filters designed to meet the stringent requirements of Hydrogen applications.

Available in two filtration grades of 1 micron and 5 microns, our hydrogen gas filters provide low pressure drop and offer optimal contamination protection against particle ingress for pressure system components.

Suitable for use with dry hydrogen, these filters are available in a range of flows and pressures to protect the various stages of the developing hydrogen economy. Whatever your requirement, Walker Filtration can support your unique and custom hydrogen filtration solutions.



Flexible Installation
All filter housings can be supplied with NPT or RP threaded ports

Superior Filtration Performance
Specialist hydrogen element with high efficiency particle removal down to 1 micron

- **Advanced Filtration Technology** Optimum design and high efficiency filtration media provides low pressure losses and increased energy savings in line with air quality standard ISO 8573-1: 2010.
- **O-ring Sealing** Push-fit element design and specialist hydrogen compatible O-ring seals eliminate risk of contaminant bypass.
- **Stainless Steel Element End Caps** On all element models.
- **Simplified Serviceability** Hexagonal spanner locator coupled with the internal unique push fit element ensures a simple, quick and reliable servicing process.
- **Quality Guaranteed** All Hydrogen Filters are manufactured in an ISO 9001 certified factory and are PED compliant. Each filter is hydrostatic tested prior to dispatch to guarantee quality and performance.

For further information please visit www.walkerfiltration.com

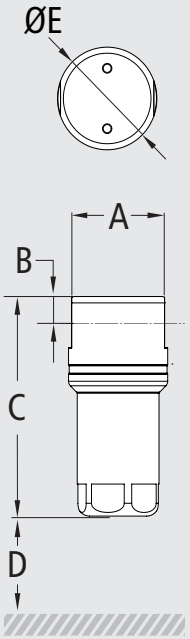
Technical Specification

Filter model	Pipe size inches	MAWP psig (barg)	Hydrogen inlet flow rate*		Dimensions (mm)					Weight		Element model
			SCFM	Nm³/hr	A Face to Face	B	C	D	ØE	lbs	kg	
725 psig (50 barg) maximum working pressure												
50H02500N (grade)	1/4"	725 (50)	159	270	2.95 (75)	0.67 (17)	6.56 (167)	6.30 (160)	3.15 (80)	8	3.85	ETG00100 (grade)
50H03700N (grade)	3/8"	725 (50)	312	530	2.95 (75)	0.79 (20)	6.75 (172)	6.30 (160)	3.15 (80)	9	4.00	ETG00100 (grade)
50H05000N (grade)	1/2"	725 (50)	518	880	2.93 (75)	0.79 (20)	6.75 (172)	6.30 (160)	3.21 (82)	9	4.00	ETG00100 (grade)
50H07500N (grade)	3/4"	725 (50)	930	1580	3.84 (98)	0.89 (23)	6.87 (175)	6.30 (160)	4.13 (105)	15	6.70	ETG00200 (grade)
50H10000N (grade)	1"	725 (50)	1554	2640	3.86 (98)	1.08 (28)	9.78 (249)	8.66 (220)	4.25 (108)	20	9.20	ETG00300 (grade)
50H15000N (grade)	1 1/2"	725 (50)	3237	5500	5.47 (139)	1.50 (38)	12.70 (323)	10.24 (260)	6.02 (153)	44	20.00	ETG00400 (grade)
50H20000N (grade)	2"	725 (50)	3237	5500	6.34 (161)	1.77 (45)	13.48 (343)	10.24 (260)	6.89 (175)	59	26.60	ETG00500 (grade)
50H20010N (grade)	2"	725 (50)	6298	10700	6.34 (161)	1.77 (45)	20.59 (523)	17.72 (450)	6.89 (175)	72	32.70	ETG00600 (grade)
1450 psig (100 barg) maximum working pressure												
100H02500N (grade)	1/4"	1450 (100)	315	535	2.95 (75)	0.67 (17)	6.56 (167)	6.30 (160)	3.15 (80)	9	4.00	ETG00100 (grade)
100H03700N (grade)	3/8"	1450 (100)	618	1050	2.95 (75)	0.79 (20)	6.75 (172)	6.30 (160)	3.15 (80)	9	4.00	ETG00100 (grade)
100H05000N (grade)	1/2"	1450 (100)	1030	1750	2.93 (75)	0.79 (20)	6.75 (172)	6.30 (160)	3.23 (82)	9	4.00	ETG00100 (grade)
100H07500N (grade)	3/4"	1450 (100)	1848	3140	3.84 (98)	0.89 (23)	6.87 (175)	6.30 (160)	4.13 (105)	15	6.70	ETG00200 (grade)
100H10000N (grade)	1"	1450 (100)	3078	5230	3.86 (98)	1.08 (28)	9.78 (249)	8.66 (220)	4.25 (108)	20	9.20	ETG00300 (grade)
100H15000N (grade)	1 1/2"	1450 (100)	6386	10850	5.47 (139)	1.50 (38)	12.70 (323)	10.24 (260)	6.02 (153)	44	20.00	ETG00400 (grade)
100H20000N (grade)	2"	1450 (100)	6386	10850	6.34 (161)	1.77 (45)	13.48 (343)	10.24 (260)	6.89 (175)	59	26.60	ETG00500 (grade)
100H20010N (grade)	2"	1450 (100)	12478	21200	6.34 (161)	1.77 (45)	20.57 (523)	17.72 (450)	6.89 (175)	72	32.70	ETG00600 (grade)
5075 psig (350 barg) maximum working pressure												
350H02500N (grade)	1/4"	5075 (350)	1089	1850	3.15 (80)	0.67 (17)	6.79 (173)	6.30 (160)	3.35 (85)	11	5.20	ETG00100 (grade)
350H03700N (grade)	3/8"	5075 (350)	2142	3640	3.35 (85)	0.79 (20)	6.99 (178)	6.30 (160)	3.54 (90)	13	5.70	ETG00100 (grade)
350H05000N (grade)	1/2"	5075 (350)	3569	6063	3.27 (83)	0.79 (20)	6.99 (178)	6.30 (160)	3.54 (90)	13	5.70	ETG00100 (grade)
350H07500N (grade)	3/4"	5075 (350)	6415	10900	4.25 (108)	0.96 (25)	7.54 (192)	6.30 (160)	4.53 (115)	22	10.10	ETG00200 (grade)
350H10000N (grade)	1"	5075 (350)	10683	18150	4.13 (105)	1.08 (28)	10.22 (260)	8.66 (220)	4.53 (115)	28	12.50	ETG00300 (grade)
350H15000N (grade)	1 1/2"	5075 (350)	22189	37700	6.02 (153)	1.91 (49)	13.78 (350)	10.24 (260)	6.50 (165)	77	35.00	ETG00400 (grade)
350H20000N (grade)	2"	5075 (350)	22189	37700	6.57 (167)	1.97 (50)	14.29 (363)	10.24 (260)	7.24 (184)	95	43.20	ETG00500 (grade)

* Rated flow at maximum working pressure, reference conditions at 14.5 psi (a) 68ºF

Grade	RX5		RX1	
Particle removal	5 micron		1 micron	
Minimum Temperature	-40°F	-40°C	-40°F	-40°C
Maximum Temperature	266°F	130°C	266°F	130°C
Element end cap color	Stainless Steel			

Pressure correction factors		For maximum flow rate, multiply model flow rate by the correction factor corresponding to the minimum operating pressure									
725 psig Range	Operating pressure psig (barg)	101 (7)	147 (10)	221 (15)	294 (20)	368 (25)	435 (30)	507 (35)	580 (40)	652 (45)	725 (50)
	Correction factor	0.16	0.22	0.31	0.41	0.51	0.61	0.71	0.80	0.90	1.0
1450 psig Range	Operating pressure psig (barg)	101 (7)	290 (20)	435 (30)	580 (40)	725 (50)	870 (60)	1015 (70)	1160 (80)	1300 (90)	1450 (100)
	Correction factor	0.08	0.21	0.31	0.41	0.51	0.60	0.70	0.80	0.90	1.0
5075 psig Range	Operating pressure psig (barg)	101 (7)	435 (30)	580 (40)	725 (50)	1450 (100)	2175 (150)	2900 (200)	3625 (250)	4350 (300)	5075 (350)
	Correction factor	0.02	0.09	0.12	0.15	0.29	0.43	0.57	0.72	0.86	1



XXXH02500N - XXXH20010N

Technical Notes

1. Direction of air flow is outside to in through the filter element.
2. All Hydrogen Filters are supplied without a drain port/plug.
3. Hydrogen Filters are manufactured from grade 316 Stainless steel and are PED 2014/68/EU compliant for group 1 gases.
4. Threaded connections are NPT to ANSI B2.1 as standard. RP (BSP parallel) to ISO 7/1 are available upon request.
5. Walker Filtration genuine spare and aftermarket parts must be used, failure to do so will void product warranty. Walker Filtration shall not be held liable for damages suffered by the customer if Walker Filtration genuine hydrogen rated spare and aftermarket parts are not used.
7. Filter elements should be changed every 12 months / 8000 hours (whichever comes first).

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WFI1135 Rev-B-US 0723