



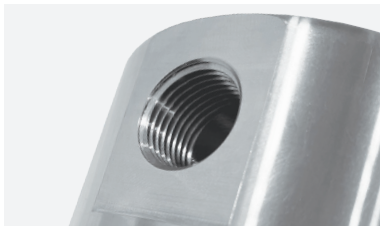
Hydrogen Gas Filters

Models | 50H02500 to 50H20010, 100H02500 to 100H20010, 350H02500 to 350H20000
Flow Rates 270 Nm³/hr (159 SCFM) up to 37700 Nm³/hr (22189 SCFM)

Walker Filtration's 50, 100 and 350 barg Hydrogen Filters provide a comprehensive range of high efficiency filters designed to meet the stringent requirements of Hydrogen applications.

Available in three filtration grades of 1, 5 and 25 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 despatch to guarantee quality and performance.





For further information please call: **+44 (0) 191 417 7816**

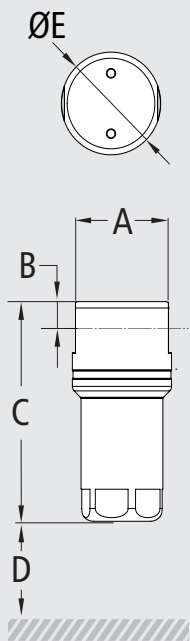
Technical Specification

Filter model	Pipe size inches	MAWP Barg (psig)	Hydrogen inlet flow rate*		Dimensions mm (inches)					Weight		Element model
			Nm ³ /hr	SCFM	A Face to Face	B	C	D	ØE	kg	lbs	
50 barg (725 psig) maximum working pressure												
50H02500 (grade)	1/4"	50 (725)	270	159	75 (2.95)	17 (0.67)	167 (6.56)	160 (6.30)	80 (3.15)	3.85	8	ETG00100 (grade)
50H03700 (grade)	3/8"	50 (725)	530	312	75 (2.95)	20 (0.79)	172 (6.75)	160 (6.30)	80 (3.15)	4.00	9	ETG00100 (grade)
50H05000 (grade)	1/2"	50 (725)	880	518	75 (2.93)	20 (0.79)	172 (6.75)	160 (6.30)	82 (3.21)	4.00	9	ETG00100 (grade)
50H07500 (grade)	3/4"	50 (725)	1580	930	98 (3.84)	23 (0.89)	175 (6.87)	160 (6.30)	105 (4.13)	6.70	15	ETG00200 (grade)
50H10000 (grade)	1"	50 (725)	2640	1554	98 (3.86)	28 (1.08)	249 (9.78)	220 (8.66)	108 (4.25)	9.20	20	ETG00300 (grade)
50H15000 (grade)	1 1/2"	50 (725)	5500	3237	139 (5.47)	38 (1.50)	323 (12.70)	260 (10.24)	153 (6.02)	20.00	44	ETG00400 (grade)
50H20000 (grade)	2"	50 (725)	5500	3237	161 (6.34)	45 (1.77)	343 (13.48)	260 (10.24)	175 (6.89)	26.60	59	ETG00500 (grade)
50H20010 (grade)	2"	50 (725)	10700	6298	161 (6.34)	45 (1.77)	523 (20.59)	450 (17.72)	175 (6.89)	32.70	72	ETG00600 (grade)
100 barg (1450 psig) maximum working pressure												
100H02500 (grade)	1/4"	100 (1450)	535	315	75 (2.95)	17 (0.67)	167 (6.56)	160 (6.30)	80 (3.15)	4.00	9	ETG00100 (grade)
100H03700 (grade)	3/8"	100 (1450)	1050	618	75 (2.95)	20 (0.79)	172 (6.75)	160 (6.30)	80 (3.15)	4.00	9	ETG00100 (grade)
100H05000 (grade)	1/2"	100 (1450)	1750	1030	75 (2.93)	20 (0.79)	172 (6.75)	160 (6.30)	82 (3.23)	4.00	9	ETG00100 (grade)
100H07500 (grade)	3/4"	100 (1450)	3140	1848	98 (3.84)	23 (0.89)	175 (6.87)	160 (6.30)	105 (4.13)	6.70	15	ETG00200 (grade)
100H10000 (grade)	1"	100 (1450)	5230	3078	98 (3.86)	28 (1.08)	249 (9.78)	220 (8.66)	108 (4.25)	9.20	20	ETG00300 (grade)
100H15000 (grade)	1 1/2"	100 (1450)	10850	6386	139 (5.47)	38 (1.50)	323 (12.70)	260 (10.24)	153 (6.02)	20.00	44	ETG00400 (grade)
100H20000 (grade)	2"	100 (1450)	10850	6386	161 (6.34)	45 (1.77)	343 (13.48)	260 (10.24)	175 (6.89)	26.60	59	ETG00500 (grade)
100H20010 (grade)	2"	100 (1450)	21200	12478	161 (6.34)	45 (1.77)	523 (20.57)	450 (17.72)	175 (6.89)	32.70	72	ETG00600 (grade)
350 barg (5000 psig) maximum working pressure												
350H02500 (grade)	1/4"	350 (5075)	1850	1089	80 (3.15)	17 (0.67)	173 (6.79)	160 (6.30)	85 (3.35)	5.20	11	ETG00100 (grade)
350H03700 (grade)	3/8"	350 (5075)	3640	2142	85 (3.35)	20 (0.79)	178 (6.99)	160 (6.30)	90 (3.54)	5.70	13	ETG00100 (grade)
350H05000 (grade)	1/2"	350 (5075)	6063	3569	83 (3.27)	20 (0.79)	178 (6.99)	160 (6.30)	90 (3.54)	5.70	13	ETG00100 (grade)
350H07500 (grade)	3/4"	350 (5075)	10900	6415	108 (4.25)	25 (0.96)	192 (7.54)	160 (6.30)	115 (4.53)	10.10	22	ETG00200 (grade)
350H10000 (grade)	1"	350 (5075)	18150	10683	105 (4.13)	28 (1.08)	260 (10.22)	220 (8.66)	115 (4.53)	12.50	28	ETG00300 (grade)
350H15000 (grade)	1 1/2"	350 (5075)	37700	22189	153 (6.02)	49 (1.91)	350 (13.78)	260 (10.24)	165 (6.50)	35.00	77	ETG00400 (grade)
350H20000 (grade)	2"	350 (5075)	37700	22189	167 (6.57)	50 (1.97)	363 (14.29)	260 (10.24)	184 (7.24)	43.20	95	ETG00500 (grade)

* Rated flow at maximum working pressure, reference conditions at 1 bar (a) 20°C

Grade	RX25		RX5		RX1	
Particle removal	25 micron		5 micron		1 micron	
Minimum Temperature	-40°C	-40°F	-40°C	-40°F	-40°C	-40°F
Maximum Temperature	130°C	266°F	130°C	266°F	130°C	266°F
Element end cap colour	Stainless Steel					

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



XXXH02500 -
XXXH20010

Technical Notes

- Direction of air flow is outside to in through the filter element.
- All Hydrogen Filters are supplied without a drain port/plug.
- Hydrogen Filters are manufactured from grade 316 Stainless steel and are PED 2014/68/EU compliant for group 1 gases.
- Threaded connections are Rp (BSP Parallel) to ISO 7-1 or NPT to ANSI/ASME B1.20.1 if supplied within North America.
- 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.
- For NPT threads, add the suffix N, e.g., 50H02500NRX1.
- Filter elements should be changed every 12 months / 8000 hours (whichever comes first).



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