

## MASTER LEAKS LEAK TESTER - CALIBRATION CHECKING



Master leaks are used for checking calibration and calibrating ATEQ leak testers from the F and G range.

The leaks are delivered with a certificate of calibration in a protective box, mounted on a quick connector.

### Operating instructions

- The leak must be used with dry and clean air
- The "O" ring located inside the leak must be checked
- The leak must not be used under water, and must be put in its box after use
- The leak can be visually checked by generating bubbles using tubing under water
- The zero of the instrument must be checked by blanking the instrument output with cap
- Option: an extra leak can be provided in the same box to allow a double calibration check or a spare calibration office to be used when one is sent to our laboratory for a recertification

Pressure	Type of leak/rate in air at 20°C and 1013 hPa										
	A	B	S	C	D	50	E	F	G	1000	5000
20 mbar					8.2	16	34.7	1.3	2.7	5.8	52
50 mbar				8.7	21	41	1.5	3.3	6.8	15	130
150 mbar		6.0	13	27	64	2.2	4.7	10	21	47	383
200 mbar		8.1	17	37	88	3.0	6.3	14	29	64	505
300 mbar	5.8	13	26	57	2.3	4.6	9.8	21	45	99	740
500 mbar	10	22	46	1.7	4.1	8.2	17	38	81	176	1198
750 mbar	17	36	75	2.8	6.7	13	28	62	132	281	1823
850 mbar	19	42	88	3.3	7.8	15	32	73	155	325	2049
1 bar	23	51	1.8	4.0	9.5	19	40	90	190	394	2404
2 bar	58	2.2	4.6	10	24	46	95	234	486	904	4709
4 bar	2.7	6.1	13	27	61	118	233	665	1305	2086	9357
10 bar	11	24	51	99	213	394	729	2810	4620	6143	
20 bar	31	65	134	247	512	916	1661				
- 0.1 bar			7.8	17	39	78	2.8	6.1	13	28	237
- 0.2 bar		7.1	15	31	75	149	5.3	12	24	53	427
- 0.5 bar	7.4	15	32	69	163	324	11.3	25	52	112	813
- 0.75 bar	9.8	20	42	90	212	418	14.5	29	66	142	991
- 0.85 bar	10.6	22	45	97	225	443	15.4	35	70	149	1032
- 0.95 bar	11.3	23	47	101	235	462	15.9	36	73	153	

cm<sup>3</sup>/h
  cm<sup>3</sup>/min

Note: the values indicated above are given for information and can vary  $\pm 20\%$ . The true leak rate is precisely measured before delivery with an accuracy of  $\pm 5\%$  of the value for a use between 15°C to 35°C.

Special master leaks can be manufactured on request, within  $\pm 5\%$  of the nominal value.



# MASTER JETS

## FLOWMETER - CALIBRATION CHECKING



Master jets are used for checking calibration and calibrating ATEQ Flowmeters from the D range. The jets are delivered with a certificate of calibration in a protective box, mounted on a tube fitting.

### Operating instructions

- Must be used with dry and clean air
- Must not be used under water and must be put in their box after use
- Must be periodically checked by ATEQ's metrology department
- Checking the zero of the instrument must be done by blanking the instrument test output with a cap
- Option: an extra jet can be provided in the same box to allow a double calibration check or a spare calibration office to be used when one is sent to our laboratory for a recertification

Pressure	Type of jets / rate of air at 20°C and 1013 hPa						
	10 (100 µm)	20 (200 µm)	35 (350 µm)	59 (590 µm)	80 (800 µm)	112 (1120 µm)	160 (1600 µm)
20 mbar	0,98	5	17	51	93	180	405
100 mbar	2,64	13	40	117	221	387	922
250 mbar	4,36	21	64	185	354	607	1473
500 mbar	6,54	29	90	262	482	890	1947
1 bar	9,6	43	129	372	676	1262	
1,5 bar	12,4	54	162	468	850	1599	
2 bar	15	65	194	545	1010	1909	
2,5 bar	17,7	76	227	638	1185		
3 bar	20,4	88	260	729	1357		
3,5 bar	23,4	100	293	819	1524		
4 bar	25,2	110	325	910	1694		

dm<sup>3</sup>/h

Note: the values indicated above are given for information and can vary  $\pm 15\%$ .  
The true flow is precisely measured before delivery with an accuracy of  $\pm 1.5\%$  of the value.  
Special jets can be manufactured within  $\pm 5\%$  of its requested value up to 9000 dm<sup>3</sup>/h.

