

CleanSpace Mask Fit Check - PortaCount Testing

The CleanSpace respirator provides high levels of respiratory protection for wearers. In this study, the CleanSpace with half mask produced fit tests results averaging 9,564 across all tests and a range of face sizes. The CleanSpace respirator consistently PASSED all subjects and in the facial hair states. The CleanSpace respirator provided a high level of protection (>1,000 protection factor) in ALL testing conditions.

Results

The results of the Portacount Fit testing for each subject are in the table below.

CleanSpace Unit Setup. PAPR: Powered HS: Head harness SH: Small H Series Mask MH: Medium H Series Mask MQ: Medium Q Series Mask	FACIAL HAIR	Particle Ambient concentration	1. Normal Breathing	2. Deep Breathing	3. Head side to side	4. Head up and down	5. Talking out loud	6. Bend and touch toes	7. Normal Breathing	OVERALL	Pass/Fail (below 1000 protection factor)
PAPR/HS/SH	10 days	12346	14083	2607	24747	23419	21560	10257	29588	9785	PASS
PAPR/HS/SH	2 days	11090	11627	2036	18889	40603	16309	19676	49349	8893	PASS
PAPR/HS/SH	Clean shaven	10864	25180	9003	22554	35706	14580	17135	42898	18747	PASS
PAPR/HS/MH	10 days	12995	6813	5044	9405	8442	3975	7957	23066	7068	PASS
PAPR/HS/MH	2 days	13856	27201	1982	26936	16495	10659	18145	26502	8478	PASS
PAPR/HS/MH	Clean shaven	11715	19908	2413	18253	16681	8178	17124	17882	8580	PASS
PAPR/HS/MQ	2 day	10154	12956	3807	2619	7963	5018	7088	16504	5608	PASS

NOTE: The Standards for Respiratory Protection state that all respirators should be worn clean shaven.

Disclaimer

The CleanSpace® respirators and filters have been certified to AS/NZS 1716 Respiratory Protection Standards and CE Mark European Standards (EN12942 TM3) and conforms to the Japanese Industrial Standards (JIS). These Standards require the device to pass total inward leakage (TIL) testing in active AND passive modes. All testing for the certification is conducted by independent certified Test Facilities.

Importantly, powered respirators must comply with **more** stringent TIL testing requirements than passive respirators. The data in this report have been generated by tests conducted by PAFtec Australia Pty Ltd by our product engineering team. The data matches that of the independent Test Reports for certification but has not been independently verified by a third party.

Notes on the Testing Process

The CleanSpace2® respirator with P3 filter (PAF-0035) and a silicone face piece was used to measure the fit performance. A PortaCount machine (TSI Model 8038, #8038081904) was used to assess the effect of facial hair on the fit factor for CleanSpace2™ silicone face piece. Being a Powered Air Purification Respirator (PAPR), all the data in this report were generated in Powered (PAPR) mode with a silicone half mask, harness fitted using a P3 particulate filter. **NOTE: The Standards for Respiratory Protection state that all respirators should be worn clean shaven.**

Procedure

- 1) **Setup.** The Subjects were fitted with the CleanSpace2 Respirator with harness and mask (see image below) and was connected to the CleanSpace2 portacount mask adaptor.
- 2) **Method.** Three (3) Test subjects were used. Each test subject carried out the portacount test according to the Work Instruction WI-0062. Tests were carried out in PAPR mode.
- 3) **Subject Facial Hair States**
 - a. Clean Shaven -blade shaved
 - b. 2 day growth
 - c. 10 day growth



State	Male DJ	Male JS	Male AV
10-days			
2 days			
Clean shaven			