



## Wearing Time Limitations

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## Factors to observe

Wearing time limitations protect the wearer from excessive stress using filtering respiratory protection devices. In order to determine wearing times, the following requirements must be observed:



Wearing time limitations are only valid during normal operations while observing operating instructions and do not apply to emergencies such as rescuing people, fire fighting and escape, or self-rescue.



Wearing times can only be determined by taking a hazard assessment into consideration based on each individual workplace.



Wearing time limitations are influenced not only by device-specific factors but also by factors such as ambient climate, level of work difficulty, body positions, and confined spaces.

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## Determining wearing times

In Germany, the wearing time limitations are determined by the BGR 190 for all classes of facepieces. In Appendix 2 of BGR Directive 190, the following wearing time limitations are determined for the specified filtering respiratory protective devices:

	Duration of wear (min)	Duration of recovery (min)	Calls per shift	Shifts per week
<b>Filtering devices without powered air support</b>				
Half mask	120	30	3	5
Full face mask	105	30	3	5
Filtering half mask with valve	120	30	3	5
Filtering half mask without valve	75	30	5	4
<b>Filtering devices with powered air support</b>				
Full face mask	150	30	3	5
Hood or helmet	No wearing time limitation*			



Please check your local regulations for nationally specified wearing limitations.

\* A wearing time of 220 min must be used as a basis for calculation in the event of excessive stress on the wearer.

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## Extending the maximum wearing times

In applications with extremely high exposure levels, the maximum wearing time must be reduced. The duration of recovery however does not decrease.

Work difficulty category	Minute volume (air per minute)	Adjustment factors
A1	≤ 20 L	1.5
A2	> 20–40 L	1.0
A3	> 40–60 L	0.7
A4	> 60 L	Special planning required

In addition, a wearing time reduction can be caused by the climate at the workplace and clothing properties. **The specified approximate values must be reduced by 70% starting from a temperature > 28°C and relative humidity of > 78%.**

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## Reducing the recovery time

Recovery times can be reduced for short wearing times, thereby increasing the maximum number of operations possible per shift.

Shorter recovery times may only be taken if the adjustment factors are not applicable due to an increased level of work difficulty.

Calculating shorter recovery times:

Shorter recovery time: 
$$\frac{\text{shorter WT} \times \text{minimum RT}}{\text{maximum WT}}$$



Note: RT = Recovery time; WT = Wearing time

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