

VDA Recommendation: Infection Prevention in Production, Logistics and Administration

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Recommendations for unified standards in the automotive industry to protect against infections with Covid-19

The present recommendations on infection prevention in production, logistics and administration are based on consultations and "lessons learned" from the member companies in the VDA Production Committee. These recommendations are intended to assist the internal implementation of protective measures and concretize the "SARS-CoV2 Occupational Safety Standards" (as of April 2020) of the German Federal Ministry of Labor and Social Affairs using the automotive industry as an example. The recommendations are addressed to all VDA member companies and their partners in the supply chain. The respective social partners, trade associations and company doctors must be involved before implementation in the companies.

Overview of the protective measures

One of the essential requirements for the restart of the automotive industry is the protection of employees. The proposed measures aim to break the chains of infection and protect employees. Even if plants or activities are different (such as production and administration), some protective measures can be applied in principle.

Workplace design

Employees should be able to keep a sufficient distance (at least 1.5 metres) to other employees. If this distance cannot be maintained, at a minimum, the use of facial masks (covering the mouth and nose) that can be reused is required (Figure 1)

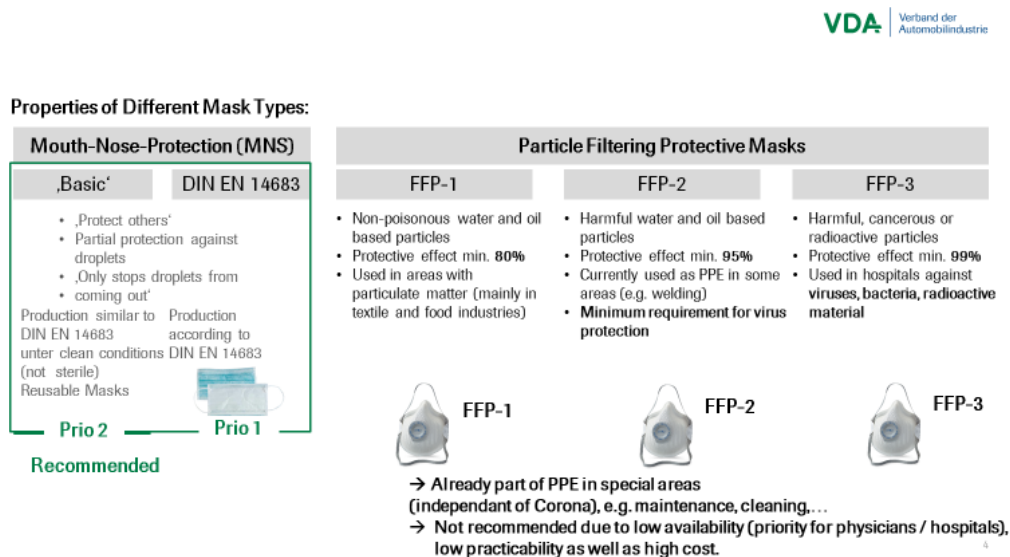


Figure 1.

The following is recommended for handling reusable masks (in addition to the requirements of the Robert Koch Institut (RKI), see Appendix 1)

- Basic requirements: Material of cotton or mixed, if possible with nose clip for a better fit and washable at at least 60° degrees.
- The personally assigned masks may not be passed on to other employees or to private individuals.
- Obligatory safety instruction for the correct putting-on/taking off of the masks (incl. illustrations)
- The mask must not be worn for more than one working day.

- Pack used mask in a separate, closed plastic bag, take it home and wash it there (washing instructions).
- After taking off and packing the mask, wash your hands
- If the mask is damaged after repeated washing, please dispose of the mask in the household waste.

In addition to the use of a mouth-nose protective mask, protective devices can also be installed to separate the workstations if the protective distance of < 1.5m is not feasible. In the case of office workplaces, free space capacities should be used optimally to avoid multiple occupancy of rooms or to increase the distances.

The following complementary or alternative protective measures are recommended (Figure 2):


Classification WP	Description	Possible Portfolio of Protective Measures		
		Technical	Organisational	Personal (Top Priority)
Work Place Type 1: general protective measures	Minimum Distance of > 1,5m between employees can be maintained permanently	<ul style="list-style-type: none"> - Shaking of hands is prohibited - Wash hands regularly with water and soap - Only use paper towels once - Cough into own sleeve or in the opposite direction of other people - Keep a distance to other people - Ventilate the work place regularly 		
Work Place Type 2: expanded protective measures	Shared use of work materials and tools	Designate individually assigned work material and tools whenever possible	Cleaning requirement for tools before starting work	
Work Place Type 3: special protective measures	Minimum distance < 1,5m, temporal or locational disentanglement not possible	Layout fixed work places so that a safety distance > 1,5m can be permanently maintained <ul style="list-style-type: none"> ➢ Where possible and useful: instal protective screens made of acrylic glass, ➢ Design processes that enable all employees to use individually assigned tools ➢ Floor markings to visualise minimum distance 	Organise safety distance > 1,5m in the work flow <ul style="list-style-type: none"> ➢ Alter cycle time in assembly ➢ Stagger shift transfer, etc. ➢ Stagger production ➢ Minimise duration of joint tasks ➢ No deployment of employees belonging to risk groups ➢ Organise teams with permanent members ➢ Max. 1 person per MHE 	- Mouth-Nose Protective Mask - possibly enhanced by protective goggles / glasses

Figure 2.

In addition, the following extended measures are recommended to **visitors and suppliers** on the production site: (In principle, all requirements apply, as for regular employees)

- Keep the number of external visitors as low as possible
- The protective measures are taken into account when instructing external companies
- No visitors from risk areas
- Countertop, contact/spitting protection installed in the Receiving / traffic control tower office to limit contact with truck drivers
- Necessary minimum distance in front of counters is visualized (e.g. with floor marking or barrier tape)
- Install washing facilities for visitors, drivers and employees at the gate, control center etc. or signpost existing washing facilities

In **lifts, staircases, canteens** and **break rooms**, people meet in very confined spaces, and there is a high risk of infection. Special protective measures are therefore recommended for this area:

- Maximum number of persons must be specified for each elevator
- Keep your distance in the elevator and avoid talking
- Do not operate buttons in the elevator with your hand, but with elbow, cloth etc.
- Use the stairwell as an alternative to the lift (avoid lifts if possible), and clearly display signs in stairwells
- direct traffic in stairwells to maintain minimum distance
- Enough soap and towel dispensers are to be provided (the necessity for the widespread use of disinfectant dispensers is to be examined taking into account the damaging effect on the skin and the resulting non-use)
- Sufficient cleaning and hygiene must be provided, if necessary the cleaning intervals must be adjusted. This applies in particular to sanitary facilities and common rooms. Regular cleaning of door handles and handrails also helps to prevent infections (if necessary, leave intermediate doors, doors of open-plan offices, stairwells etc. open).
- In break rooms and canteens, adequate distance must be ensured, e.g. by not placing tables and chairs too close together. It must be ensured that the valid distance regulations are observed in queues. Area-wise regulation of time windows for canteen use or instruction by authorized persons can be helpful in this respect. If necessary, the canteen and meal distribution times must be extended.

Ventilation

Regular ventilation serves the purpose of hygiene and promotes air quality, as the number of pathogens in the indoor air can increase in closed rooms. The risk of transmission via room air conditioning can be classified as low overall. It is not advisable to switch off air handling systems, as this can lead to an increase in the aerosol concentration in the room air and thus to an increased risk of infection.

In order to further reduce or eliminate the risk of virus transmission through air handling units, it must be ensured that no aerosols are transported through the air handling unit. Appropriate measures for this purpose must be decided on a company-specific basis.

Mobile work/Home Office

Working in home office is to be made possible, especially in open-plan offices with insufficient safety distances. Working in a home office requires a clear structure and self-organisation. Companies should define clear work processes, delimited work packages and mutual expectations should be clarified. Employees should ensure that they can be reached by telephone or digitally within the agreed periods.

Business trips and face-to-face events

Business trips and face-to-face events such as meetings are to be reduced to the absolute minimum and, technical alternatives such as online meetings, telephone or video conferences are to be made available as far as possible. Meetings shall be conducted digitally where possible; where this is not possible, large rooms shall be used to allow enough distance between all participants:

- At least one seat (distance rule: 1.5 m) is to be left free between the participants; chairs are to be removed or marked for this purpose
- Meeting duration is to be kept as short as possible
- Maximum number of people in meeting rooms is fixed in advance and a notice is attached to the door

Additional organisational measures

- Permanent workstations: in offices with free choice of space - if possible - assign fixed workstations
- Work equipment/tools: Use hand tools on a personal basis wherever possible. Where this is not possible, tools should be cleaned with a soap solution after use.

- Marking of protective distances: Where experience has shown that queues of people occur (time recording, canteen, tool and material dispensaries), mark protective distances of the standing areas with adhesive tape.
- Working time and break arrangements: Reduce the occupancy density of work areas and jointly used facilities by taking measures to avoid crowds (staggered working and break times, shift operation if necessary).
- Storage and cleaning of work clothing and PPE (personal protective equipment): Particularly strict attention must be paid to the exclusively personal use of all personal protective equipment (PPE) and work clothing. Enable personalized storage of work clothing and PPE separately from everyday clothing. Ask that work clothes are washed as often as possible at min. 60°C. Disinfect or replace PPE regularly and frequently.

Additional personal measures

- Every employee cleans his or her personal working environment, keyboards, furniture, etc. at his or her individual workplace on his or her own initiative every day. For this purpose, cleaning products must be available in sufficient quantity and reachability.
- Regular cleaning of office rooms, meeting rooms, tea kitchens, traffic routes, sanitary rooms etc.
- Additional PPE: In the event of unavoidable contact with other persons or if protective distances cannot be maintained, additional personal protective equipment (mouth-nose protection) must be provided and employees instructed accordingly for use (depending on the supply situation).
- Instruction: Employer communicates actively with his employees. Protective measures are explained and instructions are made understandable (including signs, floor markings etc.). Attention must be drawn to compliance with personal and organizational hygiene rules (distance requirement, cough and sneeze etiquette, hand hygiene, PPE).

Risk groups/Individual counselling on health protection at work

Occupational health care counselling must be offered, especially for risk groups (older employees, people with pre-existing illnesses, people with disabilities). Employees can obtain individual advice from the company doctor, including advice on special risks due to a previous illness or individual disposition. Fears and psychological stress should also be addressed. The company doctor knows the workplace and suggests suitable infection prevention measures to the employer if the normal occupational health and safety measures are not sufficient.

Appendix 1: (Source: Robert Koch Institut)

Status 13/03/2020 valid as long as the already declared emergency situation for this area is described, provisionally until 31 August 2020

Possible measures for the resource-saving use of mouth-nose protection (MNS) and FFP masks in health care facilities in the event of supply bottlenecks in connection with the novel coronavirus disease COVID-19

Here the reuse of MNS and FFP2 and FFP3 masks

Since there is currently a shortage of masks for mouth-nose protection (MNS)¹ and FFP2², it is necessary to develop strategies for a more resource-saving use of these masks and other personal protective equipment in order to maintain the regular supply/processes in health care facilities.

Corresponding orientation aids are given below. The concrete implementation of the measures should take place after an expert hazard assessment or risk evaluation by the employer on site, taking into account the local conditions and involving the hygiene personnel, the company medical service and, if necessary, in consultation with the responsible health authority.

For the general treatment and care of sick persons with non-specific acute respiratory infections, an MNS is considered sufficient as a hygiene measure in this declared emergency situation, provided that both the sick person and the person treating or caring for them wear an MNS. At least FFP2 masks are required for the treating person in measures involving aerosol exposure.

Recommendation for supply bottlenecks of MNS and FFP masks:

The measures for re-use of protective masks described in Annex 7 point 2 of TRBA250 and ABAS Decision 609 in the event of a pandemic can also be helpful in the current supply shortages. The possibility of re-using FFP masks under certain conditions during a shift is equally given at MNS.

The reuse of FFP masks or MNS requires safe handling. Non-compliance increases the risk of infection for employees. Please note that the re-use measures described below should therefore only be applied to declared emergency situations if FFP masks and/or MNS are not available in sufficient numbers.

This recommendation has been prepared at the request of the Federal Ministry of Health by the Robert Koch Institute (RKI) in coordination with the Ad-Hoc Working Group on SARS-CoV2 of the Committee on Biological Agents (ABAS) in cooperation with the Federal Ministry of Labor and Social Affairs.

- The use of MNS in surgical operations is unchanged.
- Also unaffected is the immediate change of MNS or FFP masks in case of (suspected) contamination or wetting.
- With MNS and FFP masks the patient-related re-use is carried out during a shift.
- Re-use of MNS and FFP masks during a shift only by the same person.

The outside of the used mask is potentially infectious and when re-applying the mask, contamination of the wearer, especially in the face (nose, mouth, eyes) must be avoided. Therefore, the wearer must be instructed in the special measures for re-use of used masks.

When re-using, it should be noted that

- the removal of the mask/MNS must be carried out in such a way that contamination of the mask/MNS (especially the inside) or of the face is prevented, e.g. by prior glove disinfection or appropriate glove management (e.g. multiple gloves)
- after taking off the mask/MNS, it should be kept dry in the air (not in closed containers!) and stored temporarily, so that contamination of the inside of the mask/MNS and carry-over to other surfaces is avoided
- a demarcated area should be defined to provide a secure storage facility for the mask/MNS that is not accessible to the public so that it can be re-used
- the gloves are to be disposed of properly and the hands disinfected after storage of the masks

- the used mask/the used MNS can be clearly assigned to a person in order to prevent other persons from wearing it (e.g. marking the masks on the retaining strap)
- used disposable FFP masks/MNS cannot be cleaned or disinfected with disinfectant, as this can have a negative effect on the functionality of the mask
- when putting on the MNS/mask again, make sure that the pathogens are prevented from spreading from the contaminated outer surface to the inner surface. Touching the inside of the filter fleece must therefore be avoided
- hygienically clean, unused gloves are to be worn when re-attaching and the gloves are to be disposed of before renewed patient contact
- you must not use masks/MNS whose inner surface may have been contaminated by handling errors
- the place of temporary storage must be properly disinfected immediately after removal of the mask/MNS
- the use of reusable respiratory masks with replaceable particle filters is another alternative to resource protection

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