



**T.C.  
MİLLÎ EĞİTİM BAKANLIĞI**

**TURKISH VOCATIONAL SCHOOLS HELP FIGHT  
AGAINST COVID-19 PANDEMIC**

**June, 2020**



## VET in Numbers

Students	1.457.468
Teachers	131.788
Schools	3.755
Students Per Classroom	23
Students Per Teacher	11
Share of Vocational Education in Secondary Education (%)	34,00
Education Fields and Branches	55 Alan - 203 Dal



# Distance Education

- MoNE has decided to perform the courses via its online platform-EBA (Educational Informatics Network) and national television channel-TRT (Turkish Radio and Television Corporation).
- In this portal, various learning materials –including curriculum-based videos, documents, e-books, tests, activities- are provided to stakeholders of education from preschool to high school level.
- Students, teachers, and parents can access more than 5.000 books, hundred thousands of documentaries, cartoons and documentary in EBA portal.
- MoNE collaborated with the leading GSM operators in Turkey to support the students' access to the EBA online portal. Operators provided internet access to the students up to 8 GB free of charge. Students can use internet access to participate the online courses and other educational activities at the EBA portal.





# Significant Productions to Prevent The Spread of Pandemic

- The vocational education and training [VET] have been critical to Turkey's wellbeing in a time of coronavirus pandemic.
- In this context, MoNE has activated the production capacity of VET in Turkey, and VET high schools has begun to produce the materials to prevent the spread of pandemic.
- They produced materials in diverse areas from cleaning materials to mask production, disposable aprons and overalls to face protection shields.
- The R&D studies are also intensified to increase the variety of products produced in VET.
- The devoted teachers and students of VET have always prioritized the demands of society in such difficult conditions, have activated their production capacity and supported Turkey with their services.



# Cleaning and Disinfection Materials

- MoNE has focused on the production in VET high schools in order to maintain the hygiene, cleaning and disinfection works of all schools within the scope of coronavirus measures. These products are produced in 100 VET schools. MoNE provided the raw material needs of VET high schools and delivered them to the schools. At present, VET high schools have reached a production capacity to meet all cleaning material needs of approximately 54 thousand schools in 81 provinces.
- VET schools have produced 6 million liters of surface disinfectant, 400 thousand liters of hand disinfectant and 10 thousand liters of cologne so far.





# Medical masks

- The medical mask is the most needed product due to the coronavirus epidemic in these days. It is difficult to provide the necessary supply of masks and prices are constantly increasing. MoNE has taken a quick step in this regard. The necessary investments have been made to produce medical/surgical masks in 102 VET schools and the first masks started to be produced. One million masks were produced in a very short time and delivered primarily to healthcare workers. The capacity to produce 10 million masks per month has been created.
- Vocational high schools have produced **30 million** surgical/medical masks so far.





# Disposable Materials

- In this process, the demand for disposable products has increased due to the importance of hygiene. In this regard, MoNE has invested in VET and started to produce products such as disposable gowns and overalls especially for healthcare workers. Production continues intensively in almost all provinces. On the other hand, manufacturing of products such as disposable forks and knives is started in selected pilot VET schools in Istanbul.
- VET schools have produced 1 million disposable coveralls / gowns to date and offered them to healthcare professionals.





# Face Protection Shields

- In order to contribute to the solution of the troubles in the production of face protection shields, which are especially important for healthcare workers, R&D studies have been completed and the production of face protection shields has started. In VET schools, 500 thousand face shields can be produced per month. Face shields are produced both with an automated production line and by using 3-D (three-dimensional) printers. In addition, the molds of the face shields are created beyond the 3-D printer, and mass production of face shields started in the field of plastic technology of VET high schools.
- VET Schools have produced 1 million face protection shields so far and presented them to healthcare professionals.





# Ventilator

- As a result of R&D studies in Istanbul and Hatay, the first ventilator was produced in biomedical device technologies R&D workshops of a VET school in Hatay. Another phase of the works in this context was completed with the works carried out in Istanbul. The second ventilator was produced in the R&D workshop of a vocational high school in Istanbul. This ventilator is a Expirium Filtered Automatic Ambulatory Ventilator. The developed ventilator can be used in ambulance or field hospitals thanks to its ability to control with a control panel, remote PC or mobile phone application.





# Ultrasonic Surgical Mask Machine

- R&D studies that have been going on for months have yielded results and an 'Automatic 3-Layer Wire Ultrasonic Surgical Mask Machine' was produced. The machine started to produce about 100 thousand masks per day. The machines are produced in Istanbul and they will be installed in other VET high schools and the monthly production will reach 10 million surgical mask capacity soon.





# N95 standard Mask Machine

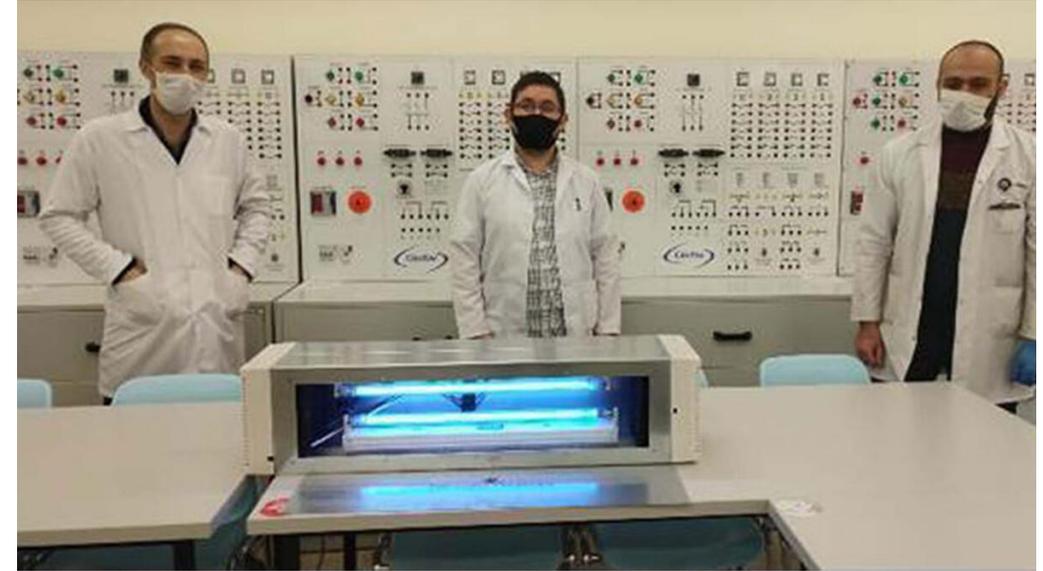
- MoNE took a very important step while accelerating its production in VET high schools within the scope of coronavirus measures and began preparations for producing the machine that produces masks in N95 standard. While there is no problem in getting the equipment related to the production of surgical masks in the market, machines producing N95 masks are either very few or not accessible. For this purpose, MoNE started R&D for machinery production. The first machine was developed in April and started mass production.





# Ultraviolet-C (UVC) Air Sterilization Device

- In the fight against coronavirus pandemic in a vocational high school, a robot capable of disinfecting hospital environments such as intensive care rooms, elevator cabins and corridors with ultraviolet (UV) rays was developed.





## Other R&D Studies

- Ozone Air Disinfection Device
- Non-Contact Infrared Thermometer
- Video Laryngoscope Device
- Isolated Sampling Unit
- Fully Equipped Intensive Care Bed
- Mobile UV-C Robot Sterilization





# Produced Materials are Given Free of Charge to those in Need

- As a result, Mone provides all products free of charge to the relevant authorities under the coordination of the Ministry of Health and the governorships.
- The cleaning and disinfectant materials, and surgical masks have been produced and delivered to the elderly and needy families free of charge in 81 provinces with the coordination of Governorships.





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