**Covid-19 Related Free Public Resources**

**Medtronic’s COVID-19 Page**

**The site contains information about our ventilators including production, ventilating multiple patients and a link to the ventilator training curriculum.**

*There are multiple tabs including latest updates and info for health care providers*

<https://www.medtronic.com/us-en/e/covid19.html>

**Link to download to register and download ventilator specifications:**

<https://www.medtronic.com/us-en/e/open-files.html>

Downloaded Files Below:

MEDTRONIC PB560 VENTILATOR SYSTEM FILES

Release 1.0:<https://drive.google.com/open?id=1jyRBf2ru7veXwEvJhe8Tro1r6uKj2Z_t>

* Electrical schematics
* Manuals
* Manufacturing documents
* Requirements documents
* Permissive license

Release 2.0: https://drive.google.com/open?id=1HMtryonv1arSwru1IRrZldcrt2gldGeN

* Manufacturing fixtures
* Printed circuit board drawings (including multiple BOMs)
* 3D CAD files
* Mechanical part drawings
* Permissive license

Release 3.0:<https://drive.google.com/open?id=1wXDyGaMRElpT1nuk50BimeujT9OmkulY>

* Source code files
* Source code checksums
* Permissive license

Release 4.0:<https://drive.google.com/open?id=1ude4nTYvHz2NkKIiYi7bxr7_exQZCZqP>

* Accessories
* Bills of Materials (BOMs)
* BOM Drawings
* Purchased Part Drawings
* Risk Documents
* Permissive License

**Rapidly Manufactured Ventilator System**

[**https://1drv.ms/b/s!Amdgapa\_UCFRhfNMJ9CrZr--kc5LFw**](https://1drv.ms/b/s!Amdgapa_UCFRhfNMJ9CrZr--kc5LFw)

**Free publications access an effort to accelerate the manufacturing and production of masks, ventilators and other safety equipment and to find solutions to this pandemic.**

**Ventilator** [**standards from BSI Group**](https://urldefense.com/v3/__http:/app.ihs.com/e/er?utm_campaign=PC016511_DH_PD_Global_Coronavirus_PDcustomerupdate_4.2.2020AMER&utm_medium=email&utm_source=Eloqua&s=1770935282&lid=123378&elqTrackId=08814afb57324534b11e82df5b17c5e4&elq=a57eb4c750614ea9becde8a8d0848c02&elqaid=106447&elqat=1__;!!NFcUtLLUcw!FiCGaRNIOtfxHwvkAAAI5MHsdoKy1x1S9NT3E0VHFLSfMZUN5k7yB0AuRDrSyQsIwccqyu8AmQ$)

[**https://www.bsigroup.com/en-GB/about-bsi/media-centre/press-releases/2020/march/bsi-supports-governments-rmvs-initiative/?utm\_campaign=PC016511\_DH\_PD\_Global\_Coronavirus\_PDcustomerupdate\_4.2.2020AMER&utm\_medium=email&utm\_source=Eloqua**](https://www.bsigroup.com/en-GB/about-bsi/media-centre/press-releases/2020/march/bsi-supports-governments-rmvs-initiative/?utm_campaign=PC016511_DH_PD_Global_Coronavirus_PDcustomerupdate_4.2.2020AMER&utm_medium=email&utm_source=Eloqua)

**Medical additive manufacturing/ 3D printing community meetings from ASME.**

[**April 15**](about:blank)

[**https://asme.zoom.us/meeting/register/tJMtd-6rpz8p9867W2\_9SOuh\_0fVr7ZRiA?utm\_campaign=PC016511\_DH\_PD\_Global\_Coronavirus\_PDcustomerupdate\_4.2.2020AMER&utm\_medium=email&utm\_source=Eloqua**](https://asme.zoom.us/meeting/register/tJMtd-6rpz8p9867W2_9SOuh_0fVr7ZRiA?utm_campaign=PC016511_DH_PD_Global_Coronavirus_PDcustomerupdate_4.2.2020AMER&utm_medium=email&utm_source=Eloqua)

[**April 22**](https://urldefense.com/v3/__http:/app.ihs.com/e/er?utm_campaign=PC016511_DH_PD_Global_Coronavirus_PDcustomerupdate_4.2.2020AMER&utm_medium=email&utm_source=Eloqua&s=1770935282&lid=123376&elqTrackId=3aa72840c6d74fd091f6b58a4a468109&elq=a57eb4c750614ea9becde8a8d0848c02&elqaid=106447&elqat=1__;!!NFcUtLLUcw!FiCGaRNIOtfxHwvkAAAI5MHsdoKy1x1S9NT3E0VHFLSfMZUN5k7yB0AuRDrSyQsIwcepu_zcTA$)

[**https://asme.zoom.us/meeting/register/uJ0rcOivpzIjlGv1Hk9GzGfPZpuxGPW0zA?utm\_campaign=PC016511\_DH\_PD\_Global\_Coronavirus\_PDcustomerupdate\_4.2.2020AMER&utm\_medium=email&utm\_source=Eloqua**](https://asme.zoom.us/meeting/register/uJ0rcOivpzIjlGv1Hk9GzGfPZpuxGPW0zA?utm_campaign=PC016511_DH_PD_Global_Coronavirus_PDcustomerupdate_4.2.2020AMER&utm_medium=email&utm_source=Eloqua)

**COVID-19 related** [**journals from ASME**](https://urldefense.com/v3/__http:/app.ihs.com/e/er?utm_campaign=PC016511_DH_PD_Global_Coronavirus_PDcustomerupdate_4.2.2020AMER&utm_medium=email&utm_source=Eloqua&s=1770935282&lid=123375&elqTrackId=5ca6841e685f47beae3948b3f44f564f&elq=a57eb4c750614ea9becde8a8d0848c02&elqaid=106447&elqat=1__;!!NFcUtLLUcw!FiCGaRNIOtfxHwvkAAAI5MHsdoKy1x1S9NT3E0VHFLSfMZUN5k7yB0AuRDrSyQsIwcep6rApBA$)**:**

[**https://asmedigitalcollection.asme.org/journals/pages/covid19resource?utm\_campaign=PC016511\_DH\_PD\_Global\_Coronavirus\_PDcustomerupdate\_4.2.2020AMER&utm\_medium=email&utm\_source=Eloqua**](https://asmedigitalcollection.asme.org/journals/pages/covid19resource?utm_campaign=PC016511_DH_PD_Global_Coronavirus_PDcustomerupdate_4.2.2020AMER&utm_medium=email&utm_source=Eloqua)

**Design and Prototype of a Low-Cost Portable Mechanical Ventilator:**

[**https://asmedigitalcollection.asme.org/medicaldevices/article/doi/10.1115/1.3442790/434122/Design-and-Prototyping-of-a-LowCost-Portable**](https://asmedigitalcollection.asme.org/medicaldevices/article/doi/10.1115/1.3442790/434122/Design-and-Prototyping-of-a-LowCost-Portable)

**Mask, Gown, Glove, Sanitizer and Respirator** [**standards from ASTM**](https://urldefense.com/v3/__http:/app.ihs.com/e/er?utm_campaign=PC016511_DH_PD_Global_Coronavirus_PDcustomerupdate_4.2.2020AMER&utm_medium=email&utm_source=Eloqua&s=1770935282&lid=123374&elqTrackId=bd9adab6f2b945ca912eb833d0eb6668&elq=a57eb4c750614ea9becde8a8d0848c02&elqaid=106447&elqat=1__;!!NFcUtLLUcw!FiCGaRNIOtfxHwvkAAAI5MHsdoKy1x1S9NT3E0VHFLSfMZUN5k7yB0AuRDrSyQsIwcdK5KwIMQ$)**:** [**https://www.astm.org/COVID-19/?utm\_campaign=PC016511\_DH\_PD\_Global\_Coronavirus\_PDcustomerupdate\_4.2.2020AMER&utm\_medium=email&utm\_source=Eloqua**](https://www.astm.org/COVID-19/?utm_campaign=PC016511_DH_PD_Global_Coronavirus_PDcustomerupdate_4.2.2020AMER&utm_medium=email&utm_source=Eloqua)

**Mask, glove and protective clothing** [**standards from CEN and jointly with ISO**](https://urldefense.com/v3/__http:/app.ihs.com/e/er?utm_campaign=PC016511_DH_PD_Global_Coronavirus_PDcustomerupdate_4.2.2020AMER&utm_medium=email&utm_source=Eloqua&s=1770935282&lid=123373&elqTrackId=1055971105e54f31997e9b8c0b2bf25f&elq=a57eb4c750614ea9becde8a8d0848c02&elqaid=106447&elqat=1__;!!NFcUtLLUcw!FiCGaRNIOtfxHwvkAAAI5MHsdoKy1x1S9NT3E0VHFLSfMZUN5k7yB0AuRDrSyQsIwcdGS6JrbQ$)**:**

[**https://www.cencenelec.eu/News/Press\_Releases/Pages/PR-2020-003.aspx?utm\_campaign=PC016511\_DH\_PD\_Global\_Coronavirus\_PDcustomerupdate\_4.2.2020AMER&utm\_medium=email&utm\_source=Eloqua**](https://www.cencenelec.eu/News/Press_Releases/Pages/PR-2020-003.aspx?utm_campaign=PC016511_DH_PD_Global_Coronavirus_PDcustomerupdate_4.2.2020AMER&utm_medium=email&utm_source=Eloqua)

**Infectious control, facility and safety** [**standards from CSA Group**](https://urldefense.com/v3/__http:/app.ihs.com/e/er?utm_campaign=PC016511_DH_PD_Global_Coronavirus_PDcustomerupdate_4.2.2020AMER&utm_medium=email&utm_source=Eloqua&s=1770935282&lid=123372&elqTrackId=ba0595e7101745f685daa9a57f374474&elq=a57eb4c750614ea9becde8a8d0848c02&elqaid=106447&elqat=1__;!!NFcUtLLUcw!FiCGaRNIOtfxHwvkAAAI5MHsdoKy1x1S9NT3E0VHFLSfMZUN5k7yB0AuRDrSyQsIwcelUq_KTg$)**:** [**https://www.cencenelec.eu/News/Press\_Releases/Pages/PR-2020-003.aspx?utm\_campaign=PC016511\_DH\_PD\_Global\_Coronavirus\_PDcustomerupdate\_4.2.2020AMER&utm\_medium=email&utm\_source=Eloqua**](https://www.cencenelec.eu/News/Press_Releases/Pages/PR-2020-003.aspx?utm_campaign=PC016511_DH_PD_Global_Coronavirus_PDcustomerupdate_4.2.2020AMER&utm_medium=email&utm_source=Eloqua)

**Safety** [**codes and standards from NFPA**](https://urldefense.com/v3/__http:/app.ihs.com/e/er?utm_campaign=PC016511_DH_PD_Global_Coronavirus_PDcustomerupdate_4.2.2020AMER&utm_medium=email&utm_source=Eloqua&s=1770935282&lid=123371&elqTrackId=cc1535941ca74670a92c219215b4b930&elq=a57eb4c750614ea9becde8a8d0848c02&elqaid=106447&elqat=1__;!!NFcUtLLUcw!FiCGaRNIOtfxHwvkAAAI5MHsdoKy1x1S9NT3E0VHFLSfMZUN5k7yB0AuRDrSyQsIwccALzUyfA$)**:** [**https://www.nfpa.org/**](https://www.nfpa.org/)

[**Handbooks, guidance and standards from ASHRAE**](https://urldefense.com/v3/__http:/app.ihs.com/e/er?utm_campaign=PC016511_DH_PD_Global_Coronavirus_PDcustomerupdate_4.2.2020AMER&utm_medium=email&utm_source=Eloqua&s=1770935282&lid=123370&elqTrackId=5bf85a79d4d24fa6bbf5fd47fd8b892a&elq=a57eb4c750614ea9becde8a8d0848c02&elqaid=106447&elqat=1__;!!NFcUtLLUcw!FiCGaRNIOtfxHwvkAAAI5MHsdoKy1x1S9NT3E0VHFLSfMZUN5k7yB0AuRDrSyQsIwcf7_y_1-w$)**:**

[**https://www.ashrae.org/technical-resources/resources?utm\_campaign=PC016511\_DH\_PD\_Global\_Coronavirus\_PDcustomerupdate\_4.2.2020AMER&utm\_medium=email&utm\_source=Eloqua**](https://www.ashrae.org/technical-resources/resources?utm_campaign=PC016511_DH_PD_Global_Coronavirus_PDcustomerupdate_4.2.2020AMER&utm_medium=email&utm_source=Eloqua)

[**Standards and TIRs from AAMI**](https://urldefense.com/v3/__http:/app.ihs.com/e/er?utm_campaign=PC016511_DH_PD_Global_Coronavirus_PDcustomerupdate_4.2.2020AMER&utm_medium=email&utm_source=Eloqua&s=1770935282&lid=123369&elqTrackId=9f30946cb5cc4a13b8e9a39f6b64fb49&elq=a57eb4c750614ea9becde8a8d0848c02&elqaid=106447&elqat=1__;!!NFcUtLLUcw!FiCGaRNIOtfxHwvkAAAI5MHsdoKy1x1S9NT3E0VHFLSfMZUN5k7yB0AuRDrSyQsIwcf78_vPkg$)**:**

[**https://www.ashrae.org/technical-resources/resources?utm\_campaign=PC016511\_DH\_PD\_Global\_Coronavirus\_PDcustomerupdate\_4.2.2020AMER&utm\_medium=email&utm\_source=Eloqua**](https://www.ashrae.org/technical-resources/resources?utm_campaign=PC016511_DH_PD_Global_Coronavirus_PDcustomerupdate_4.2.2020AMER&utm_medium=email&utm_source=Eloqua)

[**journals from McGraw-Hill, Wiley, Springer and other publishers**](https://urldefense.com/v3/__http:/app.ihs.com/e/er?utm_campaign=PC016511_DH_PD_Global_Coronavirus_PDcustomerupdate_4.2.2020AMER&utm_medium=email&utm_source=Eloqua&s=1770935282&lid=123368&elqTrackId=e6ff5debe97548e0bec20799a0abd6a8&elq=a57eb4c750614ea9becde8a8d0848c02&elqaid=106447&elqat=1__;!!NFcUtLLUcw!FiCGaRNIOtfxHwvkAAAI5MHsdoKy1x1S9NT3E0VHFLSfMZUN5k7yB0AuRDrSyQsIwcc4L1K8cw$)**:**

[**https://www.ncbi.nlm.nih.gov/pmc/about/covid-19/?utm\_campaign=PC016511\_DH\_PD\_Global\_Coronavirus\_PDcustomerupdate\_4.2.2020AMER&utm\_medium=email&utm\_source=Eloqua**](https://www.ncbi.nlm.nih.gov/pmc/about/covid-19/?utm_campaign=PC016511_DH_PD_Global_Coronavirus_PDcustomerupdate_4.2.2020AMER&utm_medium=email&utm_source=Eloqua)

**FDA/MHRA guidance regarding COV-19**

**Guidance from FDA and MHRA on Ventilators and breathing systems during COV-19.**

**FDA list of all guidance related to Covid-19:**

<https://www.fda.gov/emergency-preparedness-and-response/mcm-issues/covid-19-related-guidance-documents-industry-fda-staff-and-other-stakeholders>

**Enforcement Policy for Ventilators and Respiratory Devices – FDA guidance**

[**https://1drv.ms/b/s!Amdgapa\_UCFRhfRFL74IrM88vNTB4g**](https://1drv.ms/b/s!Amdgapa_UCFRhfRFL74IrM88vNTB4g)

**Official journal recommendation on personal protective equipment during COVID-19, they refer to both MDD/MDR articles that allows derogations from conformity assessment for certain circumstances.**

[**https://1drv.ms/b/s!Amdgapa\_UCFRhfRGh6FzPB-4UWyOmg**](https://1drv.ms/b/s!Amdgapa_UCFRhfRGh6FzPB-4UWyOmg)