

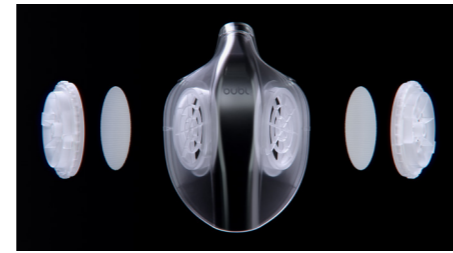
DENPRO – born out of the pandemic. New UK manufacturer of PPE with over 50 years of Innovation, now available in GB

The DENPRO journey to manufacturing 5+ million masks for HSCNI has been “quite remarkable”, all whilst striving to be the most sustainable PPE supplier to the healthcare sector.

DENPRO may be a new supplier to be listed onto the NHS Framework Agreement for PPE, but that doesn't mean they're new to the industry. As a division of Denroy, one of the world's leading innovators of high-tech, critical components for the aerospace, medical, defence and automotive industries, DENPRO has many strings to their bow. With over 50 years of experience and expertise under their belt, there's not much they don't know about innovative design, engineering, and injection moulded manufacturing. A force to be reckoned with, the Denroy Group is a multi-award-winning supplier with notable accreditations such as SC21 Gold for three consecutive years and EFQM 6 Star for organisational performance.

Some of you may know Denroy better as the supplier to sister company, Denman, makers of the world's most iconic hairbrushes. Based in Bangor, Northern Ireland, the Denroy Group is a privately owned family business founded by the Rainey family in 1972. Both Maxwell Rainey OBE and Dr John Rainey MBE have been recognised in the Queen's Honours List for their outstanding contributions to Economic Development in Northern Ireland.

The Denroy Group (encompassing the Denroy, Denman and DENPRO divisions) is proud to be the supplier of plastics components used in fighter jets, passenger planes, forklift trucks, medical devices and over 100 different other applications. As a manufacturer, the company specialises in all forms of injection moulding, machining, thermoforming and additive manufacturing for precision industries such as Aerospace, Defence, Medical, Commercial and Automotive. With around 300 members of staff across 2 sites in Northern Ireland, the Denroy Group has the expertise to take products from concept through design, development, prototyping and testing, and finally to manufacturing, finishing, assembly and quality assurance. DENPRO was born out of the global pandemic of Covid-19, but the design and manufacture of FFP3 masks evolved from a reusable type II barrier mask, the Bubl™. This mask was aimed at offering commuters a reusable mask equipped with exchangeable filters. It was also a solution to make face coverings more empathetic due to its transparent visibility nature.



During a visit from The Earl of Wessex, Prince Edward in October 2020, Dr John Rainey MBE, Chairman of the Denroy Group, explained that “the Bubl™ mask was born out of a time of uncertainty for Denroy due to the devastating effect the current pandemic had on the aerospace industry. As a team of innovators and solution focused creators, manufacturing the Bubl™ has been able to harness the passion of its team and secure all jobs within the business.”



Also, during the early months of the pandemic, Denroy supported the Hero Shield charity by providing face visors to local health care workers. This came to the attention of the Health and Social Care in Northern Ireland (HSCNI) who placed an order for 1 million visors. For the charity, Denroy led a consortium of local businesses to deliver this order within record time providing crucial protection at a critical time.

With a proven track record of delivering to the healthcare sector and with a worldwide shortage of high grade FFP3 masks, HSCNI turned to DENPRO and asked for help to secure supply of FFP3 masks. During the early and rigorous stages of the design and development process, the team was able to draw upon experience and worked very closely with the HSCNI, IPC professionals and other NHS healthcare staff. This resulted in a bespoke FFP3 mask design expertly engineered for healthcare specific needs.



CEO of the Denroy Group, Kevin McNamee said: “We are proud of our staff and of our ingenuity since the start of the pandemic, and the contribution we made during a time of national crisis with the emergency need for PPE.”

NI Health Minister, Robin Swann added: “To develop a brand-new product, create prototypes and have it tested, certified, and considered fit for purpose within six months is quite remarkable. I applaud Denroy for its innovation and vision.”

Given the company's natural journey into PPE, it made sense to continue growing within this sector which has now resulted in a portfolio of DENPRO patented products. This includes the DPL01, DPL01 PLUS and DPL02 PLUS Premium FFP3 NR Disposable Non-Valved Cup-Shaped Half Mask Respirators.



With a UK state-of-the-art manufacturing facility at Denroy, the FFP3 masks have been expertly designed and engineered to offer PPE with clinical grade protection. This reassurance, coupled with the high-tech quality gained from aerospace engineering expertise, has projected DENPRO to the forefront of the healthcare industry and beyond into infection prevention control and other sectors.



Looking at the originally launched DPL01 FFP3 NR mask, this disposable non-valved cup-shaped half mask respirator has an independent fit test pass rate of 92% (source: Northern & South Eastern HSC Trusts). It offers a superior comfort factor even after several hours of wear, and the technology provides low breathing resistance. The DENPRO mask has a patented structural design which promotes breathability and is revolutionary within the market, making it truly unique. Additional features include 4-point head strap adjustment, splash resistance, latex and metal free, lightweight and can be worn with glasses.

The new DPL01 PLUS FFP3 NR mask offers the same superior features as the original mask, such as the high levels of optimum protection, a secure and comfortable fit, and highly breathable. However, this version is equipped with a lower profile structure, making it more compact for improved visibility. Mask fittings can be a challenge for any staff with smaller faces, but not anymore. The new DPL02 PLUS FFP3 NR mask is now available for those requiring a small face fitting.

The non-valved feature of the DENPRO FFP3 masks is incredibly important for breathability but can be deemed difficult to manufacture. Denroy's expertise in this area is first class and with over 200 staff, including operators, design engineers and quality assurance technicians, the factory is suitably equipped for a capacity of up to 12 million FFP3 masks per year.

With DENPRO being awarded to the PPE framework, the team have been engaging with trusted fit testers across the mainland UK. The testing staff are now experiencing high fit test pass rates for HSCNI workers with the DPL01 mask, who otherwise were unable to be fitted. With the further extension to the range with the DPL02 PLUS mask, DENPRO

are confident in offering greater access to the protection provided by FFP3 masks.

Finding a way of turning the environmental burden of single use face masks into a manufacturing resource is top of the Denroy Group agenda. As a manufacturer of the FFP3 masks, the DENPRO team have been working tirelessly with other European countries which resulted in a pilot scheme to recycle masks used for fit testing. The feedback from the HSCNI has been incredibly positive and the next phase to scale up the concept to recycle infectious waste is already underway. DENPRO is collaborating with other healthcare suppliers which will revolutionise how the healthcare service deals with waste and help them to meet their sustainability goals without compromising selection or operation safety.

As proud members of the IPS, HSCA and BSIF, DENPRO is here to stay and continues to work collaboratively with the healthcare and PPE sectors to development and supply high-quality PPE for all...watch this space!

References
DENPRO Website (2020). A welcome royal visit. Accessed from www.denpro.co.uk.

DENPRO Press Release (2021). Ministers welcome 130 jobs and £19m PPE contract for Bangor firm, Denroy.

For further information on DENPRO, please visit www.denpro.co.uk. For further information on Denroy, please visit www.denroy.com.



Claire McComb
Marketing Lead - Denroy Group