

High Performance Turbines

For Medical Technology



WE MOVE AIR



Our acoustics laboratory

We provide worldwide, perfectly engineered miniature high-performance fan and blower solutions for demanding air pressure, vacuum and flow applications.

Product Overview Versatile Product Range



Radial Blowers | U-Line

Our radial blowers are Micronel's hallmark and known for highest pressure and suction power in the smallest of space. Quiet, efficient, robust and long-lasting. Specifically designed for medical breathing but also perfectly suited for various industrial applications.



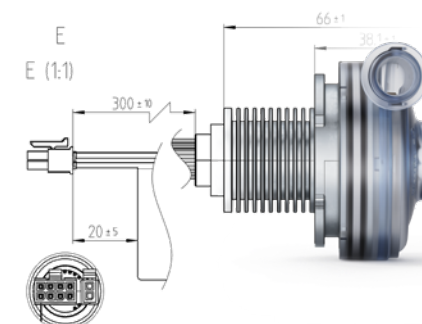
Tube Fans | D-Line

Our powerful and compact tube fans provide high air flow rates with consistently high pressure behavior. The ideal solution for suction, ventilation and cooling applications of all kinds.



Flat Fans | F-Line

Our world renowned flat fans are known for cooling electronics or dissipating heat and odors. The F-Line ensures long-lasting and reliable air transport for ruggedized environments.



Customized Developments

Our application experience and engineering competence make us the ideal project partner for customer-specific challenges.

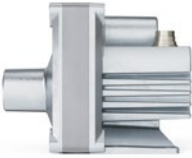
Where Pressurized Flow Is Needed

Radial Blowers I U-Line

	Static Pressure	Freeflow	Size	Voltage	Max. Power Consumption	Integrated Electronic Motor Driver	For Medical Breathing Biocompatible	ISO 18562	O2 Resistance	Dynamic Response
Part Number	Pa	l/min	mm	VDC	W					
U51DL-012KK-4 ⁽¹⁾	4 200	440	Ø 51	12	32.8	✓	✓			Low
U51DL-024KK-4 ⁽¹⁾	5 400	500	Ø 51	24	41	✓	✓			Low
U51ML-024KE-5 NEW	5 200	512	Ø 51	22	51		✓	✓		Low
U65H4-024KX-6	6 950	330	Ø 65	18	60		✓		✓	Mid
U65HN-024KS-6	11 500	480	Ø 65	24	120		✓	✓	✓	High
U65ML-012KS-5	3 600	260	Ø 65	12	24		✓	✓		High
U65ML-024KE-5 NEW	6 800	445	Ø 65	24	59		✓	✓		High
U65MN-024KS-5	5 400	340	Ø 65	24	45		✓	✓		High
U65MN-024KS-6	5 400	340	Ø 65	24	45		✓	✓	✓	High
U65MN-024KT-6 NEW	11 400	448	Ø 65	24	101		✓	✓	✓	High
U85MX-024KE-4 ⁽¹⁾	12 300	860	Ø 85	21	183	✓	✓			Low
U85MX-024KE-5 ⁽¹⁾	12 300	860	Ø 85	21	183		✓			Mid
U100H4-024KA-4	18 000	860	106 x 106	24	250	✓				Low
Y133X-024K1-5 ⁽²⁾	7 300	330	Ø 65	18	41		✓		✓	Mid

⁽¹⁾ These products are available with option articles: with nozzles at in-, outlet or both.
⁽²⁾ Silent Unit with integrated blower U65H4-024KX-6 (for evaluation purposes only)

	U51DL-012KK-4 / U51DL-024KK-4 Super compact, versatile, for medical breathing!	Typical applications: Emergency ventilation, mattress thermal management
	U51ML-024KE-5 NEW Super compact, versatile, for medical breathing!	Typical applications: Transport ventilation, home ventilation
	U65H4-024KX-6 High performance for intensive care ventilation!	Typical applications: Intensive care ventilation, neonatal ventilation, subacute ventilation

	U65HN-024KS-6 Top of the range, highest speed, most dynamic behavior!	Typical applications: Intensive care ventilation, neonatal ventilation, transport ventilation
	U65ML-012KS-5 Versatile blower, for medical breathing!	Typical applications: High-flow therapy, home care respiration, sleep apnea respiration
	U65ML-024KE-5 NEW Most economic blower for high volume requirements!	Typical applications: CPAP, BiLevel, home ventilation
	U65MN-024KS-5 / U65MN-024KS-6 Versatile mid range blower, higher speed motor, with Hall sensors!	Typical applications: Home care respiration, subacute ventilation, emergency ventilation
	U65MN-024KT-6 NEW High performance, high speed with small dimensions!	Typical applications: ICU ventilation, subacute ventilation, transport ventilation, life support, oxygen therapy
	U85MX-024KE-4 Powerful blower, where highest pressures are needed!	Typical applications: Cough therapy, medical mattress inflation, hand dryers
	U85MX-024KE-5 Powerful blower, where highest pressures are needed!	Typical applications: Cough therapy, medical mattress inflation, hand dryers
	U100H4-024KA-4 Super ruggedized industrial, versatile blower platform!	Typical applications: Electro surgery smoke aspiration, dental suction
	Y133X-024K1-5 Silencer box, U65H4-024KX-6 integrated.	Typical applications: Intensive care ventilation, subacute ventilation, high-flow therapy

Electronics & Accessories

Some Major Products

Micronel Evaluation Motor Driver Box MDB-48/10
The versatile development tool for your application with an included configuration software. Sensored or sensorless operation.

	Part Number	Features	Suitable Products
	H023B-048ZX-0 Box M450X-587A9 M450X-588A9	12 to 48 V _{DC} , 10 A max. Adapter Cable 300 mm Adapter Cable 300 mm	Blowers with brushless motors U71HL, U85HL/MX/MN U51D2, U65H2/H4/HN/MN, U71HX/MX

Micronel Choke Module MCM-33/10
The module provides extra inductance to reduce ripple currents when operating low-inductance motors with Micronel driver electronics.

	Part Number	Features	Suitable Products
	S0500-00001	3 x 33 µH, 10.7 A max.	MDB-48/10 and MDM-48/10

Micronel Mini Smart Driver Module MSDM-24/10
This powerful and cost-effective compact driver can operate brushless and sensorless blowers and motors.

	Part Number	Features	Suitable Products
	H353X-024ZX-0	12 to 24 V _{DC} , 10 A max. Sensorless, analog and PWM set-speed inputs	Blowers without integrated driver electronics & brushless motors.

Micronel Mini Smart Driver Module MSDM-24/10 Eval-Kit
The Eval-Kit comes preassembled with mating cables, a speed control potentiometer, and configuration switches.

	Part Number	Features	Suitable Products
	H354X-024ZX-0	12 to 24 V _{DC} , 10 A max. Sensorless, potentionmeter and PWM set-speed inputs	Blowers without integrated driver electronics & brushless motors.

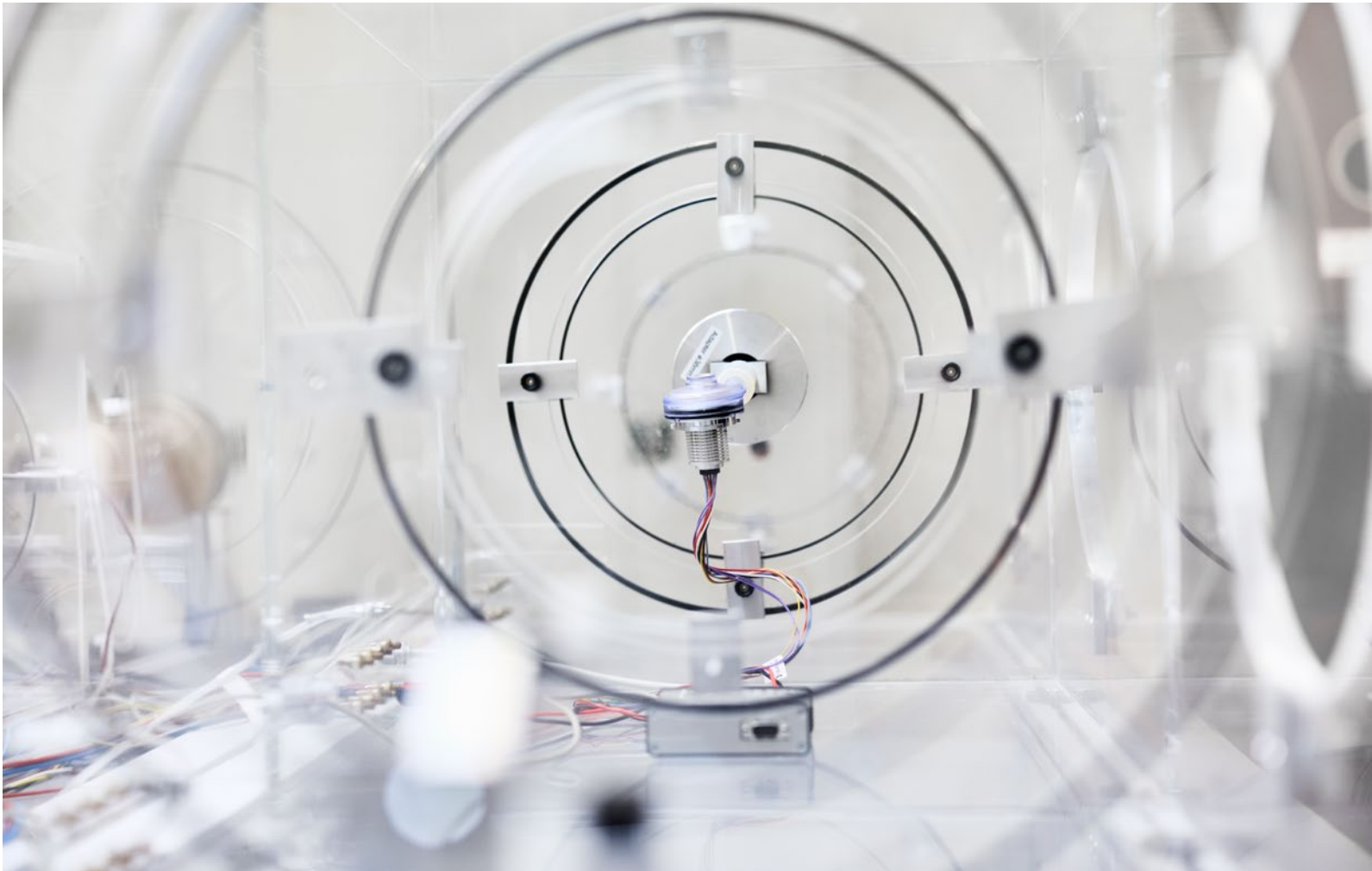
Micronel Rubber Buffer
Rubber buffer for protecting against vibrations.

	Part Number	Features	Suitable Products
	S5300-00001 S5300-00002 S5300-00003	M6, Ø 15 mm x 15 mm, 1 pc M6, Ø 15 mm x 20 mm, 1 pc M4, Ø 15 mm x 15 mm, 1 pc	U100HL, U100UL, U100H4 U51DL /-42 /-43, U51HP-43 U85HL

Individual Solutions

Customized Developments

Our goal is to develop technologies that ideally fit the needs of our clients. In our in-house laboratories, applications can be simulated and optimally tested.



Our flow laboratory

With our range of fan and blower solutions, we become an integral part of your system. Our strength lies in identifying the perfect product, assisting in seamless integration, and making any necessary individual adaptations to ensure a perfect fit, both on a mechatronic and electronic level. Moreover, it's our commitment to guarantee the delivery timeline of our fan and blower solutions throughout the entire lifecycle of your end product. We differentiate between product modifications and fully

customized solutions. Product modifications may include adjustments to sealings, cables and connectors, motors, fasteners, electronics optimizations, inlet and outlet adapters, labels, or fan impellers. Listening to our customers, understanding their needs, and collaboratively implementing optimal solutions is our standard practice. Solution-oriented, creative, reliable.

Applications and Markets

Worldwide in Use

Micronel fans, blowers and customized solutions are used worldwide across 26 market segments. Over 100 companies trust our Swiss-made innovations and expertise.

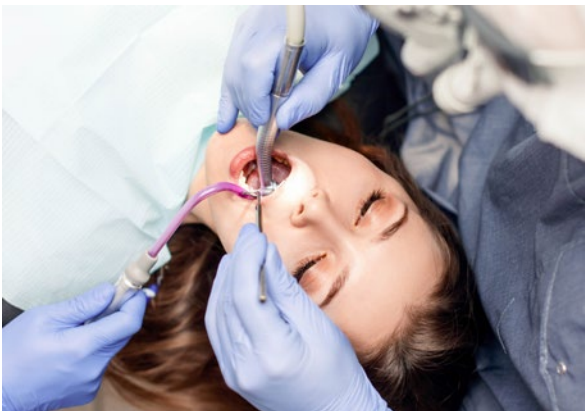
Hospital Care

We provide powerful and reliable blowers for **intensive care ventilation**, **neonatal ventilation**, and **high-flow oxygen therapy**, meeting the highest standards of dynamic, precision, and oxygen resistance.



Dental Suction

For **aspiration** in mobile dental units, we offer compact, lightweight, and low-noise blowers. Our solutions provide reliable negative pressure, ideal for portable and battery-operated devices.



Home Care

For **homecare ventilation**, **subacute ventilation**, **sleep apnea therapy**, and **cough therapy**, we offer compact, durable, and dynamically controllable blowers - ideal for home use.



Electrosurgery Smoke Aspiration

Our durable, heat- and moisture-resistant blowers enable **aspiration** in electrosurgery smoke extraction. Their flat, robust design meets the highest demands in medical applications.



Transport Ventilation

We supply robust, responsive blowers for **transport ventilation** and **emergency ventilation**, ensuring maximum reliability and mobility in rough environments.



Medical Mattress Inflation

Our blowers ensure efficient pressurizing for **hospital air mattresses**, providing whisper-quiet operation, high airflow, and rapid pressure build-up. Their energy efficiency enables long battery life.





Climate Control
Fresh, heated air supply for harsh environments



Cabin Ventilation
Fresh air supply for cabin cooling



Suit Pressurizing
Purified air-inflated full body suits



Spraying
Pressurized aerosol spraying



Medical Breathing
Life critical, intensive care lung ventilation



Mattress Inflation
Smooth air mattress operation for comfortable patient care



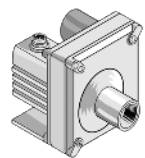
Gas Mask Respiration
Powered, purified air supply



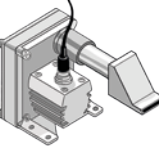
Dental Suction
Spittle and secretion suction



Lamp Cooling
Solarium UV lamp cooling



Smoke Aspiration
Electrosurgical smoke evacuation



Clean Blowing
In-line air cleaning and drying for food processing



Hand Dryer
Powerful air stream for hand drying



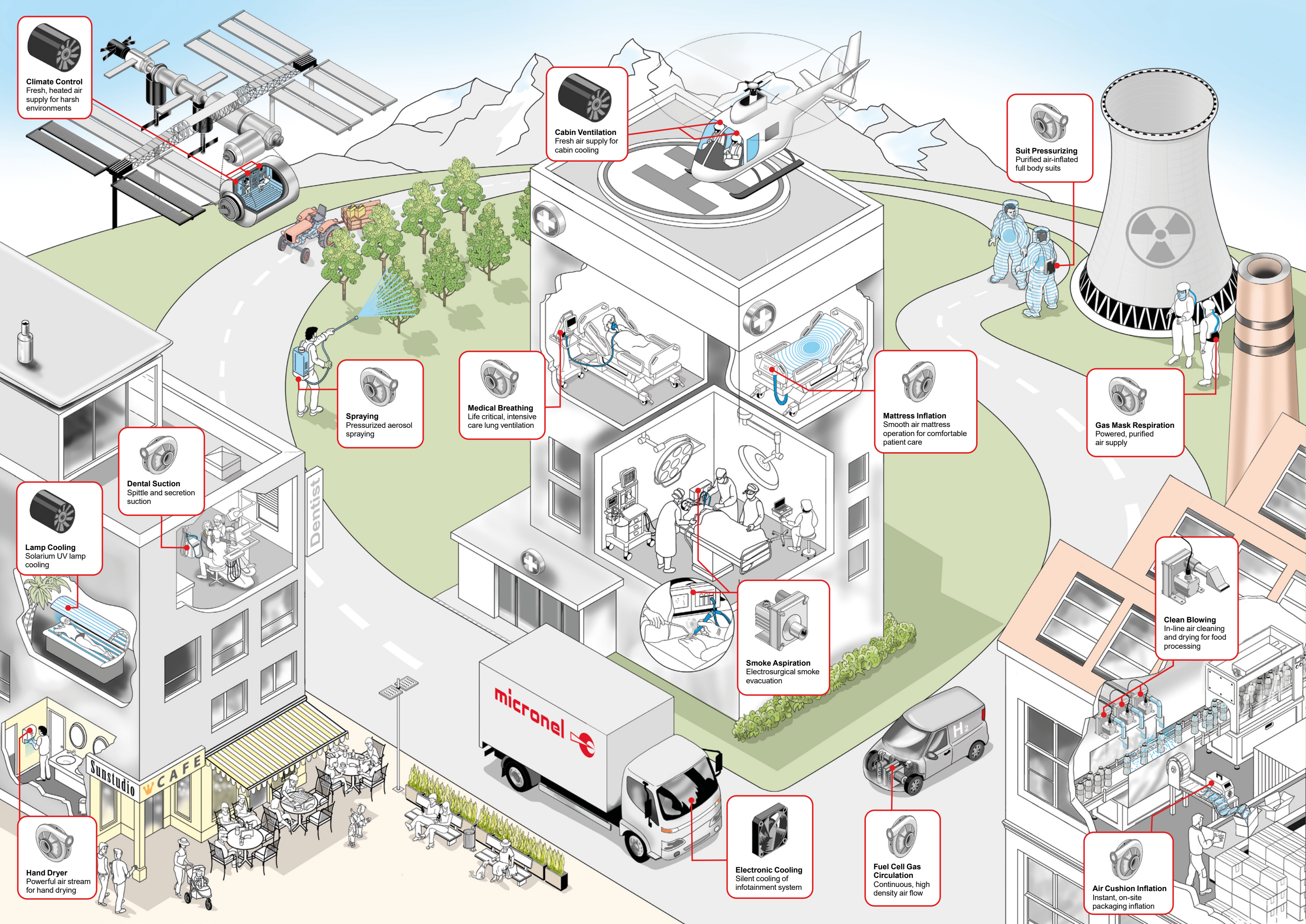
Electronic Cooling
Silent cooling of infotainment system



Fuel Cell Gas Circulation
Continuous, high density air flow

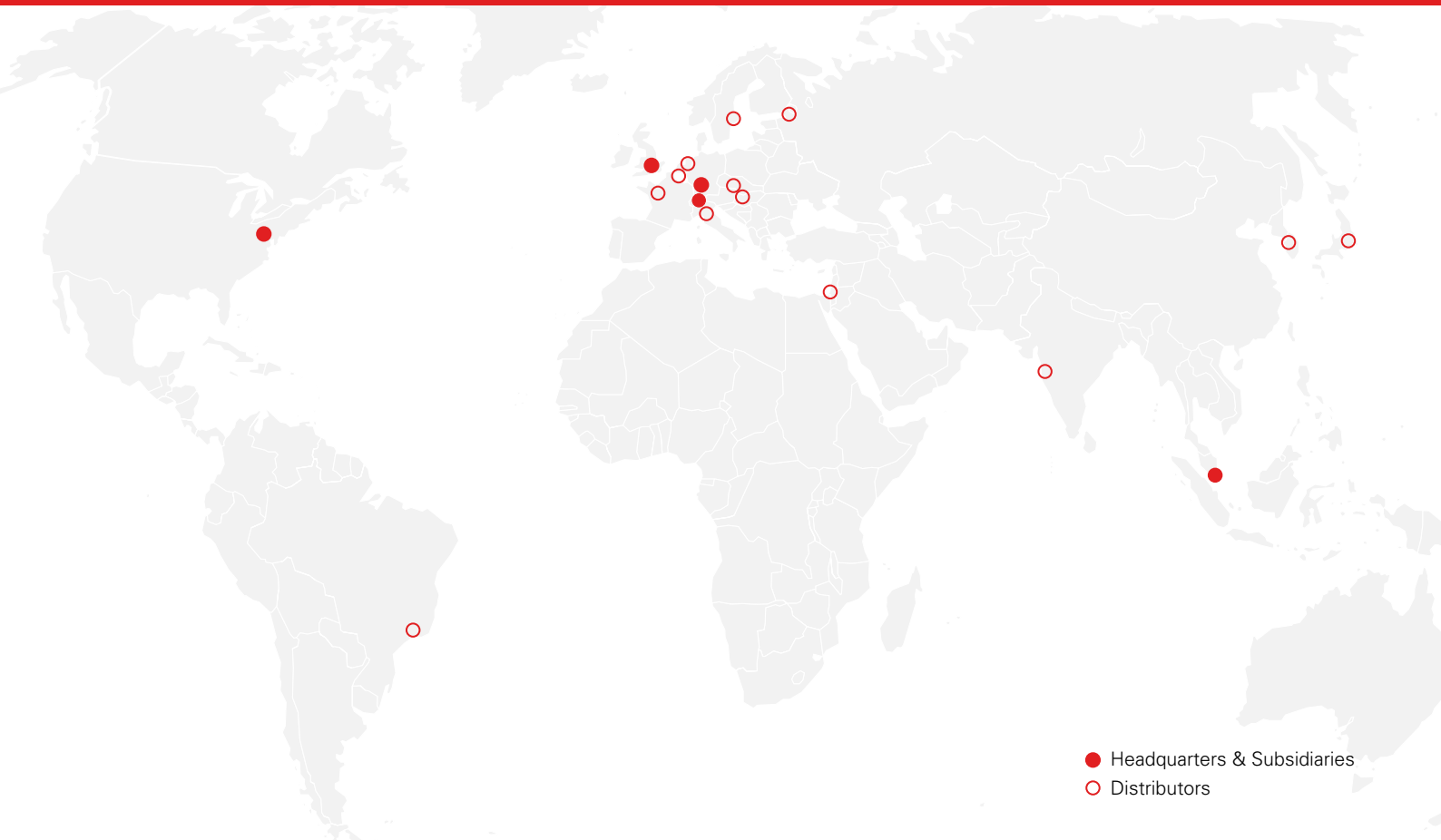


Air Cushion Inflation
Instant, on-site packaging inflation



Micronel

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