Dr. Chill Aero-Chill™ Hybrid product specification

Model: AC-002 / DrChill AERO-FLUX

Product overview: Aero-Chill™ HYBRID Technology integrates Thermo-Chill™ cooling materials with lightweight active airflow fans and ChillLock™ Technology — Dr. Chill's proprietary stitch-free assembly system. This dual-action system delivers accelerated, targeted, and long-lasting cooling performance while maintaining comfort, dryness, and optimal body function in high-heat and high-activity environments.

1 Product Identification

- Product Name: DrChill AERO-FLUX
- Style Number: AC-002
- Product Type: Active Evaporative Body Cooling Garment
- Cooling Technology: Aero-Chill™ + Thermo-Chill™ (Hybrid)
- Positioning System: Integrated Chill-Lock™ Technology
- Intended Use: Heat stress mitigation

2 Cooling Technology Description

Aero-Chill™Integrated Active Airflow System
Lightweight fans enhance evaporation and air circulation inside the garment.

Thermo-Chill™
Advanced cooling materials engineered for sustained thermal regulation (Reference: Thermo-Chill™ Data Sheet).

Chill-Lock™ Technology
Proprietary stitch-free chamber construction for improved durability, airflow control, and structural integrity

3 Material Specification

3.1 Outer Fabric
- 100% Nylon Taslan 228T with proprietary backcoating technology.
- Fabric Weight:135 g/m²

3.2 Cooling Core
- Material Type: Fleece + Super-Absorbent Material (SAM)
- Encapsulation: Sealed multi-layer textile panels under the registered Dr. Chill design architecture and Chill-Lock™ Technology
- Activation: Water absorption

3.3 Inner Fabric
- 100% Nylon Taslan 228T with proprietary backcoating technology.
- Fabric Weight: 135 g/m²

3.4 Knitted sidepanel(s)
- Material: 90% Nylon - 10%Spandex
- Fabric Weight: 220 g/m²

3.5 Mini Fans with speed controller
- Model ZYC-7526R is a compact DC cooling fan designed for integration into wearable body cooling system, ncluding body cooling vests. It offers reliable airflow performance, low-profile dimensions, and stable operation at low voltage.

4 Activation guidelines

STEP 1 – HYDRATE COOLING CORE (Passive Cooling System)
1 – Fill Cooling Panels
Add the specified amount of water (as indicated in the product manual) into each cooling panel via the rubber seal opening.
2 – Distribute Water
Close the rubber seal securely and gently shake the vest to distribute water evenly across the cooling panels.
3 – Ready to Use
The vest is now activated and ready to wear.
WEIGHT after activation: Approx. 1100 – 1300 g

Notes
- If water collects at the bottom of the cooling panels, gently shake the vest again to redistribute the water.
- When the vest feels dry and cooling decreases, repeat the activation process starting from Step 1

STEP 2 – ACTIVATE AIRFLOW SYSTEM (Hybrid Function)
1. Install the fan units securely onto the activated vest.
2. Insert fully charged battery into the fan units.
3. Switch on the fans.
4. Select the desired fan speed for comfort and cooling intensity.
5. Ensure a snug fit to optimize internal airflow circulation.

WEIGHT activated + fans + battery: Approx. 1450 – 1650 g

Air circulates inside the vest, accelerating evaporation and enhancing cooling performance.

5 Performance Influencing Factors

Cooling performance depends on:
- Ambient temperature
- Relative humidity
- Air velocity (natural or fan-assisted)
- Physical workload / metabolic heat load
- Garment fit and internal airflow dynamics
- Fan speed setting (Hybrid models)

6 Care Notice

- Always remove batteries and fan units before cleaning/laundry.
- Do not submerge fan components.
- Follow storage and maintenance guidelines to ensure optimal performance and extended product lifespan.

7 Laundry instructions: Ensure all rubber zip-locks on the vest are securely closed AND fan components are removed before washing.

8 Storage
> Always remove batteries and fan units before

Short-Term
- Cool, dry place
- Clean & dry

Long-Term
- Fully dry first
- Store flat or hung
- Avoid sealed plastic when damp

9 Safety
Hybrid System (Fans & Batteries)
- Remove batteries and fan units before cleaning.
- Do not submerge electrical components.
- Use only approved batteries and chargers.
- Do not modify or disassemble fan units.

Thermo-Chill™ Cooling Core
- Non-toxic. Non-electrical. External use only.
- Do not puncture cooling panels.
- Discontinue use if damaged.
- Keep away from children.
- Inspect product before use.
- Not a substitute for mandated workplace heat safety protocols.

10 Contact your authorized Dr Chill distributor or sales representative for product support and technical information. Visit the official DrChill website for detailed specifications, documentation, and updates.

Designed, developed and engineered by Dr. Chill B.V. in Belgium - Manufactured under controlled production standards in China

Dr. Chill Aero-Chill™ Hybrid product specification

Model: AC-002 / DrChill AERO-FLUX

Product overview: Style AC-002 / DrChill AERO-FLUX with Thermo-Chill™ Technology is engineered for demanding heat environments, delivering dry cooling enhanced by active airflow and proprietary Chill-Lock™ construction for consistent and efficient temperature regulation.

Size specifications

All measurements in cm

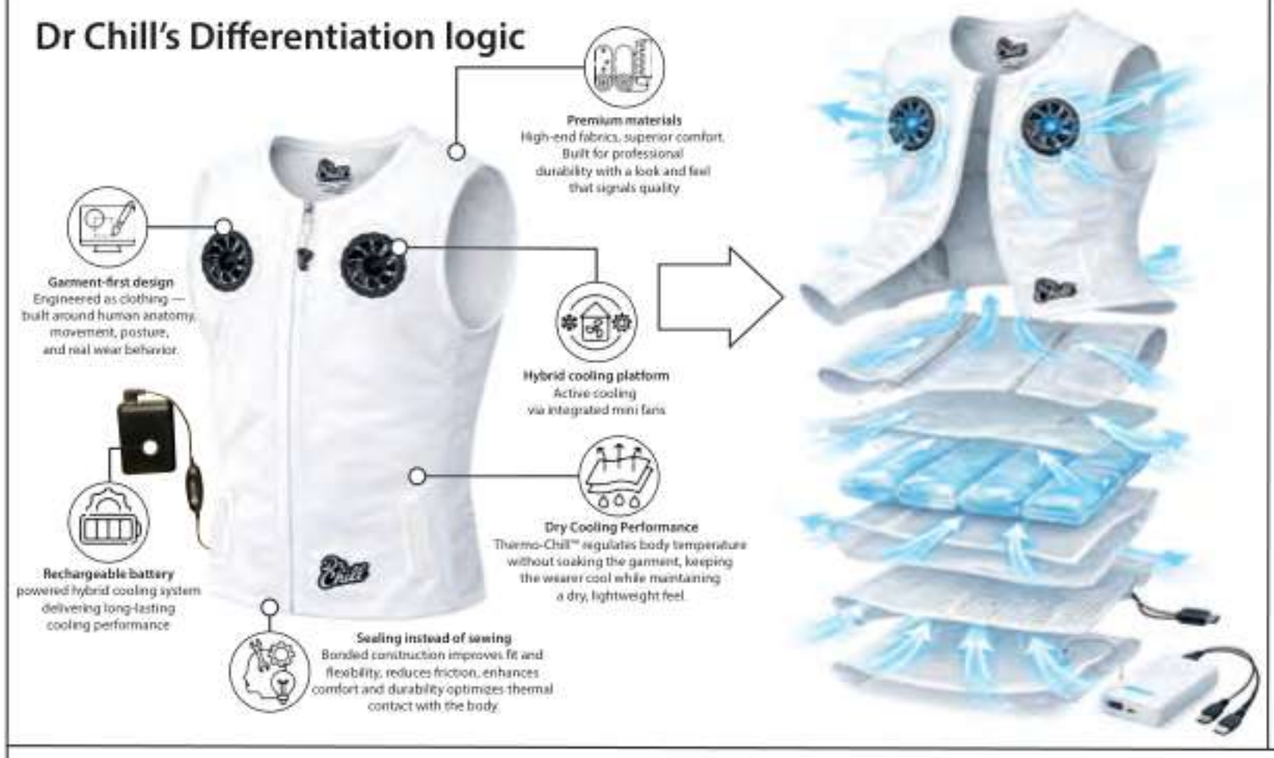
Measurements	XS	S	M	L	XL	2XL	3XL	4XL	5XL
Full chest	88	94	100	106	112	118	124	130	136
Full Length	54	56	58	60	62	64	66	68	70

Design, size & Performance Philosophy : Dr. Chill's size specifications, Chill-Lock™ Technology, and registered architecture form a protected proprietary design system. Built on the principle that human-body fit drives thermal performance, this anatomy-driven, sealed construction platform is engineered to optimize conformity, stability, engineered for extreme heat conditions and high cooling efficiency across industrial, sports, and demanding physical activities.

Key benefits Aero-Chill™ Hybrid Technology

- Rapid Chill – Fast, intense cooling response
- Precision Cool – Targets critical heat zones with adaptive fan control.
- Stay Dry – Enhances evaporation, reduces moisture buildup
- Seamless Comfort – Lightweight, flexible, ergonomic fit
- Built Tough – Durable construction for demanding use
- Peak Performance – Supports focus and endurance in heat
- Hybrid Power – Cooling materials combined with active airflow
- Versatile Use – Suitable under workwear, in humid climates, and across multiple sectors

Dr Chill's Differentiation logic



Customization Options — Dr Chill Cooling Vests

We tailor cooling garments to match your operational needs, brand identity, and safety requirements—without compromising performance.
Customization possibilities include:

- Company & team branding
- Custom colors and visual identity
- Private label production
- Fabric finishes such as:
  - AS (Anti-Static)
  - AB (Anti-Bacterial)
  - QD (Quick Dry)
- High-Visibility adaptations
- Certification support for regulated environments

AERO-CHILL™ Hybrid Cooling Vests — Application Overview

AERO-CHILL™ Hybrid is an advanced cooling system engineered to deliver effective, long-lasting body cooling in environments where heat stress impacts performance, safety, and comfort.
The system combines Thermo-Chill™ evaporative cooling technology with integrated lightweight ventilators to enhance overall thermal regulation. The Thermo-Chill™ core retains water and releases cooling through controlled evaporation, creating a sustained cooling effect at the body's primary heat zones. The integrated ventilators actively circulate air within the garment, accelerating evaporation, improving internal airflow, and increasing cooling efficiency—particularly in high-heat, high-activity, or high-humidity conditions.

Where DrChill AERO-FLUX Makes the Difference:

Industrial use

Ideal for workers exposed to high temperatures, including construction, logistics, manufacturing, mining, agriculture, and utilities. The vest helps reduce heat strain, supporting endurance, focus, and safety compliance during long shifts.

Professional & elite sports

Used for pre-cooling, recovery, and training in hot climates. Athletes benefit from regulated body temperature, delayed fatigue, and improved thermal comfort without restricting movement.

Outdoor & lifestyle activities

Perfect for hiking, cycling, motorsports, events, and recreational use in warm environments.

Medical & personal heat sensitivity

Provides non-electrical cooling support for individuals sensitive to heat, including elderly users or those managing heat-related conditions.

Why it works

DrChill AERO-FLUX combines Thermo-Chill™ evaporative cooling with active airflow, targeted cooling zones, and ergonomic design to maximize cooling efficiency. Its lightweight construction ensures real-world wearability—so cooling is consistently used in demanding conditions.

Dr. Chill – DC Cooling Fan Datasheet

Model: ZYC-7526R

Product Description The ZYC-7526R is a compact DC cooling fan designed for integration into wearable body cooling systems, including body cooling vests. It offers reliable airflow performance, low-profile dimensions, and stable operation at low voltage.

A. **General Information**

*Model: ZYC-7526R
*Product Type: DC Axial Cooling Fan

B. **Mechanical Specifications**

- Dimensions (L × W × H): 76 × 76 × 25.7 mm
- Rotating Direction: Counter-clockwise (viewed from blade side)
- Number of Poles: 2

C. **Electrical Specifications**

- Rated Voltage: DC 5V
- Operating Voltage Range: DC 3.7V – 5.5V
- Starting Voltage: ≥ 3.7V(Rated voltage, 25°C, 65% RH)
- Rated Current: 0.5 A ±10%
- Power Consumption: 2.5 W ±10%

D. **Performance Specifications**

- Speed: 4500 RPM ±10%(25°C, 65% RH, free air, rated voltage, after 5 minutes)
- Airflow: 4.2 m/s ±10%(Rated voltage, standard condition, 25°C, 65% RH)
- Static Pressure: 2.0 mmAq ±10%

E. **Acoustic Specifications**

- Noise Level: 46 dBA ±10%(Rated voltage, non-echo chamber)
- CNS 8753 Standard
- ISO 3744 Test Condition
- Measurement distance: 1 m from intake

F. **Materials & Components**

- Plastic Material (Blade & Housing): ABS + 30% GF, Black
- Bearing Type: Hydraulic Bearing
- Lead Wire: No
- Connector Type: DC Connector
- Rotating Direction: Counter-Clockwise (viewed from blade side)

G. **Reliability**

Theoretical Lifetime: 300 hours at 25°C
(MTBF based on 90% confidence level at rated voltage)

H. **Test & Measurement Conditions:** Unless otherwise specified, all performance data is measured at 25°C, 65% RH, rated voltage, and free-air conditions.

I. **Handling, Storage & Usage Precautions**

- Do not touch the impeller or carry the fan by lead wires.
- Specify the Model No. on every order for MIS purposes.
- Do not use in corrosive gas or liquid environments.
- Avoid high humidity storage and storage over 6 months.
- For long-term storage, power on briefly every 6 months.
- Do not lock or block the fan during operation.

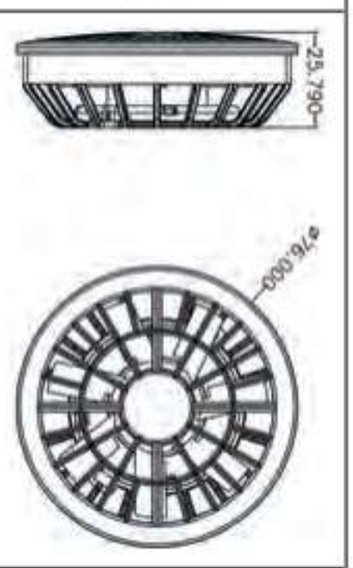
J. **Installation & Safety Appendix (Body Cooling Vest Application)**

- Fans must be securely mounted in body cooling vests.
- Ensure airflow is not obstructed by vest materials.
- Fans must be removed before washing or cleaning the vest.
- Wiring must follow the product manual routing instructions.
- Verify correct polarity and DC 5V rated voltage.
- Protect fans from sweat and water exposure.
- Do not operate under restricted airflow conditions.

K. **Manufacturer & Responsible Party**

Manufacturer name:
Shenzhen Zeyucheng Technology Co., Ltd.
Address:
2912C, Building 1, Fuji Land Building,
6018 Longgang Avenue
(longgang Section),
Nanlian Community, Longgang Street,
Shenzhen, China.

Illustration



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ELECTRICAL WASTE