



# D-Line

#### **D-Line**

The eye follows clear contours. Delights in the elegance of the reduction. A new quality of travel is about to unfold. Quiet, time-saving, comfortable.

High technology masters challenges. It becomes one with the environment. Makes safety palpable. Takes a stand for stability in a world of constantly accelerating change.

Clarity is the all-embracing design principle. From rapid maintenance of every component to the simple, intuitive control system. That's comfort carried through to its logical conclusion.

# Welcome to first class



### Top performance

Continuously streamlined for efficiency.

The D-Line sets benchmarks: for customers and investors, for operations and maintenance crews, and for passengers. With maximum scope for individualization, optimal accessibility, impressive travel speed and superlative comfort. The D-Line has the right answer for every need.











## **Mobility**

Progress gathers pace.

Experience the next level of mobility – barrier-free, electric and virtually soundless. But also efficient, fast and safe. That's why the D-Line means a tangible gain in mobility. No matter whether the passengers are out and about in the city with bicycles, baby strollers or wheelchairs, or want to enjoy the natural surroundings in a rural area.

Shining glass surfaces and intelligent media facades reflect the typology of modern architecture. And provide added value with vibrant advertising and information surfaces in both cities and tourist destinations.

# Stations











#### **Stations**

Head and shoulders above the rest.

In D-Line stations, modern architecture and innovative technology merge into one. The reduced concrete mast, the comfortably angled stairway and the elegantly contoured undercover find their acoustic counterparts in the sound-dampened outer guide rail, rubber-lined running rail mountings and lownoise bullwheel design.

In addition, there is an intelligent layout concept that significantly enhances maintenance convenience for the ropeway crew. This and many other details place human beings and their needs systematically at the center of all design considerations.



#### Station roof R1

Proven yet entirely new.

The D-Line station roof R1 is ropeway engineering at its finest. It continues the classic line of Doppelmayr/Garaventa stations.

Its top features include rounded, snow-loadoptimized forms, individual color options and UV-resistant polycarbonate glazing as well as a real-glass version – for maximum scratch resistance and ideal acoustic attributes. With the photovoltaic option, the station actually becomes a power plant for renewable energy.















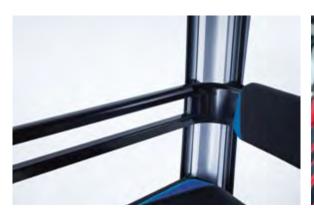
#### Station roof R2

The path to the future follows straight lines.

With real glass, the R2 roof focuses on longevity and premium quality. The cuboid shape combined with the frameless entrance and exit openings creates a minimalist and timelessly elegant visual design.

Special feature: Media modules can be used to transform each of the all-round glazing elements into an advertising and information surface with moving images. The perfect eye-catcher for a ski resort or an urban setting.

# Carriers















#### **OMEGA V**

Development without compromise.

The first OMEGA cabin in 1983 marked the start of an incredible success story. The fifth generation impressively continues the tradition of development without compromise. With materials that are entirely in tune with the application and guarantee a long service life. With modular construction that enables the cabins to be modified whenever needs and requirements change. And with an iconic shape that has been exceptionally successful for decades and is perfect for the integration of modern ropeway technology.

OMEGA V is made for the future.



#### Consummate design

The ultimate combination of movement and progress.

From the integrated suspension to the specially designed underbody panel, consistent styling is the hallmark of the OMEGA V. Every individual component epitomizes the D-Line and has been crafted as part of a coherent overall concept. The cabin's harmonious shape and transparency allow it to blend in with any surroundings. Panorama glazing that maximizes the view and the wide range of features – both inside and out – speak the language of the future.

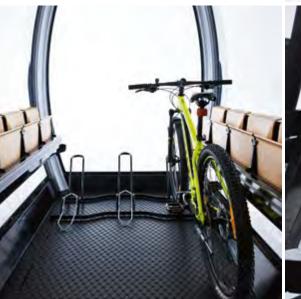
The cabin's low self-weight is attributable to its lightweight aluminum construction. That creates greater scope for incorporating optional equipment. The OMEGA V is designed with built-in flexibility that allows retrofits or subsequent wiring. Whenever new technical developments or innovations become available.



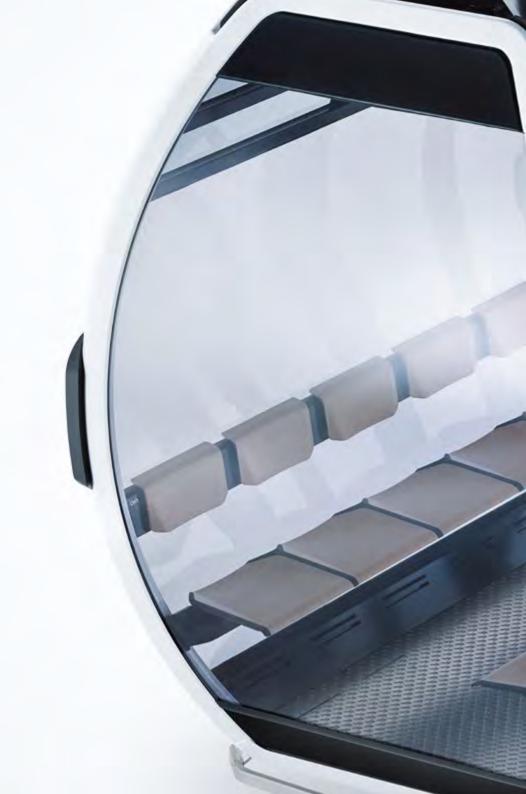




The door dimensioning and functional interior layout with fold-away seats make straightforward transport of freight possible.









#### Well-conceived

Flexibility to cater for all.

The OMEGA V was developed with human beings in mind. Ropeway passengers have different needs and different physical capabilities. With the level cabin step and the 900 mm wide door opening, all passengers can enjoy comfortable, barrier-free access to the cabin. The generously dimensioned interior provides room for up to 10 people. A great sense of space.

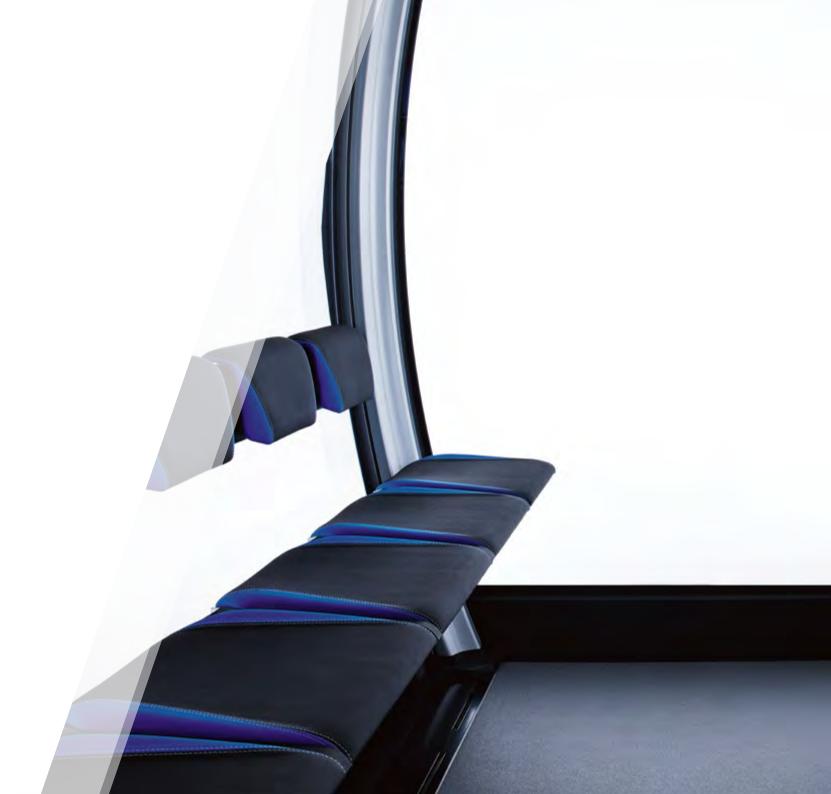
The D-Line cabin is an impressive solution for ski resorts while simultaneously meeting the requirements for urban applications thanks to its modular design. Passenger transport in cities has to comply with special criteria in terms of cabin monitoring and operational reliability. Options such as the electromechanical door system with acoustic warning signal, the intercom system or surveillance camera address those needs. Individual infotainment features make the trip entertaining and informative for passengers.

## **Atmospheric**

Plenty of room for inner values.

The OMEGAV is a cabin with feel-good factor. It features an innovative indoor climate concept for winter and summer operations and a well-conceived ventilation concept without drafts as well as ergonomic seating. The available choice of different coverings, seat heating or a premium clear-finish wood with custom-made veneer ensures the right seat to suit the specific application.

The continuous ceiling in molded acoustic felt is a key contributor to the elegance of the OMEGA V interior and conceals a large space for installing infotainment components, active ventilation and indirect ambient lighting to create a luxury travel experience – day and night.





# We've taken comfort in an entirely new direction.





The new D-Line suspension has been optimized in form and function. The spring suspension system helps to ensure maximum ride comfort.







#### DCD chair

A design that has everything.

The DCD chair combines comfort, safety and quality in modern design. The selection of optional fittings, color schemes and styling concepts opens up a wide spectrum of possibilities. That means flexibility when it comes to adapting the 6- or 8-passenger chairs to customer wishes. The materials used meet the highest demands for longevity and resilience.

The clear structure of the chairs, the tidy mechanical design and optimal accessibility are expressions of the D-Line's convenience and functionality for ropeway personnel.



### **Ergonomic**

Whether sporty or elegant.

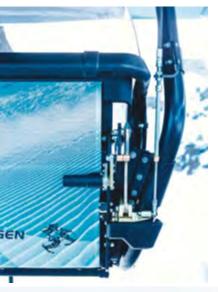
The ergonomically shaped seats and footrests ensure a secure seated position, while the 520 mm seat width creates ample space. Thanks to the hard-wearing, UV-resistant and easy-clean fabric, the chairs remain a long-lasting eye-catcher. Harmonious color schemes are made possible by the choice of colors for fabric and piping.

Particularly practical: The removable seat divider enables mobility-impaired passengers to travel in comfort.

With their new geometry, restraining bar and bubble are easy to reach and to close. Comfort and safety are an inherent part of the journey.







The optional mesh banners provide optimal advertising space. The woven fabric on the back of the chair can be custom printed and easily replaced – creating numerous possibilities for placing the spotlight on the chairs in line with promotional needs and the season. The integrated elastic makes removing or fitting the banners a simple task with no tools required.







#### Versatile

Freedom means having a choice.

The lightweight, aerodynamically shaped bubbles are made of UV-resistant polycarbonate. They provide a protected all-round view in all weathers. D-Line bubbles are available in "blue" as well as in "light grey".

Seat heating ensures a pleasant temperature throughout the trip. A new feature is the practical plug connector. The various options offered for the restraining bars enable operators to address the specific needs of their guests.

## Unique

Chairs as special as you are.

Finish options create enhanced brand recognition and an even more exclusive ride experience. Special paint finishes, personal logos or custom embroidery, decorative stitching and quilting on the back and seat upholstery underline the unique character of your installation.

Color accents on the frame or other elements enable the creation of harmonious color schemes. This provides scope for individuality that goes beyond the norm. Ask your sales adviser – who will be only too pleased to provide help and guidance.





# Grip and sheave assembly















## Detachable grips D3000 and D5000

Higher, faster, stronger.

D-Line detachable grips are capable of top performance. They combine the advantages of the torsion spring grip (DT grip) with those of the coil spring grip (A grip) in one highly effective solution.

The detachable grips are designed for a rope diameter of up to 64 mm and 100% rope inclination with up to 1,800 kg carrier weight. They offer longer service life and an optimized, noise-reduced grip geometry. The unique dead-center grip with coil spring also enables fast, straightforward maintenance.



## Sheave assembly

Enhanced performance, smoother glide.

Watching the landscape pass without a sound. Passing over the towers and barely noticing. D-Line passengers experience a completely new ride experience. Interaction with the new detachable grips unlocks the full potential of the sheave assemblies. That means higher capacity in conjunction with an even greater vertical rise.

The performance data speaks for itself. The support sheave assembly, for example, effortlessly achieves up to 30% more sheave load and up to 42% higher wind load.





## System





Operations and maintenance work is facilitated by using a tablet. A mobile application connected to the control system via the ropeway's own WLAN and operated using a tablet means a significant improvement in handling and consequently makes life easier for the operating crew.







### **Doppelmayr Connect**

The user-friendly control system.

Intuitive, ergonomic, logical, informative, dependable, customizable – the ropeway control system Doppelmayr Connect is perfectly in tune with the visionary D-Line design. It has been systematically tailored to suit the individual and operational requirements of the user.

The user interface offers an unprecedented level of operating comfort for ropeway personnel. And it does so with an extended range of functions that link up all parts of the ropeway installation – all the way through to infotainment in the cabin. Greater efficiency and enhanced safety are the hallmarks of this all-in-one system.



## Connectivity

Making the ropeway ride an experience.

Technological advance, digitalization and data connectivity open up new opportunities in the world of ropeways. At Doppelmayr/ Garaventa, SMART Ropeway focuses innovation capability in these areas, enabling visionary designs for rope-propelled mobility.

Ideas that might sound a long way off in the future are in fact available to you today with the D-line in the form of numerous solutions and systems. The three aspects of connectivity, control and monitoring form the basis for greater comfort, safety and mobility. In concrete terms, this means linking Doppelmayr Connect with cabin functions such as lighting, air-conditioning and Wi-Fi to create a unique ride experience.









### **Drives**

Three solutions, one goal: Your performance

Top capability – that also applies to the D-Line drive concept. It is precisely tuned to customer requirements, with ecological and economic efficiency as a top priority.

Three different drive solutions cover all requirements: the flexible AC drive, the proven Doppelmayr Sector Drive (DSD) and the particularly low-vibration and low-noise Doppelmayr Direct Drive (DDD) – a gearless and very maintenance-friendly drive.





#### **D-Line**

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Speed: up to 7 m/s10-MGD: 6.4 m gauge8-CLD: 7.7 m gauge6-CLD: 6.4 m gauge

#### OMEGA V cabin

Seat width: 460 mm
Cabin length: 1,943 mm
Cabin height: 2,220 mm
Door opening width: 900 mm
Capacity: 10 passengers

#### DCD chair

• Seat width: 520 mm

• Capacity: 6 and 8 passengers

#### Detachable grip D3000 and D5000

- Rope diameter: up to 56 and 64 mm
- 100% rope inclination with up to 1,800 kg carrier weight

#### Sheave assembly

- Rope diameter: up to 64 mm
- $\bullet$  Support sheave assembly: +30% sheave load, +42% wind load
- Hold-down sheave assembly: +14% sheave load, +16% wind load
- Combination sheave assembly: +25% sheave load, +16% wind load

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