

R&M CUBE

PRODUCTION
LOGISTICS
INNOVATION



Preface

R&M Cube as a reflection of our values

The Cube is our new company building at headquarters in Wetzikon, Switzerland, and is by far the biggest investment R&M has ever made. As owners of the company, our family is seeking to lay lasting groundwork for the future of R&M by building this new structure.

What reasons prompted us to take this step?

Our main reasons for investing in this new building were:

Growth requires space.

If the company is concentrated at one site instead of being spread out over four sites, internal transportation distances can be reduced.

A fully automatic high-bay warehouse shortens the throughput times and increases our readiness to deliver to our customers.

In its compact structure, the cube architecture combines technical energy advantages with minimal land requirements and short distances for the flow of goods and direct personal communication.

The Cube energy design satisfies the Minergie standard and provides pleasant indoor climatic conditions all year round. Heating in the winter and slight cooling in the summer are effected with borehole heat exchangers and heat pumps so that they cause nearly no CO₂ emissions.

The design is highly flexible to use, thus simplifying any ongoing adjustments that have to be made.

Not least, this investment is also a sign of the commitment R&M has to Switzerland as a production location. At Wetzikon, we employ about 70% of our production staff.

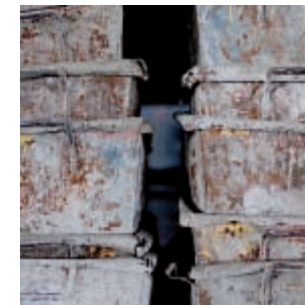
I am personally convinced that the proverbial team spirit of the R&M workforce will move with us into our new ultra-modern building, where it will surely blossom.

My sincere thanks to everyone involved in the construction for the success of the project. I would also like to thank the town of Wetzikon for selling us the additional land we needed for the building.



Hans Reichle

President of the Board of Directors of Reichle Immobilien AG



We will be able to work even more efficiently in the Cube

In mid-June 2010, R&M finished the biggest investment it has ever made. The Cube enables our company to organize internal company processes extremely efficiently. Concentrating everyone at a single site at Swiss headquarters gives us a number of advantages and will optimize work between the various divisions.

After intensive discussions among the members of the family that owns R&M, we decided to invest in a new company building at headquarters in Wetzikon, Switzerland, to safeguard our further growth. The new building also signifies our commitment to Switzerland as a manufacturing location. Planning began in early February 2007 and lasted 15 months. During this period, we acquired the adjoining plots of land and planned the complex building project together with the architects we had commissioned.

The groundbreaking ceremony was in May 2008. In July 2008, the first foundation stone was laid and the Cube project was presented to the public for the first time. It took 25 months to construct the eco-friendly building, one of the largest low-exergy business buildings in Switzerland. Reichle Immobilien AG, a company in the R&M Group, is acting as building owner.

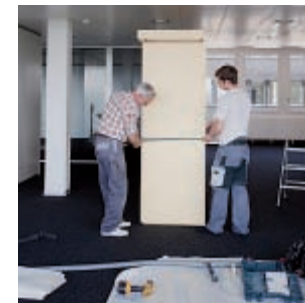
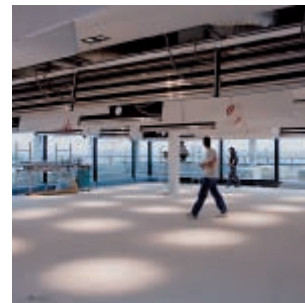
On June 18, 2010, the building was officially handed over. After a hectic moving period, the facility went into operation on September 1, 2010, when about 300 employees began working in the R&M Cube. The building has a capacity for 400 workplaces. The Cube also houses part of our machine production operations. These are right next to the modern high-bay warehouse with a capacity for over 4,500 pallet slots, which will greatly simplify our logistics processes.

The R&M Cube is a milestone in our company's history. We are proud of being able to make long-lasting investments, even in economically difficult times, and to offer our employees modern jobs with a bright future.



Peter Reichle

COO Reichle & De-Massari AG



Energy system and building services

A cube with sophisticated refinements

Sustainability in construction is particularly important to Reichle Immobilien AG. The family that owns this real estate company has a long-term commitment which is borne out in the way it supplies energy to the R&M production and logistics center.

Firstly, the building consumes only a small amount of energy for heating and cooling because of its size and shape and the quality of its envelope. Secondly, the remaining energy requirement is covered by innovative energy and plant equipment. R&M has achieved these excellent results thanks to the integrated planning of the primary structure and building services. So, what are the factors for success?

The excellent surface-to-volume ratio of the building reduces losses where the most energy is lost, namely in heat losses from the building envelope. Taking this measure also helps to reduce external heat loads, especially from solar heat. For many months of the year, the premises receive sufficient heat from the processes, machines and equipment throwing off waste heat. Any excess heat generated is conveyed by borehole heat exchangers to an underground storage system beneath the building for storage. When heat is needed, this stored heat is tapped for room and water heating. A heat pump is employed to provide the necessary increase in temperature. Cooling equipment can be switched on during extremely hot weather.

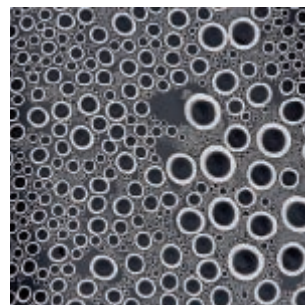
The waste heat generated by the motors for this equipment can be used in the building or loaded into the underground storage system. The R&M center makes no use of fossil energy resources such as natural gas or heating oil. This reduces the CO₂ output by 90 % compared to conventional buildings. The interplay between the building and the underground storage system ensures a comfortable climate indoors all year round. The building and storage systems maintain a balance as an overall system at all times.

The water management system in the R&M center has come at the right time, given the rising water costs. This system includes an exemplary drainage system for the premises and the consistent use of rainwater at taps without special requirements, such as those for toilet flushing. Finally, smart building automation reliably controls the functions of the building services based on need. The safety and security equipment that is installed complements this automation system.

The R&M center is a model in many respects, proving that clever networking of building and storage systems can make many energy systems self-contained. This protects the environment, increases comfort and reduces energy costs – three strong arguments in favor of this approach!



Thomas Gautschi, Project Manager for Energy Concepts
Partner + Executive Board Member of Amstein + Walthert AG
www.amstein-walthert.ch



Architectural Report

Ultra-modern solitary structure with an effective architectural style

This building has a highly flexible design for use as production, logistics and office space. The design resulted from the merger of the R&M facilities in Aawisen and Binz and the ideas envisioned by the developer.

We adopted a holistic attitude, following our analysis of the architectural tender and the pertinent legal provisions. The developer's straightforward basic terms and conditions were pivotal to the project. Revolving around them were the objectives associated with the planned building. We constantly reflected on them and devised an overall concept, working from the inside out and vice-versa. With this approach, we ensured that neither design nor function dominated as a single component in the newly built R&M Cube. Instead, the two components are rationally and attractively combined.

The monolithic cube has an efficient, thoroughly economical building grid. There are six floors (one ground floor plus five upper stories) and a basement. The four sides of the building are of equal length. In combination with the flexible arrangement of space, this feature guarantees optimum daily business processes. The additional light entering through the façade of the inner courtyard fills the interior with light, further enhancing the use of this space. The building extends to the high-bay warehouse via a glass structure that goes up to its third upper story. This arrangement shortens the transport process via the conveyor system from the ramps into the warehouse. There is space for logistics on the ground floor and there are work stations on the first upper floor. The middle stories were designed mainly for production. In addition, these stories house the laboratory, process engineering, application engineering and the data processing center. The two top floors accommodate offices for several departments, including Purchasing, Engineering, Innovation and Production Planning. There are also several meeting rooms and a spacious staff

lounge with adjoining patio. The building's depth, length and arrangement into four core zones optimally connects work processes with storage and leisure zones, allowing the free flow of information.

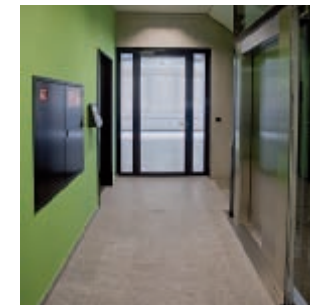
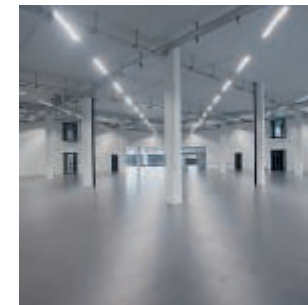
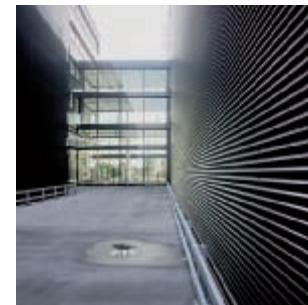
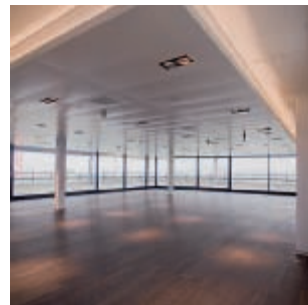
The building design takes into account the setting and the interaction between the user's corporate and brand contents. The corporate identity of R&M is expressed in the architecture of the building and is a result of our corporate architecture.

From the outside, the Cube seems to be an ultra-modern solitary structure embedded in the landscape. The construction and building service engineering ensure unprecedented energy efficiency for a structure of this kind and extremely low maintenance costs. The sustainable design makes use of natural and renewable energies. The glass surfaces are combined with the exterior shading systems and back-ventilated Alucobond façade to achieve the required insulating values for heat and cold.

The selected architectural style is highly efficient. The structures are composed of elementary, geometric forms. Decorative elements were placed in spots where they support a functional purpose. Reduced to the essentials and clearly structured, the building design provides maximum flexibility plus graceful esthetics and a fine sense of space. It is also highly functional and economical.



Loris Landolt, dipl. arch. HTL/dipl. betr.oek. HWV
Owner of DESIGNFUNKTION AG
www.designfunktion.ch



Facts & Figures

From the project manager's perspective

Project manager and long-time R&M employee Dieter Burkhalter managed and attended to the construction of the R&M Cube from the very outset. Throughout this period, he was guided by three main principles.

Planning

Planning also has to be planned. The company's present and future needs served as the benchmark for the construction of the new company building. The building is designed to allow daily processes to run as efficiently as possible but with minimum impact on the environment.

Quality

Appropriately, the quality standards at R&M are also reflected in the new company building, thus ensuring longevity and low operating costs.

Flexibility

Cogitate incognita: Think the unthinkable and tackle it with the requisite flexibility. After all, change is the one big constant in life.



Dieter Burkhalter

Project Manager for the R&M Cube

Facts & Figures

Structural work

Structural concrete		30'000	metric tons
Reinforcement	(iron reinf. for concrete)	1'700	metric tons
Load on 1 support	(14 railway cars)	140	metric tons
Total weight, completed		~ 50'000	metric tons
Number of supports		370	supports
Number of windows/door's		807/350	w/d
Lime-sand brick walls		4'600	m ²

Cubic volumes, areas

Cubic volume of building	(without high-bay warehouse)	83'300	m ³
Floor area of building	(without high-bay warehouse)	3'360	m ²
Gross floor area of building		16'000	m ²
Floor area of high-bay warehouse		810	m ²
Cubic volume of high-bay warehouse		18'500	m ³
Capacity of high-bay warehouse		4'850	pallets

Energy design (low-exergy/Minergie)

Geothermal probe field 1	(free cooling)	32x150m	4'800	m
Geothermal probe field 2	(heat field)	24x250m	6'000	m
Heat output of heat pump			620	kW
Required energy: heating/cooling			880/550	MWh pa.
Cover panels	(HVAC)		950	panels
Average air exchanged			1.5	/h
Rainwater tank	(for toilet flushing)		20'000	l

R&M products

Round cable adapter 5x1.5	790	unit
U-Box	280	unit
RJ45/s C6 module	2'300	unit
Real10 S/FTP C7 cable	92'000	m

Use by R&M in 2010

Office	110	employees
Production	105	employees
Logistics	60	employees
Temporary	25	employees



System Solutions from R&M

R&M Products in the Cube

Along with an innovative energy design, we rely on the most modern communication networks available in our new building. Below are the most important R&M solutions installed in the Cube.

Building cabling - riser zone

In the backbone, we use pre-terminated Varioline fiber-optic cabling with LC connectors. They are terminated on 19" UniRacks with 24xLC duplex adaptors and 19" global racks - fitted with 7TE fiber modules.

Building cabling - horizontal level

We used shielded twisted-pair cabling with the Real10 system as the infrastructure for the workstations. This allows the use of 10 Gigabit Ethernet up to the workstation and includes enough performance capacity for future applications.

Depending on the situation, the infrastructure for the workstations is installed in either the ceiling or the hollow floor using U-Boxes or via the wall ducts using built-in sockets. In addition, we use DRM45 DIN rail modules as connection points in various areas, always in conjunction with Real10 Cat.6 modules.

We are taking a consolidation point approach to infrastructure in several areas of the Cube. Data and electricity connections in those places are routed to a consolidation point in the hollow floor or hollow ceiling. From there, it will be quick and easy to connect additional workstations later on if desired. We use U-Boxes as consolidation points.

They are connected with pre-terminated cables. The RJ45 modules, type Real10 Cat.6, are used in this case, too. The electricity connections (230V) are implemented via cable outlet adaptors. Desk boxes are installed in the resting rooms and bring the data and electricity connections right onto the desk in a handsome housing.

Data center

In the data center we opted for maximum performance with a minimal footprint. The majority of connections are established with pre-terminated copper and fiber-optic cables.

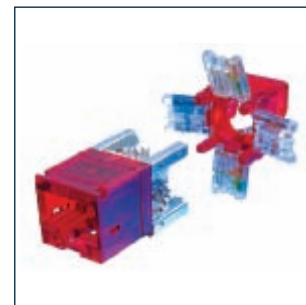
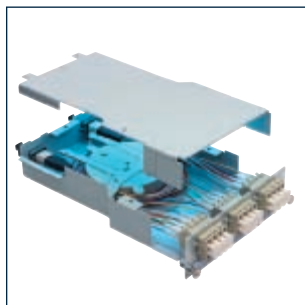
For the fiber-optic installation, for example, we are using trunk cables terminated on both ends with MPO connectors. They are connected in 19" global racks with MPO modules. The fiber-optic cables are reliably guided between the racks using the R&M raceway system.

We use our shielded RJ45 connection module, Cat.6_A ISO, for copper connections. It offers outstanding performance reserves and exceeds the minimal requirements of IEEE 802.3 for 10GBASE-T performance in the ISO 11801 channel and permanent link. We use various lengths of 6x4P trunk cabling in this case and terminate them at angled patch panels. This ensures maximum connection density and good handling.



Markus Schlageter

Head of Corporate Marketing
Reichle & De-Massari AG



R&M CEO commenting on the Cube

Cube opens the way to the next phase of growth

With our move into the Cube, the new company building at R&M headquarters in Switzerland, a new era begins for our company. The building was meticulously planned using the latest advances in engineering. It fully meets the requirements of an ultra-modern company facility and enables us to concentrate nearly all our business activities in Switzerland at a single location. We have continually improved our internal processes and will now be able to perform even more effectively and substantially upgrade our services to customers.

R&M has steadily expanded its scope of business in recent years, improving its leading position in the Swiss market and positioning itself in important markets internationally. We now sell 75% of our cabling solutions for communication networks abroad. The market potential is immense, both in markets already being well served and in emerging markets that have begun to modernize their communication infrastructures in recent years. Our goal is to continue to grow with the market and to participate accordingly. The employees at our ultra-modern facilities in the Cube will develop the innovations required to reach that goal. The Cube allows our company to enter its next phase of growth under ideal conditions because the building is precisely tailored to our processes and symbolizes the powers of innovation at R&M.



Martin Reichle

CEO of Reichle & De-Massari AG



Reichle Immobilien AG
Binzstrasse 31
CH-8620 Wetzikon
Telefon +41 (0)44 931 99 00
www.reichle-immobilien.ch



Convincing cabling solutions

Reichle & De-Massari
Binzstrasse 31
CH-8620 Wetzikon
Telefon +41 (0)44 933 81 11
www.rdm.com

Masthead

Publisher: Reichle Immobilien AG
Binzstrasse 31
CH-8620 Wetzikon
www.reichle-immobilien.ch
info@reichle-immobilien.ch

Editorial staff: Erica Monti
Layout & Pictures: Jürg Neff
Printing: Druckzentrum AG
Circulation: 2000 Ex. german
1000 Ex. english
date: 11.08.2010