

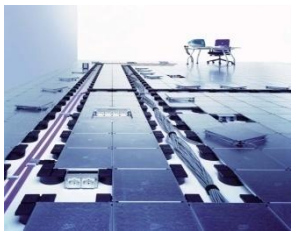


CABLE MANAGEMENT SYSTEMS

Soluflex

Raised Floor Solution





CABLE MANAGEMENT SYSTEMS

Soluflex-Raised Floor Solution



VAN GEEL

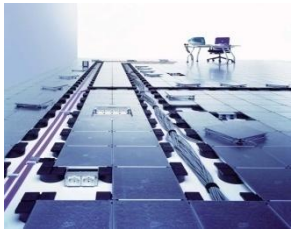


Flex your design!
...for the future

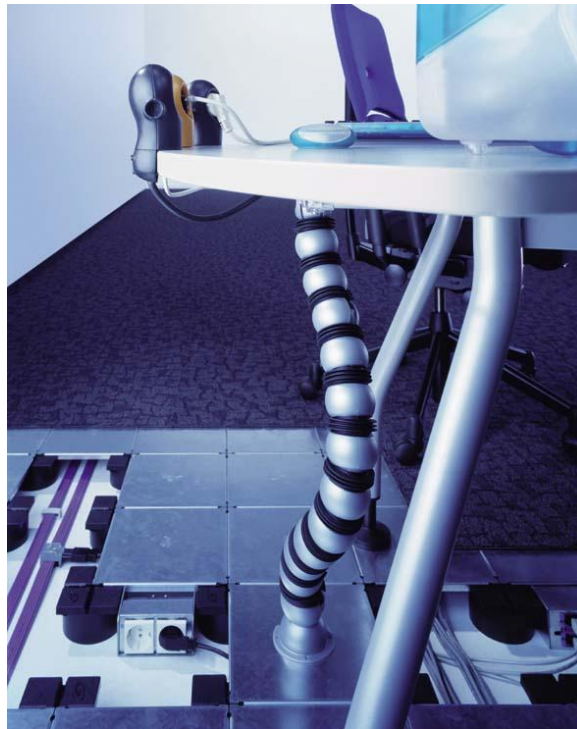


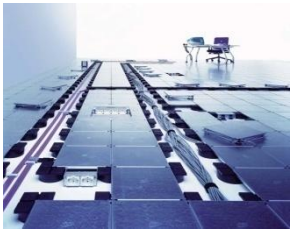
CABLE MANAGEMENT SYSTEMS

Soluflex-Raised Floor Solution



Soluflex Cable Floor System





CABLE MANAGEMENT SYSTEMS

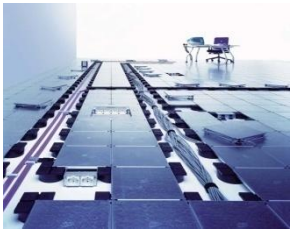
Soluflex-Raised Floor Solution



Soluflex Cable Floor System

Soluflex
Flexible · Freedom · Floor



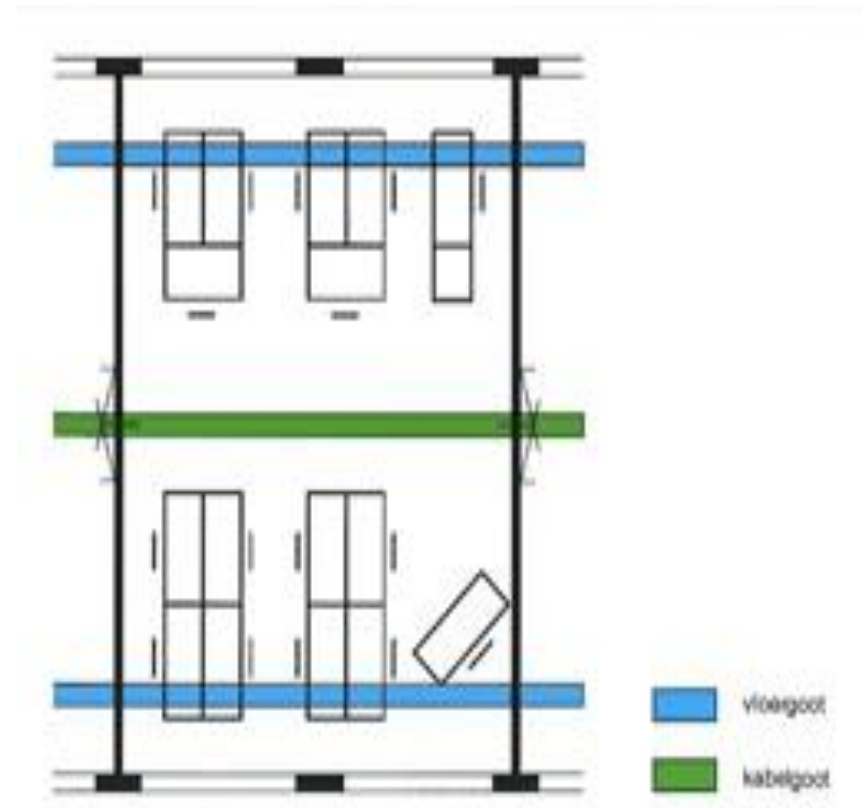


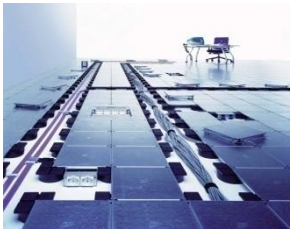
Sixties



Growth of electrical equipment

- telephone
- lighting
- electronic typewriter





CABLE MANAGEMENT SYSTEMS

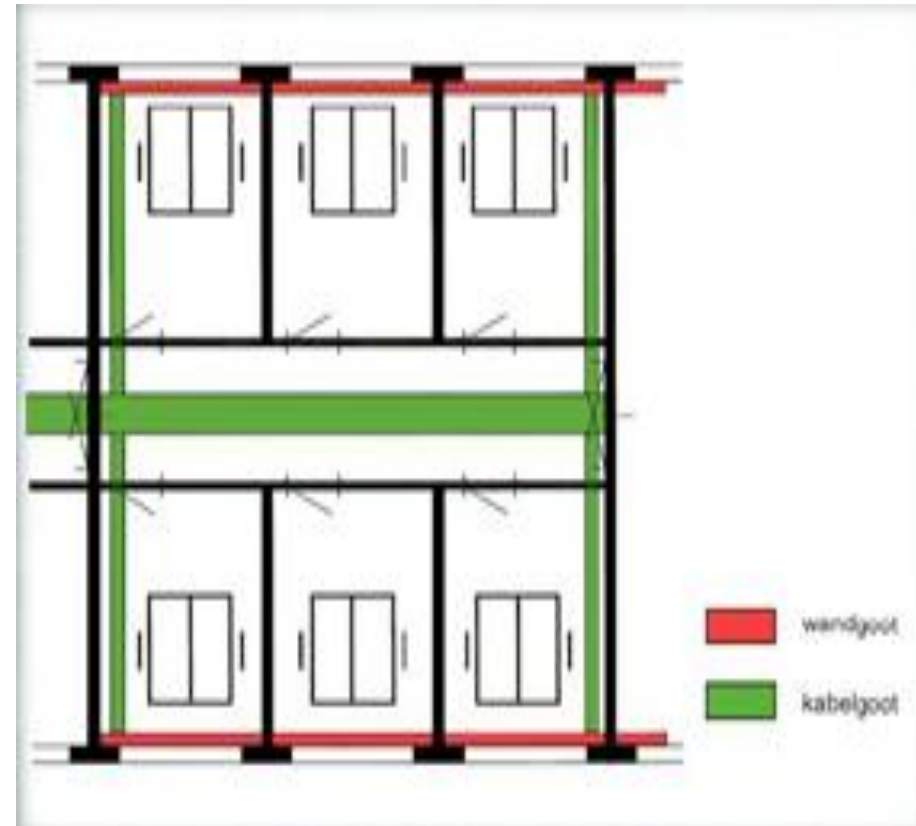
Soluflex-History Office Market



Seventies-Eighties-Ninties



**Fax
Computer
Office Blocks**



CABLE MANAGEMENT SYSTEMS

Soluflex-History Office Market



Today



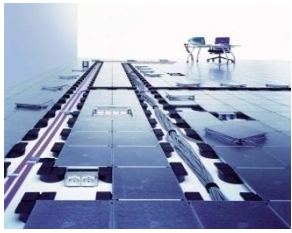
■ INTERNATIONAL
COMMUNICATION SUPPORT

CABLE MANAGEMENT SYSTEMS

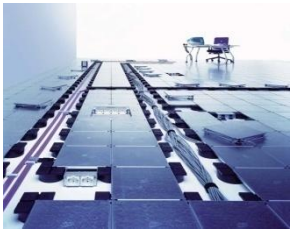
Soluflex-History Office Market



Tomorrow



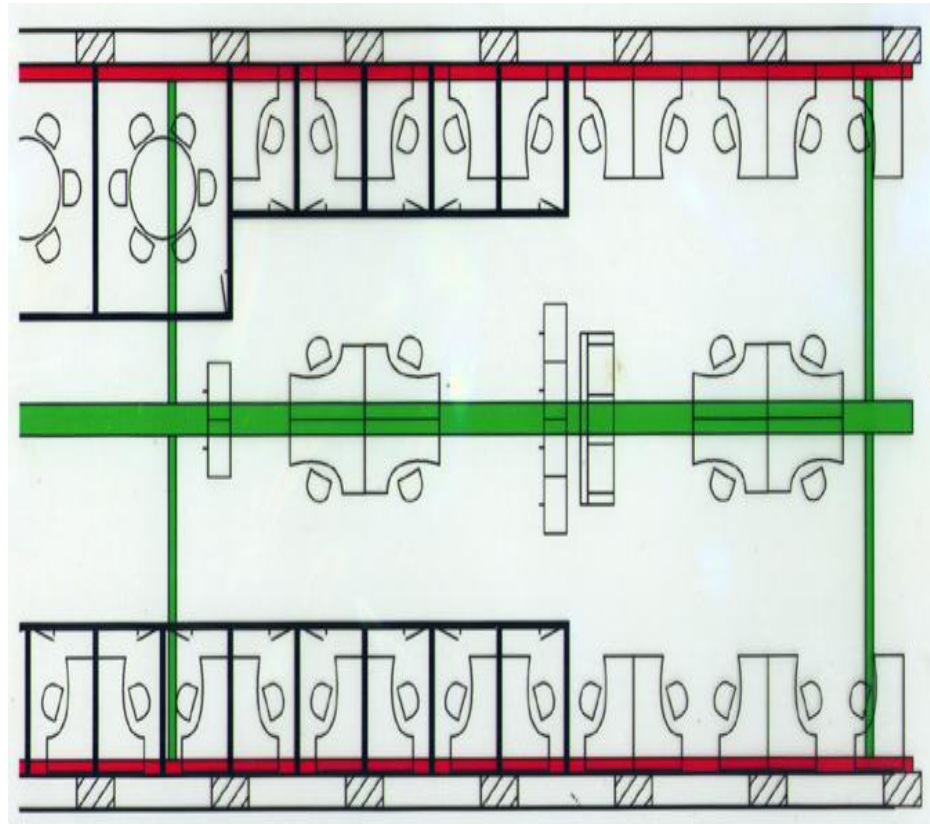
Soluflex-Raised Floor Solution

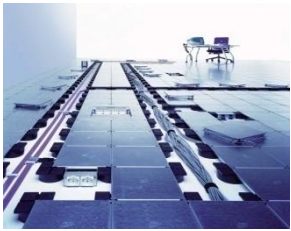


Office - Today

- If the office layout is simple, desks are arranged around the perimeter and a central floor duct.

**Adaptability and flexibility
spell performance**





CABLE MANAGEMENT SYSTEMS

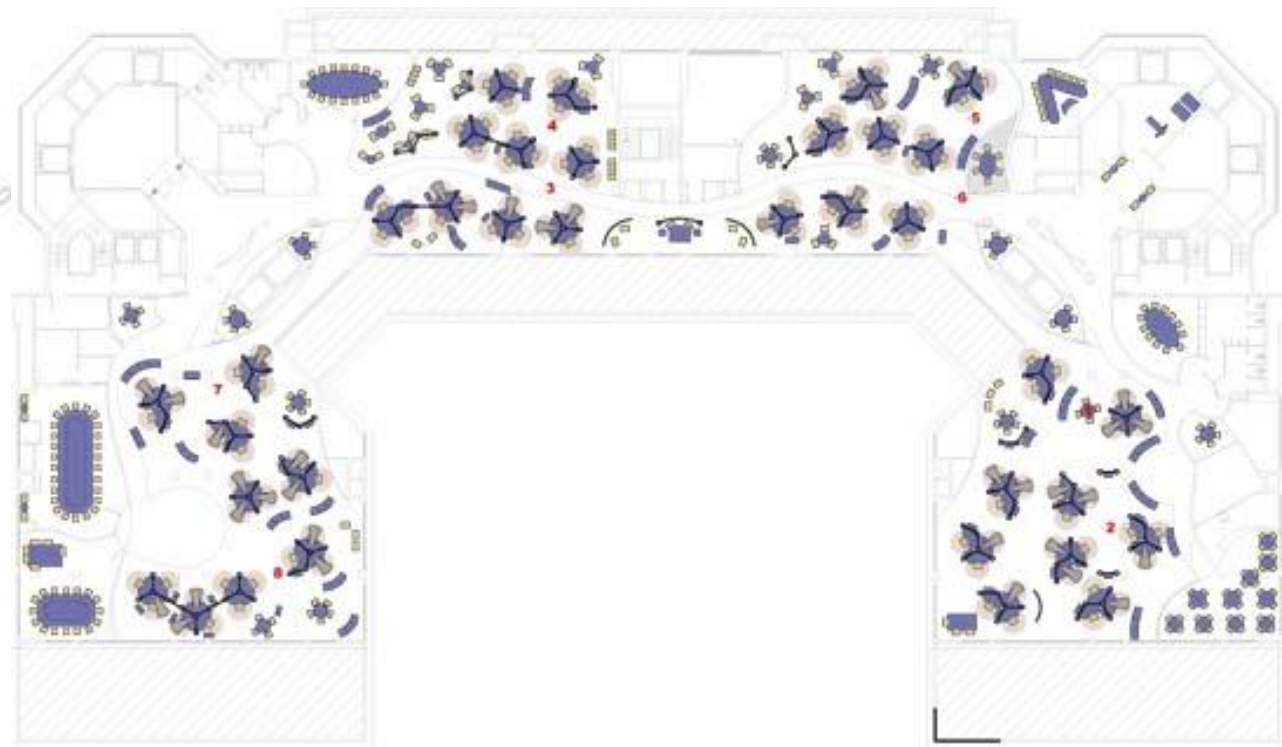
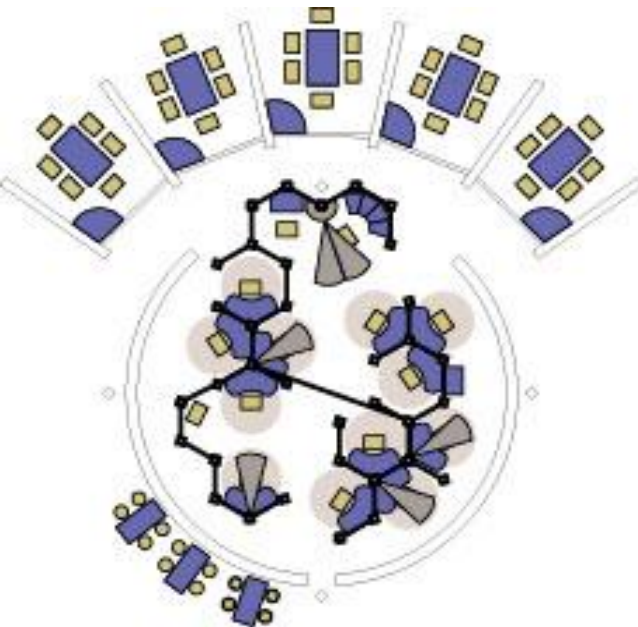
Soluflex-Raised Floor Solution

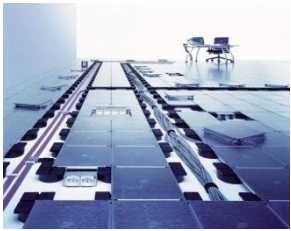


Office – Today and Tomorrow

Flexible Offices

Adaptability and flexibility
spell performance





CABLE MANAGEMENT SYSTEMS

Soluflex-Raised Floor Solution

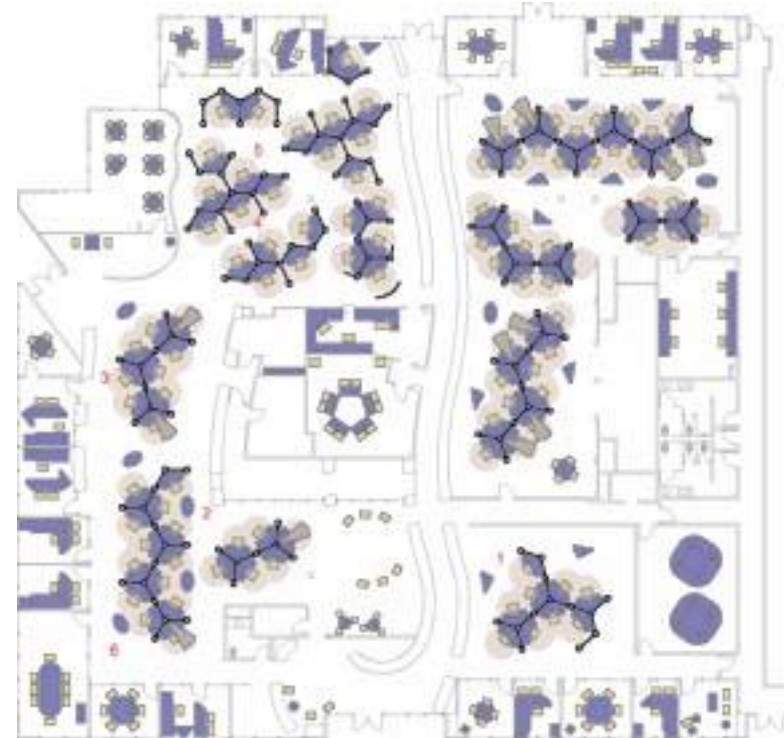


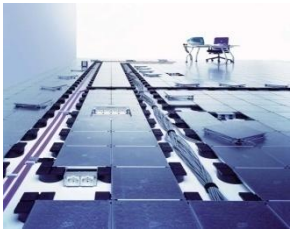
Office – Today and Tomorrow

Flexible Offices



Adaptability and flexibility
spell performance





CABLE MANAGEMENT SYSTEMS

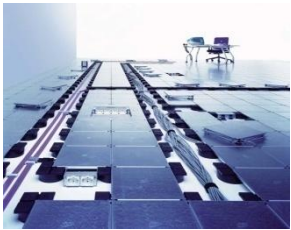
Soluflex-Raised Floor Solution



New Trends Observed

A transfer from wall wiring devices to mobile workstation





CABLE MANAGEMENT SYSTEMS

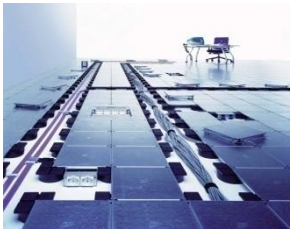
Soluflex-Raised Floor Solution



New Trends Observed

A transfer from wall wiring devices to mobile workstation





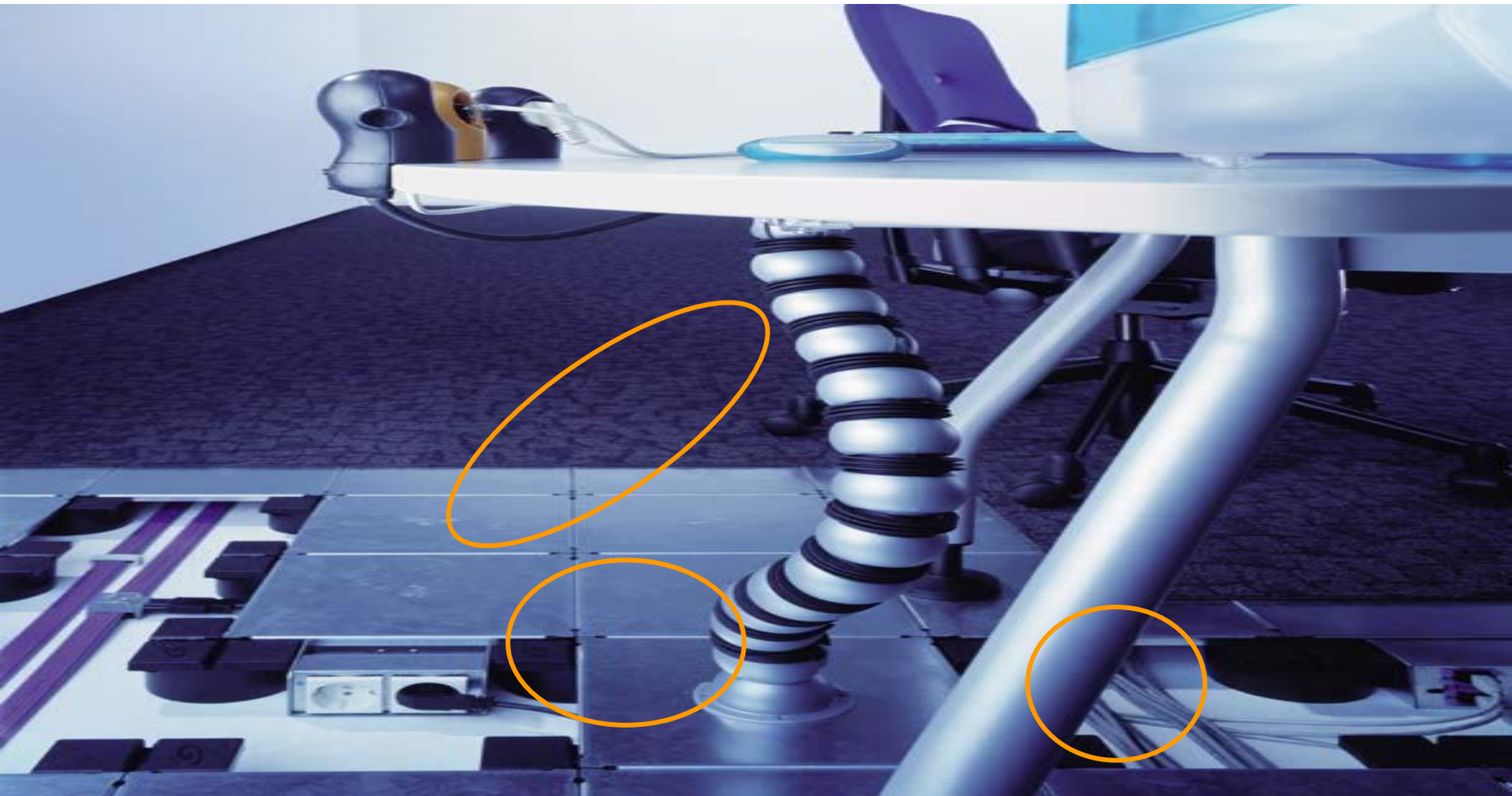
CABLE MANAGEMENT SYSTEMS

Soluflex-Raised Floor Solution

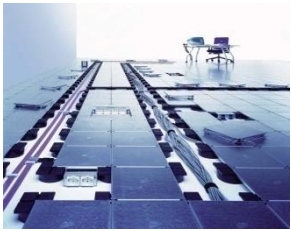


New Trends Observed

A transfer from wall wiring devices to mobile workstation



Soluflex-Raised Floor Solution



Commercial Building Market - Needs

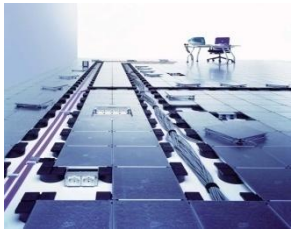
- Outlets near to a desk without any visual consequences
- More cable capacity
- Bigger flexibility
- Decisions to be made in a late stage



CABLE MANAGEMENT SYSTEMS



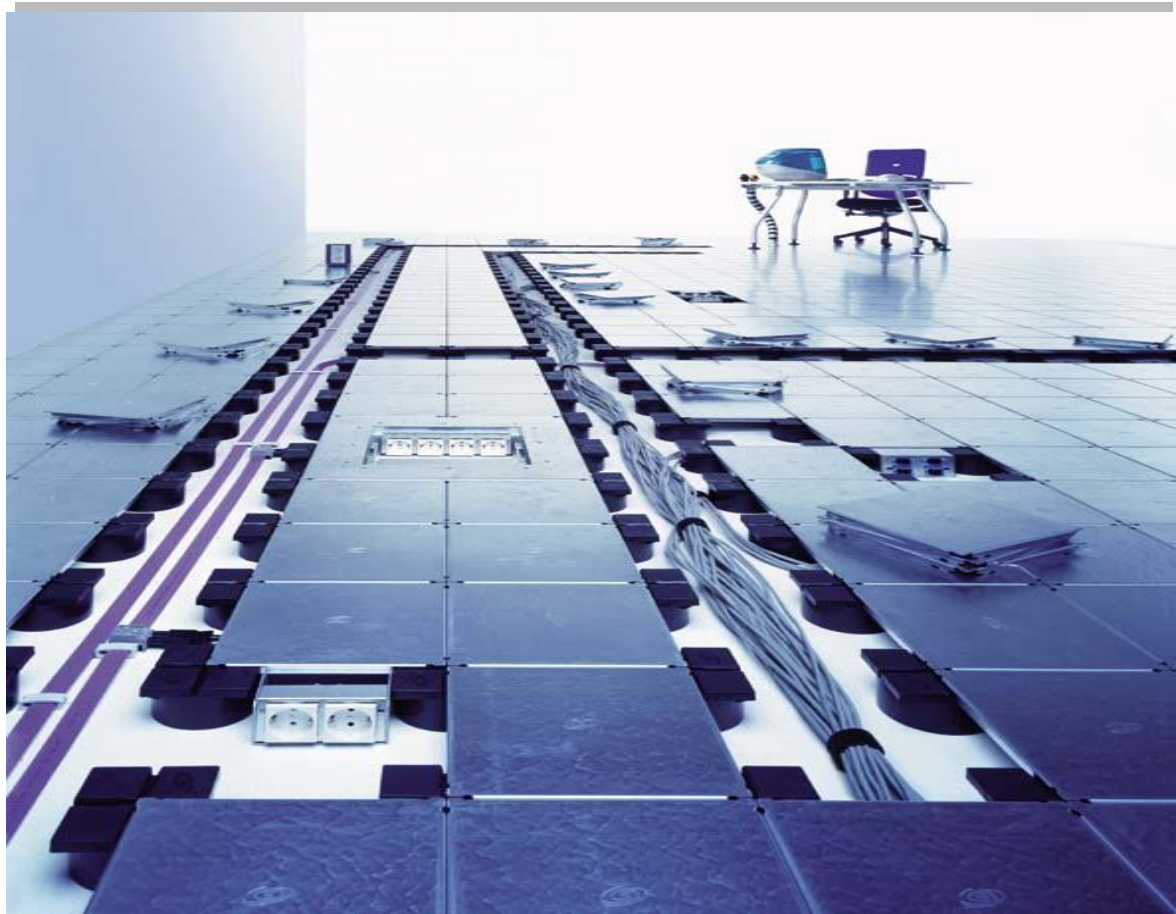
Soluflex- Commercial Building



The electronic Highway
under your Feet

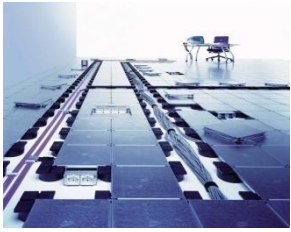
SOLUFLEX 

- Perfect Floor Solution for Daily Changing Office Needs
- Complete Flooring System with Quick Installation and freedom of Design
- Soluflex Floor System is made of Tiles/ Supports and few accessories

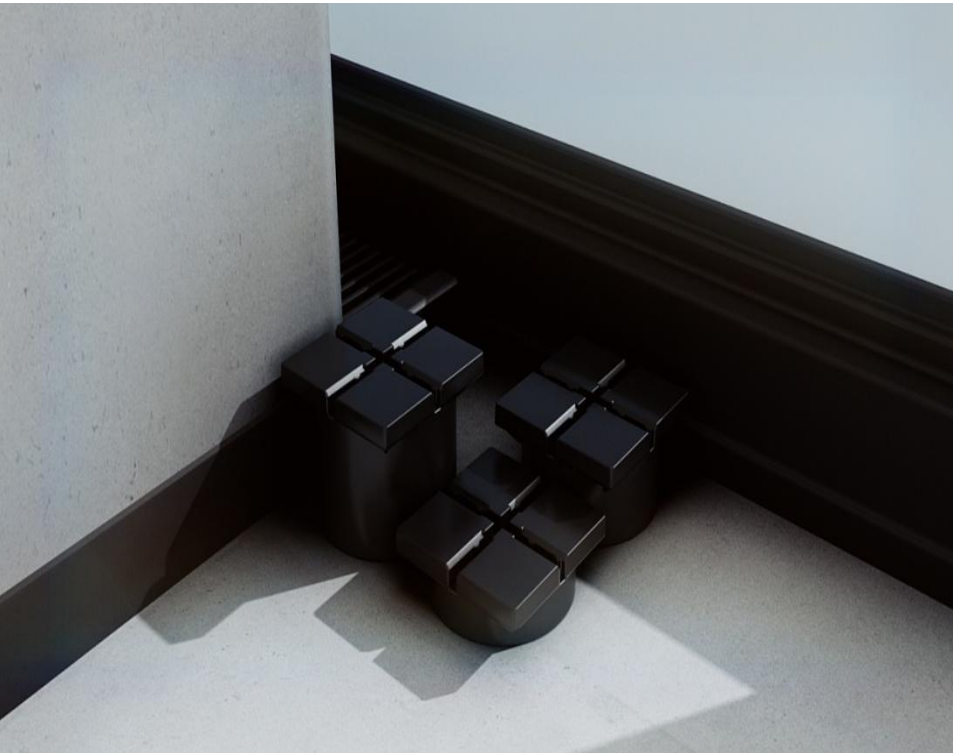


CABLE MANAGEMENT SYSTEMS

Soluflex-Raised Floor Solution

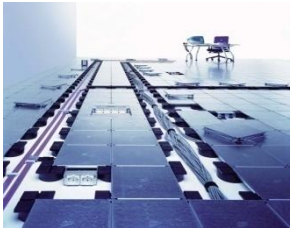


Basic Floor Parts



CABLE MANAGEMENT SYSTEMS

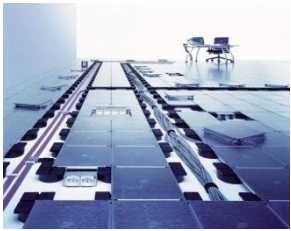
Soluflex-Raised Floor Solution



Basic Floor Parts



4
standard
floor heights

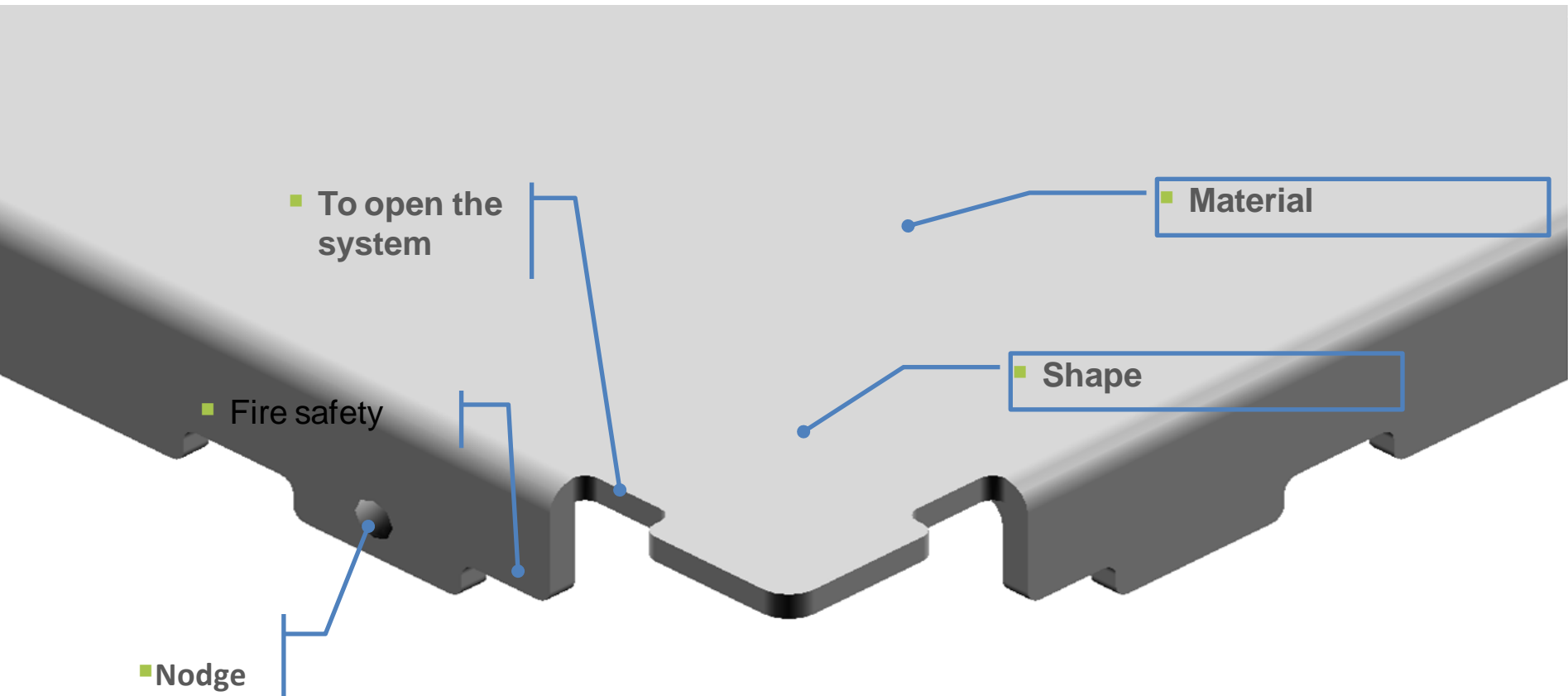


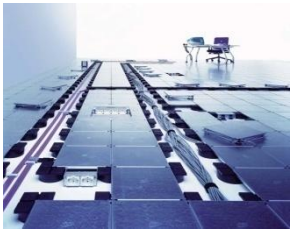
CABLE MANAGEMENT SYSTEMS



Soluflex-Raised Floor Solution

Basic Floor Parts – Floor Tile





CABLE MANAGEMENT SYSTEMS



Soluflex-Raised Floor Solution

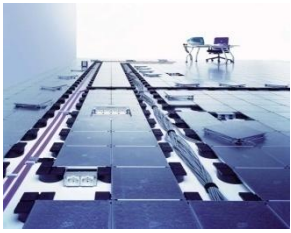
Basic Floor Parts – Earth Connection



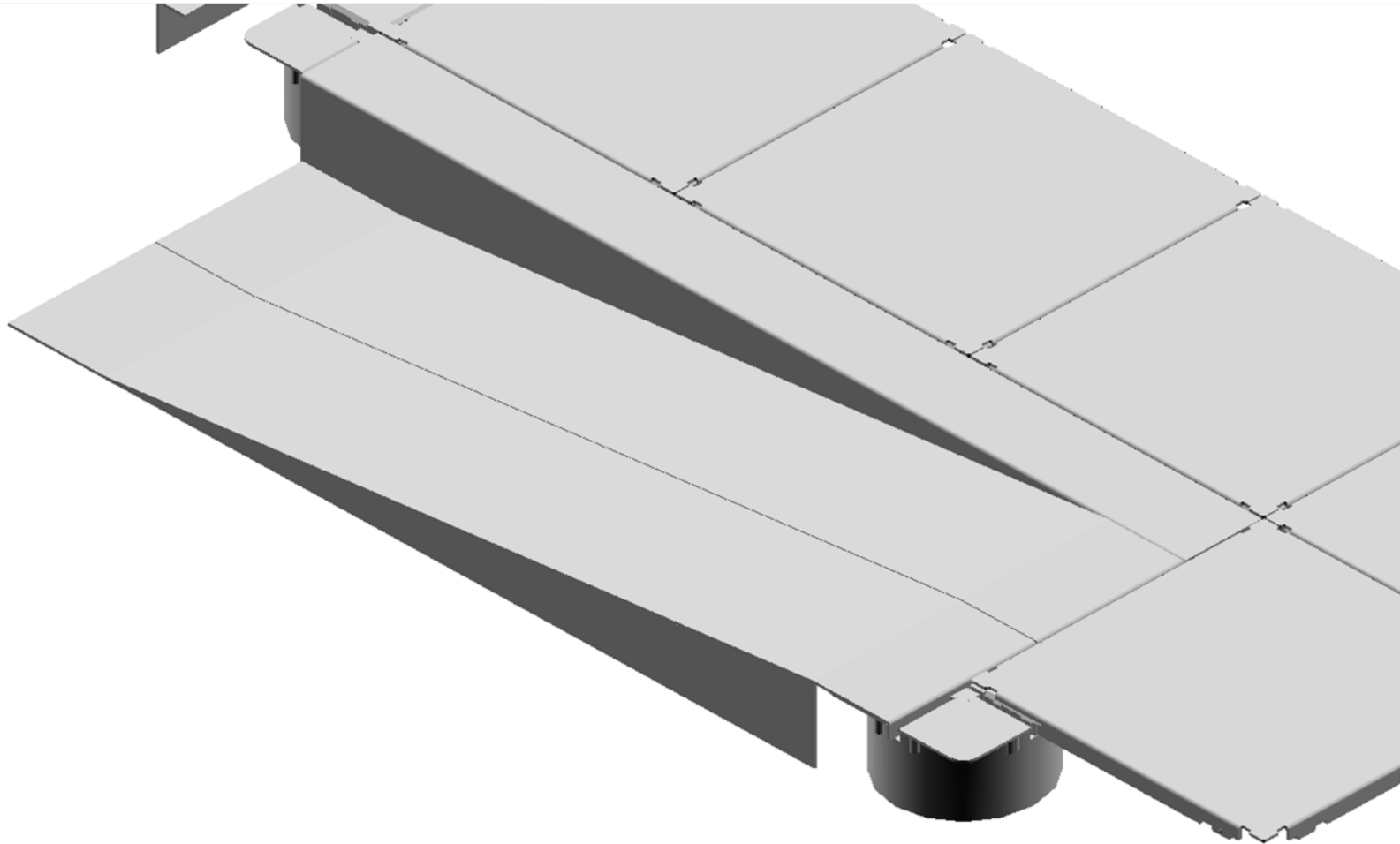
CABLE MANAGEMENT SYSTEMS

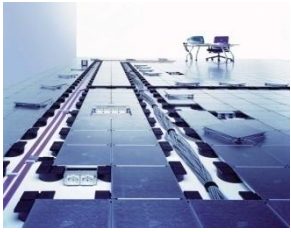


Soluflex-Raised Floor Solution



Basic Floor Parts – Ramp with End Profile





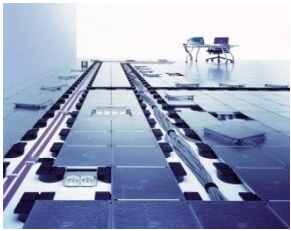
CABLE MANAGEMENT SYSTEMS

Soluflex-Raised Floor Solution



Basic Floor Parts

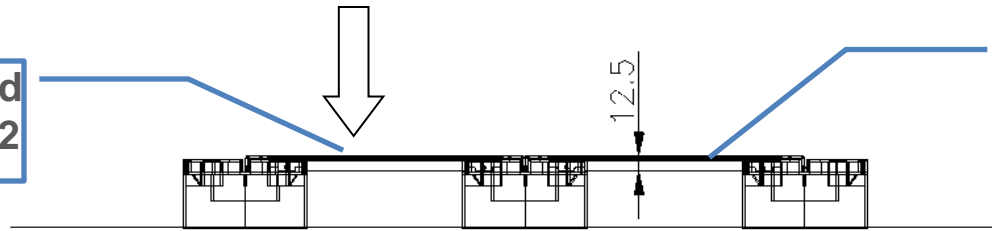




Soluflex-Raised Floor Solution

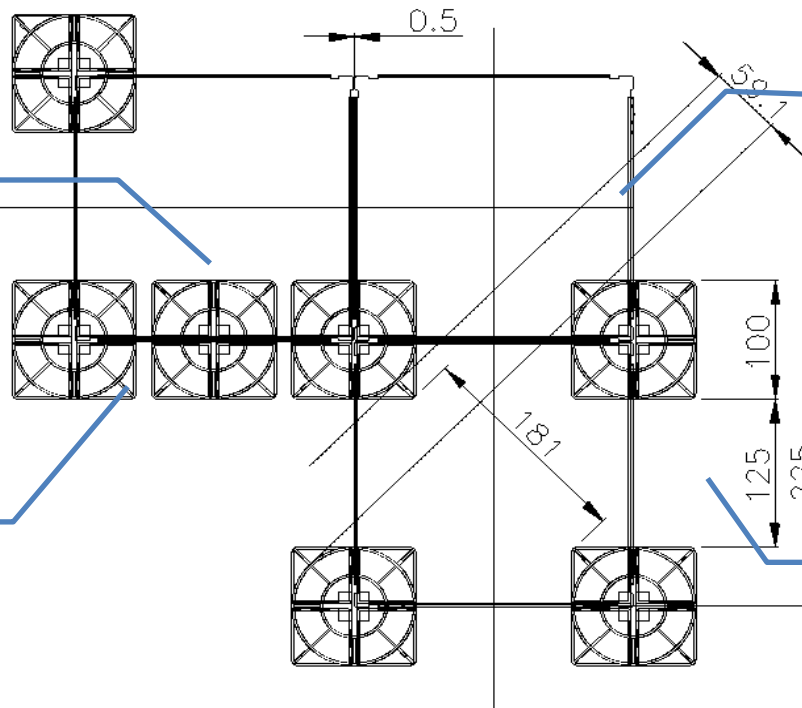
Soluflex - Features

■ Maximum Load
1500N / 25mm²



■ Cable capacity
25mm , 48mm ,
78mm & 108mm

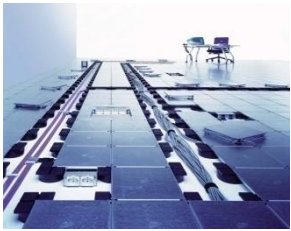
■ Extra support
capability



■ Diagonal capacity
width of 59mm

■ 50mm radius to
protect cables

■ Cable tray capacity
125mm (100mm)

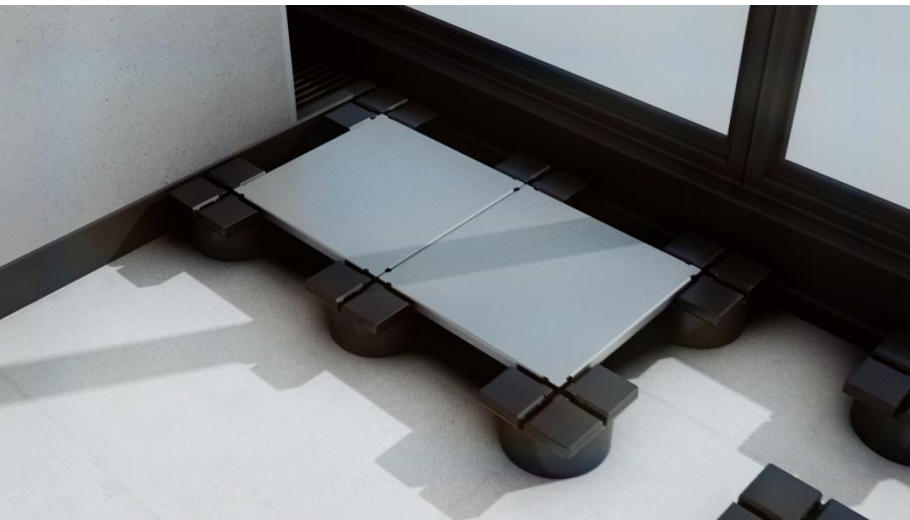
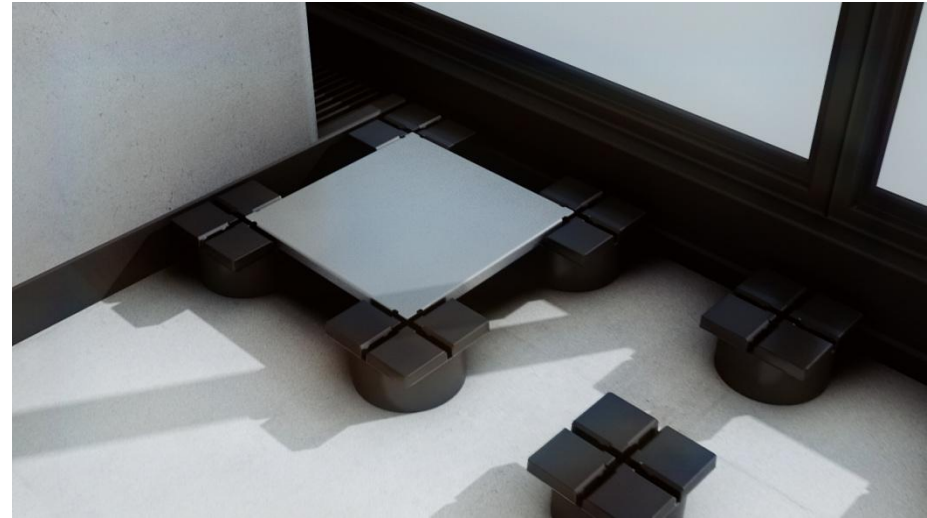


CABLE MANAGEMENT SYSTEMS

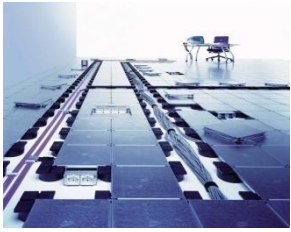
Soluflex-Raised Floor Solution



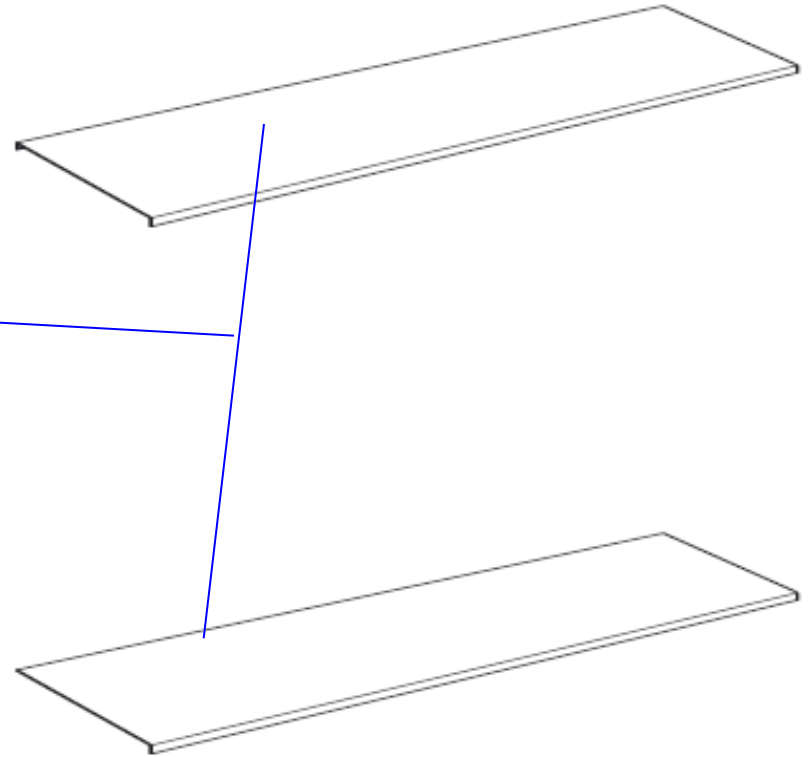
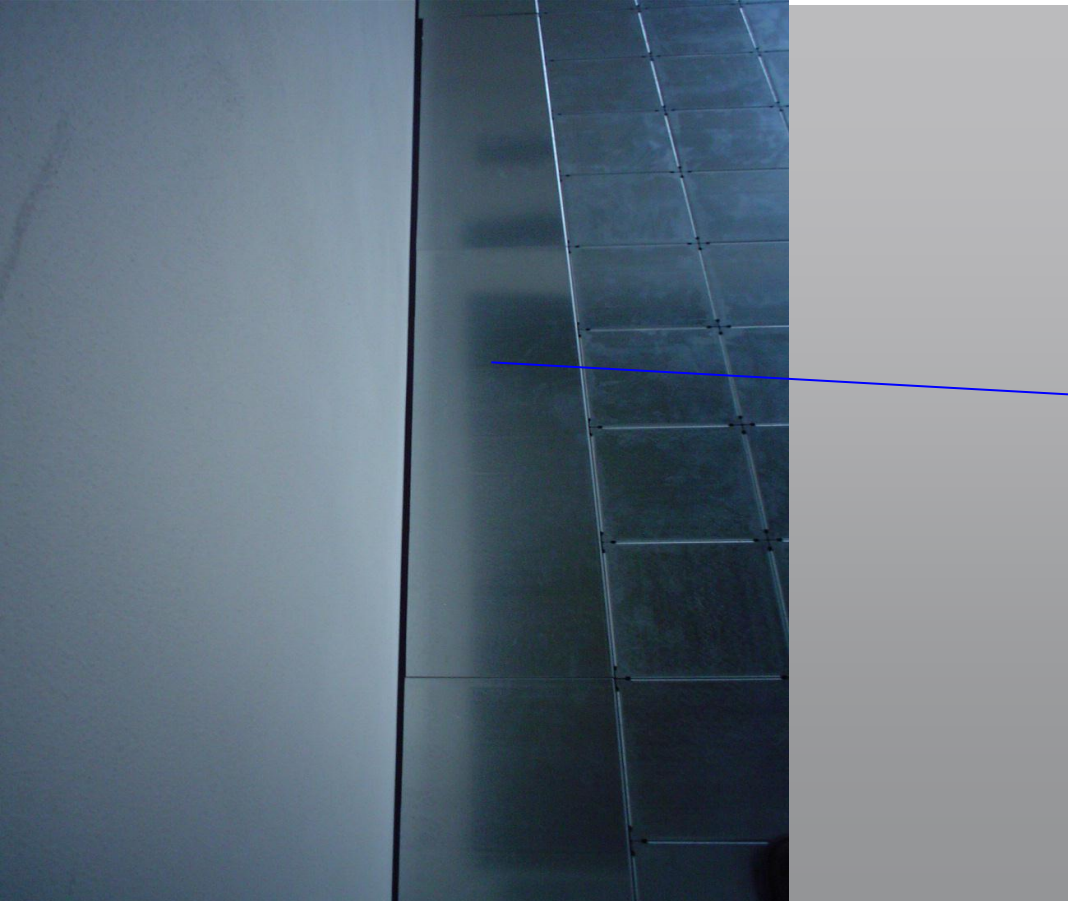
Soluflex - Installation

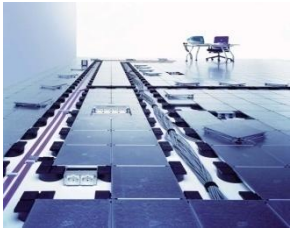


Soluflex-Raised Floor Solution



Basic Floor Parts – Wall Finishes





CABLE MANAGEMENT SYSTEMS

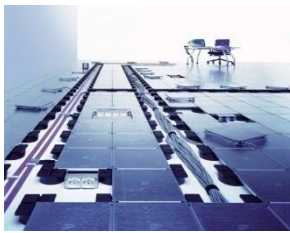
Soluflex-Raised Floor Solution



Basic Floor Parts – Wall Finishes



Soluflex-Raised Floor Solution



Basic Floor Parts

4 sizes 37mm, 60mm, 90mm and 120mm

selection table Soluflex® Cable Floor System

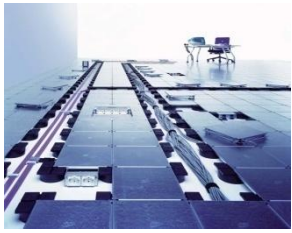
H = 37/60/90/120 mm

	Tile	Support	Project edge finishing	Edge finishing	Plenum-sealing	Plenum exterior angle	Ramp	Earthing tile	Cable outlet tile	Lead outlet	Surface-mounted tile
H = 37 mm	84000 10	84037 00	84000 60	84000 61	84037 20	84037 30	84037 40	84000 20	84000 30	81902 32	84000 40
H = 60 mm	84000 10	84060 00	84000 60	84000 61	84060 20	84060 30	84060 40	84000 20	84000 30	81902 32	84000 40
H = 90 mm	84000 10	84090 00	84000 60	84000 61	84090 20	84090 30	84090 40	84000 20	84000 30	81902 32	84000 40
H = 120 mm	84000 10	84120 00	84000 60	84000 61	84120 20	84120 30	84120 40	84000 20	84000 30	81902 32	84000 40

Floor system consists of 23 Part numbers

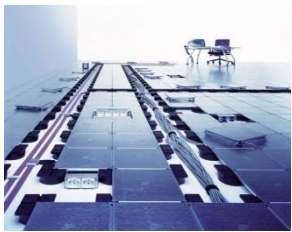
CABLE MANAGEMENT SYSTEMS

Soluflex-Raised Floor Solution



Flex your building





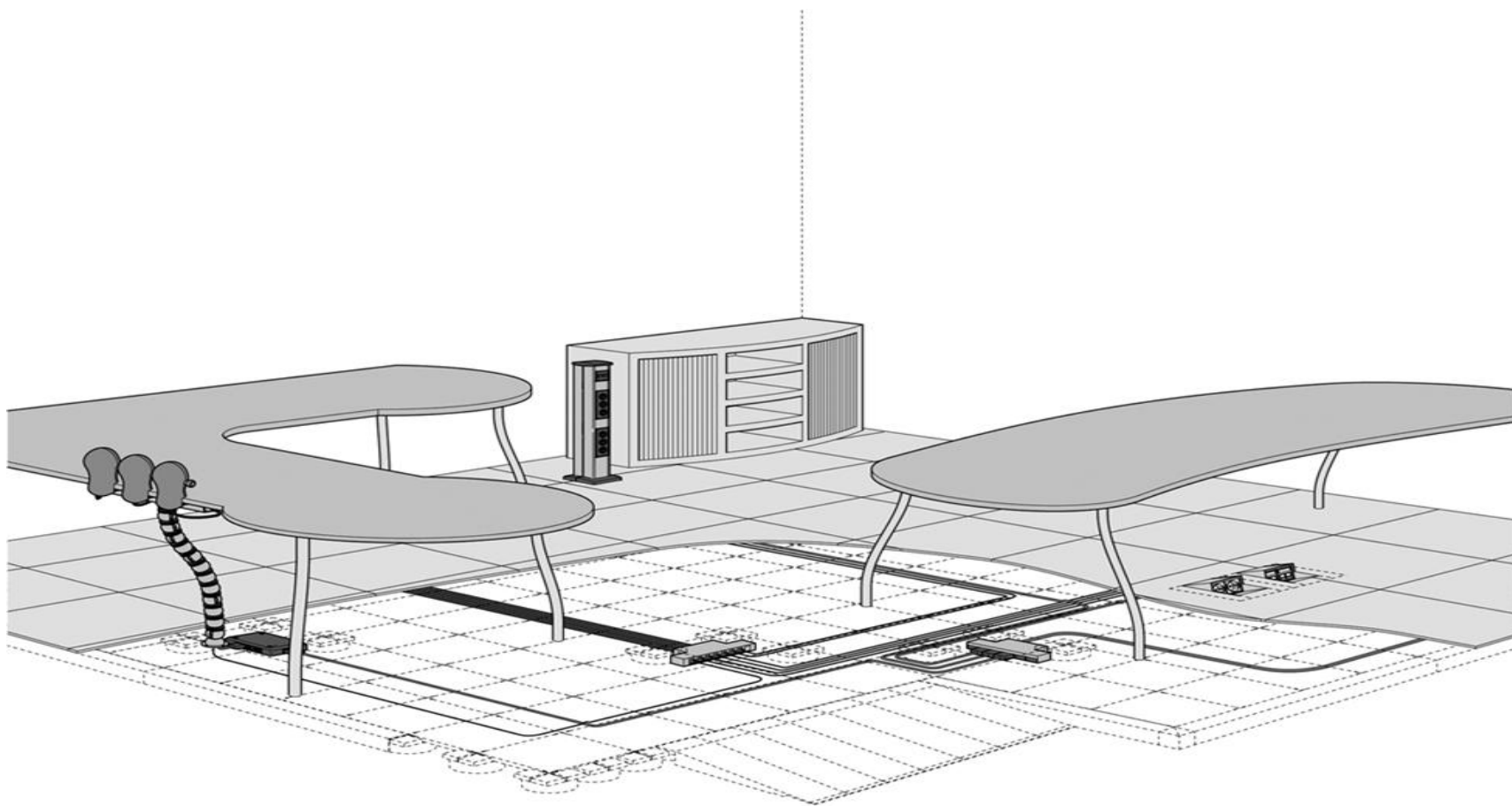
CABLE MANAGEMENT SYSTEMS

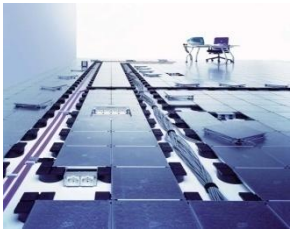
Soluflex-Raised Floor Solution



Soluflex – for Renovation Projects

Soluflex H=37 mm





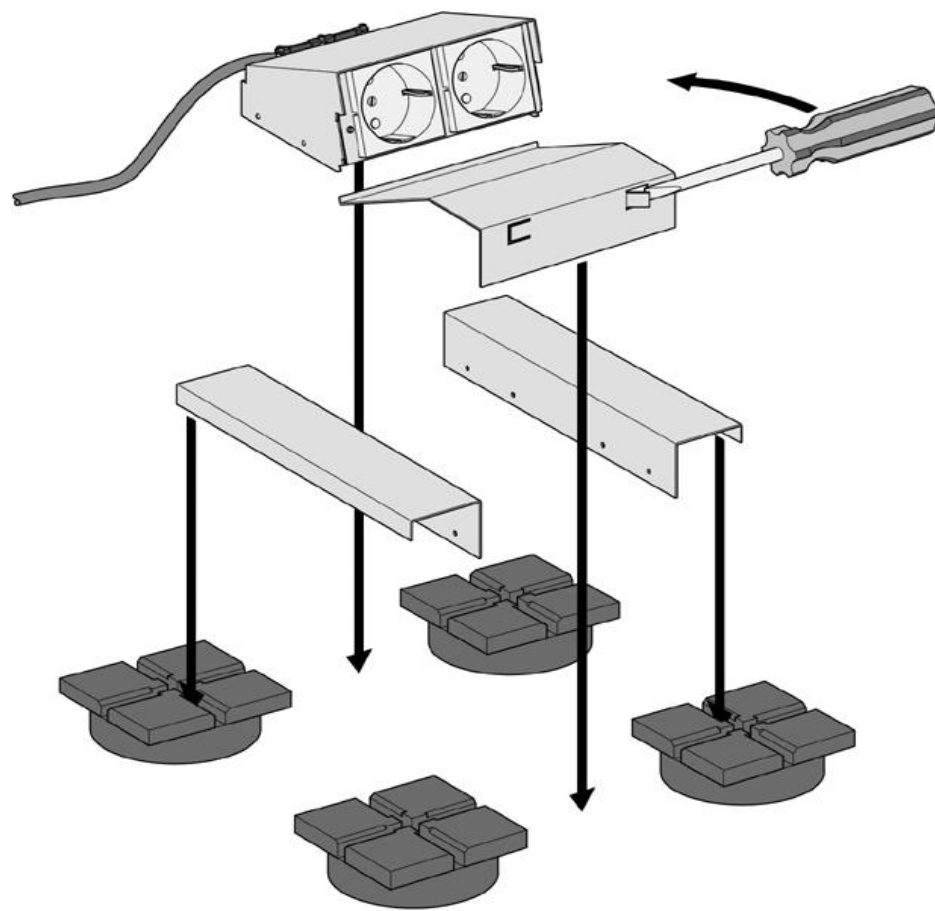
CABLE MANAGEMENT SYSTEMS

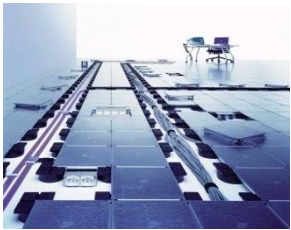
Soluflex-Raised Floor Solution



Soluflex – for Renovation Projects

Connection Unit 2x230V H = 37 mm





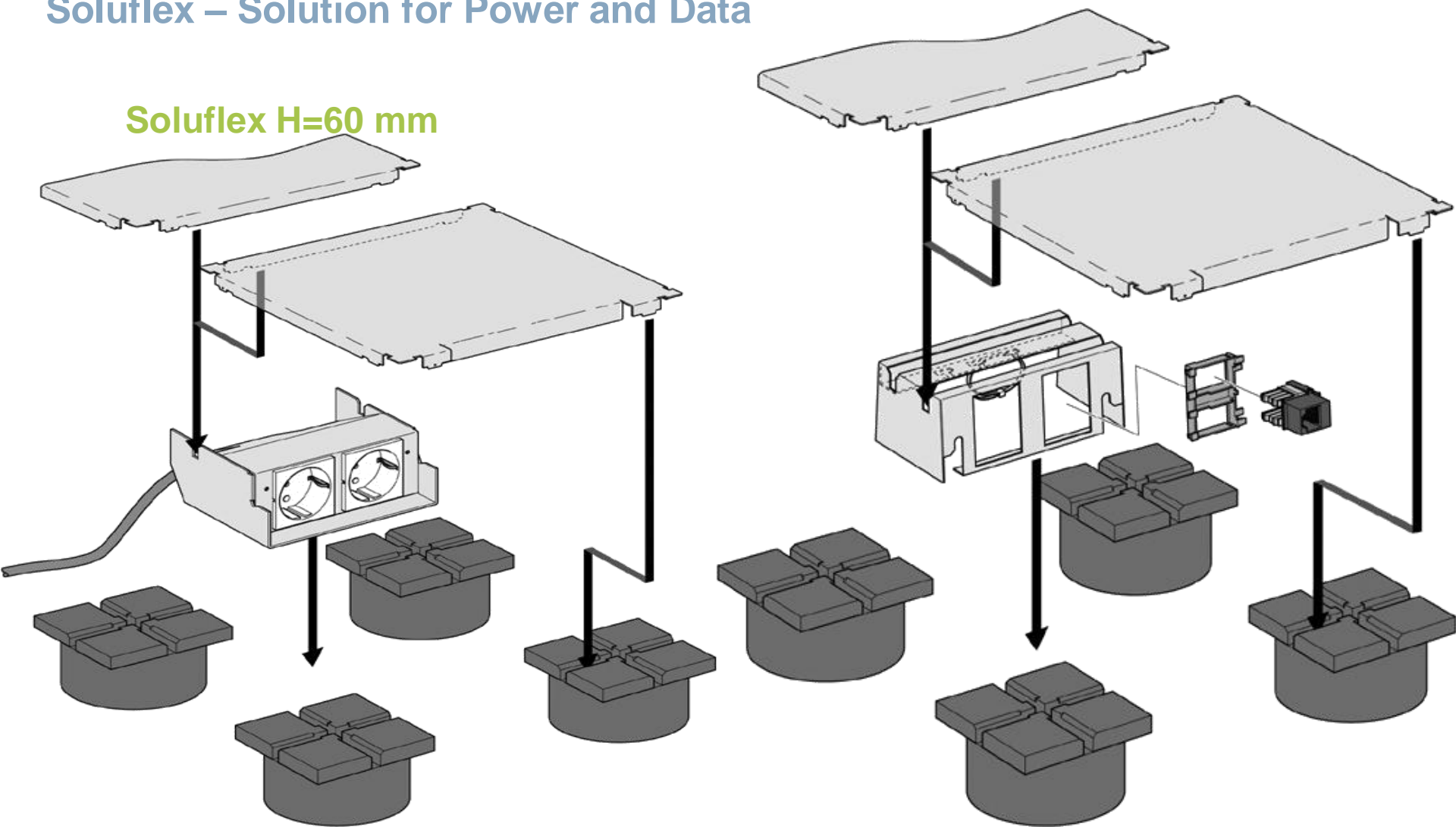
CABLE MANAGEMENT SYSTEMS

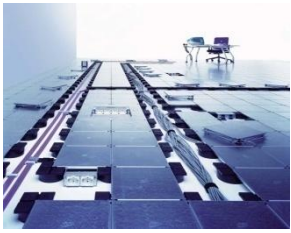
Soluflex-Raised Floor Solution



Soluflex – Solution for Power and Data

Soluflex H=60 mm





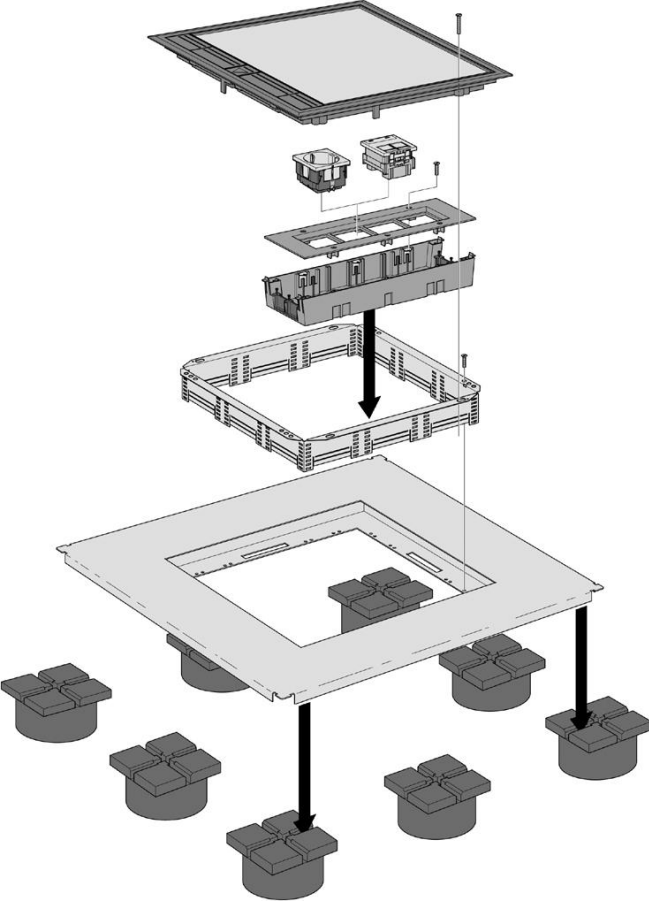
CABLE MANAGEMENT SYSTEMS

Soluflex-Raised Floor Solution



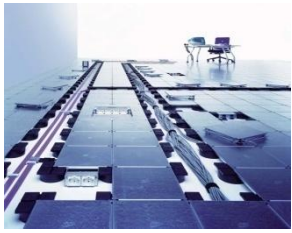
Soluflex – Solution for Power and Data

Soluflex H=60 / 90 / 120 mm



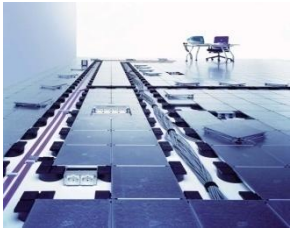
CABLE MANAGEMENT SYSTEMS

Soluflex-Raised Floor Solution



Soluflex – Solution for Mobile Workstation





CABLE MANAGEMENT SYSTEMS

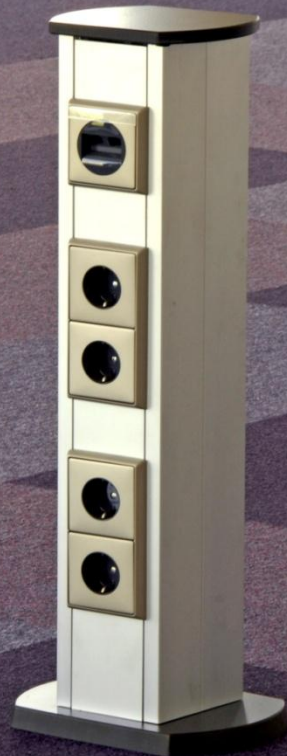
Soluflex-Raised Floor Solution

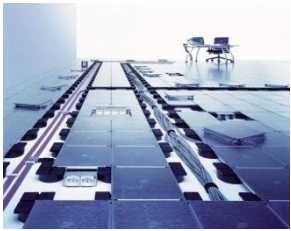


Soluflex – Solution for Mobile Workstation



Powerposts & service columns





CABLE MANAGEMENT SYSTEMS

Soluflex-Raised Floor Solution



Soluflex – Technical Specifications

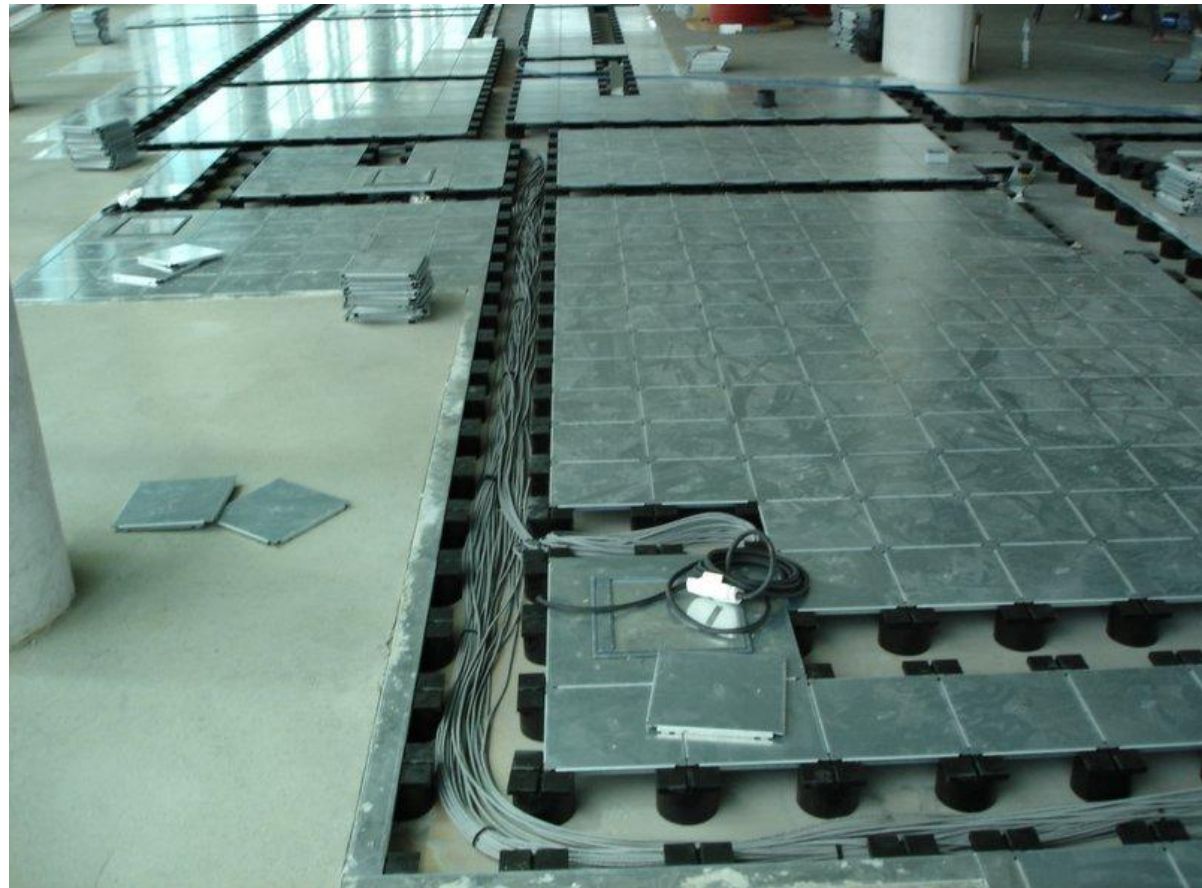
Max load

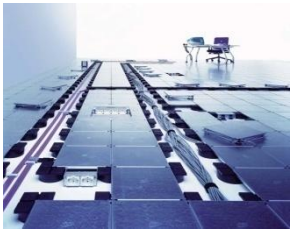
Underfloor

Electrical safety

Fire resistance

Acoustic





CABLE MANAGEMENT SYSTEMS

Soluflex-Raised Floor Solution



Soluflex – Technical Specifications

Maximum load

- Soluflex is suitable for normal office use.
- Max load per tile / support 1500 Newton/per 625mm² (25x25 mm)
 - Deflection max 2,5 mm by max load
 - Permanent deflection max. 0,5 mm
- Max load 30000 N per m².





CABLE MANAGEMENT SYSTEMS

Soluflex-Raised Floor Solution

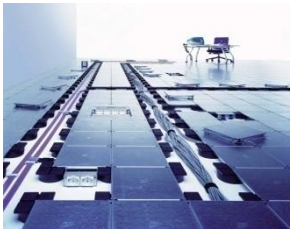


Soluflex – Technical Specifications

Underfloor



- Soluflex needs a flat surface, a finish floor that fulfils the same standards that apply for laying normal carpeting.
- Max height difference = 8 mm / m1



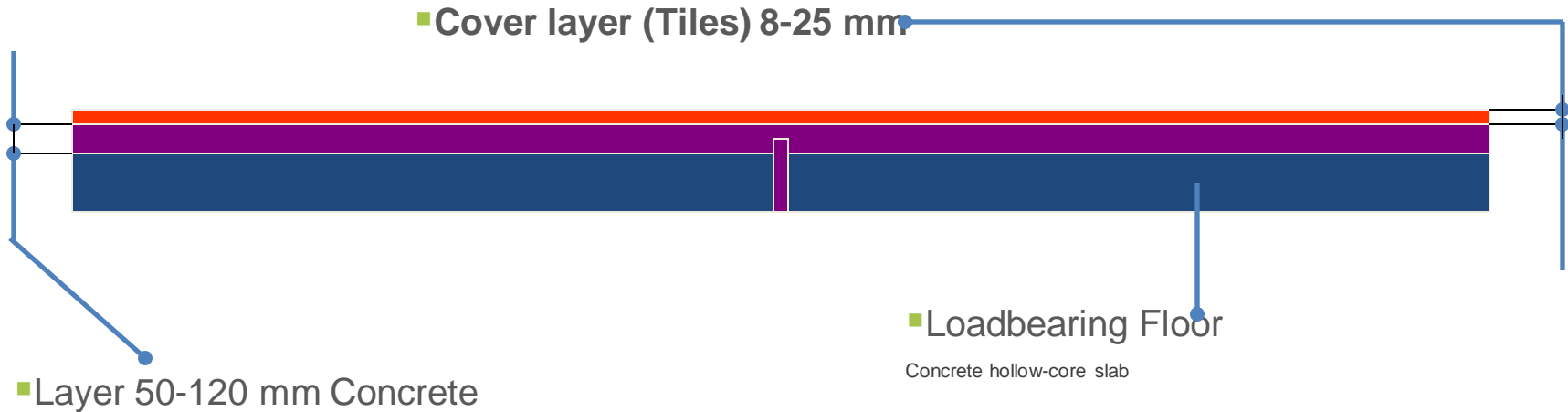
CABLE MANAGEMENT SYSTEMS

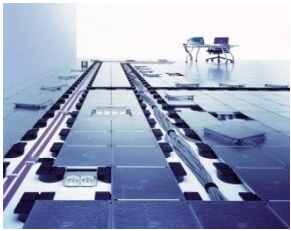
Soluflex-Raised Floor Solution



Soluflex – Technical Specifications

Standard Construction



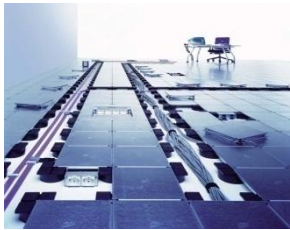


Soluflex-Raised Floor Solution

Soluflex – Technical Specifications

Construction with Soluflex





CABLE MANAGEMENT SYSTEMS

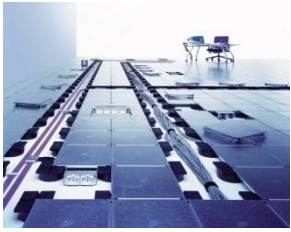
Soluflex-Raised Floor Solution



Soluflex – Technical Specifications

Fire resistance

- European & BS Classification
- The low Plenum height means that the cable floor system is self – extinguishing.
- Resistance to fire and smoke density in accordance with: EN 13501-1
B(fl) S1-d0



CABLE MANAGEMENT SYSTEMS

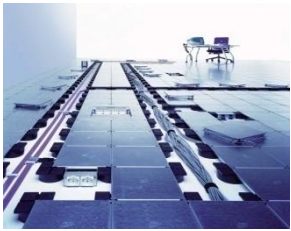
Soluflex-Raised Floor Solution



Soluflex – Technical Specifications

Acoustic

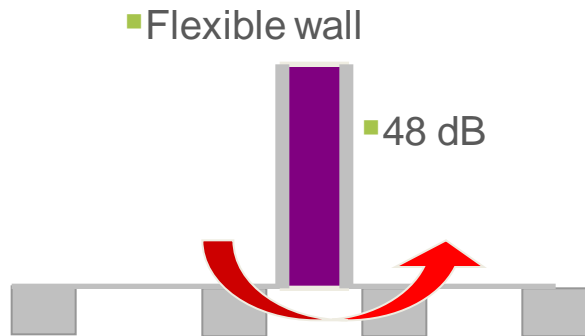
- Flanking air sound insulation
 - Flanking impact sound insulation
 - Vertical impact sound insulation improvement
-
- Very good acoustic properties
 - Low contact sound
 - Small tile, low height



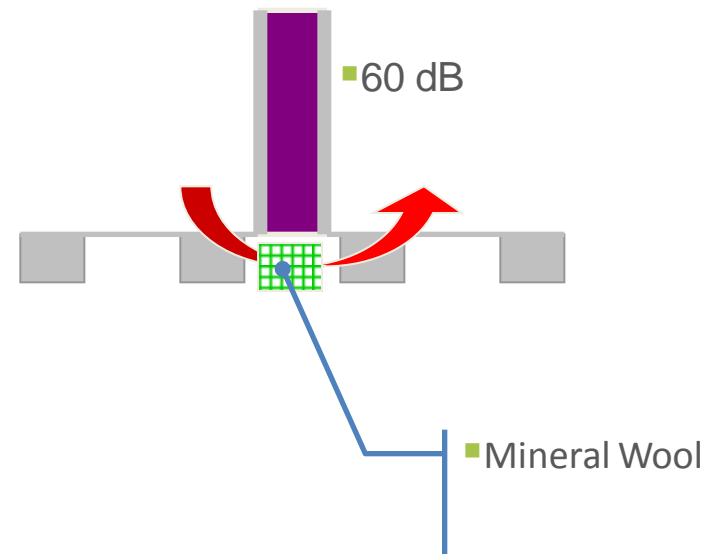
Soluflex – Technical Specifications

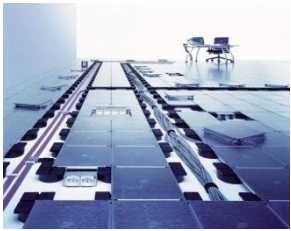
Acoustic

Without Isolation



With Isolation





CABLE MANAGEMENT SYSTEMS

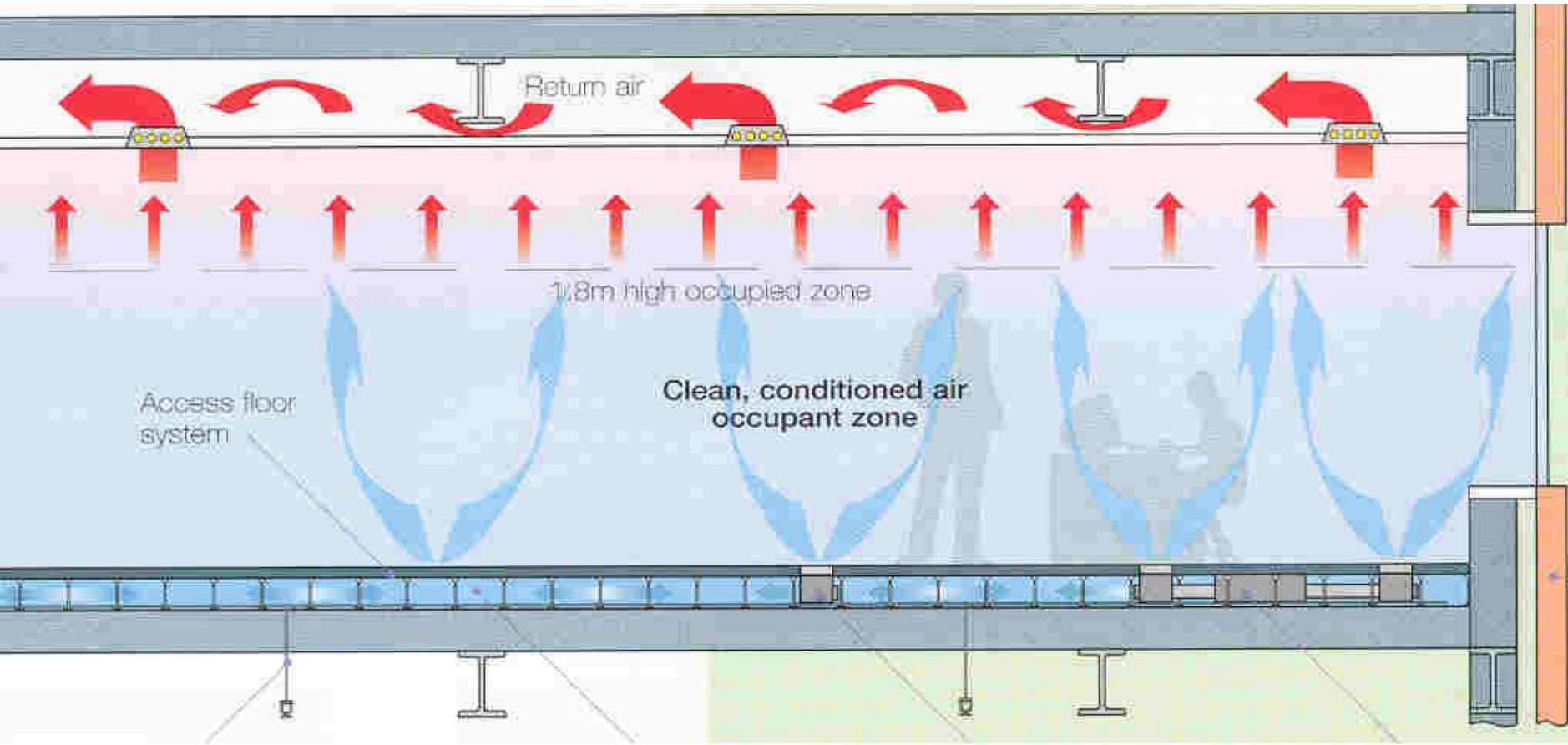


Soluflex-Raised Floor Solution

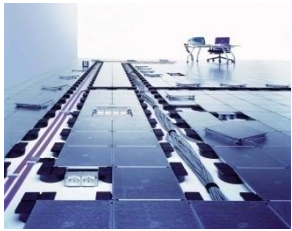
[Soluflex Video](#)

Soluflex – Technical Specifications

Soluflex climate floor



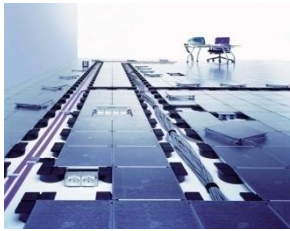
Soluflex-Raised Floor Solution



Green Building - LEED

- LEED, a third-party design certification tool. It is **-Leadership in Energy and Environmental Design Green Building Rating System™** developed by the USGBC
- It is the internationally accepted benchmark for the design, construction and operation of high-performance green buildings.
- It encourages the global adoption of sustainable green building and development practices through a set of performance criteria in five key areas of
 1. human and environmental health:
 2. sustainable site development,
 3. water and energy efficiency,
 4. materials selection and
 5. indoor environmental quality.
- The LEED system covers a number of building institutions – from commercial buildings and universities to single-family and multifamily homes, to schools and hospitals – each with a rating system tailored to the needs of the institution.
- The LEED program awards cumulative credit points for all aspects of green design, including water conservation and energy efficiency.

Soluflex-Raised Floor Solution



Soluflex - Green Building

LEED: Leadership in Energy and Environmental Design Green Building Rating System™

Rating systems for specific building typologies, among others:

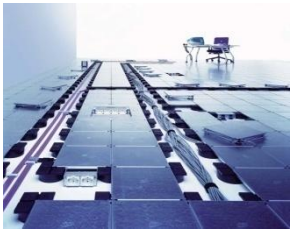
- LEED for Core & Shell
- LEED for New Construction
- LEED for Commercial Interiors

LEED™ & Soluflex

Soluflex can contribute to achievement of LEED Points in the following categories:

- Materials and Resources
- Indoor Environmental Quality
- Indoor Design

Soluflex-Raised Floor Solution



Soluflex - Green Building

LEED™ & Soluflex

Materials and Resources:

❖ MR Credit 1.2 Building Reuse (1-2 Points)

- Soluflex lasts a lifetime
- Accommodates a variety of future occupant requirements

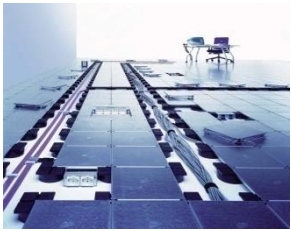
❖ MR Credit 3.1 Materials reuse (1-2 Points)

- Soluflex tiles and supports can easily be uninstalled from their original location and be reused in other buildings.

❖ MR Credit 4 Recycled Content Points (1-2 Points)

- “Consider a range of environmental, economic and performance attributes when selecting products and materials.”

Soluflex-Raised Floor Solution



Soluflex - Green Building

LEED™ & Soluflex

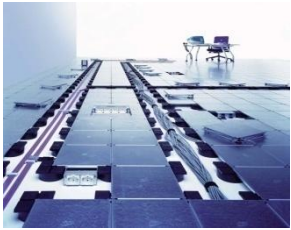
Indoor Environmental Quality

❖ IEQ Credit 4.1 + 4.3 Indoor Environmental Quality (2 points)

- Low-Emitting Materials—Adhesives and Sealants
- Soluflex does not contain any adhesives or sealants, and hence does not reduce the quantity of indoor air contaminants that are odorous, irritating and/or harmful to the comfort and well-being of installers and occupants.

❖ IEQ Credit 8.1: Daylight and Views—Daylight (1 Point)

- Provide occupants with a connection between indoor spaces and the outdoors
- Design tenant space to maximize interior day lighting

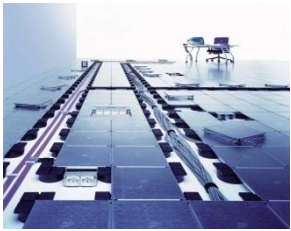


Soluflex - Green Building

LEED™ & Soluflex

Innovation in Design (1-5 Points)

- **Power Distribution Systems: Reduction of Material and Waste**
- **Voice and Data Distribution Systems: Reduction of Materials and Waste**
- **Building Materials: Reduce Building Height and Construction Materials**
- **Building Materials: Low Weight and thus reduce Construction Materials**
- **Elimination of Suspended Ceilings**



CABLE MANAGEMENT SYSTEMS

Soluflex-Raised Floor Solution

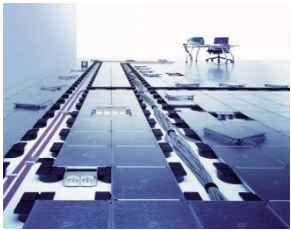


Soluflex - Green Building

Initial Construction Savings

- Significantly reduces the time needed to bring your building online
- Soluflex reduces the amount of material needed (i.e. ductwork, cable trays, ceiling tiles, horizontal and vertical feeds, powered furniture and facade materials.)
- Easy installation
- Comparable initial building costs to traditional construction
- Reduced slab-to-slab heights require less construction material





Soluflex - Green Building

Initial Construction Savings

- Durability and long-term service
- Adaptability to future expansion and change (easy and low-cost maintenance requirements)
- Lower operating and system requirement costs for power and communication
- Reduced wire & cable management by locating wiring where it is needed
- Reduced churn costs
- Increased daylight opportunities – reduces electricity bills
- Increased energy efficiency



Soluflex Vs Screed Floor

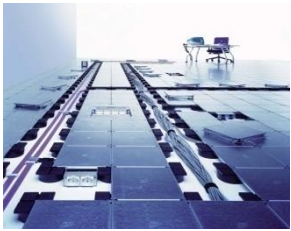


Soluflex weight per m ²				Concrete / screed / cement per m ²	
Height	Tile	Supports	Total	Height	Weight
37	17.798 kg	1.442 kg	19.240 kg	37	88.8 kg/m ²
60	17.798 kg	2.114 kg	19.911 kg	60	144.0 kg/m ²
90	17.798 kg	2.430 kg	20.227 kg	90	216.0 kg/m ²
120	17.798 kg	3.042 kg	20.840 kg	120	288.0 kg/m ²

For 100 Sq meter Area the dead Weight will be

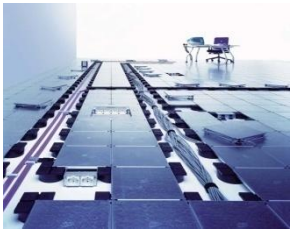
Screed Floor (Kg)	Soluflex (Kg)	Excess Dead Weight of Screed Floor wrt to Soluflex
8880	1924	6956 Kg
14400	1991	12409 Kg
21600	2023	19577 Kg
28800	2084	26716 Kg

Soluflex Vs Raised Floor



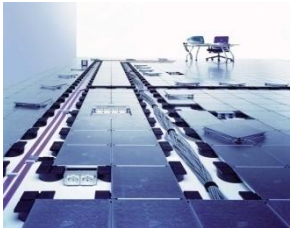
Subject	Traditional Raised Access Floor	Soluflex Raised Floor Concept	Remarks
Cabling	Trunking required	No trunking required	Huge cost saving factor
Cabling containment system	All cables in one trunking	Whole floor surface can be used	Each Soluflex pathway is a containment system
Cabling laying and location	Difficult cabling and accessibility	Very easy laying and easy to locate cables	Easy to make a cable plan and locate cables
Load capacity	250-400 kg/m ²	3000 kg/m ²	Very suitable for even technical rooms and server rooms

Soluflex Vs Raised Floor



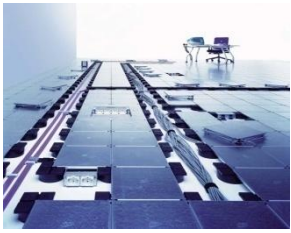
Subject	Traditional Raised Access Floor	Soluflex Raised Floor Concept	Remarks
Size	Thickness average 30-32mm	Thickness 2mm	Easier to cut, taking no additional height of the building
Location of raised floor	Obligated to install in the whole area	Choice to install in designated areas only	Freedom to define exact location of flexibility
Installation expertise	Specialized labor required	No specialized labor required	Cheaper and better availability of labor
Installation pedestals	Fixing and/or gluing to floor	Loose, freestanding supports	Easy handling, not touching building structure

Soluflex Vs Raised Floor



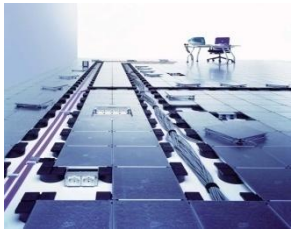
Subject	Traditional Raised Access Floor	Soluflex Raised Floor Concept	Remarks
Weight	30-55 kg/m ²	20 kg/m ²	Light weight very important for office towers
Size	Tiles 600 mm ² , difficult handling	Tiles 225 mm ² , easy handling	Ultimate flexibility for office reconfigurations
Size	Weight per tile +/- 13 kg	Weight per tile less than 1 kg	User friendly for maintenance and reconfigurations

Soluflex Vs Screed Floor



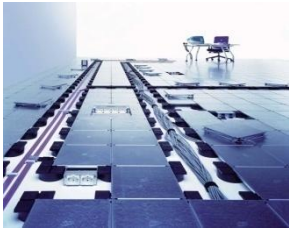
Subject	Traditional Raised Access Floor	Soluflex Raised Floor Concept	Remarks
Adjustments after installation	Adjust pedestals regularly	No adjustments required at all	Cost savings and no inconvenience for occupant
Earthing	Once per 13 pedestals	One earthing tile per 100 m ²	Huge installation time and cost advantage
General acoustics	Often disturbing hollow sound	Virtually equal effect to a concrete floor	Great noise reduction, ideal for landscape offices

Soluflex Vs Screed Floor

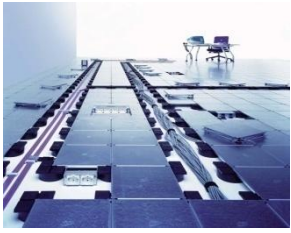


Subject	Traditional Raised Access Floor	Soluflex Raised Floor Concept	Remarks
Office configuration	Decide in early stage	Decision at any stage	Very important to tenant/occupant, Core&Shell
Office reconfigurations	Very time consuming	Very quick	Important to facility management
Office reconfigurations	Specialized company required	Own people, facility management	Not depending upon external companies, cost saving
Office reconfigurations	Seal off area for days	Seal off area for only hours	Average churn rate of 30% at 800 USD/change

Soluflex Vs Screed Floor



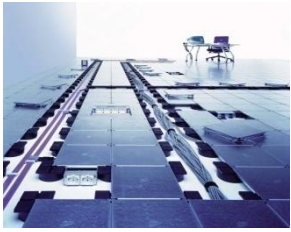
Subject	Traditional Raised Access Floor	Soluflex Raised Floor Concept	Remarks
Office relocation	Leave floor in existing area	Easily move floor to new location	Long life cycle product, huge financial advantage
Logistics	40' container fits 400-600 m ²	40' container fits 1000 m ²	Huge savings on transport cost, environmentally friendly
Logistics	Taut liner truck fits 400-600 m ²	Taut liner truck fits 1000 m ²	Huge savings on transport cost, environmentally friendly
Stocking	Space consuming	Space saving	Big advantage for distributor and on building site



CABLE MANAGEMENT SYSTEMS

Soluflex- Installation Example

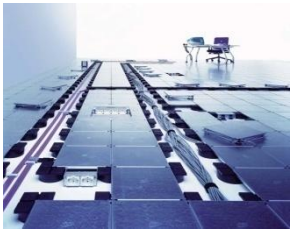




CABLE MANAGEMENT SYSTEMS

Soluflex- Installation Example





CABLE MANAGEMENT SYSTEMS

Soluflex- Installation Example

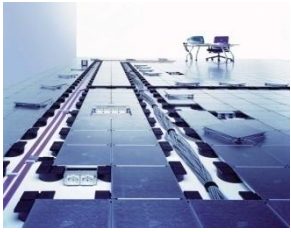




CABLE MANAGEMENT SYSTEMS

Soluflex- Installation Example





CABLE MANAGEMENT SYSTEMS

Soluflex- Installation Example



CABLE MANAGEMENT SYSTEMS

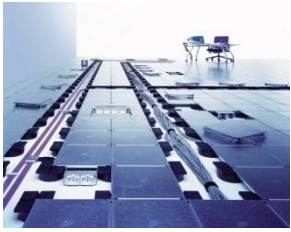
Soluflex- Installation Example



CABLE MANAGEMENT SYSTEMS

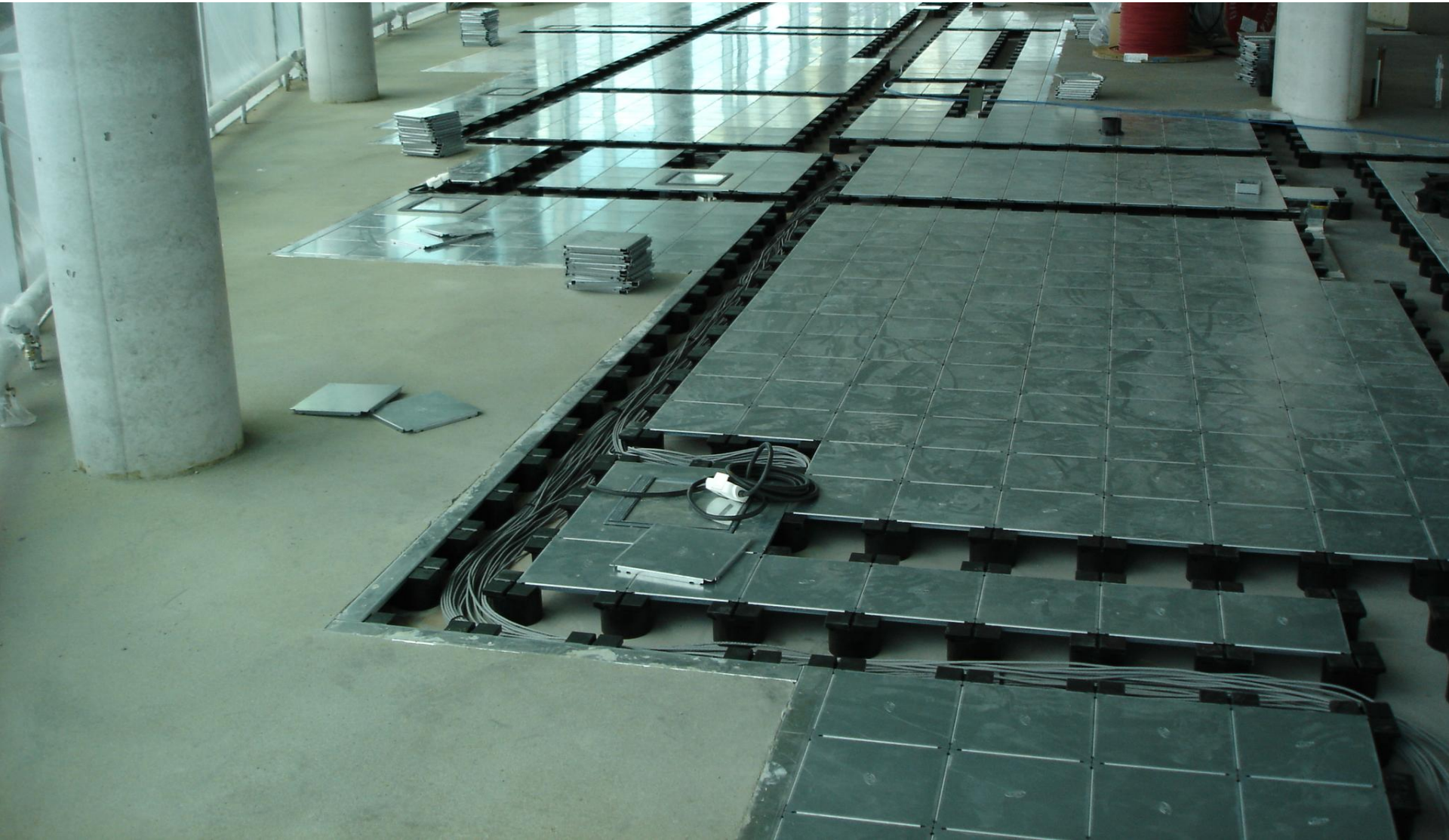
Soluflex- Installation Example





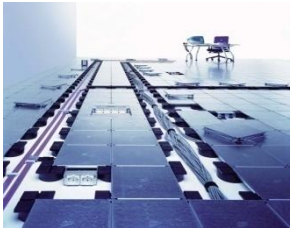
CABLE MANAGEMENT SYSTEMS

Soluflex- Installation Example

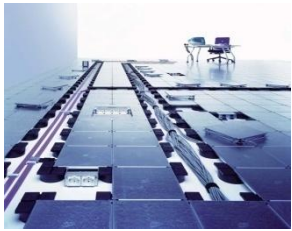


CABLE MANAGEMENT SYSTEMS

Soluflex- Installation Example



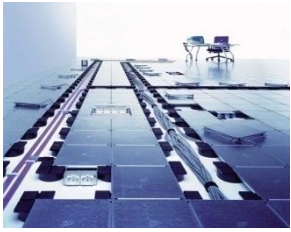
2004 / 5 / 10



CABLE MANAGEMENT SYSTEMS

Soluflex-Raised Floor Solution



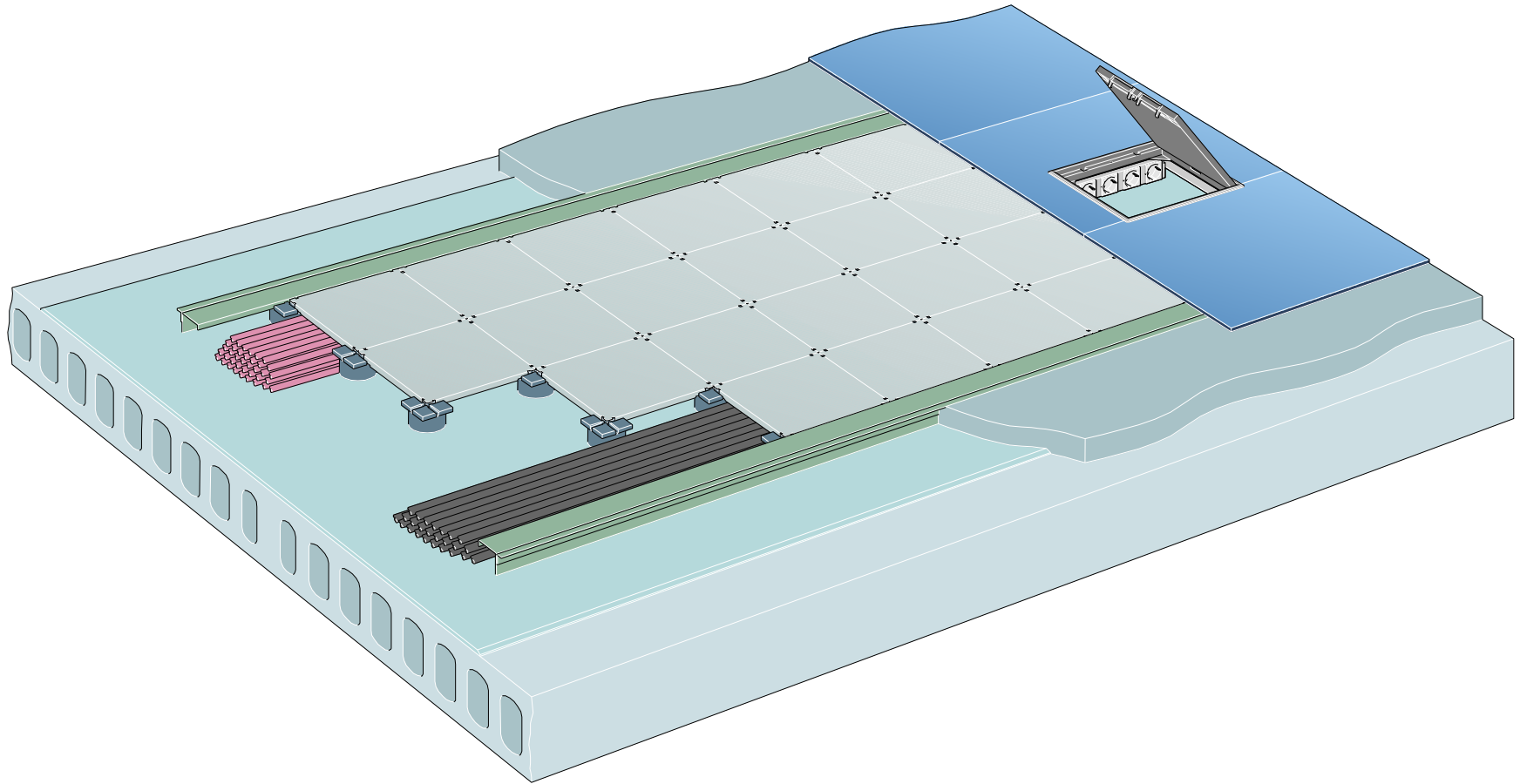


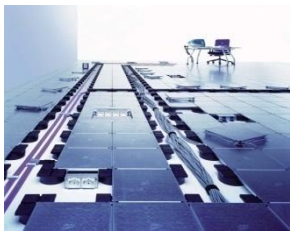
CABLE MANAGEMENT SYSTEMS

Soluflex- As a Flush Floor



Soluflex – As a Raceway



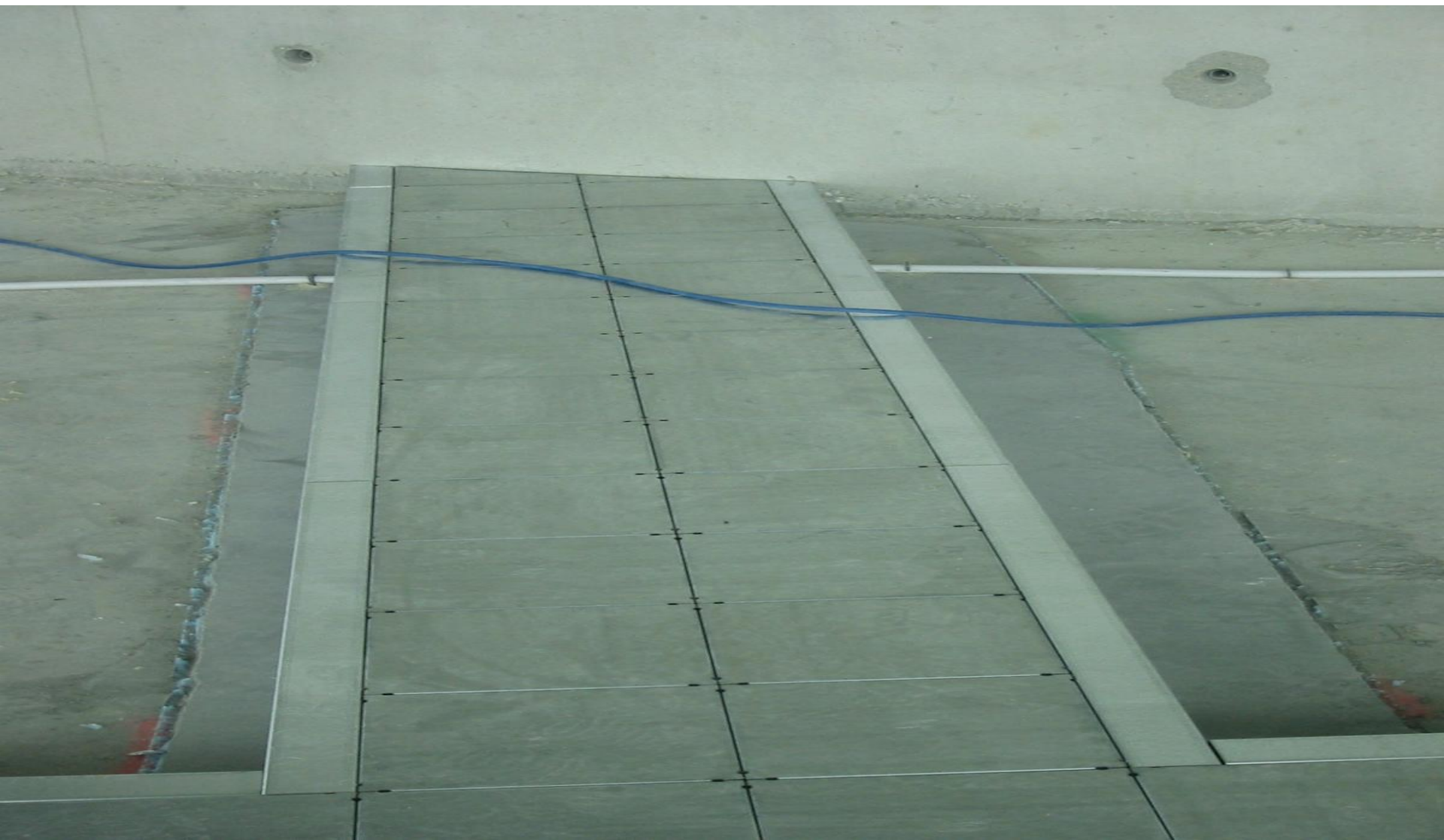


CABLE MANAGEMENT SYSTEMS

Soluflex- As a Flush Floor



Soluflex – As a Raceway

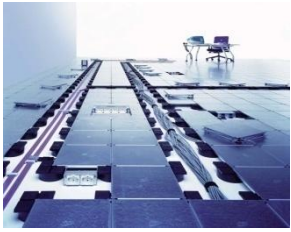


CABLE MANAGEMENT SYSTEMS

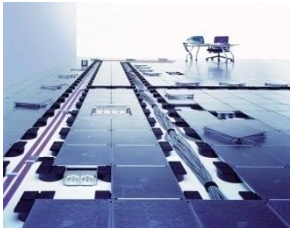


Soluflex- As a Flush Floor

Soluflex – As a Raceway



2004 / 5 / 10



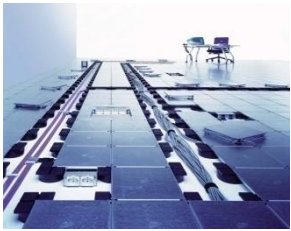
CABLE MANAGEMENT SYSTEMS

Soluflex- As a Flush Floor



Soluflex – As a Raceway



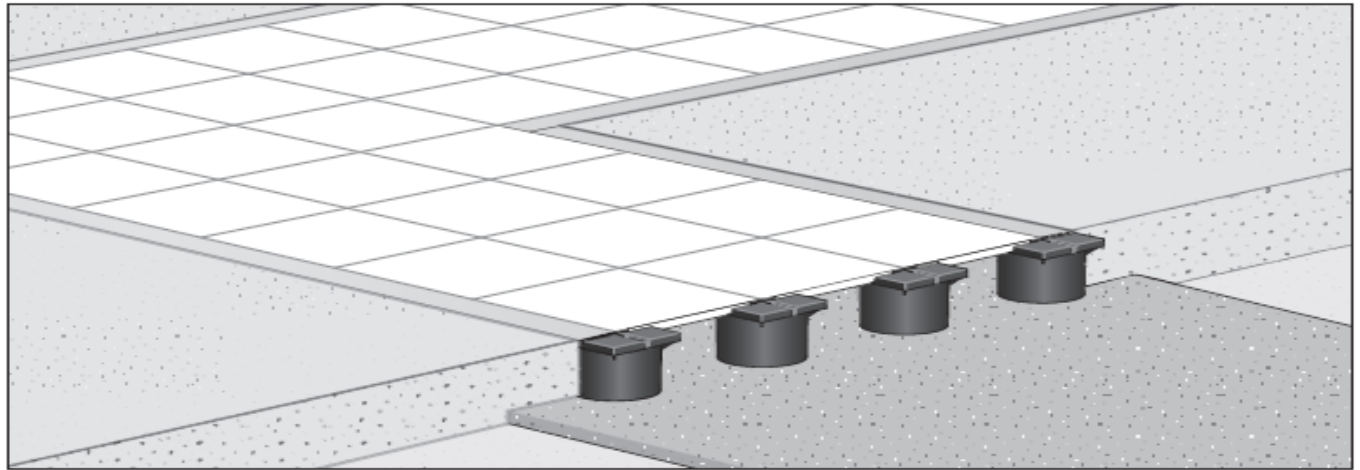
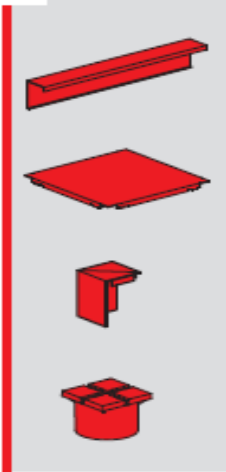


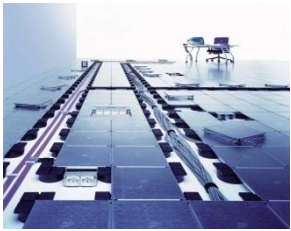
CABLE MANAGEMENT SYSTEMS

Soluflex- As a Flush Floor



Soluflex – As a Raceway





CABLE MANAGEMENT SYSTEMS

Soluflex-References



Data centers
Jyske Bank, Silkeborg, Denmark



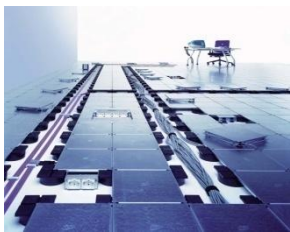
Project : Jyske Bank

Total : 10.000 m²
: € 340.000,-

Year : 2003 - 2007

CABLE MANAGEMENT SYSTEMS

Soluflex-References

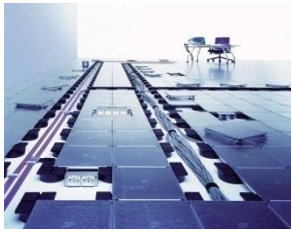


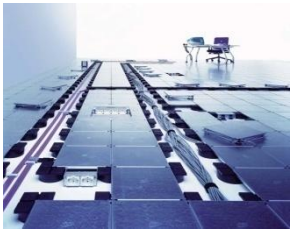
CABLE MANAGEMENT SYSTEMS

Soluflex-References



Centre Electronic Shop





CABLE MANAGEMENT SYSTEMS

Soluflex-References

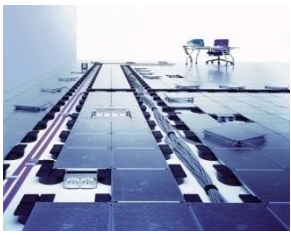


Nike Brussel



CABLE MANAGEMENT SYSTEMS

Soluflex-References

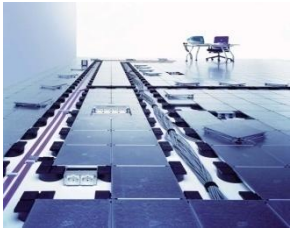


Nike Brussel



CABLE MANAGEMENT SYSTEMS

Soluflex-References



Project : CWI Schiekade

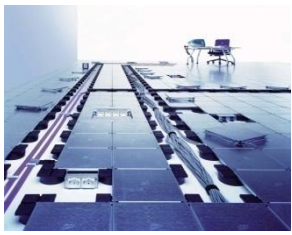
Location : Rotterdam

Country : Netherlands

Year : 2004

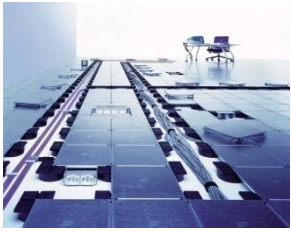
CABLE MANAGEMENT SYSTEMS

Soluflex-References



Bavaria, The Netherlands





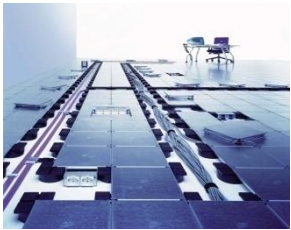
CABLE MANAGEMENT SYSTEMS

Soluflex-References



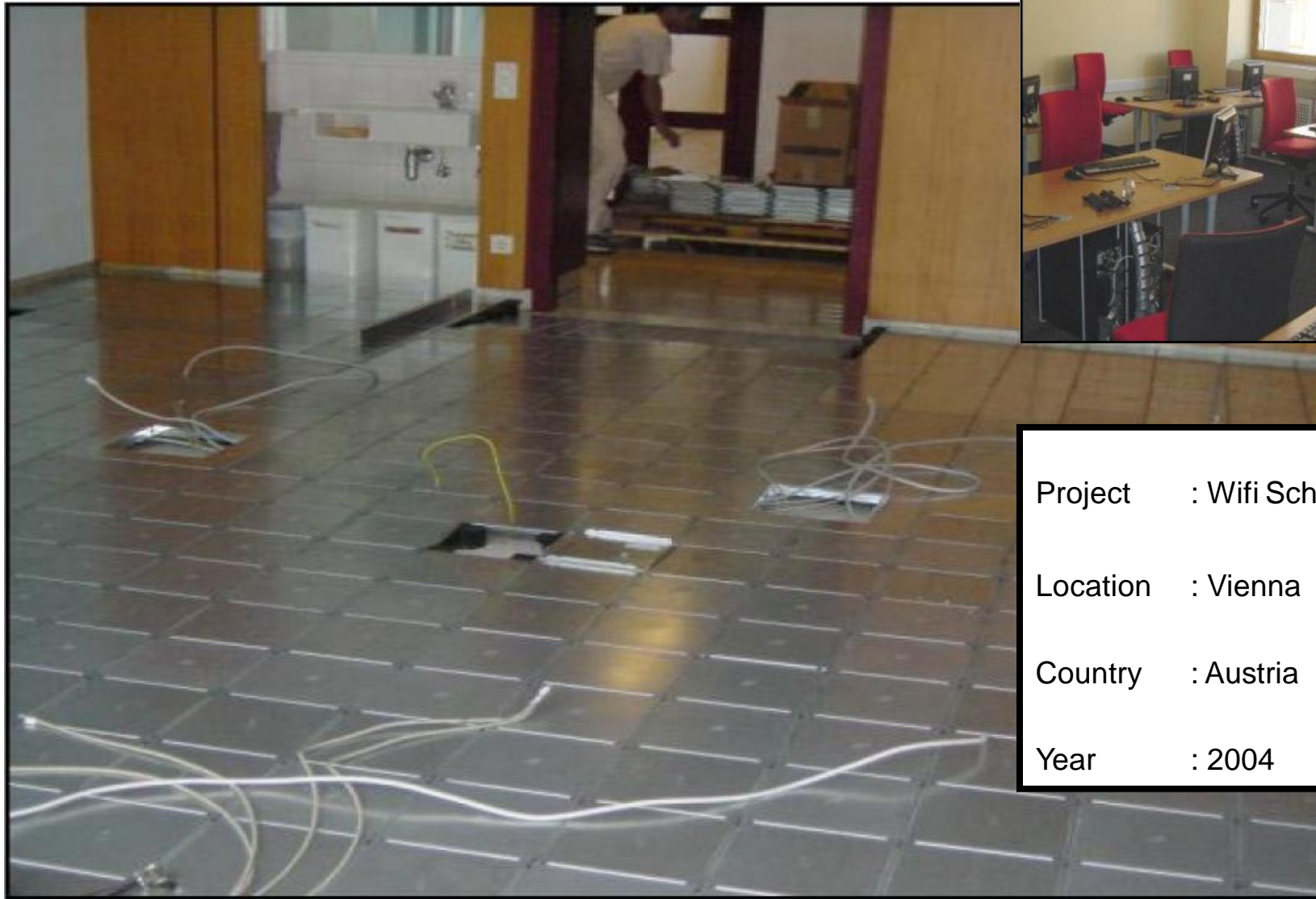
Bavaria, The Netherlands





CABLE MANAGEMENT SYSTEMS

Soluflex-References



Project : Wifi School

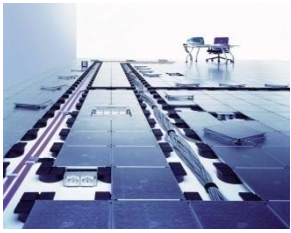
Location : Vienna

Country : Austria

Year : 2004

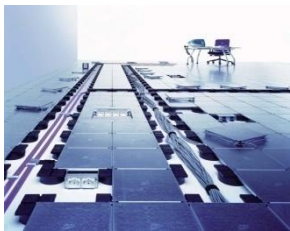
CABLE MANAGEMENT SYSTEMS

Soluflex-References



WIFI School,
Vienna Austria





CABLE MANAGEMENT SYSTEMS

Soluflex-References



BMW, Munich Germany



CABLE MANAGEMENT SYSTEMS

Soluflex-References



Project : Gymnasium

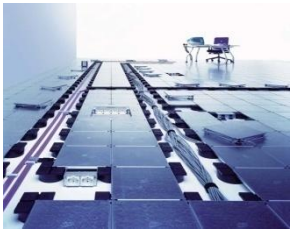
Location : Nijmegen

Country : Netherlands

Year : 2003

CABLE MANAGEMENT SYSTEMS

Soluflex-References



Project : International court

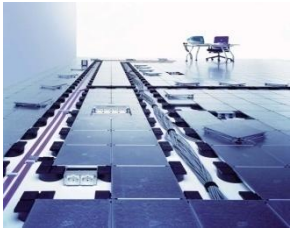
Location : The Hague

Country : Netherlands

Year : 2003

CABLE MANAGEMENT SYSTEMS

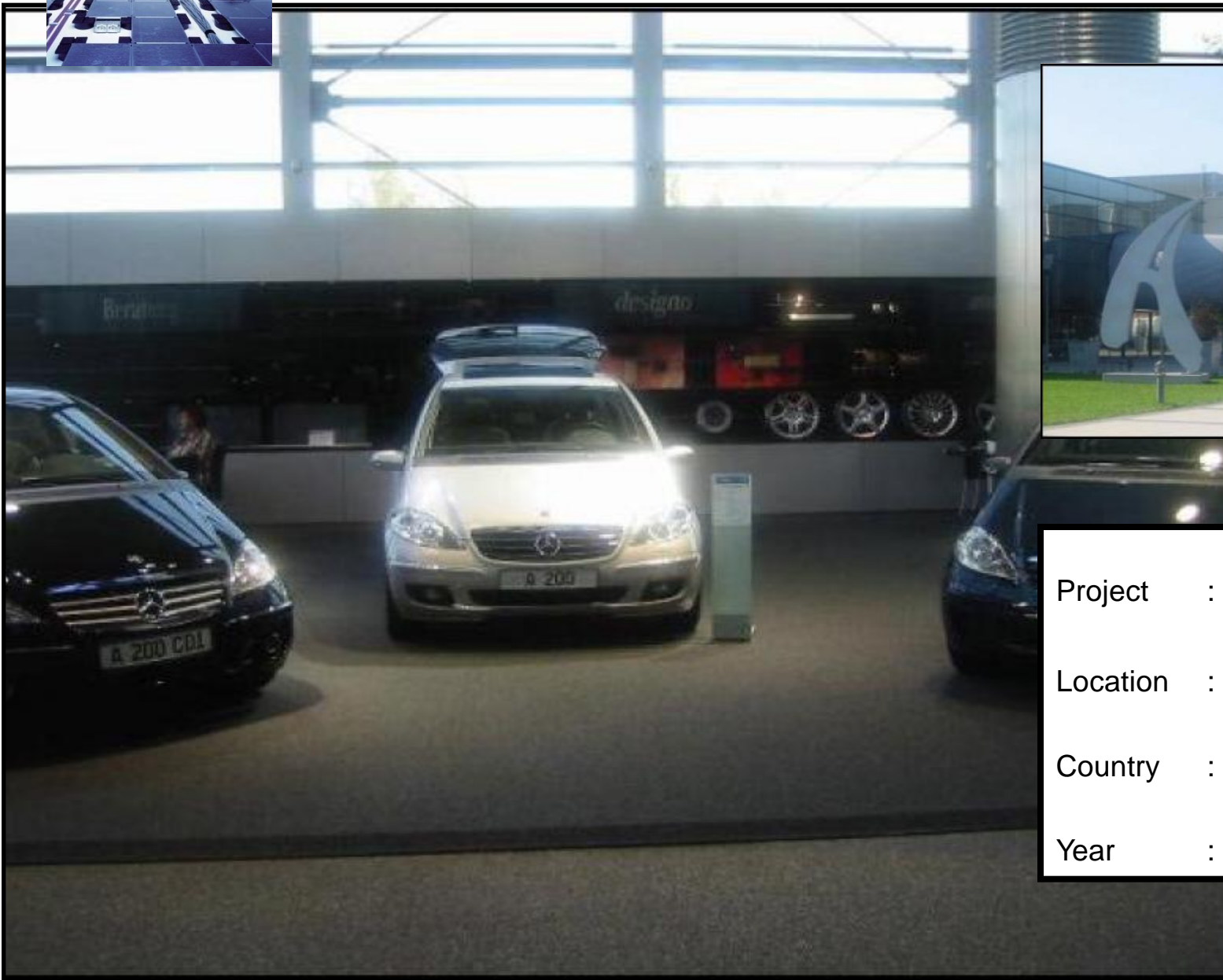
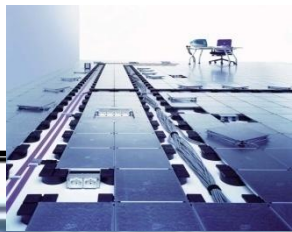
Soluflex-References



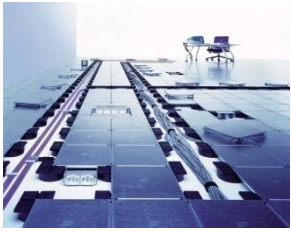
Project	: Living Tomorrow
Location	: Amsterdam
Country	: Netherlands
Year	: 2003

CABLE MANAGEMENT SYSTEMS

Soluflex-References



Project	: Mercedes
Location	: Rastatt
Country	: Germany
Year	: 2004



CABLE MANAGEMENT SYSTEMS

Soluflex-References



Philips High-tech Campus

