MDT designs, manufactures, and supplies innovative, high-quality sun protection systems, membrane constructions, and custom-made products for outdoor architecture to customers all over the world. The company carries out the entire production process in its own modernized factories at international locations. This guarantees the highest quality for innovative products and ensures absolute supply security.
REFERENCE PROJECTS:
MDT -TEXTILE ARCHITECTURE
TEXTILE ARCHITECTURE
TEXTILE FACADE

AMSTERDAM 2017
LIGHT FESTIVAL, AMSTERDAM
MDT + UNSTUDIO

photo©Janus van den Eijnden
TEXTILE ARCHITECTURE
TESSELATING PARASOLS. COLLAPSIBLE SHADE STRUCTURE

FRANKFURT AM MAIN
MDT + GRIMSHAW ARCHITECTS

LUMINALE 2016

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TEXTILE ARCHITECTURE
COLLAPSIBLE SHADE STRUCTURE

KING ABDULAZIZ CENTER
MDT + SNØHETTA

SAUDI ARABIA 2016
TESSELLATING PARASOLS. COLLAPSIBLE SHADE STRUCTURE
TEXTILE ARCHITECTURE
TESSELATING PARASOLS. COLLAPSIBLE SHADE STRUCTURE
TEXTILE ARCHITECTURE

COLLAPSIBLE SHADE STRUCTURE

AMSTERDAM

I-DOCK 2015
TEXTILE ARCHITECTURE
TENSILE ROOFS

HOTEL HILTON, POLAND
WARSZAWA 2014
RESTAURANT, LATVIA
MDT + OPEN AD ARCHITECTURE

AQUA LUNA
2013
TEXTILE ARCHITECTURE
TOWN SQUARE COLLAPSIBLE SHADE STRUCTURE

MEETING HOUSE, DUBLIN
MDT + SEÁN HARRINGTON ARCHITECTS

CULTURAL SPACES 2012
TEXTILE ARCHITECTURE

PERMANENT SHADE STRUCTURE

LeShop.ch  DRIVE - PICK UP STATION SWITZERLAND
MDT + ATELIER OI

STUDENT 2012

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TEXTILE ARCHITECTURE

TESSELATING PARASOLS. COLLAPSIBLE SHADE STRUCTURE
TEXTILE ARCHITECTURE

TESSELATING PARASOLS. COLLAPSIBLE SHADE STRUCTURE

MARKETPLACE, SWITZERLAND
MDT + FURRER JUD ARCHITECTURAL FIRM

AVENCHES 2010
TEXTILE ARCHITECTURE

GIANT PARASOLS. COLLAPSIBLE SHADE STRUCTURE

MARKET CAR PLACE BERLIN-KÖPENICK
MDT + TOPOTEK 1, LANDSCAPE ARCHITECTS

KÖPENICK 2008
MDT-TEX SPECIALISATION

DUBLIN. MEETING HOUSE SQUARE
PROJECTS IN PROCESS:
MDT - TEXTILE ARCHITECTURE
TEXTILE ARCHITECTURE - PROJECTS IN PROGRESS

DOHA METRO QATAR - COLLABORATION WITH UN STUDIO
HAZMIEH LEBANON - RETRACTABLE SHADE STRUCTURE
TEXTILE INTERIOR SCULPTURE

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CONCEPT PROJECTS:
MDT - TEXTILE ARCHITECTURE
COLLAPSIBLE STRUCTURES. ADVANTAGES & FUNCTIONALITY

TOWN SQUARE SHADING WITH ZIPPED TOGETHER TYPE AV UMBRELLAS

TYPE AV UMBRELLAS IN CLOSED POSITION. POSSIBILITY TO REMOVE CLOSED UNITS

TOWN SQUARE SHADING WITH COLLAPSIBLE CANOPY

TOWN SQUARE SHADING. COLLAPSIBLE CANOPY IN CLOSED POSITION

RAIN PROTECTION
WATER-OFF, USING STANDARD MDT UMBRELLAS.
WATER FLOW GOES BY THE SIDES AND COLLECTS INTO RAINGUTTERS

RAIN PROTECTION
WATER RUNS FROM ONE UMBRELLA’S UPPER MEMBRANE TO A CONNECTIVE SEAM IN THE LOWER MEMBRANE OF THE NEIGHBORING UMBRELLA INTEGRATED DRAINAGE SYSTEM

RAIN-WATER GATHERING PROCESS INTEGRATED DRAINAGE SYSTEM

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COLLAPSIBLE STRUCTURES. WORKS IN ARCHITECTURE

TYPE E XXL, ASYMMETRIC TULIP-UMBRELLAS, 11X14 METERS, 4 PCS.
SPECIAL HEIGHTS - 21 METERS
TOTAL ROOF AREA - APPROX. 540 SQ. METERS

TYPE AV, 4.3X4.3 METERS, 16 PCS.
HEIGHTS - 3.8 METERS

TYPE E XXL TULIP-UMBRELLAS, 8X8 METERS, 4 PCS.
SPECIAL HEIGHTS - 7.7, 7.5 AND 8.8, 5 METERS

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TEXTILE ARCHITECTURE

SOLAR POWER UMBRELLA

Sun protection to Solar energy harvesting
The innovative product design of Tulip-shaped SolarUmbrella achieves the dual purpose of product safety and energy generation. The challenge lies in achieving a flexible solution without affecting the umbrella’s functionality and aesthetics. The ergonomic implementation of a cladding layer achieves these goals simultaneously. In closed configuration the cladding ‘petals’ encapsulates the textile cover protecting it from inflicted damages. The available large surface, in addition, carries specially designed photovoltaic modules for harvesting Solar energy in the form of electrical energy. Integrated battery systems allows the use of the stored energy even after the Sun goes below the horizon. This energy can be used for lighting, charging of mobile devices and e-bikes and automated opening and closing.

Technical Information

- Umbrella typo: Typo E
- Umbrella size: 4 x 4 m, Ø 4m
- Solar Technology: Mono Silicon cells
- Max. number of PV modules: 8
- Max. installed Power: 220 Wp
- Max. energy yield: 0.4 kWh (avg. from Apr. – Sept.)
TESSELLATING TENT STRUCTURES
TEXTILE ARCHITECTURE
TESSELATING STRUCTURE - MDT PRODUCT COLLABORATION
TEXTILE ARCHITECTURE

MDT-TEX DESIGN LAB

MDT Design Lab was formulated to provide the architectural and furniture industry with capabilities that do not exist in parallel and tensile membrane companies. A comprehensive set of design skills dedicated to textile architecture. Training and education in membrane design is unique and does not exist as part of the normal curriculum for engineers or architects. Only specialized training and experience can deal with the complexities of form-finding, structural analysis and patterning.

At MDT we have a number of specialist designers from different fields who work together to create unique structures that carry the design intent through to fabrication. These include: architects, industrial designers, landscape architects, researchers and engineers. The entire team works together to generate and realize new design concepts, both for serial production and one-off pieces.

ENLAI HOOI - CREATIVE DIRECTOR

Enlai holds a first class honors in industrial design and a bachelor's and master's degree in architecture. He has been the recipient of numerous awards and grants, and has had studios in Australia, UK and Italy, and has worked for a number of notable companies including AUP (London), UN Studio (Amsterdam) and Space Group (Oslo). In his position as creative director, Enlai leads the design development of industrial and architectural projects.

ANDREJS GORBUNOV - INDUSTRIAL DESIGNER

Andrejs is a master of detail design and works closely with our engineers to create complex mechanical systems for manufacturing. He is expert in material properties and composition and has close personal relationships with many specialist manufacturers.

KRISTINA RAFALSKAYA - URBAN DESIGNER

Kristina holds a degree in Landscape Architecture and is a specialist in urban development projects. She leads a wide variety of projects in the office and has excellent skills in communication and management.

EREZ AMITAY - LICENSED ARCHITECT

Erez has a prestigious history in membrane design. Graduated with Master's Degree in Architecture from University IUAV of Venice, Italy, and holds a M.St in membrane structures from the Anhalt University of Applied Sciences in Dessau, Germany. Erez has several years of accomplished experience as Senior Project Manager, delivering world-class projects in the field of membrane architecture. He led and successfully completed a number of challenging tensile projects on international scale.

NATALLIA GRINTE - ARCHITECT

Natalia is a graduate architect and project manager at MDT. Her attention to detail and control of the manufacturing process is superb and she takes care of many of the operational processes of transferring architectural ideas into finished products.

INGUS BIRZNIK - CONSTRUCTION ARCHITECT

Ingus is a construction architect with a special interest in detail design and manufacturing. His role is both in architecture and in working with architects to translate the ideas architectural concepts into manufactured objects. He works closely with industrial designers and project manages the process.

MADARS SIKSNA - ARCHITECT

Madars works between industrial design and architecture, and has special skills in 3D modelling and visualisation. He works closely with all departments to ensure a good level of visual communication and practical delivery.

SHANKAR JHA - DR. SC. ETH ZURICH

Shankar holds a PhD in surface engineering from the ETH Zurich. Shankar is the head of R&D at MDT and is currently working on photovoltaic integration with membranes and water filtration and management systems amongst other things. Shankar is also involved closely with the development of new forms in facades and the structural integration of complex geometries.

EDUMUNDS ZILE - ENGINEER

Edmunds is an engineer with a PhD in structural analysis. He is also a genius at textile membrane form-finding and patterning and has excellent skills in scripting and parametric design.

MADARS SIKSNA - ARCHITECT

Shankar holds a PhD in surface engineering from the ETH Zurich. Shankar is the head of R&D at MDT and is currently working on photovoltaic integration with membranes and water filtration and management systems amongst other things. Shankar is also involved closely with the development of new forms in facades and the structural integration of complex geometries.

RUDOLFS ANDREJEVS - ENGINEER

Rudolfs is a structural engineer. His skills in Inventor modelling gives the opportunity to investigate and develop details for new products and to improve existing models.