# **OUR CORPORATE STORY**

## **COVERING A GREEN FUTURE**

# MEMBRANE SYSTEMS EUROPE

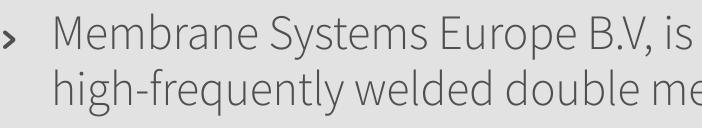


# COMPANIES









- (annual turnover approx. Euro 400.000.000).



Deutsche Biogas Dach-Systeme



- (www.dbds-gmbh.de).
- > With a total turnover of Euro 25.000.000 realized by MSE, DCS and installation of double membrane covers worldwide.

> Membrane Systems Europe B.V, is specialized in the design, production and installation of 100% high-frequently welded double membrane covers and biogas domes (www.biogasmembrane.eu).

Dutch Cover Solutions B.V, (DCS) is specialized in the design, production and installation of single membrane covers and concrete protection (www.dutchcover.solutions).

DCS and Membrane Systems Europe B.V. are 60% owned by Serge Ferrari Group (www.sergeferrari.com), French producer of reinforced technical textile

> Serge Ferrari Group is also 60% shareholder in Deutsche Biogas Dach Systemen

> Upbiogas<sup>®</sup>, Gerona Spain, (MSE 100% shareholder) is specialized in development, execution and assembly of pressurized tensile structures (**www.upbiogas.es**).

DBDS in 2022, Serge Ferrari is market leader in the production and



# **UNIQUE SELLING POINTS**

- Very long life expectancy products (> 15 years) >
- Biogas-products: 100% high-frequently-welded >
- Parallel design >
- Application of technologically advanced components, complying with latest international legislation >
- Application new concepts: insulation, solar >
- Quick, secure installation due to own installation teams >
- Proven record of 4.000 installed membrane covers in more than 50 countries in recent 15 years >





31 years of experience in the industry



# EXPERIENCE: >4.000 INSTALLED DOUBLE / SINGLE MEMBRANE COVERS

- Turkey
- > Netherlands
- > Germany
- Belgium
- > Italy
- > France
- > Spain

- > United Kingdom
- > Ukraine
- Letland
- > Lithuania >
- > Latvia > E
- SwedenCzech
- Portugal

- Ireland
- > Denmark
- Russia
- Poland
- > Bulgaria
- Czech Republic
   Switzerland
- Costa Rica

- > Burkina Faso
- > Japan
- > Ghana
- Slovakia
- > Austria
- > USA

- > India
- Romania
- Hungary
- Luxembourg



# EUROCODE 1, TRAS 120

DIN 1055 is a German norm for affecting forces on supporting constructions. Nowadays substituted by European Norm Eurocode 1.

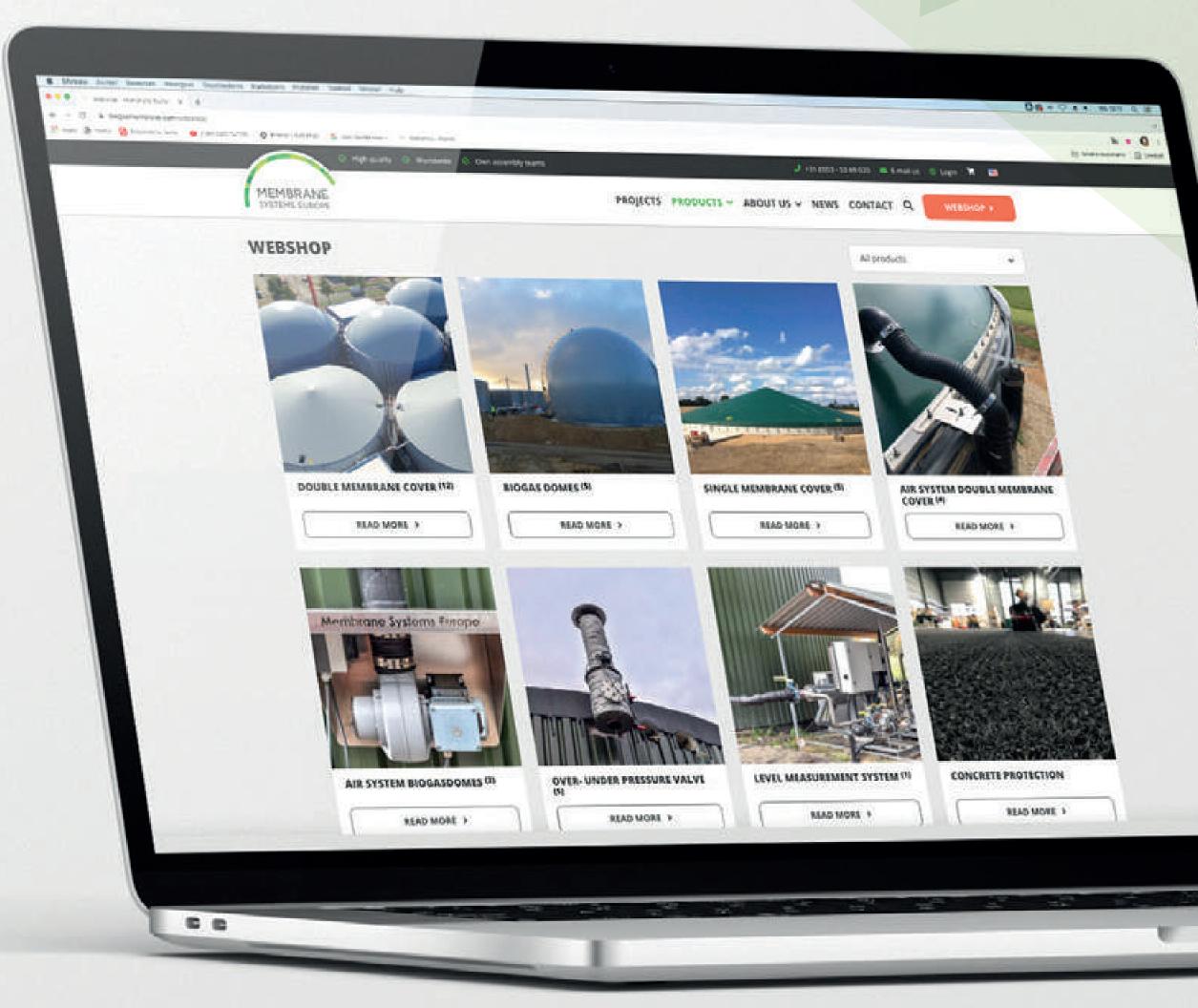
## Divided in a few sections:

- > 1.1 general actions (self weight, imposed loads)
- > 1.3 general actions (snowload)
- > 1.4 general actions (windload)

For every country Annex with detailed information about snow and windload. MSE-covers comply with TRAS 120 regulation.



# FIND US ONLINE AT WWW.BIOGASMEMBRANE.EU!





# **DOUBLE MEMRANE COVER BENEFITS FOR OUR CUSTOMERS**

- > Our Double Membranes can be used for anaerobic digestion installations in the agricultural market as well as for industrial wastewater treatment plants.
- > We always deliver a complete, safe and high quality product. > Our Double Membranes are 100% frequency welded and available up to a diameter of 50 m / 164 ft.
- > Our experienced and skilled installation and service crew will install the products competently.

## This means during the entire process you have nothing to worry about!



# PROJECT GLOBINO CITY UKRAIN

## **Products:**

> 2x Double Membrane covers
 Ø22 m / 72 ft

- Gas production/withdrawal: 750 m3/h (flexible volume per tank)
- > Yearly production: 13.140.000 m3
- > Average family uses: 1650 m3/day
- > This installation can foresee:
  - +/- 7964 households!



#### PROJECT

# **HEBRON** PALESTINE

## **Products:**

> 2x Double Membrane covers Ø22 m / 72 ft

- > Gas production/withdrawal: 200 m3/h (flexible volume per tank)
- > Yearly production: 1.752.000 m3
- > Average family uses: 1650 m3/day
- > This installation can foresee:
  - +/- 1062 households!





#### PROJECT

## **SIOUX FALLS SOUTH DAKOTA** USA

## **Products:**

- > 5x Double Membrane covers Ø36,58 m / 120 ft
- > 1x Double Membrane cover Ø30,48 m / 100 ft

## **Specifications:**

Sas production/withdrawal: 325 m3/h (per cover)





#### PROJECT

# **EXETER** MAINE

USA

## **Products:**

1x Double Membrane cover
 Ø44 m / 144 ft

## **Specifications:**

- > Gas production/withdrawal: 1800 m3/h
- > Yearly production: 15.768.000 m3
- > Average family uses: 1650 m3/day
- > This installation can foresee:
  - +/- 9556 households!

## MSE INSTALLED LARGEST DM COVER IN USA







# PROJECTS VARIOUS PROJECTS FRANCE

- > Prémery
- Gommersdorf
- Precieux
- Grandcourt
- Chateaneuf-sur-loire
- Langres



# **SINGLE MEMBRANE COVER BENEFITS FOR OUR CUSTOMERS**

- > The Single Membrane Structure is constructed out of heavy polyester textile with a synthetic coating material on both sides to reduce emissions.
- > The membrane constructions are designed for all types of tanks, for example stainless steel tanks, glass-fused-steel tanks and concrete tanks.
- > Single Membrane Structures are covers with a central column and a membrane material that is welded to shape and tensioned in place.
- > No use is made of supporting beams here. The covers are made of membrane material that is fire resistant, sun resistant, UV resistant and reinforced.





#### PROJECT

# **SANDBEIENDORF** GERMANY

## **Products:**

> 5x Single Membrane covers
 Ø34,97 m / 115 ft

- > Membrane: type 2, 900 gr/m2
- Colour: grey RAL7001
- Column: tropical hardwood: 375×375 mm (thickness)
- > 3x manhole 2 x 2 m (per cover)
- > Belt-distance of 0.70 m
- > Roof angle of 18°
- > 200 mm volant



#### PROJECT

# **ENNIGERLOH** GERMANY

## **Products:**

- > 1x Single Membrane cover Ø10,5 m / 34,4 ft
- > 1x Single Membrane cover Ø21,5 m / 70,5 ft

- > Membrane: type 2, 900 gr/m2
- > Column: tropical hardwood: 200×200 / 300×300 mm (thickness)
- > 1x manhole of 1.50 x 1.50 m
- 1x manhole 3 x 6 m (for the larger roof)
- > Belt-distance of 1 m





# PROJECTS VARIOUS PROJECTS

- > Hungary
- > Belgium
- > France
- Germany



# **BIOGAS DOMES** BENEFITS FOR OUR CUSTOMERS

- MSE's gas storage systems are exclusively manufactured from advanced structural fabrics and designed as membranes to provide both structural (climatic) stability and impermeable gas storage.
- > Stainless steel anchorage connecting the membranes.
- Gasholders are provided with inflation fans and full instrumentation to measure and control the storage process.
- Biogas Domes can be used in (e.g.) solid waste processing facilities, sewage water and sludge treatment facilities, agricultural waste treatment projects, and agricultural- and industrial biogas installations.



## MEMBRANE SYSTEMS EUROPE

