



The smart way to energy!

**DELING** Tuzla

projektovanje inženjering proizvodnja montaža



A detailed view of an industrial electrical control panel. The panel is densely packed with components. On the left, a row of Siemens SIRIUS circuit breakers is visible, each with a black handle and a white label. To the right, there are three Finder thermal relays, also with white labels. The components are connected to a complex network of red, black, and blue wires. Some wires are bundled together, while others are individual. The panel is mounted on a metal rack, and the overall appearance is that of a well-maintained industrial installation.

# **FIRMENPRÄSENTATION PRODUKTION**



# **ALLGEMEINE INFORMATIONEN**

## ALLGEMEINE INFORMATIONEN

DELING wurde im Jahr 1991 gegründet.

DELING hat 240 Mitarbeiter :

- 1 PhD in Electrical Engineering
  - 2 Masters of Electrical Engineering
  - 25 Electrical Engineers
  - 2 Civil Engineers
  - 5 Mechanical Engineers
  - 4 Technicians of Electrical Engineering
  - 6 Graduates of Economics and Business Administration
  - 2 Lawyers
- 
- Mehr als 220 Hochqualifizierte und qualifizierte Elektriker, Schlosser, und Arbeiter anderer Fachrichtungen



DELING-The smart way to energy!



## **DIE VISION UND DAS ZIEL**

### **DIE VISION**

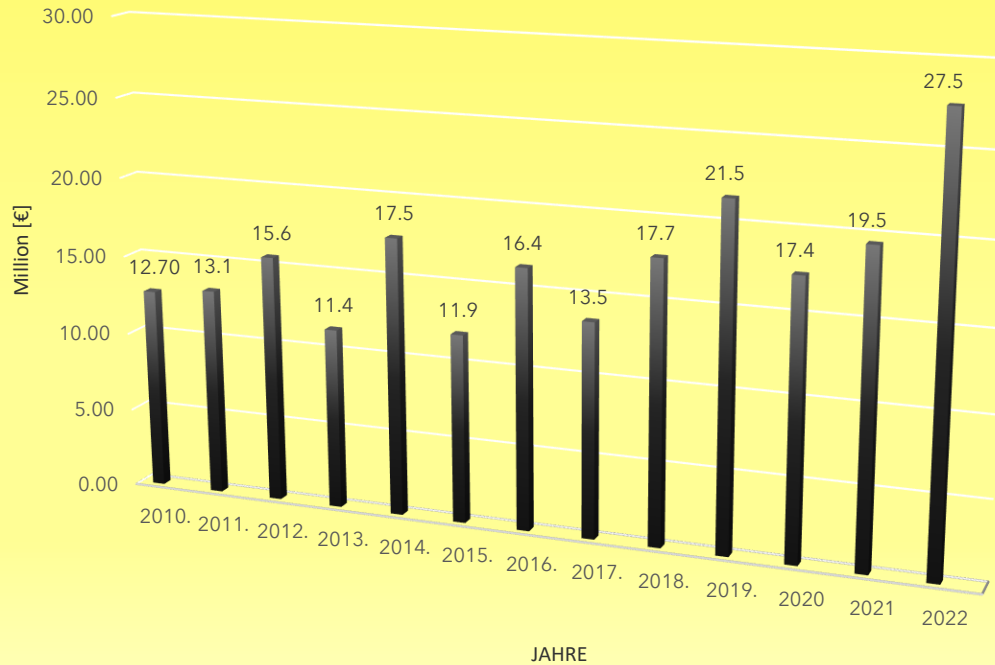
Ein führendes Privatunternehmen in der elektrischen und mechanischen Produktindustrie in der Region zu sein, mit seiner Entwicklungsstrategie, differenzierten Produktlinie, Management, Ausrichtung und Ausrichtung auf die globalen europäischen und Weltmärkte - schnell, gut und zuverlässig die Kundenanforderungen zu erfüllen und danach zu streben, diese zu übertreffen ihre Erwartungen.

### **DAS ZIEL**

Aufrechterhaltung und Gewährleistung einer hohen Qualität unserer Produkte und Dienstleistungen durch Verbesserung des Produktionsprozesses und aktive Teilnahme an der Versorgung des In- und Auslandsmarktes mit Produkten und Dienstleistungen im Bereich Elektroenergie und Mechanik.



# TURNOVER



# JAHRESUMSATZ & IMPLEMENTIERTES QMS

## JAHRESUMSATZ

2010 - 12,7	Million €
2011 - 13,1	Million €
2012 - 15,6	Million €
2013 - 11,4	Million €
2014 - 17,5	Million €
2015 - 11,9	Million €
2016 - 16,4	Million €
2017 - 13,5	Million €
2018 - 17,7	Million €
2019 - 21,5	Million €
2020 - 17,4	Million €
2021 - 19,5	Million €
2022 - 27,5	Million €

**TUV NORD**

### CERTIFICATE

Management system as per  
ISO 9001 : 2015

In accordance with TUV NORD CERT procedures, it is hereby certified that

**DELING d.o.o. Tuzla**  
Sici b.b,  
75 000 Tuzla  
Bosnia and Herzegovina

applies a management system in line with the above standard for the following scope

**Designing of switchgears and electrical installations in Utilities & Power Plants, Mining, Industry, Public and Housing Buildings.**  
**Manufacturing of electrical equipment: Low voltage switchgears, Medium voltage switchgears and Substations.**  
**Engineering, execution of electrical installation works and switchgears installation in Utilities & Power Plants, Mining, Industry, Public and Housing Buildings.**  
**Measurements and commissioning on installation and switchgears in Utilities & Power Plants, Mining, Industry, Public and Housing Buildings.**  
**Production of steel structures, welding and plastic deformation metalworking by bending, punching and perforations as well as laser cutting.**

Certificate Registration No. 04 100 041371  
Valid from 2019-09-07  
Valid until 2024-09-06  
Audit Report No. 10019102

**Caldermar**  
Certification Body  
at TUV NORD CERT GmbH

Zagreb, 2019-09-06

This certification was conducted in accordance with the TUV NORD CERT auditing and certification procedures and is subject to regular surveillance audits.

TUV NORD CERT GmbH    Langemarkstraße 20    45141 Essen    www.tuv-nord-cert.com

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Initial certification 2018 (BS OHSAS 18001)

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Certificate Registration No. 04 104 041371  
Valid from 2019-09-07  
Valid until 2024-09-06  
Audit Report No. 10419108

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## IMPLEMENTIERES QMS

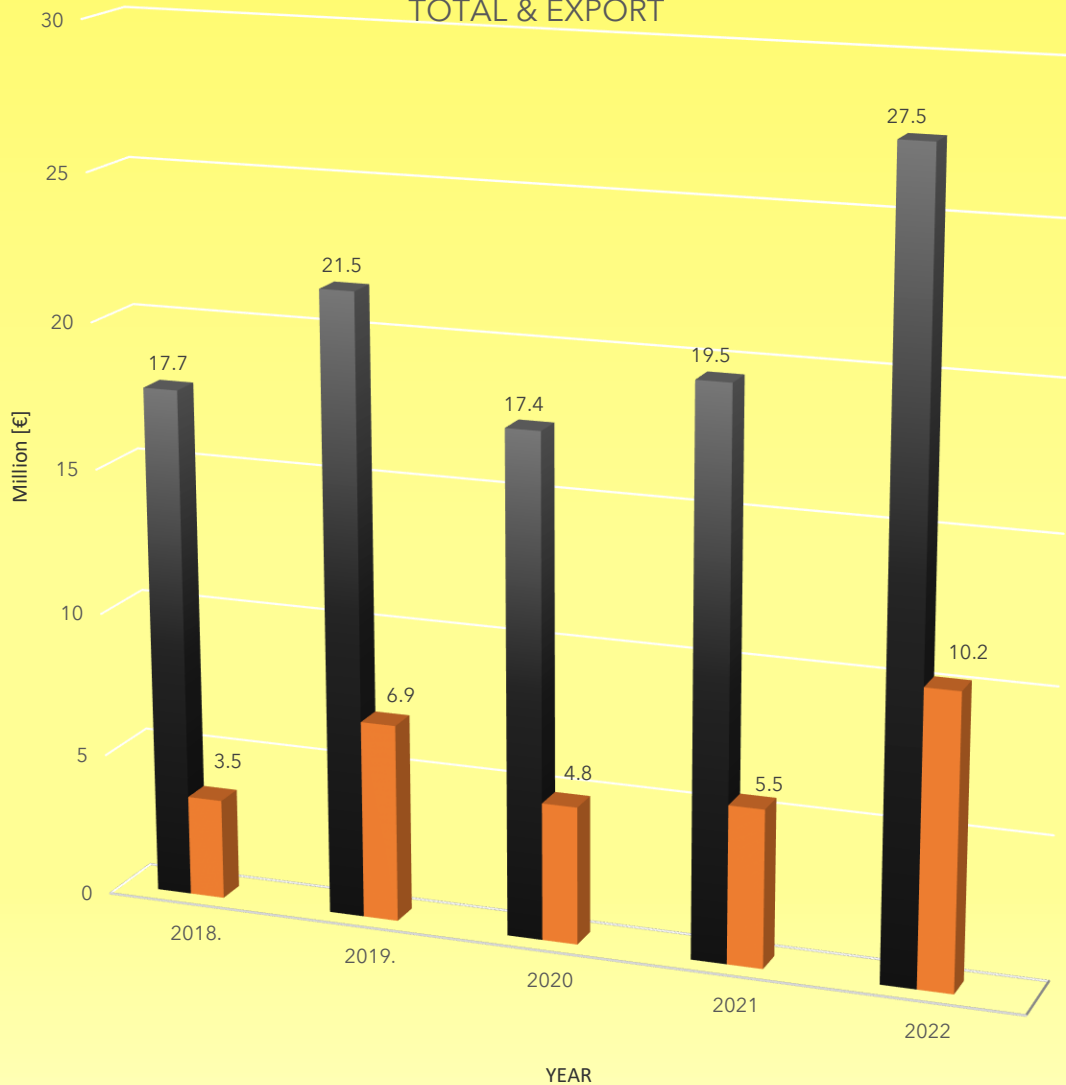
TUV ISO 9001  
TUV ISO 14001  
TUV ISO 45001





# JAHRESUMSATZ TOTAL & EXPORT

## TURNOVER TOTAL & EXPORT



## JAHRESUMSATZ TOTAL & EXPORT

### 2018

- TOTAL 17,7 Million €  
- EXPORT 3,5 Million €

### 2019

- TOTAL 21,5 Million €  
- EXPORT 6,9 Million €

### 2020

- TOTAL 17,4 Million €  
- EXPORT 4,8 Million €

### 2021

- TOTAL 19,5 Million €  
- EXPORT 5,5 Million €

### 2022

- TOTAL 27,5 Million €  
- EXPORT 10,2 Million €

## UMFANG DER TÄTIGKEITEN

### ENGINEERING & DESIGN (ELEKTRISCH UND MECHANISCH)

- Nach kunden basis Gestaltung & Eingaben
- Vom „Nullpunkt“ zum Endprodukt

### PRODUKTION (ELEKTRISCH UND MECHANISCH)

- Nach kunden basis Gestaltung & Eingaben
- Vom „Nullpunkt“ zum Endprodukt

### INTERNE PHASE KONTROLLE

- Obligatorischer Prozess

### ENDKONTROLLE

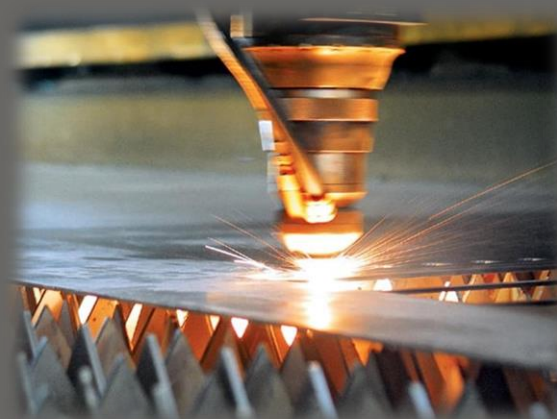
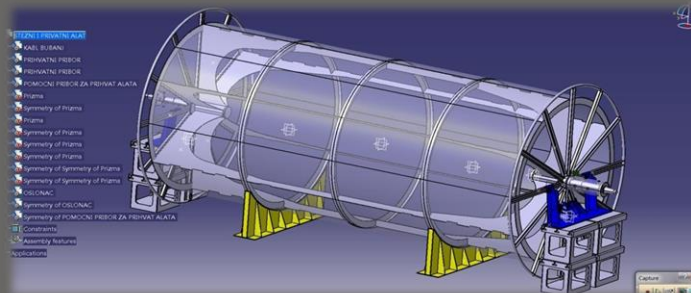
- Bauleiter Endkontrolle

### INSTALLATION

### KOMMISSION

### TESTING

### LEBENS-LANGE WARTUNG





# **PRODUKTIONSÜBERSICHT**

# MECHANISCHE WERKSTATT METALL VERARBEITUNG

## SCHNEIDEN

- **LASERSCHNEIDEN**

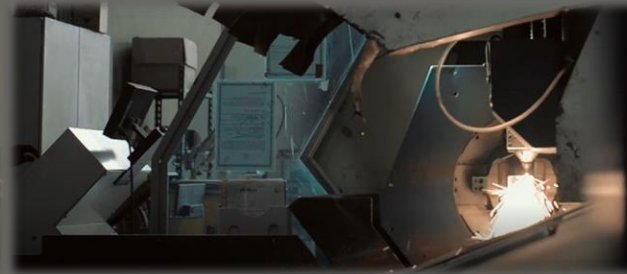
von Blechen-Stahl, Edelstahl, Aluminium,  
bis zu 25 mm

- **STANZEN**

Metallschneider für verzinkte Bleche bis  
zu 4 mm

- **ROHRLASER**

zum Schneiden von Rohren (max.  
Durchmesser 152 mm)



## BIEGEN

•Für alle Biegeverfahren setzt DELING  
hydraulische Biegemaschinen (apkant  
press) ein, bis 10 mm



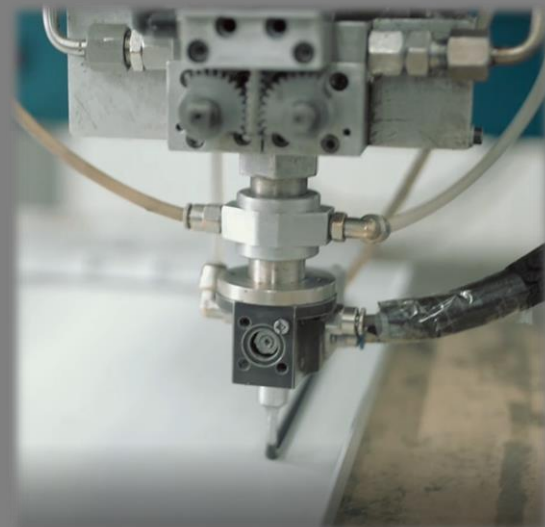
# MECHANISCHE WERKSTATT METALL VERARBEITUNG

## SCHWEISSEN

- Schweißen von Stahl, Edelstahl, Aluminium, verzinktem Stahl
- Alle Arten von mechanischen Produkten und Halbprodukten



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## FERTIGSTELLUNG

- Nasslackier- und Pulverbeschichtung
- Langfristiger Schutz, erfüllt alle Käuferanforderungen
- Dichtungsmaschine



# ELEKTRISCHE WERKSTATT PRODUKTIONSPORTFOLIO

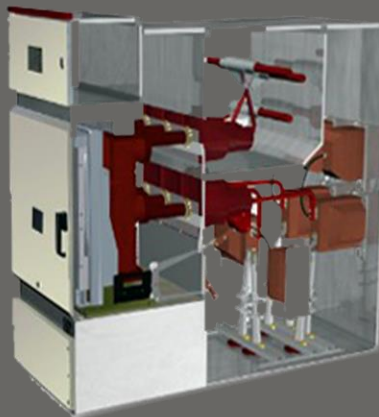
## NIEDERSPANNUNGS-SCHALTANLAGE

- Nennstrom von 160 A bis 7000 A
- Strom standhalten bis 100 kA
- Verteiler-, SCADA-, MCC-, Steuerungs-, Schutz-, Mess-, Kompensationschrank
- Typgeprüft nach IEC 61439



## MITTELSPANNUNGS-SCHALTANLAGE

- Nennspannung, 6, 12, 24 und 36 kV
- Metallgekleidet, luftisoliert, Primärverteilung
- Nennstrom von 630 A bis 2500 A
- Strom standhalten bis 31,5 kA
- Störlichtbogentyp geprüft - 25 kA/3s
- Typgeprüft nach IEC 62271-200



## HOCH-/NIEDERSPANNUNGS TRAFOSTATIONEN

- Nennspannung, 10(20)/0,4(0,8) kV
- Gehäuse aus Beton oder Aluminium
- Nennleistung bis 5000 kVA
- Störlichtbogentyp geprüft - 20 kA/1s
- Typgeprüft nach IEC 62271-202



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projektovanje, inženjering, proizvodnja, montaza



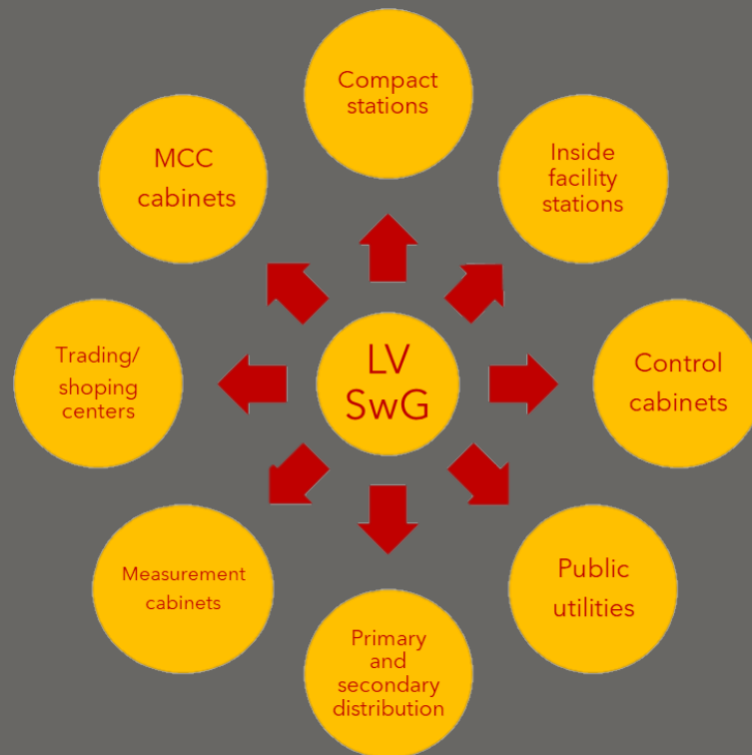
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- Nennstrom von 160 A bis 7000 A
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- Verteiler-, SCADA-, MCC-, Steuerungs-, Schutz-, Mess-, Kompensationschrank
- Typgeprüft nach IEC 61439



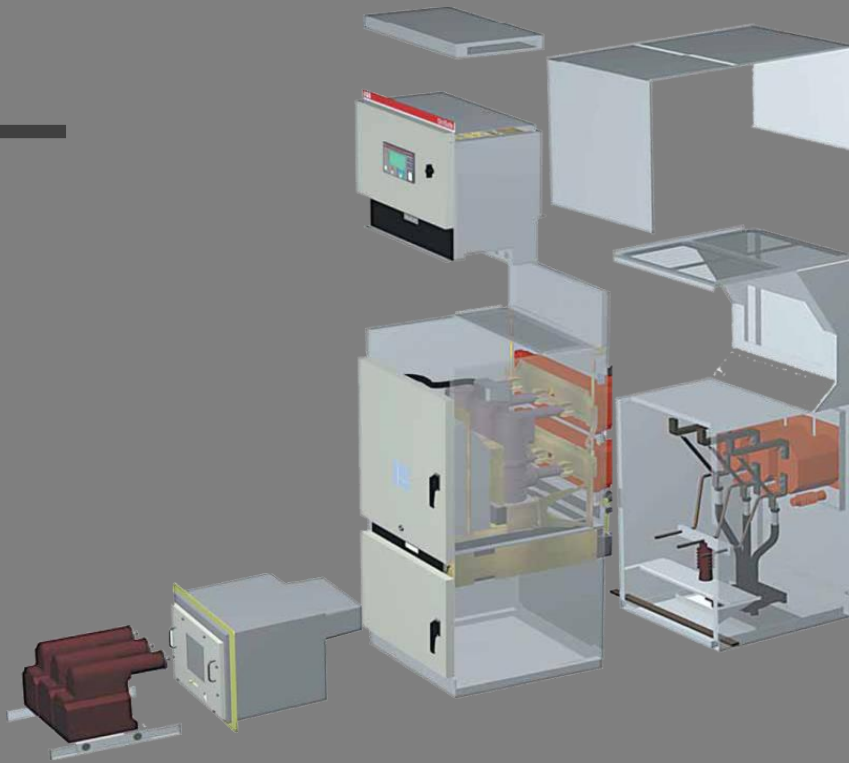
Nennbetriebsspannung (Ue)	Bis 1000V AC - 1500V DC
Bemessungsisolationsspannung (Ui)	Bis 1000V AC - 1500V DC
Nennfrequenz	50-60Hz
Bemessungsstoßspannungsfestigkeit	12kV
Nennstrom	Bis In=7000A
maximaler Haltestrom (Ipk) 0,1sec	Bis 264 kA
Bemessungskurzschlussstromfestigkeit (Icw) 1,0sec	Bis 120 kA
Schutzgrad	Bis IP 68



# ELEKTRISCHE WERKSTATT PRODUKTIONSPORTFOLIO

## MITTELSPANNUNGS-SCHALTANLAGE

- Nennspannung, 6,12,24 und 36 kV
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- Typgeprüft nach IEC 62271-200



### DELS PRODUCT FAMILY

Type of switchgear		DELS			
		DELS	DELS-24	DELS-36	
Rated voltage	kV	7,2	12	24	36
Main busbar rated current	A	630 - 2500	630 - 2500	630 - 2500	1250
Rated current of the branch connections	A	630 - 2500	630 - 2500	630 - 2500	630 - 1250
Rated insulating voltage	kV	7,2	12	24	36
Test voltage at power frequency	kV 1min	20	28	50	70
Impulse withstand voltage	kV	60	75	125	170
Rated frequency	Hz	50	50	50	50
Rated short-time withstand current	kA 3s	31,5 16+31,5	31,5 16+31,5	25 16+25	25 16+25
Making capacity (Peak current)	kA	80 40+80	80 40+80	63 40+63	63 40+63
Internal arc withstand current	kA 1s	31,5	31,5	25	25

# ELEKTRISCHE WERKSTATT PRODUKTIONSPORTFOLIO

## HOCH-/NIEDERSpannungs TRAFOSTATIONEN

- Nennspannung, 10(20)/0,4(0,8) kV
- Gehäuse aus Beton oder Aluminium
- Nennleistung bis 5000 kVA
- Störlichtbogentyp geprüft - 20 kA/1s
- Typgeprüft nach IEC 62271-202

## TRAFOSTATION KLASSIFIZIERUNG

- Betrieb im Innen- und Außenbereich
- Gehäuse aus Beton / Aluminium

Compact metal substation -  
CTS-IAC 10(20)/0,4 kV, 1000 kVA  
Outdoor operated (non-walk-in type)  
**ARC-PROOF TESTED**  
**(IPH BERLIN)**

TYPES AND DIMENSIONS - CONCRETE SUBSTATION					
Type	Transformer Sn up to .... [VA]	Voltage level Un1/Un2 kV	Operated	Dimensions LxWxH [cm]	Type tested IEC 62271-202
KBTS	630	10(20)/0,4	non-walk-in	300x200x270	Yes
KBTS-1	1000	10(20)/0,4	non-walk-in	300x220x270	Yes
KBTS-1M	1000	10(20)/0,4	non-walk-in	300x250x270	Yes
KBTS-2	2x1000	10(20)/0,4	non-walk-in	420x220x270	Yes
KBTS-2M	2x1000	10(20)/0,4	non-walk-in	450x250x270	Yes
KBTS-3	3x1000	10(20)/0,4	non-walk-in	600x250x270	Yes
KBTS-1up	1x1000	10(20)/0,4	walk-in	420x220x270	Yes
KBTS-2up	2x1000	10(20)/0,4	walk-in	500x332x270	Yes
KBTS-3up	3x1000	10(20)/0,4	walk-in	500x500x270	Yes
KTS-PV-3	1x3150	20(35)/0,8	non-walk-in	480x240x350	Yes
KTS-PV-5	2x2500	20(35)/0,8	walk-in	720x480x350	Yes

TYPES AND DIMENSIONS - METAL SHEET SUBSTATION					
Type	Transformer Sn up to .... [VA]	Voltage level Un1/Un2 kV	Operated	Dimensions LxWxH [cm]	Type tested IEC 62271-202
LMTS-250	250	10(20)/0,4	non-walk-in	190x190x228	Yes
LMTS	630	10(20)/0,4	non-walk-in	213x213x270	Yes
KALTS	1000	10(20)/0,4	non-walk-in	300x220x270	Yes
LTS	2500	10(20)/0,4	non-walk-in	470x240x320	Yes
CTS-IAC	1000	10(20)/0,4	non-walk-in	270x240x188	Yes
SPECIAL TYPES	630	7,2(12)/0,5	non-walk-in	300x220x200	Yes





SCHWECHATER KABELWERKE



# ELEKTRISCHE WERKSTATT VON DER IDEE ZUM PRODUKT

## LIEFERANTEN UND PARTNER

Weltweit bekanntesten Hersteller, wie:

- ABB,
- SCHNEIDER ELECTRIC,
- SIEMENS,
- EATON,
- RITTAL,
- PILZ
- BENDER
- WAGO
- PHOENIX CONTACT.....

## IEC-TYPENPRÜFUNG

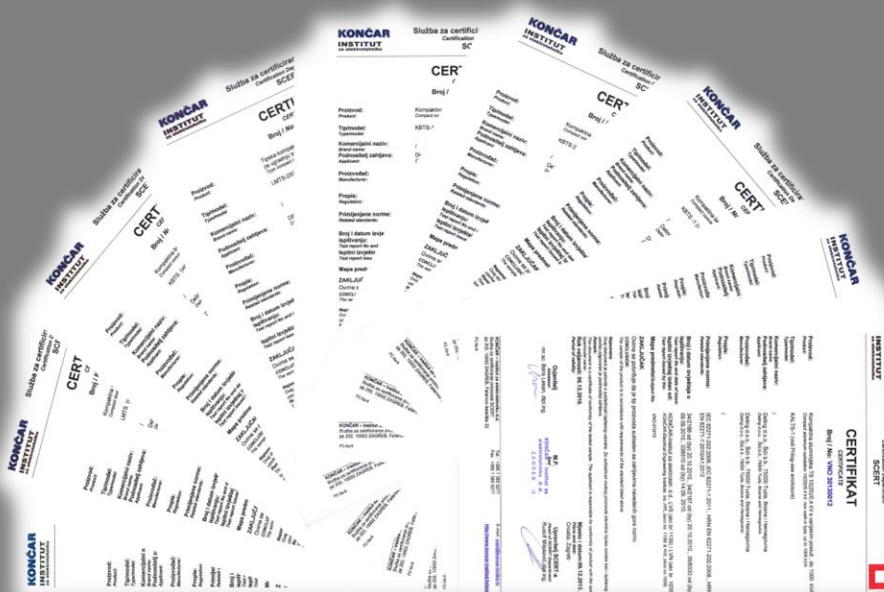
Alle unsere Produkte sind in akkreditierten Labors gemäß der relevanten und gültigen IEC-Norm typgeprüft.

Laboratories:

- CESI Milano, Italy
- IPH Berlin, Germany
- KONCAR Institut, Zagreb, Croatia

IEC standards:

- Low voltage SwG, IEC-61649,
- Medium voltage IEC-62271-200,
- Trafo station IEC-62271-202.....





# PRODUCTION PORTFOLIO APPLICATION AREAS

Niederspannungsgeräte,  
die wir verwenden



## APPLICATIONS



Anwendungsbereich:

## CUSTOM MADE PRODUKTE

Complete engineering, production,  
according to customer/client  
requirements

**CUSTOM MADE**

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projektovanje inženjering proizvodnja montaza

# **KURZ REFERENZLISTE**

# PARTNERÜBERSICHT REFERENZLISTE - EXPORT

## PHARMACEUTICS INDUSTRY, ABU DHABI, UAE

SUBSTATION DISTRIBUTION, 1250 A, 70 kA, IP 54



## LC WAIKIKI, TURKEY, WEST BALKAN MARKET

DISTRIBUTION CABINET, 1250 A, 50 kA, IP 43



## ECOGENSUS, ZERO GLOBAL WASTE UNITED STATES OF AMERICA LICENCE FOR EU MARKET

MCC CABINET, 1250 A, 50 kA,  
Motor control using VFD and softstarter, IP 55



## DEICHMANN, GERMANY

DISTRIBUTION CABINET, 160 A, 25 kA, IP 43



## ELPO GmbH, BOLZANO, ITALY

DISTRIBUTION CABINET, 250 A, 36 kA, IP 54

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projektovanje, inženjering, proizvodnja, montaza



## PARTNERÜBERSICHT REFERENZLISTE - EXPORT

**THERMAL POWER PLANT - TPP TUZLA**  
Reconstruction of coal supply transport system  
DISTRIBUTION, 2500 A, 50 kA, IP 43

**WATER SUPPLY SYSTEM OF SARAJEVO**  
MCC CABINET, 2x1600 A with coupling,  
MCC using VFD and softstarter, IP 54

**FOOD INDUSTRY - BAJRA**  
Low voltage main distribution panel 3200 A,  
supply from SS 2x1000 kVA and  
Reserve supply from generator 1 MVA

# PARTNERÜBERSICHT REFERENZLISTE - EXPORT

**MESSER GASES FOR LIFE, B&H, SERBIA**  
DISTRIBUTION CABINET, 3200 A, 50 kA, IP 43



**MANN+HUMMEL GmbH GERMANY,  
BOSNIA**  
MAIN DISTRIBUTION CABINETS,  
1600 A, 50 kA, IP 43



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# PARTNERÜBERSICHT REFERENZLISTE - EXPORT

## NDA PROTECTION GERMANY

MCC CABINET, 2500 A, 50 kA, IP 55  
Motor control using VFD and softstarter



## NDA PROTECTION GERMANY

MCC CABINET, 4000 A, 50 kA, IP 55  
Motor control using VFD and softstarter



## PARTNERÜBERSICHT REFERENZLISTE - EXPORT

**NDA PROTECTION GERMANY**  
MCC CABINET, Control, PLC and  
SCADA equipment

**NDA PROTECTION GERMANY**  
MCC CABINET, 4000 A, 50 kA, IP 55  
Motor control using VFD and softstarter



# PARTNERÜBERSICHT REFERENZLISTE - EXPORT

## NDA PROTECTION GERMANY

MCC CABINETS INSIDE CONTAINER

4000 A, 50 kA, IP 55

Motor control using VFD and softstarter



## NDA PROTECTION GERMANY

Control cabins with control pults

Complete engineering



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## PARTNERÜBERSICHT REFERENZLISTE - EXPORT

**TAKRAF GmbH GERMANY**  
MCC CABINET WITH CONTROL AND  
SCADA EQ + CONTROL PULT CABIN,  
600 A, 50 kA, IP 54  
Mining indutry - sizer - crusher



**TAKRAF GmbH GERMANY**  
Container with MCC cabinet  
Control cabin with control pult  
Including engineering

## PARTNERÜBERSICHT REFERENZLISTE - EXPORT

### **SCA GmbH GERMANY**

ASC3 cabinet  
Automotive industry  
Complete engineering and  
production

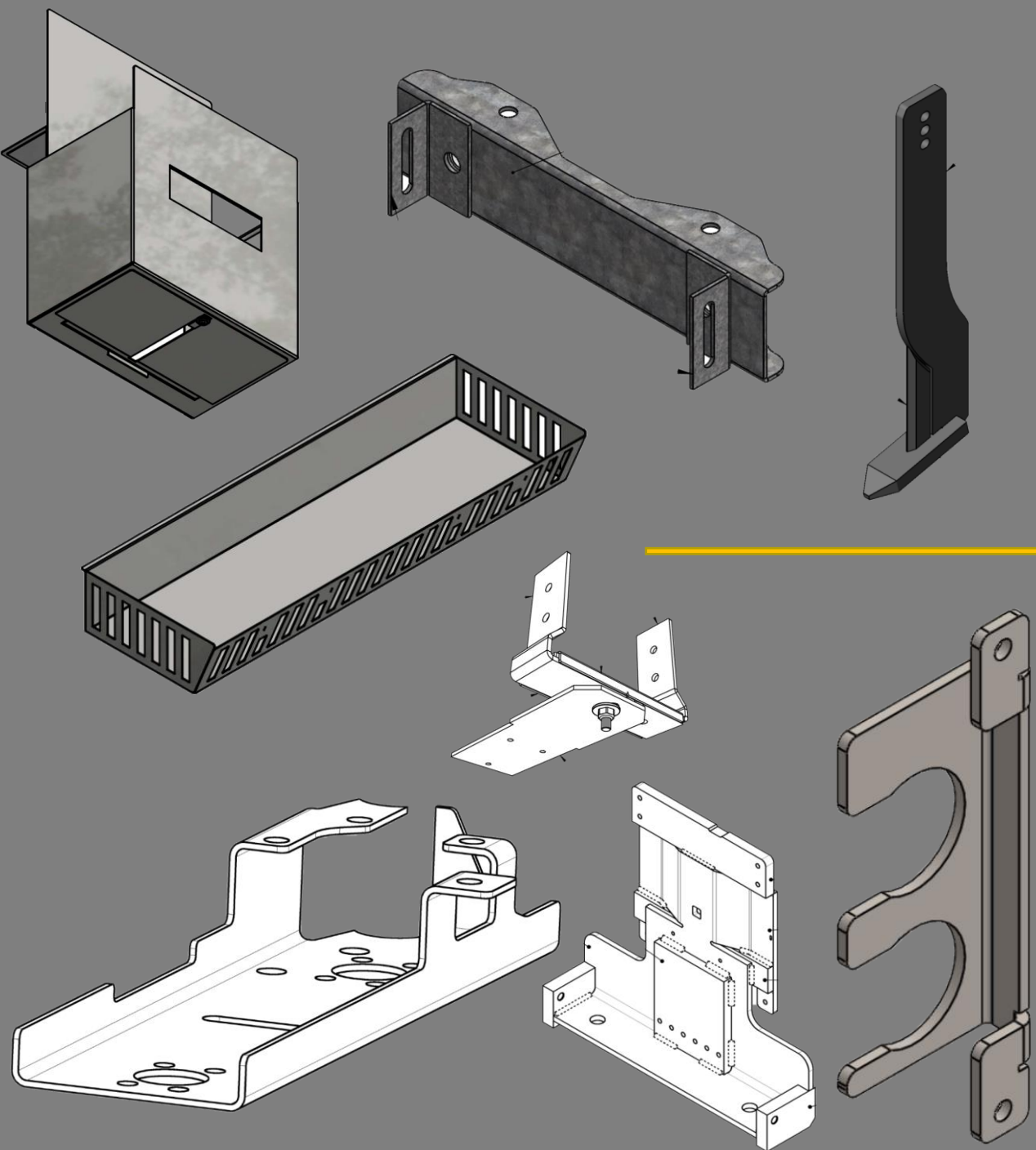


**KARL MAYER GmbH GERMANY**  
Control cabinet for textile industry  
Complete engineering and production

**Novus Automotive GmbH**  
(Stainless steel exhaust tubes)



# VERSCHIEDENE ARTEN VON MECHANISCHEN PRODUKTEN UND HALBPRODUKTEN

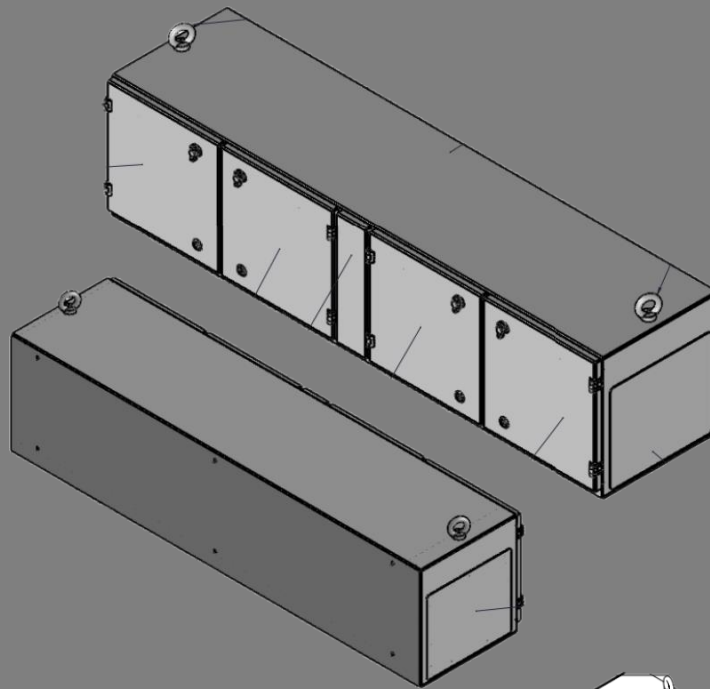


VAORIOUS TYPES OF SMALL  
CONSTRUCTIONS

VAORIOUS TYPES OF SMALL  
CONSTRUCTIONS

SERIAL AND NON-SERIAL PRODUCTION

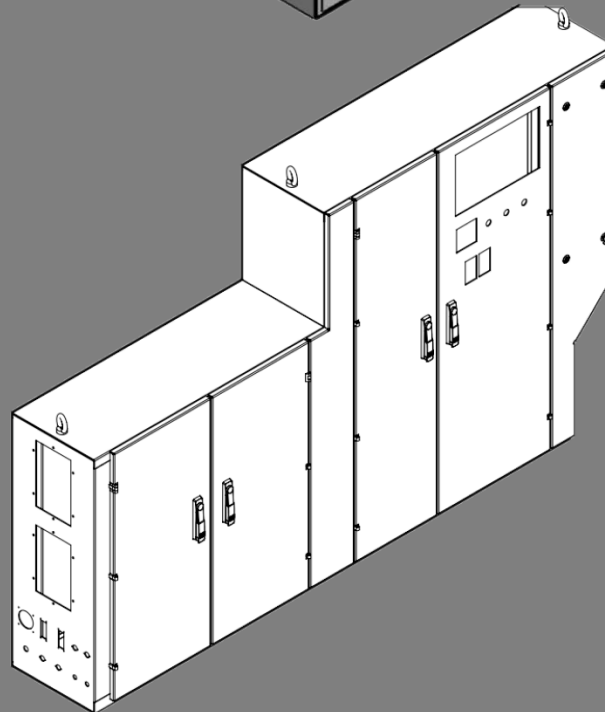
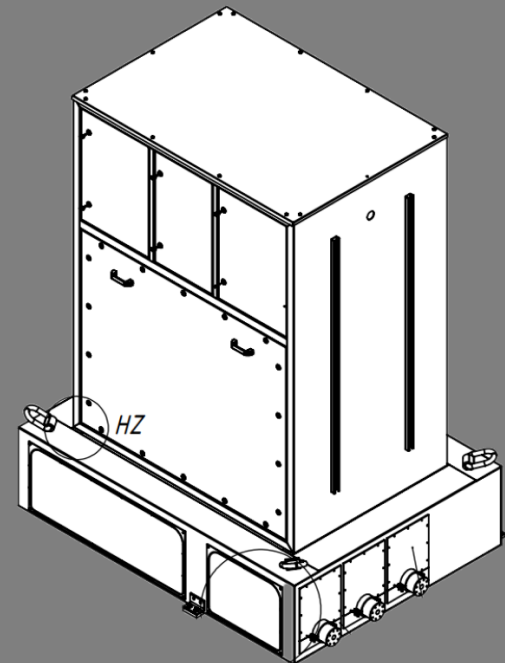
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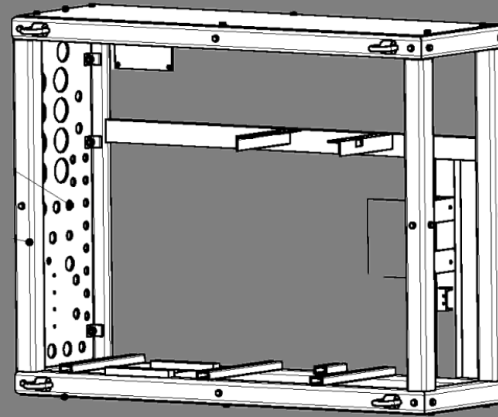
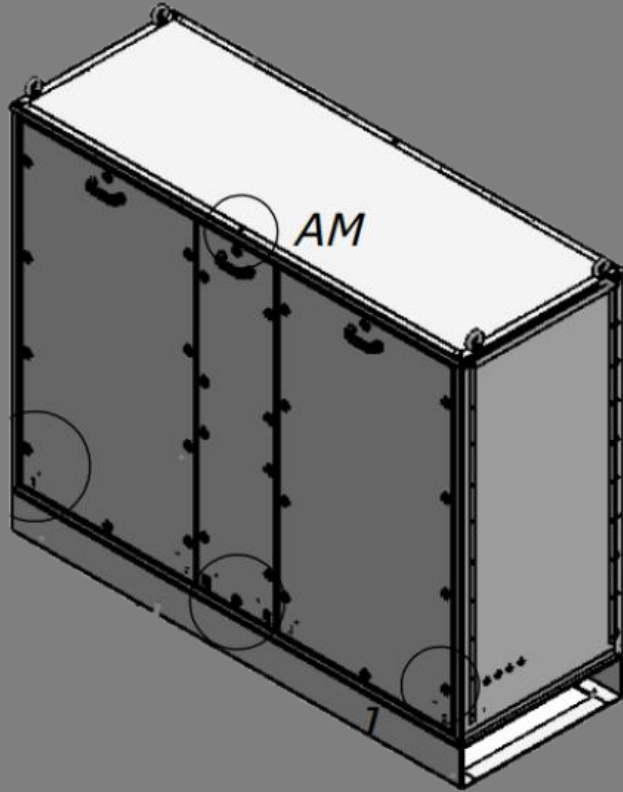
CUSTOM MADE CABINETS

VAORIOUS TYPES OF SMALL  
CONSTRUCTIONS

SERIAL AND NON-SERIAL PRODUCTION



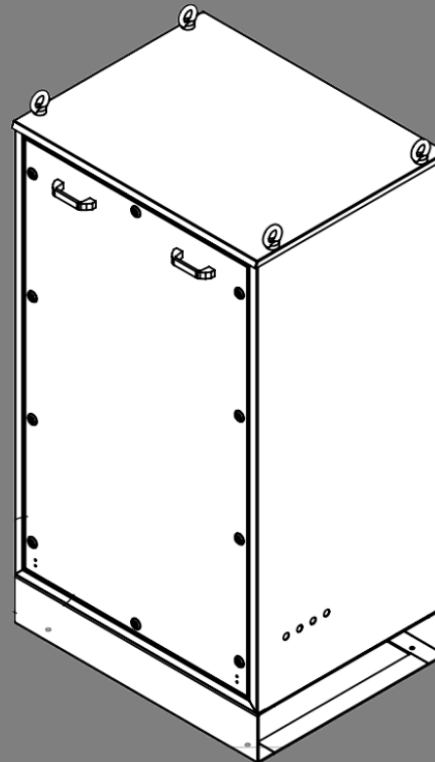
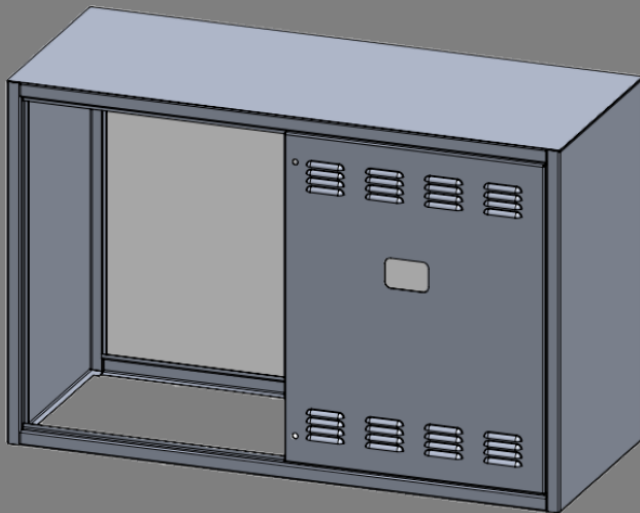
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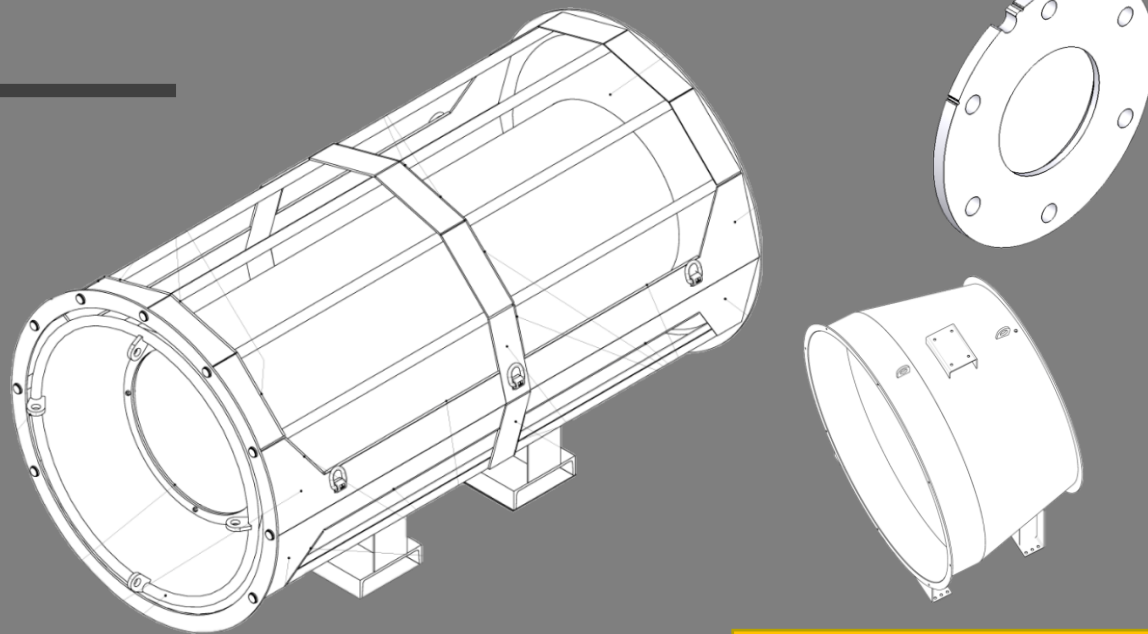
CUSTOM MADE CABINETS

VAORIOUS TYPES OF SMALL  
CONSTRUCTIONS

SERIAL AND NON-SERIAL PRODUCTION



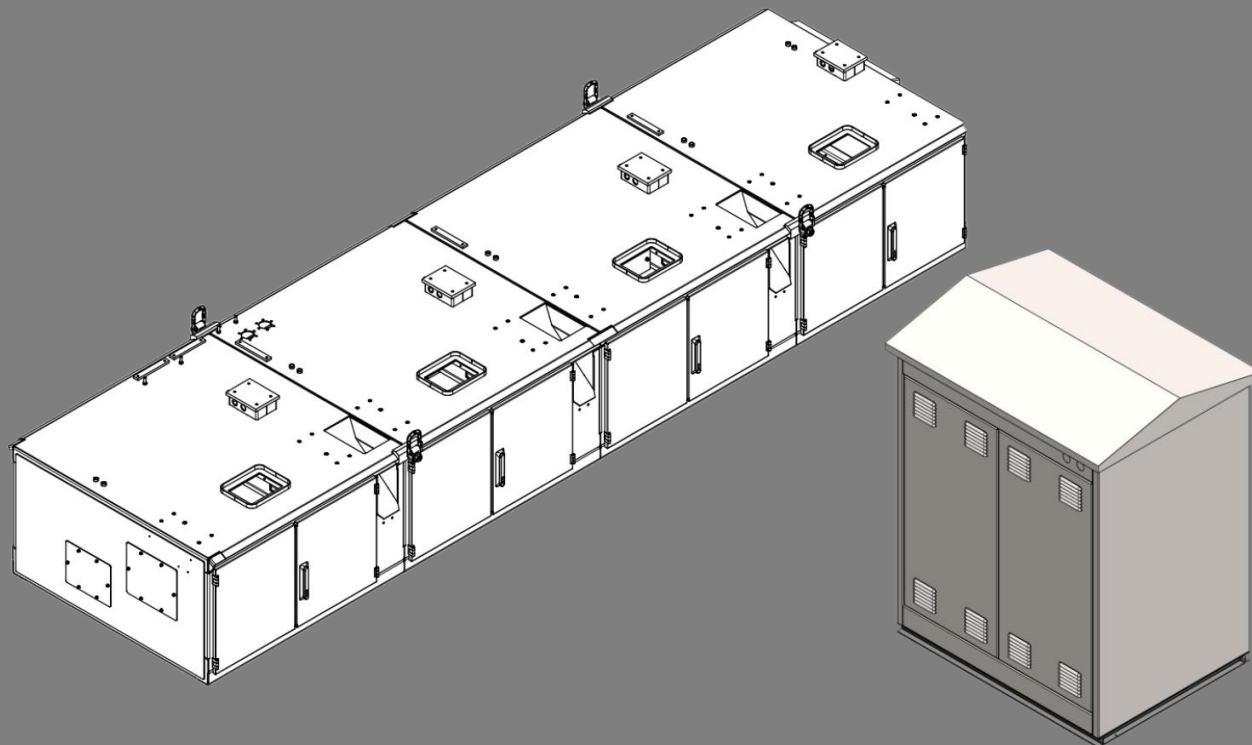
**VERSCHIEDENE ARTEN VON  
MECHANISCHEN PRODUKTEN UND  
HALBPRODUKTEN**



AIR DIFFUSORS

VAORIOUS TYPES OF SMALL  
CONSTRUCTIONS

SERIAL AND NON-SERIAL PRODUCTION



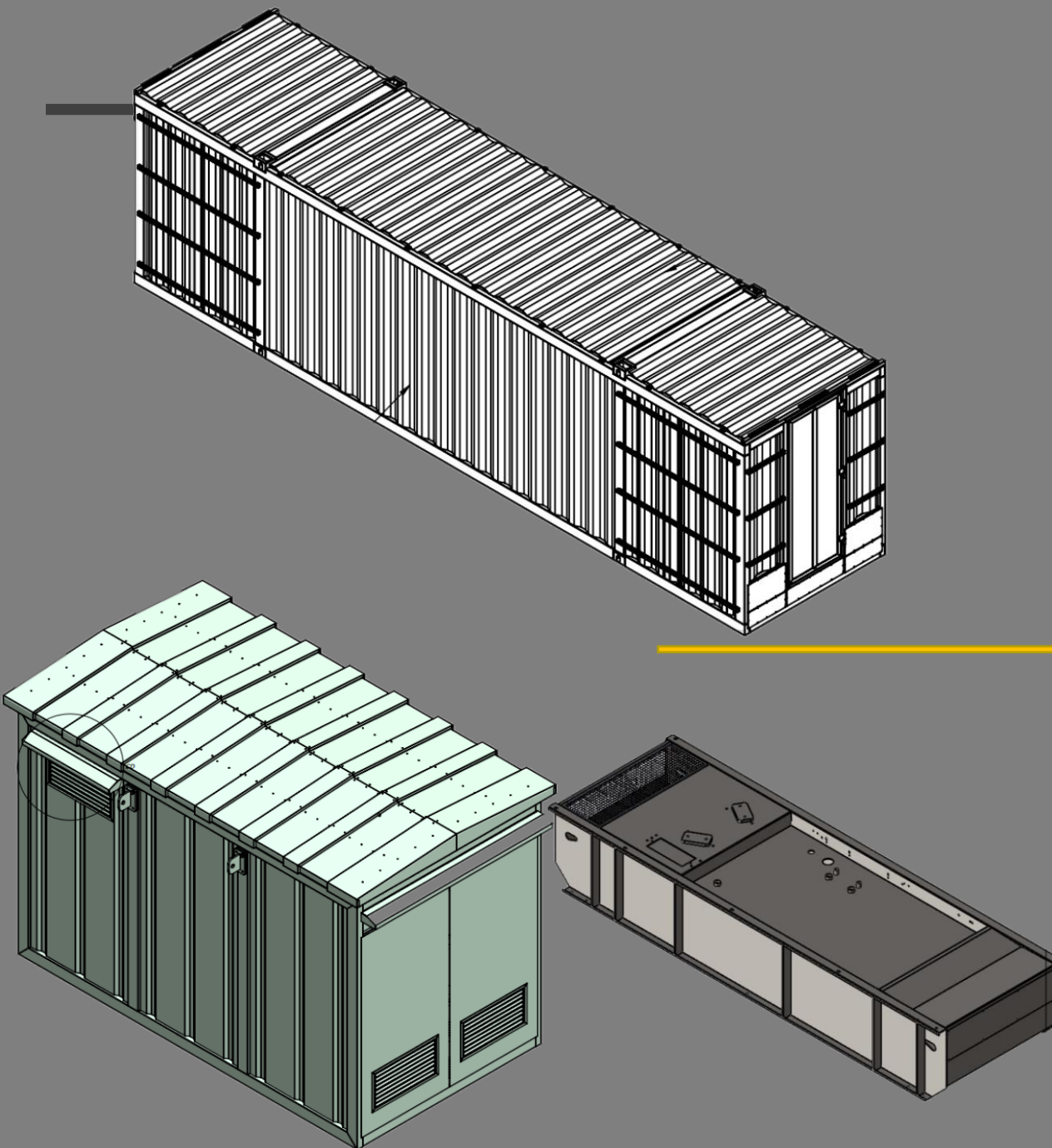
# VERSCHIEDENE ARTEN VON MECHANISCHEN PRODUKTEN UND HALBPRODUKTEN

CUSTOM MADE CABINETS

VAORIOUS TYPES OF MEDIUM  
CONSTRUCTIONS

CONTAINERS

SERIAL AND NON-SERIAL PRODUCTION

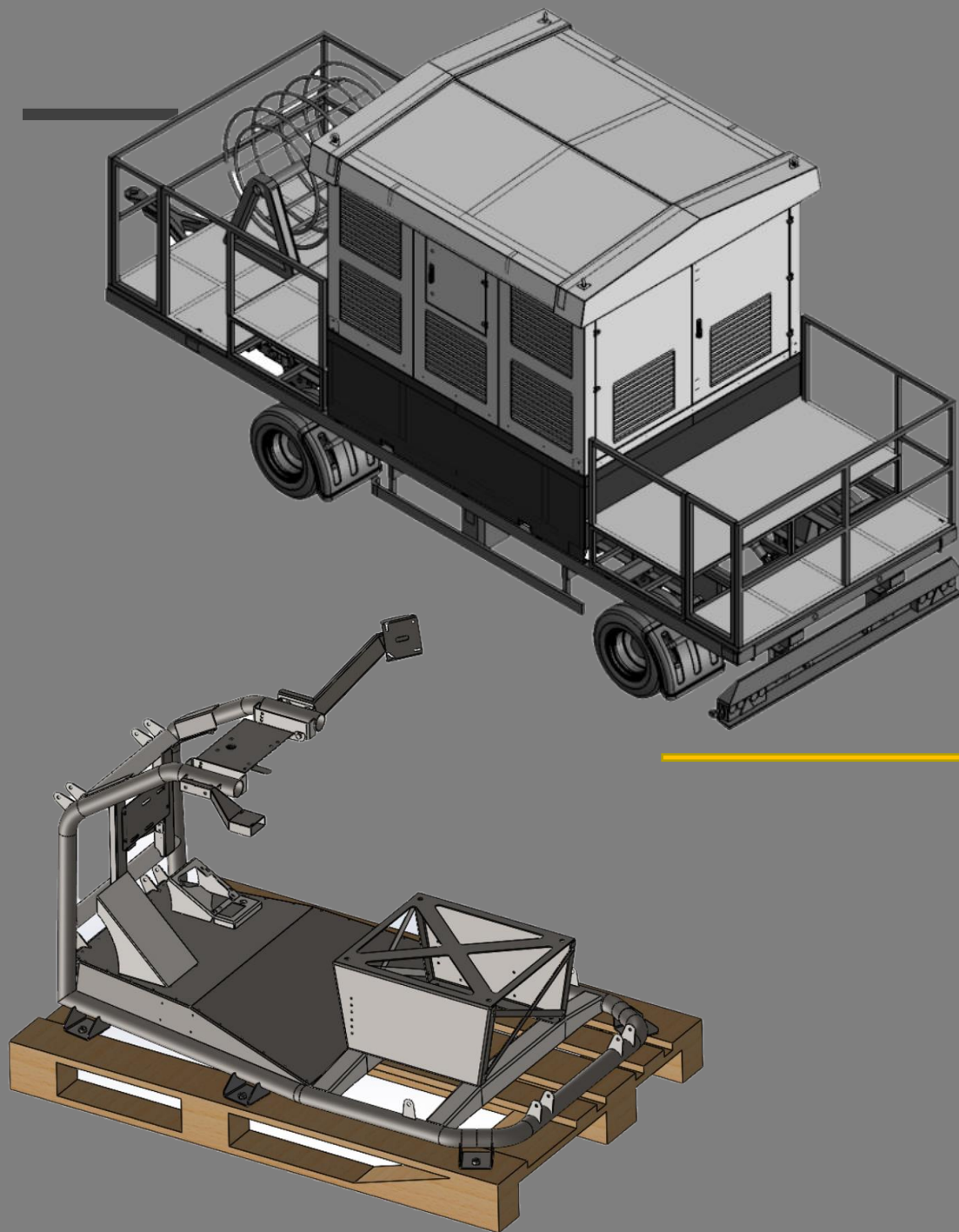


# VERSCHIEDENE ARTEN VON MECHANISCHEN PRODUKTEN UND HALBPRODUKTEN

CUSTOM MADE PRODUCTS

VAORIOUS TYPES OF SMALL MEDIUM  
CONSTRUCTION PARTS

SERIAL AND NON-SERIAL PRODUCTION





MISSION, ZIEL,

UNSERE MISSION

UNSERE ZIEL

PARTNERSCHAFTSSTRATEGIE



KUNDENANFORDERUNGEN ZU ERFÜLLEN  
IST UNSERE MISSION



KUNDENZUFRIEDENHEIT, LOYALTÄT UND VERTRAUEN  
GEWINNENQUALITÄT ZU VERWENDEN IST UNSER ZIEL



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