

DRIVE WHEELS SYSTEMS

DD1 Serie is a fully modular powered wheel drive system. These units include a complete package comprised of electric motor, gearbox, wheel hubs, braking system, all in a compact ready to mount products.

The modular system includes several types of motors, gear ratios, track-widths, wheel hubs, mounting options, encoder, parking and service brakes.

DD1 Serie is the next generation transmissions developed for eMobility market.

OPERATION RANGE

Output Torque



Power



Tension



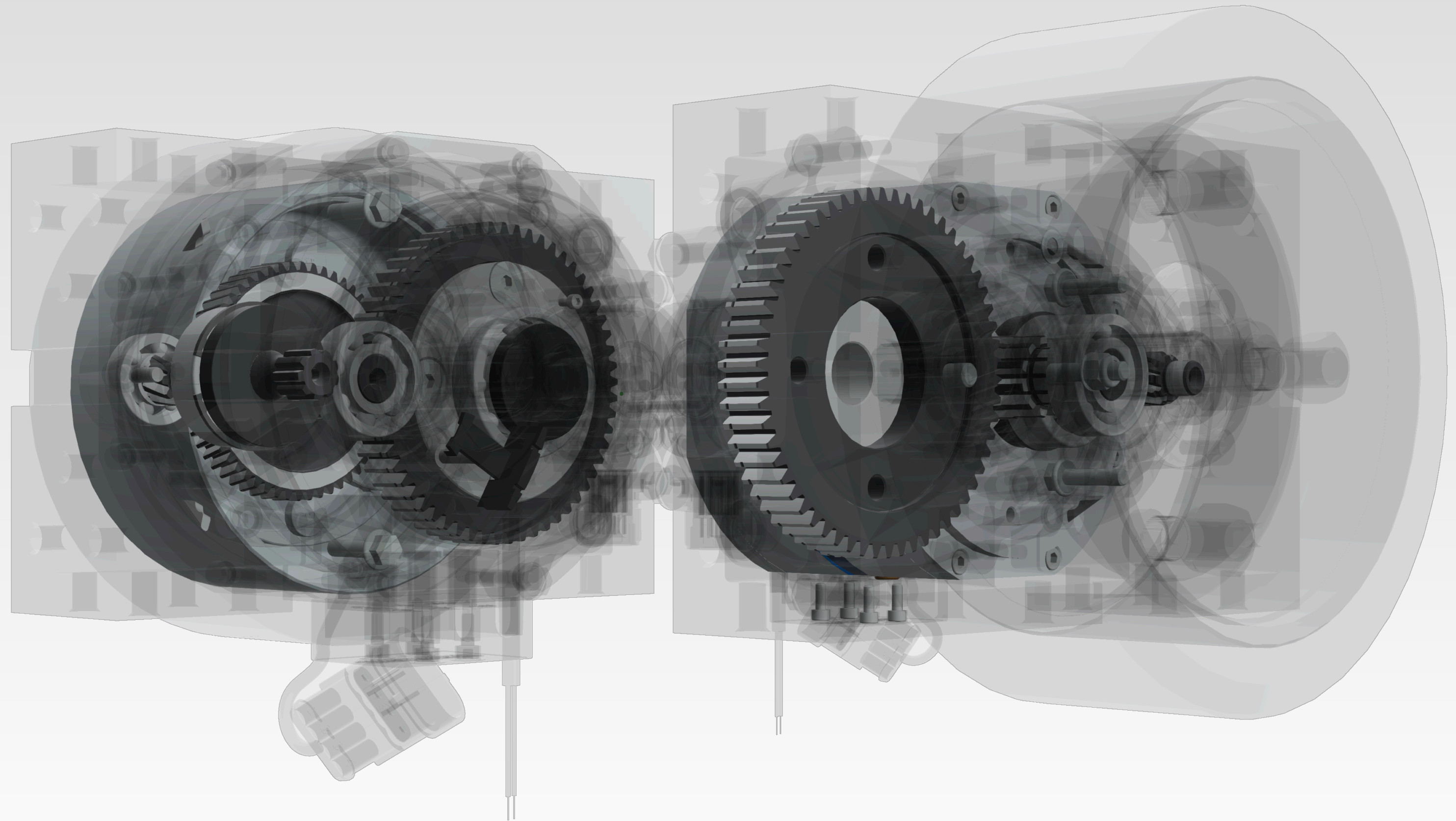
A LOOK INSIDE

Some products can look similar externally but they hide substantial differences within them.

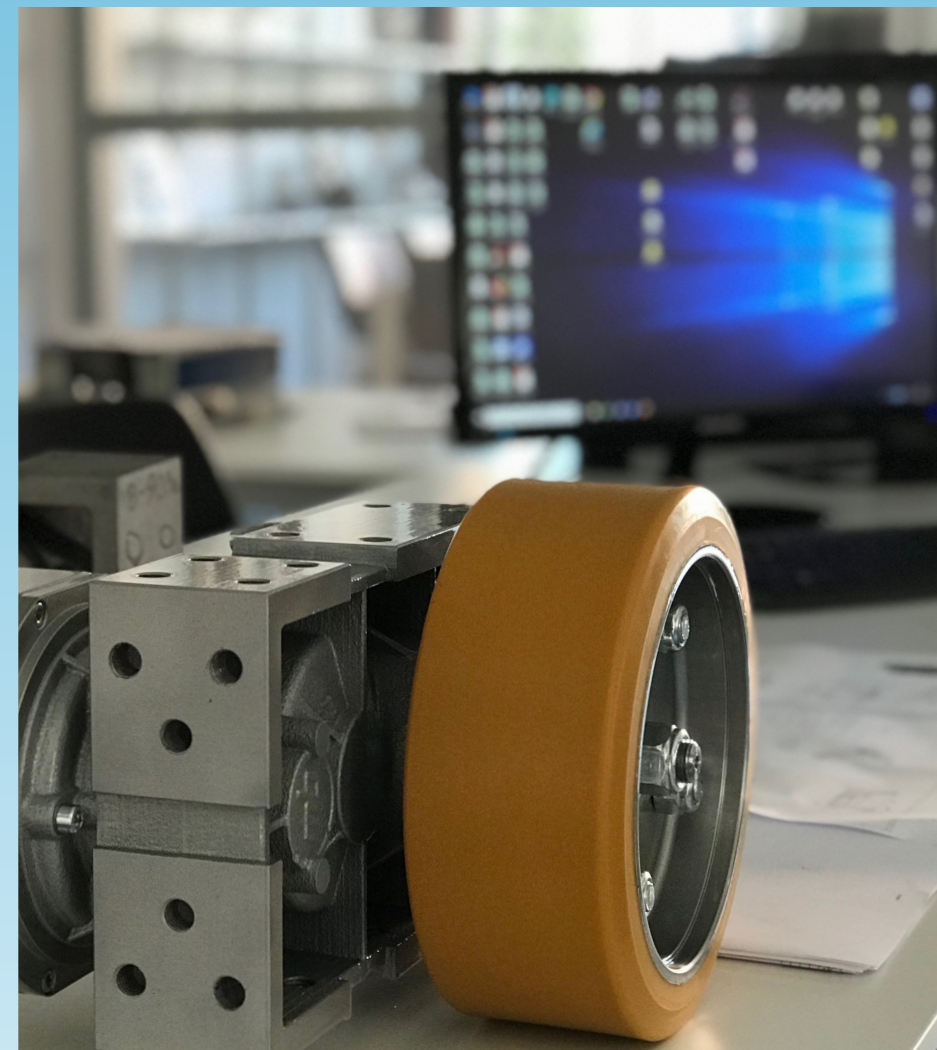
As we consider DD1 the best product on the market we are not scared to strip it.

The boxes in durable but light alloy retain a high construction technology inside them. Gears with ground profiles (Class 5) supported by **SKF** bearings guarantee high mechanical efficiencies close to 95%.

Lubricant oil, defined together with **Mobil 1**™ allows DD1 to be used even at extreme temperatures while maintaining its effectiveness.

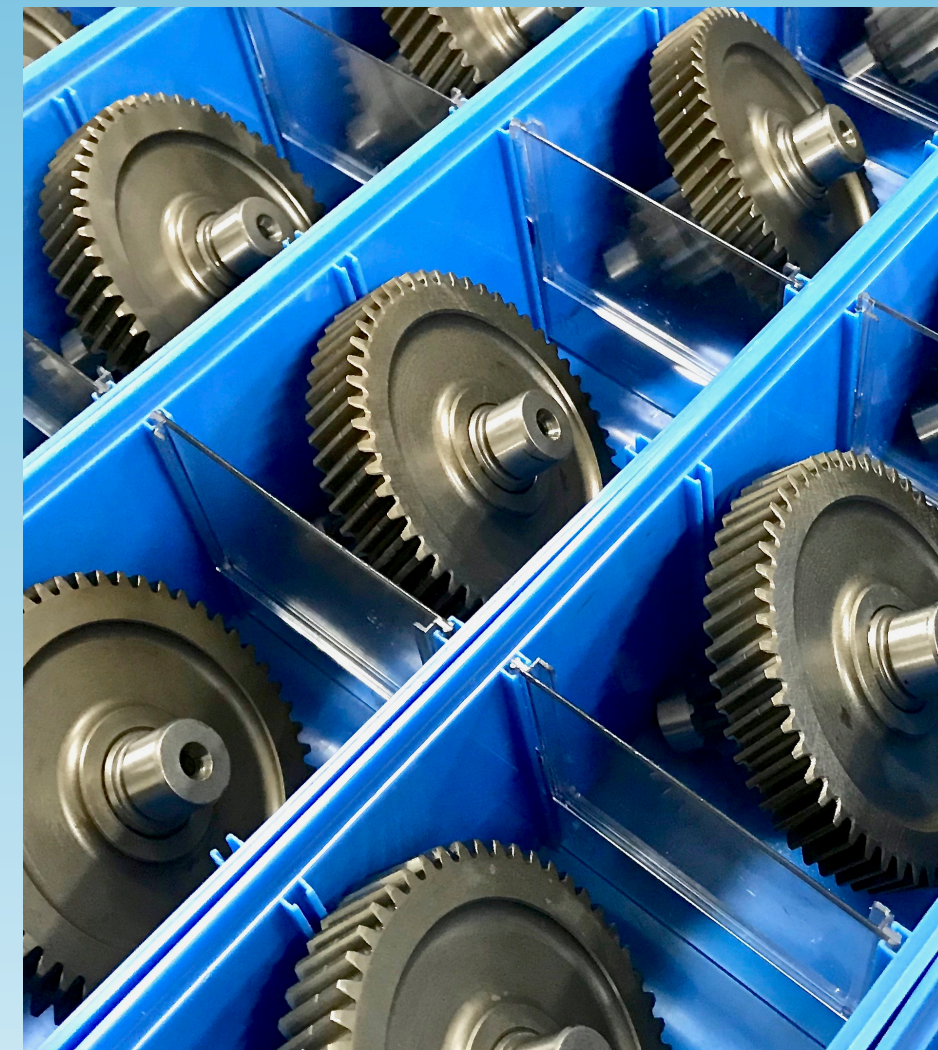


OUR TECHNOLOGIES FOR YOUR MOBILITY



CONSTANT DEVELOPMENT

A CONSTANT RESEARCH ON MATERIALS AND CONSTRUCTION TECHNIQUES IS BEHIND THE SUCCESS OF DD1 SERIE



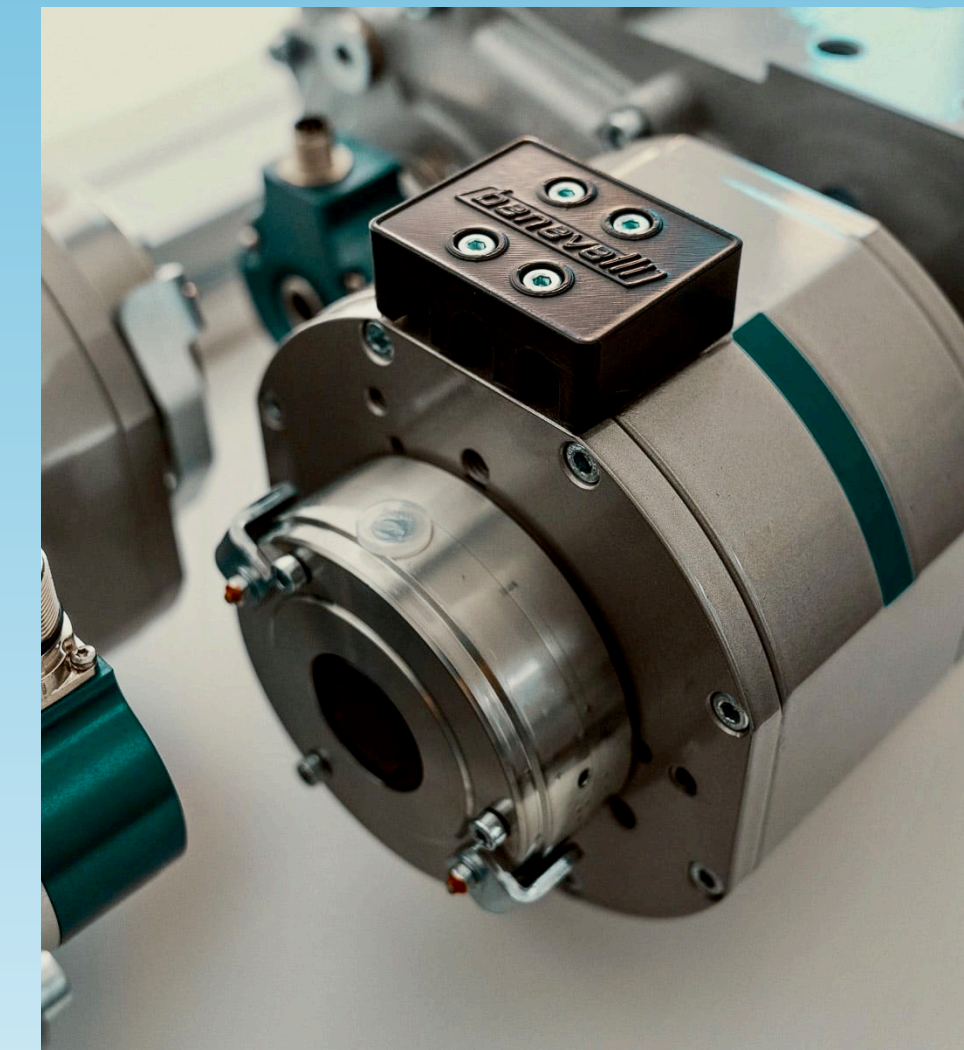
HIGH EFFICIENCY

IN OUR ELECTRIC TRANSMISSIONS YOU WILL FIND KNOW-HOW ACQUIRED IN BUILDING GEARS FOR OVER FIFTY YEARS



EASY INSTALLATION

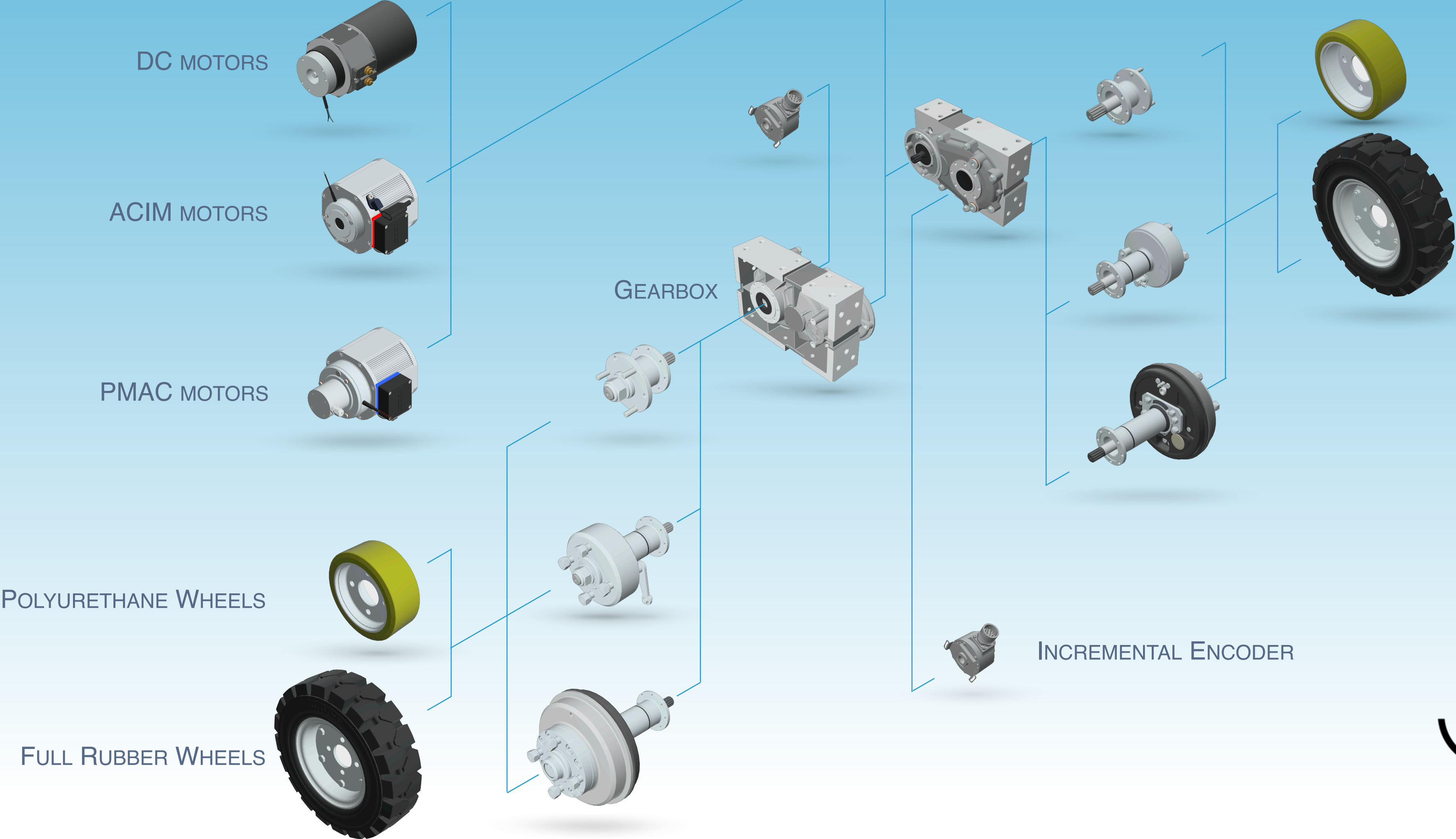
SIMPLE AND SPACE-SAVING INTEGRATION THROUGH FLEXIBLE MOUNTING POSSIBILITIES FOR SIMPLIFIED VEHICLE DESIGN



ENERGY SAVING

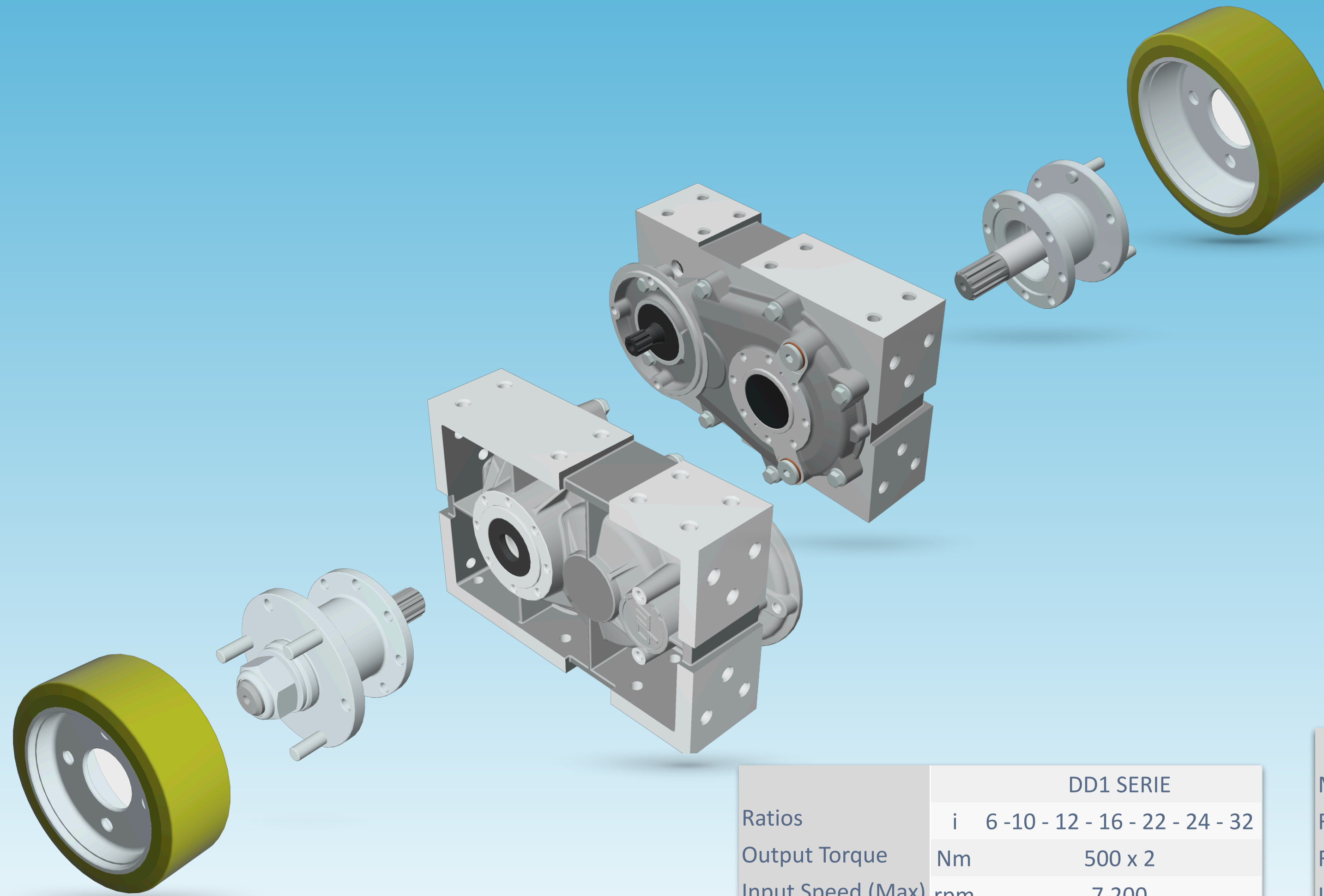
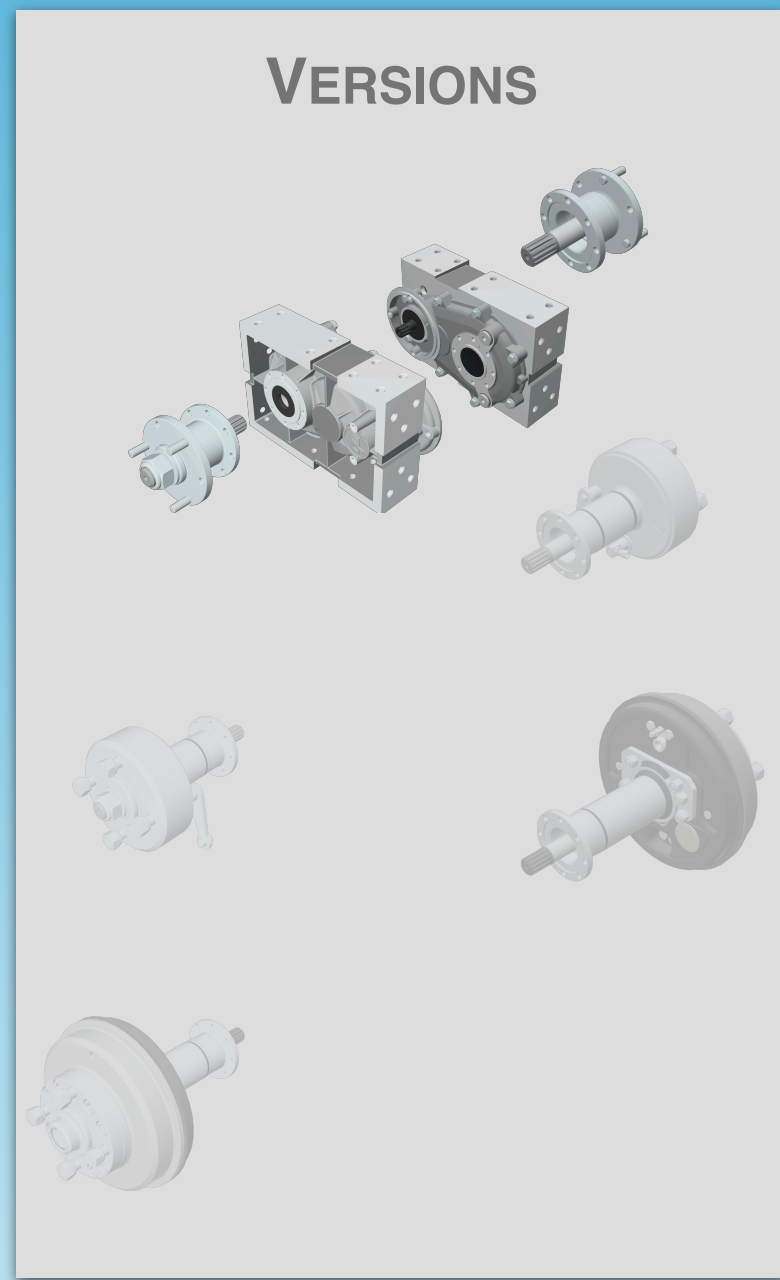
OUR MOTORS MAKES A SIGNIFICANT CONTRIBUTION TO SAVING CURRENT AND EXTENDS RUNNING TIME AUTONOMY

DD1 SERIE - MODULAR DRIVE SYSTEM



3D
ONLINE DRAWING

DD1 SERIE - CONSTANT VELOCITY JOINT VERSION

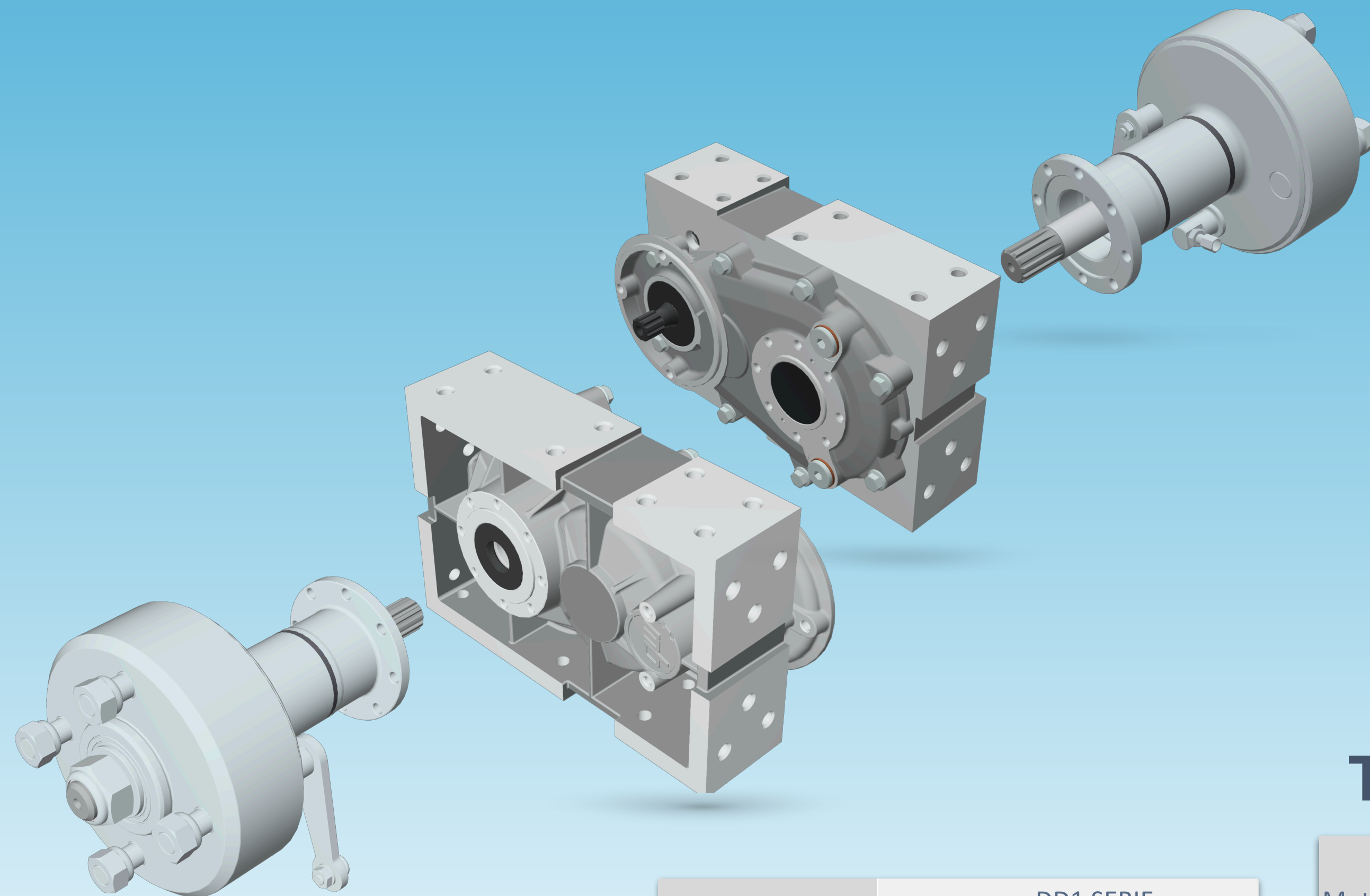
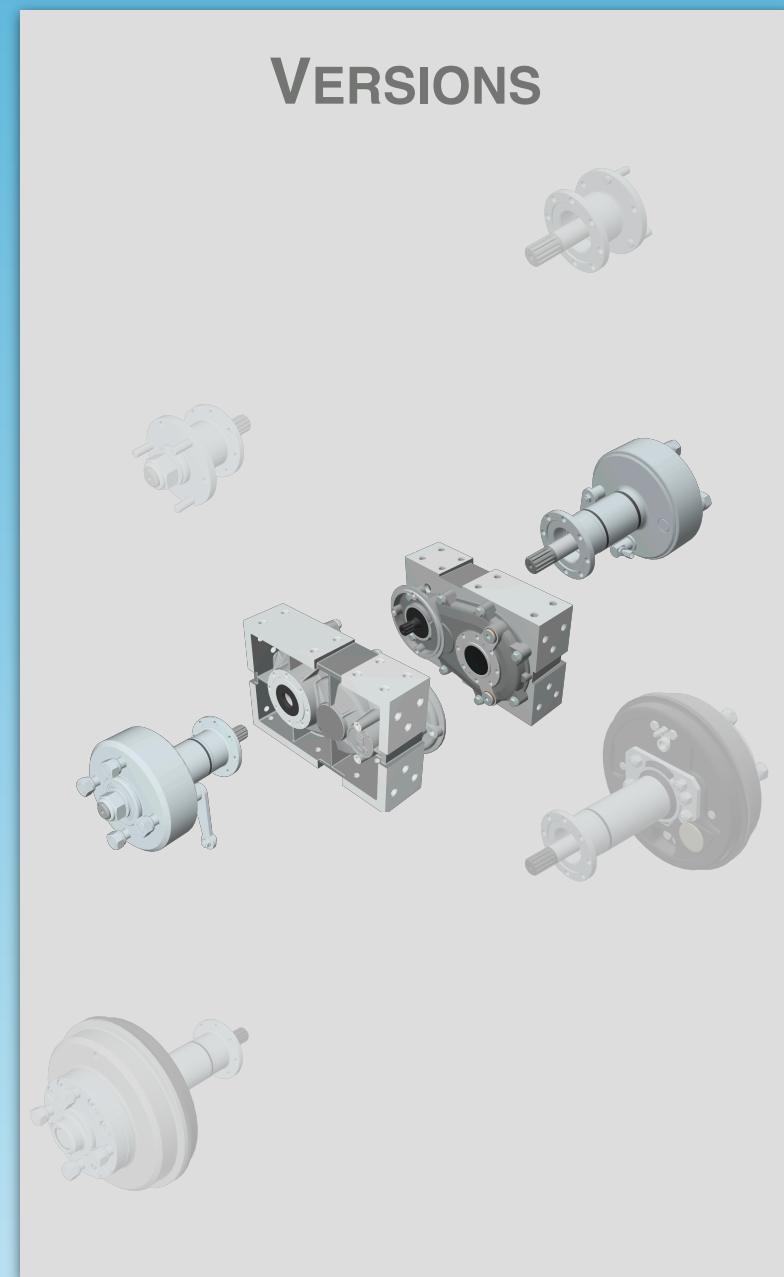


	DD1 SERIE	
Ratios	i	6 - 10 - 12 - 16 - 22 - 24 - 32
Output Torque	Nm	500 x 2
Input Speed (Max)	rpm	7.200
Static Load	kg	500 x 2
Gearbox Finishing		Ground Gears
Efficiency	%	95
Lubrication		Synthetic Oil 75W90
Differential Lock		Electronic

TECHNICAL FEATURES

	DD1 SERIE	
Motor Type		DC - ACIM - PMAC
Rated Power	kW	0,8 ÷ 6,0
Rated Voltage	V	24 ÷ 48
Insulation Class		F (155°)
IEC 60529	IP	20 ÷ 66
Service Braking		-
Parking Braking		Electromagnetic Nm 12 ÷ 40
Manual Release		Optional
Increm. Encoder		Optional

DD1 SERIE - FLOATING AXLES VERSION

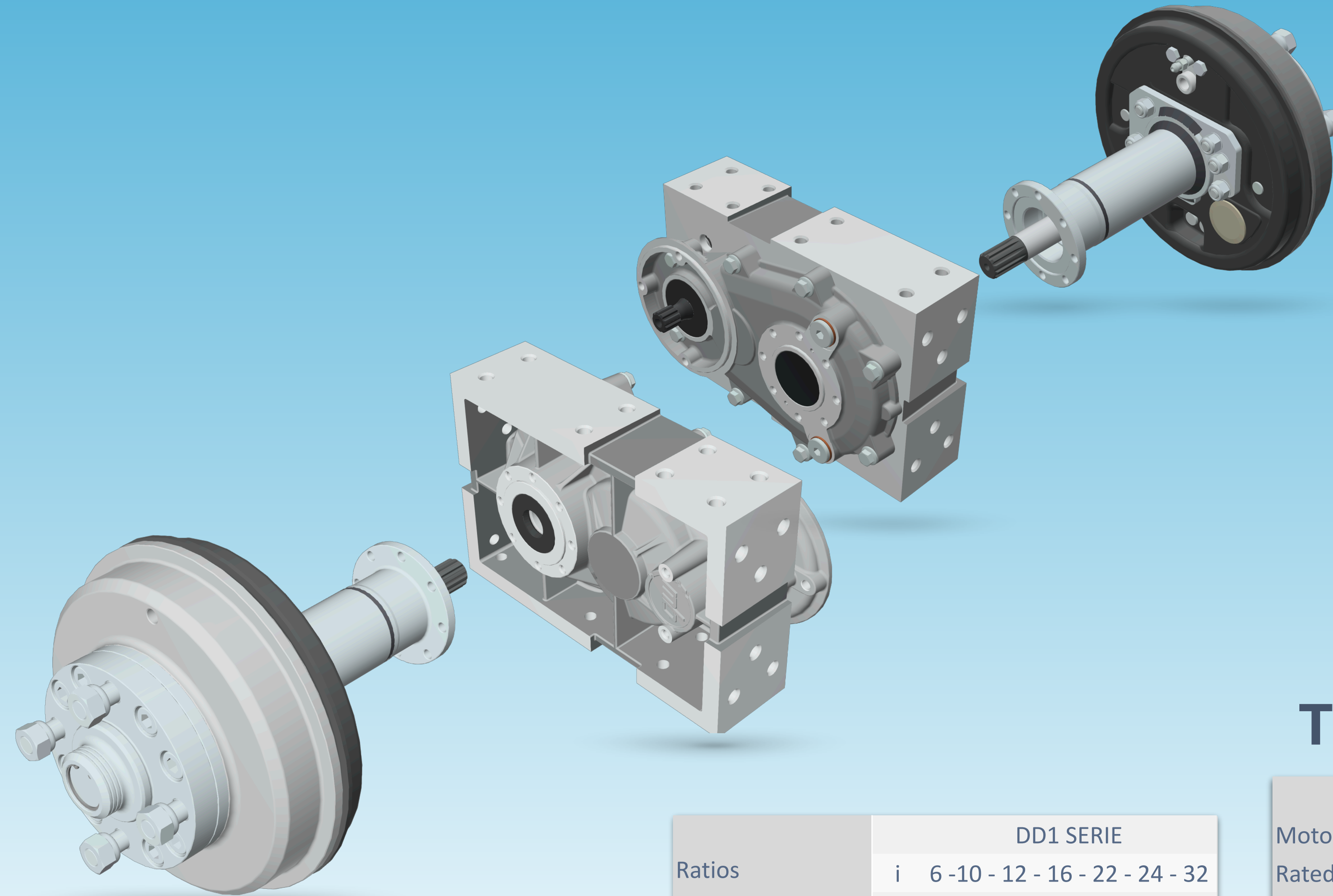
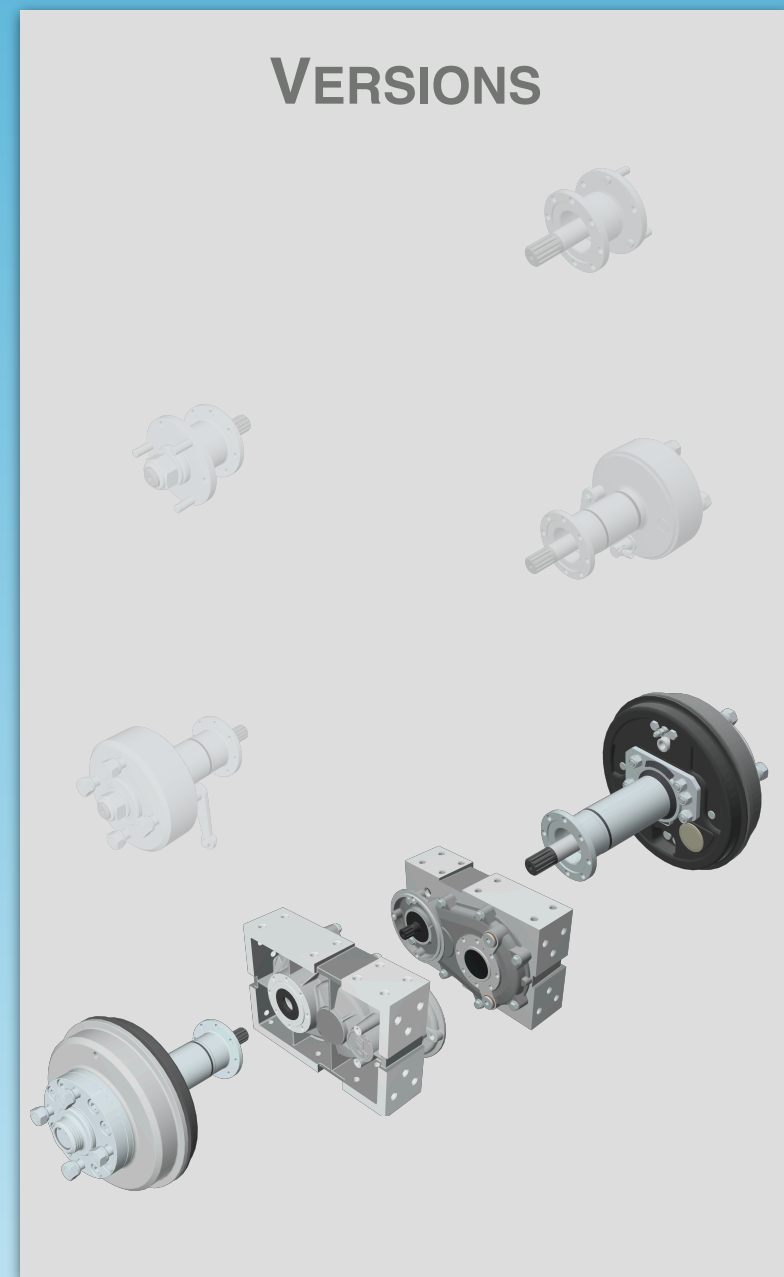


TECHNICAL FEATURES

	DD1 SERIE	
Ratios	i	6 - 10 - 12 - 16 - 22 - 24 - 32
Output Torque	Nm	500 x 2
Input Speed (Max)	rpm	7.200
Static Load	kg	500 x 2
Gearbox Finishing		Ground Gears
Efficiency	%	95
Lubrication		Synthetic Oil 75W90
Differential Lock		Electronic

	DD1 SERIE	
Motor Type		DC - ACIM - PMAC
Rated Power	kW	0,8 ÷ 6,0
Rated Voltage	V	24 ÷ 48
Insulation Class		F (155°)
IEC 60529	IP	20 ÷ 66
Service Braking		Mechanical Nm 1.200
Parking Braking		Electromagnetic Nm 12 ÷ 40
Manual Release		Optional
Increm. Encoder		Optional

DD1 SERIE - RIGID DRIVE AXLES VERSION

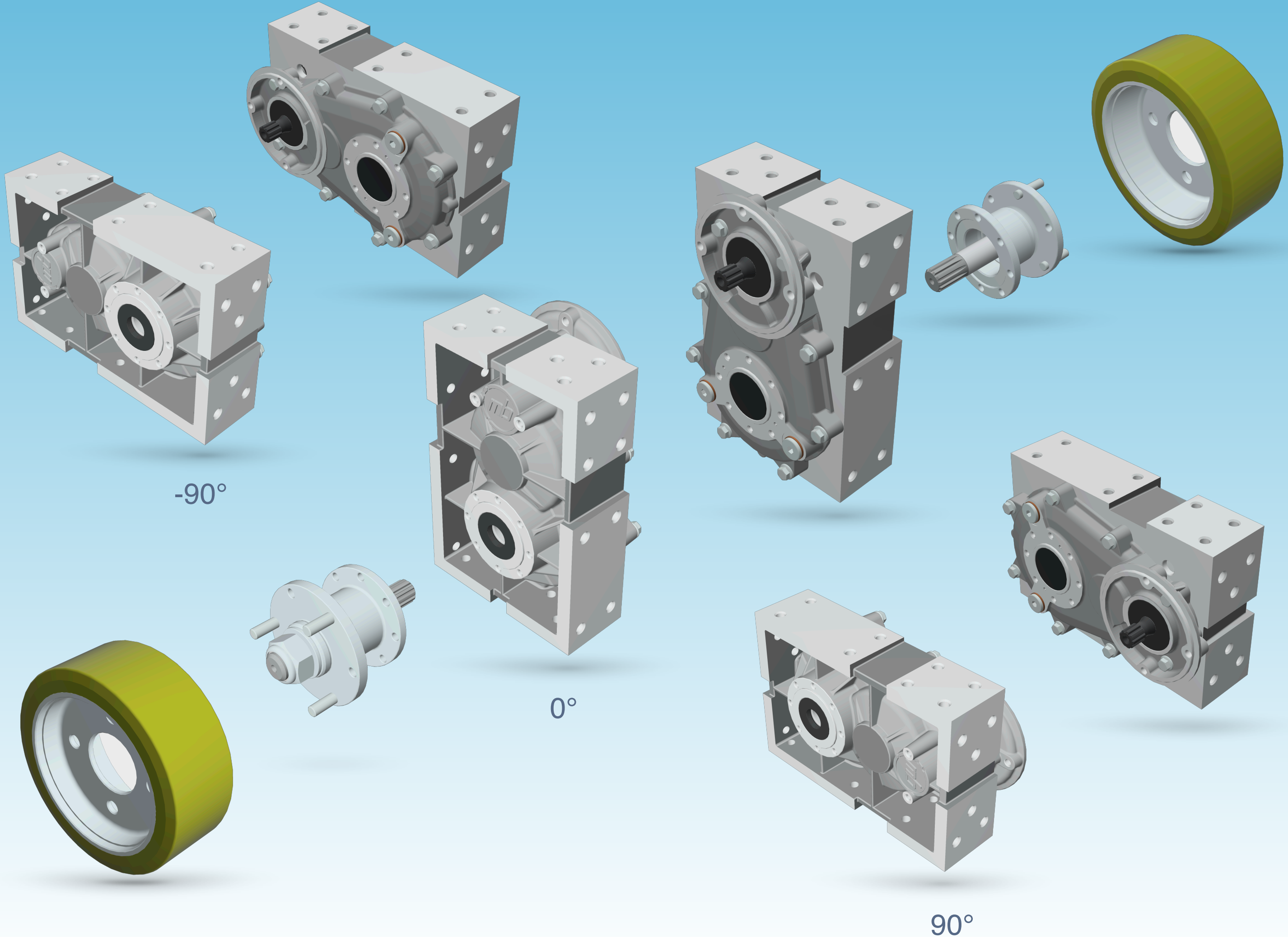


TECHNICAL FEATURES

	DD1 SERIE	
Ratios	i	6 - 10 - 12 - 16 - 22 - 24 - 32
Output Torque	Nm	500 x 2
Input Speed (Max)	rpm	7.200
Static Load	kg	500 x 2
Gearbox Finishing		Ground Gears
Efficiency	%	95
Lubrication		Synthetic Oil 75W90
Differential Lock		Electronic

	DD1 SERIE	
Motor Type		DC - ACIM - PMAC
Rated Power	kW	0,8 ÷ 6,0
Rated Voltage	V	24 ÷ 48
Insulation Class		F (155°)
IEC 60529	IP	20 ÷ 66
Service Braking		Hydraulic Nm 1.200
Parking Braking		Electromagnetic Nm 12 ÷ 40
Manual Release		Optional
Increm. Encoder		Optional

DD1 SERIE - INSTALLATION OPTIONS





MECHATRONIC SOLUTIONS

With the same philosophy that has distinguished us for 56 years, we are now able to design and build electric motors providing to customers complete mechatronic solutions

Our motors are available in three different technologies: DC, ACIM and the newest PMAC with power from 0.3 to 3kW and voltages from 24 to 48V.

Entrust to our technicians to define what is the best choice for your vehicle, we will be able to better guide you by offering comparisons between the different available systems

COMPARATIVE TABLE

	DC MOTORS	ACIM MOTORS	PMAC MOTORS
EM parking brake	✓	✓	✓
Speed encoder		✓	✓
Maintenance free		✓	✓
Noise level		✓	✓
Temp °C sensor		✓	✓
UL ready		✓	✓
High efficiency			✓
Constant torque			✓
Working Temp °C			✓



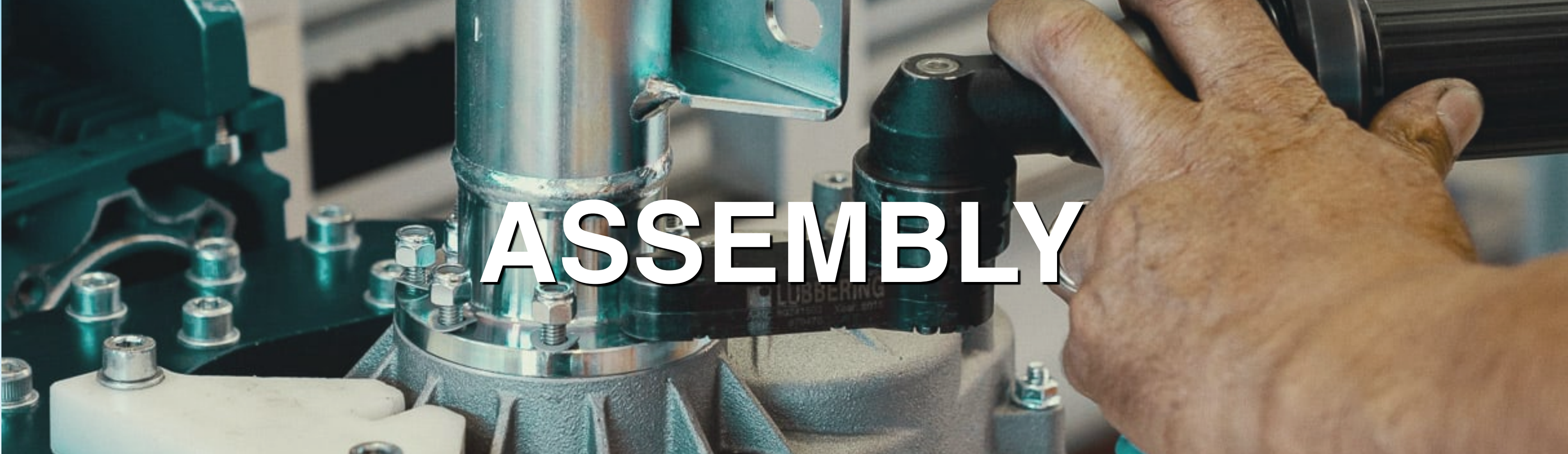
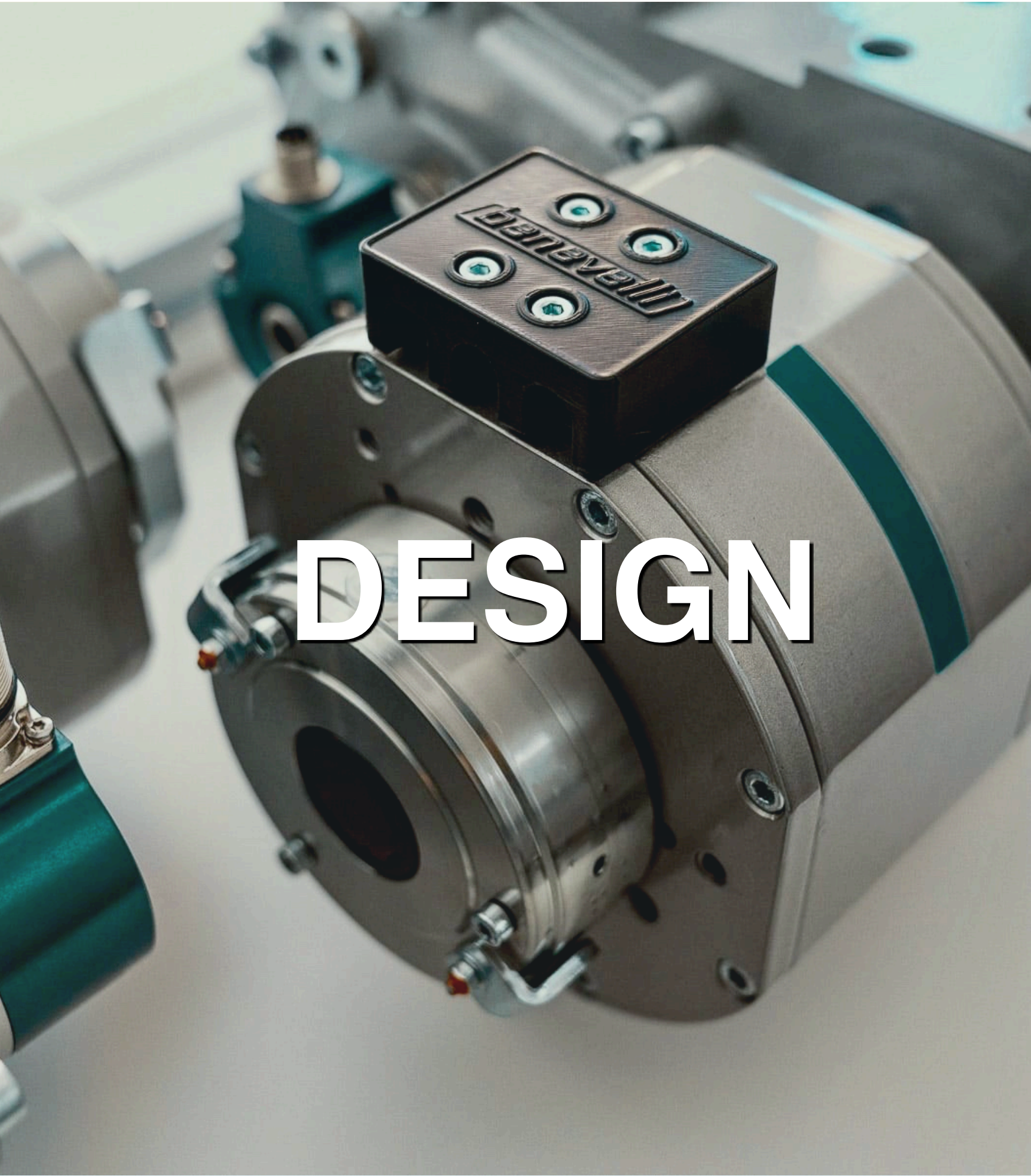
DD1 SERIE - eMOBILITY APPLICATION



OUR CUSTOMERS

DRIVING THE FUTURE OF ELECTRIC VEHICLES

Benevelli expertise is transferable to many industries and our projects reflect this diversity. Benevelli has experience in eMobility market and we are able to follow the electrification of your vehicles from prototype to serial production.



ABOUT BENEVELLI

E-MOBILITY TECHNOLOGIES PIONEERS

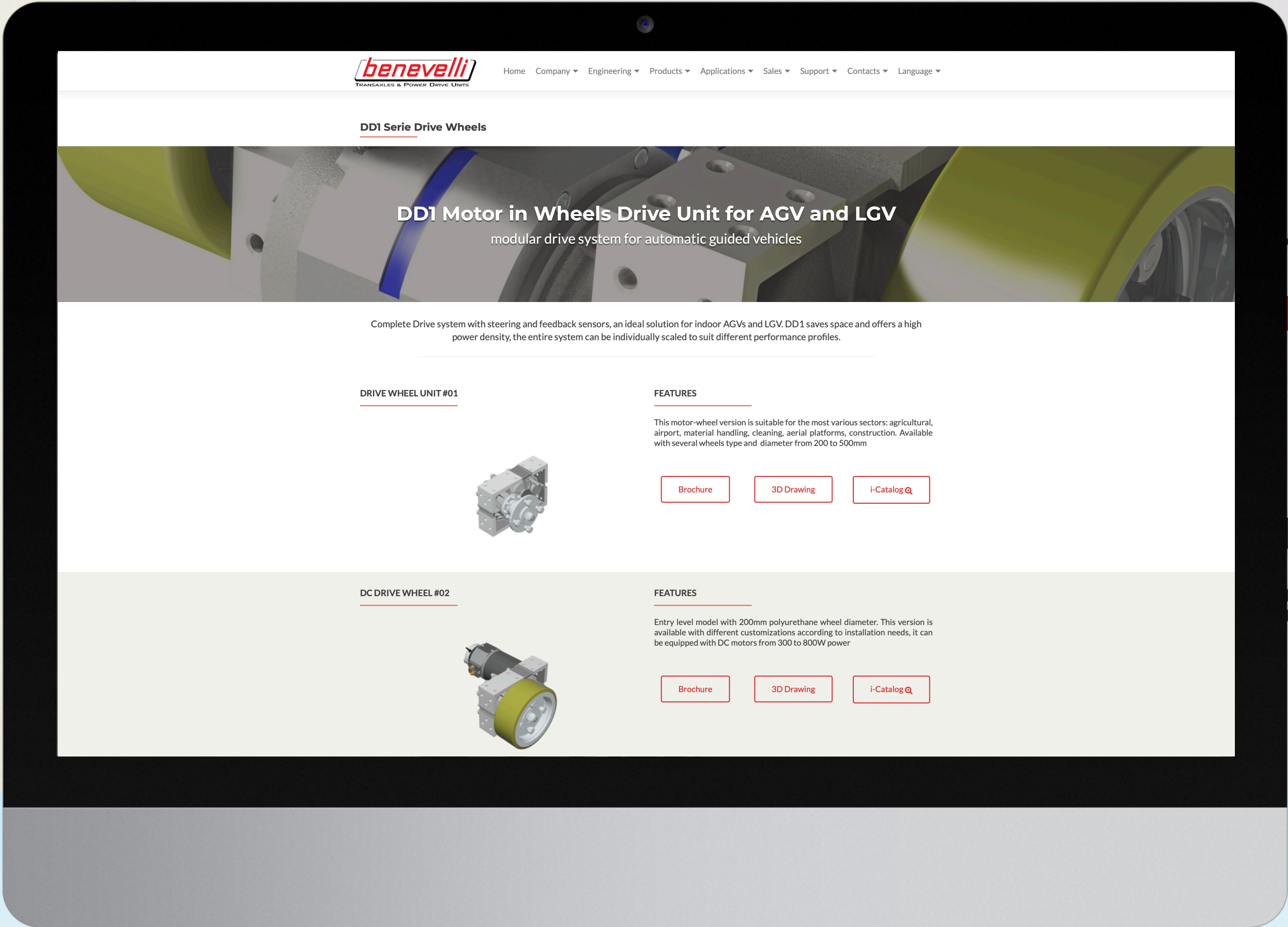
Benevelli has been working for more than half a century manufacturing products reliable and of superior quality, creating a competitive advantage for customers. Benevelli follow 100% of production processes maintaining total control of manufactured parts and work progress

Our Expertise Drives Innovations

Our team of expert engineers is ready to work with you to understand the exact functionality your equipment needs to operate at optimum capacity, and then design a solution to help make it possible.



WE ARE A COMPLETE SOLUTIONS PARTNER



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