



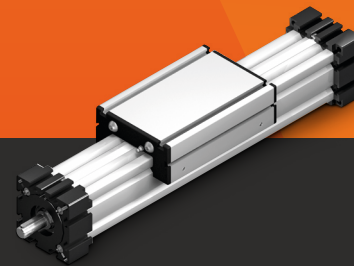
world of motion



ELECTRO MOTORS



GEARBOXES



LINEAR TECHNOLOGY



DRIVES



> 2100

Number of active customers



2 600 m²

Storage area



350+ mil.

Turnover



4

Number of branches

We are a traditional Czech supplier of motion technology and we belong to the market leaders for long time.

Our range of drive technology is large and covers a wide range of applications, not only in industrial automation.

Our team of experts combine their knowledge and experience to create innovative and functional solutions as both in terms of parameters and price. We have many years of experience in a wide range of applications across the industry.

We are not just a trading company, we are fully involved in the creation of the final product on our premises.

We have the ability to complete gearboxes, we have the technology to cut and machine linear guides or ball screws.

Our team of engineers and programmers provide much needed support in design and implementation of our products. Thousands of customers appreciate RAVEO especially because of its responsible approach to designing the right solution, attractive price, fast delivery time and also human touch.

We are a team with a passion for movement and positioning!



Ing. Radek Kanovsky



Ing. Ales Zapletal



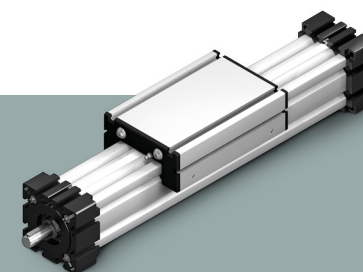
ELECTRO MOTORS



GEARBOXES



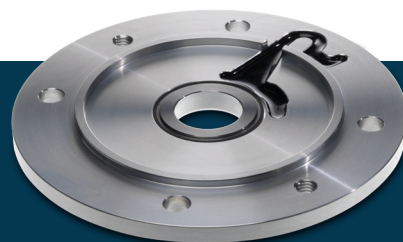
LINEAR TECHNOLOGY



DRIVES



ACCESSORIES



SPECIAL UNITS





AC motors

- power range from 40 W to 200 kW
- single-phase, three-phase power supply
- output flanges: IMB 14, IMB 5
- efficiency classes: IE1, IE2, IE3, IE4
- speeds: 2 - 4 - 6 - 8 pole design
- accessories:
 - Temperature protection - PTO, PTC
 - incremental encoder TTL, HTL
 - brake
 - forced cooling



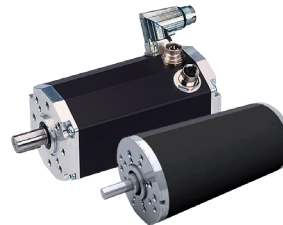
Compact motors

- power range from 6 W to 400 W
- power supply: 1x230, 3x230, 3x400 VAC
- design:
 - induction
 - reverse
 - with brake
 - with brake and clutch
 - with speed control
 - with torque control



DC motors

- power range from 5 W to 10 kW
- power supply: 12, 24, 36, 48, 90, 170 VDC
- designs with permanent or rare earth magnets
- brush, brushless design
- output speed: 1 500 - 12 000 rpm
- accessories:
 - speed controller
 - brake
 - encoder
 - protection up to IP66



Servo motors

- power range from 100 W to 20 kW
- power supply: 1x230, 3x400 VAC / 24, 48 VDC
- absolute, incremental encoder
- brake option, single cable design
- output speed: 1,000 - 8,000 rpm
- special design:
 - IP65 Wash Down
 - IP65 Food Wash Down
 - IP67 stainless steel design



ATEX motors

- power range from 180 W to 132 kW
- size: 63 - 315
- EEx de and EEx d
- zone: 0, 1, 2 - gases and steam
- zone: 20, 21, 22 - dusts

FUMEX flameproof motors

- Power range from 0.75 W to 400 kW
- size: 80 - 355
- temperature resistance: 200, 400, 600, 842 °C



Electrospindles

- power range: 0,19 - 40 kW
- output speed up to 40 000 rpm
- cooling by air or liquide
- ceramic bearings
- tool clamping interface - ISO 30, HSK 32E, 40E, 63F, 63E
- encoder option
- accessories:
 - ISO + HSK tool holders
 - rotary tool chargers
 - C-axis
 - cooling unit



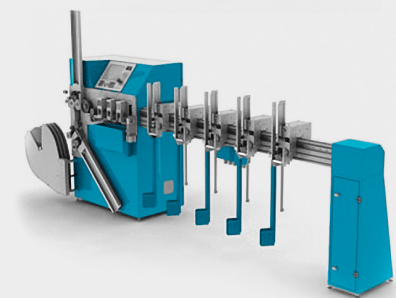
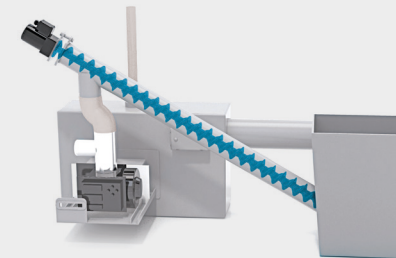
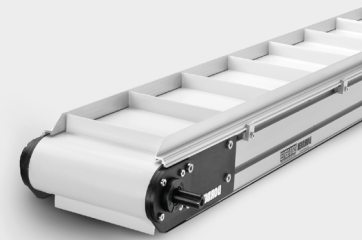
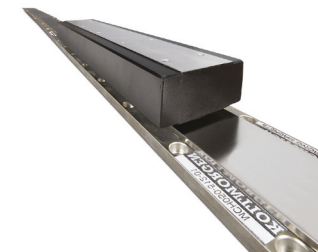
Stepper motors

- size: 20, 28, 42, 56, 60, 86, 110
- power supply: 24, 40 - 70 VDC
- design:
 - without feedback
 - with feedback:
 - incremental encoder
 - absolute encoder
- ecoder resolution up to 32 000 p/r
- output speed: 1 - 3 000 rpm



Linear motors

- force: 175 - 5 341 N
- width of construction: 60 - 280
- iron, ironless
- positioning accuracy depending on used linear gange
- maximum speed 10 m/s
- maximum acceleration 100 m/s²
- available as components or as an integrated version

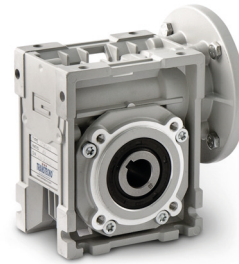




GEARBOXES

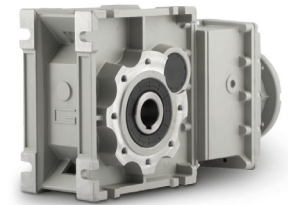
Worm gearboxes

- size range: 26 - 110, 130 - 250
- output torque: 15 - 13 720 Nm
- gear ratio: 5 - 3 600
- design: aluminium, cast iron
- possible connections:
 - with pre-stage
 - with second worm gearbox
 - with planetary gearbox
- optional accessories



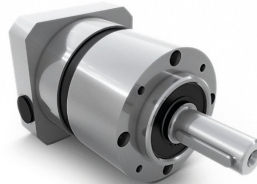
Helical bevel gearboxes

- size range: 402 - 903, 42 - 44
- output torque: 5 - 3 500 Nm
- gear ratio: 6.18 - 262.96
- design: aluminium, cast iron
- ground, hardened gearing
- dimensionally interchangeable with worm gearboxes up to size 903
- stainless steel option
- optional accessories



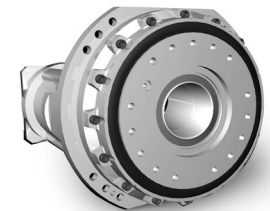
Planetary gearboxes

- design: straight, angled
- gear ratio: 3 - 10 000
- output torque: 3 - 15 000 Nm
- tooth clearance: 20 - 1 arcmin
- input speed up to 10 000 rpm
- size range: 40 - 450
- design: aluminium, steel, stainless steel
- connection to any electric motor
- ATEX design



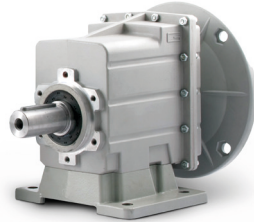
Cycloidal gearboxes

- implementation:
 - straight / angled
 - solid / hollow output shaft
- gear ratio: 11 - 284
- output torque: 58 - 44 000 Nm
- up to five times overload capability
- backlash: 1 arcmin
- output speed up to 250 rpm
- lubricant: Molywhite RE00, Vigogrease RE0, RV oil



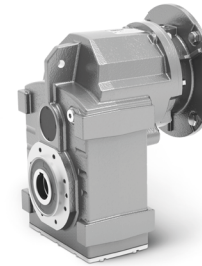
Spur gearboxes

- size range: 002 - 033, 11 - 14
- output torque: 2 - 3 500 Nm
- gear ratio: 3.7 - 398.3
- design: aluminium, cast iron
- ground, hardened gears
- optional accessories



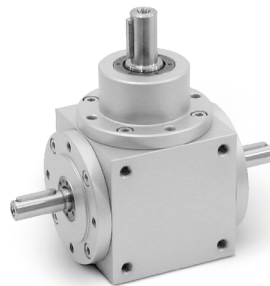
Offset gearboxes

- size range: 105 - 196, 92 - 94
- output torque: 50 - 3 200 Nm
- gear ratio: 5.03 - 405.42
- design: aluminium, cast iron
- ground, hardened gears
- optional accessories



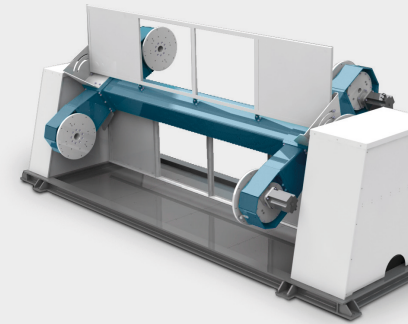
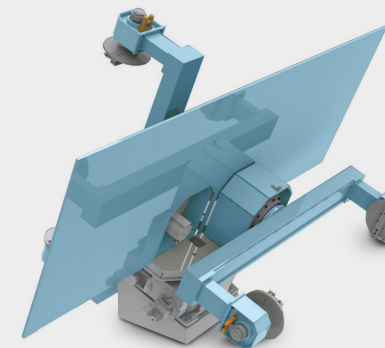
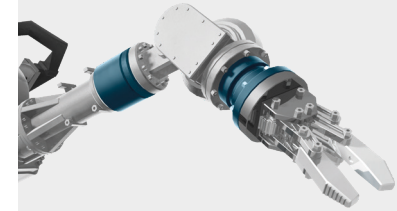
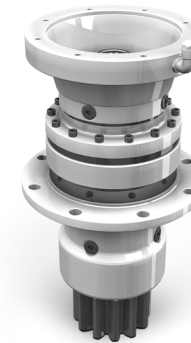
Bevel gearboxes

- size range: 035 - 350
- output torque: 16 - 5 400 Nm
- gear ratio: 1 - 6
- design: L, T, X
- output: shaft, hollow shaft,
- clamp coupling
- backlash: 30 - 6 arcmin
- ATEX design
- design: cast iron, aluminium, stainless steel



High-performance planetary gearboxes

- design: straight, angled
- gear ratio: 3 - 20 000
- output torque: 514 - 1 300 000 Nm
- mounting: flanged, footed
- output: output shaft, hollow shaft connection with all conventional electric motors and hydraulic motors
- accessories: DC, AC and hydraulic brake





LINEAR TECHNOLOGY

Linear guide

- sizes: 15, 20, 25, 30, 35, 45, 55
- accuracy classes: $\pm 100 \mu\text{m}$ to $\pm 5 \mu\text{m}$
- carriage design: standard, flanged
- 4 rows of rotating balls in „0“ configuration
- preload: $-46 \mu\text{m}$ to $+13 \mu\text{m}$
- maximum positioning speed 5 m/s
- maximum acceleration 300 m/s²
- accessories:
 - lubrication storage
 - bottom, end seals



Linear guide

- sizes: 2, 3, 5, 7, 9, 12, 15
- stainless steel blocks
- accuracy classes: $\pm 40 \mu\text{m}$ to $\pm 10 \mu\text{m}$
- rail design: standard / wide
- preload: $-6 \mu\text{m}$ to $+6 \mu\text{m}$
- maximum positioning speed 3 m/s
- maximum acceleration 250 m/s²
- accessories:
 - lubrication
 - bottom, end seals



Racks and pinions

- module: 0.79 - 30
- straight / helical teeth
- three types of materials: SAE 1141, C45E, 42CrMo4
- lengths: 0.5 / 1 / 1.25 / 1.5 / 1.75 / 2
- different pinion types
- custom manufacturing
- hardened, ground, cemented design
- possible surface finishes - phosphating, blackening, nickel plating



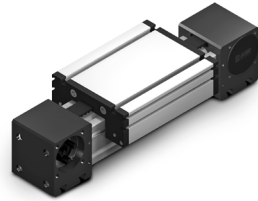
Ball screws

- rolled screws with precision T3, T5, T7, T9
- diameter: 6 to 80 mm
- pitch 1 to 64 mm
- right-hand, left-hand
- preload: C0 - C5
- custom end machining
- accessories:
 - Bearing houses
 - lubrication systems



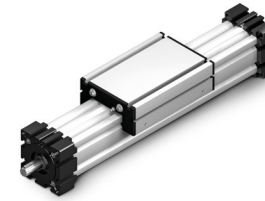
Linear units - belt

- profile size: 30 - 200 mm
- maximum speed 10 m/s
- accuracy: ± 0.1 mm
- rotating or fixed belt version
- maximum length 6 m without connection [with rotating belt]
- variants:
 - internal rotating belt
 - external rotating belt
 - telescopic design
 - ATEX, stainless steel



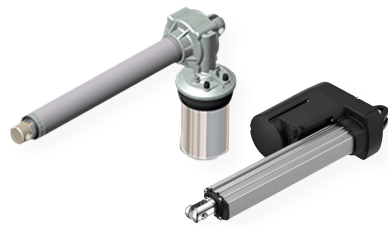
Linear units - screw

- profile size: 30 - 200 mm
- maximum speed 1 m/s
- accuracy: ± 0.1 mm / 0.025 mm
- ball or trapezoidal screw
- maximum length 3 m
- variants:
 - drive shaft on both sides of the unit
 - sliding / roller / ball guide
 - telescopic design
 - synchronous positioning of two trolleys



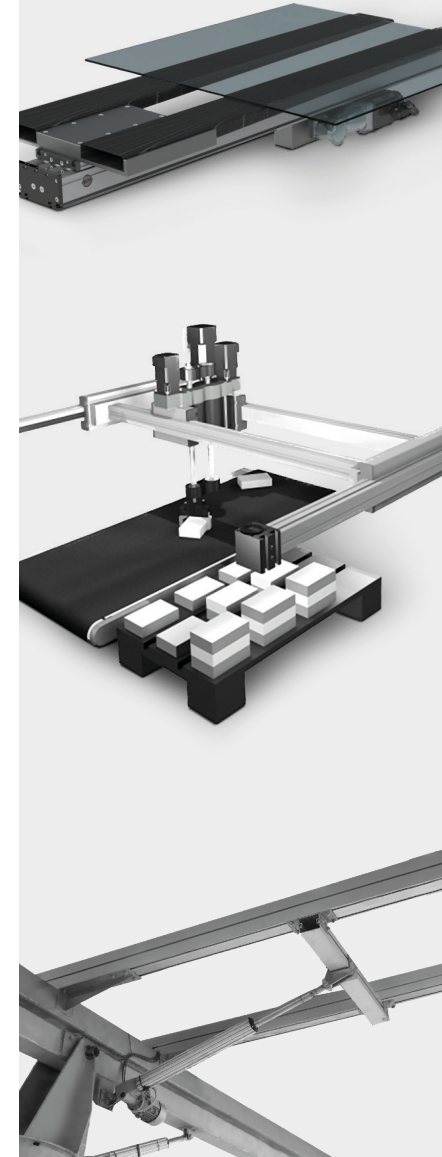
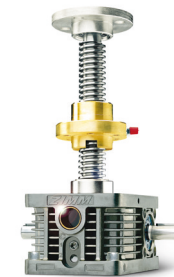
Actuators

- design: AC, DC, servo
- stroke: 50 - 1 800 mm
- force: 95 - 50 000 N
- speed: 2 - 250 mm/s
- in line or parallel motor connection
- trapezoidal / ball screw
- protection: IP 55 - 67
- ATEX design
- accessories:
 - end sensors
 - encoder / potentiometer



Screw jack

- stroke: 50 - 6 000 mm
- force: 5 - 1 000 kN
- design: static / telescopic screw trapezoidal / ball screw
- accessories:
 - end sensors
 - encoder / potentiometer
 - wide range of connections
 - gearboxes and shafts
 - safety nuts, bellows



88 DRIVES

Frequency converters

- power range: 0,4 - 90 kW
- power supply: 1x230 VAC, 3x400 VAC
- control: scalar, vector
- removable LED, LCD display
- integrated EMI filter
- built-in braking resistor up to 22 kW
- digital and analog inputs/outputs
- communication: PROFIBUS, CANopen, Multi-Ethernet



Compact motor drives

- speed, torque control
- speed control: 90 - 1400 rpm
- Power range: 6 - 180 W
- power supply: 1x230 VAC
- design: panel / DIN rail mounted
- display of current speed
- start/stop ramps
- potentiometer output option
- communication: RS485, Modbus



Stepper motor drives

- control: pulse, position table
- power supply: 24, 40 - 70 VDC
- microstepping up to 0.0072°
- smooth movement from 0.2 rpm
- speed control: 0 - 3,000 rpm
- communication: RS485 Modbus, EtherCAT, PROFIBUS, Ethernet, SynqNet



Servomotor drives

- power range: 0,1 - 32 kW
- power supply: 1x230 VAC, 3x400 VAC
- position, torque, speed control
- autotuning, internal oscilloscope
- control: pulse, analogue, communication
- integrated two-axis control
- two-channel STO
- communication: EtherCAT, CANopen, PROFINET IRT and Ethernet/IP



DC motor drives

- power supply: 10 - 30 VDC
- speed control
- for motor voltage: 12, 24, 90 VDC
- current load: 20 - 40 A / 60 - 120 A
- speed control with ext. voltage 0 - 10 V or potentiometer 5 - 10 k Ω
- start/stop ramps
- digital inputs / outputs
- current limit setting
- thermal protection



BLDC drives

- power range: 30 - 1160 W
- power supply: 1x230 VAC / 20 - 84 VDC
- speed control
- for motor voltage: 24, 36, 48 VDC
- current load: 7 - 20 A / 14 - 40 A
- stable and infinitely variable speed control
- ramp and direction of rotation setting
- digital inputs / outputs
- current limit setting



Motion controllers

- up to 32 synchronized axes for position control
- up to 128 axes for coordinated movement
- integrated PLC
- 64 MB internal memory
- SD Card slot
- two versions 800 MHz processors and 1200 MHz
- integrated I/O: 6 DI, 2 DO (expandable via external I/O)
- communication: EtherCAT, Modbus, TCP/IP, Ethernet IP, Profinet



DC actuator drives

- power range: 120 - 720 W
- power supply: 12 - 48 VDC, 100 - 230 VAC
- control of: 1 - 7 actuators
- for motor voltage: 12, 24, 36, 48 VDC
- current load: up to 15 A
- synchronisation of two actuators
- ramp and direction of rotation
- digital inputs/outputs
- current limit setting



**PROFI[®]
BUS**

**ETHERNET
POWERLINK**

Modbus

EtherCAT[↔]

CANopen

**PROFI[®]
NET**

EtherNet/IP[™]

CC-Link

SynQNet[™]



ACCESSORIES

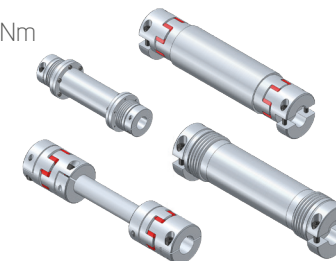
Shaft couplings

- transmitted torque: up to 5,000 Nm
- shaft diameter 2 - 100 mm
- types:
 - bellows
 - elastomer
 - torsionally flexible
 - magnetic
 - safety
 - shrink discs
 - locking
- stainless steel option



Shaft coupling

- transmitted torque: up to 600 Nm
- shaft length up to 6 000 mm
- couplings:
 - bellows hub
 - split bellows hub
 - elastomer
 - split elastomer



Encoders for AC motor

- innovative flange design
- compatible with IEC motors sizes 56 - 225
- motor speed sensing up to 6,000 rpm
- 1 - 2 048 pulses (A,90°B) per revolution
- dual channel output
- non-contact sensing
- protection up to IP67



Grease

- for cycloid gearboxes:
 - Mollywhite RE00
 - Vigogrease RE0
 - RV oil
- for planetary gearboxes:
 - Nyogel, Multemp
- for conventional gearboxes:
 - Tivela SC320
- for lubrication systems:
 - NGLI Grade II



Lubrication systems

- for lubrication of pinions, linear guides and ball screws
- lubricant volume 400/2 000 cm³
- maximum number of lubrication positions 16/40
- maximum pressure 70 bar
- adjustable lubrication frequency
- accessories:
 - straight/angle connectors
 - PA tubes
 - distributors



Lubrication pinions

- straight, helical - right, left hand
- module M1 - M12
- number of teeth: 14, 17, 24, 36
- special polyurethane material
- straight and angled mounting shafts



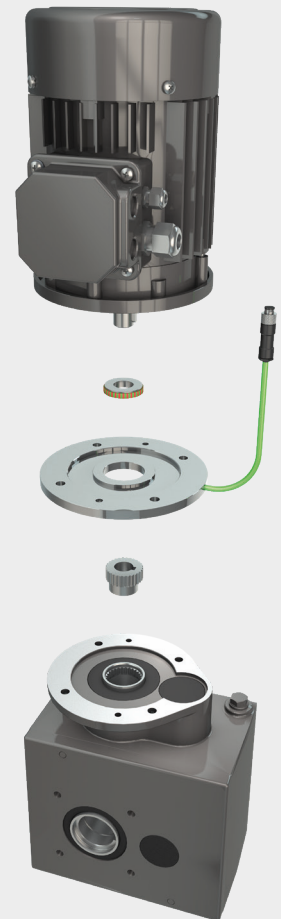
Accessories for gearboxes

- output flanges
- output shaft: single-sided, double-sided
- input shaft
- IEC input flanges, custom
- torsion arm
- feet
- protective cover



Rotary sensors

- incremental encoders for DC motors
 - resolution: 1 - 360 p/rev
 - single or dual channel design
- rotary encoders for worm gearboxes
 - number of contacts: 2 - 4
 - potentiometer option
 - cam profiles: 20°, 45°, 90°, 180°





SPECIAL UNITS

Birotary units

- spindle positioning at 50° or 90°
- for spindles from 5 to 52 kW
- mechanical locking in the machining position
- rotation accuracy in both axes 1 arc. min
- max. rotation angle : C axis +320°, A (B) axis +185°
- possibility of absolute encoders on C, A axes



Aggregated units

- ISO 30 or HSK 63F interface
- drilling units - single-sided, double-sided
- cutting units - single-sided, double-sided
- tilting drilling units
- grooving units
- copying units
- multi-tool units



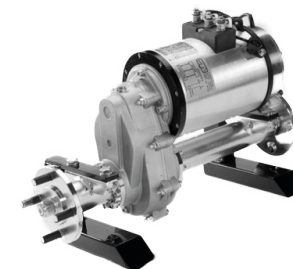
Drive wheels

- wheel load: 400 - 6000 kg
- integrated traction and swivel drive
- AC, DC, PMS motors
- traction motor power up to 12 kW
- supply voltage: 24, 36, 48, 96 VDC
- wheel diameter: 205 to 559 mm
- accessories:
 - end rotation sensors
 - rotation encoder
 - traction drive encoder
 - anti-static design of the drive



Differential axles

- axle load up to 1600 kg
- AC, DC, PMS motors
- traction motor power 250 W - 20 kW
- supply voltage: 24, 36, 48, 96 VDC
- accessories:
 - disc brakes
 - encoder and tachometer
 - wheel hub: Balilla, Fiat, BMW, Vespa



SCARA robots

- load: 1 -50 kg
- arm length: 120 - 1200 mm
- repeatability up to: +/- 0.01 mm
- speed: up to 7m/s
- communication: DeviceNet, EtherNet, PROFIBUS, EtherCAT, PROFINET



Collaborative robots

- number of joints: 6
- load: 3, 5, 12, 14 kg
- arm length: 630, 915, 1300, 1420 mm
- repeatability: +/- 0.05 mm
- speed up to 1.5 m/s
- 4 DI/ 4 DO, 2 AI
- arm material: steel and aluminium



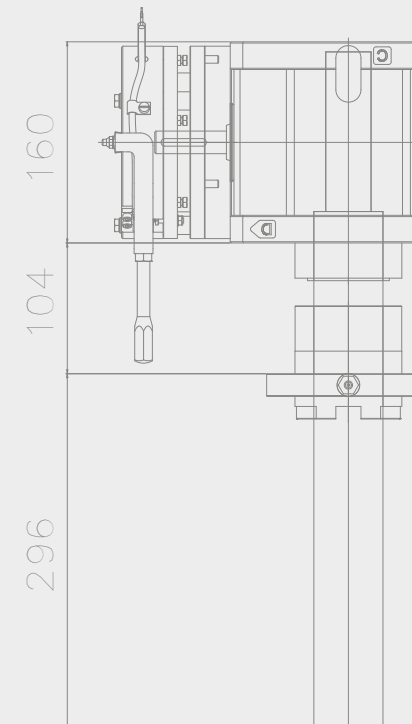
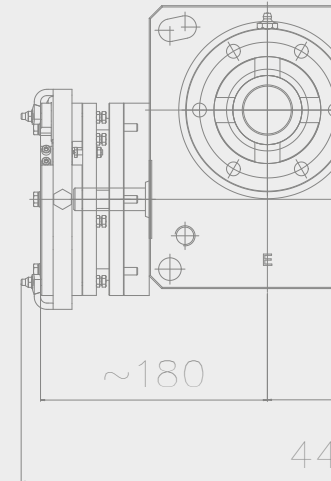
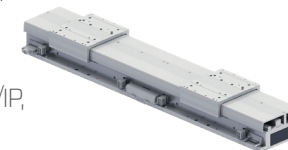
Industrial robots

- load: 4 - 600 kg
- arm length: 832- 3281 mm
- repeatability up to: +/- 0.05mm
- speed: up to 4 m/s
- communication: DeviceNet, EtherNet, PROFINET, EtherCAT, CC-link



Modular conveyor with linear motor

- maximum positioning speed: 3,500 mm/s
- repeatability $\pm 5 \mu\text{m}$
- minimum distance between carriages: 210 mm
- maximum axial load on the carriage: 30 kg
- maximum number of trolleys per track: 64
- communication interfaces: EtherCAT, EtherNet/IP, PROFINET, CC-Link





SERVICES

The most comprehensive website on the market

Our website offers you a perfect overview of all products, services and activities, we provide to our customers.

3D models and projections

As a standard service for our customers we also consider the possibility of using 3D modelling and subsequent projection of the solution.

Trade Fairs

Every year we participate at well-known European trade fairs, which are the International Engineering Fair in Brno or the AMPER trade fair.

Professional training

Not just to our employees, but we also offer professional training to our customers. We provide training on electric motors, robots, linear technology and drives.

APPLICATIONS



AGV



PLOTTR



MEDICINE



SINGLE-PURPOSE
MACHINES



HANDICAP



MANIPULATION



AUTOMATIC
ACCESSES



MIXING



CONVEYORS



HOUSEHOLDS



AVIATION



AGRO



CNC



TOURNIQUETS



TRANSPORT
TECHNOLOGY



WHY RAVEDO

According to the customer's wishes

We will propose you several functional solutions both in terms of technology and as well as price. The proposal includes the selection of individual components, precise calculations and the possibility of programming the drive according to your wishes.

Complete stock availability

Fixed stock and 2,400 m² of warehouse space are essential factors for fast delivery of goods. A sophisticated stacking system, which can be tailored directly to individual customers, helps us to achieve this. This ensures that the goods are always with you at the right time.

RAVEDO On CUE


The RAVEDO On CUE service will provide you with an on call technician. We provide our customers with options maintenance, repair or immediate replacement of a defective piece.

Created for our world

Normal human attitude and logic are correct. This idea we have held since the founding of our company. We will always find a way and a form of cooperation so to achieve together the desired goal.

REFERENCES





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