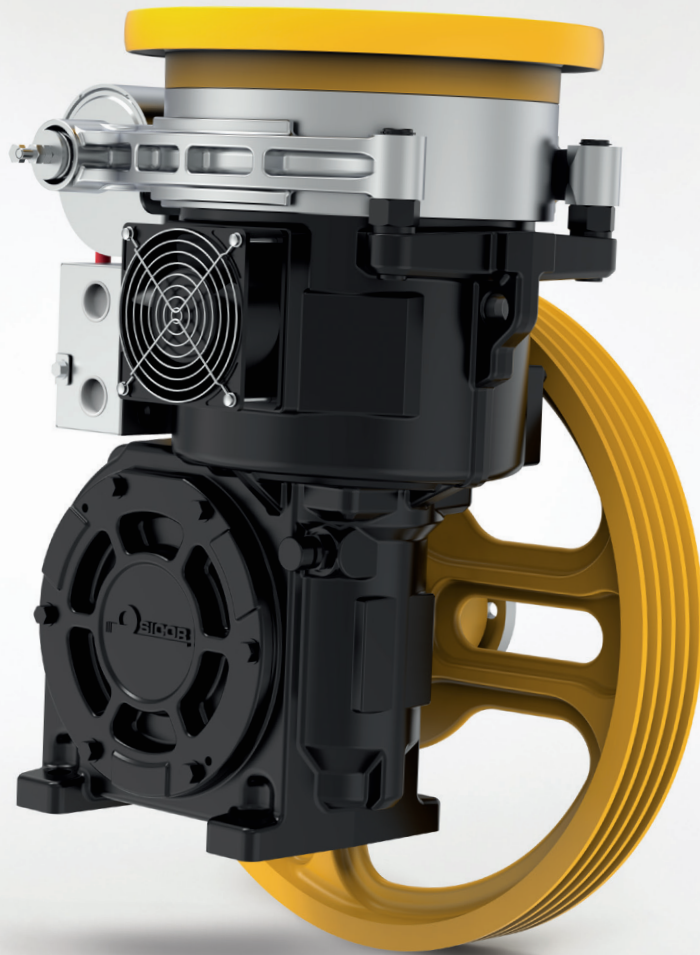


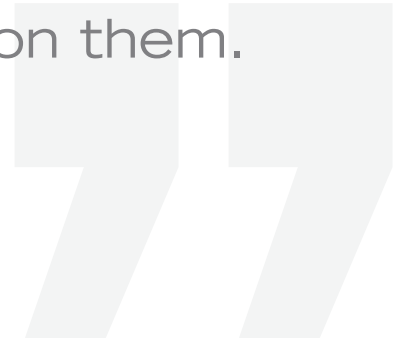
# SV110

## GEARED MACHINES





Understanding the market,  
anticipating its needs,  
making them ours and  
building our projects on them.



## Driving the future

Sicor S.R.L., founded in 1981 in Rovereto (TN) as a manufacturer of lifting machines for elevators. Always focused on the application, thanks to a constant process of research and development, Sicor has developed over the years a complete range of products, geared and gearless machines, fit to satisfy the many and varied needs of the market.



Design and production are carried out according to a tested Quality System which guarantees the reliability and performance of the machines.

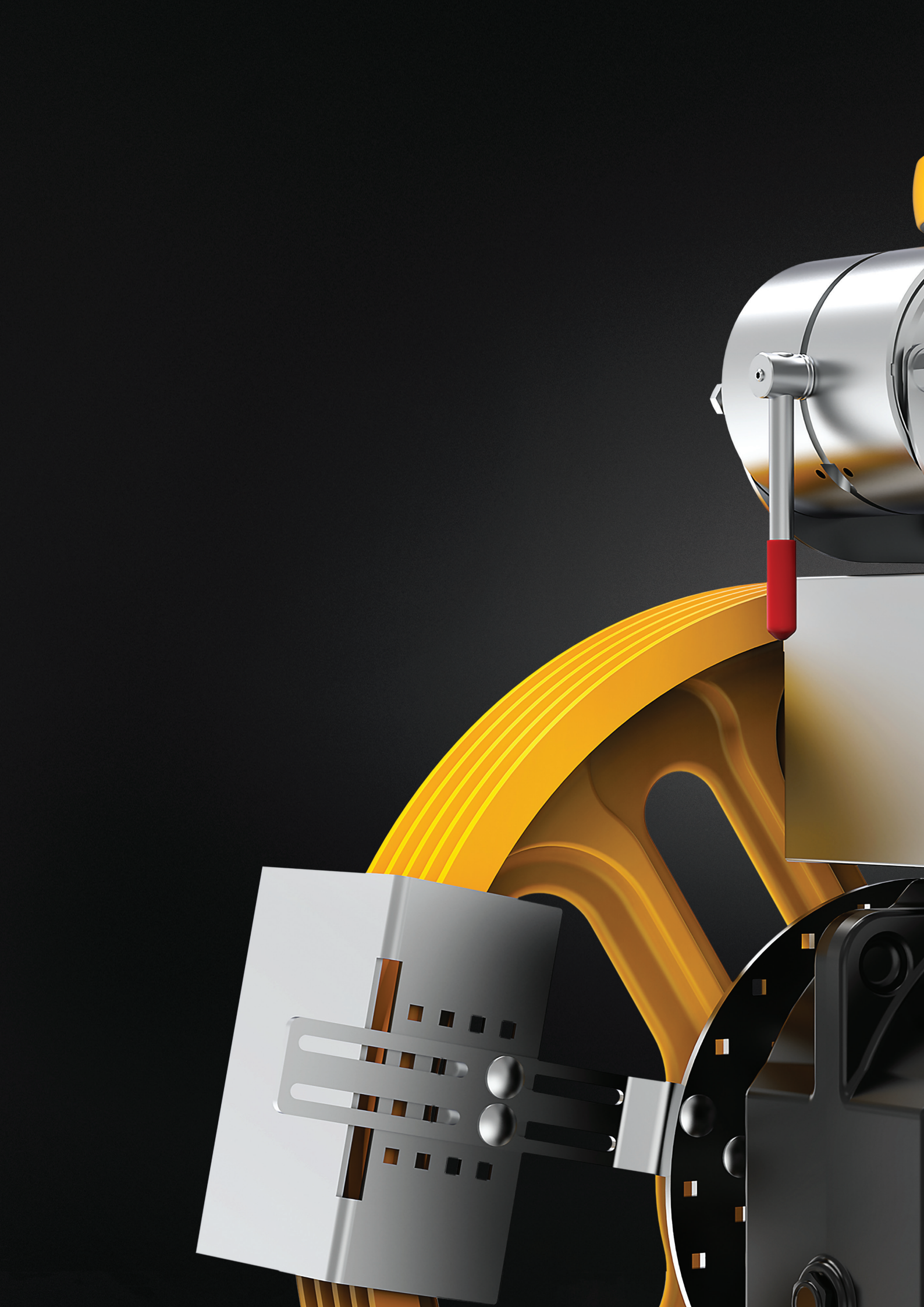
Each produced motor is subjected to a rigorous final test and quality checks are carried out on all the components.

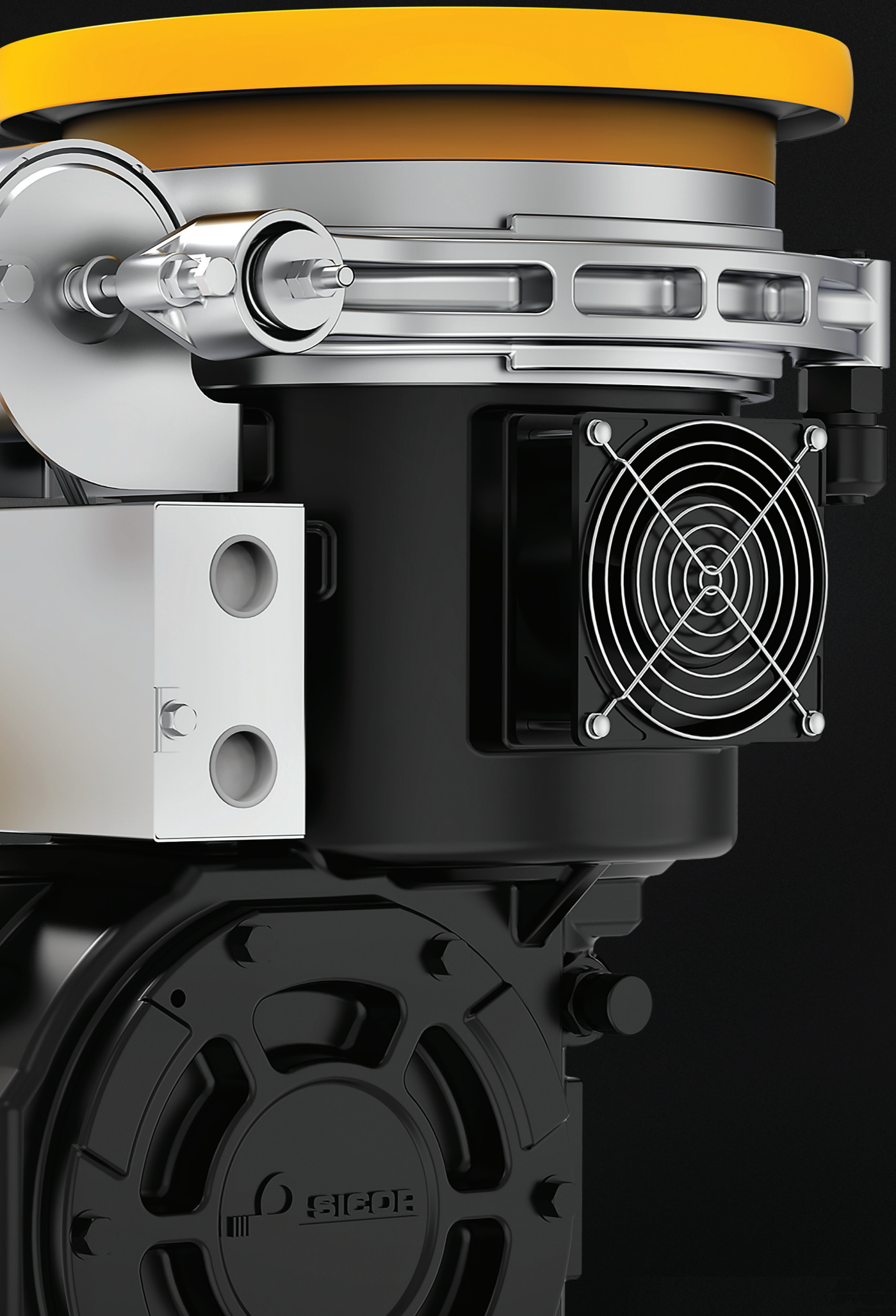
The test tower allows the verification of machines in the real operating environment of the final customer allowing a perfect set-up.

An innovative online product configurator allows to quickly identify the appropriate traction unit based on the main specifications of the lift system.

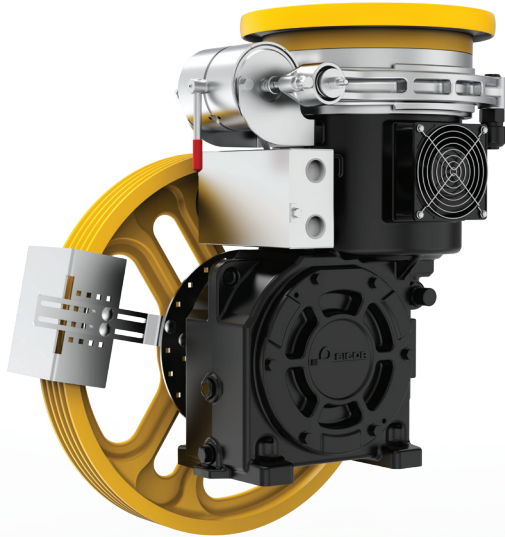
SICOR has also certified its quality system, its health and safety management system and its environmental management system according to the most important international standards.

The market needs new answers and Sicor offers them through a new vision, made up of agility, innovation, customer involvement and service quality.





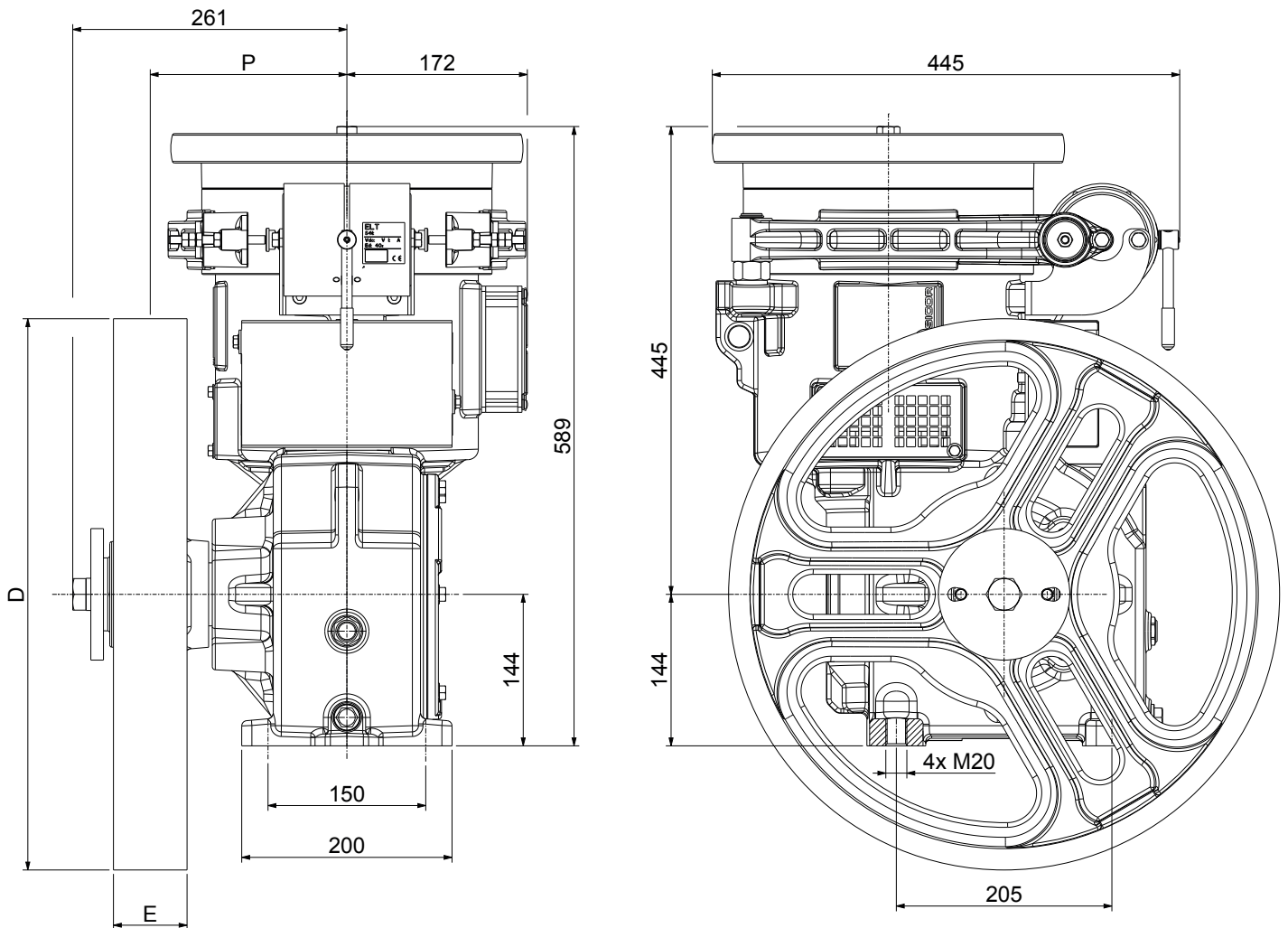
# GEARED SV110



Max. Static Load SV110 **19,62 kN - 2000 kg**  
 Power Range 50 Hz 4 poles VVVF **4 ÷ 5,5 kW**  
 Power Range 60 Hz 4 poles VVVF **4,4 ÷ 6 kW**  
 Ratio **1/55; 1/43**  
 Geared Weight SV110 **160 kg**  
 Oil capability **2 l**  
 Geared machine **Only vertical**

*The geared machine efficiency values are present above each "rated load" table  
 The motor efficiency values are present in the table "electric motor data"*

## DIMENSION SV110



Wrapping System	Traction sheave		Dimension P [mm]	Load*) F [kN - kg]	Static Load Direction [%]	Brake Electromagnet		
	D [mm]	E [mm]				[V]	[A]	[W]
CSW	480	70	187	19,62	100% $\left\langle \begin{array}{c} \updownarrow \\ \leftarrow \rightarrow \end{array} \right\rangle$ 100% 100%	24	5,25	126
	520					48	2,30	110
						60	1,77	106
						80	1,50	120
						110	1,02	112
						200	0,63	126

\*) Max. static load on the slow shaft: CSW:Conventional single wrap

**DUTY TABLE**

Roping 1:1

50Hz					
VVVF 1500 rpm 4 Poles					
Motor Output [kW]					
R.R.	Traction Sheave Ø	Speed syn.	Frequency	VVVF 4	VVVF 5,5
				Max Rated Load	
[i]	[mm]	[m/s]	[Hz]	[kg]	[kg]
1/55	480	0,27	20	460	460
1/55	480	0,34	25	460	460
1/55	480	0,41	30	460	460
1/55	480	0,48	35	460	460
1/55	480	0,55	40	460	460
1/55	480	0,62	45	460	460
1/55	480	0,69	50	460	460
1/55	520	0,74	50	425	425
1/55	600	0,77	45	365	365
1/43	480	0,79	45	475	475
1/43	480	0,84	48	475	475
1/43	480	0,88	50	475	475
1/43	520	0,91	48	435	435
1/43	520	0,95	50	435	435
1/43	600	1,05	48	380	380
1/43	600	1,10	50	380	380

60Hz					
VVVF 1800 rpm 4 Poles					
Motor Output [kW]					
R.R.	Traction Sheave Ø	Speed syn.	Frequency	VVVF 4,4	VVVF 6
				Max Rated Load	
[i]	[mm]	[m/s]	[Hz]	[kg]	[kg]
1/55	480	0,27	20	460	460
1/55	480	0,34	25	460	460
1/55	480	0,41	30	460	460
1/55	480	0,48	35	460	460
1/55	480	0,55	40	460	460
1/55	480	0,62	45	460	460
1/55	480	0,69	50	460	460
1/55	480	0,75	55	460	460
1/55	520	0,82	55	425	425
1/55	480	0,82	60	460	460
1/43	480	0,88	50	475	475
1/55	520	0,89	60	425	425
1/43	480	0,96	55	475	475
1/43	480	1,00	57	475	475
1/43	480	1,05	60	475	475
1/43	520	1,10	58	435	435
1/43	520	1,14	60	435	435
1/43	600	1,21	55	380	380
1/43	600	1,27	58	380	380
1/43	600	1,32	60	380	380

50Hz			
Motor Output [kW]			
R.R.	Max Output Torque	VVVF 4	VVVF 5,5
		Geared Efficiency	
[i]	[Nm]		
1/55	680	0,72	0,74
1/43	700	0,74	0,76

60Hz			
Motor Output [kW]			
R.R.	Max Output Torque	VVVF 4,4	VVVF 6
		Geared Efficiency	
[i]	[Nm]		
1/55	680	0,72	0,73
1/43	700	0,76	0,76

Rated load values listed in the table include the weight of the ropes.  
 To know the theoretical load, subtract the weight of the ropes.  
 Position Of The Geared = Top Counterweight = 50% Plant efficiency = 0,80

		<b>50Hz</b>	
		<b>VVVF 1500 rpm 4 Poles</b>	
		<b>Asynchronous Rated Power [kW]</b>	
		VVVF <b>4</b>	VVVF <b>5,5</b>
		<b>Motor Parameters</b>	
Rated Voltage (star connection) <sup>(1)(3)</sup>	[V]	400	400
Frequency	[Hz]	50	50
Synchronous Speed	[rpm]	1500	1500
Asynchronous Speed	[rpm]	1423	1424
Rated Current <sup>(2)</sup>	[A]	9,4	12,4
Rated Torque	[Nm]	26,8	36,9
Cos φ Power Factor	[ ]	0,76	0,78
Starting Current	[A]	41	51
Starting Torque	[Nm]	54	78
Duty Cycle	[%]	60	60
Starts per Hour	[s/h]	240	240
Insulation Class	[ ]	F	F
Degree of Protection IP	[ ]	IP21	IP21

(1) The motors are standard supplied with star connection ( Y ), the customer can arrange a delta connection ( Δ ).

(2) The indicated current values are related to 400V voltage. For current values with delta connection, multiply the values by 1,732.

(3) The standard supply voltage is suitable for 380-400V/220-230V power supplies.

The geared machine includes a fan, 1~220...240V, 50/60Hz, 0,7A.

Available on request 115V supply voltage.

The inertia value includes the high speed shaft, while the flywheel is excluded.

		<b>60Hz</b>	
		<b>VVVF 1800 rpm 4 Poles</b>	
		<b>Asynchronous Rated Power [kW]</b>	
		VVVF <b>4,4</b>	VVVF <b>6</b>
		<b>Motor Parameters</b>	
Rated Voltage (star connection) <sup>(1)(3)</sup>	[V]	400	400
Frequency	[Hz]	60	60
Synchronous Speed	[rpm]	1800	1800
Asynchronous Speed	[rpm]	1714	1708
Rated Current <sup>(2)</sup>	[A]	10,2	15,2
Rated Torque	[Nm]	24,5	33,5
Cos φ Power Factor	[ ]	0,75	0,7
Starting Current	[A]	48	70
Starting Torque	[Nm]	44	70
Duty Cycle	[%]	60	60
Starts per Hour	[s/h]	240	240
Insulation Class	[ ]	F	F
Degree of Protection IP	[ ]	IP21	IP21

(1) The motors are standard supplied with star connection ( Y ), the customer can arrange a delta connection ( Δ ).

(2) The indicated current values are related to 400V voltage. For current values with delta connection, multiply the values by 1,732.

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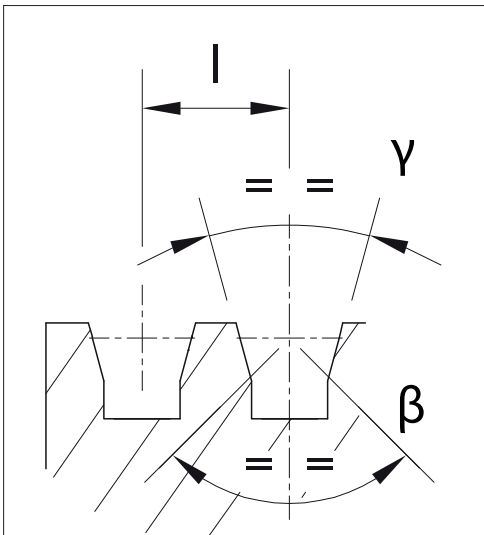
Available on request 115V supply voltage.

The inertia value includes the high speed shaft, while the flywheel is excluded.

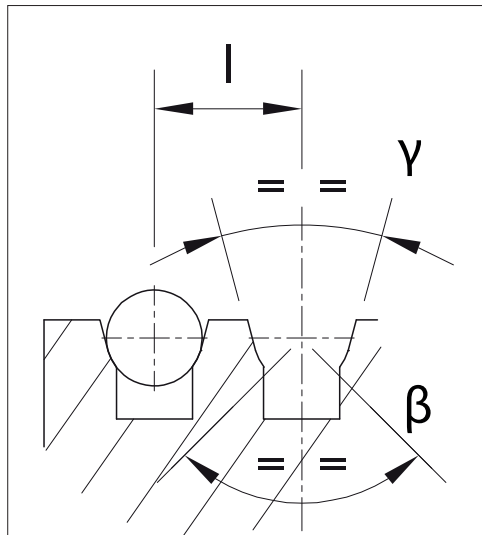


TRACTION SHEAVES AND GROOVES NUMBER x ROPES DIAMETER

Wrapping System	Traction sheave		Max n° Grooves x D	Grooves Pitch
	D [mm]	E [mm]	n° x mm	l [mm]
CSW	480	70	5xD8	14
	480	70	4xD9	17
	480	70	4xD10	17
	480	70	4xD11	17
	480	70	3xD12	19
	520	70	5xD8	14
	520	70	4xD9	17
	520	70	4xD10	17
	520	70	4xD11	17
	520	70	3xD12	19
	520	70	3xD13	19
	600	70	5xD8	14
	600	70	4xD9	17
	600	70	4xD10	17
	600	70	4xD11	17
	600	70	3xD12	19
	600	70	3xD13	19

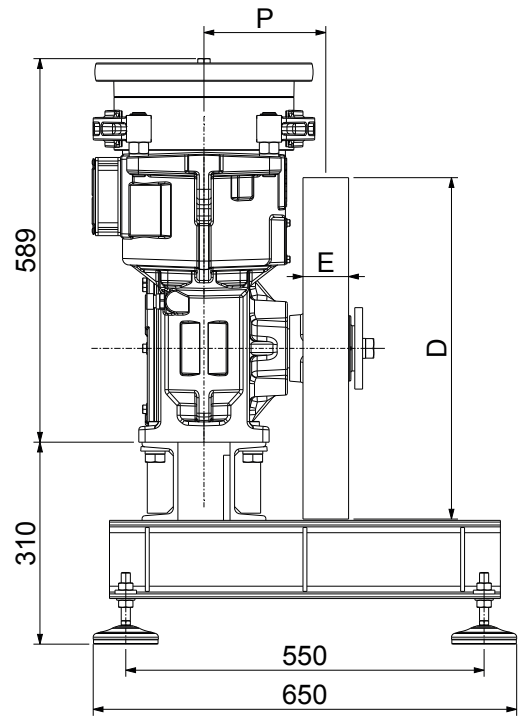
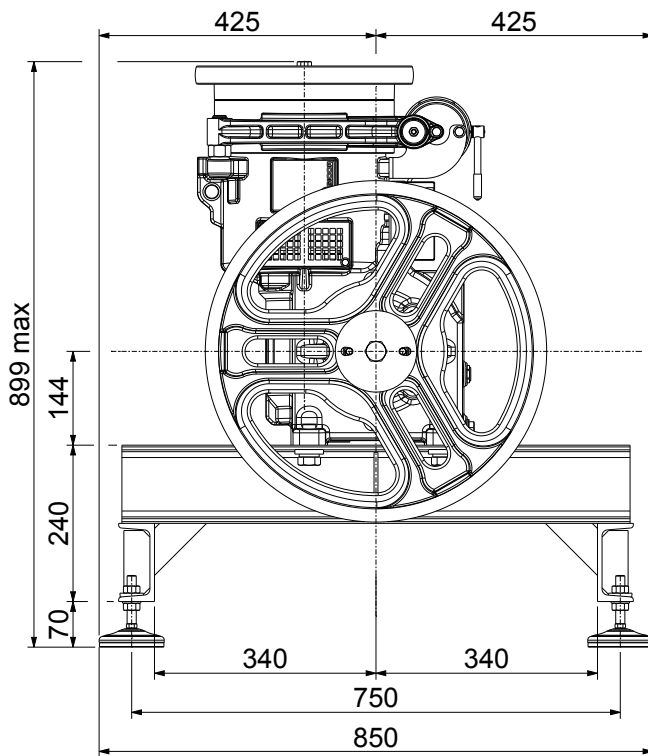


V grooves with undercut



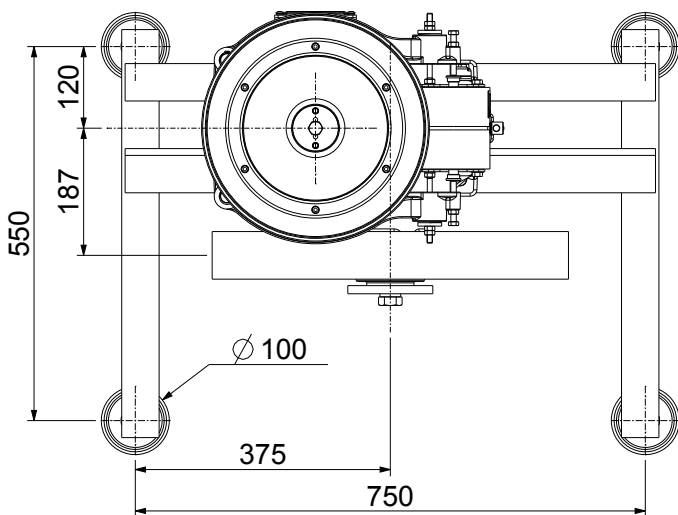
U grooves with undercut

$\gamma$  = Groove angle  
 $\beta$  = Undercut angle  
 I = Grooves pitch



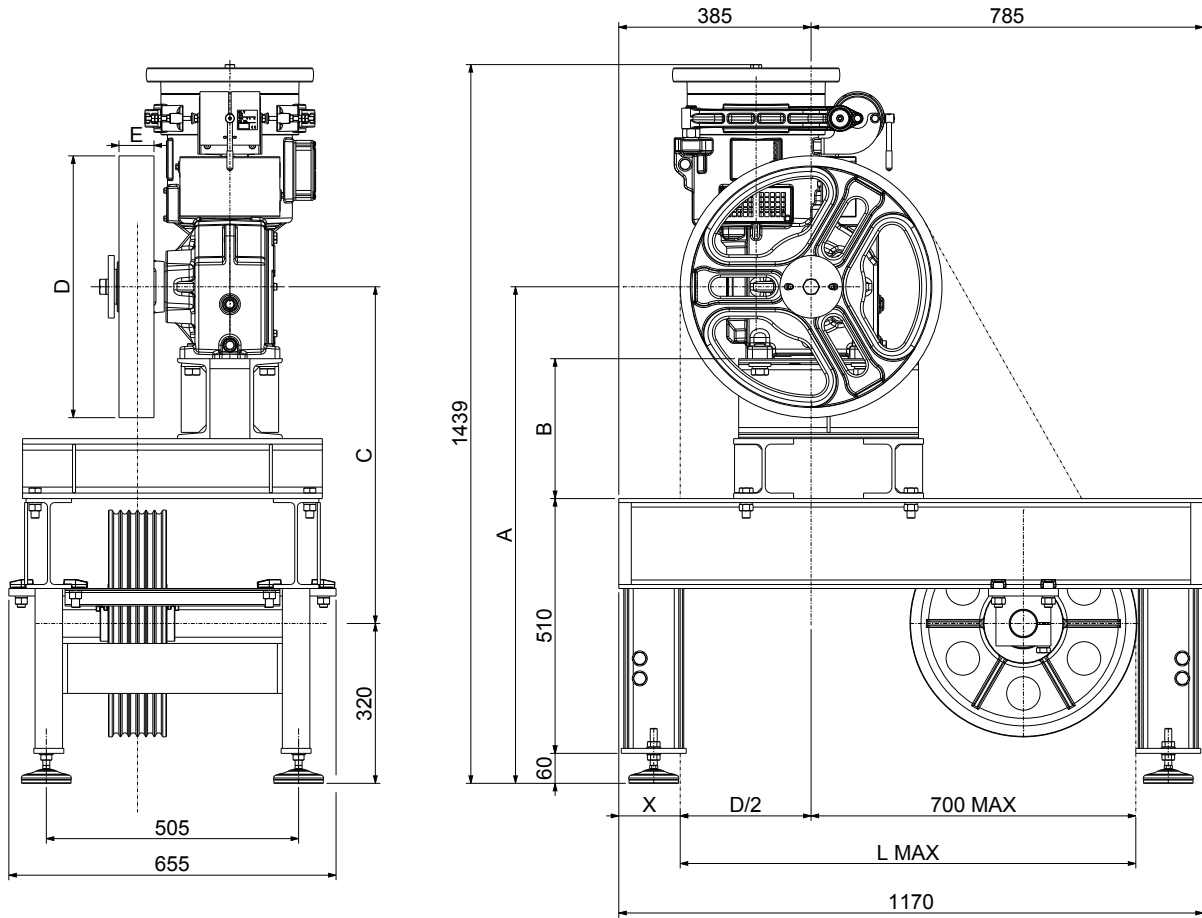
**XTE0456** (included vibration dampers)  
Weight of machine bedplate: 49 kg  
(bedplate + vibration dampers)

VIBRATIONS DAMPER SET UP FOR MACHINE BEDPLATE



Damper Dimension	Dimension
	[mm]
<b>TAI0110</b>	D.100x28

**BEDPLATE | TOP MACHINE WITH DIVERTING PULLEY FOR CSW WRAPPING**

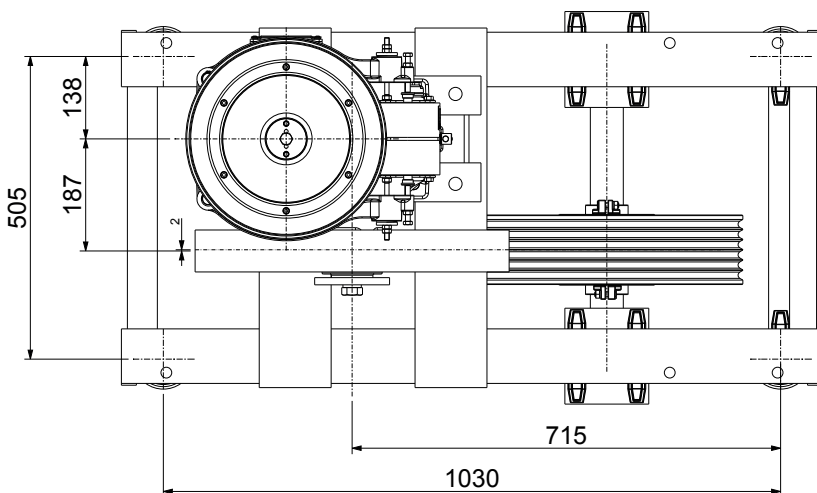


Traction Sheave	X	L max
D [mm]	[mm]	[mm]
480	140	940
520	120	960

Diverting Pulley	A	B	C
Dt [mm]			
400	1012	280	692
450	1012	280	692
520	1032	300	712

**XTE0516** (Dt 520)–**XTE0517** (Dt 400-450) (included vibration dampers)  
 Weight of machine bedplate: (XTE0516) 163 kg, (XTE0517) 153Kg  
 (bedplate + diverting pulley + vibration dampers)

**VIBRATIONS DAMPER SET UP FOR MACHINE BEDPLATE XTE0516 AND XTE0517**



Damper Code	Dimension
	[mm]
TAI0110	D.100x28



**Sicor S.R.L.**

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[www.sicoritaly.com](http://www.sicoritaly.com)