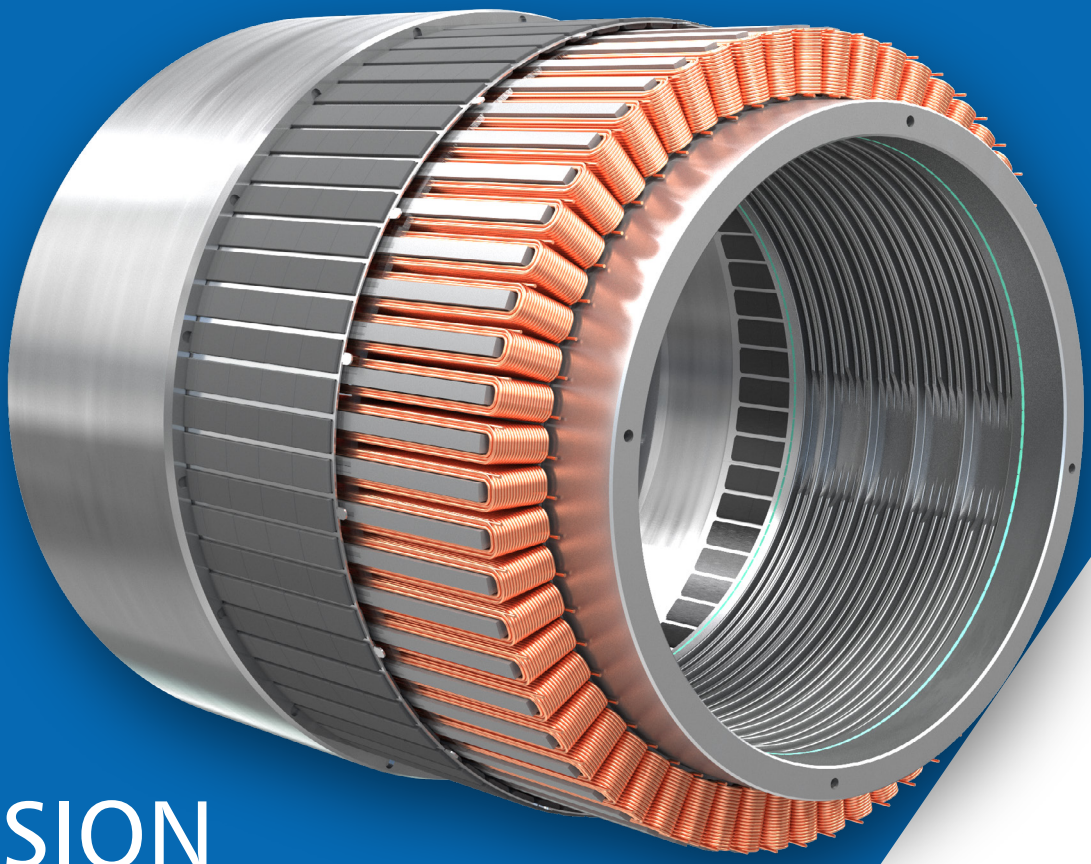
OVERVIEW

TORQUETEC

TORQUEMOTORS
MACHINE TOOL ELEMENTS



PRECISION
IN MOTION.

CYTEC SYSTEMS
TECHNOLOGY
INSIDE
COMPONENTS PERFECTION

MADE IN GERMANY

CYTEC is a leading manufacturer of high-quality components for machine tools, serving a variety of industries including tool and mold making, automotive, and aerospace engineering. With over 40 years of experience and an international network of production, sales, and service locations, CYTEC has become a permanent player in the market.

At CYTEC, we pride ourselves on our innovative product range and technical expertise, which is reflected in the high-quality of our products. Our team of experienced professionals manufacture all of our products in-house, ensuring that we maintain the highest level of quality control. We offer both standard components and complex, user-oriented systems to meet the specific needs of our customers.

CYTEC's commitment to quality is demonstrated by our regular ISO 9001 audits, which confirm that we meet the highest international standards. Our loyal customer base is a testament to the quality of our products and services, and we are constantly striving to exceed our customers' expectations.

With CYTEC, you can trust that you are getting components that are engineered to perfection. Contact us today to learn more about how we can meet your needs and help you succeed.

1983 - Vision of a locking system

Klaus Klement founded CYTEC in 1983, after inventing a new locking cylinder technology.
The company quickly became successful in manufacturing hydraulic and pneumatic cylinders, particularly in tool and mould making.

1986 - Patent for locking systems

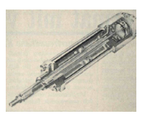
In 1986, Klaus Klement patented a pressure-operated device with a cylinder housing, piston and draw rod for generating and maintaining holding force. This technology was useful for securely holding tools in machine tool change magazines.

1988 - Construction of company location

In 1988, Klaus Klement moved his company CYTEC from the inventor's garage to the industrial sector and built the first two-story production hall for the assembly of cylinders and clamping systems. To this day, CYTEC remains proud of its name's origin.

1992 - Great success of the clamping and locking systems

New patented locking system allows mechanical load generation without constant air pressure. Positive and preloaded piston rod locking in desired position with fall protection and load rigidity. Widely used in positioning and holding across industries.



1996 - CYTEC becomes a manufacturer of motor spindles

In 1996, CYTEC registered new patents, including one for spindle drive in machine tools.
They expanded their product range with motor spindles, becoming a core manufacturer in this field through their introduction of the HSK tool interface.

1996 - Expansion abroad

In 1996, the first foreign production site and CYTEC France are founded. Both are still part of the internationally active group of companies today.

1997 - Technological advances Machine tool components

Patents related to machine tools, including tool-holder coupling, clamping devices, and tool clamping means, bring significant technological advancements to the market.

1999 - First fork milling head with direct drive

CYTEC is a leading company that holds the patent for a direct-drive multiple axis rotary spindle head for milling machines. Their innovation has been influential in shaping the market for high-end milling head technology.


Flexibel dank hoher Fertigungstiefe

2001 - Foundation CYTEC UK

CYTEC UK was founded in 2001 and remains active in England. The company has also established sales subsidiaries on all continents, expanding its global presence.

2008 - Continuous expansion

Company's HQ witnessed growth with production halls and factory space expansion till 2008 due to significant growth.

2009 - Expansion of the product range

CYTEC's continuous product range expansion through patent registrations and technological agility has established it as a renowned manufacturer of cylinders, clamping technology, motor spindles, milling heads, and rotary tables in the machine tool industry.

2012 - Pioneering position in the market

CYTEC's continued patent registrations have solidified its pioneering position in the market. Its product portfolio now includes cylinders, clamping systems, and machine tool components, with a manufacturing depth exceeding 90%.

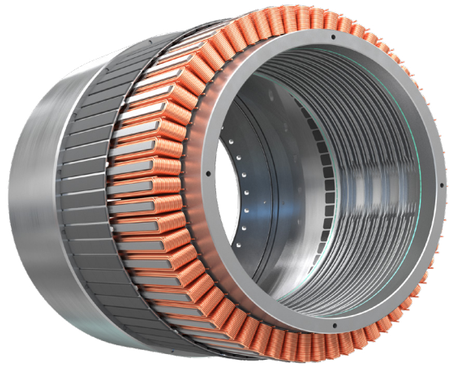
2015 - The next generation CYTEC

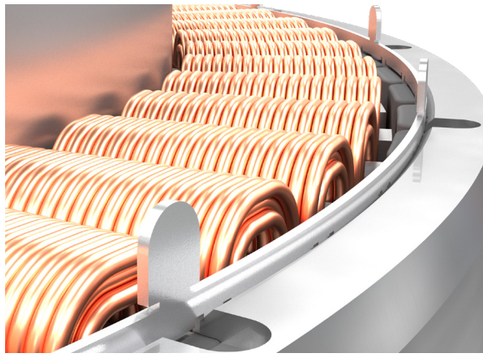
Timo Klement, a member of the 2nd family generation, has been managing the company since 2015. CYTEC's vision of „Components Perfection," established in 1983, remains the driving force behind the team's work today.

2023 - 40 years CYTEC

In 2023, CYTEC celebrated its 40th anniversary and developed new patents in various product divisions. The company also introduced a new generation of core-pull locking cylinders with the highest retention force in its class.

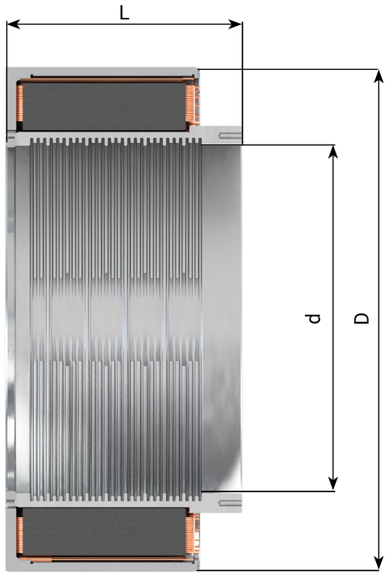
Torquemotor





UHT DirectDrives

UHT 200



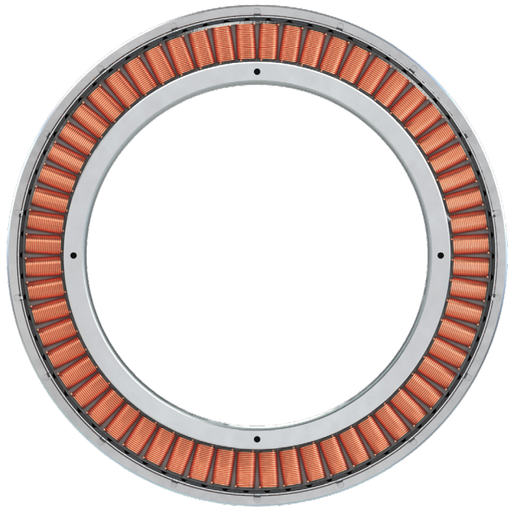


fig. UHT-200/ 40

Ultra High Torque

UHT 200

Type	d mm	D mm	L mm	M_{MAX} Max. torque (Nm)	M_N Rated torque (Nm)	M Stall moment (Nm)	n_{MAX} Max. speed (rpm)	n_N Rated speed (rpm)	I_{MAX} Max. current (A)	I_N Rated current (A)
200-040 UHT	127	218	62,64	210	113	79	936	520	25	11
200-200 UHT	127	218	222,64	1120	605	424	424,8	236	65	29

Ultra High Torque

UHT 240

Type	d mm	D mm	L mm	M_{MAX} Max. torque (Nm)	M_N Rated torque (Nm)	M Stall moment (Nm)	n_{MAX} Max. speed (rpm)	n_N Rated speed (rpm)	I_{MAX} Max. current (A)	I_N Rated current (A)
240-050 UHT	160	262	78,06	501	289	202	423	235	31	15
240-075 UHT	160	262	103,06	703	415	290	284,4	158	31	15
240-150 UHT	160	262	178,06	1406	860	602	122,4	68	31	16
240-225 UHT	160	262	253,06	2287	1427	999	167,4	93	62	32

Ultra High Torque

UHT 310

Type	d mm	D mm	L mm	M_{MAX} Max. torque (Nm)	M_N Rated torque (Nm)	M Stall moment (Nm)	n_{MAX} Max. speed (rpm)	n_N Rated speed (rpm)	I_{MAX} Max. current (A)	I_N Rated current (A)
310-050 UHT	220	218	77,1	972	552	387	194,4	108	32	15
310-100 UHT	220	218	127,1	1914	1152	806	82,8	46	32	17

Ultra High Torque

UHT 360

Type	d mm	D mm	L mm	M_{MAX} Max. torque (Nm)	M_N Rated torque (Nm)	M Stall moment (Nm)	n_{MAX} Max. speed (rpm)	n_N Rated speed (rpm)	I_{MAX} Max. current (A)	I_N Rated current (A)
360-040 UHT	265	382	66,08	807	421	299	513	285	54	25
360-050 UHT	265	382	76,08	1013	547	388	396	220	54	26
360-080 UHT	265	382	106,08	1529	920	658	243	135	51	28
360-100 UHT	265	382	126,08	1926	1183	840	189	105	51	29
360-125 UHT	265	382	151,08	2393	1496	1062	144	80	51	29
360-150 UHT	265	382	176,08	2889	1818	1291	113,4	63	51	30

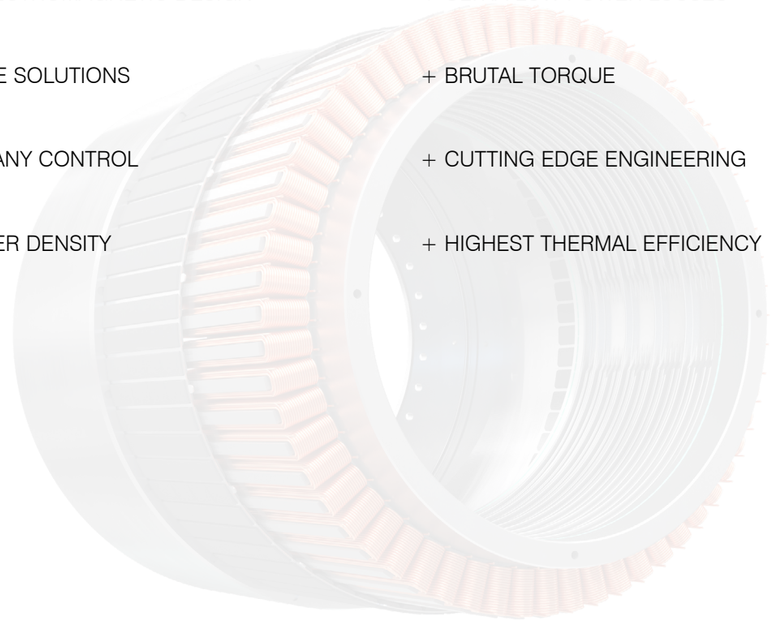
Ultra High Torque

UHT 410

Type	d mm	D mm	L mm	M_{MAX} Max. torque (Nm)	M_N Rated torque (Nm)	M Stall moment (Nm)	n_{MAX} Max. speed (rpm)	n_N Rated speed (rpm)	I_{MAX} Max. current (A)	I_N Rated current (A)
410-075 UHT	320	443	99,08	2730	1517	1062	140,4	78	65	30
410-100 UHT	320	443	124,08	3142	2072	1451	140,4	78	71	40
410-125 UHT	320	443	149,08	4114	2575	1802	108	60	78	42
410-150 UHT	320	443	174,08	4689	3106	2175	86,4	48	71	41

Highlights

+ ADVANCED ELECTROMAGNETIC DESIGN
+ ULTRA-LOW POWER LOSSES
+ CUSTOMISABLE SOLUTIONS
+ BRUTAL TORQUE
+ USABLE WITH ANY CONTROL
+ CUTTING EDGE ENGINEERING
+ HIGHEST POWER DENSITY
+ HIGHEST THERMAL EFFICIENCY



RM-240

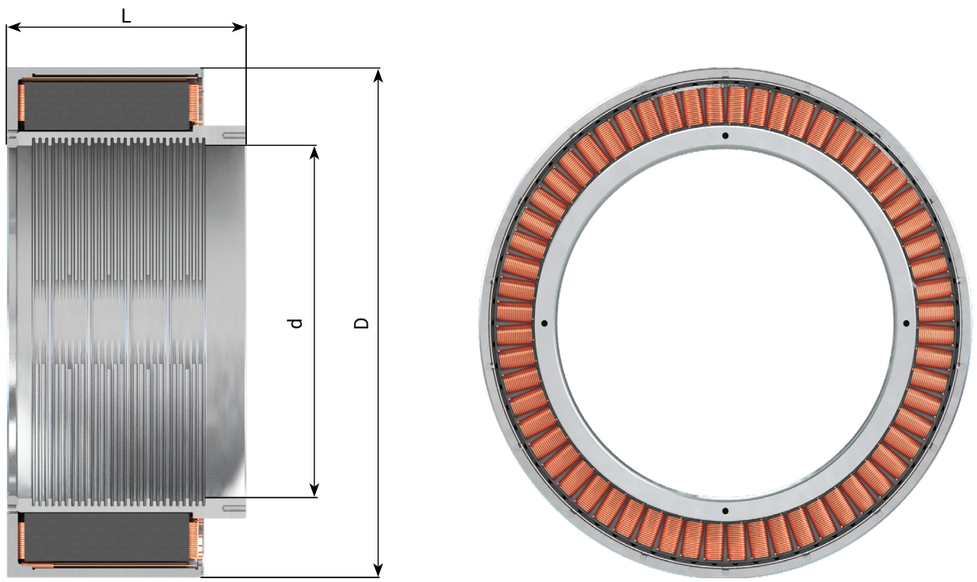


fig. RM-240/ 75

High Speed

RMHS-240

Type	d mm	D mm	L mm	M_{MAX} Max. torque (Nm)	M_N Rated torque (Nm)	M Stall moment (Nm)	n_{MAX} Max. speed (rpm)	n_N Rated speed (rpm)	I_{MAX} Max. current (A)	I_N Rated current (A)
240-050 HS	145	272	86,44	330	168	120	1300	675	46	23
240-075 HS	145	272	111,44	499	280	191	900	435	47	25
240-100 HS	145	272	136,44	681	393	264	800	320	48	26
240-125 HS	145	272	161,44	882	506	336	700	250	50	26
240-150 HS	145	272	186,44	1097	620	410	600	205	52	27

High Torque

RMHT-240

Type	d mm	D mm	L mm	M_{MAX} Max. torque (Nm)	M_N Rated torque (Nm)	M Stall moment (Nm)	n_{MAX} Max. speed (rpm)	n_N Rated speed (rpm)	I_{MAX} Max. current (A)	I_N Rated current (A)
240-050 HT	145	272	86,44	386	198	139	558	310	27	13
240-075 HT	145	272	111,44	595	313	220	352,8	196	28	13
240-100 HT	145	272	136,44	817	432	303	252	140	29	14
240-125 HT	145	272	161,44	1058	552	387	192,6	107	30	14
240-150 HT	145	272	186,44	1316	671	470	151,2	84	31	15
240-175 HT	145	272	211,44	1470	782	548	297	165	62	29
240-200 HT	145	272	236,44	1679	900	630	252	140	62	30
240-225 HT	145	272	261,44	1958	1022	715	216	120	65	30

RM-310

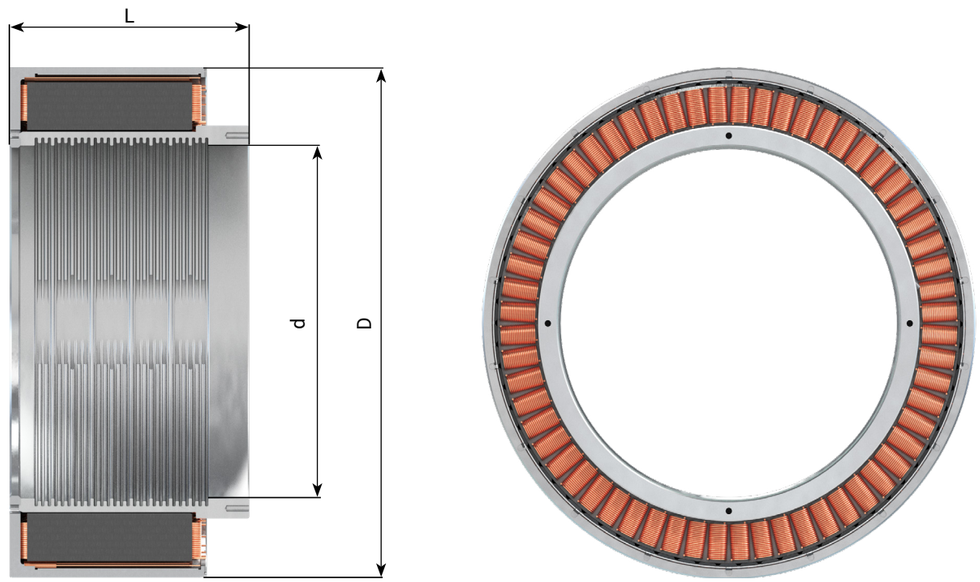


fig. RM-310 / 75

High Speed

RMHS-310

Type	d mm	D mm	L mm	M_{MAX} Max. torque (Nm)	M_N Rated torque (Nm)	M Stall moment (Nm)	n_{MAX} Max. speed (rpm)	n_N Rated speed (rpm)	I_{MAX} Max. current (A)	I_N Rated current (A)
310-050 HS	189,5	335	86,44	551	269	214	1250	730	86	45
310-075 HS	189,5	335	111,44	883	479	344	1050	470	94	48
310-100 HS	189,5	335	136,44	1226	686	474	800	340	98	50
310-125 HS	189,5	335	161,44	1566	895	603	700	265	101	51
310-150 HS	189,5	335	186,44	1930	1103	737	600	220	104	52
310-175 HS	189,5	335	211,44	2251	1290	858	550	185	104	52
310-200 HS	189,5	335	236,44	2623	1488	986	500	160	107	53

High Torque

RMHT-310

Type	d mm	D mm	L mm	M_{MAX} Max. torque (Nm)	M_N Rated torque (Nm)	M Stall moment (Nm)	n_{MAX} Max. speed (rpm)	n_N Rated speed (rpm)	I_{MAX} Max. current (A)	I_N Rated current (A)
310-050 HT	189,5	335	86,44	671	418	293	261	145	28	15
310-075 HT	189,5	335	111,44	1034	560	392	385,2	214	57	26
310-100 HT	189,5	335	136,44	1417	767	537	279	155	60	27
310-125 HT	189,5	335	161,44	1829	979	686	216	120	62	28
310-150 HT	189,5	335	186,44	2193	1189	833	171	95	62	28
310-175 HT	189,5	335	211,44	2652	1403	983	144	80	65	28
310-200 HT	189,5	335	236,44	3136	1611	1128	122,4	68	68	29
310-225 HT	189,5	335	261,44	3548	1824	1277	108	60	68	29

RM-410

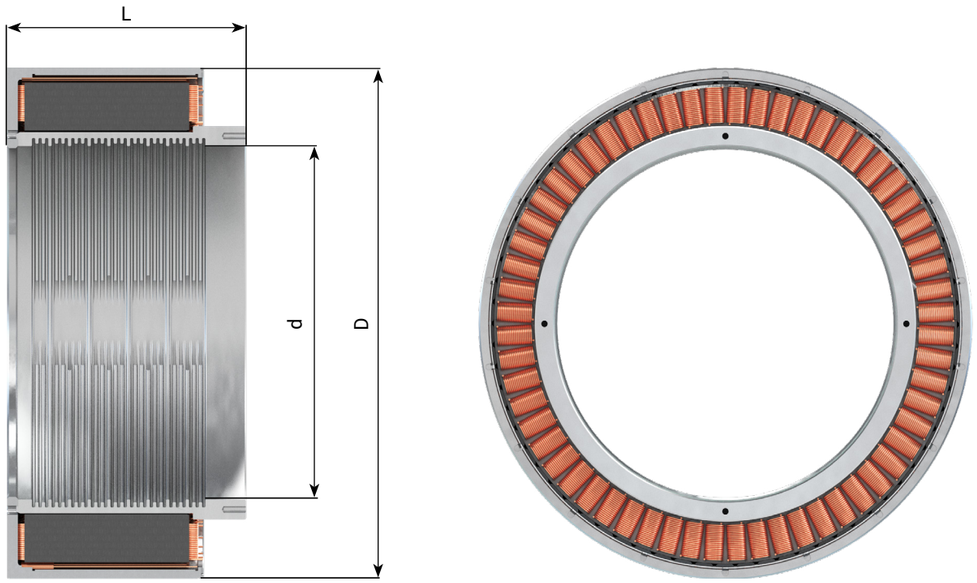


fig. RM-410/ 75

High Speed

RMHS-410

Type	d mm	D mm	L mm	M_{MAX} Max. torque (Nm)	M_N Rated torque (Nm)	M Stall moment (Nm)	n_{MAX} Max. speed (rpm)	n_N Rated speed (rpm)	I_{MAX} Max. current (A)	I_N Rated current (A)
410-050 HS	265	443	83,96	1017	546	386	820	355	91	44
410-075 HS	265	443	108,96	1581	897	609	650	225	96	47
410-100 HS	265	443	133,96	2192	1261	842	550	160	101	50
410-125 HS	265	443	158,96	2776	1591	1072	550	195	153	76
410-150 HS	265	443	183,96	3383	1956	1306	500	160	156	77
410-175 HS	265	443	208,96	3980	2317	1540	450	135	158	78
410-200 HS	265	443	233,96	4593	2667	1765	400	115	161	79

High Torque

RMHT-410

Type	d mm	D mm	L mm	M_{MAX} Max. torque (Nm)	M_N Rated torque (Nm)	M Stall moment (Nm)	n_{MAX} Max. speed (rpm)	n_N Rated speed (rpm)	I_{MAX} Max. current (A)	I_N Rated current (A)
410-050 HT	265	443	83,96	1170	632	442	279	155	55	24
410-075 HT	265	443	108,96	1850	996	698	180	100	60	26
410-100 HT	265	443	133,96	2541	1367	957	126	70	62	27
410-125 HT	265	443	158,96	3234	1736	1216	156,6	87	95	41
410-150 HT	265	443	183,96	3956	2126	1488	126	70	97	42
410-175 HT	265	443	208,96	4770	2494	1746	104,4	58	102	42
410-200 HT	265	443	233,96	5443	2863	2005	90	50	102	43

RM-564

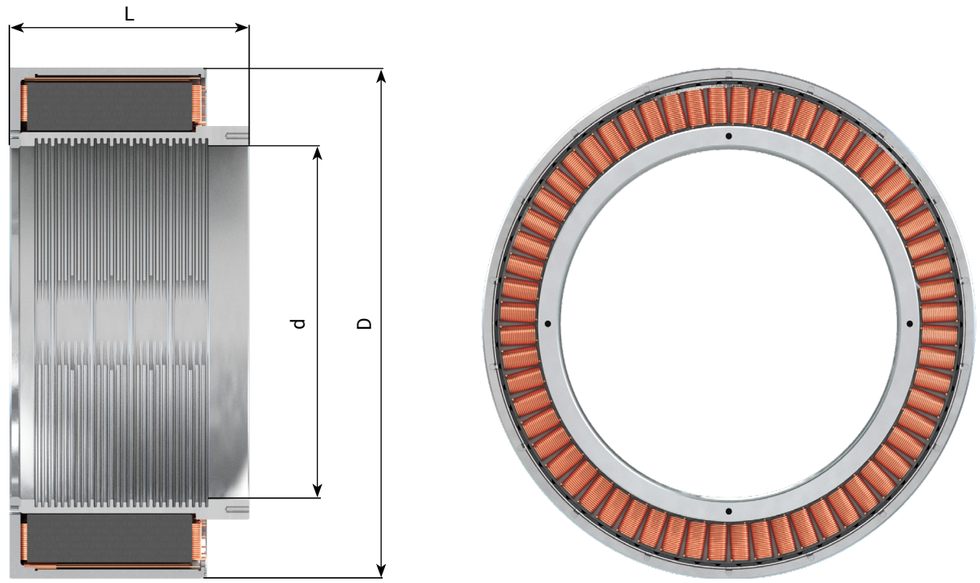


fig. RM-564/ 75

High Speed

RMHS-564

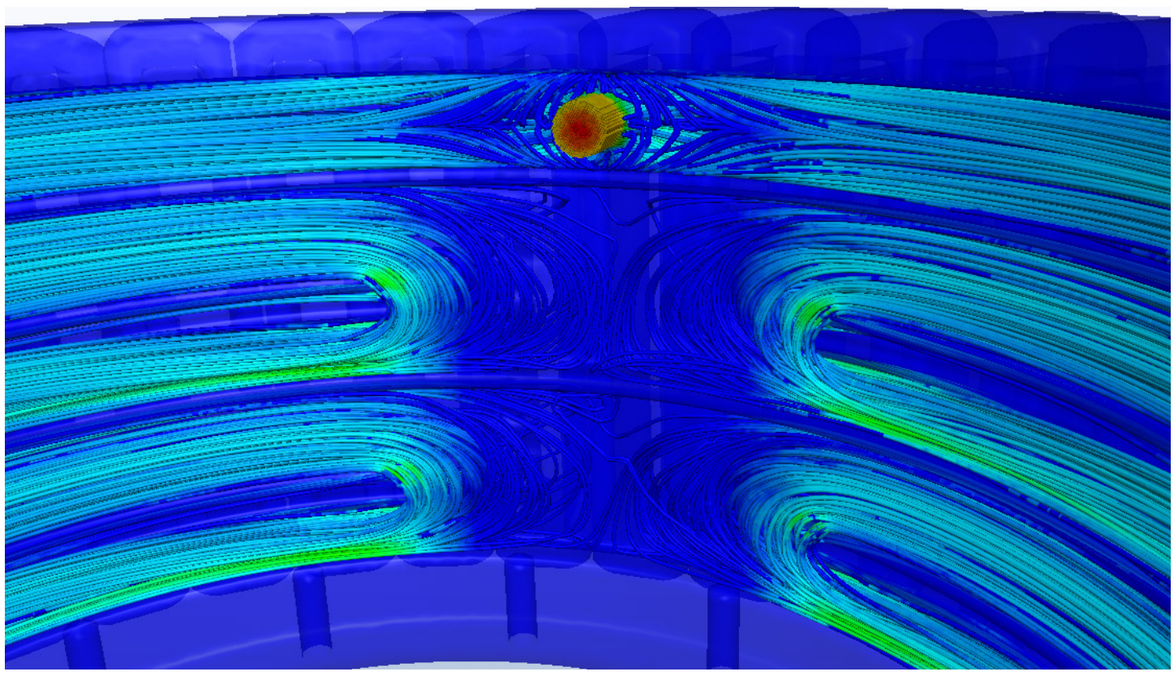
Type	d mm	D mm	L mm	M_{MAX} Max. torque (Nm)	M_N Rated torque (Nm)	M Stall moment (Nm)	n_{MAX} Max. speed (rpm)	n_N Rated speed (rpm)	I_{MAX} Max. current (A)	I_N Rated current (A)
564-050 HS	443	596	78,96	2065	1127	794	750	315	148	77
564-075 HS	443	596	103,96	3239	1859	1254	650	205	156	82
564-100 HS	443	596	128,96	4540	2583	1728	500	150	166	85
564-125 HS	443	596	153,96	5834	3329	2202	410	115	172	87
564-150 HS	443	596	178,96	7211	4059	2675	350	95	178	89
564-250 HS	443	596	253,96	12115	7051	4657	350	110	357	185

High Torque

RMHT-564

Type	d mm	D mm	L mm	M_{MAX} Max. torque (Nm)	M_N Rated torque (Nm)	M Stall moment (Nm)	n_{MAX} Max. speed (rpm)	n_N Rated speed (rpm)	I_{MAX} Max. current (A)	I_N Rated current (A)
564-050 HT	443	596	78,96	2392	1279	896	171	95	58	27
564-075 HT	443	596	103,96	3785	2056	1440	104,4	58	62	29
564-100 HT	443	596	128,96	5235	2829	1981	118,8	66	97	46
564-125 HT	443	596	153,96	6707	3611	2528	90	50	100	47
564-150 HT	443	596	178,96	8144	4371	3060	72	40	102	48
564-175 HT	443	596	203,96	9498	5164	3615	86,4	48	136	65
564-200 HT	443	596	228,96	11054	5948	4164	72	40	138	65
564-250 HT	443	596	253,96	13909	7472	5231	54	30	140	66
564-300 HT	443	596	278,96	17026	9042	6329	43,2	24	143	66

Torquemotor Cooling Jacket

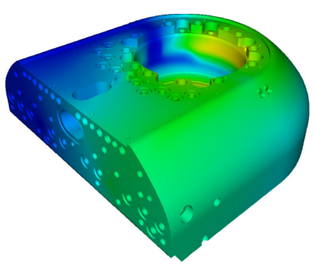


Advantages

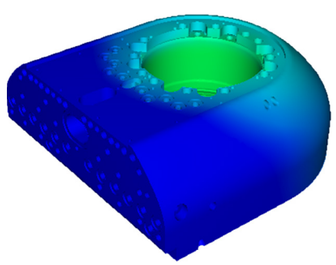
+ MOST EFFICIENT HEAT DISSIPATION
+ UNIFORM TEMPERATURE DISTRIBUTION
+ MINIMAL MATERIAL EXPANSION
+ RAPID RESPONSE TO LOAD CHANGES
+ INCREASE IN PERFORMANCE
+ MOST COMPACT DESIGN
+ BEST ENERGY BALANCE
+ INCREASE IN RELIABILITY

ΔZERO TEMPERATURE CONTROL

Temperature curve

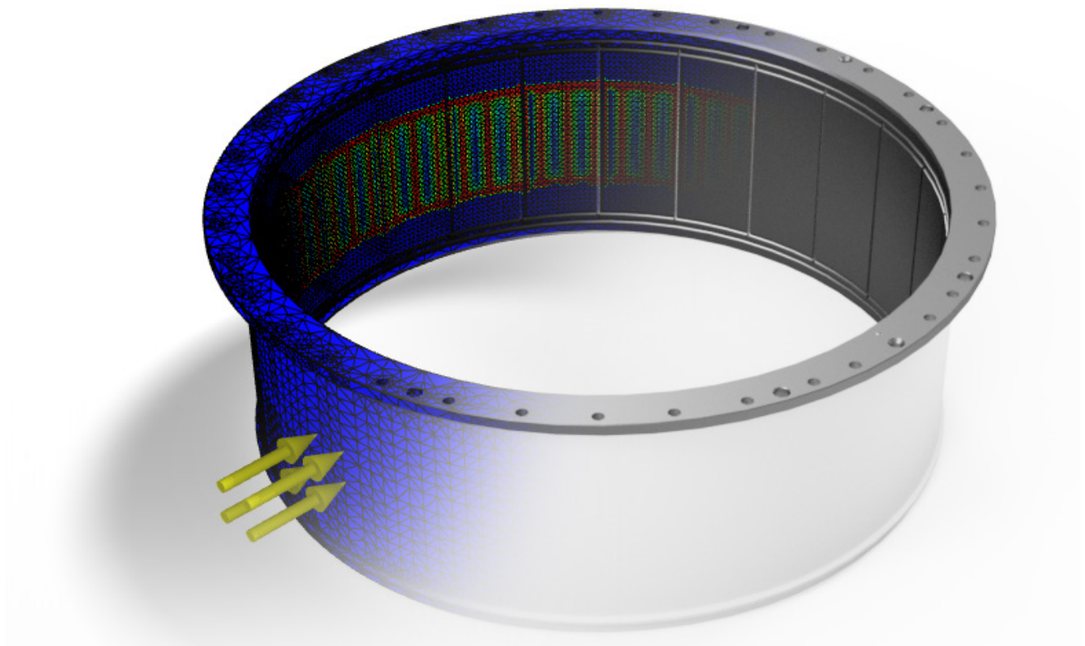


conventional cooling jacket



ΔZERO TEMPERATURE CONTROL

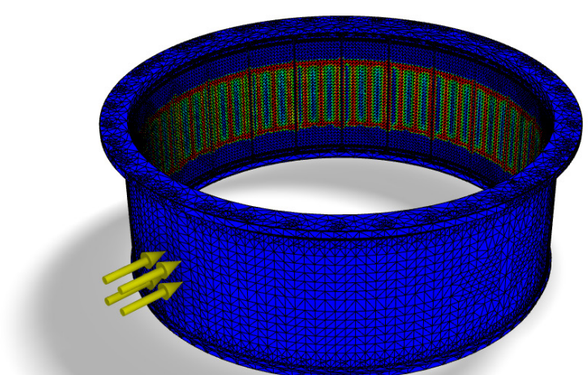
Torquemotor Clamping



Advantages

+ UNMATCHED CLAMPING FORCE AT LOW PRESSURE
+ DISTORTION-FREE CLAMPING
+ HIGHEST CLAMPING ACCURACY
+ EXCEPTIONAL AMOUNT OF CLAMPING CYCLES
+ COMPACTEST ENGINEERING
+ OUTSTANDING EMERGENCY RUNNING PROPERTIES
+ UNLIMITED LOAD ALTERNATION
+ MAXIMUM CONTACT SURFACE

Contact surface



Introducing Torquetec

Introducing Torquetec: Precision in Motion.

Torquetec, your trusted German powerhouse in machine element manufacturing, specializing in the innovative development and production of torque motors. With over a quarter-century of experience, Torquetec has dedicated itself to pioneering research and development to achieve the pinnacle of power density.

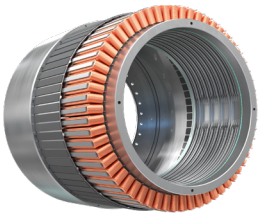
Our journey of excellence has been enriched by close collaborations with prestigious universities and renowned research institutions. This synergy has enabled Torquetec to make remarkable strides in reducing heat loss, setting new benchmarks in our field.

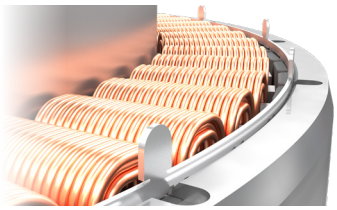
What truly sets us apart is our unwavering commitment to precision. We take immense pride in our unparalleled production depth, encompassing the entire process from engineering and manufacturing to meticulous assembly and rigorous quality control, all meticulously conducted in-house.

This holistic approach ensures that our products consistently embody the highest standards of quality and performance. At Torquetec, our state-of-the-art facility is a testament to our commitment to innovation. Equipped with the latest technologies, it serves as the birthplace of cutting-edge products that redefine industry norms.

Today, Torquetec proudly presents a diverse production range, offering our esteemed customers a wide selection of Torquemotors, as well as comprehensive machine axis sets. We are your partners in precision engineering.

Choose Torquetec for a future where precision meets power, and let us drive your success forward.





SALES PARTNERSHIP

HQ - CYTEC Zylindertechnik Germany
Jülich

CYTEC France
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