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## TMW Series

Torque Motors



ENGINEERING YOUR SUCCESS.



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# Parker Hannifin

## The global leader in motion and control technologies

### A world class player on a local stage

#### Global Product Design

Parker Hannifin has more than 40 years experience in the design and manufacturing of drives, controls, motors and mechanical products. With dedicated global product development teams, Parker draws on industry-leading technological leadership and experience from engineering teams in Europe, North America and Asia.

#### Local Application Expertise

Parker has local engineering resources committed to adapting and applying our current products and technologies to best fit our customers' needs.

#### Manufacturing to Meet Our Customers' Needs

Parker is committed to meeting the increasing service demands that our customers require to succeed in the global industrial market. Parker's manufacturing teams seek continuous improvement through the implementation of lean manufacturing methods throughout the process. We measure ourselves on meeting our customers' expectations of quality and delivery, not just our own. In order to meet these expectations, Parker operates and continues to invest in our manufacturing facilities in Europe, North America and Asia.

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##### Europe

Littlehampton, United Kingdom  
Dijon, France  
Offenburg, Germany  
Filderstadt, Germany  
Milan, Italy

##### Asia

Wuxi, China  
Chennai, India

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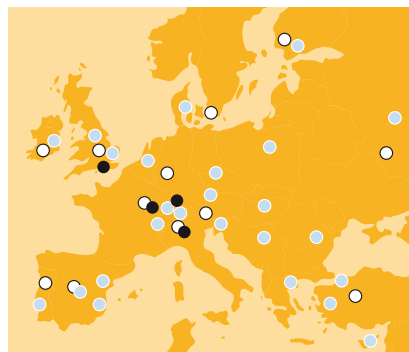
For contact information, please refer to the Sales Offices on the back cover of this document or visit [www.parker.com](http://www.parker.com)



Milan, Italy



Littlehampton, UK



- Electromechanical Manufacturing
- Parker Sales Offices
- Distributors



Dijon, France

# Torque Motors - TMW Series

## Overview

### Description

Parker Torque motor is an innovative direct drive solution designed for industrial applications requiring high torque at low speed without any additional mechanical transmission system. Their usage results in more compact, more efficient, quieter and virtually maintenance free drive systems.

Parker torque motors are permanent magnet brushless servo motors, with a high number of poles, able to deliver torques up to 22.000 Nm at speeds up to 500 min<sup>-1</sup>.

Especially designed to replace direct current or induction motors and gearboxes, they offer specific features such as built-in thrust bearing or patent pending screw extraction mechanisms, making them particularly suitable for applications in segments such as plastics and rubber extrusion, injection molding, etc. Basic versions of TM Torque Motors can also be used in many other similar applications such as winders, crushers, mixers, and more generally in all application segments requiring framed torque motors operated in speed control.

### Example of energy savings

Removal of the gearbox has an immediate impact on the overall installation's efficiency, resulting in energy savings.

#### Example

- 100 kW extruder
- 7200 h annual operating
- Energy cost: 0.10 €/kWh

Overall efficiency improvement due to the installation of a torque motor: 5 %

Annual savings 3600 €

### Features

- High power compact design
- Water or natural cooling
- Overtemperature protection built in
- Wide range of feedback devices
- Integrated thrust bearing
- Customizable shaft ends
- IP54 protection
- IM B3 or IM B34 mounting



### Technical Characteristics - Overview

<b>Torque range</b>	1200...22 100 Nm (water-cooling)
<b>Shaft heights</b>	200, 315, 400 mm
<b>Rated Voltage</b>	400 VAC and 480 VAC
<b>Speed</b>	<ul style="list-style-type: none"> <li>• 50...500 min<sup>-1</sup> (size dependent)</li> <li>• Field weakening operation up to 1.2 x n<sub>rated</sub></li> <li>• Other speeds available on request</li> </ul>
<b>Cooling</b>	<ul style="list-style-type: none"> <li>• Water Jacket as standard</li> <li>• Natural ventilation with derating (consult us)</li> </ul>
<b>Mounting</b>	IM B3 or IM B34
<b>Protection degree</b>	IP54
<b>Thermal protection</b>	<ul style="list-style-type: none"> <li>• 1x KTY sensor and 2x PTC probes</li> <li>• Temperature alarm and default</li> </ul>
<b>Shaft end</b>	<ul style="list-style-type: none"> <li>• Solid or hollow shaft with key, keyway, spline profile</li> <li>• Customized interfaces available on request</li> </ul>
<b>Bearing</b>	<ul style="list-style-type: none"> <li>• Roller bearing</li> <li>• Ball bearing</li> <li>• Thrust bearing (SKF 294__E)</li> </ul>
<b>Feedback sensor</b>	<ul style="list-style-type: none"> <li>• EnDat Encoder (standard)</li> <li>• Direct EnDat Encoder with hollow shaft (option)</li> <li>• Resolver (option)</li> </ul>



# Technical Characteristics

## Technical Data

### 400 VAC Power Supply<sup>1)</sup>

Model	Pn [kW]	Nn [min <sup>-1</sup> ]	Mn [Nm]	In [Arms]	Nmax [min <sup>-1</sup> ]	Mmax [Nm]	Inertia [kgm <sup>2</sup> ]	Water flow rate [l/min]	Drive reference <sup>2)</sup>
<b>Motor Speed 50...75 min<sup>-1</sup></b>									
TMW305LU	29	70	3940	68	80	5880	4.40	17	890SD-432730E
TMW306LV	38	75	4830	86	85	7200	4.55	20	890SD-432870E
TMW406LV	81	75	10300	169	90	15300	16.20	28	890SD-433180F
TMW408LW	90	60	14200	197	75	21000	19.40	37	890SD-433216G
TMW40ALW	95	50	18200	219	60	26800	25.10	47	890SD-433250G
TMW40CLW	116	50	22100	271	60	32500	25.90	56	890SD-433316G
TMW40CLS	161	70	22000	348	85	32500	25.90	56	890SD-433420H
<b>Motor Speed 75...100 min<sup>-1</sup></b>									
TMW304LR	32	100	3040	70	115	4550	3.45	14	890SD-432730E
TMW305LT	39	95	3930	84	115	5880	4.40	17	890SD-432870E
TMW308LU	59	85	6620	133	105	9870	6.50	27	890SD-433145F
TMW30ALU	71	80	8430	163	95	12500	6.80	34	890SD-433180F
TMW30ALS	88	100	8410	191	125	12500	6.80	34	890SD-433216G
TMW406LS	108	100	10300	216	125	15300	16.20	28	890SD-433250G
TMW408LS	126	85	14200	261	105	21000	19.40	38	890SD-433316G
TMW408LP	148	100	14100	306	120	21000	19.40	38	890SD-433361G
TMW40ALQ	151	80	18100	313	100	26800	25.10	47	890SD-433361G
TMW40CLK	207	90	21900	428	110	32500	25.90	57	890SD-433520H
<b>Motor Speed 100...125 min<sup>-1</sup></b>									
TMW204LU	15	120	1220	35	140	1810	0.75	9	890SD-532450D
TMW205LT	21	125	1570	47	155	2320	0.78	11	890SD-532590D
TMW208LU	30	110	2640	71	125	3910	1.03	18	890SD-432730E
TMW304LQ	40	125	3030	81	150	4550	3.45	14	890SD-432870E
TMW306LS	53	105	4810	115	130	7200	4.55	21	890SD-433105F
TMW306LR	63	125	4800	129	155	7200	4.55	21	890SD-433145F
TMW308LQ	79	115	6590	167	140	9870	6.50	28	890SD-433180F
TMW30ALQ	105	120	8380	216	150	12500	6.80	34	890SD-433250G
TMW406LP	134	125	10200	266	155	15300	16.20	29	890SD-433316G
TMW40ALM	198	105	18000	398	130	26800	25.10	47	890SD-433480H
TMW40ALK	225	120	17900	446	150	26800	25.10	48	890SD-433590J
TMW40CLI	274	120	21800	536	150	32500	25.90	57	AC890SD/4/0685K <sup>3)</sup>

1) Other voltages, speeds available, consult us.

2) This reference corresponds to the optimum drive for operation at nominal point of motor without overload.

Warning: this drive does not allow the maximum torque of the motor to be reached and has to be adapted to suit the requirements of the application

3) Consult Factory

## 400 VAC Power Supply<sup>1)</sup>

Model	Pn [kW]	Nn [min <sup>-1</sup> ]	Mn [Nm]	In [Arms]	Nmax [min <sup>-1</sup> ]	Mmax [Nm]	Inertia [kgm <sup>2</sup> ]	Water flow rate [l/min]	Drive reference <sup>2)</sup>
<b>Motor Speed 125...150 min<sup>-1</sup></b>									
TMW207LS	31	130	2280	70	160	3380	1.00	15	890SD-432730E
TMW208LT	39	140	2630	86	175	3910	1.03	18	890SD-432870E
TMW305LP	59	145	3900	118	180	5880	4.40	17	890SD-433105F
TMW308LN	100	145	6560	198	180	9870	6.50	28	890SD-433216G
TMW406LJ	160	150	10200	306	180	15300	16.20	29	890SD-433361G
TMW408LL	198	135	14000	388	165	21000	19.40	38	890SD-433480H
TMW40ALH	270	145	17800	526	180	26800	25.10	48	AC890SD/4/0685K <sup>3)</sup>
TMW40CLG	318	140	21700	626	175	32500	25.90	57	AC890SD/4/0798K <sup>3)</sup>
<b>Motor Speed 150...175 min<sup>-1</sup></b>									
TMW204LR	22	175	1210	47	215	1810	0.75	9	890SD-532590D
TMW206LR	33	165	1920	71	205	2850	0.81	13	890SD-432730E
TMW207LR	39	165	2270	85	205	3380	1.00	16	890SD-432870E
TMW305LN	67	165	3880	133	205	5880	4.40	17	890SD-433145F
TMW306LN	82	165	4760	161	205	7200	4.55	21	890SD-433180F
TMW308LM	116	170	6530	225	210	9870	6.50	28	890SD-433250G
TMW30ALN	135	155	8330	268	190	12500	6.80	35	890SD-433316G
TMW406LI	185	175	10100	353	215	15300	16.20	29	890SD-433420H
TMW408LJ	226	155	13900	434	190	21000	19.40	38	890SD-433520H
TMW40ALE	324	175	17700	626	205	26800	25.10	48	AC890SD/4/0798K <sup>3)</sup>
<b>Motor Speed 175...200 min<sup>-1</sup></b>									
TMW206LQ	40	200	1910	83	250	2850	0.81	13	890SD-432870E
TMW208LQ	55	200	2620	114	250	3910	1.03	18	890SD-433105F
TMW304LM	58	185	3000	114	230	4550	3.45	14	890SD-433105F
TMW306LL	99	200	4730	191	240	7200	4.55	21	890SD-433216G
TMW308LK	136	200	6490	261	250	9870	6.50	28	890SD-433316G
TMW30ALL	156	180	8290	305	225	12500	6.80	35	890SD-433361G
TMW406LH	209	200	10000	391	250	15300	16.20	29	890SD-433480H <sup>3)</sup>
TMW408LF	289	200	13800	538	250	21000	19.40	39	AC890SD/4/0590J <sup>3)</sup>
<b>Motor Speed 200...250 min<sup>-1</sup></b>									
TMW205LQ	34	205	1560	70	255	2320	0.78	11	890SD-432730E
TMW207LN	59	250	2260	119	310	3380	1.00	16	890SD-433105F
TMW208LP	63	230	2620	128	280	3910	1.03	18	890SD-433145F
TMW304LL	67	215	2980	128	265	4550	3.45	14	890SD-433145F
TMW305LK	87	215	3840	165	265	5880	4.40	18	890SD-433180F
TMW306LI	118	240	4690	224	300	7200	4.55	21	890SD-433250G
TMW308LH	165	245	6420	311	305	9870	6.50	29	890SD-433361G
TMW30ALJ	185	215	8230	354	265	12500	6.80	35	890SD-433420H
TMW30ALH	210	245	8170	396	305	12500	6.80	36	890SD-433480H <sup>3)</sup>
TMW406LG	239	230	9930	440	285	15300	16.20	30	890SD-433520H <sup>3)</sup>

1) Other voltages, speeds available, consult us.

2) This reference corresponds to the optimum drive for operation at nominal point of motor without overload.

Warning: this drive does not allow the maximum torque of the motor to be reached and has to be adapted to suit the requirements of the application

3) Consult Factory

### 400 VAC Power Supply<sup>1)</sup>

Model	Pn [kW]	Nn [min <sup>-1</sup> ]	Mn [Nm]	In [Arms]	Nmax [min <sup>-1</sup> ]	Mmax [Nm]	Inertia [kgm <sup>2</sup> ]	Water flow rate [l/min]	Drive reference <sup>2)</sup>
<b>Motor Speed 250...300 min<sup>-1</sup></b>									
TMW204LP	35	280	1200	70	350	1810	0.75	9	890SD-432730E
TMW205LP	42	260	1550	85	325	2320	0.78	11	890SD-432870E
TMW206LM	60	300	1900	116	375	2850	0.81	14	890SD-433105F
TMW207LM	68	290	2250	134	360	3380	1.00	16	890SD-433145F
TMW304LH	90	295	2920	167	350	4550	3.45	15	890SD-433180F
TMW305LH	105	265	3800	196	325	5880	4.40	18	890SD-433216G
TMW305LF	116	295	3770	217	365	5880	4.40	18	890SD-433250G
TMW308LG	183	275	6370	343	340	9870	6.50	29	890SD-433420H <sup>3)</sup>
<b>Motor Speed 300...350 min<sup>-1</sup></b>									
TMW204LM	45	355	1200	85	440	1810	0.75	9	890SD-432870E
TMW206LL	69	350	1890	131	435	2850	0.81	14	890SD-433145F
TMW208LL	84	310	2600	163	385	3910	1.03	18	890SD-433180F
TMW306LG	147	305	4610	271	370	7200	4.55	22	890SD-433316G
TMW306LF	154	320	4590	283	385	7200	4.55	22	890SD-433420H <sup>3)</sup>
<b>Motor Speed 350...400 min<sup>-1</sup></b>									
TMW205LL	60	370	1540	113	460	2320	0.78	11	890SD-433105F
TMW205LK	64	400	1530	128	500	2320	0.78	11	890SD-433145F
TMW206LJ	79	400	1880	151	500	2850	0.81	14	890SD-433180F
TMW207LJ	88	375	2240	167	465	3380	1.00	16	890SD-433180F
TMW207LI	93	400	2230	181	500	3380	1.00	16	890SD-433216G
TMW208LJ	102	375	2580	193	465	3910	1.03	18	890SD-433216G
TMW208LH	108	400	2580	213	500	3910	1.03	18	890SD-433250G
TMW304LE	109	365	2860	199	425	4550	3.45	15	890SD-433216G
TMW304LC	119	400	2830	220	475	4550	3.45	15	890SD-433250G <sup>3)</sup>
TMW305LC	149	390	3660	271	450	5880	4.40	19	890SD-433316G <sup>3)</sup>

1) Other voltages, speeds available, consult us.

2) This reference corresponds to the optimum drive for operation at nominal point of motor without overload.

Warning: this drive does not allow the maximum torque of the motor to be reached and has to be adapted to suit the requirements of the application

3) Consult Factory



## 480 VAC Power Supply<sup>1)</sup>

Model	Pn [kW]	Nn [min <sup>-1</sup> ]	Mn [Nm]	In [Arms]	Nmax [min <sup>-1</sup> ]	Mmax [Nm]	Inertia [kgm <sup>2</sup> ]	Water flow rate [l/min]	Drive reference <sup>2)</sup>
<b>Motor Speed 50...75 min<sup>-1</sup></b>									
TMW408LW	112	75	14200	196	90	21000	19.40	37	890SD-433216G
TMW40ALW	114	60	18100	219	70	26800	25.10	47	890SD-433250G
TMW40CLW	150	65	22000	271	75	32500	25.90	56	890SD-433316G
<b>Motor Speed 75...100 min<sup>-1</sup></b>									
TMW305LU	35	85	3930	67	95	5880	4.40	17	890SD-432730E
TMW306LV	45	90	4820	86	100	7200	4.55	20	890SD-432870E
TMW30ALU	88	100	8410	162	120	12500	6.80	34	890SD-433216G
TMW406LV	97	90	10300	169	105	15300	16.20	28	890SD-433216G
TMW40ALQ	179	95	18000	312	115	26800	25.10	47	890SD-433361G
TMW40CLS	195	85	22000	347	100	32500	25.90	56	890SD-433420H
<b>Motor Speed 100...125 min<sup>-1</sup></b>									
TMW304LR	40	125	3030	70	140	4550	3.45	14	890SD-432730E
TMW305LT	47	115	3920	84	135	5880	4.40	17	890SD-432870E
TMW308LU	76	110	6600	133	135	9870	6.50	27	890SD-433156F
TMW30ALS	110	125	8370	190	155	12500	6.80	34	890SD-433216G
TMW406LS	129	120	10200	215	145	15300	16.20	28	890SD-433250G
TMW408LS	155	105	14100	260	125	21000	19.40	38	890SD-433316G
TMW408LP	184	125	14100	304	145	21000	19.40	38	890SD-433361G
TMW40CLK	252	110	21800	426	130	32500	25.90	57	890SD-433520H
<b>Motor Speed 125...150 min<sup>-1</sup></b>									
TMW204LU	19	150	1210	35	170	1810	0.75	9	890SD-532450D
TMW208LU	37	135	2630	71	150	3910	1.03	18	890SD-432730E
TMW304LQ	47	150	3020	81	180	4550	3.45	14	890SD-432870E
TMW306LS	68	135	4790	114	165	7200	4.55	21	890SD-433145F
TMW308LQ	100	145	6560	167	175	9870	6.50	28	890SD-433216G
TMW30ALQ	127	145	8350	215	180	12500	6.80	34	890SD-433250G
TMW40ALM	243	130	17900	396	160	26800	25.10	47	890SD-433480H
TMW40ALK	271	145	17800	444	180	26800	25.10	48	890SD-433590J
TMW40CLI	329	145	21700	533	180	32500	25.90	57	AC890SD/4/0685K <sup>3)</sup>

1) Other voltages, speeds available, consult us.

2) This reference corresponds to the optimum drive for operation at nominal point of motor without overload.

Warning: this drive does not allow the maximum torque of the motor to be reached and has to be adapted to suit the requirements of the application

3) Consult Factory

## 480 VAC Power Supply<sup>1)</sup>

Model	Pn [kW]	Nn [min <sup>-1</sup> ]	Mn [Nm]	In [Arms]	Nmax [min <sup>-1</sup> ]	Mmax [Nm]	Inertia [kgm <sup>2</sup> ]	Water flow rate [l/min]	Drive reference <sup>2)</sup>
<b>Motor Speed 150...175 min<sup>-1</sup></b>									
TMW205LT	25	155	1560	47	190	2320	0.78	11	890SD-532590D
TMW207LS	38	160	2270	70	195	3380	1.00	15	890SD-432730E
TMW208LT	48	175	2630	86	215	3910	1.03	18	890SD-432870E
TMW305LP	71	175	3880	117	215	5880	4.40	17	890SD-433145F
TMW306LR	77	155	4770	128	190	7200	4.55	21	890SD-433145F
TMW308LN	120	175	6520	197	215	9870	6.50	28	890SD-433216G
TMW406LP	165	155	10100	264	190	15300	16.20	29	890SD-433316G
TMW408LL	240	165	13900	385	200	21000	19.40	38	890SD-433480H
TMW40ALH	324	175	17700	522	215	26800	25.10	48	AC890SD/4/0685K <sup>3)</sup>
TMW40CLG	394	175	21500	621	215	32500	25.90	57	AC890SD/4/0798K <sup>3)</sup>
<b>Motor Speed 175...200 min<sup>-1</sup></b>									
TMW306LN	99	200	4730	160	245	7200	4.55	21	890SD-433216G
TMW30ALN	165	190	8270	267	230	12500	6.80	35	890SD-433316G
TMW406LJ	190	180	10100	304	215	15300	16.20	29	890SD-433361G
TMW408LJ	268	185	13800	431	225	21000	19.40	38	890SD-433520H
<b>Motor Speed 200...225 min<sup>-1</sup></b>									
TMW204LR	27	215	1210	47	260	1810	0.75	9	890SD-532590D
TMW206LR	41	205	1910	71	250	2850	0.81	13	890SD-432730E
TMW207LR	49	205	2270	84	250	3380	1.00	16	890SD-432870E
TMW304LM	70	225	2970	113	275	4550	3.45	14	890SD-433145F
TMW305LN	83	205	3850	132	250	5880	4.40	17	890SD-433156F
TMW308LM	139	205	6480	224	250	9870	6.50	28	890SD-433250G
TMW30ALL	189	220	8220	303	275	12500	6.80	35	890SD-433361G
TMW406LI	225	215	9970	349	260	15300	16.20	29	890SD-433420H
TMW40ALE	393	215	17500	619	250	26800	25.10	48	AC890SD/4/0798K <sup>3)</sup>
<b>Motor Speed 225...250 min<sup>-1</sup></b>									
TMW206LQ	50	250	1900	83	310	2850	0.81	13	890SD-432870E
TMW208LQ	68	250	2610	114	310	3910	1.03	18	890SD-433145F
TMW306LL	120	245	4680	189	290	7200	4.55	21	890SD-433216G
TMW308LK	162	240	6430	259	300	9870	6.50	28	890SD-433316G
TMW406LH	249	240	9890	387	300	15300	16.20	29	890SD-433480H <sup>3)</sup>
TMW408LF	342	240	13600	532	295	21000	19.40	39	AC890SD/4/0685K <sup>3)</sup>

1) Other voltages, speeds available, consult us.

2) This reference corresponds to the optimum drive for operation at nominal point of motor without overload.

Warning: this drive does not allow the maximum torque of the motor to be reached and has to be adapted to suit the requirements of the application

3) Consult Factory

## 480 VAC Power Supply<sup>1)</sup>

Model	Pn [kW]	Nn [min <sup>-1</sup> ]	Mn [Nm]	In [Arms]	Nmax [min <sup>-1</sup> ]	Mmax [Nm]	Inertia [kgm <sup>2</sup> ]	Water flow rate [l/min]	Drive reference <sup>2)</sup>
<b>Motor Speed 250...300 min<sup>-1</sup></b>									
TMW205LQ	42	255	1550	69	315	2320	0.78	11	890SD-432730E
TMW208LP	78	285	2600	127	345	3910	1.03	18	890SD-433145F
TMW304LL	80	260	2950	127	320	4550	3.45	14	890SD-433145F
TMW305LK	104	260	3800	164	320	5880	4.40	18	890SD-433216G
TMW306LI	143	295	4620	221	365	7200	4.55	21	890SD-433250G
TMW308LH	199	300	6330	307	370	9870	6.50	29	890SD-433361G
TMW30ALJ	222	260	8140	351	320	12500	6.80	35	890SD-433420H
TMW30ALH	253	300	8060	391	370	12500	6.80	36	890SD-433480H <sup>3)</sup>
TMW406LG	281	275	9770	433	340	15300	16.20	30	890SD-433520H <sup>3)</sup>
<b>Motor Speed 300...350 min<sup>-1</sup></b>									
TMW204LP	43	345	1200	69	430	1810	0.75	9	890SD-432730E
TMW205LP	52	320	1550	84	400	2320	0.78	11	890SD-432870E
TMW207LN	73	310	2250	118	380	3380	1.00	16	890SD-433145F
TMW305LH	125	320	3740	194	390	5880	4.40	18	890SD-433216G
TMW308LG	220	335	6270	338	410	9870	6.50	29	890SD-433420H <sup>3)</sup>
<b>Motor Speed 350...400 min<sup>-1</sup></b>									
TMW206LM	72	365	1890	116	455	2850	0.81	14	890SD-433145F
TMW207LM	83	355	2240	134	440	3380	1.00	16	890SD-433156F
TMW208LL	102	375	2590	162	465	3910	1.03	18	890SD-433216G
TMW304LH	107	355	2870	164	420	4550	3.45	15	890SD-433216G
TMW305LF	139	360	3700	213	445	5880	4.40	18	890SD-433250G
TMW306LG	175	370	4520	266	445	7200	4.55	22	890SD-433316G
TMW306LF	181	385	4500	278	460	7200	4.55	22	890SD-433361G <sup>3)</sup>
<b>Motor Speed 400...450 min<sup>-1</sup></b>									
TMW204LM	54	435	1190	85	535	1810	0.75	9	890SD-432870E
TMW205LL	72	450	1530	113	555	2320	0.78	11	890SD-433145F
TMW206LL	83	420	1880	131	520	2850	0.81	14	890SD-433156F
TMW207LJ	106	455	2220	166	560	3380	1.00	16	890SD-433216G
TMW208LJ	122	455	2570	192	560	3910	1.03	18	890SD-433216G
TMW304LE	129	440	2790	194	510	4550	3.45	15	890SD-433216G
<b>Motor Speed 450...500 min<sup>-1</sup></b>									
TMW205LK	81	511	1520	127	630	2320	0.78	11	890SD-433145F
TMW206LJ	97	495	1860	150	615	2850	0.81	14	890SD-433216G
TMW207LI	116	500	2210	180	625	3380	1.00	16	890SD-433216G
TMW208LH	136	510	2550	211	635	3910	1.03	18	890SD-433250G
TMW304LC	143	500	2720	213	590	4550	3.45	15	890SD-433250G <sup>3)</sup>
TMW305LC	175	470	3550	264	540	5880	4.40	19	890SD-433316G <sup>3)</sup>

1) Other voltages, speeds available, consult us.

2) This reference corresponds to the optimum drive for operation at nominal point of motor without overload.

Warning: this drive does not allow the maximum torque of the motor to be reached and has to be adapted to suit the requirements of the application

3) Consult Factory

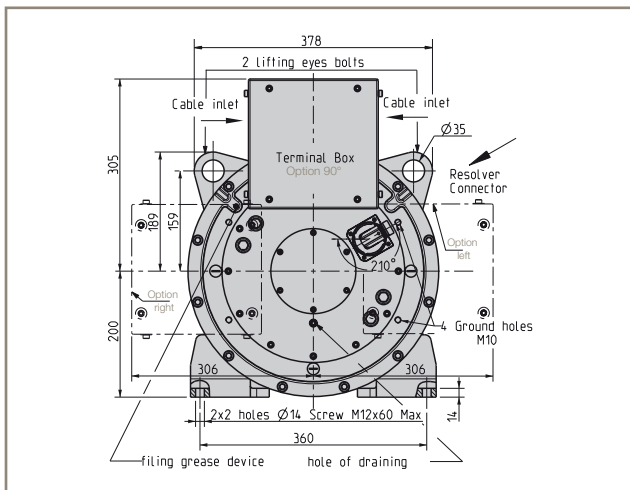
## Dimensions

### TMW20x-01

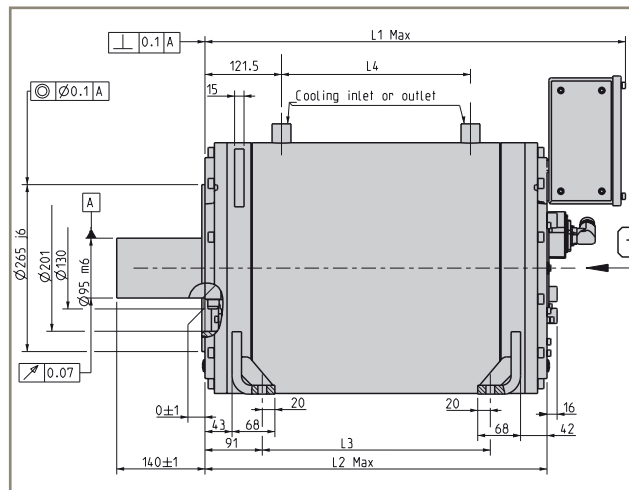
Dimensions [mm]

#### Shaft Height 200 mm / Roller Bearing

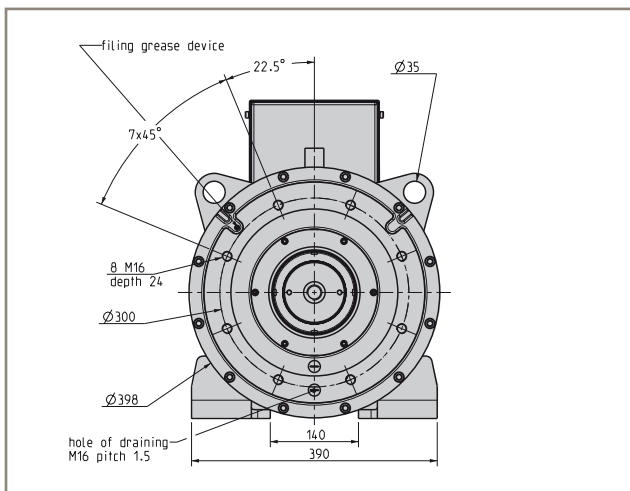
Rear view



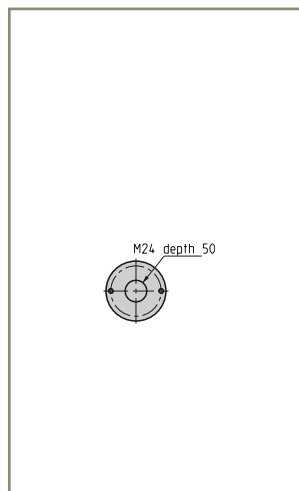
Side view



Front view



Shaft End

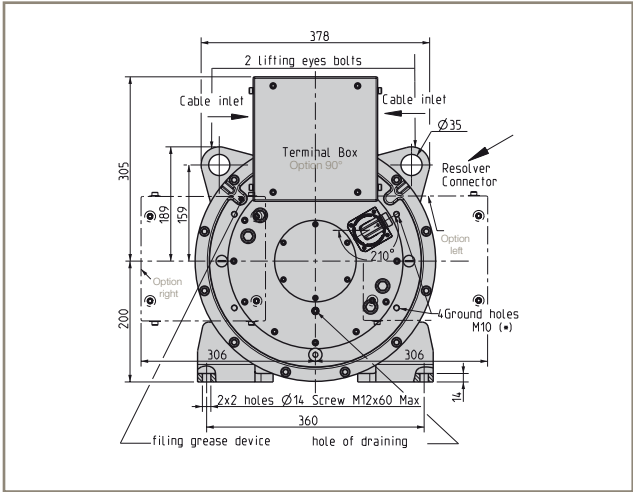


Model	L1 Max [mm]	L2 Max [mm]	L3 [mm]	L4 [mm]	Weight [kg]
TMW204	675	545	362	300	335
TMW205	675	545	362	300	350
TMW206	675	545	362	300	365
TMW207	775	645	462	400	405
TMW208	775	645	462	400	420

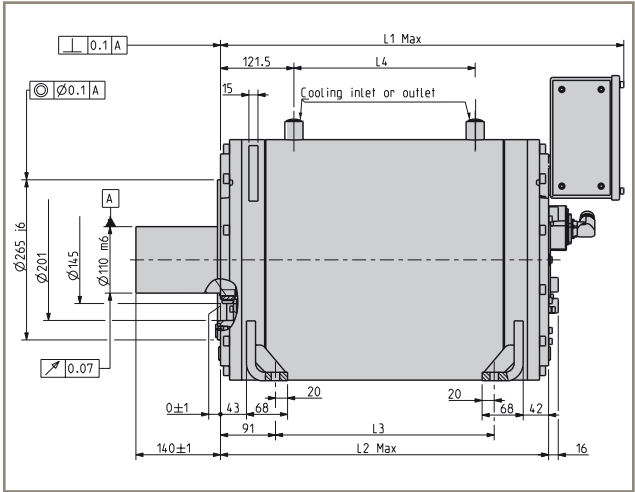
**TMW20x-00**

**Shaft Height 200 mm / Ball Bearing**

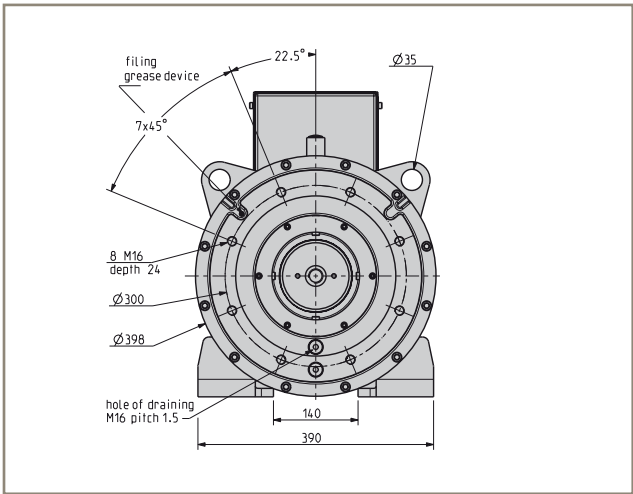
**Rear view**



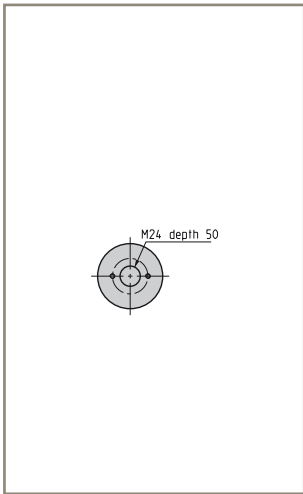
**Side view**



**Front view**



**Shaft End**



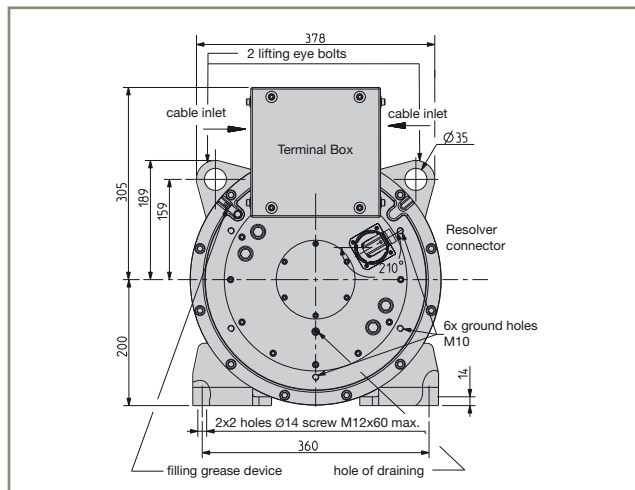
Model	L1 Max [mm]	L2 Max [mm]	L3 [mm]	L4 [mm]	Weight [kg]
TMW204	675	545	362	300	335
TMW205	675	545	362	300	350
TMW206	675	545	362	300	365
TMW207	775	645	462	400	405
TMW208	775	645	462	400	420

**TMW20x-20**

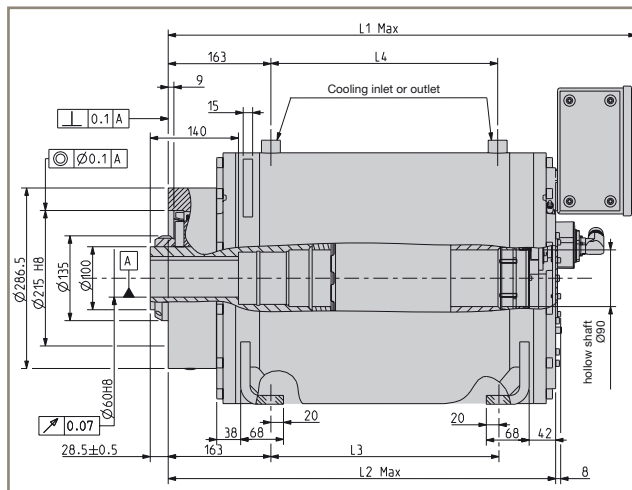
Dimensions [mm]

**Shaft Height 200 mm / Thrust Bearing 29420**

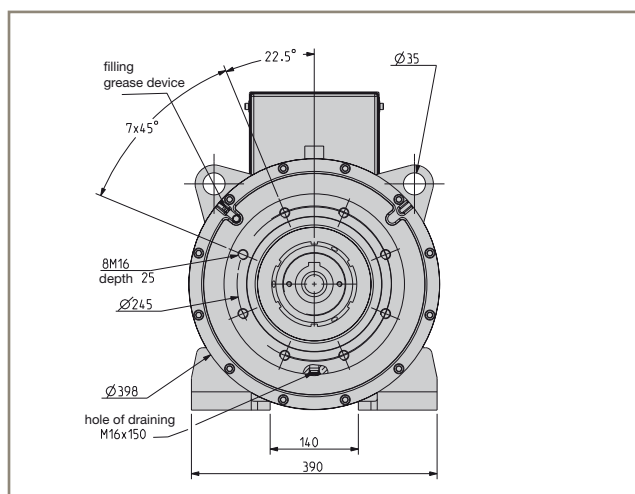
**Rear view**



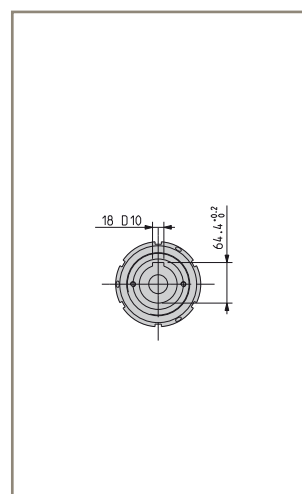
**Side view**



**Front view**



**Shaft End**



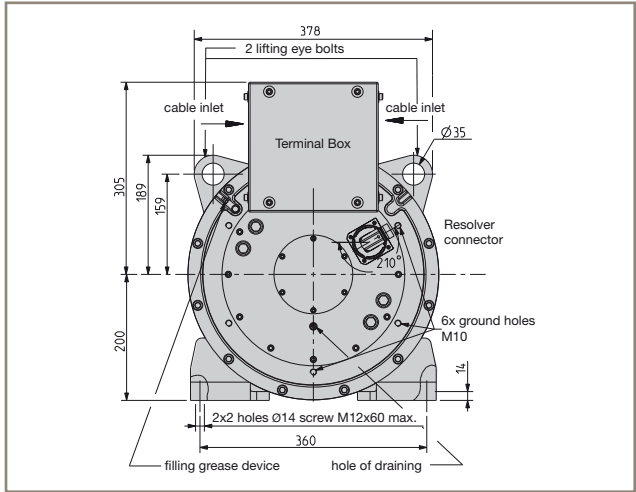
Model	L1 Max [mm]	L2 Max [mm]	L3 [mm]	L4 [mm]	Weight [kg]
TMW204	750	620	362	360	335
TMW205	750	620	362	360	350
TMW206	750	620	362	360	365
TMW207	850	720	462	460	405
TMW208	850	720	462	460	420



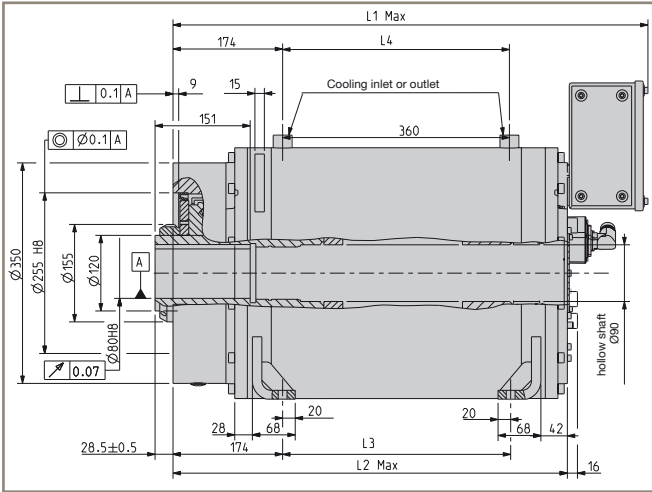
**TMW20x-24**

**Shaft Height 200 mm / Thrust Bearing 29424**

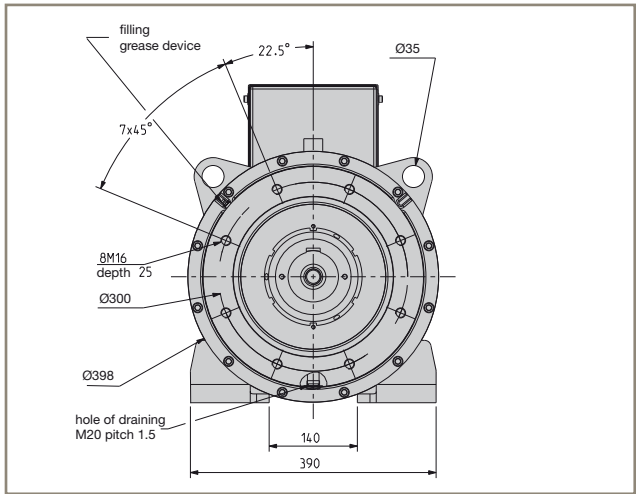
**Rear view**



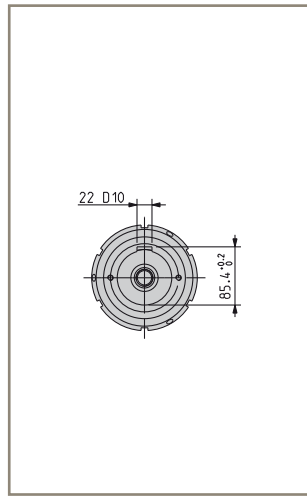
**Side view**



**Front view**



**Shaft End**



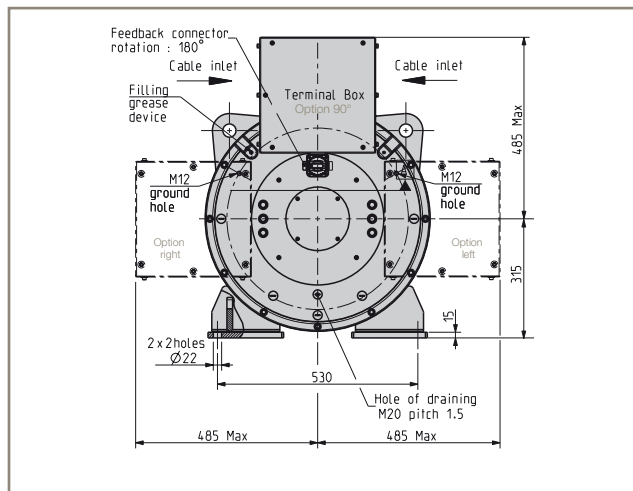
Model	L1 Max [mm]	L2 Max [mm]	L3 [mm]	L4 [mm]	Weight [kg]
TMW204	760	630	362	360	365
TMW205	760	630	362	360	380
TMW206	760	630	362	360	395
TMW207	860	730	462	460	435
TMW208	860	730	462	460	450

**TMW30x-01**

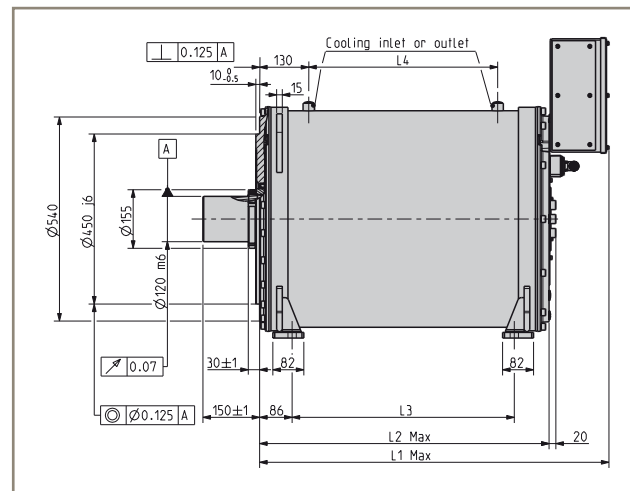
Dimensions [mm]

**Shaft Height 315 mm / Roller Bearing**

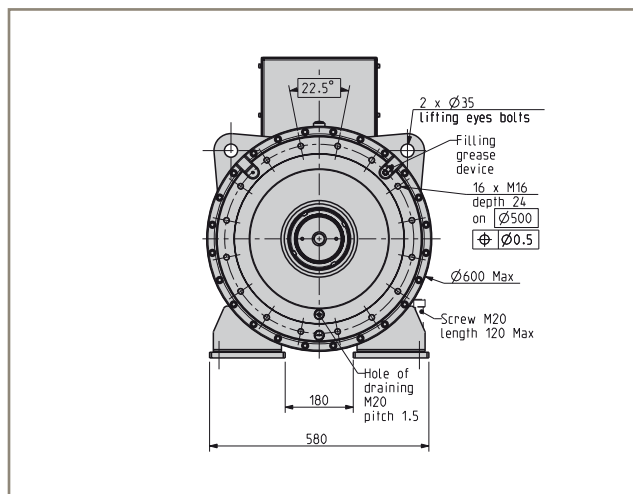
**Rear view**



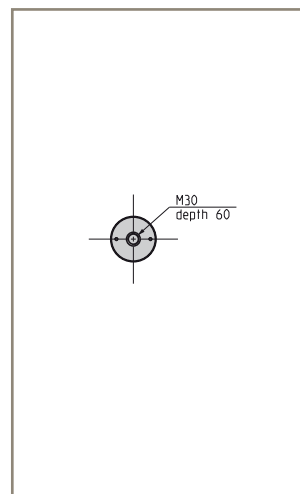
**Side view**



**Front view**



**Shaft End**

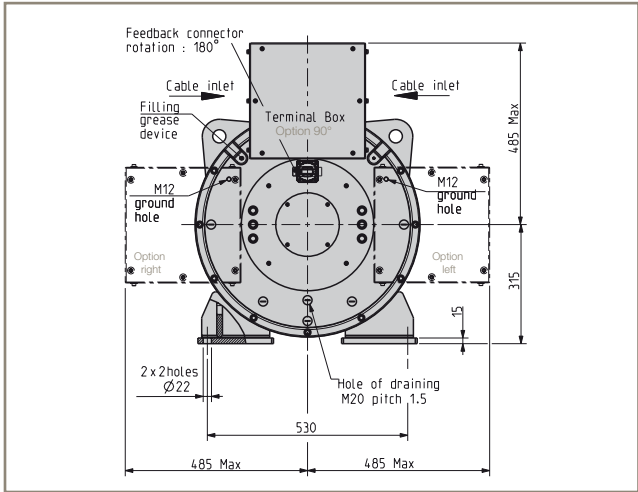


Model	L1 Max [mm]	L2 Max [mm]	L3 [mm]	L4 [mm]	Weight [kg]
TMW304	630	470	288	200	520
TMW305	730	570	388	300	580
TMW306	730	570	388	300	600
TMW308	930	770	588	500	715
TMW30A	930	770	588	500	755

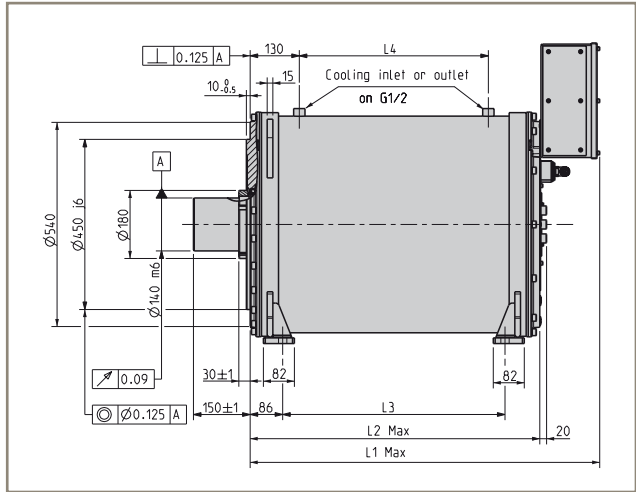
**TMW30x-00**

**Shaft Height 315 mm / Ball Bearing**

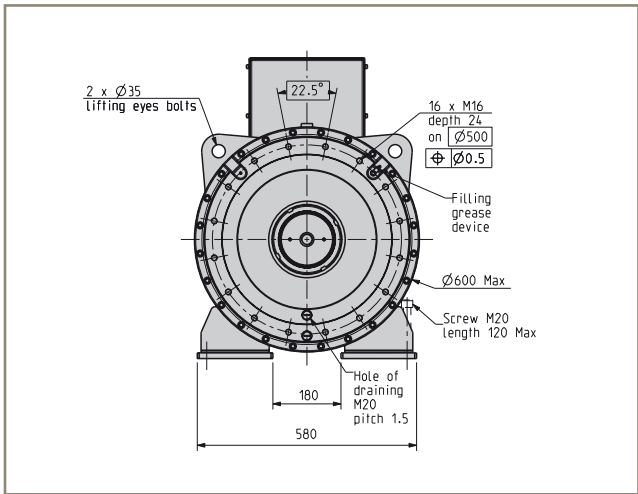
**Rear view**



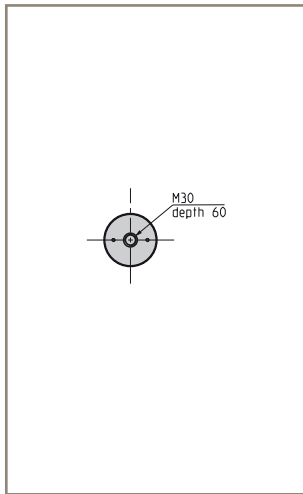
**Side view**



**Front view**



**Shaft End**



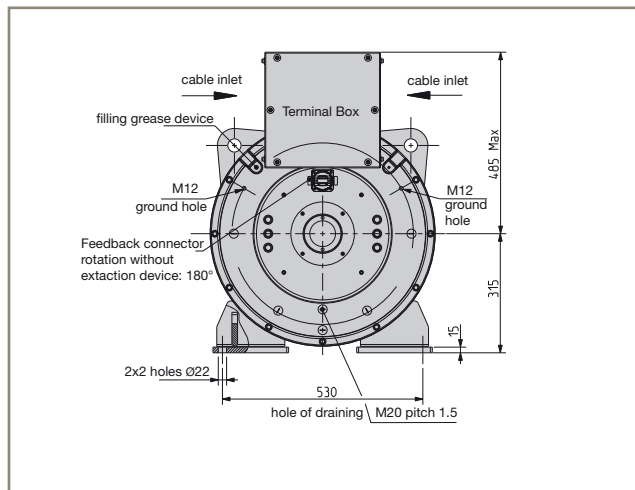
Model	L1 Max [mm]	L2 Max [mm]	L3 [mm]	L4 [mm]	Weight [kg]
TMW304	630	470	288	200	525
TMW305	730	570	388	300	585
TMW306	730	570	388	300	605
TMW308	930	770	588	500	720
TMW30A	930	770	588	500	760

**TMW30x-22**

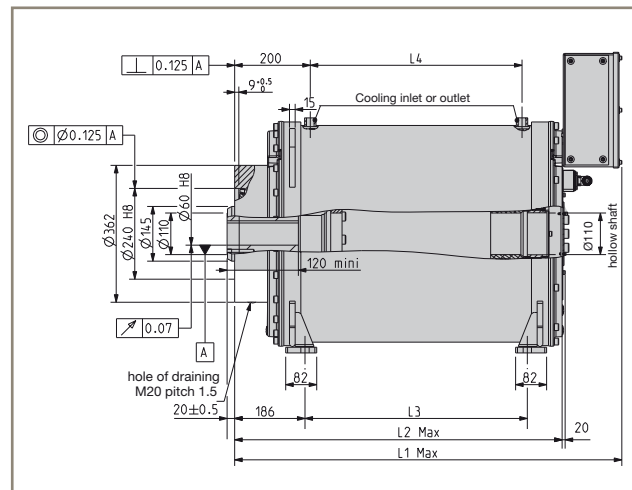
Dimensions [mm]

**Shaft Height 315 mm / Thrust Bearing 29422**

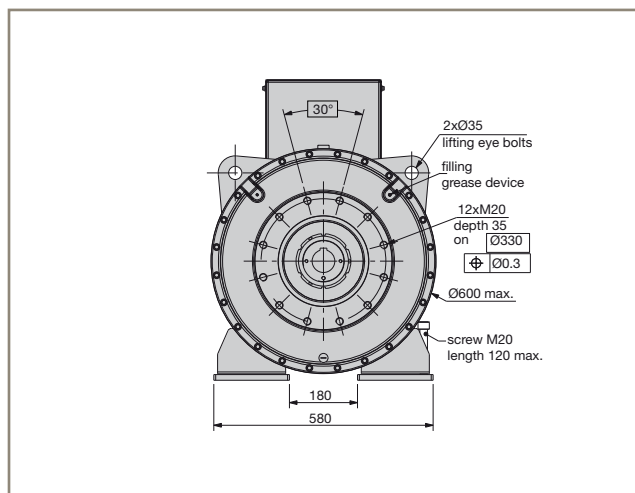
**Rear view**



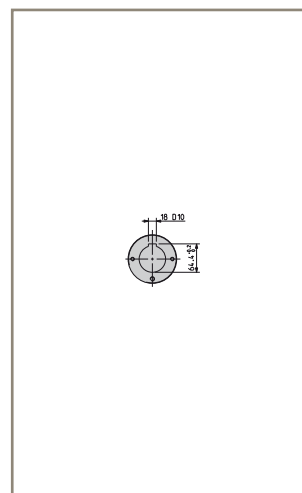
**Side view**



**Front view**



**Shaft End**

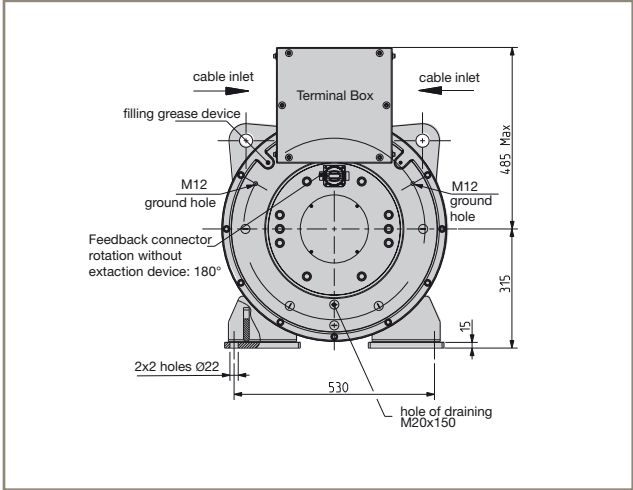


Model	L1 Max [mm]	L2 Max [mm]	L3 [mm]	L4 [mm]	Weight [kg]
TMW304	730	570	288	260	585
TMW305	830	670	388	360	645
TMW306	830	670	388	360	665
TMW308	1030	870	588	560	780
TMW30A	1030	870	588	560	820

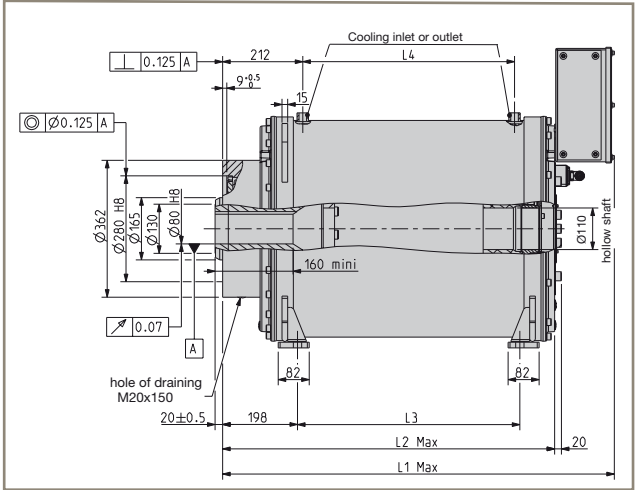
**TMW30x-26**

**Shaft Height 315 mm / Thrust Bearing 29426**

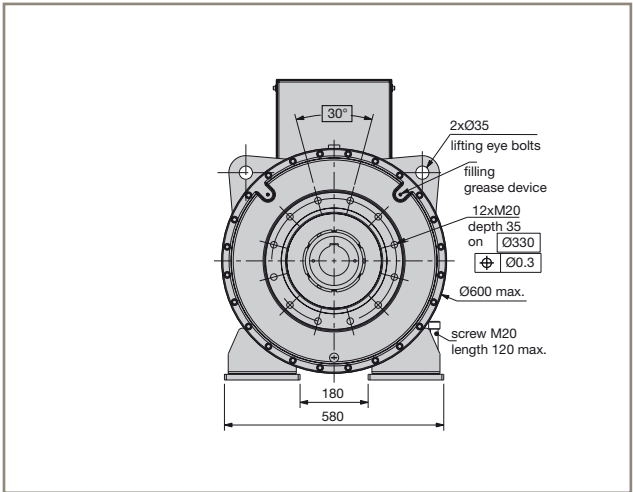
**Rear view**



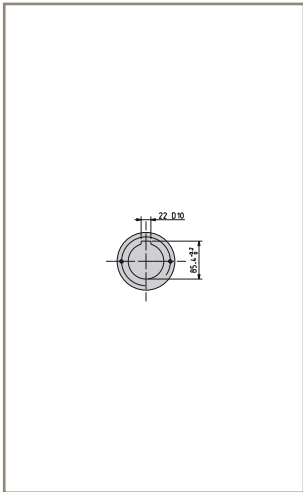
**Side view**



**Front view**



**Shaft End**



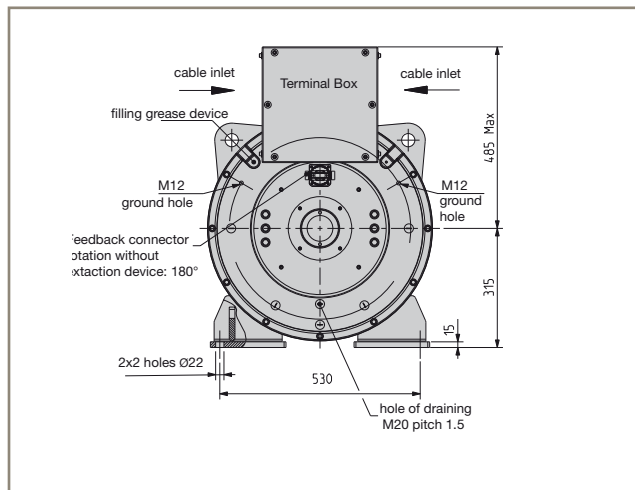
Model	L1 Max [mm]	L2 Max [mm]	L3 [mm]	L4 [mm]	Weight [kg]
TMW304	740	580	288	260	585
TMW305	840	680	388	360	645
TMW306	840	680	388	360	665
TMW308	1040	880	588	560	780
TMW30A	1040	880	588	560	820

**TMW30x-30**

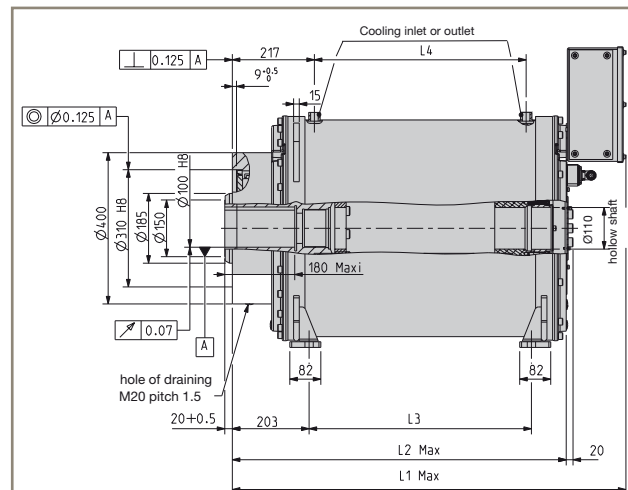
Dimensions [mm]

**Shaft Height 315 mm / Thrust Bearing 29430**

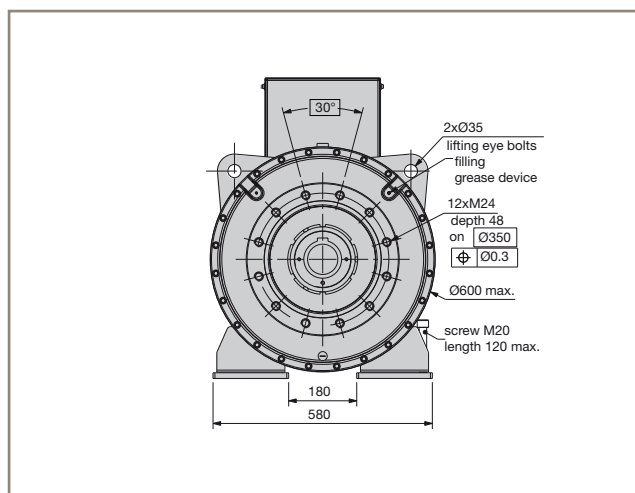
**Rear view**



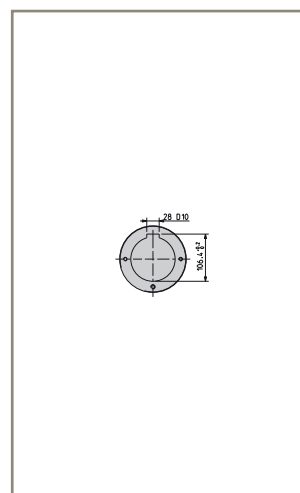
**Side view**



**Front view**



**Shaft End**



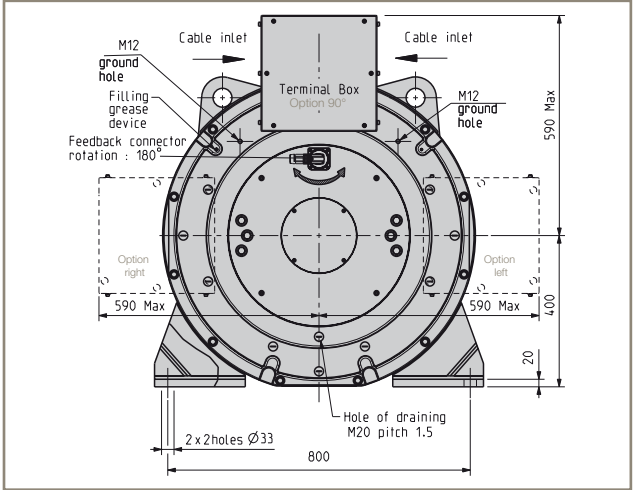
Model	L1 Max [mm]	L2 Max [mm]	L3 [mm]	L4 [mm]	Weight [kg]
TMW304	745	585	288	260	605
TMW305	845	685	388	360	665
TMW306	845	685	388	360	685
TMW308	1045	885	588	560	800
TMW30A	1045	885	588	560	840



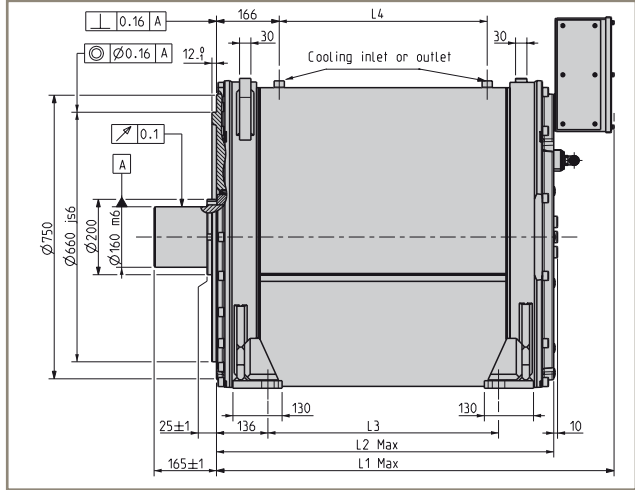
**TMW40x-01**

**Shaft Height 400 mm / Roller Bearing**

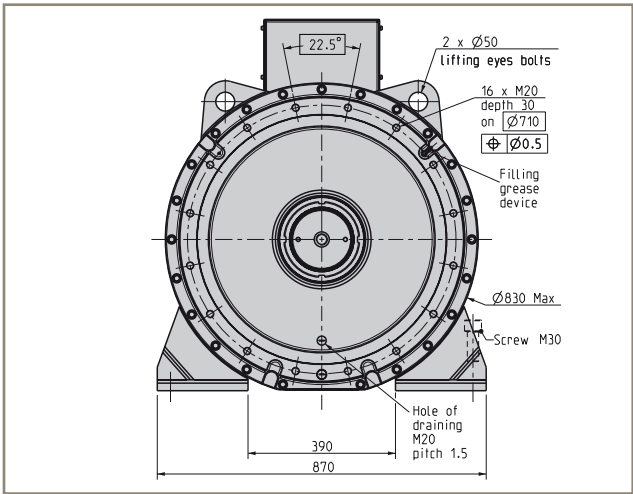
**Rear view**



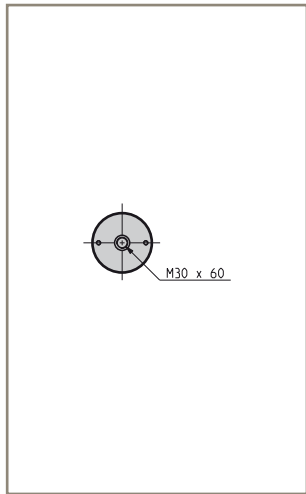
**Side view**



**Front view**



**Shaft End**



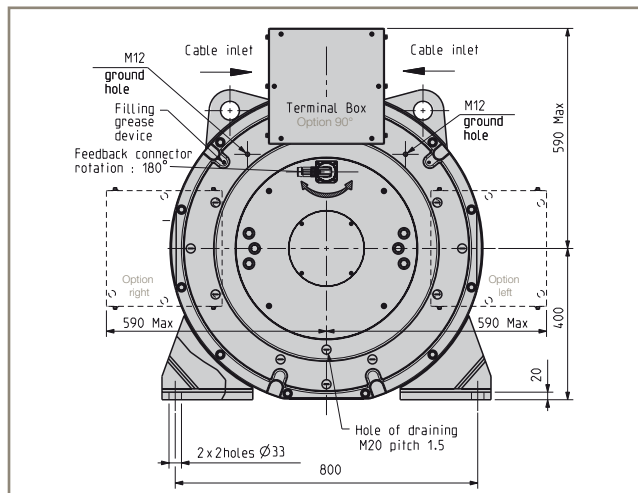
Model	L1 Max [mm]	L2 Max [mm]	L3 [mm]	L4 [mm]	Weight [kg]
TMW406	754	594	310	250	1290
TMW408	854	694	410	350	1430
TMW40A	1054	894	610	550	1620
TMW40C	1054	894	610	550	1700

**TMW40x-00**

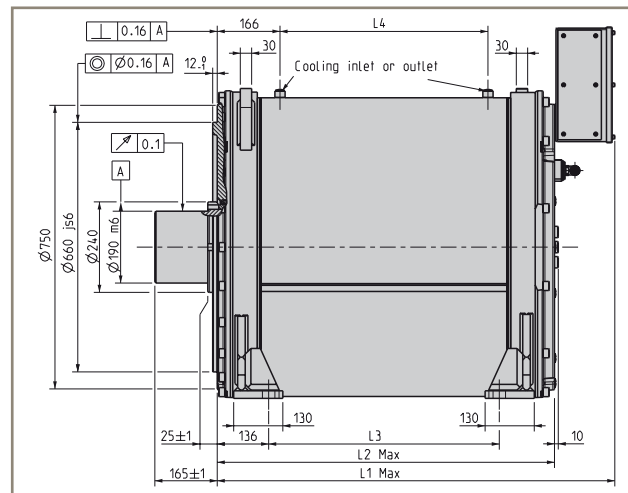
Dimensions [mm]

**Shaft Height 400 mm / Ball Bearing**

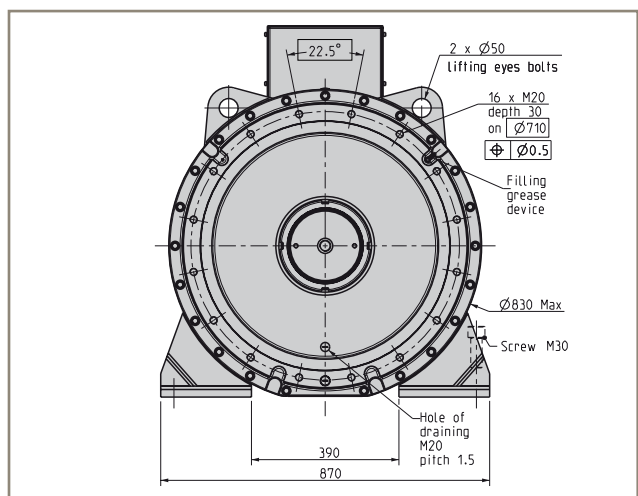
**Rear view**



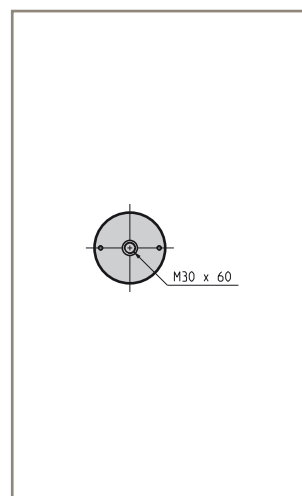
**Side view**



**Front view**



**Shaft End**



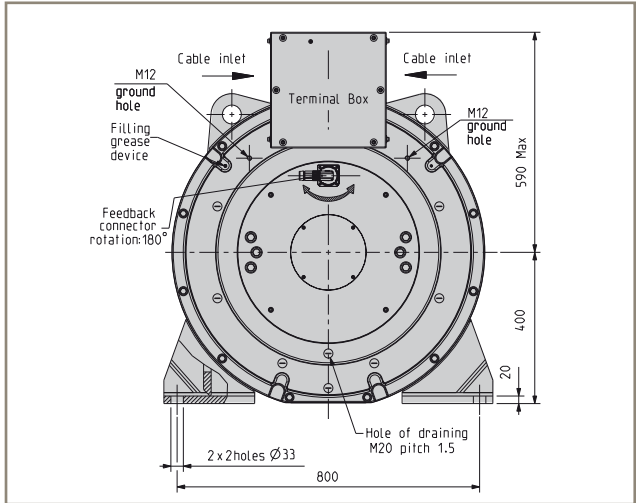
Model	L1 Max [mm]	L2 Max [mm]	L3 [mm]	L4 [mm]	Weight [kg]
TMW406	754	594	310	250	1290
TMW408	854	694	410	350	1430
TMW40A	1054	894	610	550	1620
TMW40C	1054	894	610	550	1700

Dimensions [mm]

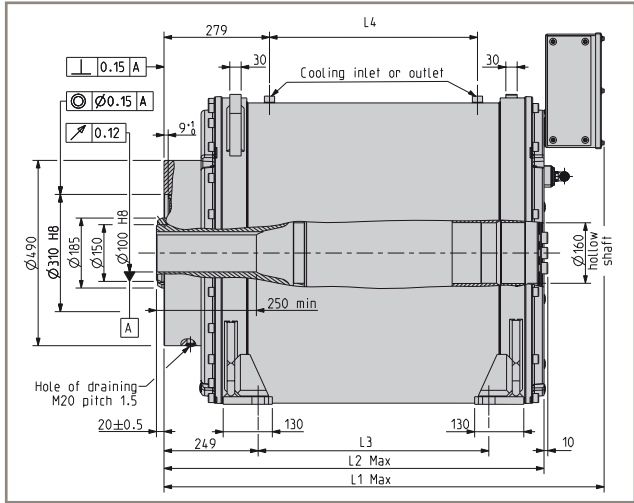
**TMW40x-30**

**Shaft Height 400 mm / Thrust Bearing 29430**

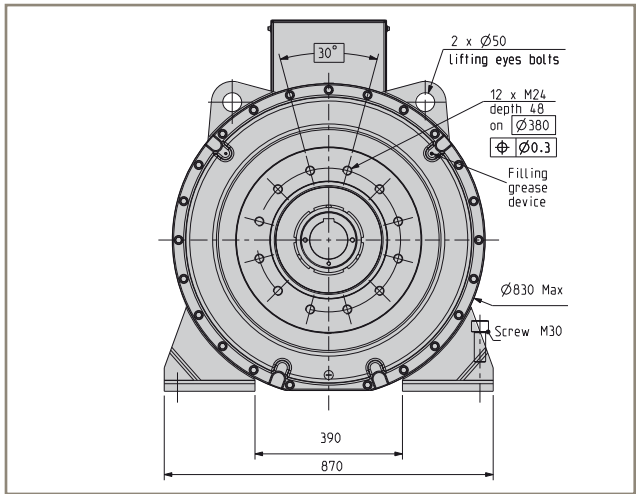
**Rear view**



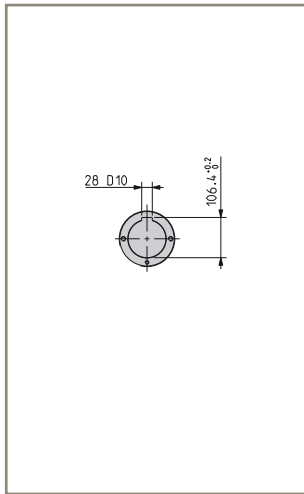
**Side view**



**Front view**



**Shaft End**



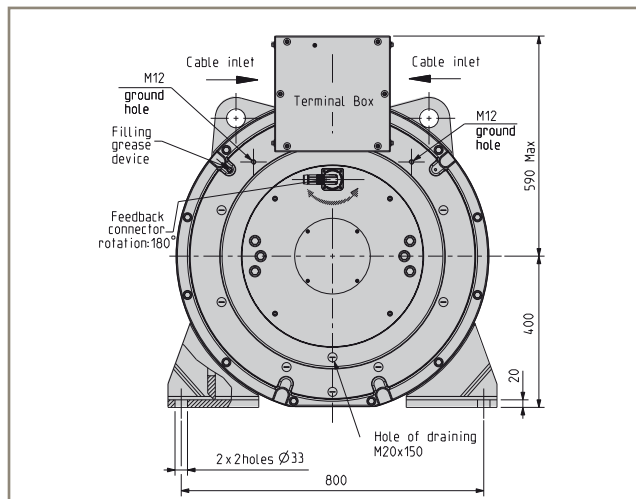
Model	L1 Max [mm]	L2 Max [mm]	L3 [mm]	L4 [mm]	Weight [kg]
TMW406	867	707	310	250	1410
TMW408	967	807	410	350	1550
TMW40A	1167	1007	610	550	1740
TMW40C	1167	1007	610	550	1820

**TMW40x-34**

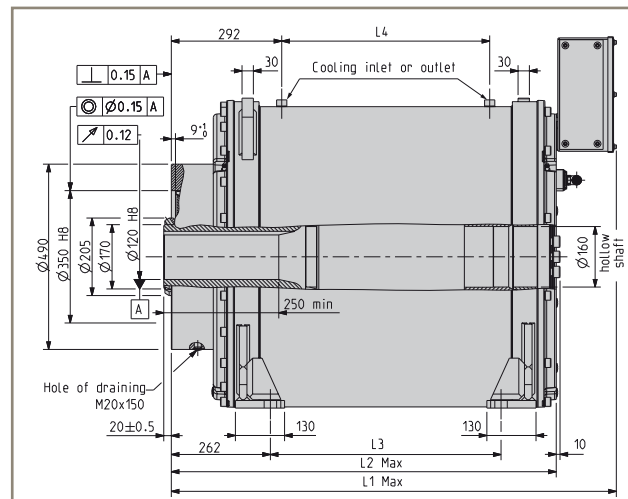
Dimensions [mm]

**Shaft Height 400 mm / Thrust Bearing 29434**

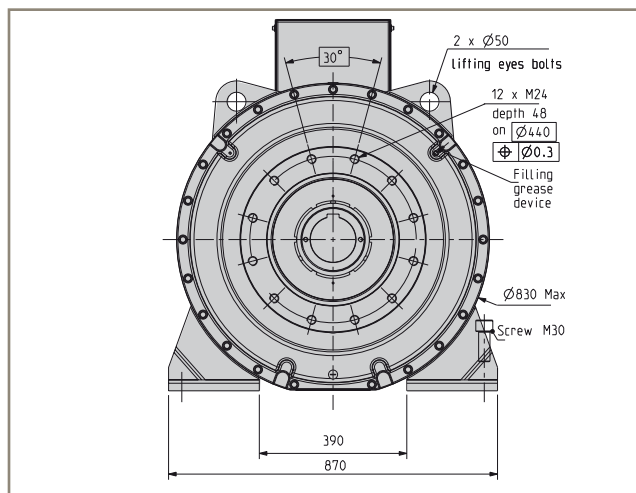
**Rear view**



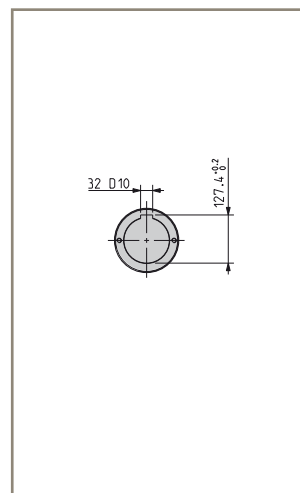
**Side view**



**Front view**



**Shaft End**



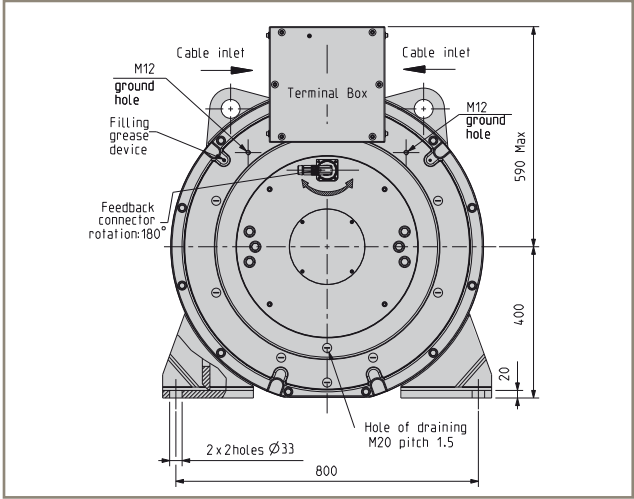
Model	L1 Max [mm]	L2 Max [mm]	L3 [mm]	L4 [mm]	Weight [kg]
TMW406	880	720	310	250	1410
TMW408	980	820	410	350	1550
TMW40A	1180	1020	610	550	1750
TMW40C	1180	1020	610	550	1820

Dimensions [mm]

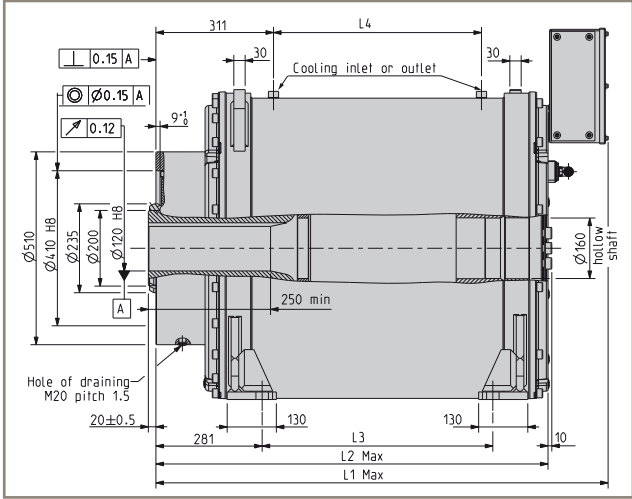
**TMW40x-40**

**Shaft Height 400 mm / Thrust Bearing 29440**

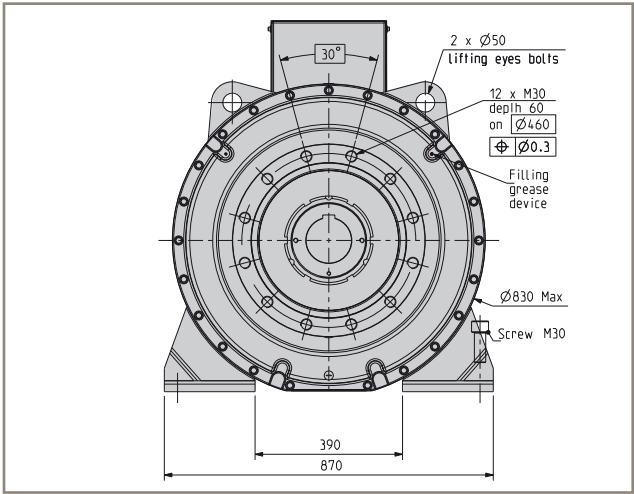
**Rear view**



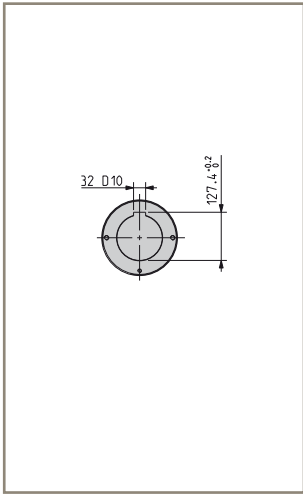
**Side view**



**Front view**



**Shaft End**



Model	L1 Max [mm]	L2 Max [mm]	L3 [mm]	L4 [mm]	Weight [kg]
TMW406	899	739	310	250	1445
TMW408	999	839	410	350	1585
TMW40A	1199	1039	610	550	1775
TMW40C	1199	1039	610	550	1855

## User Data Checklist for Extruders

### General application data

Nominal power		[kW]
Nominal/max. speed		[min <sup>-1</sup> ]
Nominal/max. torque		[Nm]
Water cooling availability		[Y/N]

### Extruder data

Screw diameter		[mm]
Cylinder pressure		[bar]
Screw extraction		[Front/Back]
Screw cooling		[Y/N]

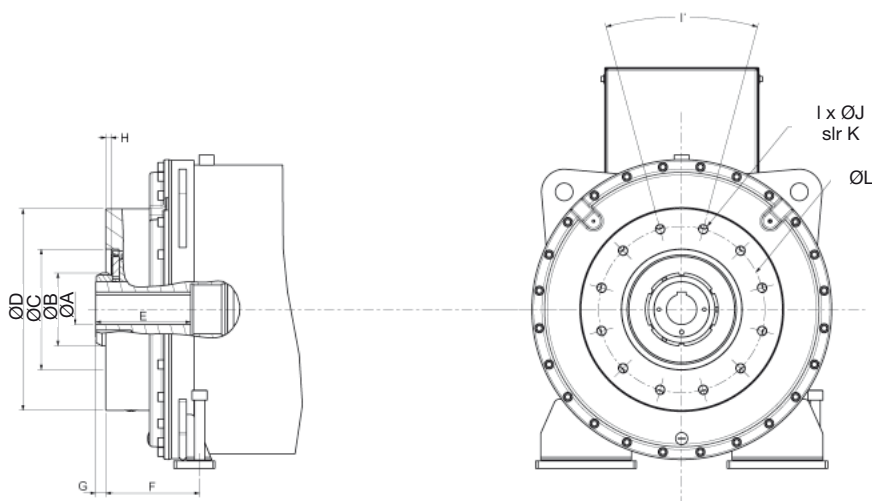
### Mechanical Interface

Customized Interface - Dimension Limits [mm]									
Motor		TMW200		TMW300			TMW400		
Thrust bearing		29420	29424	29422	29426	29430	29430	29434	29440
Hollow shaft Ø max.	A	60	90	60	80	110	110	120	150
External shaft Ø	B	135	155	145	165	185	185	205	235
Centering Ø min.	C	215	255	240	280	310	310	350	410
External front Ø	D	286.5	350	400	400	400	490	490	510
Length keyway max. (with G max)	E	185	185	179	179	179	270	270	270
Front length min.	F	163	174	186	198	203	249	262	281
Shaft length min. (with F min.)	G	28.5	28.5	20	20	20	20	20	20
Shaft length max. (with F min.)	G	71	60	45	33	28	55	42	23
Centering depth max.	H	9	9	9	9	9	9	9	9
Other dimensions	I to L	free	free	free	free	free	free	free	free
Screw extraction from the rear									
Hollow shaft Ø max.	A	60	80 (*)	60	80	90 (*)	110	120	135 (*)

(\*) don't forget the key or other part on extruder screw

### Required drawings

1. Screw interface
2. Barrel interface





## Order Code

	1	2	3	4	5	6	7	8	9	10
Order example	<b>TM</b>	<b>W</b>	<b>30</b>	<b>6LR</b>	<b>C</b>	<b>22</b>	<b>U</b>	<b>F</b>	<b>R</b>	<b>0003</b>

<b>1 Motor type</b>	<b>TM</b>	Torque Motor
<b>2 Cooling method</b>	<b>W</b>	Water cooling (standard)
	<b>A</b>	Natural convection (with derating, consult local sales office for details)
<b>3 Shaft height</b>	<b>20</b>	200 mm
	<b>30</b>	315 mm
	<b>40</b>	400 mm
<b>4 Torque/speed characteristics</b>	(see motors data tables "Technical Data")	
<b>5 Feedback sensor</b>	<b>C</b>	EnDat encoder (standard) Cable Ref.for AC890: CS4UV1F3R0xxx*
	<b>B</b>	Direct EnDat encoder (option) Cable Ref.for AC890: CS4UV1F3R0xxx*
	<b>A</b>	Resolver (on request) * xxx = Cable length in meter
<b>6 Bearing</b>	<b>20</b>	Thrust bearing 29420 only for TMW204...208
	<b>24</b>	Thrust bearing 29424 only for TMW204...208
	<b>22</b>	Thrust bearing 29422 only for TMW304...30A
	<b>26</b>	Thrust bearing 29426 only for TMW304...30A
	<b>30</b>	Thrust bearing 29430 only for TMW305...30A, TMW406...40C
	<b>34</b>	Thrust bearing 29434 only for TMW406...40C
	<b>40</b>	Thrust bearing 29440 only for TMW406...40C
	<b>00</b>	Ball bearing
	<b>01</b>	Roller bearing
<b>7 Terminal Box</b>	<b>U</b>	Upper rear (standard)
	<b>R</b>	At the rear on the right side (front view) (option)
	<b>L</b>	At the rear on the left side (front view) (option)
<b>8 Extruder Screw Extraction/Cooling</b>	<b>F</b>	Front extruder screw extraction
	<b>P</b>	Front extruder screw extraction (extruder screw cooling possible)
	<b>R</b>	Rear extruder screw extraction (extruder screw cooling possible) (consult us)
	<b>Z</b>	No screw extraction - no screw cooling
<b>9 Fixed character</b>	<b>R</b>	Fixed character
<b>10 Shaft type and mechanical interface</b>	<b>0001</b>	Hollow shaft with keyway Ø60 for TM200 with 29420
	<b>0002</b>	Hollow shaft with keyway Ø80 for TM200 with 29424
	<b>0003</b>	Hollow shaft with keyway Ø60 for TM300 with 29422
	<b>0004</b>	Hollow shaft with keyway Ø80 for TM300 with 29426
	<b>0005</b>	Hollow shaft with keyway Ø100 for TM300 with 29430
	<b>0006</b>	Hollow shaft with keyway Ø100 for TM400 with 29430
	<b>0007</b>	Hollow shaft with keyway Ø120 for TM400 with 29434
	<b>0008</b>	Hollow shaft with keyway Ø120 for TM400 with 29440
	<b>7001</b>	Solid shaft Ø95 for TM200 with roller bearing
	<b>7002</b>	Solid shaft Ø110 for TM200 with ball bearing
	<b>7003</b>	Solid shaft Ø120 for TM300 with roller bearing
	<b>7004</b>	Solid shaft Ø140 for TM300 with ball bearing
	<b>7005</b>	Solid shaft Ø160 for TM400 with roller bearing
	<b>7006</b>	Solid shaft Ø190 for TM400 with ball bearing
	<b>xxxx</b>	Other shaft interface, please consult us









# Parker's Motion & Control Technologies

At Parker, we're guided by a relentless drive to help our customers become more productive and achieve higher levels of profitability by engineering the best systems for their requirements. It means looking at customer applications from many angles to find new ways to create value. Whatever the motion and control technology need, Parker has the experience, breadth of product and global reach to consistently deliver. No company knows more about motion and control technology than Parker. For further info call 00800 27 27 5374



## Aerospace Key Markets

Aftermarket services  
Commercial transports  
Engines  
General & business aviation  
Helicopters  
Launch vehicles  
Military aircraft  
Missiles  
Power generation  
Regional transports  
Unmanned aerial vehicles

## Key Products

Control systems & actuation products  
Engine systems & components  
Fluid conveyance systems & components  
Fluid metering, delivery & atomization devices  
Fuel systems & components  
Fuel tank inerting systems  
Hydraulic systems & components  
Thermal management  
Wheels & brakes



## Climate Control Key Markets

Agriculture  
Air conditioning  
Construction Machinery  
Food & beverage  
Industrial machinery  
Life sciences  
Oil & gas  
Precision cooling  
Process  
Refrigeration  
Transportation

## Key Products

Accumulators  
Advanced actuators  
CO<sub>2</sub> controls  
Electronic controllers  
Filter driers  
Hand shut-off valves  
Heat exchangers  
Hose & fittings  
Pressure regulating valves  
Refrigerant distributors  
Safety relief valves  
Smart pumps  
Solenoid valves  
Thermostatic expansion valves



## Electromechanical Key Markets

Aerospace  
Factory automation  
Life science & medical  
Machine tools  
Packaging machinery  
Paper machinery  
Plastics machinery & converting  
Primary metals  
Semiconductor & electronics  
Textile  
Wire & cable

## Key Products

AC/DC drives & systems  
Electric actuators, gantry robots & slides  
Electrohydraulic actuation systems  
Electromechanical actuation systems  
Human machine interface  
Linear motors  
Stepper motors, servo motors, drives & controls  
Structural extrusions



## Filtration Key Markets

Aerospace  
Food & beverage  
Industrial plant & equipment  
Life sciences  
Marine  
Mobile equipment  
Oil & gas  
Power generation & renewable energy  
Process  
Transportation  
Water Purification

## Key Products

Analytical gas generators  
Compressed air filters & dryers  
Engine air, coolant, fuel & oil filtration systems  
Fluid condition monitoring systems  
Hydraulic & lubrication filters  
Hydrogen, nitrogen & zero air generators  
Instrumentation filters  
Membrane & fiber filters  
Microfiltration  
Sterile air filtration  
Water desalination & purification filters & systems



## Fluid & Gas Handling Key Markets

Aerial lift  
Agriculture  
Bulk chemical handling  
Construction machinery  
Food & beverage  
Fuel & gas delivery  
Industrial machinery  
Life sciences  
Marine  
Mining  
Mobile  
Oil & gas  
Renewable energy  
Transportation

## Key Products

Check valves  
Connectors for low pressure fluid conveyance  
Deep sea umbilicals  
Diagnostic equipment  
Hose couplings  
Industrial hose  
Mooring systems & power cables  
PTFE hose & tubing  
Quick couplings  
Rubber & thermoplastic hose  
Tube fittings & adapters  
Tubing & plastic fittings

## Hydraulics Key Markets

Aerial lift  
Agriculture  
Alternative energy  
Construction machinery  
Forestry  
Industrial machinery  
Machine tools  
Marine  
Material handling  
Mining  
Oil & gas  
Power generation  
Refuse vehicles  
Renewable energy  
Truck hydraulics  
Turf equipment

## Key Products

Accumulators  
Cartridge valves  
Electrohydraulic actuators  
Human machine interfaces  
Hybrid drives  
Hydraulic cylinders  
Hydraulic motors & pumps  
Hydraulic systems  
Hydraulic valves & controls  
Hydrostatic steering  
Integrated hydraulic circuits  
Power take-offs  
Power units  
Rotary actuators  
Sensors

## Pneumatics Key Markets

Aerospace  
Conveyor & material handling  
Factory automation  
Life science & medical  
Machine tools  
Packaging machinery  
Transportation & automotive

## Key Products

Air preparation  
Brass fittings & valves  
Manifolds  
Pneumatic accessories  
Pneumatic actuators & grippers  
Pneumatic valves & controls  
Quick disconnects  
Rotary actuators  
Rubber & thermoplastic hose & couplings  
Structural extrusions  
Thermoplastic tubing & fittings  
Vacuum generators, cups & sensors

## Process Control Key Markets

Alternative fuels  
Biopharmaceuticals  
Chemical & refining  
Food & beverage  
Marine & shipbuilding  
Medical & dental  
Microelectronics  
Nuclear Power  
Offshore oil exploration  
Oil & gas  
Pharmaceuticals  
Power generation  
Pulp & paper  
Steel  
Water/wastewater

## Key Products

Analytical Instruments  
Analytical sample conditioning products & systems  
Chemical injection fittings & valves  
Fluoropolymer chemical delivery fittings, valves & pumps  
High purity gas delivery fittings, valves, regulators & digital flow controllers  
Industrial mass flow meters/ controllers  
Permanent no-weld tube fittings  
Precision industrial regulators & flow controllers  
Process control double block & bleeds  
Process control fittings, valves, regulators & manifold valves

## Sealing & Shielding Key Markets

Aerospace  
Chemical processing  
Consumer  
Fluid power  
General Industrial  
Information technology  
Life sciences  
Microelectronics  
Military  
Oil & gas  
Power generation  
Renewable energy  
Telecommunications  
Transportation

## Key Products

Dynamic seals  
Elastomeric o-rings  
Electro-medical instrument design & assembly  
EMI shielding  
Extruded & precision-cut, fabricated elastomeric seals  
High temperature metal seals  
Homogeneous & inserted elastomeric shapes  
Medical device fabrication & assembly  
Metal & plastic retained composite seals  
Shielded optical windows  
Silicone tubing & extrusions  
Thermal management  
Vibration dampening

# Parker Worldwide

## Europe, Middle East, Africa

**AE – United Arab Emirates, Dubai**  
Tel: +971 4 8127100  
parker.me@parker.com

**AT – Austria, Wiener Neustadt**  
Tel: +43 (0)2622 23501-0  
parker.austria@parker.com

**AT – Eastern Europe, Wiener Neustadt**  
Tel: +43 (0)2622 23501 900  
parker.easteurope@parker.com

**AZ – Azerbaijan, Baku**  
Tel: +994 50 2233 458  
parker.azerbaijan@parker.com

**BE/LU – Belgium, Nivelles**  
Tel: +32 (0)67 280 900  
parker.belgium@parker.com

**BG – Bulgaria, Sofia**  
Tel: +359 2 980 1344  
parker.bulgaria@parker.com

**BY – Belarus, Minsk**  
Tel: +375 17 209 9399  
parker.belarus@parker.com

**CH – Switzerland, Etoy**  
Tel: +41 (0)21 821 87 00  
parker.switzerland@parker.com

**CZ – Czech Republic, Klecany**  
Tel: +420 284 083 111  
parker.czechrepublic@parker.com

**DE – Germany, Kaarst**  
Tel: +49 (0)2131 4016 0  
parker.germany@parker.com

**DK – Denmark, Ballerup**  
Tel: +45 43 56 04 00  
parker.denmark@parker.com

**ES – Spain, Madrid**  
Tel: +34 902 330 001  
parker.spain@parker.com

**FI – Finland, Vantaa**  
Tel: +358 (0)20 753 2500  
parker.finland@parker.com

**FR – France, Contamine s/Arve**  
Tel: +33 (0)4 50 25 80 25  
parker.france@parker.com

**GR – Greece, Athens**  
Tel: +30 210 933 6450  
parker.greece@parker.com

**HU – Hungary, Budaörs**  
Tel: +36 23 885 470  
parker.hungary@parker.com

**IE – Ireland, Dublin**  
Tel: +353 (0)1 466 6370  
parker.ireland@parker.com

**IT – Italy, Corsico (MI)**  
Tel: +39 02 45 19 21  
parker.italy@parker.com

**KZ – Kazakhstan, Almaty**  
Tel: +7 7273 561 000  
parker.easteurope@parker.com

**NL – The Netherlands, Oldenzaal**  
Tel: +31 (0)541 585 000  
parker.nl@parker.com

**NO – Norway, Asker**  
Tel: +47 66 75 34 00  
parker.norway@parker.com

**PL – Poland, Warsaw**  
Tel: +48 (0)22 573 24 00  
parker.poland@parker.com

**PT – Portugal, Leca da Palmeira**  
Tel: +351 22 999 7360  
parker.portugal@parker.com

**RO – Romania, Bucharest**  
Tel: +40 21 252 1382  
parker.romania@parker.com

**RU – Russia, Moscow**  
Tel: +7 495 645-2156  
parker.russia@parker.com

**SE – Sweden, Spånga**  
Tel: +46 (0)8 59 79 50 00  
parker.sweden@parker.com

**SK – Slovakia, Banská Bystrica**  
Tel: +421 484 162 252  
parker.slovakia@parker.com

**SL – Slovenia, Novo Mesto**  
Tel: +386 7 337 6650  
parker.slovenia@parker.com

**TR – Turkey, Istanbul**  
Tel: +90 216 4997081  
parker.turkey@parker.com

**UA – Ukraine, Kiev**  
Tel: +380 44 494 2731  
parker.ukraine@parker.com

**UK – United Kingdom, Warwick**  
Tel: +44 (0)1926 317 878  
parker.uk@parker.com

**ZA – South Africa, Kempton Park**  
Tel: +27 (0)11 961 0700  
parker.southafrica@parker.com

## North America

**CA – Canada, Milton, Ontario**  
Tel: +1 905 693 3000

**US – USA, Cleveland**  
Tel: +1 216 896 3000

## Asia Pacific

**AU – Australia, Castle Hill**  
Tel: +61 (0)2-9634 7777

**CN – China, Shanghai**  
Tel: +86 21 2899 5000

**HK – Hong Kong**  
Tel: +852 2428 8008

**IN – India, Mumbai**  
Tel: +91 22 6513 7081-85

**JP – Japan, Tokyo**  
Tel: +81 (0)3 6408 3901

**KR – South Korea, Seoul**  
Tel: +82 2 559 0400

**MY – Malaysia, Shah Alam**  
Tel: +60 3 7849 0800

**NZ – New Zealand, Mt Wellington**  
Tel: +64 9 574 1744

**SG – Singapore**  
Tel: +65 6887 6300

**TH – Thailand, Bangkok**  
Tel: +662 186 7000-99

**TW – Taiwan, Taipei**  
Tel: +886 2 2298 8987

## South America

**AR – Argentina, Buenos Aires**  
Tel: +54 3327 44 4129

**BR – Brazil, Sao Jose dos Campos**  
Tel: +55 800 727 5374

**CL – Chile, Santiago**  
Tel: +56 2 623 1216

**MX – Mexico, Toluca**  
Tel: +52 72 2275 4200



### EMEA Product Information Centre

Free phone: 00 800 27 27 5374

(from AT, BE, CH, CZ, DE, DK, EE, ES, FI, FR, IE, IL, IS, IT, LU, MT, NL, NO, PL, PT, RU, SE, SK, UK, ZA)

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Toll-free number: 1-800-27 27 537

www.parker.com