Applications in Special Environmental Conditions

Low ambient temperature
For low temperatures below –25°C please consult Rulmeca. Special oil, special seals, and possible anti-condensation heater may be required. Re-greasable seals to avoid drying out the labyrinth seals.

High ambient temperature
For high ambient temperatures above +40°C please consult Rulmeca.

Extremely dusty/ abrasive, wet/ high humidity
IP66/67 re-greasable seals, special finish, e.g. stainless steel – AISI 303/4 or even AISI 316, semi-rust-free, special coating, rubber lagging.

Grain handling - Extremely dusty where dangerous atmospheric conditions apply
Dust explosion proof Motorized Pulleys – ATEX 95 - Zone 22 – for applications handling dusty grain etc. Executions according to the European Directive 94/9/EC. This directive is known as “ATEX (Explosion Atmosphere) directive”.

Please contact Rulmeca for further details.

Frequent start/stops

<table>
<thead>
<tr>
<th>Type</th>
<th>Max. No. of Start/stops</th>
</tr>
</thead>
<tbody>
<tr>
<td>138E</td>
<td>240 per hour</td>
</tr>
<tr>
<td>165E</td>
<td>180 per hour</td>
</tr>
<tr>
<td>220M &amp; H</td>
<td>120 per hour</td>
</tr>
<tr>
<td>320L, 320M &amp; 320H, 400L, 400M &amp; 400H</td>
<td>25 per hour</td>
</tr>
<tr>
<td>500L, 500M, 500H, 630M &amp; 630H, 800M, 800H/HD</td>
<td>10 per hour</td>
</tr>
<tr>
<td>1000HD</td>
<td>5 per hour</td>
</tr>
</tbody>
</table>

* For more frequent start/stops please consult Rulmeca.

Food handling applications
Re-greasable seals; Stainless steel versions in TS7N, TS9N or TS10N for high pressure and chemical wash down; food grade oil and grease; Food quality rubber lagging being oil, fat & grease resistant. FDA, USDA, FSIA & FESD recognized materials.

Underwater applications
Where IP66/67 specified, the Rulmeca Motorized Pulley has been tested for 30 minutes under 1 m of water. However, the motor is NOT intended for continuous underwater performances (IEC 529). If in doubt, please consult Rulmeca.

Inclined conveyor (not reversible)
Mechanical backstop

Reversible conveyor
Sufficient time delay between forward and reverse. The Motorized Pulley must come to a complete stop before reversing.

Variable speed conveyor
Two speed motor. AC frequency converter.

Using a Motorized Pulley without conveyor belt or with a belt covering less than 2/3 of the Pulley face width
Use drives only from a special range of Motorized Pulleys developed for this purpose. Do not use standard Motorized Pulleys unless accepted by Rulmeca. Insulation class H, extra oil. Connect thermal protector.

Motorized Pulleys mounted non-horizontally between 5° - ≤ 90°
Special execution! Please consult Rulmeca. Extra oil, grease packed top bearing. Electrical outlet:
- To be re-positioned to the opposite end of standard
- To be positioned at the top when installed.

Impact load
Over-sized Motorized Pulley. Please consult Rulmeca.

Handling materials with oil, grease and fat content
Stainless steel version:
- 138E & 165E
- TS9N/TS10N (220M–400H).
Semi-stainless steel version:
- TS11N/ TS12N (220M–400H) or
- TS11/TS12 (400L-800H)
Food quality lagging being oil, fat and grease resistant.

High power rated motors. Starting under load
All RULMECA Motorized Pulleys are developed for direct starting (except 1000HD).
To reduce the starting current it is possible to use starting devices such as star/delta starter, electronic soft starter etc. Please be aware that, when connecting a star/delta switch, the power of the motor will drastically be reduced and could cause overheating of the motor. If full torque is required during start a soft starter with torque boost should be used.

Extremely low noise/vibration requirements
Balanced shell. Special oil. Please contact Rulmeca for special solution.
Applications in Special Environmental Conditions

Marine environment. Ship loading/unloading conveyors etc.
Re-greaseable IP66/67 sealing system and/or stainless steel or semi stainless options – TS7N, TS9N-TS12N or TS11-TS12.
Rubber or ceramic lagging.

High altitude >1000 m
Please consult Rulmeca.

Chemical and/or aggressive environments
Please consult Rulmeca.

Underground mining/tunnelling applications where possible dangerous atmospheric conditions apply or where the Motorized Pulley is to be flame proof or intrinsically safe
Rulmeca Motorized Pulleys are not intrinsically safe or explosion proof to meet these requirements. Please consult Rulmeca.

Critical speed requirements
Nominal speeds can deviate by +/- 10%. Where exact speeds are required, please consult Rulmeca.

Recycling, aggressive environments
Stainless steel shafts, re-greaseable labyrinth seals, special painting and/or special oil.

Metal separators and metal detectors
Special execution as to amount of oil, type of bearings, electrical connection and built-in position.

Application: Fertilizer and potash.
Still in work after more than 30 years in an aggressive environment.