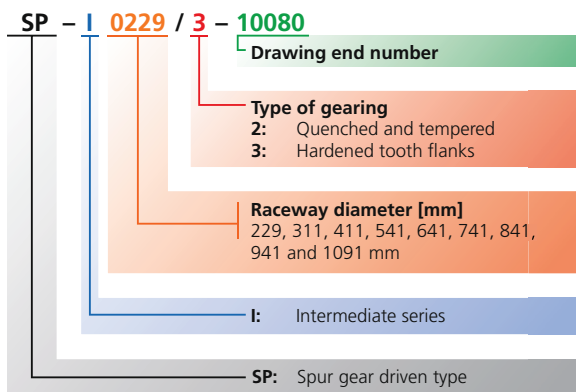


# SP-I series

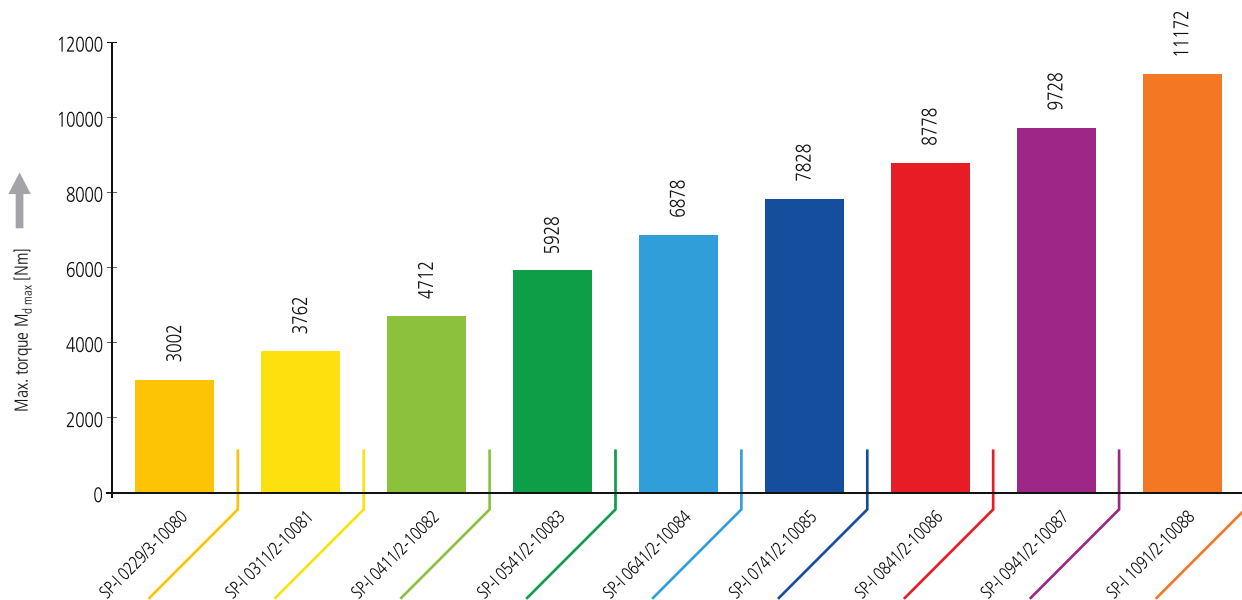
## SP-I series overview



### Maximum torque $M_{d\ max}$ of the individual sizes

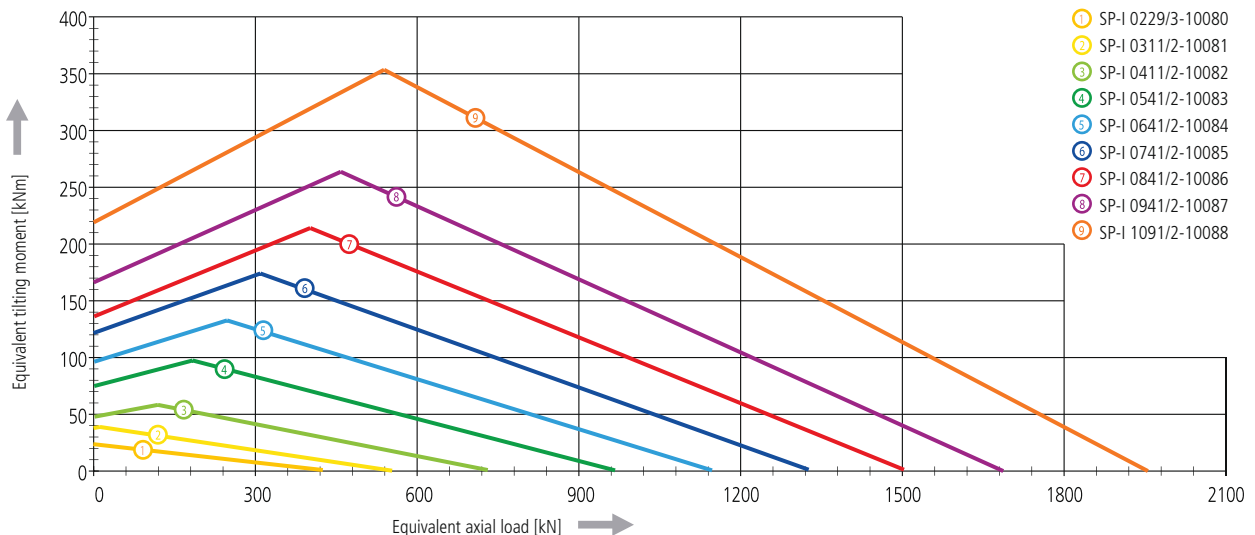
CAUTION: The duty per minute is limited.

Please always observe the explanations in the Technical Information section (from page 60).

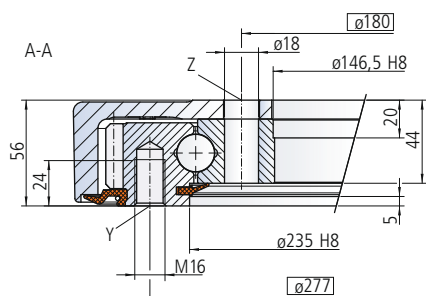
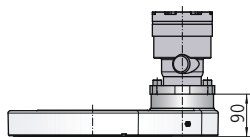


### Limiting load diagrams of the individual sizes for compressive loads

Please always observe the explanations in the Technical Information section (from page 60).



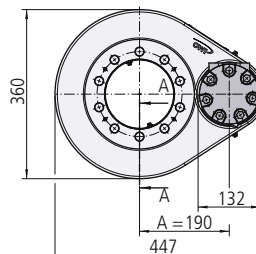
## Size SP-I 0229



The mounting structure must support the housing to at least  $\phi 229$ .

The seal must be supported by the mounting structure to at least  $\phi 353$ , in order to guarantee the full sealing effect.

A recess in the mounting structure of 10 mm above the housing is recommended.



### Mounting holes

Y = 12 drill holes M16-24 deep, evenly distributed

Z = 10 drill holes  $\phi 18$ , evenly distributed

### Lubricating ports

2 conical grease nipples on internal diameter

2 conical grease nipples on housing exterior

Slew drive supplied pre-lubricated

### Drawing number SP-I 0229/3-10080

Module	<b>m</b>	[mm]	4
Number of teeth, wheel	<b><math>z_2</math></b>	[-]	79
Number of teeth, pinion	<b><math>z_1</math></b>	[-]	15
Overall gear ratio	<b>i</b>	[-]	5.27
Max. torque	<b><math>M_{d \max}</math></b>	[Nm]	3002
Nom. torque $S_F = 1$ at $n = 5 \text{ min}^{-1}$	<b><math>M_{d \text{ nom}}</math></b>	[Nm]	2607
Max. holding torque*	<b><math>M_{h \max}</math></b>	[Nm]	3002
Static load rating, radial	<b><math>C_{o \text{ rad}}</math></b>	[kN]	159
Static load rating, axial	<b><math>C_{o \text{ ax}}</math></b>	[kN]	426
Dynamic load rating, radial	<b><math>C_{\text{rad}}</math></b>	[kN]	151
Dynamic load rating, axial	<b><math>C_{\text{ax}}</math></b>	[kN]	176
Weight, incl. 12 kg for hydraulic motor RE300		[kg]	46

\* Optionally with brake

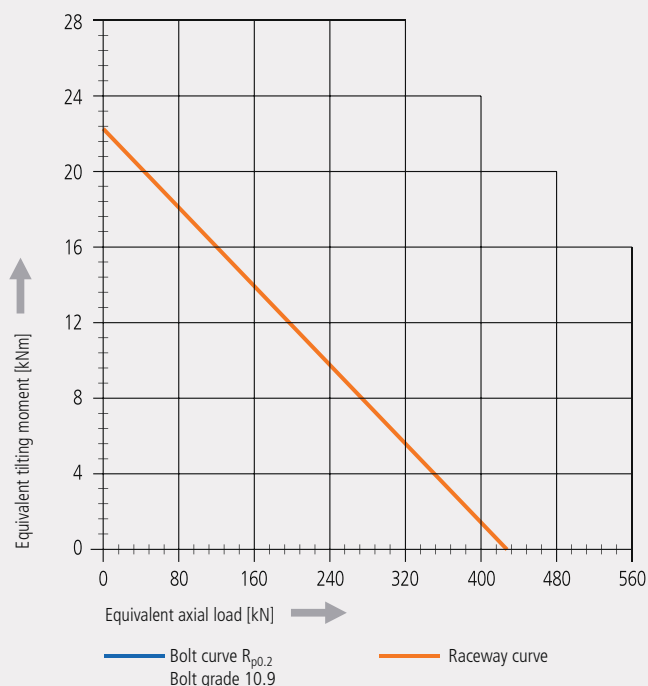
The hydraulic/electric motor is selected according to the actual requirements and customer specification.

Selection example:

Performance data with hydraulic motor RE300

Pressure differential	<b><math>\Delta p</math></b>	[bar]	150
Oil flow	<b>Q</b>	[l/min]	13
Output speed	<b>n</b>	[min <sup>-1</sup> ]	5
Max. achievable torque	<b><math>M_d</math></b>	[Nm]	3002

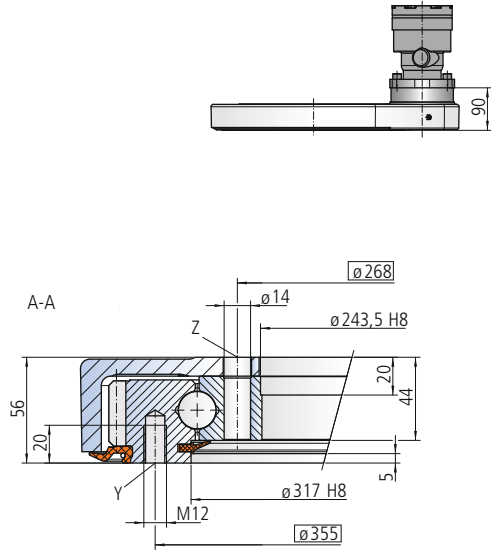
### Limiting load diagram for compressive loads



Please always observe the technical information!

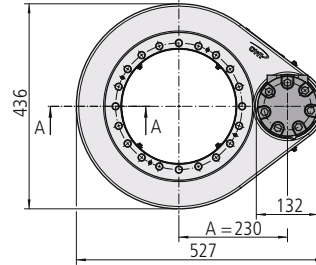
# SP-I series

## Size SP-I 0311



The mounting structure must support the housing to at least  $\phi 311$ .

The seal must be supported by the mounting structure to at least  $\phi 431$ , in order to guarantee the full sealing effect.  
A recess in the mounting structure of 10 mm above the housing is recommended.



### Mounting holes

- Y = 20 drill holes M12-20 deep, evenly distributed
- Z = 20 drill holes  $\phi 14$ , evenly distributed

### Lubricating ports

- 4 conical grease nipples on internal diameter
- 2 conical grease nipples on housing exterior
- Slew drive supplied pre-lubricated

Drawing number SP-I 0311/2-10081			
Module	<b>m</b>	[mm]	4
Number of teeth, wheel	<b>z<sub>2</sub></b>	[-]	99
Number of teeth, pinion	<b>z<sub>1</sub></b>	[-]	15
Overall gear ratio	<b>i</b>	[-]	6.60
Max. torque	<b>M<sub>d max</sub></b>	[Nm]	3762
Nom. torque $S_f = 1$ at $n = 5 \text{ min}^{-1}$	<b>M<sub>d nom</sub></b>	[Nm]	2653
Max. holding torque*	<b>M<sub>h max</sub></b>	[Nm]	3762
Static load rating, radial	<b>C<sub>o rad</sub></b>	[kN]	208
Static load rating, axial	<b>C<sub>o ax</sub></b>	[kN]	557
Dynamic load rating, radial	<b>C<sub>rad</sub></b>	[kN]	172
Dynamic load rating, axial	<b>C<sub>ax</sub></b>	[kN]	200
Weight, incl. 12 kg for hydraulic motor RE300		[kg]	50

\* Optionally with brake

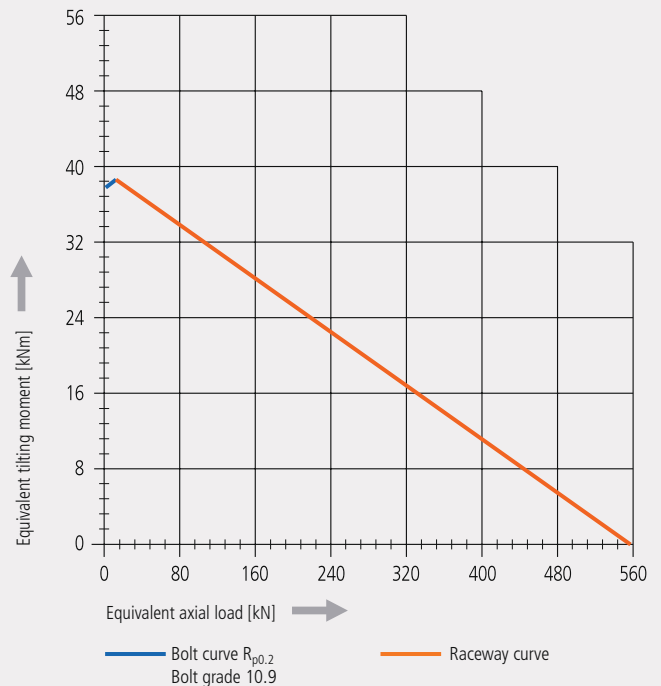
The hydraulic/electric motor is selected according to the actual requirements and customer specification.

Selection example:

Performance data with hydraulic motor RE300

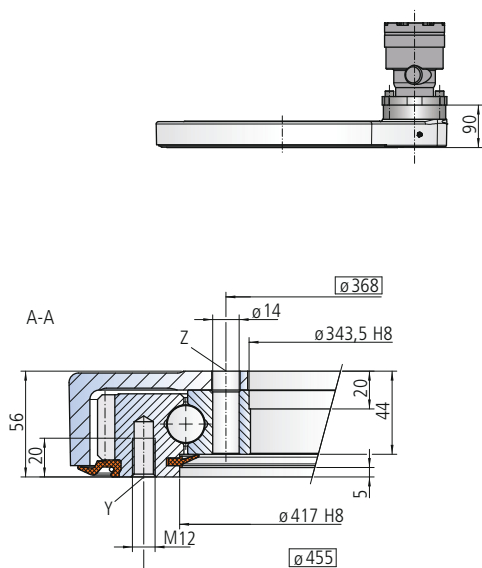
Pressure differential	<b><math>\Delta p</math></b>	[bar]	150
Oil flow	<b>Q</b>	[l/min]	15
Output speed	<b>n</b>	[min <sup>-1</sup> ]	5
Max. achievable torque	<b>M<sub>d</sub></b>	[Nm]	3762

### Limiting load diagram for compressive loads



Please always observe the technical information!

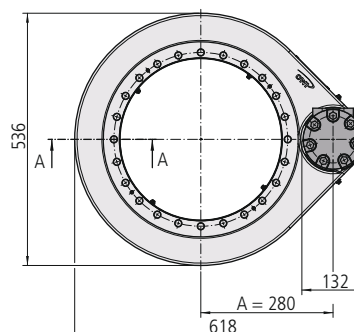
## Size SP-I 0411



The mounting structure must support the housing to at least  $\varnothing 411$ .

The seal must be supported by the mounting structure to at least  $\varnothing 531$ , in order to guarantee the full sealing effect.

A recess in the mounting structure of 10 mm above the housing is recommended.



### Mounting holes

Y = 20 drill holes M12-20 deep, evenly distributed

Z = 24 drill holes  $\varnothing 14$ , evenly distributed

### Lubricating ports

4 conical grease nipples on internal diameter

2 conical grease nipples on housing exterior

Slew drive supplied pre-lubricated

### Drawing number SP-I 0411/2-10082

Module	<b>m</b>	[mm]	4
Number of teeth, wheel	<b><math>z_2</math></b>	[-]	124
Number of teeth, pinion	<b><math>z_1</math></b>	[-]	15
Overall gear ratio	<b>i</b>	[-]	8.27
Max. torque	<b><math>M_{d\text{ max}}</math></b>	[Nm]	4712
Nom. torque $S_F = 1$ at $n = 5\text{ min}^{-1}$	<b><math>M_{d\text{ nom}}</math></b>	[Nm]	3348
Max. holding torque*	<b><math>M_{h\text{ max}}</math></b>	[Nm]	4712
Static load rating, radial	<b><math>C_{o\text{ rad}}</math></b>	[kN]	275
Static load rating, axial	<b><math>C_{o\text{ ax}}</math></b>	[kN]	736
Dynamic load rating, radial	<b><math>C_{\text{rad}}</math></b>	[kN]	190
Dynamic load rating, axial	<b><math>C_{\text{ax}}</math></b>	[kN]	222
Weight, incl. 12 kg for hydraulic motor RE300		[kg]	59

\* Optionally with brake

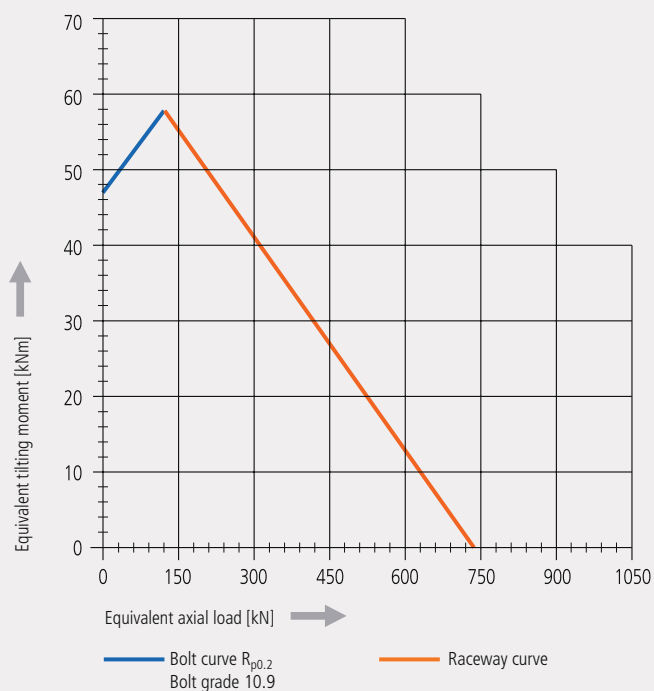
The hydraulic/electric motor is selected according to the actual requirements and customer specification.

Selection example:

Performance data with hydraulic motor RE300

Pressure differential	<b><math>\Delta p</math></b>	[bar]	150
Oil flow	<b>Q</b>	[l/min]	17
Output speed	<b>n</b>	[min <sup>-1</sup> ]	5
Max. achievable torque	<b><math>M_d</math></b>	[Nm]	4712

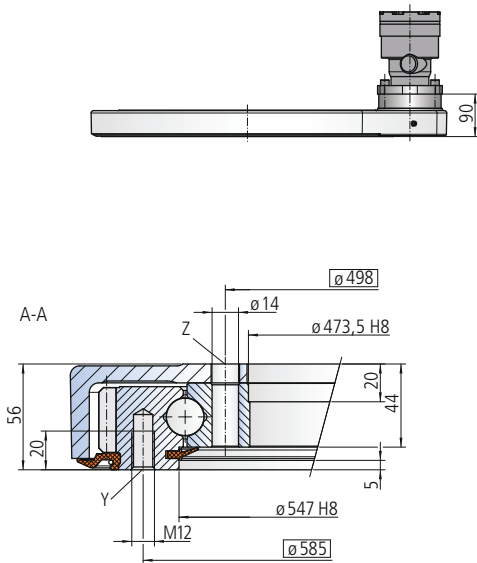
### Limiting load diagram for compressive loads



Please always observe the technical information!

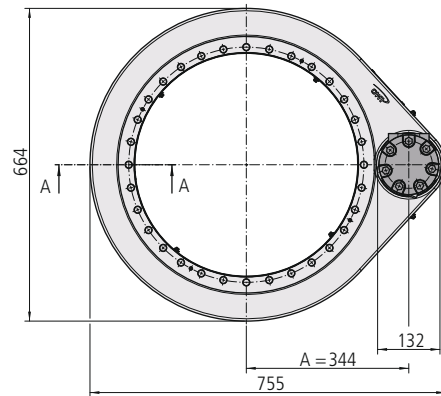
# SP-I series

## Size SP-I 0541



The mounting structure must support the housing to at least  $\phi 541$ .

The seal must be supported by the mounting structure to at least  $\phi 661$ , in order to guarantee the full sealing effect.  
A recess in the mounting structure of 10 mm above the housing is recommended.



### Mounting holes

Y = 28 drill holes M12-20 deep, evenly distributed  
Z = 32 drill holes  $\phi 14$ , evenly distributed

### Lubricating ports

4 conical grease nipples on internal diameter  
2 conical grease nipples on housing exterior  
Slew drive supplied pre-lubricated

Drawing number SP-I 0541/2-10083			
Module	<b>m</b>	[mm]	4
Number of teeth, wheel	<b>z<sub>2</sub></b>	[-]	156
Number of teeth, pinion	<b>z<sub>1</sub></b>	[-]	15
Overall gear ratio	<b>i</b>	[-]	10.4
Max. torque	<b>M<sub>d max</sub></b>	[Nm]	5928
Nom. torque $S_F = 1$ at $n = 5 \text{ min}^{-1}$	<b>M<sub>d nom</sub></b>	[Nm]	4243
Max. holding torque*	<b>M<sub>h max</sub></b>	[Nm]	5928
Static load rating, radial	<b>C<sub>o rad</sub></b>	[kN]	362
Static load rating, axial	<b>C<sub>o ax</sub></b>	[kN]	970
Dynamic load rating, radial	<b>C<sub>rad</sub></b>	[kN]	212
Dynamic load rating, axial	<b>C<sub>ax</sub></b>	[kN]	248
Weight, incl. 12 kg for hydraulic motor RE300		[kg]	72

\* Optionally with brake

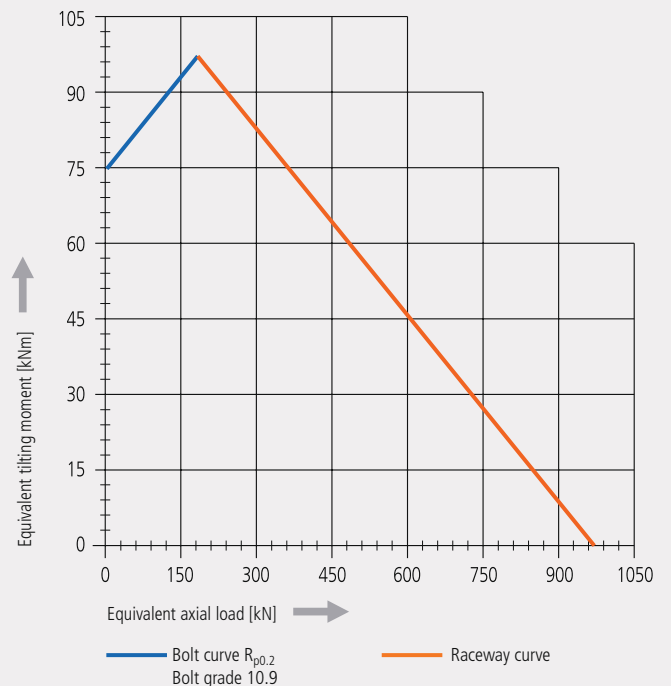
The hydraulic/electric motor is selected according to the actual requirements and customer specification.

Selection example:

Performance data with hydraulic motor RE300

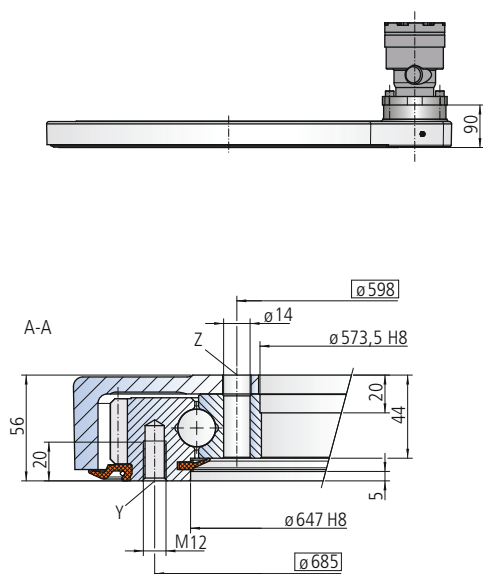
Pressure differential	<b><math>\Delta p</math></b>	[bar]	150
Oil flow	<b>Q</b>	[l/min]	21
Output speed	<b>n</b>	[min <sup>-1</sup> ]	5
Max. achievable torque	<b>M<sub>d</sub></b>	[Nm]	5928

### Limiting load diagram for compressive loads



Please always observe the technical information!

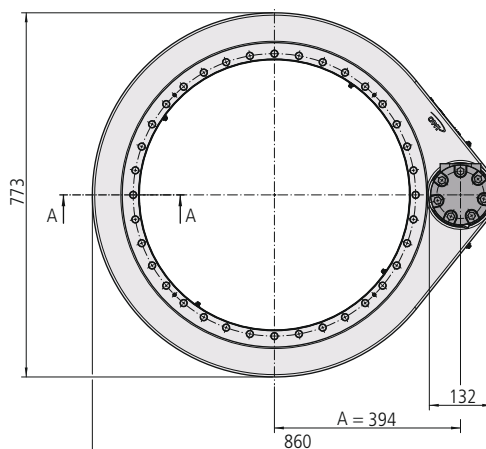
## Size SP-I 0641



The mounting structure must support the housing to at least  $\phi 641$ .

The seal must be supported by the mounting structure to at least  $\phi 71$ , in order to guarantee the full sealing effect.

A recess in the mounting structure of 10 mm above the housing is recommended.



### Mounting holes

Y = 32 drill holes M12-20 deep, evenly distributed

Z = 36 drill holes  $\phi 14$ , evenly distributed

### Lubricating ports

4 conical grease nipples on internal diameter

2 conical grease nipples on housing exterior

Slew drive supplied pre-lubricated

### Drawing number SP-I 0641/2-10084

Module	<b>m</b>	[mm]	4
Number of teeth, wheel	<b>z<sub>2</sub></b>	[-]	181
Number of teeth, pinion	<b>z<sub>1</sub></b>	[-]	15
Overall gear ratio	<b>i</b>	[-]	12.07
Max. torque	<b>M<sub>d max</sub></b>	[Nm]	6878
Nom. torque $S_F = 1$ at $n = 5 \text{ min}^{-1}$	<b>M<sub>d nom</sub></b>	[Nm]	4921
Max. holding torque*	<b>M<sub>h max</sub></b>	[Nm]	6878
Static load rating, radial	<b>C<sub>o rad</sub></b>	[kN]	429
Static load rating, axial	<b>C<sub>o ax</sub></b>	[kN]	1149
Dynamic load rating, radial	<b>C<sub>rad</sub></b>	[kN]	226
Dynamic load rating, axial	<b>C<sub>ax</sub></b>	[kN]	264
Weight, incl. 12 kg for hydraulic motor RE300		[kg]	84

\* Optionally with brake

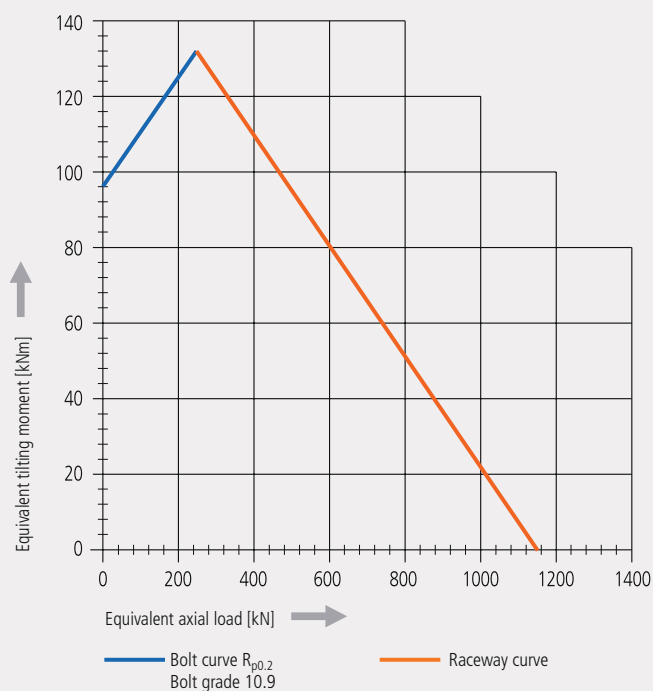
The hydraulic/electric motor is selected according to the actual requirements and customer specification.

Selection example:

Performance data with hydraulic motor RE300

Pressure differential	<b><math>\Delta p</math></b>	[bar]	155
Oil flow	<b>Q</b>	[l/min]	23
Output speed	<b>n</b>	[min <sup>-1</sup> ]	5
Max. achievable torque	<b>M<sub>d</sub></b>	[Nm]	6878

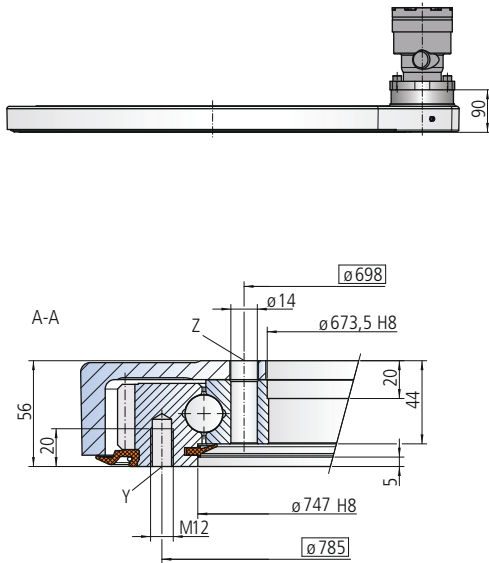
### Limiting load diagram for compressive loads



Please always observe the technical information!

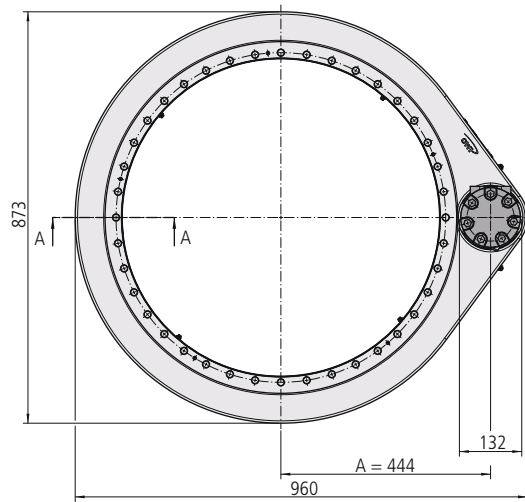
# SP-I series

## Size SP-I 0741



The mounting structure must support the housing to at least  $\phi 741$ .

The seal must be supported by the mounting structure to at least  $\phi 861$ , in order to guarantee the full sealing effect.  
A recess in the mounting structure of 10 mm above the housing is recommended.



### Mounting holes

Y = 36 drill holes M12-20 deep, evenly distributed  
Z = 40 drill holes  $\phi 14$ , evenly distributed

### Lubricating ports

4 conical grease nipples on internal diameter  
2 conical grease nipples on housing exterior  
Slew drive supplied pre-lubricated

Drawing number SP-I 0741/2-10085			
Module	<b>m</b>	[mm]	4
Number of teeth, wheel	<b>z<sub>2</sub></b>	[-]	206
Number of teeth, pinion	<b>z<sub>1</sub></b>	[-]	15
Overall gear ratio	<b>i</b>	[-]	13.73
Max. torque	<b>M<sub>d max</sub></b>	[Nm]	7828
Nom. torque $S_F = 1$ at $n = 5 \text{ min}^{-1}$	<b>M<sub>d nom</sub></b>	[Nm]	5644
Max. holding torque*	<b>M<sub>h max</sub></b>	[Nm]	7828
Static load rating, radial	<b>C<sub>o rad</sub></b>	[kN]	496
Static load rating, axial	<b>C<sub>o ax</sub></b>	[kN]	1329
Dynamic load rating, radial	<b>C<sub>rad</sub></b>	[kN]	238
Dynamic load rating, axial	<b>C<sub>ax</sub></b>	[kN]	278
Weight, incl. 12 kg for hydraulic motor RE300		[kg]	95

\* Optionally with brake

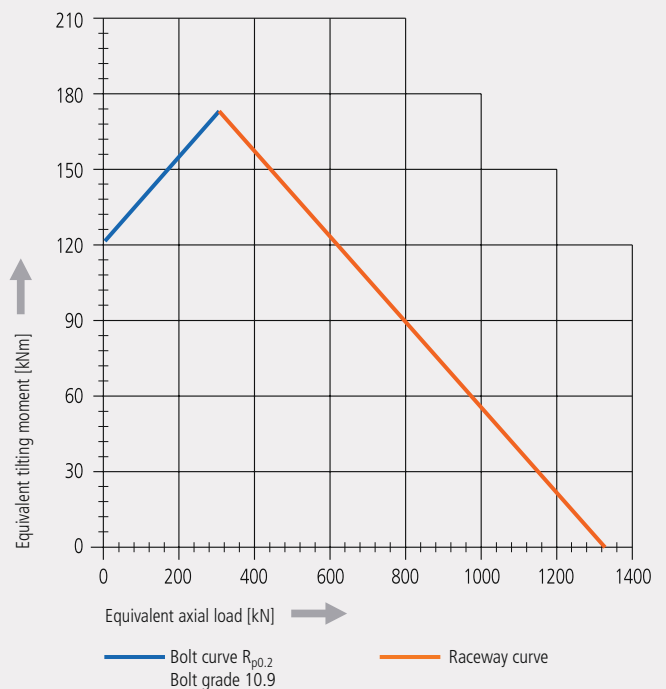
The hydraulic/electric motor is selected according to the actual requirements and customer specification.

Selection example:

Performance data with hydraulic motor RE300

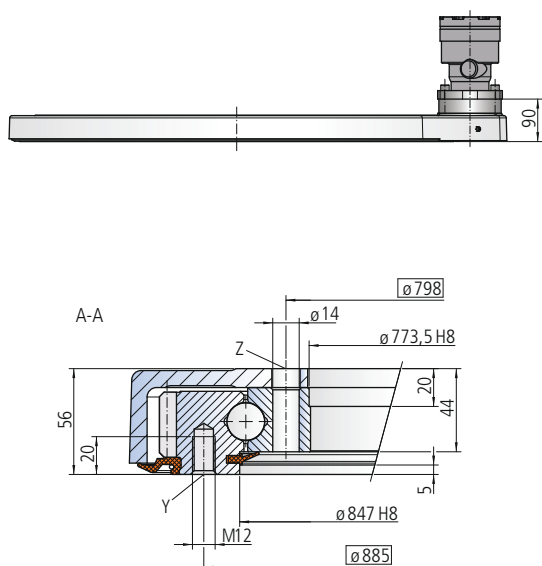
Pressure differential	<b><math>\Delta p</math></b>	[bar]	155
Oil flow	<b>Q</b>	[l/min]	25
Output speed	<b>n</b>	[min <sup>-1</sup> ]	5
Max. achievable torque	<b>M<sub>d</sub></b>	[Nm]	7828

### Limiting load diagram for compressive loads



Please always observe the technical information!

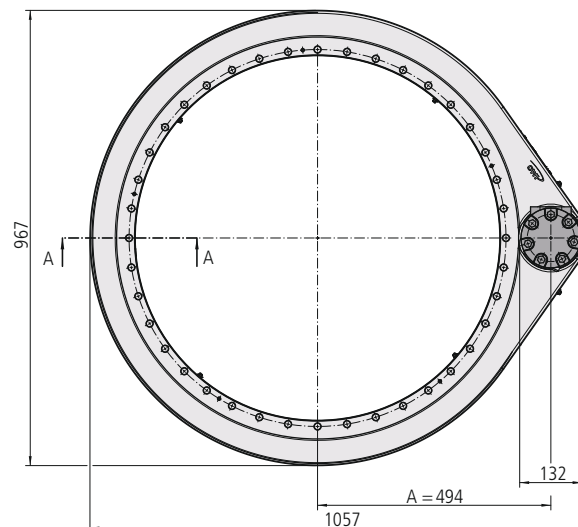
## Size SP-I 0841



The mounting structure must support the housing to at least  $\phi 841$ .

The seal must be supported by the mounting structure to at least  $\phi 61$ , in order to guarantee the full sealing effect.

A recess in the mounting structure of 10 mm above the housing is recommended.



### Mounting holes

Y = 36 drill holes M12-20 deep, evenly distributed

Z = 40 drill holes  $\phi 14$ , evenly distributed

### Lubricating ports

4 conical grease nipples on internal diameter

2 conical grease nipples on housing exterior

Slew drive supplied pre-lubricated

### Drawing number SP-I 0841/2-10086

Module	<b>m</b>	[mm]	4
Number of teeth, wheel	<b>z<sub>2</sub></b>	[-]	231
Number of teeth, pinion	<b>z<sub>1</sub></b>	[-]	15
Overall gear ratio	<b>i</b>	[-]	15.4
Max. torque	<b>M<sub>d max</sub></b>	[Nm]	8778
Nom. torque $S_F = 1$ at $n = 5 \text{ min}^{-1}$	<b>M<sub>d nom</sub></b>	[Nm]	6329
Max. holding torque*	<b>M<sub>h max</sub></b>	[Nm]	8778
Static load rating, radial	<b>C<sub>o rad</sub></b>	[kN]	563
Static load rating, axial	<b>C<sub>o ax</sub></b>	[kN]	1508
Dynamic load rating, radial	<b>C<sub>rad</sub></b>	[kN]	250
Dynamic load rating, axial	<b>C<sub>ax</sub></b>	[kN]	293
Weight, incl. 12 kg for hydraulic motor RE300		[kg]	102

\* Optionally with brake

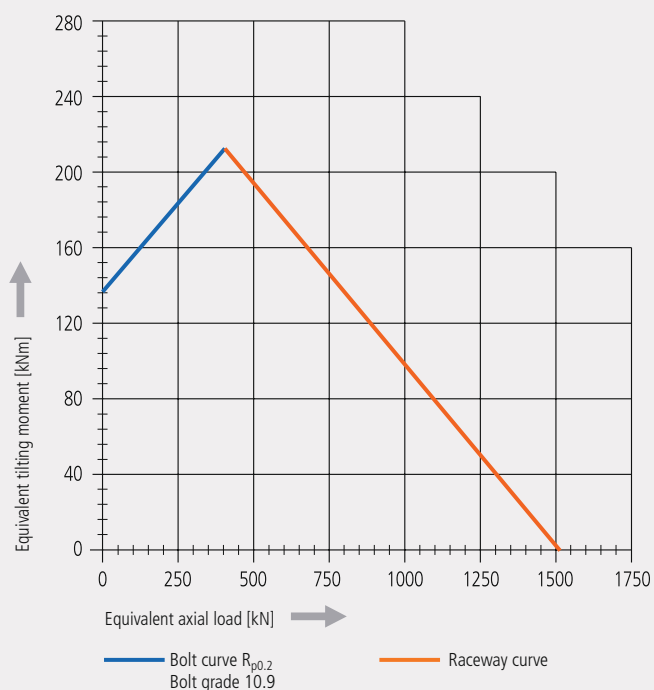
The hydraulic/electric motor is selected according to the actual requirements and customer specification.

Selection example:

Performance data with hydraulic motor RE300

Pressure differential	<b><math>\Delta p</math></b>	[bar]	155
Oil flow	<b>Q</b>	[l/min]	28
Output speed	<b>n</b>	[min <sup>-1</sup> ]	5
Max. achievable torque	<b>M<sub>d</sub></b>	[Nm]	8778

### Limiting load diagram for compressive loads

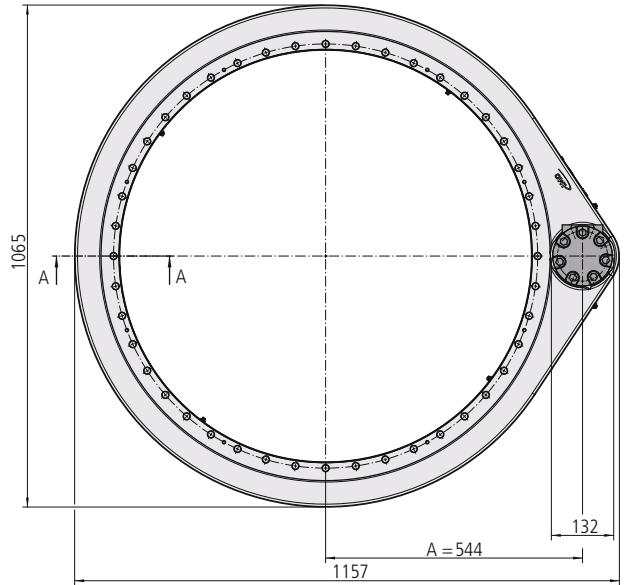
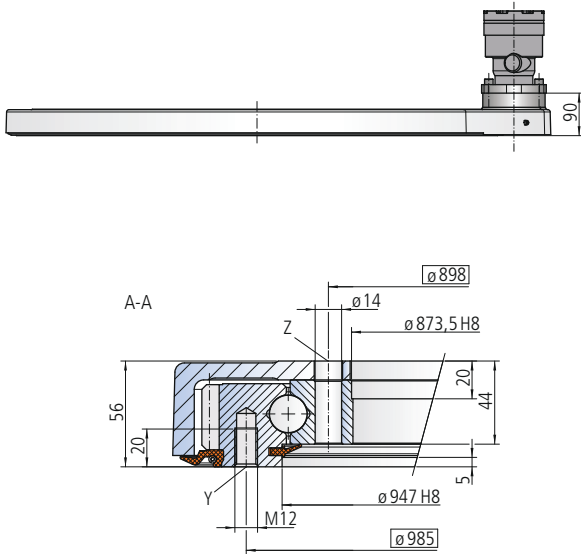


Please always observe the technical information!



# SP-I series

## Size SP-I 0941



The mounting structure must support the housing to at least  $\phi 941$ .

The seal must be supported by the mounting structure to at least  $\phi 1061$ , in order to guarantee the full sealing effect.  
A recess in the mounting structure of 10 mm above the housing is recommended.

- Mounting holes**
- Y = 40 drill holes M12-20 deep, evenly distributed
  - Z = 44 drill holes  $\phi 14$ , evenly distributed
- Lubricating ports**
- 4 conical grease nipples on internal diameter
  - 2 conical grease nipples on housing exterior
  - Slew drive supplied pre-lubricated

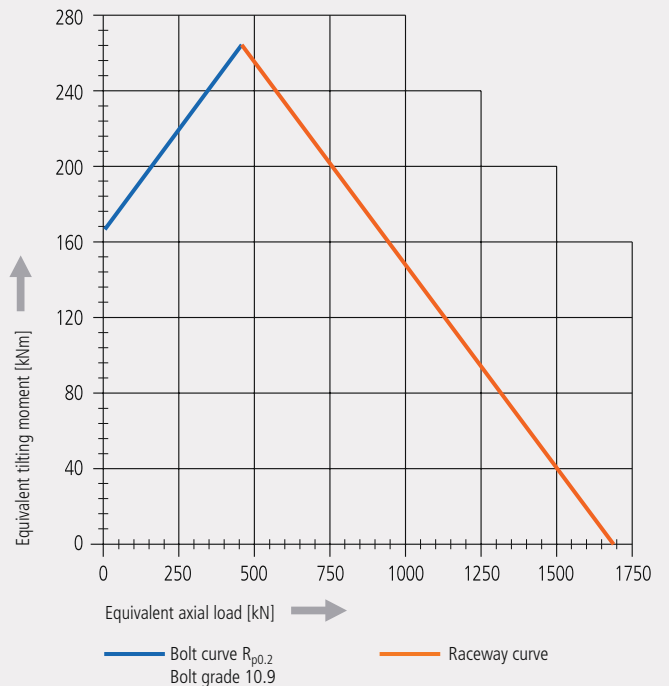
Drawing number SP-I 0941/2-10087			
Module	<b>m</b>	[mm]	4
Number of teeth, wheel	<b>z<sub>2</sub></b>	[-]	256
Number of teeth, pinion	<b>z<sub>1</sub></b>	[-]	15
Overall gear ratio	<b>i</b>	[-]	17.07
Max. torque	<b>M<sub>d max</sub></b>	[Nm]	9728
Nom. torque $S_F = 1$ at $n = 5 \text{ min}^{-1}$	<b>M<sub>d nom</sub></b>	[Nm]	7040
Max. holding torque*	<b>M<sub>h max</sub></b>	[Nm]	9728
Static load rating, radial	<b>C<sub>o rad</sub></b>	[kN]	630
Static load rating, axial	<b>C<sub>o ax</sub></b>	[kN]	1688
Dynamic load rating, radial	<b>C<sub>rad</sub></b>	[kN]	260
Dynamic load rating, axial	<b>C<sub>ax</sub></b>	[kN]	305
Weight, incl. 12 kg for hydraulic motor RE300		[kg]	115

\* Optionally with brake

The hydraulic/electric motor is selected according to the actual requirements and customer specification.  
Selection example:  
Performance data with hydraulic motor RE300

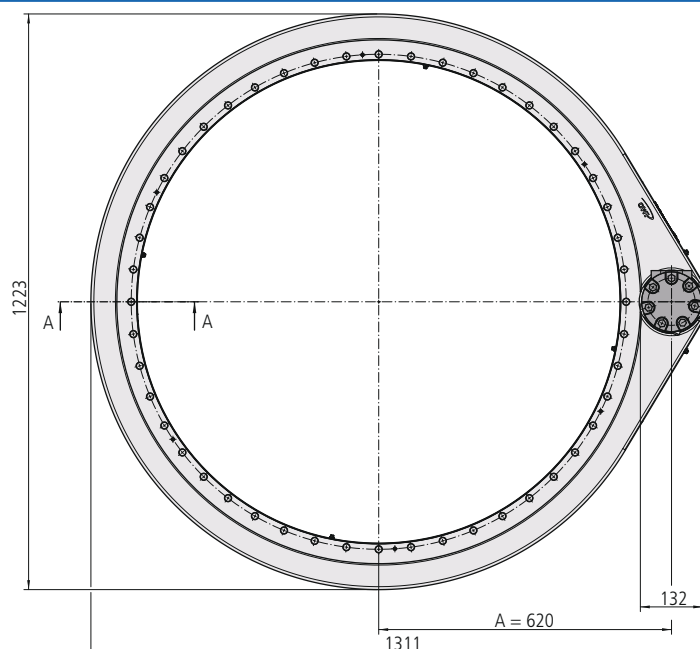
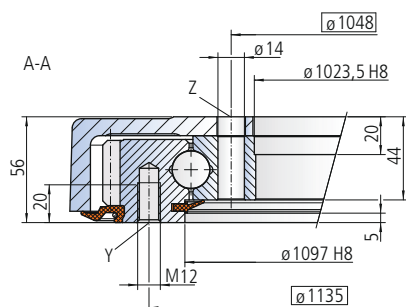
Pressure differential	<b><math>\Delta p</math></b>	[bar]	155
Oil flow	<b>Q</b>	[l/min]	30
Output speed	<b>n</b>	[min <sup>-1</sup> ]	5
Max. achievable torque	<b>M<sub>d</sub></b>	[Nm]	9728

### Limiting load diagram for compressive loads



Please always observe the technical information!

## Size SP-I 1091



The mounting structure must support the housing to at least  $\varnothing 1091$ .

The seal must be supported by the mounting structure to at least  $\varnothing 1213$ , in order to guarantee the full sealing effect.  
A recess in the mounting structure of 10 mm above the housing is recommended.

### Mounting holes

Y = 44 drill holes M12-20 deep, evenly distributed  
Z = 48 drill holes  $\varnothing 14$ , evenly distributed

### Lubricating ports

4 conical grease nipples on internal diameter  
2 conical grease nipples on housing exterior  
Slew drive supplied pre-lubricated

### Drawing number SP-I 1091/2-10088

Module	<b>m</b>	[mm]	4
Number of teeth, wheel	<b>z<sub>2</sub></b>	[-]	294
Number of teeth, pinion	<b>z<sub>1</sub></b>	[-]	15
Overall gear ratio	<b>i</b>	[-]	19.6
Max. torque	<b>M<sub>d max</sub></b>	[Nm]	11172
Nom. torque $S_F = 1$ at $n = 5 \text{ min}^{-1}$	<b>M<sub>d nom</sub></b>	[Nm]	8085
Max. holding torque*	<b>M<sub>h max</sub></b>	[Nm]	11172
Static load rating, radial	<b>C<sub>o rad</sub></b>	[kN]	731
Static load rating, axial	<b>C<sub>o ax</sub></b>	[kN]	1957
Dynamic load rating, radial	<b>C<sub>rad</sub></b>	[kN]	275
Dynamic load rating, axial	<b>C<sub>ax</sub></b>	[kN]	321
Weight, incl. 12 kg for hydraulic motor RE300		[kg]	127

\* Optionally with brake

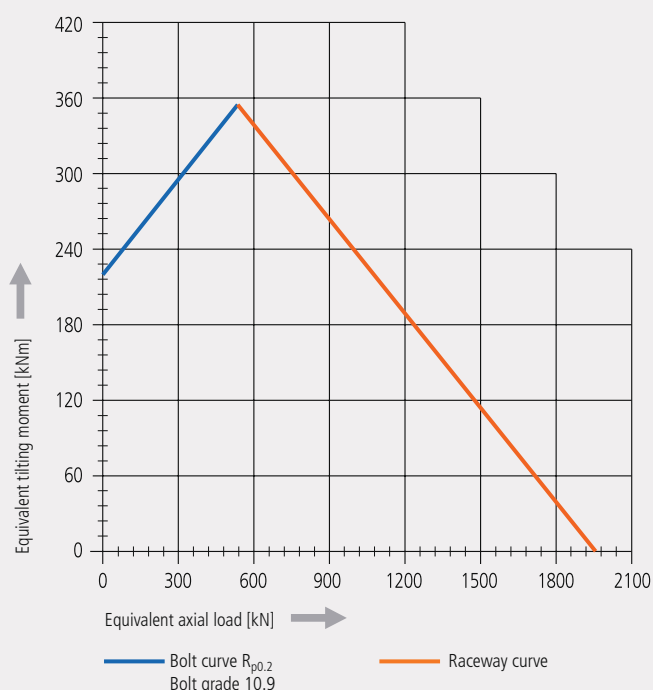
The hydraulic/electric motor is selected according to the actual requirements and customer specification.

Selection example:

Performance data with hydraulic motor RE300

Pressure differential	<b><math>\Delta p</math></b>	[bar]	150
Oil flow	<b>Q</b>	[l/min]	35
Output speed	<b>n</b>	[min <sup>-1</sup> ]	5
Max. achievable torque	<b>M<sub>d</sub></b>	[Nm]	11172

### Limiting load diagram for compressive loads



Please always observe the technical information!