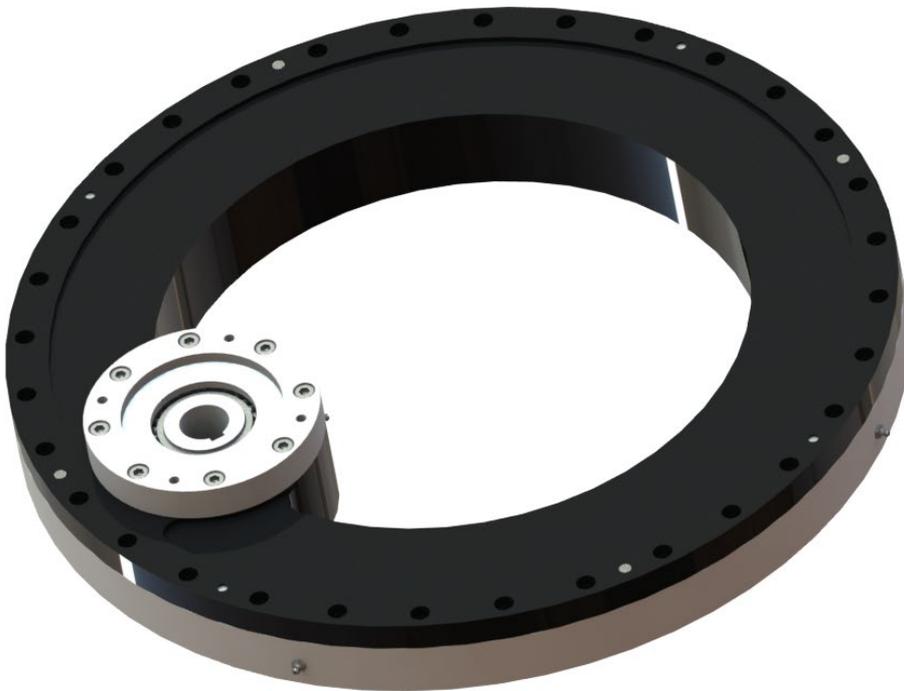


# **NATECH** **DRIVE**

Spur gear slew drive  
(Inner tooth)



## Spur gear slew drive

### Introduction:

Spur gear slew drives are a complete solution composed of slewing bearings, gears, housings, adapter flanges, support bearings, seals and other components. After reasonable design, component manufacturing, debugging, assembly and other processes, the products have the ability to withstand very high axial forces, radial forces and tilting moments. Because of the ready-made design it is possible to directly connect customers motor or gearbox.

Thanks to our extensive resources, special designs and custom made slewing drives are also possible.

### Code description:

Product code	Series	Size	Outer/Internal gear	Bearing type	Tooth type	Precision	Ratio	\	Special design
<b>PT</b>	<b>L</b> - Light	0229	<b>O</b> - Outer gear <b>I</b> - Internal gear	<b>B</b> - Ball bearing (standard)	<b>S</b> - Straight teeth <b>H</b> - Helical teeth	<b>NP</b> - Normal precision <b>HP</b> - High precision	5.40	\	Special design
	<b>M</b> - Medium	0311					6.80		
	<b>H</b> - Heavy	...					...		

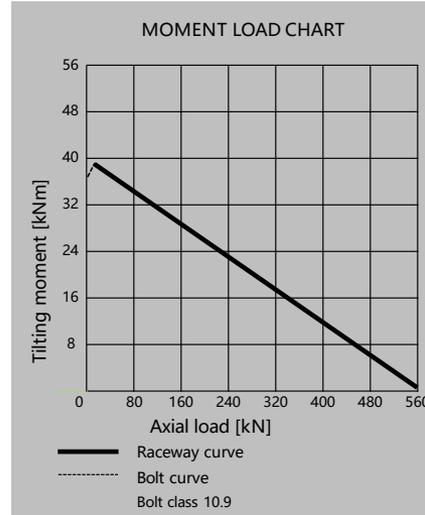
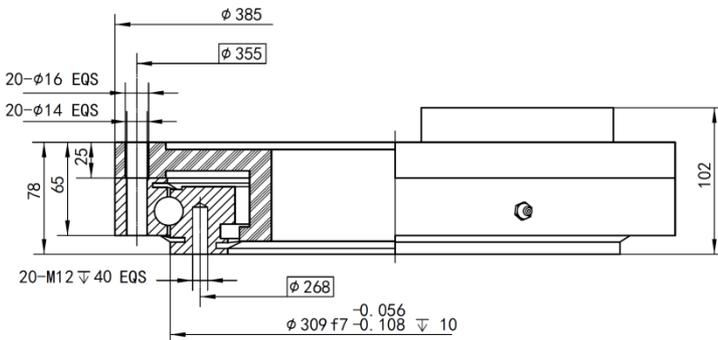
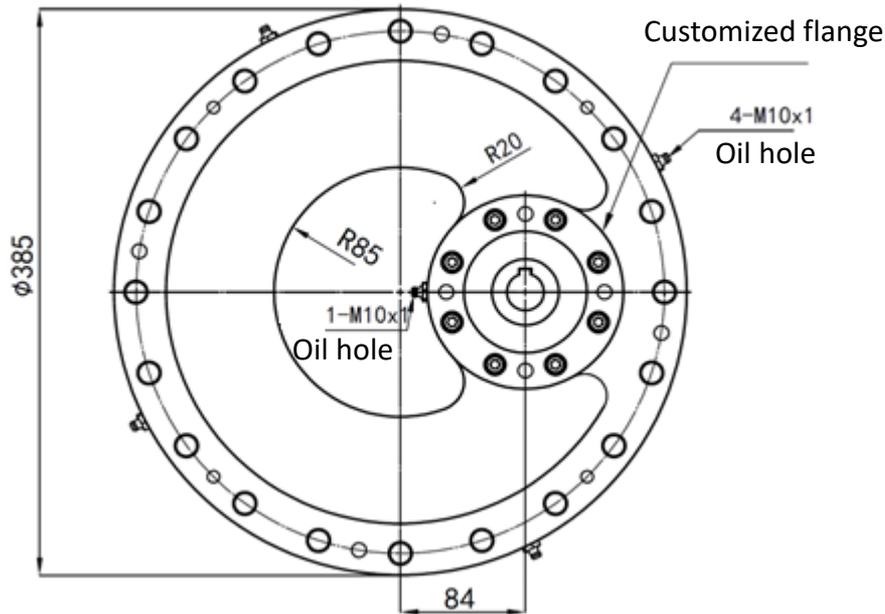
**Series PT-L-I-B-S**
**L - Light duty**

Series PT-L-I-B-S	Sign	Unit	0311	0411	0541	0641	0741	0841	0941	1091
Module	M	-	4	4	4	4	4	4	4	4
Teeth number of wheel	Z2	-	57	81	114	138	162	189	213	252
Teeth number of pinion	Z1	-	15	15	15	15	15	15	15	15
Gear ratio	i	-	3,80	5,40	7,60	9,20	10,80	12,60	14,20	16,80
Max torque	Md max	Nm	2143	3080	4413	5274	6237	7338	8200	9739
Nom torque	Md nom	Nm	1511	2189	3159	3744	4497	5291	5934	7048
Max holding torque	Mh	Nm	2143	3080	4413	5274	6237	7338	8200	9739
Radial static load	Co rad	kN	212	281	369	438	506	574	643	746
Axial static load	Co ax	kN	568	751	989	1172	1356	1538	1722	1996
Radial dynamic load	Crad	kN	175	194	216	231	243	255	265	281
Axial dynamic load	Cax	kN	204	226	253	269	284	299	311	327
Weight	W	kg	41	54	72	86	102	113	129	145
Common products	Precision	mm	Tooth high point backlash value=0.03*M-0.04*M							
Precision products	Precision	°	0,090	0,075	0,060	0,045	0,045	0,045	0,030	0,030

Item PT-L-0311-I-B-S

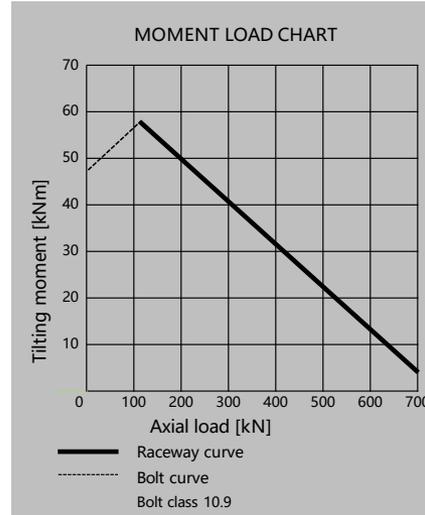
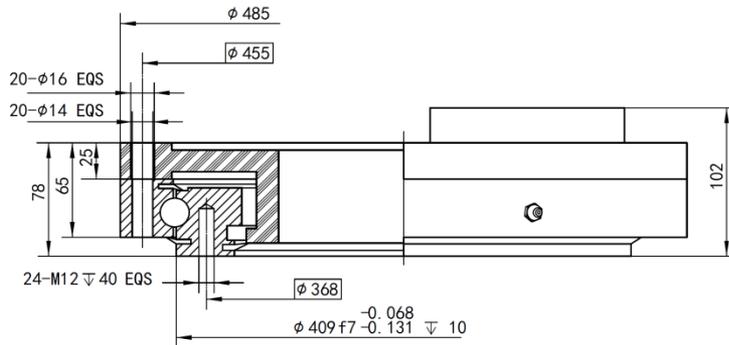
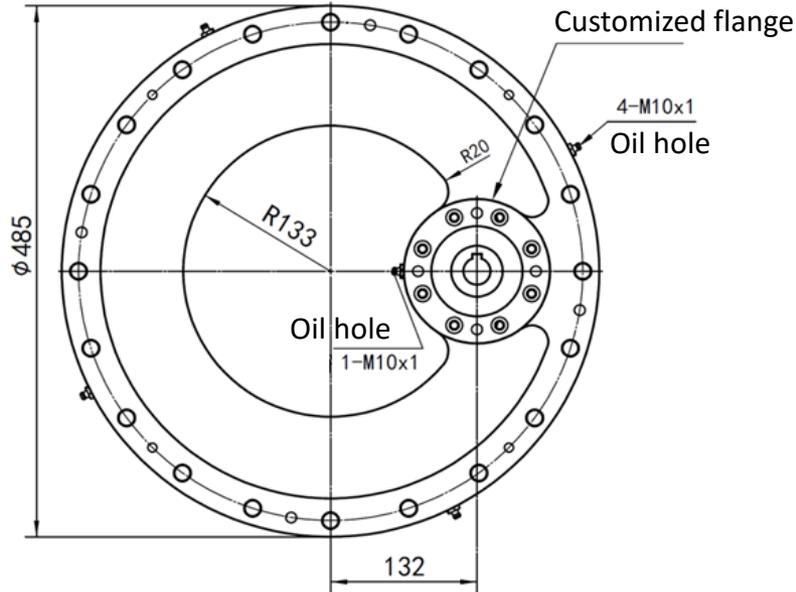
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DRIVE



Item PT-L-0311-I-B-S	Sign	Unit	Value
Module	M	-	4
Teeth number of wheel	Z2	-	57
Teeth number of pinion	Z1	-	15
Gear ratio	i	-	3,80
Max torque	Md max	Nm	2143
Nom torque	Md nom	Nm	1511
Max holding torque	Mh	Nm	2143
Radial static load	Co rad	kN	212
Axial static load	Co ax	kN	568
Radial dynamic load	Crad	kN	175
Axial dynamic load	Cax	kN	204
Weight	W	kg	41

Item PT-L-0411-I-B-S



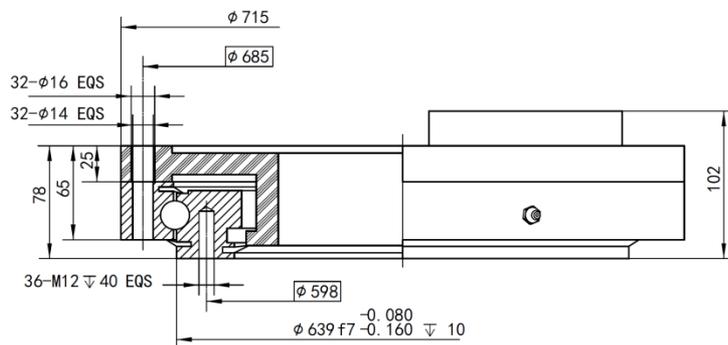
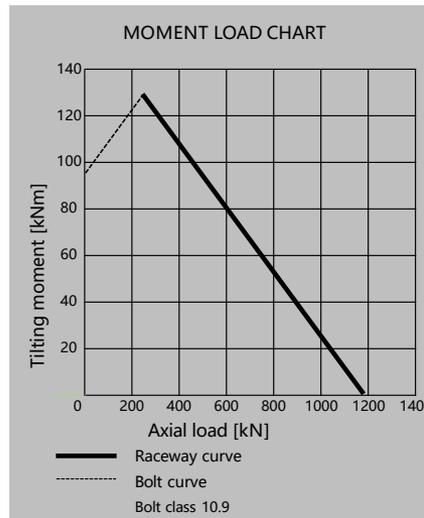
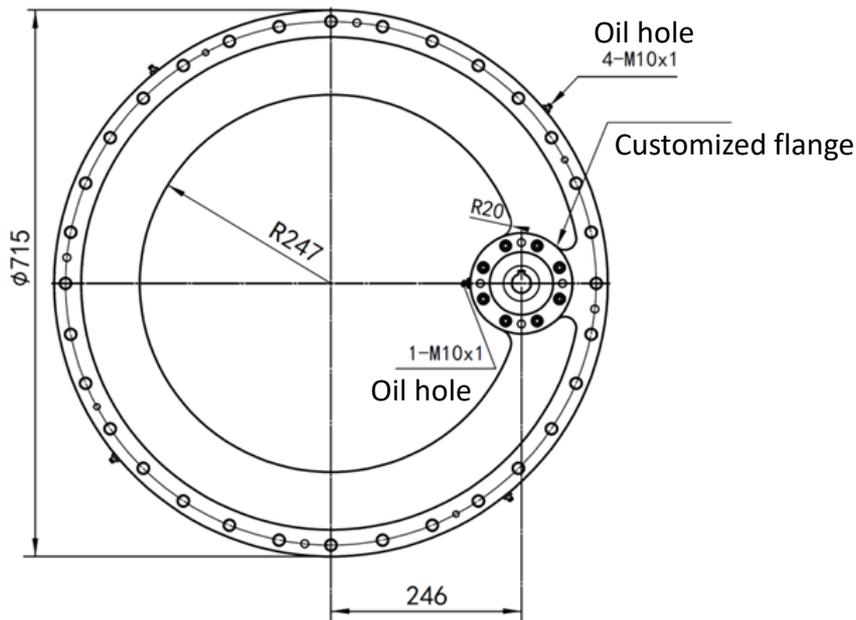
Item PT-L-0411-I-B-S	Sign	Unit	Value
Module	M	-	4
Teeth number of wheel	Z2	-	81
Teeth number of pinion	Z1	-	15
Gear ratio	i	-	5,40
Max torque	Md max	Nm	3080
Nom torque	Md nom	Nm	2189
Max holding torque	Mh	Nm	3080
Radial static load	Co rad	kN	281
Axial static load	Co ax	kN	751
Radial dynamic load	Crad	kN	194
Axial dynamic load	Cax	kN	226
Weight	W	kg	54



Item PT-L-0641-I-B-S

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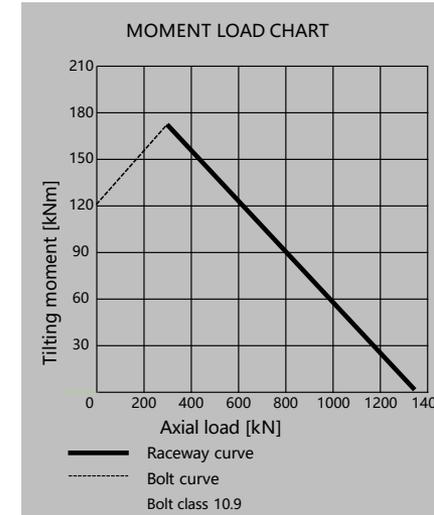
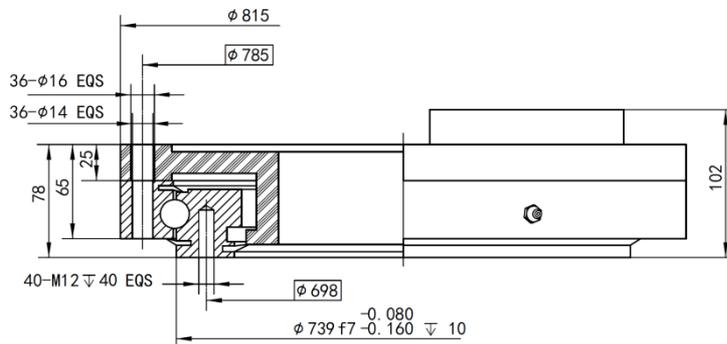
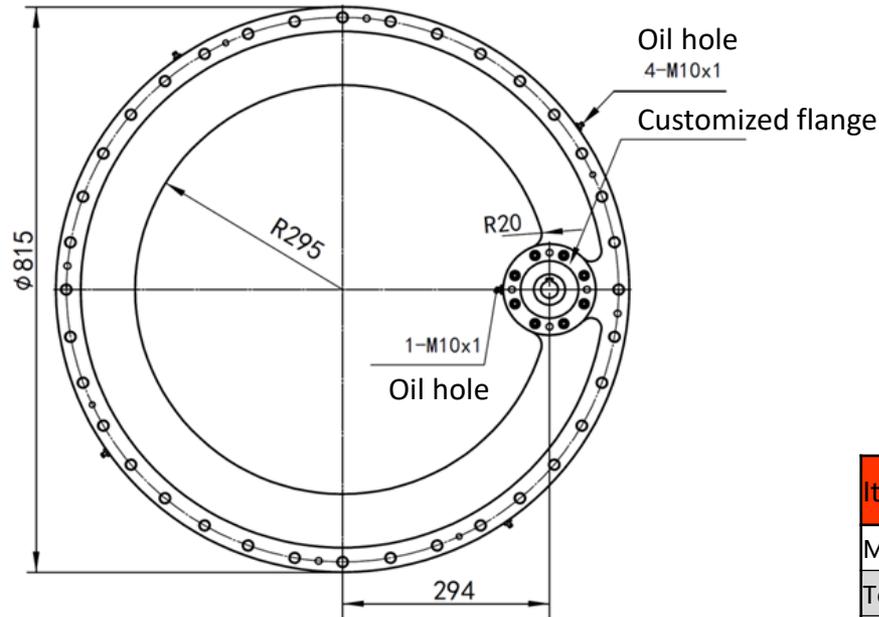


Item PT-L-0641-I-B-S	Sign	Unit	Value
Module	M	-	4
Teeth number of wheel	Z2	-	138
Teeth number of pinion	Z1	-	15
Gear ratio	i	-	9,20
Max torque	Md max	Nm	5274
Nom torque	Md nom	Nm	3744
Max holding torque	Mh	Nm	5274
Radial static load	Co rad	kN	438
Axial static load	Co ax	kN	1172
Radial dynamic load	Crad	kN	231
Axial dynamic load	Cax	kN	269
Weight	W	kg	86

Item PT-L-0741-I-B-S

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DRIVE

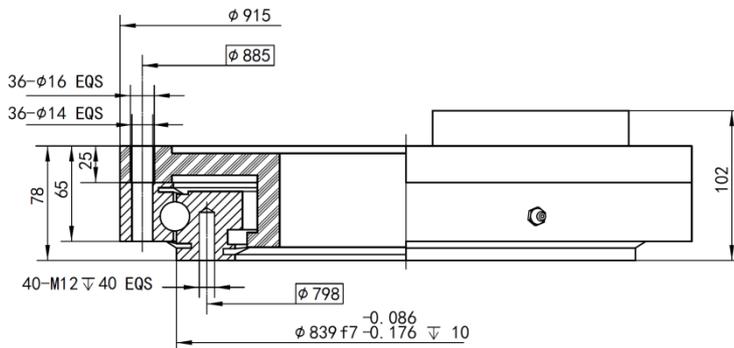
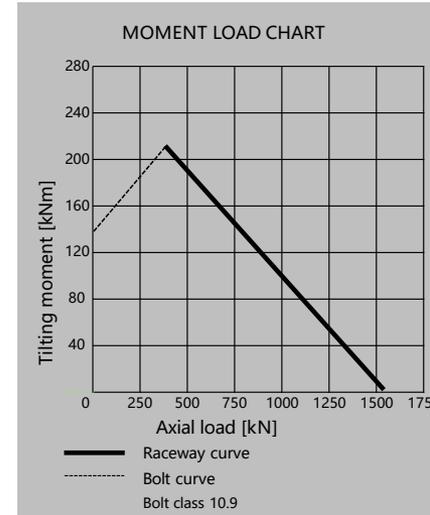
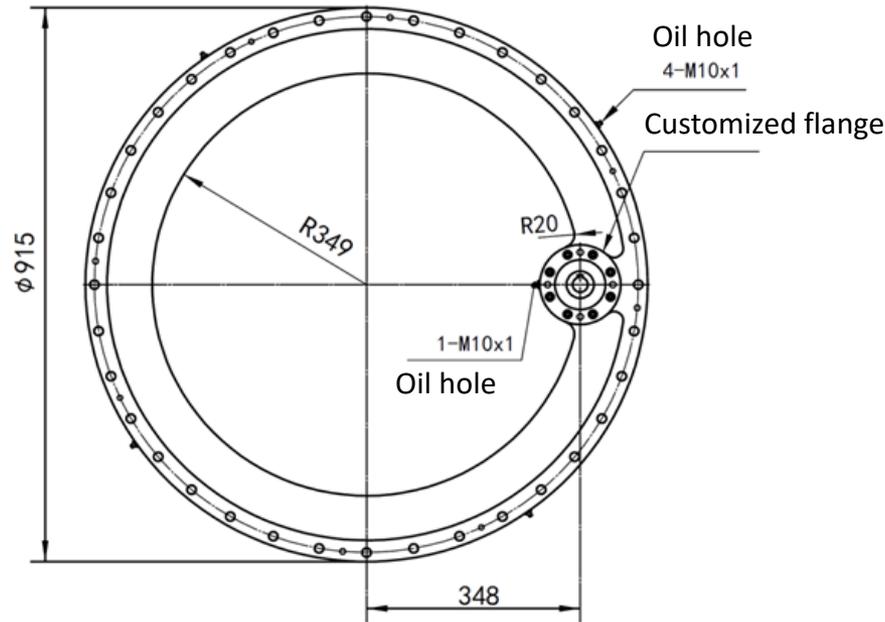


Item PT-L-0741-I-B-S	Sign	Unit	Value
Module	M	-	4
Teeth number of wheel	Z2	-	162
Teeth number of pinion	Z1	-	15
Gear ratio	i	-	10,80
Max torque	Md max	Nm	6237
Nom torque	Md nom	Nm	4497
Max holding torque	Mh	Nm	6237
Radial static load	Co rad	kN	506
Axial static load	Co ax	kN	1356
Radial dynamic load	Crad	kN	243
Axial dynamic load	Cax	kN	284
Weight	W	kg	102

Item PT-L-0841-I-B-S

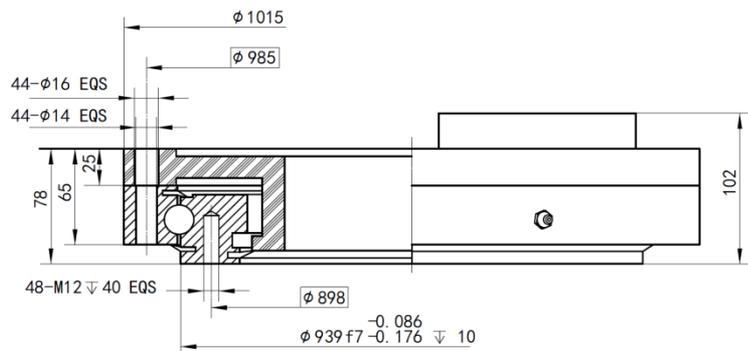
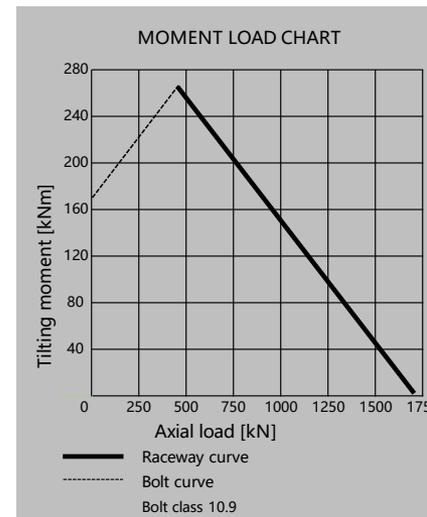
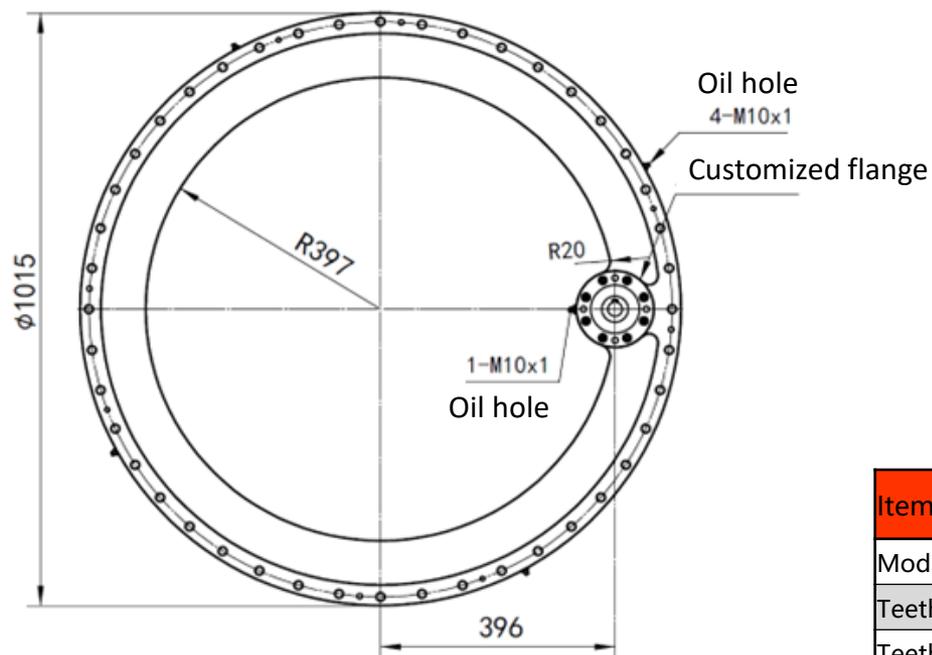
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Item PT-L-0841-I-B-S	Sign	Unit	Value
Module	M	-	4
Teeth number of wheel	Z2	-	189
Teeth number of pinion	Z1	-	15
Gear ratio	i	-	12,60
Max torque	Md max	Nm	7338
Nom torque	Md nom	Nm	5291
Max holding torque	Mh	Nm	7338
Radial static load	Co rad	kN	574
Axial static load	Co ax	kN	1538
Radial dynamic load	Crad	kN	255
Axial dynamic load	Cax	kN	299
Weight	W	kg	113

Item PT-L-0941-I-B-S

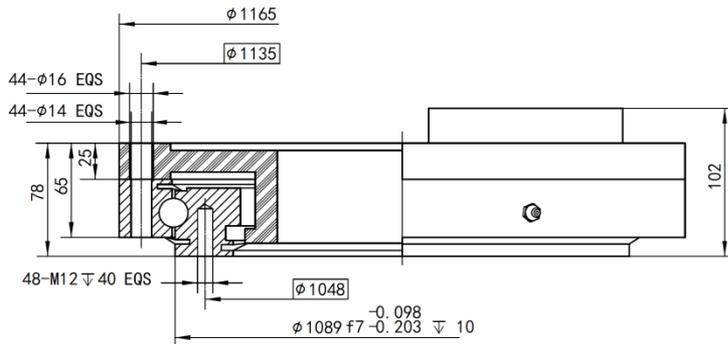
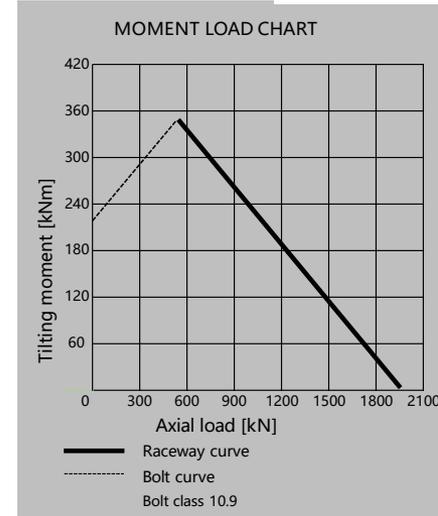
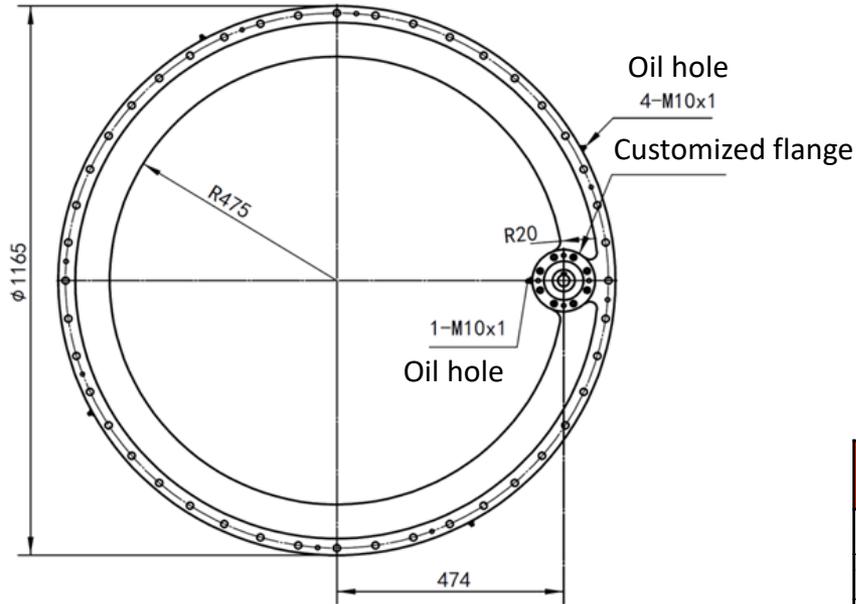


Item PT-L-0941-I-B-S	Sign	Unit	Value
Module	M	-	4
Teeth number of wheel	Z2	-	213
Teeth number of pinion	Z1	-	15
Gear ratio	i	-	14,20
Max torque	Md max	Nm	8200
Nom torque	Md nom	Nm	5934
Max holding torque	Mh	Nm	8200
Radial static load	Co rad	kN	643
Axial static load	Co ax	kN	1722
Radial dynamic load	Crad	kN	265
Axial dynamic load	Cax	kN	311
Weight	W	kg	129

Item PT-L-1091-I-B-S

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DRIVE



Item PT-L-1091-I-B-S	Sign	Unit	Value
Module	M	-	4
Teeth number of wheel	Z2	-	252
Teeth number of pinion	Z1	-	15
Gear ratio	i	-	16,80
Max torque	Md max	Nm	9739
Nom torque	Md nom	Nm	7048
Max holding torque	Mh	Nm	9739
Radial static load	Co rad	kN	746
Axial static load	Co ax	kN	1996
Radial dynamic load	Crad	kN	281
Axial dynamic load	Cax	kN	327
Weight	W	kg	145

## Series PT-M-I-B-S

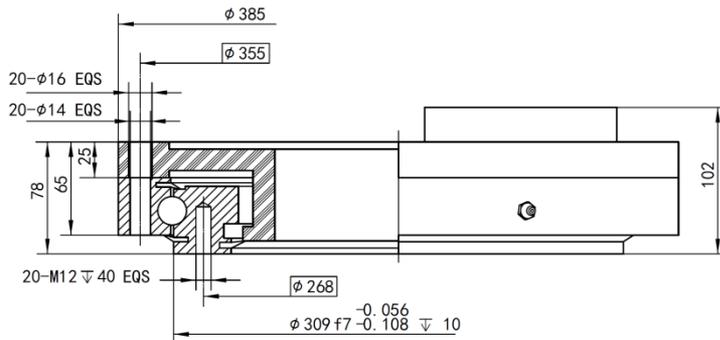
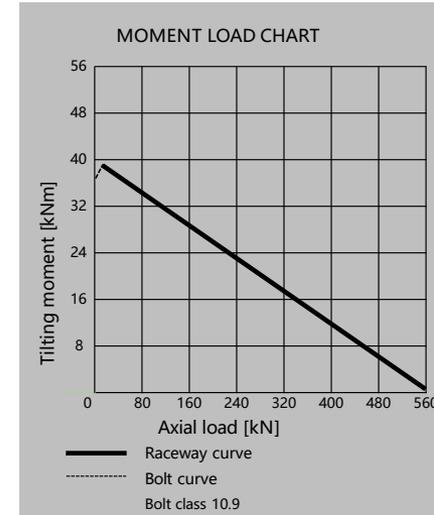
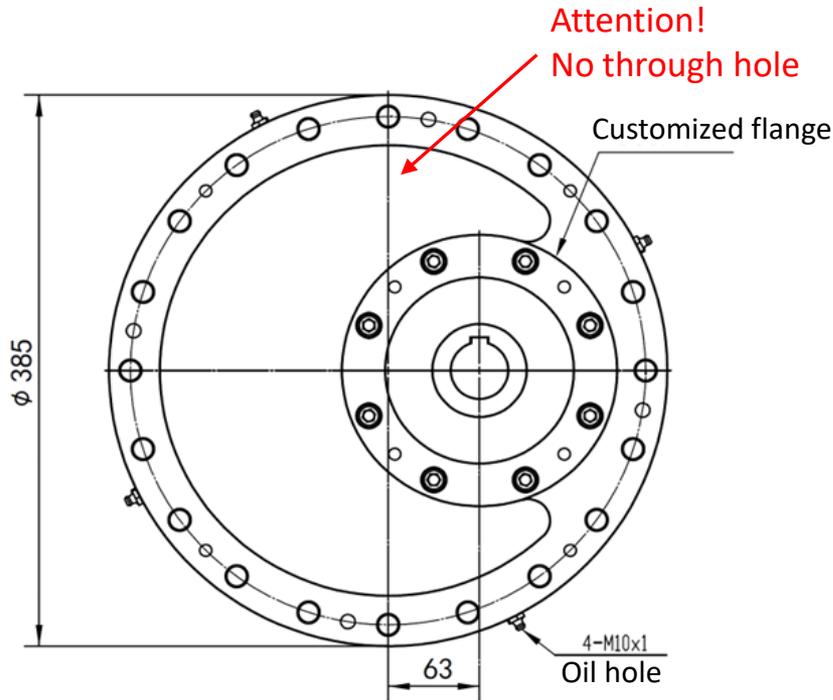
### M - Medium duty

Series PT-M-I-B-S	Sign	Unit	0311	0411	0541	0641	0741	0841	0941	1091
Module	M	-	6	6	6	6	6	6	6	6
Teeth number of wheel	Z2	-	36	51	75	90	108	123	141	165
Teeth number of pinion	Z1	-	15	15	15	15	15	15	15	15
Gear ratio	i	-	2,40	3,40	5,00	6,00	7,20	8,20	9,40	11,00
Max torque	Md max	Nm	4580	6603	9845	11690	14153	16125	18357	21660
Nom torque	Md nom	Nm	3432	5002	7550	9019	10952	12516	14248	16863
Max holding torque	Mh	Nm	4580	6603	9845	11690	14153	16125	18357	21660
Radial static load	Co rad	kN	212	281	369	438	506	574	643	746
Axial static load	Co ax	kN	568	751	989	1172	1356	1538	1722	1996
Radial dynamic load	Crad	kN	175	194	216	231	243	255	265	281
Axial dynamic load	Cax	kN	204	226	253	269	284	299	311	327
Weight	W	kg	62	81	100	122	138	163	175	208
Common products	Precision	mm	Tooth high point backlash value=0.03*M-0.04*M							
Precision products	Precision	°	0,090	0,075	0,060	0,045	0,045	0,045	0,030	0,030

Item PT-M-0311-I-B-S

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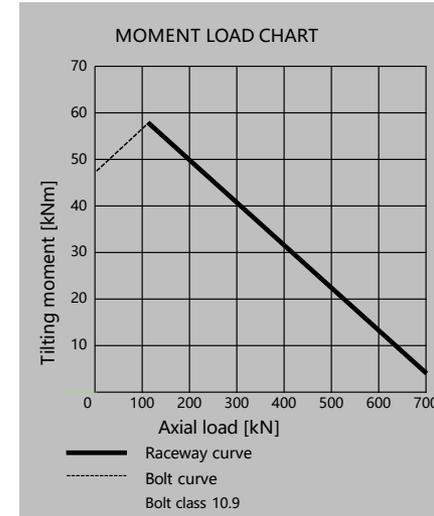
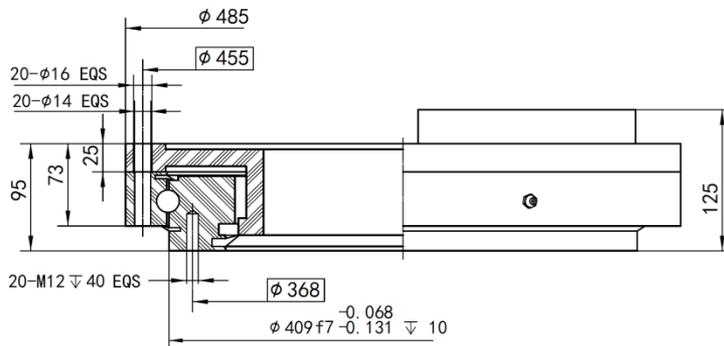
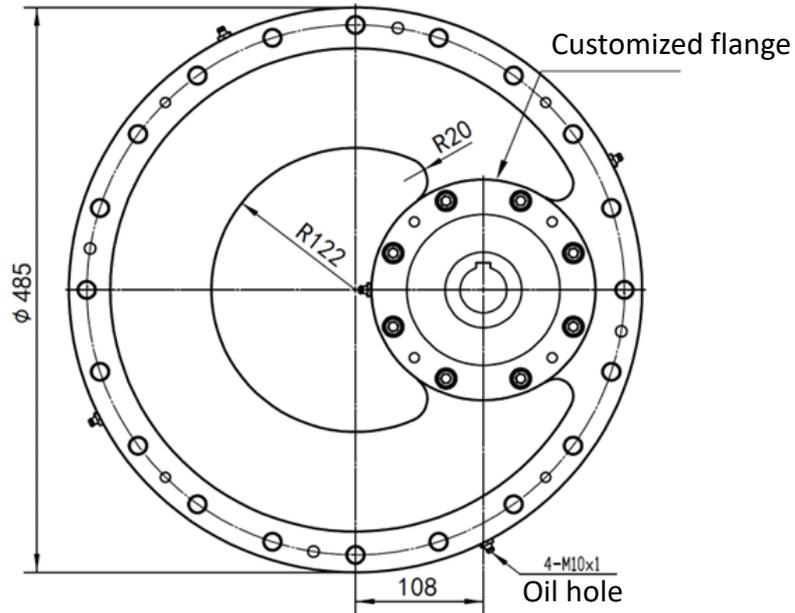


Item PT-M-0311-I-B-S	Sign	Unit	Value
Module	M	-	6
Teeth number of wheel	Z2	-	36
Teeth number of pinion	Z1	-	15
Gear ratio	i	-	2,40
Max torque	Md max	Nm	4580
Nom torque	Md nom	Nm	3432
Max holding torque	Mh	Nm	4580
Radial static load	Co rad	kN	212
Axial static load	Co ax	kN	568
Radial dynamic load	Crad	kN	175
Axial dynamic load	Cax	kN	204
Weight	W	kg	62

Item PT-M-0411-I-B-S

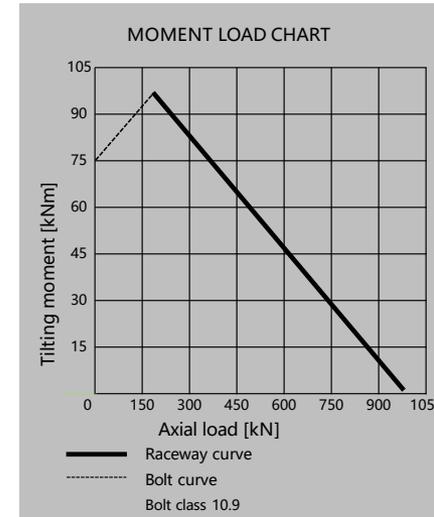
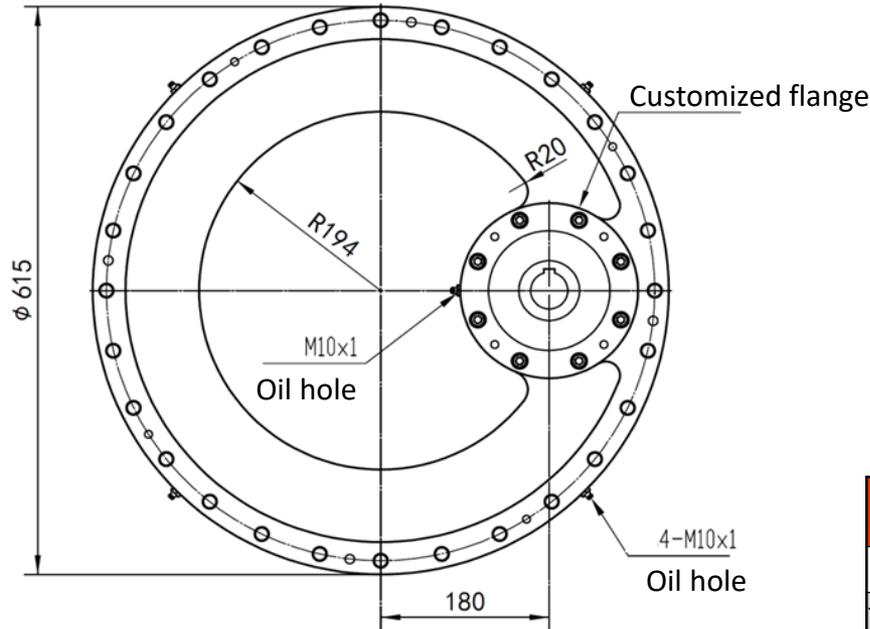
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Item PT-M-0411-I-B-S	Sign	Unit	Value
Module	M	-	6
Teeth number of wheel	Z2	-	51
Teeth number of pinion	Z1	-	15
Gear ratio	i	-	3,40
Max torque	Md max	Nm	6603
Nom torque	Md nom	Nm	5002
Max holding torque	Mh	Nm	6603
Radial static load	Co rad	kN	281
Axial static load	Co ax	kN	751
Radial dynamic load	Crad	kN	194
Axial dynamic load	Cax	kN	226
Weight	W	kg	81

Item PT-M-0541-I-B-S

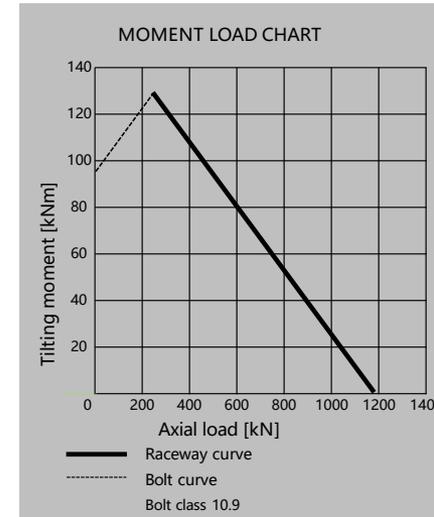
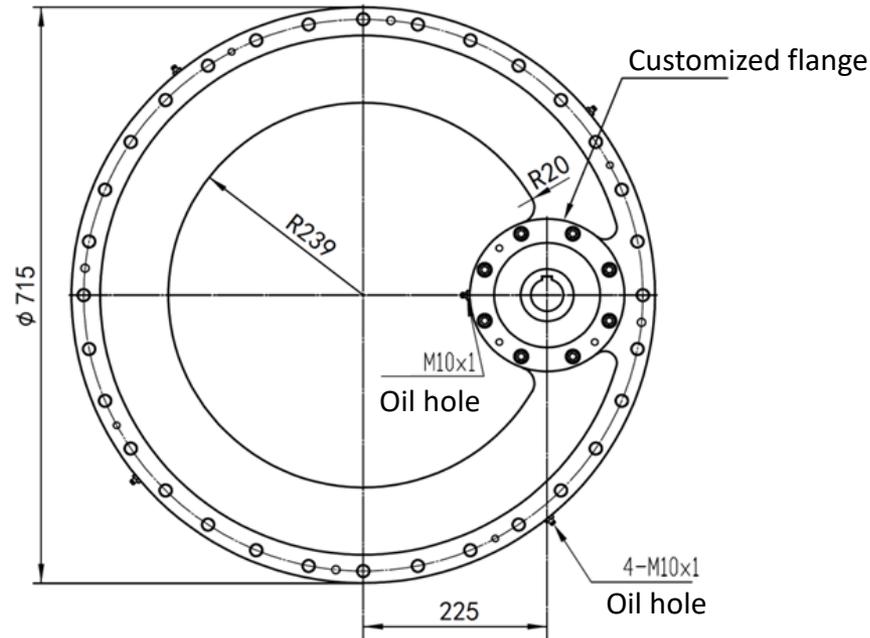


Item PT-M-0541-I-B-S	Sign	Unit	Value
Module	M	-	6
Teeth number of wheel	Z2	-	75
Teeth number of pinion	Z1	-	15
Gear ratio	i	-	5,00
Max torque	Md max	Nm	9845
Nom torque	Md nom	Nm	7550
Max holding torque	Mh	Nm	9845
Radial static load	Co rad	kN	369
Axial static load	Co ax	kN	989
Radial dynamic load	Crad	kN	216
Axial dynamic load	Cax	kN	253
Weight	W	kg	100

Item PT-M-0641-I-B-S

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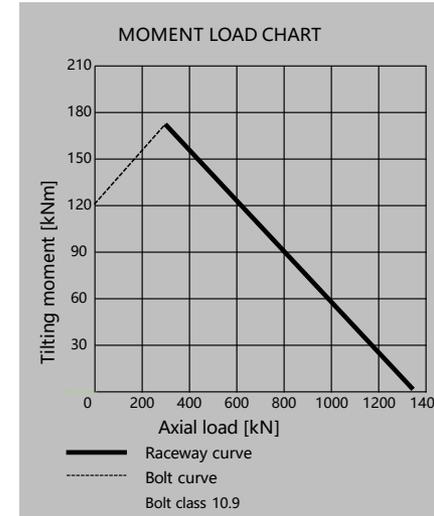
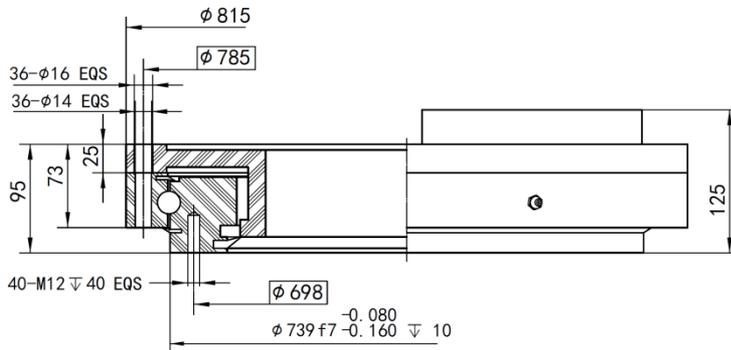
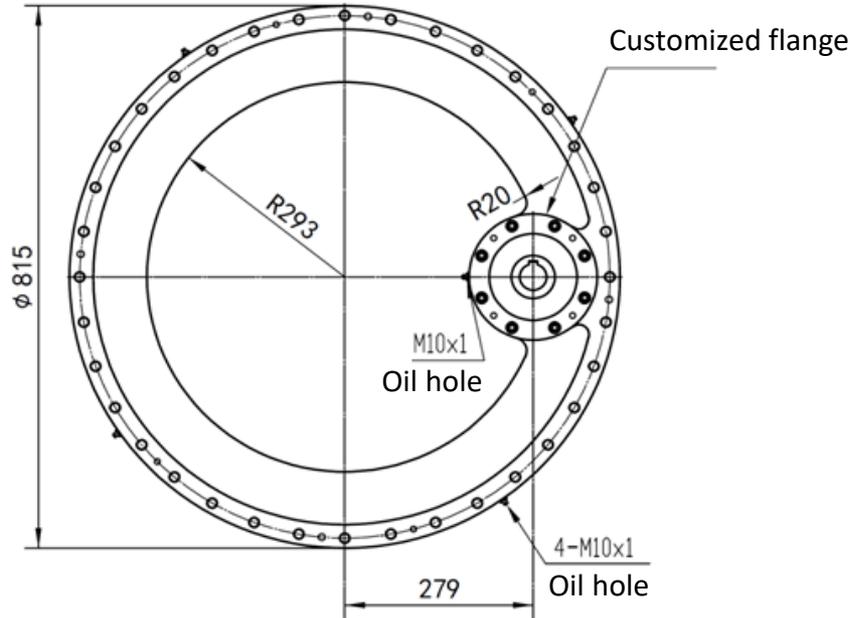


Item PT-M-0641-I-B-S	Sign	Unit	Value
Module	M	-	6
Teeth number of wheel	Z2	-	90
Teeth number of pinion	Z1	-	15
Gear ratio	i	-	6,00
Max torque	Md max	Nm	11690
Nom torque	Md nom	Nm	9019
Max holding torque	Mh	Nm	11690
Radial static load	Co rad	kN	438
Axial static load	Co ax	kN	1172
Radial dynamic load	Crad	kN	231
Axial dynamic load	Cax	kN	269
Weight	W	kg	122

Item PT-M-0741-I-B-S

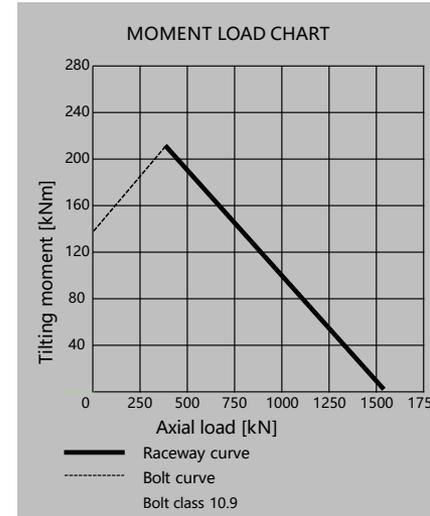
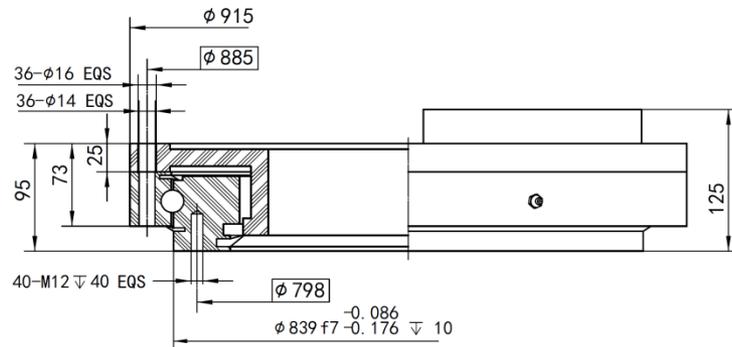
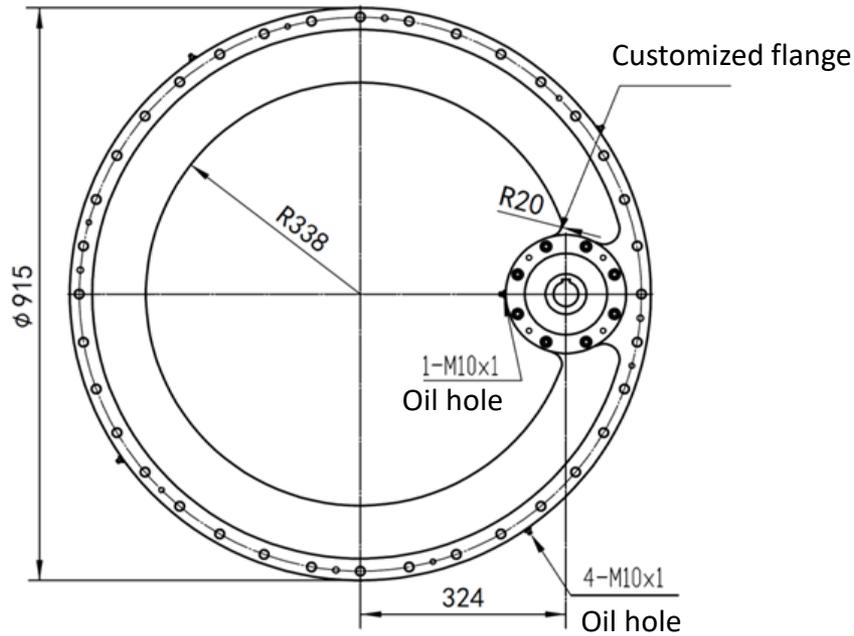
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Item PT-M-0741-I-B-S	Sign	Unit	Value
Module	M	-	6
Teeth number of wheel	Z2	-	108
Teeth number of pinion	Z1	-	15
Gear ratio	i	-	7,20
Max torque	Md max	Nm	14153
Nom torque	Md nom	Nm	10952
Max holding torque	Mh	Nm	14153
Radial static load	Co rad	kN	506
Axial static load	Co ax	kN	1356
Radial dynamic load	Crad	kN	243
Axial dynamic load	Cax	kN	284
Weight	W	kg	138

# Item PT-M-0841-I-B-S

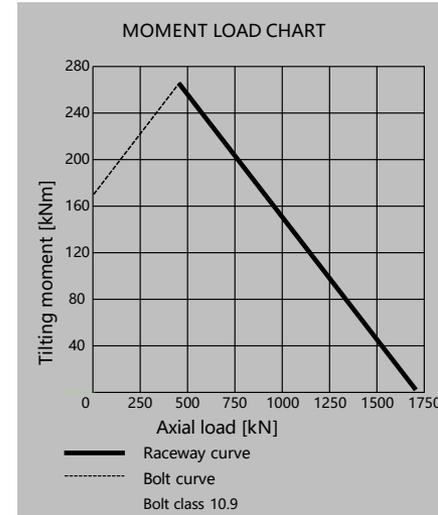
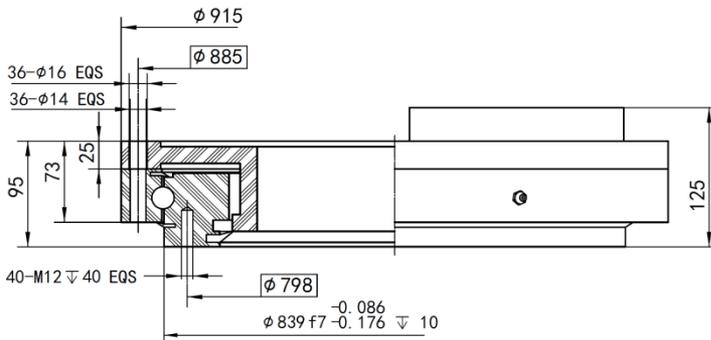
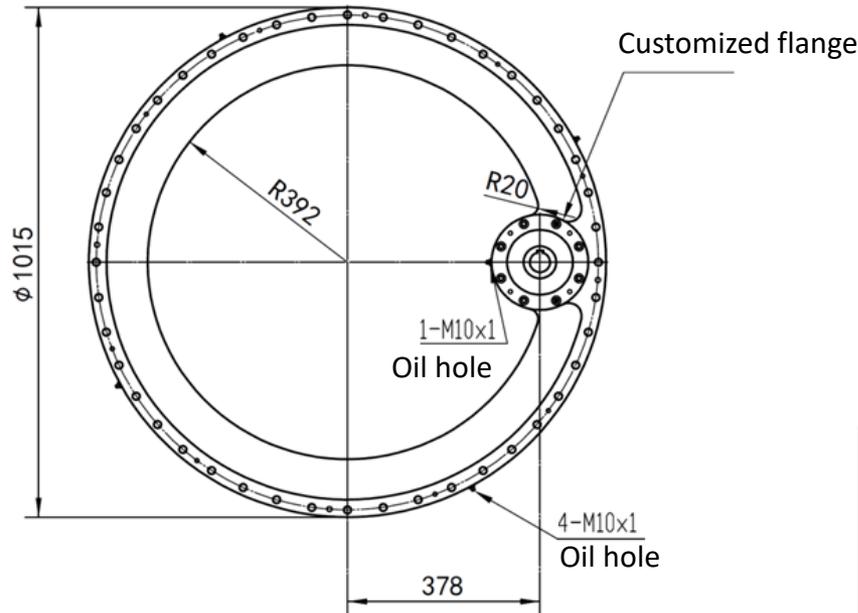


Item PT-M-0841-I-B-S	Sign	Unit	Value
Module	M	-	6
Teeth number of wheel	Z2	-	123
Teeth number of pinion	Z1	-	15
Gear ratio	i	-	8,20
Max torque	Md max	Nm	16125
Nom torque	Md nom	Nm	12516
Max holding torque	Mh	Nm	16125
Radial static load	Co rad	kN	574
Axial static load	Co ax	kN	1538
Radial dynamic load	Crad	kN	255
Axial dynamic load	Cax	kN	299
Weight	W	kg	163

Item PT-M-0941-I-B-S

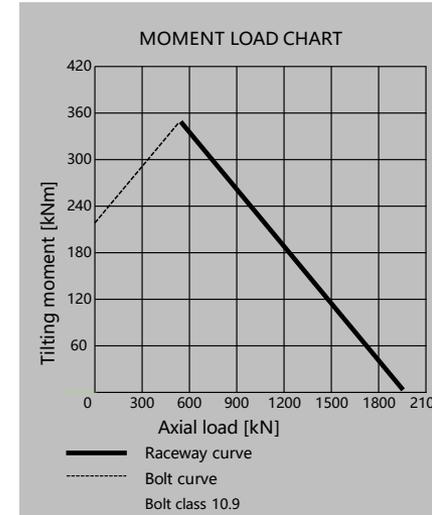
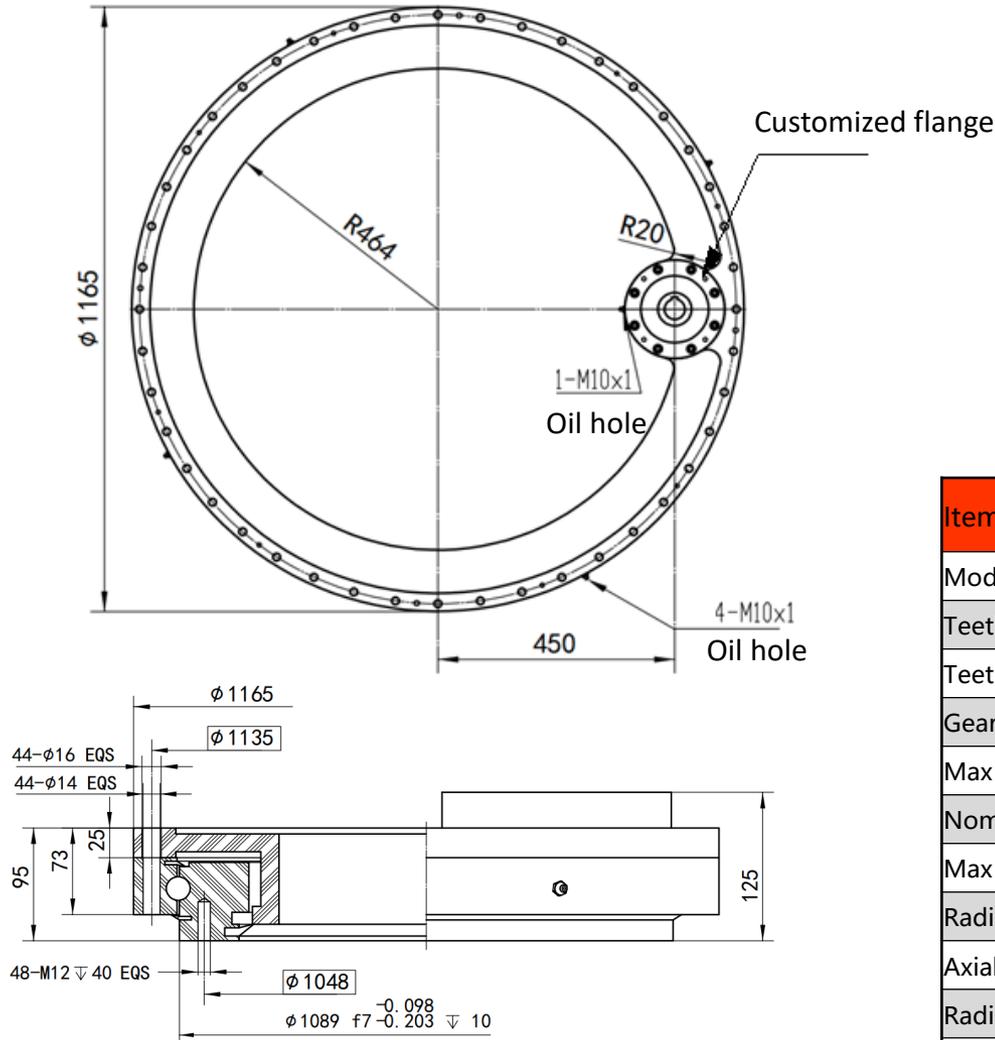
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**NATECH**  
DRIVE



Item PT-M-0941-I-B-S	Sign	Unit	Value
Module	M	-	6
Teeth number of wheel	Z2	-	141
Teeth number of pinion	Z1	-	15
Gear ratio	i	-	9,40
Max torque	Md max	Nm	18357
Nom torque	Md nom	Nm	14248
Max holding torque	Mh	Nm	18357
Radial static load	Co rad	kN	643
Axial static load	Co ax	kN	1722
Radial dynamic load	Crad	kN	265
Axial dynamic load	Cax	kN	311
Weight	W	kg	175

# Item PT-M-1091-I-B-S



Item PT-M-1091-I-B-S	Sign	Unit	Value
Module	M	-	6
Teeth number of wheel	Z2	-	165
Teeth number of pinion	Z1	-	15
Gear ratio	i	-	11,00
Max torque	Md max	Nm	21660
Nom torque	Md nom	Nm	16863
Max holding torque	Mh	Nm	21660
Radial static load	Co rad	kN	746
Axial static load	Co ax	kN	1996
Radial dynamic load	Crad	kN	281
Axial dynamic load	Cax	kN	327
Weight	W	kg	208

## Series PT-H-I-B-S

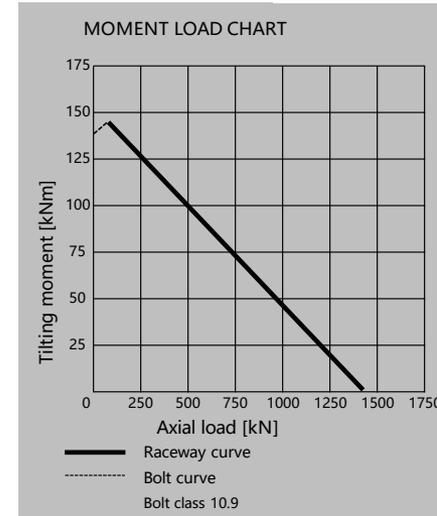
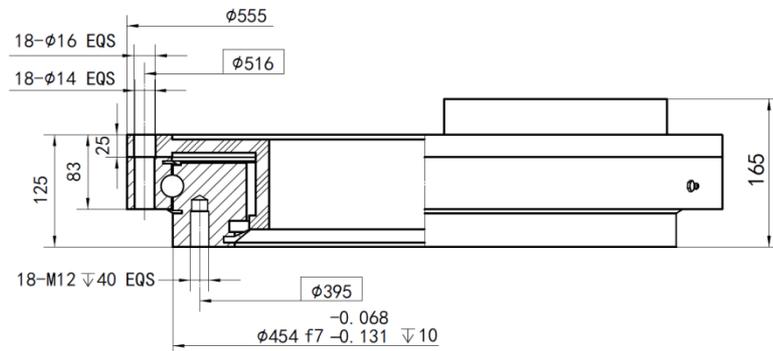
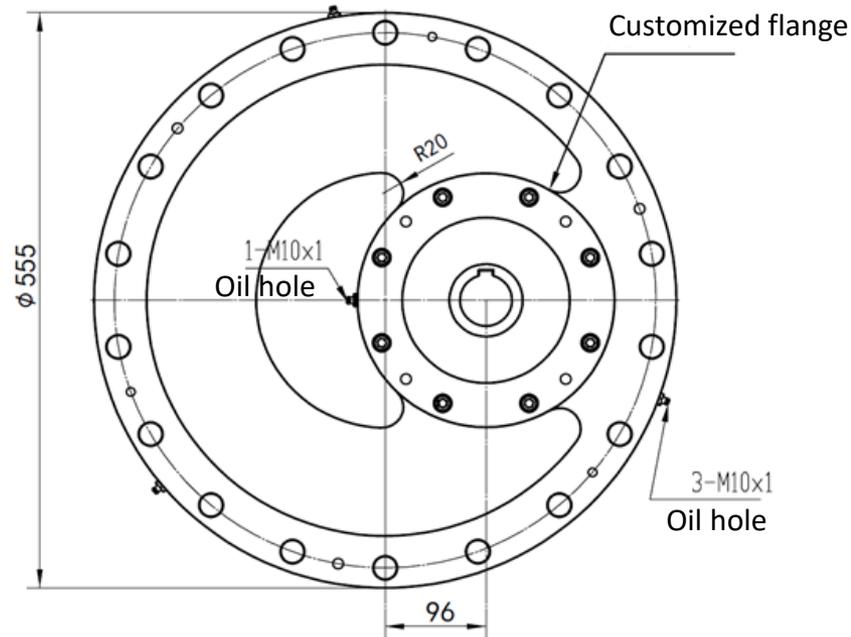
### H - Heavy duty

Series PT-H-I-B-S	Sign	Unit	0455	0555	0655	0755	0855	0955
Module	M	-	8	8	8	8	8	8
Teeth number of wheel	Z2	-	39	51	63	75	90	102
Teeth number of pinion	Z1	-	15	15	15	15	15	15
Gear ratio	i	-	2,60	3,40	4,20	5,00	6,00	6,80
Max torque	Md max	Nm	15257	19487	24471	29138	35126	40095
Nom torque	Md nom	Nm	9987	12878	16273	19437	24382	28082
Max holding torque	Mh	Nm	15257	19487	24471	29138	35126	40095
Radial static load	Co rad	kN	546	665	785	906	1025	1145
Axial static load	Co ax	kN	1461	1781	2102	2424	2745	3066
Radial dynamic load	Crad	kN	254	272	290	305	321	335
Axial dynamic load	Cax	kN	296	318	338	356	375	391
Weight	W	kg	157	192	227	265	280	316
Common products	Precision	mm	Tooth high point backlash value= $0.03 \cdot M - 0.04 \cdot M$					
Precision products	Precision	°	0,020	0,018	0,150	0,014	0,013	0,010

Item PT-H-0455-I-B-S

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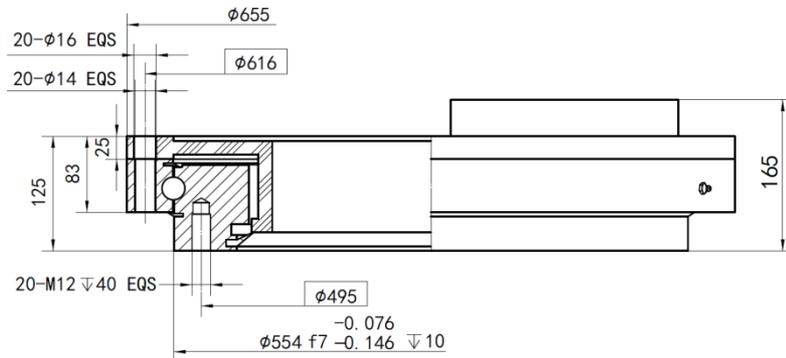
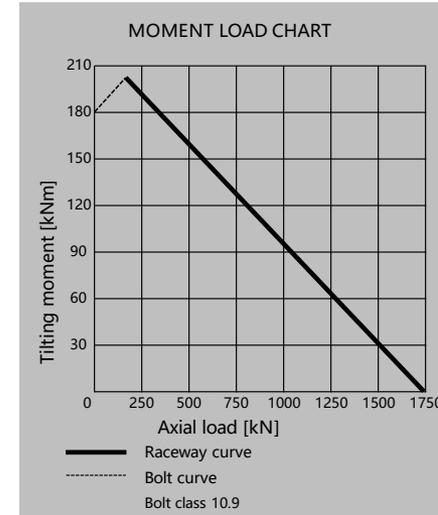
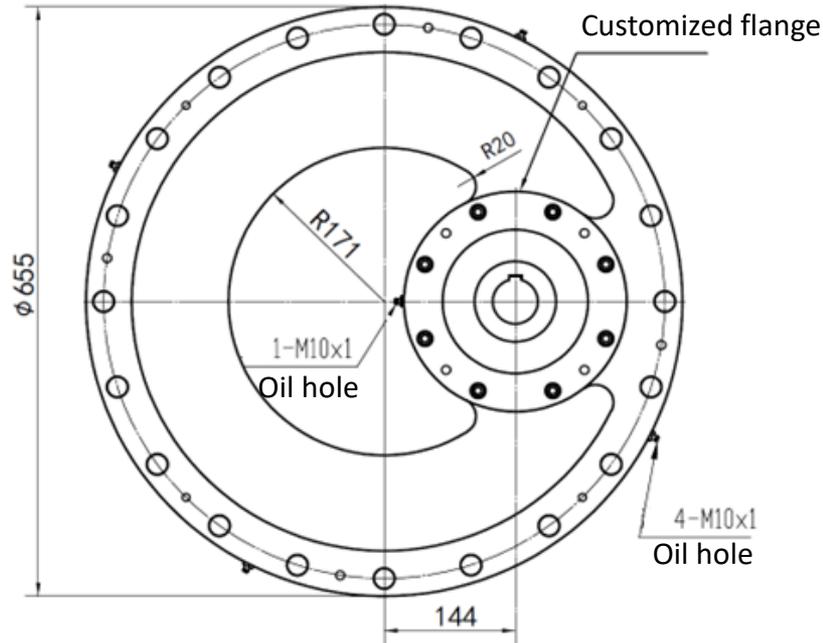


Item PT-H-0455-I-B-S	Sign	Unit	Value
Module	M	-	8
Teeth number of wheel	Z2	-	39
Teeth number of pinion	Z1	-	15
Gear ratio	i	-	2,60
Max torque	Md max	Nm	15257
Nom torque	Md nom	Nm	9987
Max holding torque	Mh	Nm	15257
Radial static load	Co rad	kN	546
Axial static load	Co ax	kN	1461
Radial dynamic load	Crad	kN	254
Axial dynamic load	Cax	kN	296
Weight	W	kg	157

Item PT-H-0555-I-B-S

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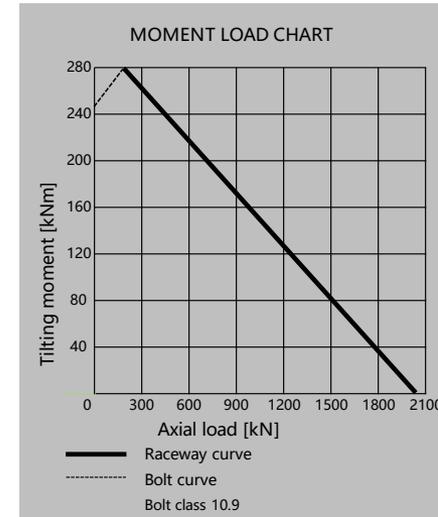
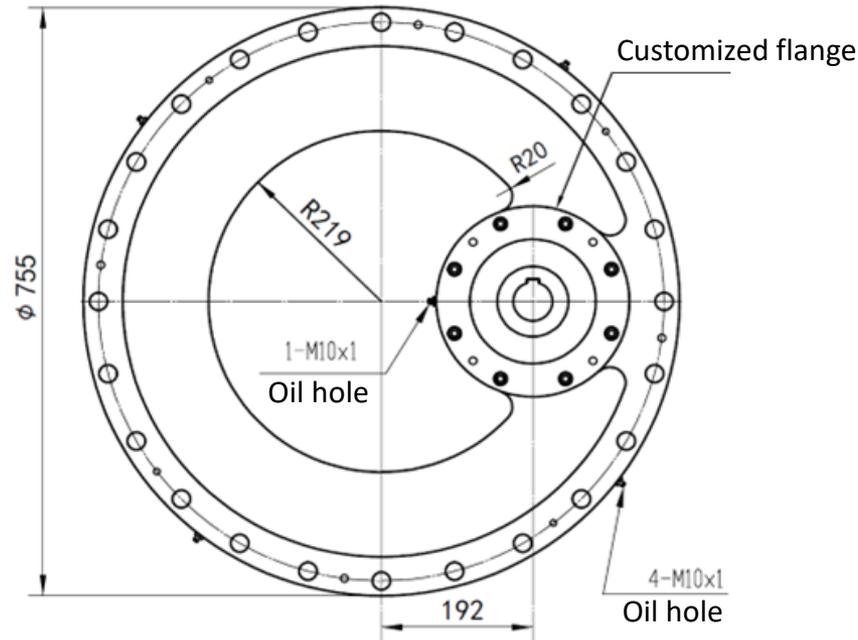


Item PT-H-0555-I-B-S	Sign	Unit	Value
Module	M	-	8
Teeth number of wheel	Z2	-	51
Teeth number of pinion	Z1	-	15
Gear ratio	i	-	3,40
Max torque	Md max	Nm	19487
Nom torque	Md nom	Nm	12878
Max holding torque	Mh	Nm	19487
Radial static load	Co rad	kN	665
Axial static load	Co ax	kN	1781
Radial dynamic load	Crad	kN	272
Axial dynamic load	Cax	kN	318
Weight	W	kg	192

Item PT-H-0655-I-B-S

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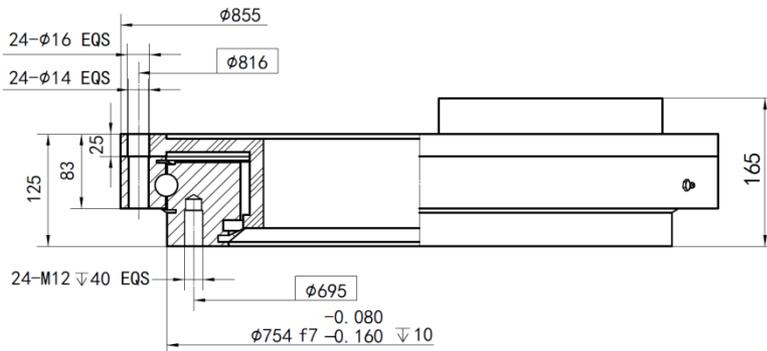
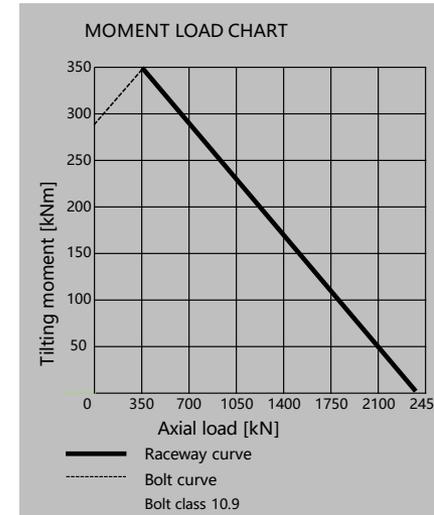
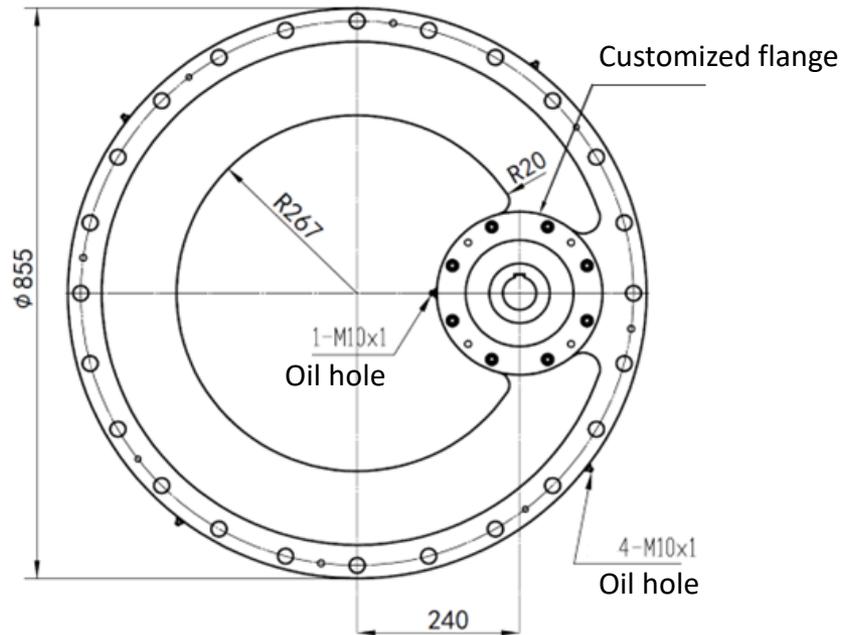


Item PT-H-0655-I-B-S	Sign	Unit	Value
Module	M	-	8
Teeth number of wheel	Z2	-	63
Teeth number of pinion	Z1	-	15
Gear ratio	i	-	4,20
Max torque	Md max	Nm	24471
Nom torque	Md nom	Nm	16273
Max holding torque	Mh	Nm	24471
Radial static load	Co rad	kN	785
Axial static load	Co ax	kN	2102
Radial dynamic load	Crad	kN	290
Axial dynamic load	Cax	kN	338
Weight	W	kg	227

Item PT-H-0755-I-B-S

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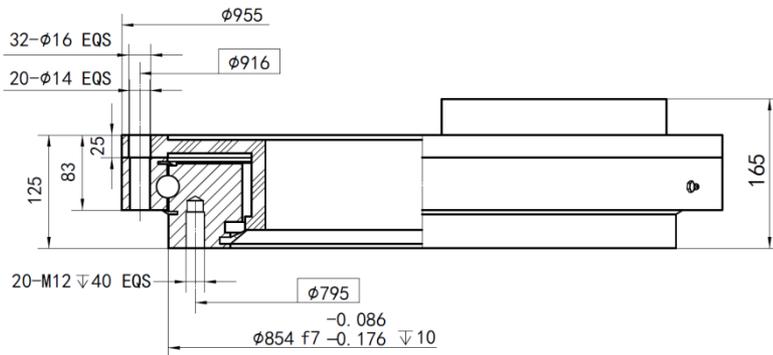
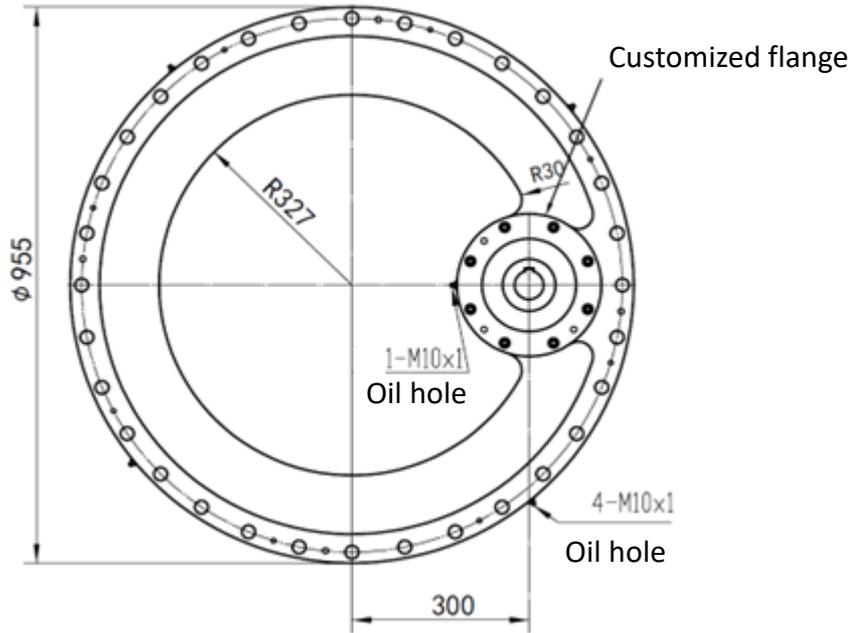
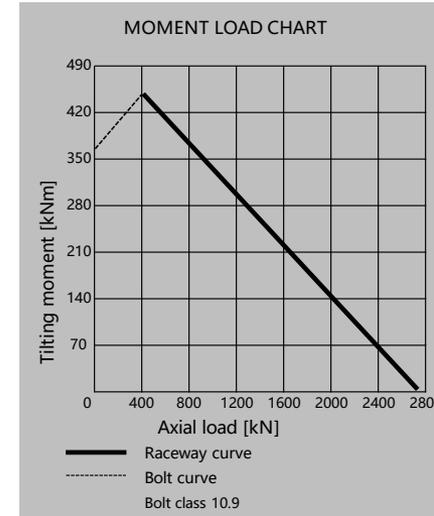


Item PT-H-0755-I-B-S	Sign	Unit	Value
Module	M	-	8
Teeth number of wheel	Z2	-	75
Teeth number of pinion	Z1	-	15
Gear ratio	i	-	5,00
Max torque	Md max	Nm	29138
Nom torque	Md nom	Nm	19437
Max holding torque	Mh	Nm	29138
Radial static load	Co rad	kN	906
Axial static load	Co ax	kN	2424
Radial dynamic load	Crad	kN	305
Axial dynamic load	Cax	kN	356
Weight	W	kg	265

Item PT-H-0855-I-B-S

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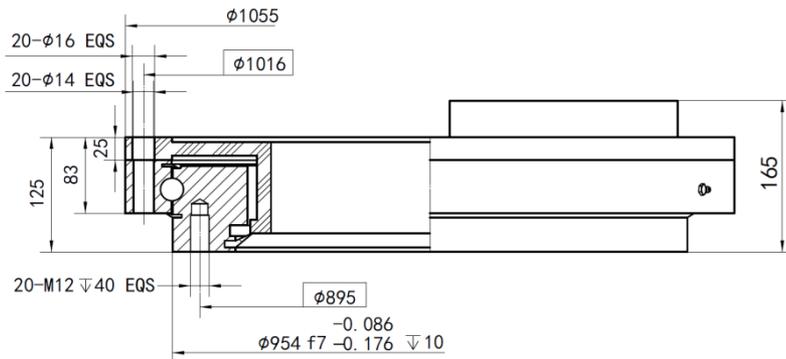
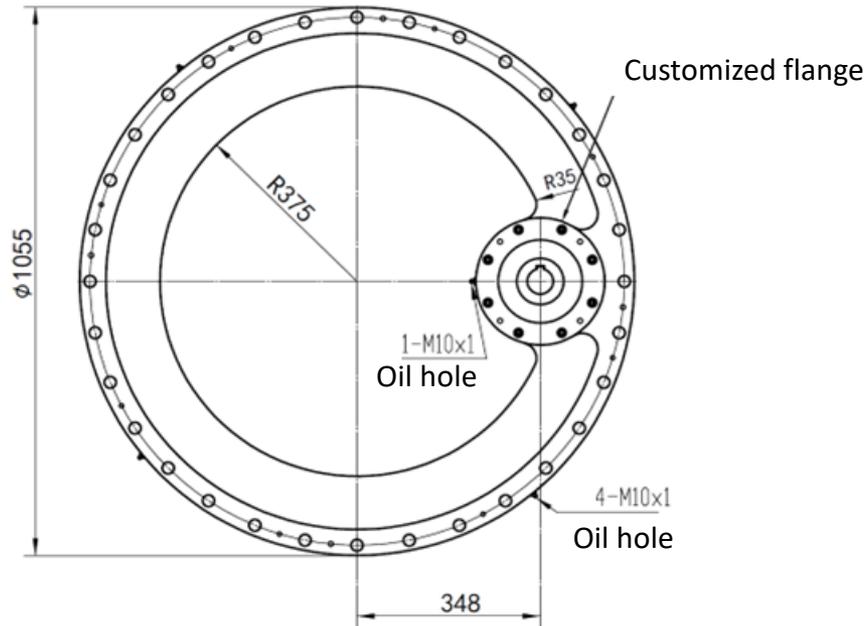
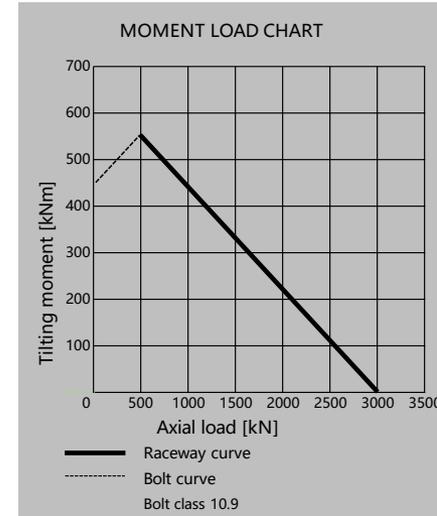


Item PT-H-0855-I-B-S	Sign	Unit	Value
Module	M	-	8
Teeth number of wheel	Z2	-	90
Teeth number of pinion	Z1	-	15
Gear ratio	i	-	6,00
Max torque	Md max	Nm	35126
Nom torque	Md nom	Nm	24382
Max holding torque	Mh	Nm	35126
Radial static load	Co rad	kN	1025
Axial static load	Co ax	kN	2745
Radial dynamic load	Crad	kN	321
Axial dynamic load	Cax	kN	375
Weight	W	kg	280

Item PT-H-0955-I-B-S

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Item PT-H-0955-I-B-S	Sign	Unit	Value
Module	M	-	8
Teeth number of wheel	Z2	-	102
Teeth number of pinion	Z1	-	15
Gear ratio	i	-	6,80
Max torque	Md max	Nm	40095
Nom torque	Md nom	Nm	28082
Max holding torque	Mh	Nm	40095
Radial static load	Co rad	kN	1145
Axial static load	Co ax	kN	3066
Radial dynamic load	Crad	kN	335
Axial dynamic load	Cax	kN	391
Weight	W	kg	316

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**PIVEXIN TECHNOLOGY Sp. z o.o.**

ul. Wyrabiskowa 4

47-440 Babice

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