

Ontrac

Gearbox

PG/PGZ Multi-turn Gearbox



Introduction

Ontrac PG/PGZ multi-turn gearboxes series with spiral bevel gear used is in high quality and safety. Compared to conventional bevel gear box it's with high transmission efficiency, superior bearing capacity, low noise, steady running etc. PG/PGZ series is completely sealed with good waterproof performance. It is easy to process axis hole and key groove because of the removable sleeve. PG/PGZ series is specialized for motorized operation, flange standard according to ISO 5210.

Characters

1. Totally enclosed gearing
2. Grease filled for longer life
3. Comprehensive gear ratios for different applications
4. Removable output sleeve
5. Optional output connection
6. Manual and motorized operation
7. Sealed structure, protection to IP67 (IP68)

Application

PG/PGZ series multi-turn gearboxes are used for manual and motorized (with electric actuators) operation. It applies to gate valves, globe valves, sluice and sluice gate.

Options

- | | |
|--|---|
| ● IP68 | ● Stage reducers |
| ● Impact hand wheel | ● Output flanges |
| ● Working temperature:
-40°C to 120°C | ● Input flanges suit for
electric actuator |

Operating Environment

PG/PGZ multi-turn gearboxes are with good mechanical quality and steady operating performance which apply to deal with variety climate and temperature. We strive to develop ASNG series to meet higher demands.

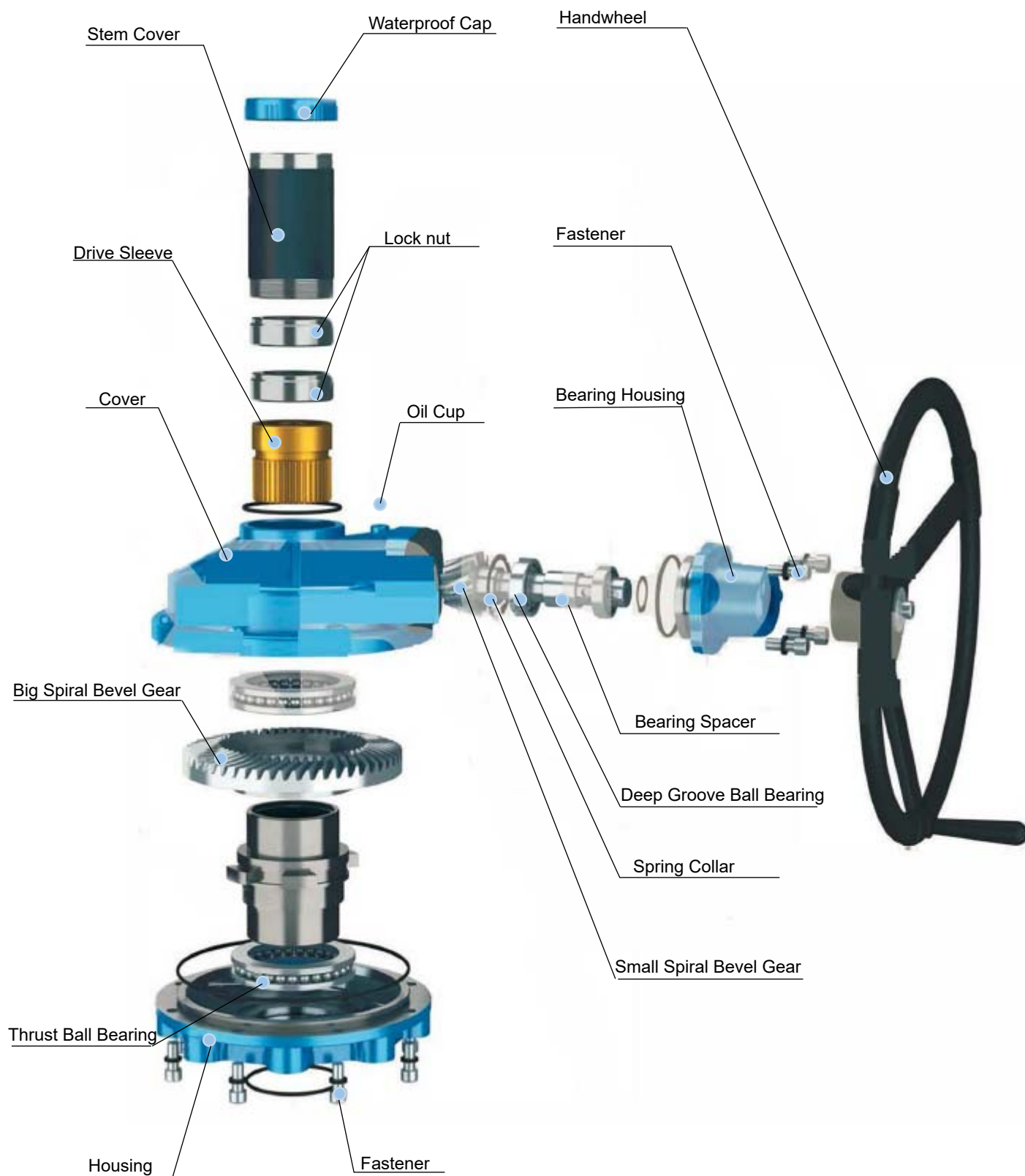
Factory Standard:

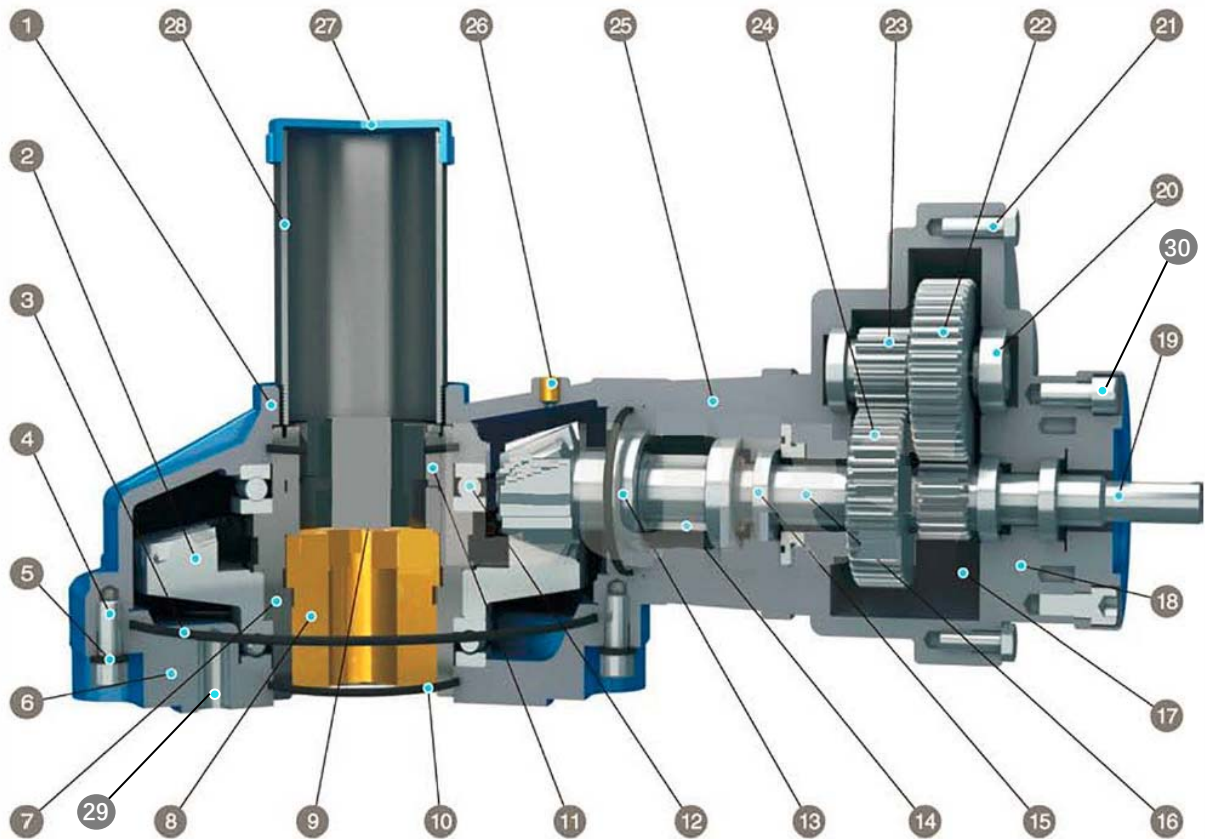
- Enclosure: IP67
- Working Temperature: From -20°C to 120°C
(-4°F to 248°F)
- Painting: Black RAL9005

Connect With Valve

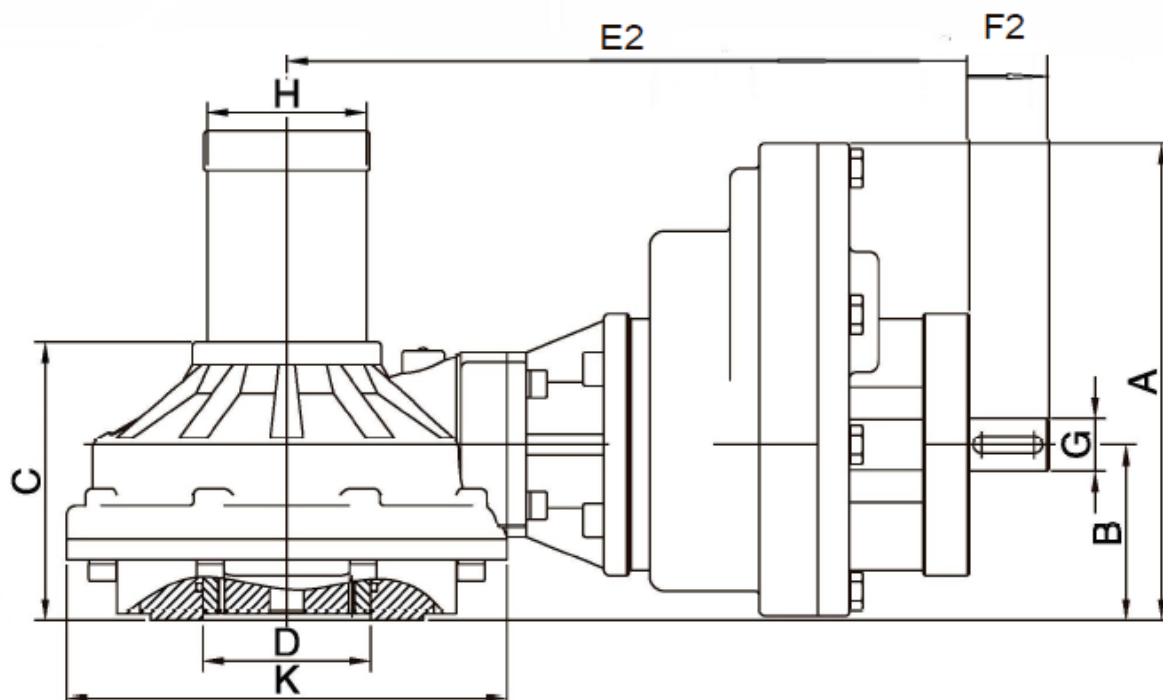
The flange connecting to valve is according to ENISO5210







No.	Description	Material	No.	Description	Material
1	Cover	Ductile iron	16	Small spiral bevel gear	Steel
2	Big spiral bevel gear	Steel	17	2-Stage case	Ductile iron
3	O-ring	NBR	18	2-Stage cover	Ductile iron
4	Fastener	Steel	19	2-Stage input gear	Steel
5	Spring washer	Spring steel	20	Ball bearing	Bearing steel
6	Case	Ductile iron	21	Fastener	Steel
7	Drive Axle	Ductile iron	22	2-Stage gear	Steel
8	Drive sleeve	Bronze alloy	23	Gear shaft	Steel
9	O-ring	NBR	24	2-Stage output gear	Steel
10	O-ring	NBR	25	Spacer flange	Ductile iron
11	Lock nut	Steel	26	Oil cup	Brass
12	Thrust ball bearing	Bearing steel	27	Waterproof cap	Plastic
13	Ball bearing	Bearing steel	28	Stem cover	Steel
14	Bearing spacer	Steel	29	Output flange	Ductile iron
15	Oil seal	NBR	30	Input flange	Ductile iron



PG/PGZ Multi-turn Gearbox

Model	Dimension (mm)									
	A	B	C	D	E2	F2	G	H	K	Weight(kg)
PG80/3 PG80/4 PG80/6 ($\leq 415\text{Nm}$)	118	81	123	$\varnothing 70$	163	44	$\varnothing 25$	$\varnothing 76$	$\varnothing 175$	12
PG80/3 PG80/4 PG80/6 ($\leq 1050\text{Nm}$)	138	84	133	$\varnothing 80$	163	44	$\varnothing 25$	$\varnothing 76$	$\varnothing 210$	18
PGZ/4	168	111	164	$\varnothing 100$	227	51	$\varnothing 30$	$\varnothing 90$	$\varnothing 300$	42
PGZ/6	207	137	207	$\varnothing 140$	269	68	$\varnothing 35$	$\varnothing 114$	$\varnothing 350$	74
PGZ/8	248	160	260	$\varnothing 190$	328	96	$\varnothing 45$	$\varnothing 114$	$\varnothing 415$	155
PGZ/10	306	193	294	$\varnothing 220$	410	121	$\varnothing 50$	$\varnothing 114$	$\varnothing 475$	275

Multi-turn Gearbox Selection Sheet

Type	Torque Nm	Ratio	Max. Input Torque Nm	Output Thrust KN	Factor ±10%	Output Flange		Input Flange	Max.Valve Stem Diameter mm	Max.Shaft Diameter mm	Weight kg
						ISO5210	JB2920 (Customizable)	ISO5210			
PG80/3S-1	300	3	117	95	2.57	(F10) /F12/F14	2#	F10	41.8(1 5/8")	φ32(10x8)	12
PG80/4S-1		4	88		3.42						
PG80/6S-1		6	58		5.13						
PG80/3S-2	600	3	232	135	2.58	(F10/F12) /F14/F16	2#3#	F10(F14)	48.1(1 7/8")	φ40(12x8)	18
PG80/4S-2		4	174		3.44						
PG80/6S-2		6	116		5.17						
PGZ/3-1	1700	3	662	230	2.57	(F12/F14) /F16/F25	N/A	F10/F14/F16	54(2 1/8")	φ45(14x9)	42
PGZ/3-2		4	496		3.42		4#5#				
		6	331		5.14						
		3	662		2.57						
		4	496		3.42						
		6	331		5.14						
PGZ/4-1	2500	4	727	320	3.44	(F16Thickened) /F25/F30	N/A	F14(F16/F25)	60.32(2 3/8")	φ55(16x10)	74
2200	6	426	5.16								
PGZ/4-2	2500	4	727		3.44	5#7#	76.7(3")		φ70(20x12)	87	
2200	6	426	5.16								
PGZ/4-2A	3500	4	1017	3.44	F25/F30		82.55(3 1/4")	φ75(20x12)	93		
PGZ/6-1	5000	4	1467	600	3.41	(F25Thickened) /F30/F35	7#	F14/F16/(F25)	82.55(3 1/4")	φ70(20x12)	155
PGZ/8-1	4500	6	880		5.11		8#				
	5000	4	1467		3.41						
4500	6	880	5.11								
PGZ/10-1	8500	6	1667	1100	5.10	F30/F35/F40	N/A	(F16/F25)	95.25(3 3/4")	φ85(22x14)	285
PGZ/10-2	7500	8	1103		6.80						
	8500	6	1667		5.10						
	7500	8	1103		6.80						
PG80/6S-2L	600	7.68	101	135	5.95	(F10/F12) /F14/F16	2#3#	F10/F12/(F14)	48.1(1 7/8")	φ40(12x8)	34
12.52		62	9.70								
16.44		47	12.74								
20.48		38	15.87								
24.28		32	18.81								
28.24		27	21.88								
PGZ/3-1L	1700	7.68	284	230	5.98	(F12/F14) /F16/F25	N/A	F10/F12/(F14)	54(2 1/8")	φ45(14x9)	60
12.52		174	9.75								
16.44		133	12.81								
20.48		107	15.95								
24.28		90	18.91								
28.24		77	22.00								
PGZ/3-2L		7.68	284		5.98		4#5#		64(2 1/2")	φ55(16x10)	
12.52		174	9.75								
16.44		133	12.81								
20.48		107	15.95								
24.28	90	18.91									
PGZ/4-1L	2500	7.56	427	320	5.85	(F16Thickened) /F25/F30	N/A	F10/F12/F14 (F16)	60.32(2 3/8")	φ55(16x10)	97
12.04		268	9.32								
16.76		193	12.97								
20.68		156	16.01								
23.96		135	18.55								
28.04		115	21.70								
32.36		100	25.05								
37.72		86	29.20								
PGZ/4-2L		7.56	427		5.85		5#7#		76.7(3")	φ70(20x12)	
12.04		268	9.32								
16.76		193	12.97								
20.68		156	16.01								
23.96		135	18.55								
28.04		115	21.70								
32.36		100	25.05								
37.72		86	29.20								

Multi-turn Gearbox Selection Sheet

PGZ/4-2LA	3500	7.56	598	350	5.85	F25/F30	5#/7#	F10/F12/F14 (F16)	85(3 3/8")	φ75(20x12)	118
		12.04	376		9.32						
		16.76	270		12.97						
		20.68	219		16.01						
		23.96	189		18.55						
		28.04	161		21.70						
		32.36	140		25.05						
		37.72	120		29.20						
PGZ/6-1L	4500	11.34	518	600	8.70	(F25Thickened) /F30/F35	7#	F10/F12/F14 (F16)	82.55(3 1/4")	φ70(20x12)	195
		18.06	325		13.85						
		25.14	233		19.28						
		31.02	189		23.79						
		35.94	163		27.56						
		42.06	140		32.25						
		48.54	121		37.22						
		56.58	104		43.39						
PGZ/8-1L	4500	11.34	518	600	8.70	(F25Thickened) /F30/F35	8#	F10/F12/F14 (F16)	115(4 1/2")	φ100(28x16)	195
		18.06	325		13.85						
		25.14	233		19.28						
		31.02	189		23.79						
		35.94	163		27.56						
		42.06	140		32.25						
		48.54	121		37.22						
		56.58	104		43.39						
PGZ/8-1LA	7200	7.56	1242	1100	5.80	F30/F35	8#	F14/F16(F25)	95.25(3 3/4")	φ85(22x14)	351
		12.04	780		9.23						
		16.76	560		12.85						
		20.68	454		15.86						
		23.96	392		18.37						
		28.04	335		21.50						
		32.36	290		24.81						
		37.72	249		28.92						
PGZ/10-1L	7500	17.68	555	1100	13.53	F30/F35/F40	N/A	F14/F16(F25)	95.25(3 3/4")	φ85(22x14)	351
		25.20	389		19.28						
		33.76	290		25.83						
		40.48	242		30.97						
		48.96	200		37.45						
		55.92	175		42.78						
		64.40	152		49.27						
		74.88	131		57.28						
		81.60	120		62.42						
PGZ/10-1LA	9000	87.84	112	1100	67.20	F30/F35/F40	N/A	F14/F16(F25)	95.25(3 3/4")	φ85(22x14)	351
		94.80	103		72.52						
		102.80	95		78.64						
		13.26	887		10.14						
		18.90	622		14.46						
		25.32	465		19.37						
		30.36	388		23.23						
		36.72	320		28.09						
		41.94	281		32.08						
PGZ/10-1LA	9000	48.30	244	1100	36.95	F30/F35/F40	N/A	F14/F16(F25)	95.25(3 3/4")	φ85(22x14)	351
		56.16	209		42.96						
		61.20	192		46.82						
		65.88	179		50.40						
		71.10	165		54.39						
		77.10	153		58.98						

Multi-turn Gearbox Selection Sheet

PGZ/10-2L	7500	17.68	555	1100	13.53	F30/F35/F40	N/A	F14/F16(F25)	125(5")	φ110(28x16)	351
		25.20	389		19.28						
		33.76	290		25.83						
		40.48	242		30.97						
		48.96	200		37.45						
		55.92	175		42.78						
		64.40	152		49.27						
		74.88	131		57.28						
		81.60	120		62.42						
		87.84	112		67.20						
		94.80	103		72.52						
		102.80	95		78.64						
PGZ/10-2LA	9000	13.26	887	1100	10.14	F30/F35/F40	N/A	F14/F16(F25)	125(5")	φ110(28x16)	351
		18.90	622		14.46						
		25.32	465		19.37						
		30.36	388		23.23						
		36.72	320		28.09						
		41.94	281		32.08						
		48.30	244		36.95						
		56.16	209		42.96						
		61.20	192		46.82						
		65.88	179		50.40						
PGZ/10-2LB	12000	71.10	165	1100	54.39	F30/F35/F40	N/A	F14/F16(F25)	125(5")	φ110(28x16)	351
		77.10	153		58.98						
		11.05	1420		8.45						
		15.75	996		12.05						
		21.10	743		16.14						
		25.30	620		19.35						
		30.60	513		23.41						
		34.95	449		26.74						
		40.25	390		30.79						
		46.80	335		35.80						
PGZ/12	23000	51.00	308	1900	39.02	F40/F48	N/A	F10/F14/F16	125(5")	φ110(28x16)	525
		54.90	286		42.00						
		59.25	265		45.33						
		64.25	244		49.15						
		6.27	136.86		94.23						
		5.67	123.64		85.12						
		5.15	112.45		77.42						
		4.71	102.86		70.82						
		5.67	98.91		68.10						
		5.15	89.96		61.94						
		4.71	82.29		56.65						
		4.33	75.64		52.08						
		4.00	69.82		48.07						
	3.71	64.68	44.54								
	3.44	60.12	41.39								
17000	3.21	56.04	38.58	F16/F25							
	3.00	52.36	36.05								
	2.64	46.02	31.68								
	2.33	40.73	28.04								
	2.08	36.25	24.96								
	1.76	30.70	21.13								
	3.29	26.29	18.10								
	2.53	20.24	13.93								
	2.00	16.00	11.02								

Multi-turn Gearbox Selection Sheet

PGZ/14	29000	136.86	308	2500	94.23	F40/F48	N/A	F10/F14/F16	155(6")	φ130(32x18)	538
		123.64	341		85.12						
		112.45	375		77.42						
		102.86	410		70.82						
		98.91	426		68.10						
		89.96	468		61.94						
		82.29	512		56.65						
		75.64	557		52.08						
		69.82	603		48.07						
		64.68	651		44.54						
		60.12	701		41.39						
		56.04	752		38.58						
		52.36	804		36.05						
		46.02	915		31.68						
		40.73	1034		28.04						
		36.25	1162		24.96						
		30.70	1372		21.13						
	17000	26.29	939	1900	18.10			F16/F25			
		20.24	1220		13.93						
		16.00	1543		11.02						

Note: 1. The ratio is marked in red, ISO5210 input and output flanges in brackets, and all output flanges of JB2920 are customizable items. The delivery cycle of customizable items is long, and the delivery cycle should be confirmed during model selection.
2. The thickened flange is that the thickness of the gearbox flange is thicker than that of the conventional model, and the height of the whole gearbox becomes higher, and the transition