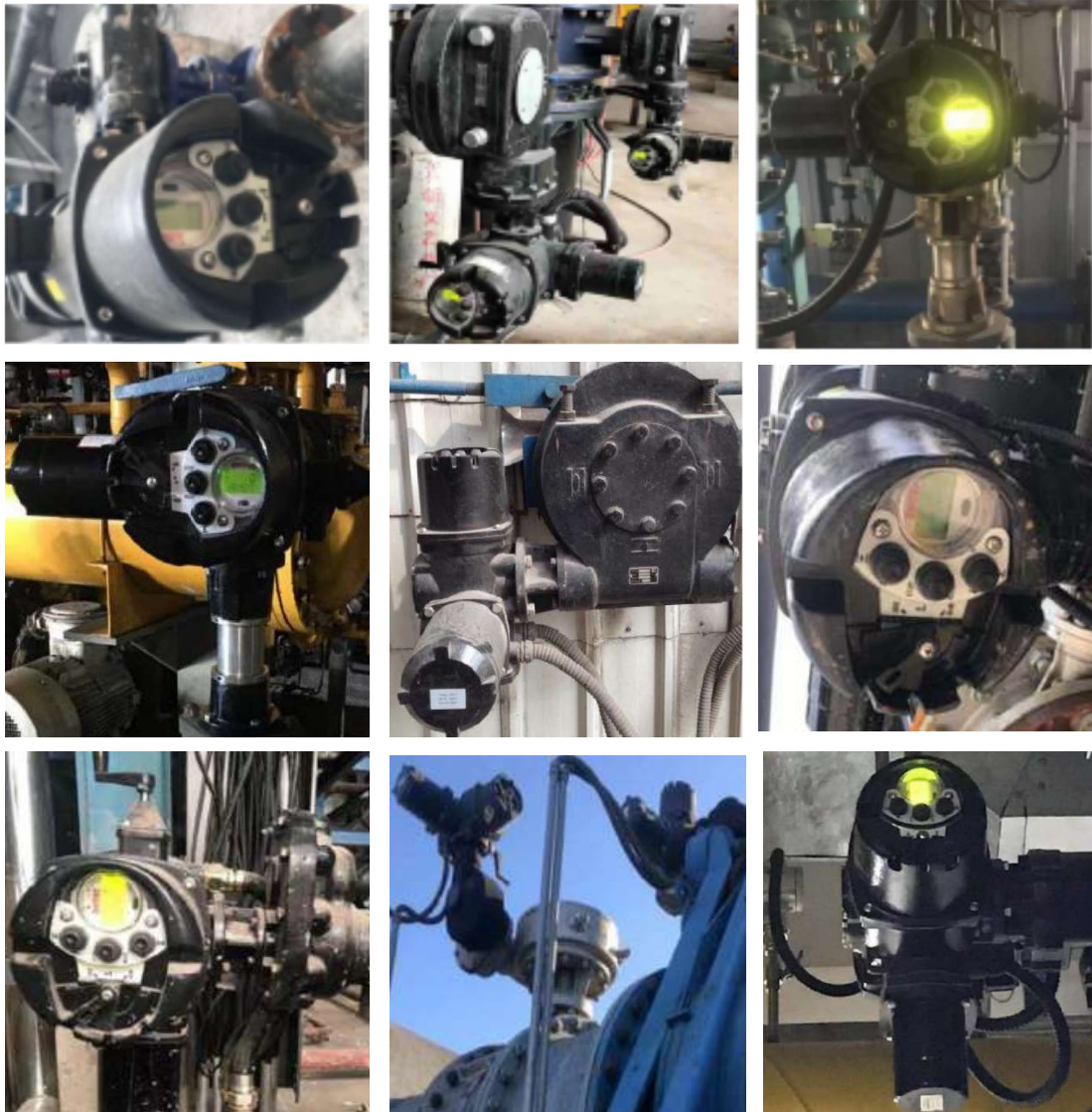




Gearbox+ Base level

ASNG Part-turn Gearbox+ Base Level



Introduction

Ontrac ASNG series part-turn gearbox is precision device (rotary) with high quality and safety, intended to reduce the speed and increase the torque. It is easy to process axis hole and key groove because of the removable sleeve.

Characters

1. Totally enclosed gear with good sealing
2. Ductile cast iron housing with reliable strength
3. Grease well filled to increase service life
4. Comprehensive gear ratios for different applications
5. Removable output sleeve
6. Optional travelling sleeve
7. Adjustable stopper ($\pm 5^\circ$)
8. Optional flange to suit for different type of valve
9. Sealed structure with good waterproof performance

Application

ASNG series part-turn gearboxes are used for manual and motorized (electric actuator) applications of ball valves, butterfly valves, plug valves, dampers and other 90° rotary (quarter-turn) valves.

Options

- | | |
|--|--|
| ● IP68 | ● Radial arm |
| ● Stage reducer | ● Travelling nut |
| ● Stopper | ● Input flanges suit for electric actuator |
| ● Lockable handwheel | ● Output flange |
| ● Working temperature:
-40°C to 120°C | ● Painting color |

Operating Environment

ASNG part-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.

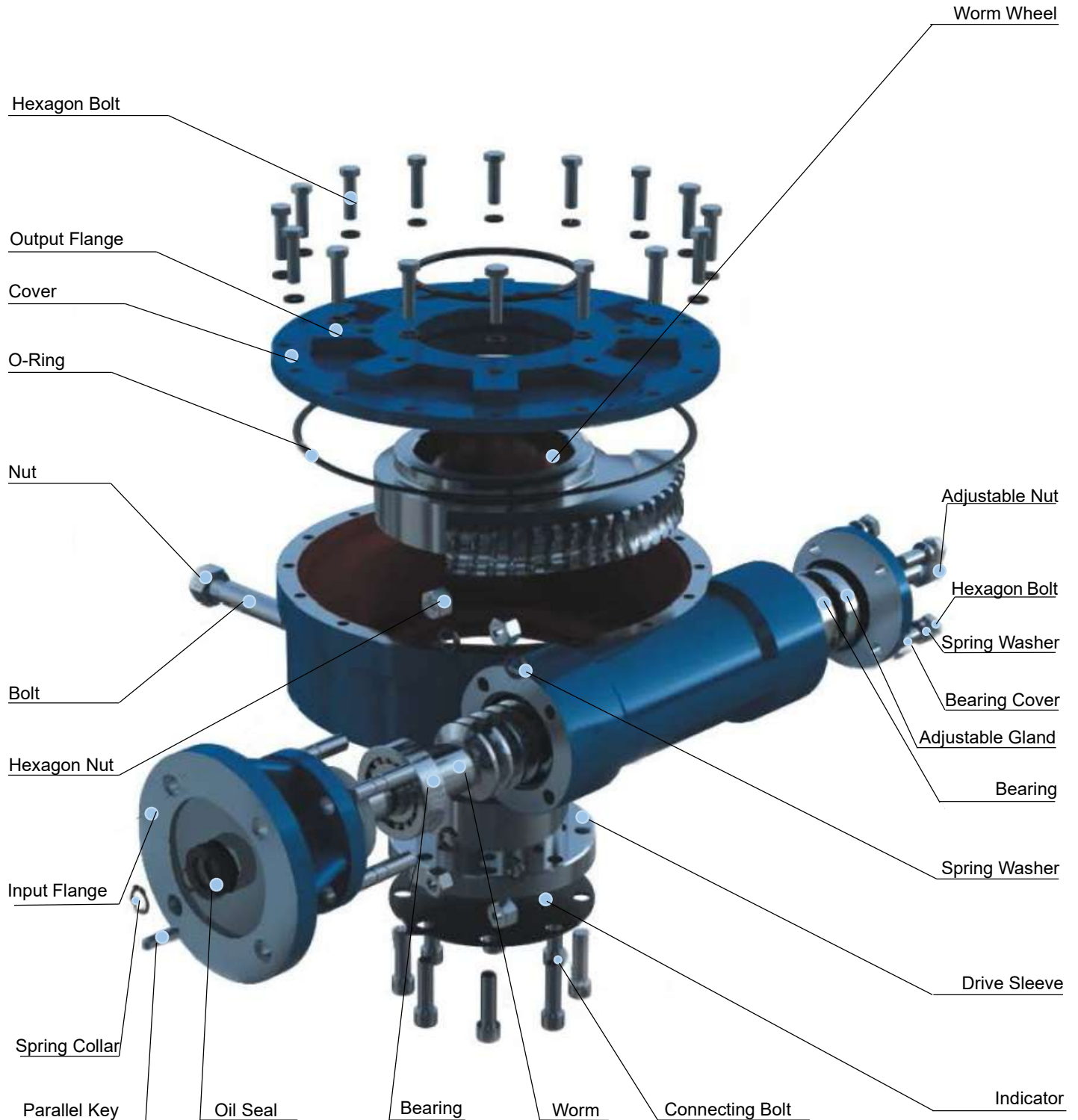
Factory Standard:

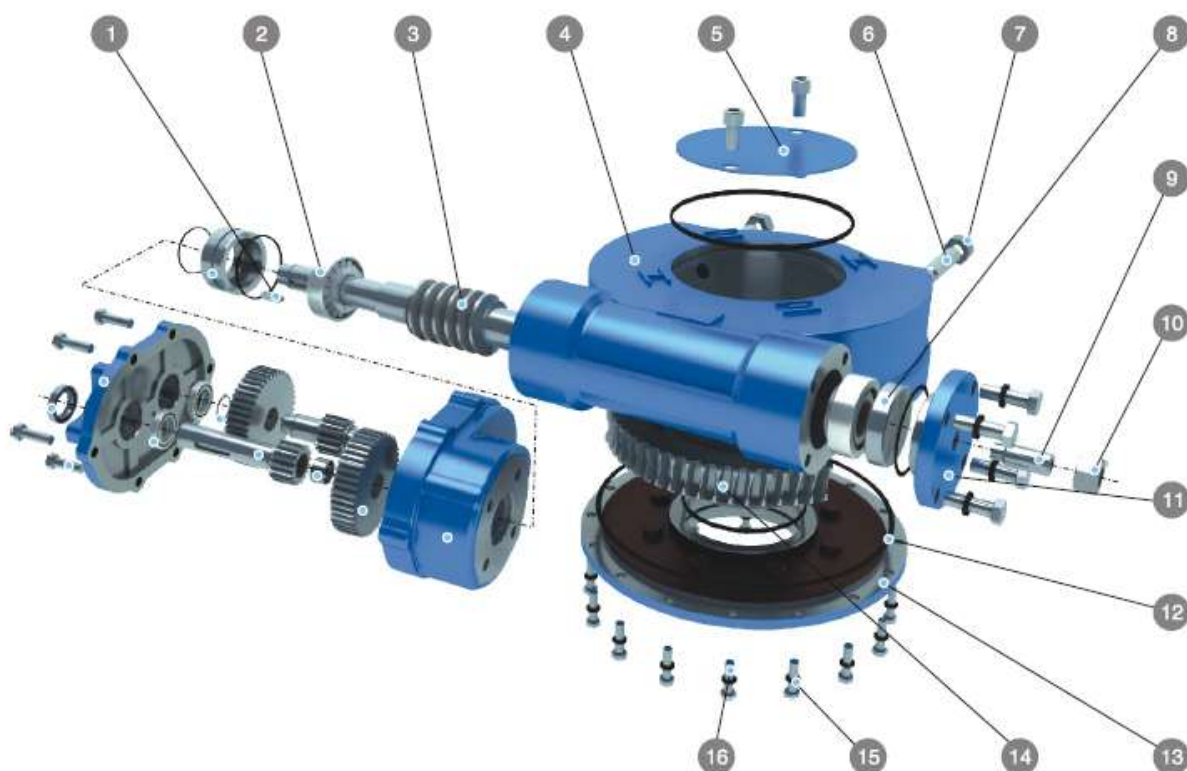
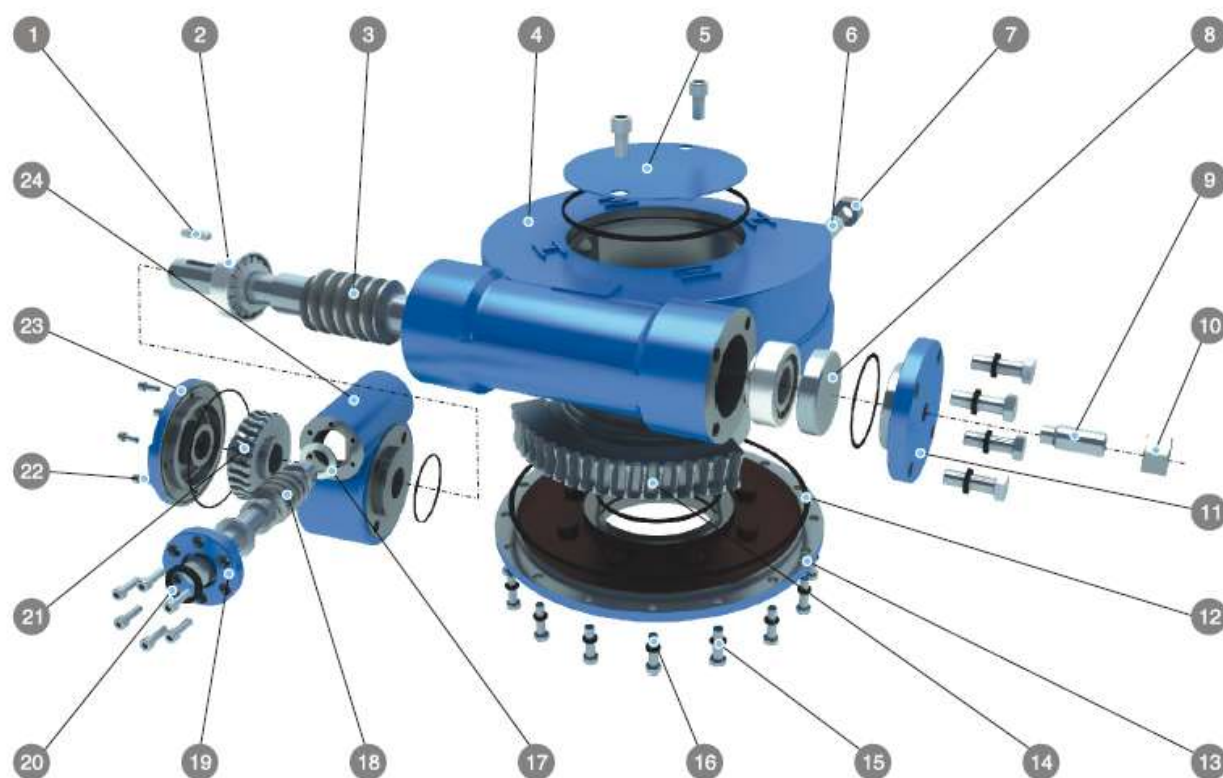
- Enclosure: IP67
Option: IP68 (6 meters, 72 hours)
- Working Temperature: From -20°C to 120°C
(-4°F to 248°F)
- Painting: Black RAL9005

Connect With Valve

The flange connecting to valve is according to ENISO5210









ASNG First-stage



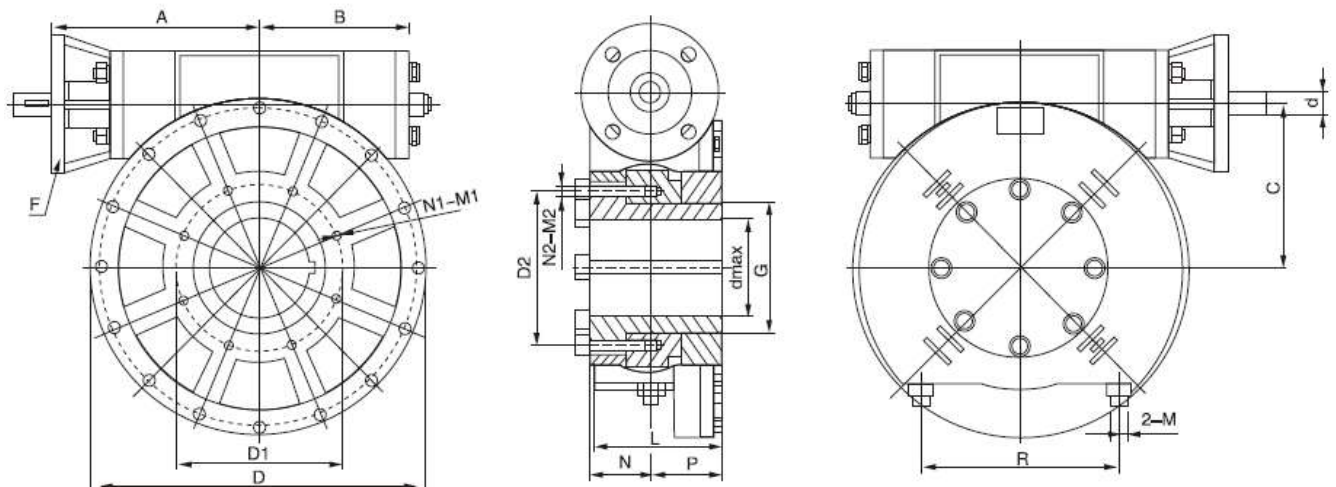
ASNG Second-stage

ASNG First-stage Gearbox Material Sheet

No.	Description	Material	No.	Description	Material
1	Parallel key	Steel	9	Adjustable bolt	Steel
2	Tapered roller bearing	Bearing steel	10	Adjustable nut	Steel
3	Worm	Steel	11	Bearing cover	Steel
4	Housing	Ductile cast iron	12	O-ring	NBR
5	Indicator	Steel	13	Cover	Ductile cast iron
6	Fitting bolt	Steel	14	Worm gear	Ductile cast iron
7	Fitting nut	Steel	15	Spring washer	Spring steel
8	Adjustable gland	Steel	16	Fastener	Steel

ASNG Second-stage Gearbox Material Sheet

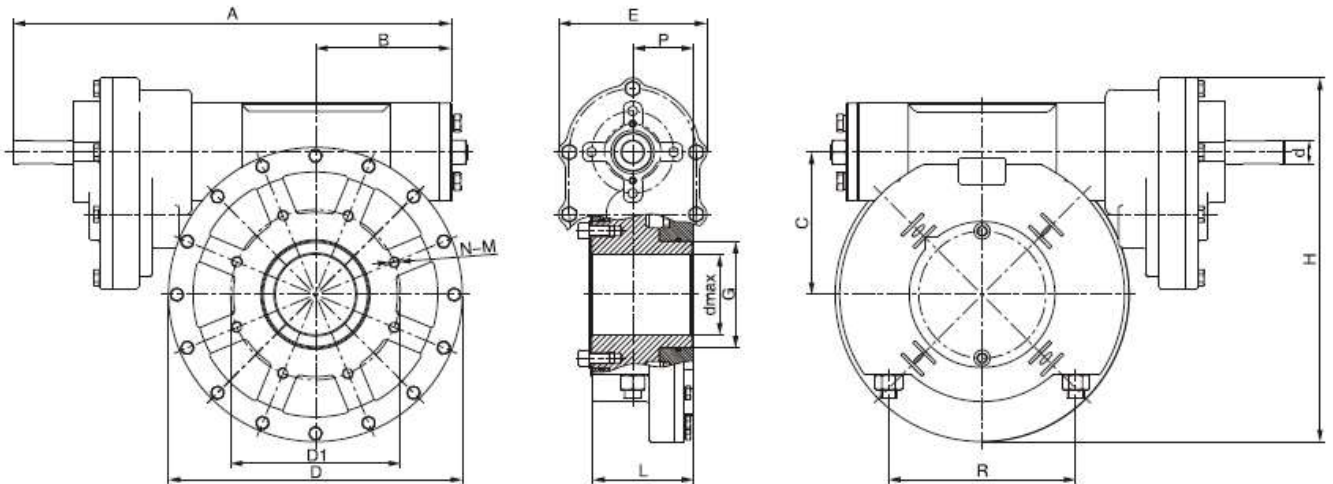
No.	Description	Material
17	Needle roller bearing	Bearing steel
18	2-stage worm	Steel
19	Bearing cover	Steel
20	Oil seal	NBR
21	2-stage worm gear	Ductile cast iron
22	Fastener	Steel
23	2-stage cover	Ductile cast iron
24	2-stage housing	Ductile cast iron



Model (First stage)	Dimension (mm)														Weight (kg)
	A	B	C	F	L	N	P	D1(N1-M1)	D	D2(N2-M2)	G	d	dmax	R(2-M)	
ASNG 50/D	125	89	87.5	F10/F14	82	36	48	Ø102 (4-M10)	Ø190	Ø70 (8-M8)	Ø60	15	Ø43	110 (2-M10)	15
ASNG 100/D	148	103	100	F10/F14	99	42	60	Ø140 (4-M16)	Ø218	Ø86 (8-M8)	Ø73	20	Ø52	136 (2-M12)	23
ASNG 300/D	201	140	140	F10/F14/F16	129	49	82	Ø165 (4-M20)	Ø300	Ø120 (8-M10)	Ø103	20	Ø76	190 (2-M16)	50
ASNG 600/D	235	165	164	F14/F16	142	56	88	Ø254 (8-M16)	Ø353	Ø140 (8-M12)	Ø120	30	Ø87	224 (2-M20)	83
ASNG 1000/D	293	203	213	F14/F16/F25	153	64	92	Ø254 (8-M16)	Ø440	Ø190 (8-M16)	Ø160	30	Ø120	280 (2-M24)	144
ASNG 2000/D	320	231	248.5	F14/F16/F25	199	94	108	Ø254 (8-M16)	Ø513	Ø236 (8-M20)	Ø200	35	Ø153	303 (2-M24)	254
ASNG 3500/D	343	262	284	F14/F16/F25	208	96	115	Ø298 (8-M20)	Ø570	Ø262 (8-M20)	Ø220	40	Ø170	347 (2-M27)	327
ASNG 6500/D	374.5	281.5	324	F16/F25/F30	242	105	141	Ø356 (8-M30)	Ø642	Ø294 (12-M20)	Ø250	50	Ø190	379 (2-M30)	493

Remarks for customized dimensions:

1. F = Dimension of the flange for connecting electric actuator with gearbox
2. Dmax = Acceptable max dimension of drive sleeve
3. L = Acceptable max length of stem
4. All size remarks are related to above drawing and chart



ASNG Series Dimension Table

Model (Second stage)	Dimension (mm)													Weight (kg)
	A	B	C	D	D1(N-M)	E	G	H	L	P	R	d	dmax	
ASNG 200/D	398	103	100	Ø218	Ø140 (4-M16)	164	Ø73	291	99	60	136	Ø25	Ø52	36
SG65/2+ASNG 300/D	468	140	140	Ø300	Ø165 (4-M20)	164	Ø103	372	129	82	190	Ø25	Ø76	62
SG65/2+ASNG 600/D	515	165	164	Ø353	Ø254 (8-M16)	164	Ø120	422.5	142	88	224	Ø25	Ø87	93
SG65/2+ASNG 1000/D	655.5	203	213	Ø440	Ø254 (8-M16)	222	Ø160	544	153	92	280	Ø35	Ø120	167
SG80/2+ASNG 2000/D	708.5	231	248.5	Ø513	Ø254 (8-M16)	222	Ø200	616.5	199	108	303	Ø35	Ø153	276
SG80/2+ASNG 3500/D	762.5	262	284	Ø570	Ø298 (8-M20)	222	Ø220	680	208	115	347	Ø35	Ø170	343
SG80/2+ASNG 6500/D	866	281.5	324	Ø642	Ø356 (8-M30)	310	Ø250	800	242	141	379	Ø45	Ø190	546

Remarks: 1. dmax = Acceptable max dimension of drive sleeve
2. L = Acceptable max length of stem

Part-turn Gearbox Selection Sheet

Type	Ratio		Max. Actuator Input Torque Nm	Torque Factor $\pm 10\%$	Max. Gearbox Output Torque Nm	Input Flange ISO5210	Input Flange NO. JB2920	Output Flange ISO5211		Max.Stem Diameter mm	Max.Stem Height mm	Weight kg
	Tier1	Total						Standard	Thickened			
ASNG50/D	45	45	37	13.5	500	F07/F10	N/A	N/A	F07/F10	30	75	7
ASNG50/D	58	58	57	17.4	1000	F10(F14)	N/A	N/A	F10/F12/F14	43	82	16
ASNG100/D	68	68	83	20.4	1700	F10(F14)	2#	N/A	F12/F14/F16	52	99	25
ASNG200/D	68	131	54	31.3	1700	F10/F12(F14)	1# 2# 3#	N/A	F12/F14/F16	52	99	38
	68	213	33	51.1								
	68	279	25	67.1								
	68	348	20	83.6								
	68	413	17	99.1								
	68	479	15	115.1								
ASNG300/D	67	67	199	20.1	4000	F10/F14(F16)	2# 3#	N/A	F14/F16/F25	76	124	44
SG65/2+ ASNG300/D	67	129	130	30.9	4000	F10/F12(F14)	1# 2# 3#	N/A	F14/F16/F25	76	124	54
	67	210	79	50.3								
	67	275	61	66.1								
	67	343	49	82.3								
	67	407	41	97.6								
	67	472	35	113.4								
ASNG600/D	69	69	338	20.7	7000	F14(F16)	3# 4#	F16/F25	(F30)	87	137	87
SG65/2+ ASNG600/D	69	132	220	31.8	7000	F10/F12(F14)	1# 2# 3#	F16/F25	(F30)	87	137	93
	69	216	135	51.8								
	69	284	103	68.1								
	69	353	83	84.8								
	69	419	70	100.5								
	69	486	60	116.7								
ASNG1000/D	60	60	889	18.0	16000	F14(F16/F25)	4# 5#	F25/F30	(F35)	120	151	121
SG65/2+ ASNG1000/D	60	113	588	27.2	16000	F10/F12/F14(F16)	2# 3# 4#	F25/F30	(F35)	120	151	146
	60	181	369	43.3								
	60	251	265	60.3								
	60	310	215	74.3								
	60	359	185	86.3								
	60	420	159	100.8								
	60	485	138	116.4								
	60	566	118	135.8								
SG65/3+ ASNG1000/D	60	617	108	148.1		F10(F14)	2# 3#	F25/F30	(F35)	120	151	164
	60	669	100	160.6								
	60	729	91	175.0								
	60	796	84	191.0								
	60	820	81	196.8								
	60	889	75	213.4								
	60	968	69	232.3								
	60	1025	65	246.0								
	60	1107	60	265.7								
	60	1202	55	288.5								
	60	1339	50	321.4								
	60	1443	46	346.3								
SG80/2+ ASNG2000/D	60	1561	43	374.6								
	60	1698	39	407.5								
	60	113	1029	27.2	28000	F10/F12/F14(F16)	2# 3# 4#	F25/F30	(F35/F40)	153	194	290
	60	181	646	43.3								
	60	251	464	60.3								
	60	310	377	74.3								
	60	359	325	86.3								
	60	420	278	100.8								
	60	485	241	116.4								
	60	566	206	135.8								

Part-turn Gearbox Selection Sheet

SG80/3+ ASNG2000/D	60	617	189	148.1	28000	F10(F14)	2# 3#	F25/F30	(F35/F40)	153	194	308
	60	669	174	160.6								
	60	729	160	175.0								
	60	796	147	191.0								
	60	820	142	196.8								
	60	889	131	213.4								
	60	968	121	232.3								
	60	1025	114	246.0								
	60	1107	105	265.7								
	60	1202	97	288.5								
	60	1339	87	321.4								
	60	1443	81	346.3								
	60	1561	75	374.6								
	60	1698	69	407.5								
SG80/2+ ASNG3500/D	60	113	1470	27.2	40000	F10/F12/F14(F16)	2# 3# 4#	F30	(F35/F40/F48)	170	203	353
	60	181	923	43.3								
	60	251	663	60.3								
	60	310	538	74.3								
	60	359	464	86.3								
	60	420	397	100.8								
	60	485	344	116.4								
	60	566	295	135.8								
SG80/3+ ASNG3500/D	60	617	270	148.1		F10 (F14)	2# 3#	F30	(F35/F40/F48)	170	203	370
	60	669	249	160.6								
	60	729	229	175.0								
	60	796	209	191.0								
	60	820	203	196.8								
	60	889	187	213.4								
	60	968	172	232.3								
	60	1025	163	246.0								
	60	1107	151	265.7								
	60	1202	139	288.5								
	60	1339	124	321.4								
	60	1443	116	346.3								
	60	1561	107	374.6								
	60	1698	98	407.5								
SG80/2+ ASNG6500/D	60	189	1495	43.5	65000	F14(F16/F25)	3# 4# 5#	F35	(F40/F48)	190	237	554
	60	253	1116	58.2								
	60	304	931	69.8								
	60	367	770	84.5								
	60	419	674	96.5								
	60	483	585	111.1								
	60	561	504	129.0								
	60	612	462	140.8								
	60	659	429	151.5								
	60	711	397	163.5								
	60	771	367	177.3								
SG80/3+ ASNG6500/D	60	841	336	193.4		F10/ F14(F16)	4# 5#	F35	(F40/F48)	190	237	570
	60	946	299	217.6								
	60	1032	274	237.4								
	60	1129	250	259.7								
	60	1218	232	280.1								
	60	1320	214	303.6								
	60	1414	200	325.2								
	60	1547	183	355.8								
	60	1701	166	391.2								
	60	1848	153	425.0								
	60	2002	141	460.5								
	60	2179	130	501.2								
	60	2274	124	523.0								
	60	2459	115	565.6								
	60	2671	106	614.3								
	60	2924	97	672.5								

Part-turn Gearbox Selection Sheet

SG80/3+ ASNG6500/D	60	3155	90	725.7	65000	F10/ F14(F16)	4# 5#	F35	(F40/F48)	190	237	570
	60	3421	83	786.8								
SG80/4+ ASNG6500/D	62	195	2227	44.9	100000	F14/F16(F25)	3# 4# 5#	N/A	F40/F48/F60	220	265	758
	62	262	1662	60.2								
	62	314	1386	72.1								
	62	379	1146	87.2								
	62	433	1003	99.7								
	62	499	871	114.8								
	62	580	749	133.4								
	62	632	688	145.4								
	62	680	639	156.5								
	62	735	592	169.0								
SG80/5+ ASNG6500/D	62	797	546	183.2	100000	F10/F14(F16)	4# 5#	N/A	F40/F48/F60	220	265	779
	62	869	500	199.9								
	62	977	445	224.7								
	62	1067	407	245.4								
	62	1166	373	268.2								
	62	1259	345	289.6								
	62	1364	319	313.7								
	62	1461	298	336.0								
	62	1598	272	367.5								
	62	1757	247	404.1								
	62	1910	228	439.3								
	62	2068	210	475.6								
	62	2252	193	518.0								
	62	2350	185	540.5								
	62	2541	171	584.4								
SG80/6+ ASNG13500/D	60	2760	158	634.8	145000	F14(F16/F25)	3# 4# 5#	F35/F40/F48	(F60)	230	290	1030
	60	3022	144	695.1								
	60	3260	133	749.8								
	60	3535	123	813.1								
	60	189	3487	41.6								
	60	253	2603	55.7								
	60	304	2171	66.8								
	60	367	1795	80.8								
	60	419	1572	92.3								
	60	483	1365	106.3								
SG80/7+ ASNG13500/D	60	561	1175	123.4	145000	F10/ F14(F16)	4# 5#	F35/F40/F48	(F60)	230	290	1160
	60	612	1077	134.6								
	60	659	1000	144.9								
	60	711	927	156.4								
	60	771	855	169.6								
	60	843	782	185.5								
	60	938	703	206.4								
	60	1018	647	224.0								
	60	1167	565	256.7								
	60	1273	518	280.1								
	60	1373	480	302.1								
	60	1592	414	350.2								
	60	1740	379	382.8								
	60	1912	345	420.6								
	60	2077	317	456.9								
	60	2262	291	497.6								
	60	2477	266	544.9								
	60	2671	247	587.6								
	60	2885	228	634.7								
	60	3131	211	688.8								
	60	3274	201	720.3								
	60	3531	187	776.8								
	60	3827	172	841.9								
	60	4178	158	919.2								
	60	4500	146	990.0								
	60	4871	135	1071.6								

Part-turn Gearbox Selection Sheet

SG80/6+ ASNG25000/D	75	392	3015	86.2	260000	F16/F25(F30)	N/A	N/A	F48/F60/F72	350	345	1748
	75	450	2626	99.0								
	75	543	2176	119.5								
	75	600	1970	132.0								
	75	683	1730	150.3								
	75	759	1557	167.0								
	75	825	1433	181.5								
	75	900	1313	198.0								
	75	986	1199	216.9								
	75	1062	1113	233.6								
	75	1200	985	264.0								
	75	1309	903	288.0								
SG80/7+ ASNG25000/D	75	1569	921	282.4	260000	F10/F12/F14(F16)	2# 3# 4#	N/A	F48/F60/F72	350	345	1767
	75	1800	802	324.0								
	75	2171	665	390.8								
	75	2400	602	432.0								
	75	2733	529	491.9								
	75	3035	476	546.3								
	75	3300	438	594.0								
	75	3600	401	648.0								
	75	3943	366	709.7								
	75	4246	340	764.3								
	75	4800	301	864.0								
	75	5236	276	942.5								
	75	5520	262	993.6								
	75	6240	231	1123.2								
	75	6807	212	1225.3								
SG80/6+ ASNG50000/D	75	7500	193	1350.0	500000	F16/ F25(F30)	N/A	N/A	F60/F72(max900)	400	410	2945
	75	8182	177	1472.8								
	75	795	2995	167.0								
	75	844	2821	177.2								
	75	898	2651	188.6								
	75	957	2488	201.0								
	75	1020	2334	214.2								
	75	1092	2180	229.3								
	75	1170	2035	245.7								
	75	1256	1896	263.8								
	75	1353	1760	284.1								
	75	1462	1629	307.0								
	75	1585	1502	332.9								
	75	1726	1379	362.5								
	75	1890	1260	396.9								
SG80/7+ ASNG50000/D	65	2079	1145	436.6	500000	F10/ F12/F14(F16)	2# 3# 4#	N/A	F60/F72(max900)	400	410	2970
	65	2304	1033	483.8								
	65	2574	925	540.5								
	65	3180	874	572.4								
	65	3378	822	608.0								
	65	3594	773	646.9								
	65	3828	726	689.0								
	65	4083	680	734.9								
	65	4368	636	786.2								
	65	4680	594	842.4								
	65	5025	553	904.5								
	65	5412	513	974.2								
	65	5981	464	1076.6								
	65	6379	435	1148.2								
	65	6825	407	1228.5								
	75	7312	380	1316.2								
	75	7851	354	1413.2								
	75	8456	328	1522.1								
	75	9140	304	1645.2								
	75	9909	280	1783.6								
	75	10790	257	1942.2								

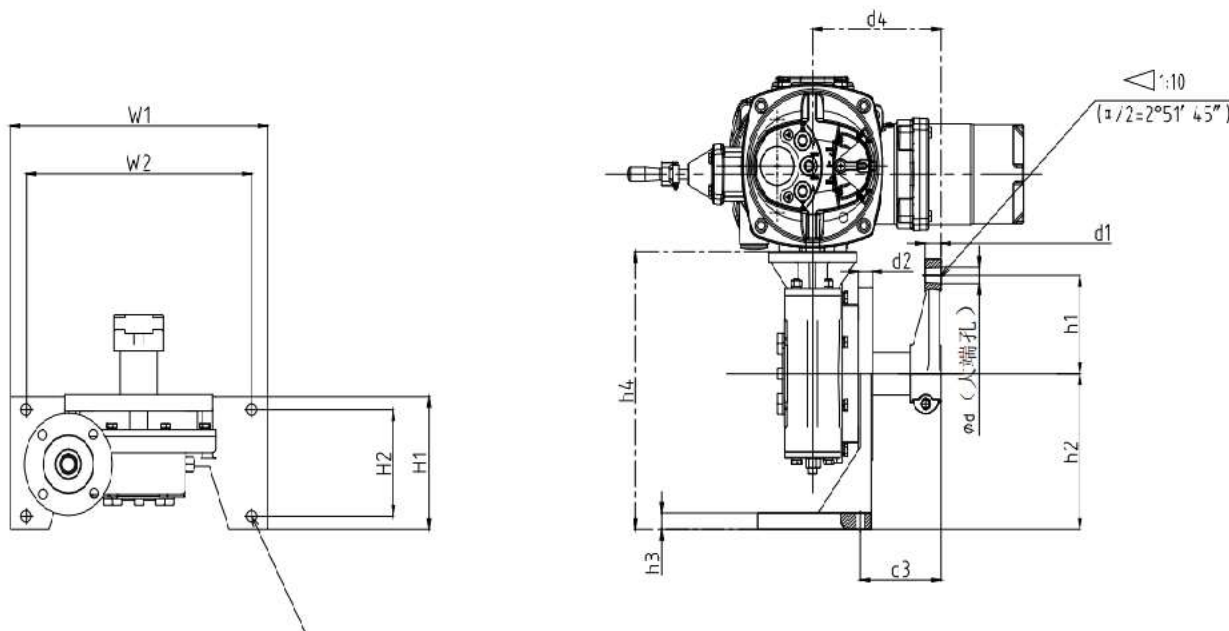
Part-turn Gearbox Selection Sheet

SG80/7+ ASNG50000/D	75	11812	235	2126.2	500000	F10/ F12/F14(F16)	2# 3# 4#	N/A	F60/F72(max900)	400	410	2970
	75	12998	214	2339.6								
	75	14400	193	2592.0								
	75	16087	173	2895.7								
SG80/8+ ASNG50000/D	65	946	3020	198.7	600000	F16/ F25(F30)	N/A	N/A	F60/F72(max900)	400	410	2945
	65	1014	2818	212.9								
	65	1088	2626	228.5								
	65	1172	2438	246.1								
	65	1267	2255	266.1								
	65	1374	2079	288.5								
	65	1496	1910	314.2								
	65	1638	1744	344.0								
	65	1802	1586	378.4								
	65	1996	1431	419.2								
SG80/9+ ASNG50000/D	65	2230	1281	468.3	600000	F10/ F12/F14(F16)	2# 3# 4#	N/A	F60/F72(max900)	400	410	2970
	65	2756	1209	496.1								
	65	2927	1139	526.9								
	65	3114	1070	560.5								
	65	3317	1005	597.1								
	65	3538	942	636.8								
	65	3785	881	681.3								
	65	4056	822	730.1								
	65	4355	765	783.9								
	65	4690	711	844.2								
	65	5183	643	932.9								
	65	5529	603	995.2								
	65	5915	564	1064.7								
	65	6337	526	1140.7								
	65	6804	490	1224.7								
	65	7328	455	1319.0								
	65	7921	421	1425.8								
	65	8588	388	1545.8								
	65	9351	356	1683.2								
	65	10237	326	1842.7								
	65	11265	296	2027.7								
	65	12480	267	2246.4								
	65	13942	239	2509.6								

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 item 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 flange is not added. See the drawing for details.

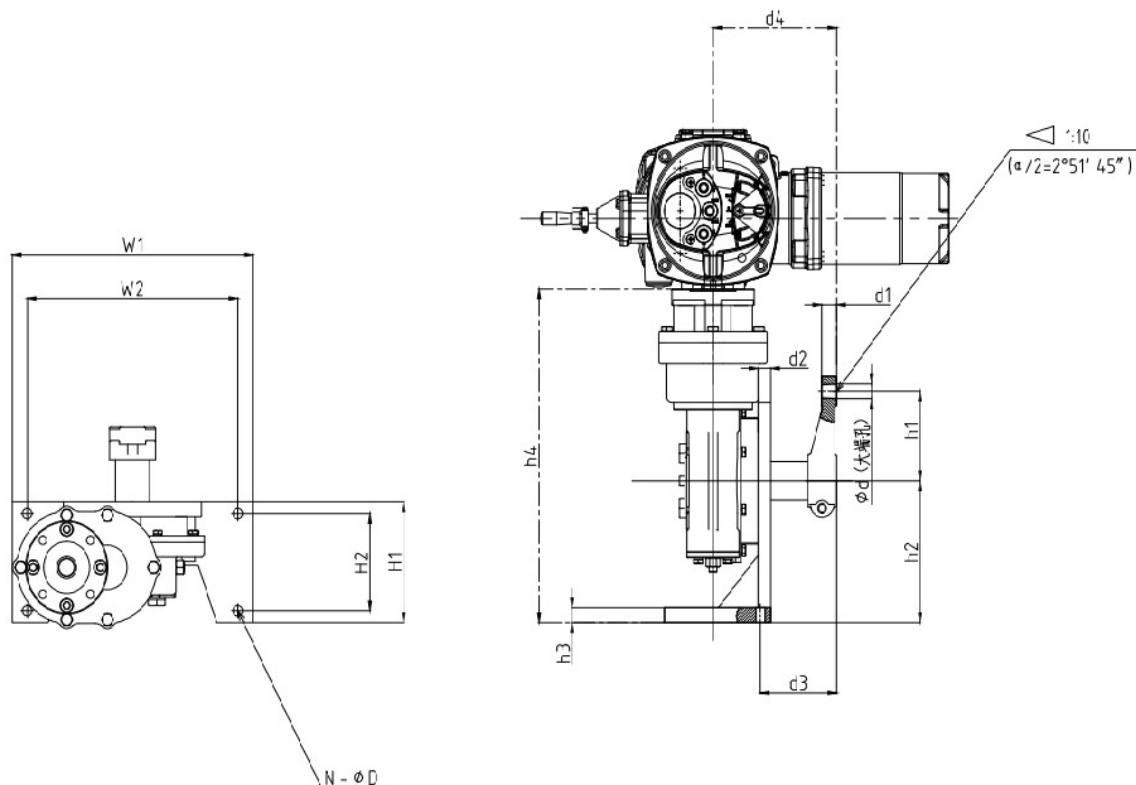
ASNG first-stage gearbox with base and level



The base level installation should have sufficient swing arm space. If the swing arm needs to swing within the dead zone range, the base should be installed on a platform or an optional connecting piece should be added. For specific details, please contact the manufacturer.

Model	Input	W1	W2	H1	H2	d1	d2	d3	d4	φd	h1	h2	h3	h4	N-φD
ASNG50	F10	245	220	160	130	21	20	105	165	18	100	128	20	253	4-φ12
ASNG100	F10	365	320	162	130	23	20	116	185	18	120	190	20	338	4-φ14
ASNG200	F10	365	320	162	130	23	20	116	185	18	120	190	20	338	4-φ14
ASNG300	F10	424	390	215	180	26	20	130	215	20	170	215	20	416	4-φ14
ASNG600	F10	480	430	250	200	30	20	128	212	24	170	250	20	485.5	4-φ14
ASNG1000	F14	560	510	320	270	37	25	159	250	30	250	305	25	598	4-φ22

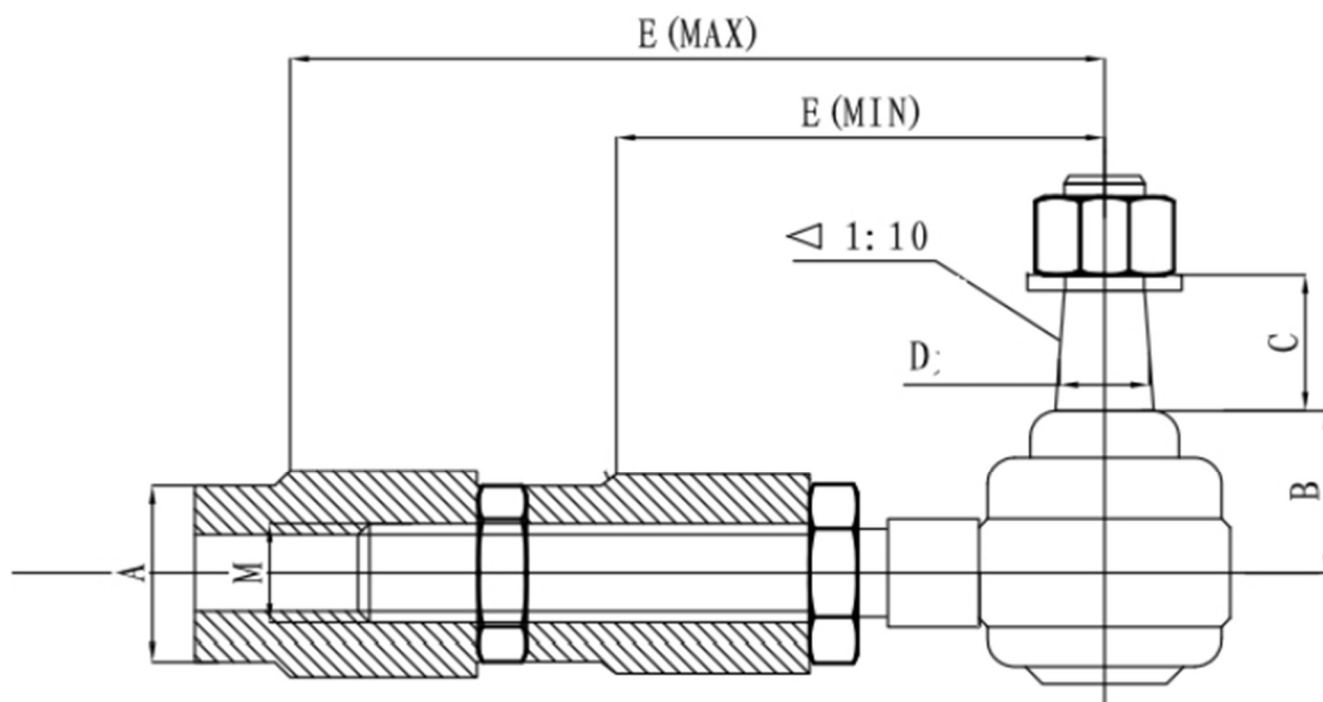
ASNG second-stage gearbox with base and level



The base level installation should have sufficient swing arm space. If the swing arm needs to swing within the dead zone range, the base should be installed on a platform or an optional connecting piece should be added. For specific details, please contact the manufacture

Model	Input	W1	W2	H1	H2	d1	d2	d3	d4	φd	h1	h2	h3	h4	N-φD
SG65/2+ASNG200	F10	365	320	162	130	23	20	116	188	20	120	190	20	447	4-φ14
SG65/2+ASNG300	F10	424	390	215	180	31	20	130	214.5	24	170	215	20	505	4-φ14
SG65/2+ASNG600	F10	480	430	250	200	37	20	128	211	24	170	250	20	562.5	4-φ14
SG65/2+ASNG1000	F14	560	510	320	270	34	25	159	250.5	30	250	305	25	698	4-φ22
SG80/2+ASNG2000	F14	685	600	320	270	37	25	131	239	38	250	340	25	758	4-φ22

ASNG gearbox base level with hinge



Model	Hinge torque (Nm)	A	B	C	D	M	E(MAX)	E(MIN)	Adjust range (mm)
ASNG50 ASNG100 ASNG200	250	Φ30	26	20	Φ18	M18X15	120	65	0-55
ASNG300 SG65/2+ASNG200	600	Φ34	31	26	Φ20	M20X15	140	70	0-70
ASNG600 SG65/2+ASNG300	1600	Φ39	33	30	Φ24	M22X15	150	70	0-80
ASNG1000	6000	Φ48	40	34	Φ30	M27X15	220	110	0-110
SG65/2+ASNG600 SG65/2+ASNG1000 SG80/2+ASNG2000	10000	Φ50	40	34	Φ38	M30X2.0	220	110	0-110

Note: 1.) The rotation angle of the pin shaft is $20^{\circ} \pm 2^{\circ}$.

2.) The taper of the conical pin shaft is 1:10.