



背隙 < 6' 傘齒輪減速箱

中心距 50

中心距 63

中心距 80

BG-bevel gear units with <6' backlash

Construction-size 50

Construction-size 63

Construction-size 80

GDA2 – GDA3

GDA4 – GDA5

GDA6 – GDA7

聯軸器及免鍵軸襯

Couplings and shrink-discs

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Selection and load tables

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安裝及維護

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伺服電機選配表

Motor applications

GG17 – GG31



<6 arcmin



ATLANTA

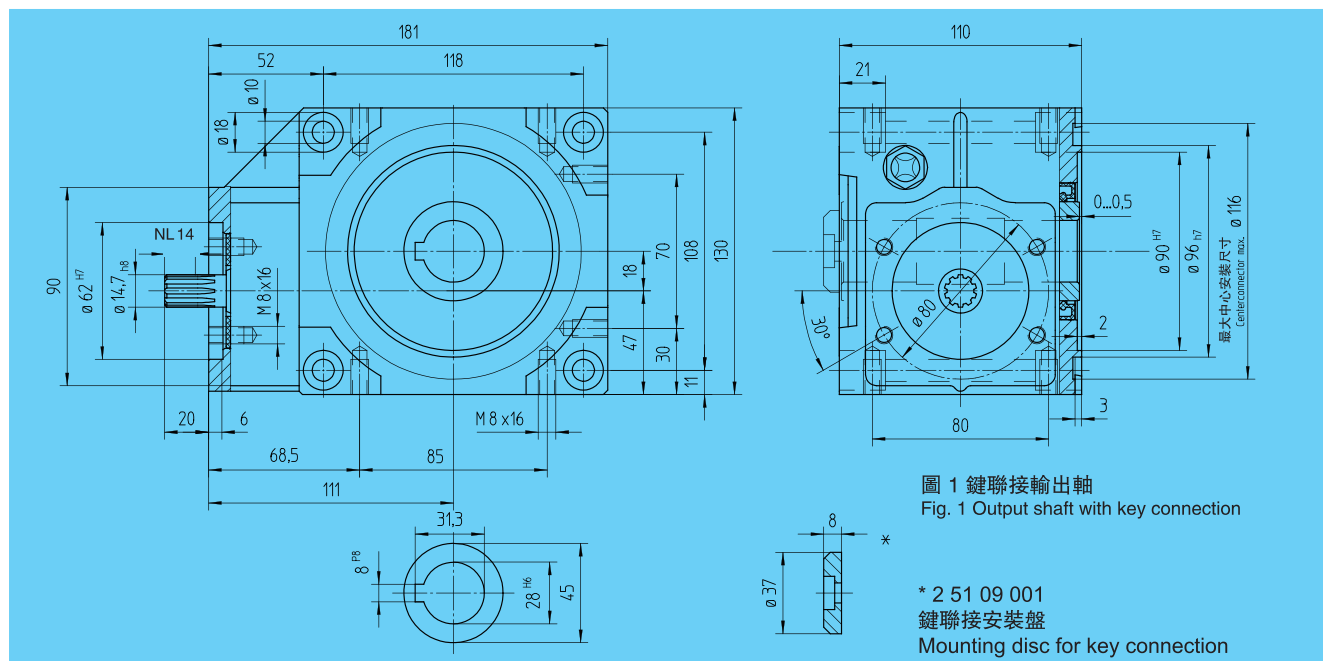
背隙 < 6' 傘齒輪減速機
BG-bevel gear unit with <6' backlash

鍵聯接 / Key connection

結構尺寸 / Construction-size

BG 50

5 個安裝面 / 5 Mounting surfaces

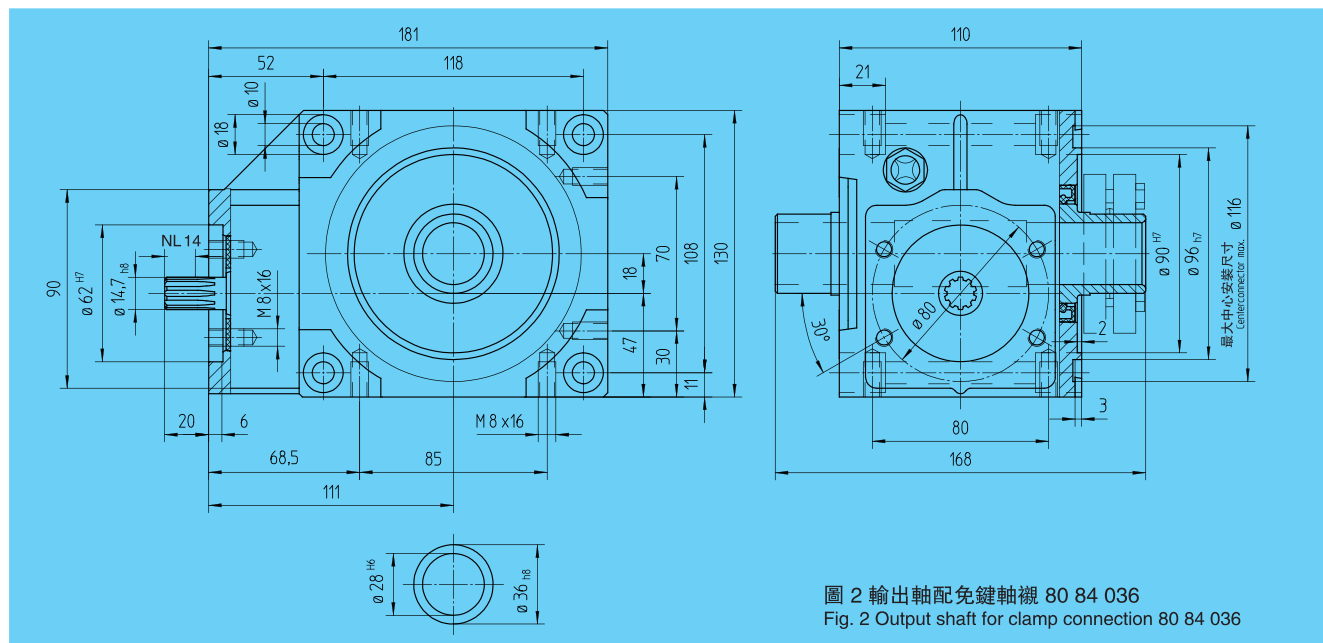


軸襯聯接 / Shrink-disc connection

結構尺寸 / Construction-size

BG 50

5 個安裝面 / 5 Mounting surfaces



訂貨號 5 個安裝面

Order-Code 5 Mounting surfaces

鍵聯接

Key connection

軸襯聯接

Shrink-disc connection

減速比 i

Ratio i



J_{red} 10⁻⁴

kg m²

51 03 005

51 13 005

4,75

6,4

0,820

51 03 007

51 13 007

6,75

6,4

0,551

51 03 009

51 13 009

9,25

6,4

0,406

可以與ATLANTA的齒輪軸 20 2x 4xx或驅動軸 65 04 xxx / Necessary for mounting of ATLANTA Pinion 20 2x 4xx or Output drive shaft 65 04 xxx.

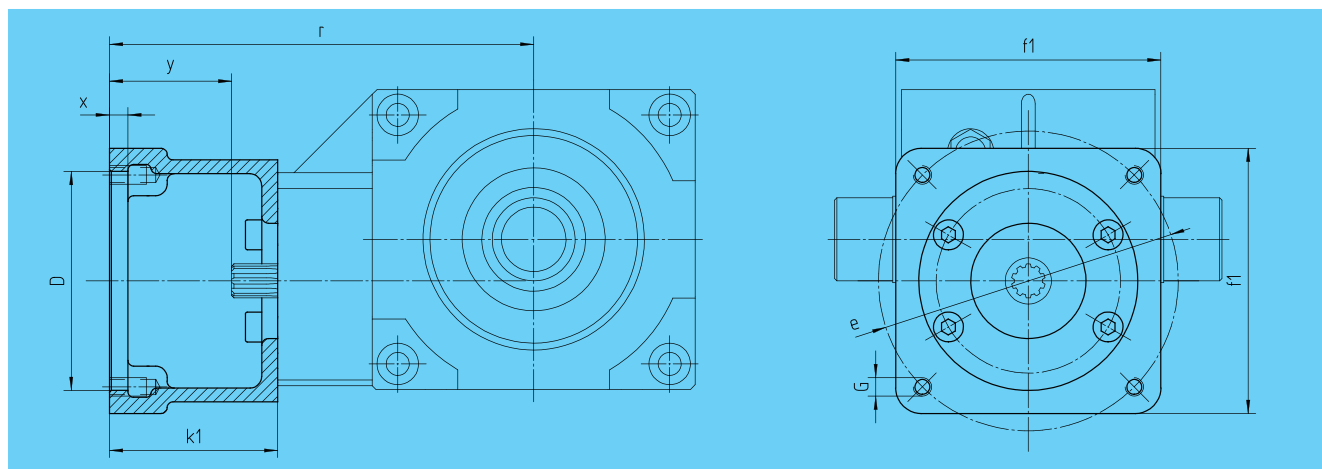


ATLANTA

背隙 < 6' 傘齒輪減速機
BG-bevel gear unit with <6' backlash

電機安裝法蘭 / Motor flange
結構尺寸 / Construction-size

BG 50



中心距 / Centre distance

$a_o = 50 \text{ mm}$

訂貨號 Order code	D ^{G7}	k ₁	r	x	y	f ₁	e	G	kg
65 59 301	95,0	62	173	5	42	100	115	M8	1,0
65 59 302	50,0	62	173	5	42	100	95	M6	1,0
65 59 303	80,0	62	173	5	42	100	100	M6	1,0
65 59 304	95,0	78	189	5	58	115	130	M8	1,0
65 59 305	95,0	72	183	5	52	105	115	M8	1,0
65 59 306	60,0	74	184	5	54	100	75	M5	1,0
65 59 307	70,0	70	181	5	50	100	90	M8	1,0
65 59 401	95,0	73	184	5	53	100	115	M8	1,0
65 59 402	110,0	78	189	5	58	115	130	M8	1,0
65 59 403	95,0	73	184	5	53	115	130	M8	1,0
65 59 404	110,0	73	184	5	53	115	130	M8	1,0
65 59 405	95,0	78	189	5	58	140	165	M10	1,0
65 59 406	110,0	78	189	5	58	140	165	M10	1,0
65 59 407	130,0	78	189	5	58	140	165	M10	1,0
65 59 409	130,0	98	209	5	78	140	165	M10	1,5
65 59 410	110,0	74	185	5	54	120	145	M8	1,0
65 59 411	110,0	84	195	7	64	120	145	M8	1,5
65 59 412	114,3	105	216	5	85	180	200	M12	3,5
65 59 413	114,3	139	150	5	119	180	200	M12	6,0
65 59 414	114,3	91	202	5	71	180	200	M12	2,5
65 59 415	110,0	89	200	5	69	120	145	M8	1,5

定貨時應當包含減速箱 51 03 0xx / 51 13 0xx和法蘭 65 59 3 xx。
The order should contain gear box 51 03 0xx / 51 13 0xx and flange 65 59 3xx.

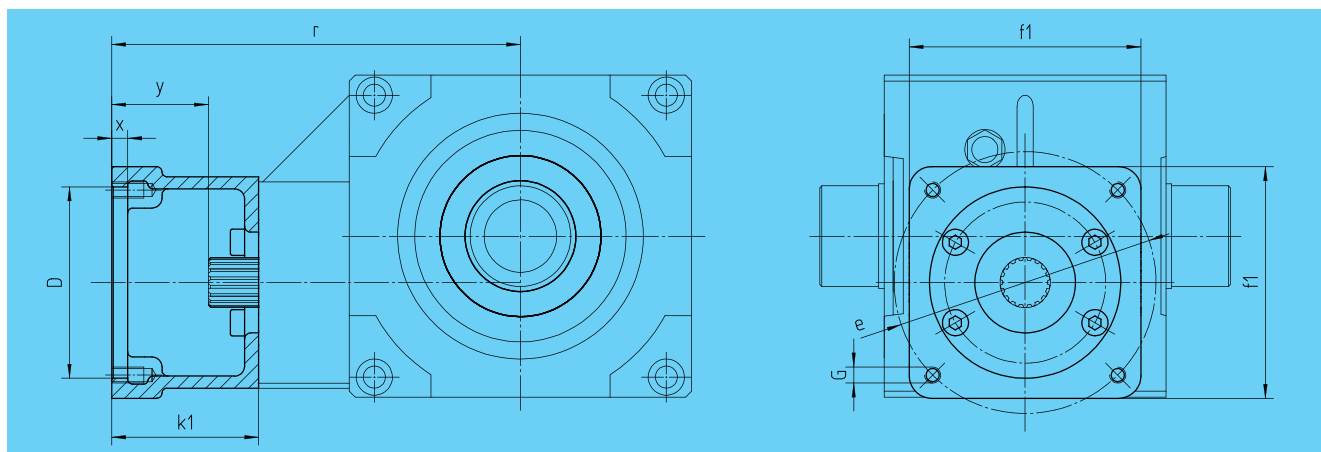


ATLANTA

背隙 < 6' 傘齒輪減速機
BG-bevel gear unit with <6' backlash

電機安裝法蘭 / Motor flange
結構尺寸 / Construction-size

BG 63



中心距 / Centre distance

$a_o = 63 \text{ mm}$

訂貨號 Order code	D ^{G7}	k ₁	r	x	y	f ₁	e	G	kg
65 59 301	95,0	62	192	5	37	100	115	M8	1,0
65 59 302	50,0	62	192	5	37	100	95	M6	1,0
65 59 303	80,0	62	192	5	37	100	100	M6	1,0
65 59 304	95,0	78	208	5	53	115	130	M8	1,0
65 59 305	95,0	72	202	5	47	105	115	M8	1,0
65 59 306	60,0	74	204	5	49	100	75	M5	1,0
65 59 307	70,0	70	200	5	45	100	90	M8	1,0
65 59 401	95,0	73	203	5	48	100	115	M8	1,0
65 59 402	110,0	78	208	5	53	115	130	M8	1,0
65 59 403	95,0	73	203	5	48	115	130	M8	1,0
65 59 404	110,0	73	203	5	48	115	130	M8	1,0
65 59 405	95,0	78	208	5	53	140	165	M10	1,0
65 59 406	110,0	78	208	5	53	140	165	M10	1,0
65 59 407	130,0	78	208	5	53	140	165	M10	1,0
65 59 409	130,0	98	228	5	73	140	165	M10	1,5
65 59 410	110,0	74	204	5	49	120	145	M8	1,0
65 59 411	110,0	84	214	7	59	120	145	M8	1,5
65 59 412	114,3	105	235	5	80	180	200	M12	3,5
65 59 413	114,3	139	269	5	114	180	200	M12	6,0
65 59 414	114,3	91	221	5	66	180	200	M12	2,5
65 59 415	110,0	89	219	5	64	120	145	M8	1,5

定貨時應當包含減速箱 51 04 0xx / 51 14 0xx和法蘭 65 59 4 xx。
The order should contain gear box 51 04 0xx / 51 14 0xx and flange 65 59 4xx.



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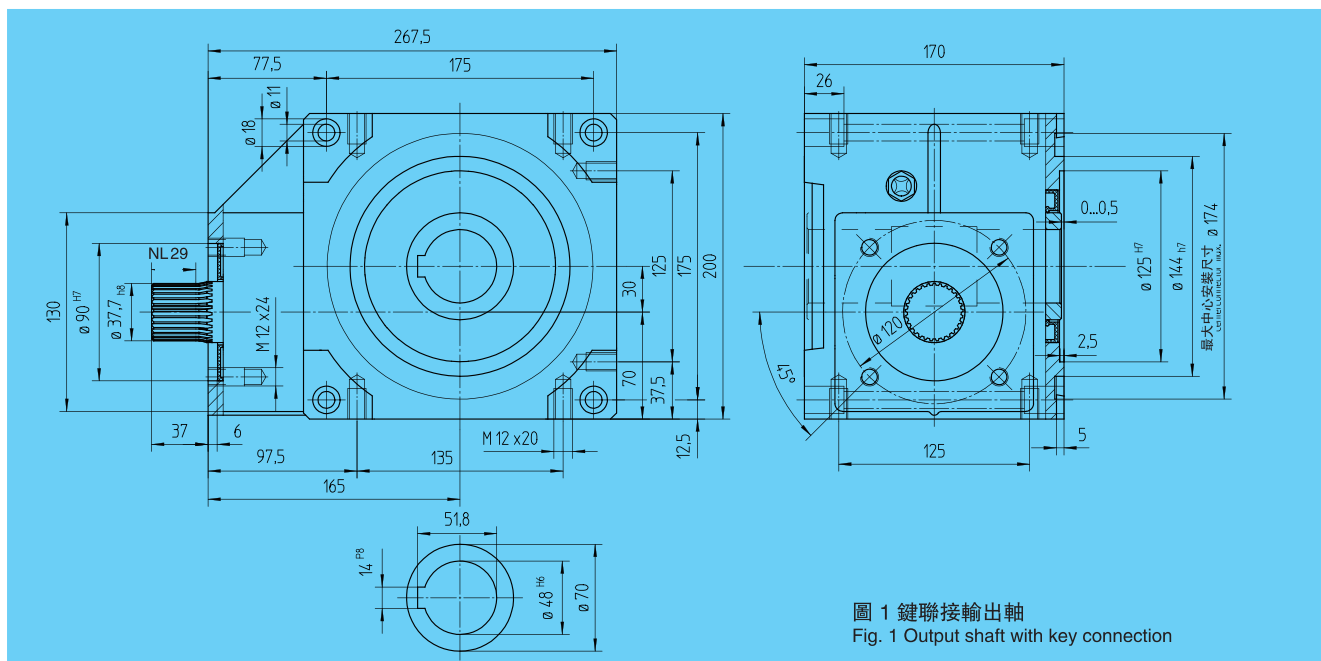
背隙 < 6' 傘齒輪減速機
BG-bevel gear unit with <6' backlash

鍵聯接 / Key connection

結構尺寸 / Construction-size

BG 80

5 個安裝面 / 5 Mounting surfaces

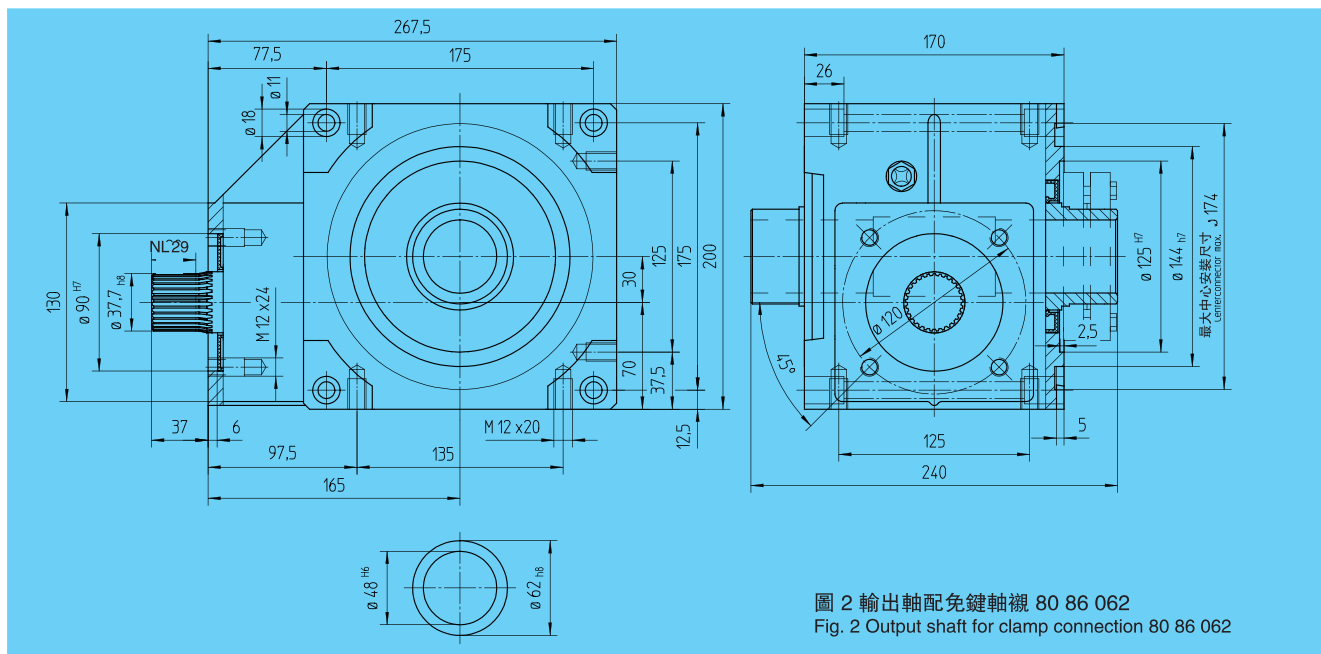


軸襯聯接 / Shrink-disc connection

結構尺寸 / Construction-size

BG 80

5 個安裝面 / 5 Mounting surfaces



訂貨號 5 個安裝面

Order-Code 5 Mounting surfaces

鍵聯接

Key connection

軸襯聯接

Shrink-disc connection

減速比 i
Ratio i

kg

$J_{red} 10^{-4}$
kg m²

51 05 005

51 15 005

4,75

23,0

14,04

51 05 007

51 15 007

6,75

23,0

10,25

51 05 009

51 15 009

9,25

23,0

8,51

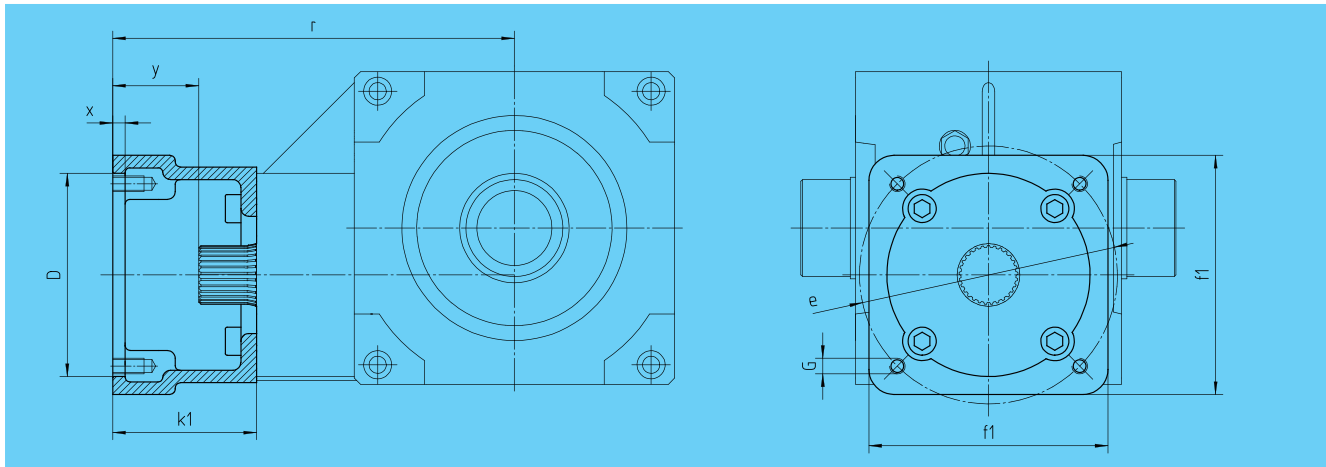


ATLANTA

背隙 < 6' 傘齒輪減速機
BG-bevel gear unit with <6' backlash

電機安裝法蘭 / Motor flange
結構尺寸 / Construction-size

BG 80



中心距 / Centre distance $a_o = 80 \text{ mm}$

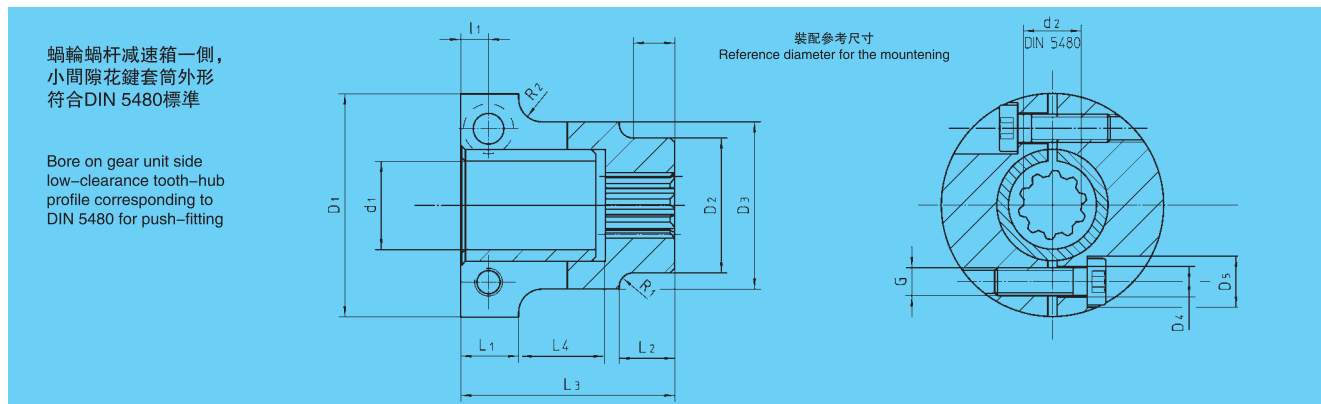
訂貨號 Order code	D ^{G7}	k ₁	r	x	y	f ₁	e	G	 kg
65 59 501	110,0	92,0	257,0	5	55,0	153	165	M10	2,0
65 59 502	130,0	92,0	257,0	5	55,0	153	165	M10	3,0
65 59 503	180,0	122,0	287,0	5	85,0	192	215	M12	3,5
65 59 504	180,0	127,0	292,0	6	90,0	192	215	M12	3,5
65 59 505	180,0	112,0	277,0	5	75,0	192	215	M12	3,0
65 59 506	130,0	112,0	277,0	5	75,0	192	215	M12	3,0
65 59 507	130,0	112,0	277,0	5	75,0	155	165	M10	4,5
65 59 508	110,0	90,0	255,0	5	53,0	130	145	M8	2,0
65 59 509	110,0	108,5	273,5	5	71,5	130	145	M8	2,5
65 59 510	114,3	129,5	294,5	5	92,5	180	200	M12	5,5
65 59 511	114,3	163,5	328,5	5	126,5	180	200	M12	8,0
65 59 512	114,3	105,5	270,5	5	68,5	180	200	M12	4,0
65 59 513	110,0	113,5	278,5	5	76,5	130	145	M8	2,5

定貨時應當包含減速箱 51 05 0xx / 51 15 0xx和法蘭 65 59 5 xx。
The order should contain gear box 51 05 0xx / 51 15 0xx and flange 65 59 5xx.



伺服電機/減速箱專用聯軸器，剛性聯接，滲氮、無鍵電機預裝件

Special couplings for motor/gear units, rigid model, nitrided, preassembled for motor shafts without key

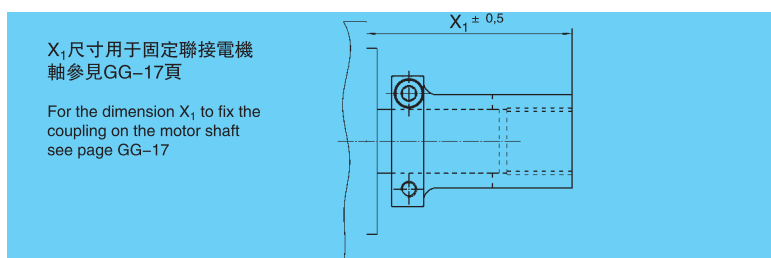


訂貨號 / Order code

聯軸器 Coupling	d ₁	d ₂	D ₁	D ₂	D ₃	D ₄	D ₅	I ₁	I ₂	L ₁	L ₂	L ₃	R ₁	R ₂	G	L ₄	J _{red} 10 ⁻⁴ kg m ²	
65 51 008	8	15x1,25x10	36	23	—	5,5	9,0	7,5	13,0	14,0	—	46,0	5	—	M5	31,2	0,236	0,2
65 51 009	9	15x1,25x10	36	23	—	5,5	9,0	7,5	13,0	14,0	—	46,0	5	—	M5	31,2	0,246	0,2
65 51 010	10	15x1,25x10	36	23	—	5,5	9,0	7,5	13,0	14,0	—	46,0	5	—	M5	31,2	0,244	0,2
65 51 011	11	15x1,25x10	36	23	—	5,5	9,0	7,5	13,0	14,0	—	46,0	5	—	M5	31,2	0,243	0,2
65 51 014	14	15x1,25x10	36	23	—	5,5	9,0	7,5	13,0	14,0	—	46,0	5	—	M5	31,2	0,234	0,2
65 51 016	16	15x1,25x10	36	23	—	5,5	9,0	7,5	13,0	14,0	—	46,0	5	—	M5	31,2	0,225	0,2
65 53 019	19	15x1,25x10	48	33	36	6,6	11,0	8,0	16,5	16,5	9	46,0	5	3	M5	31,2	0,704	0,3
65 53 022	22	15x1,25x10	48	33	36	6,6	11,0	8,0	16,5	16,5	9	46,0	5	3	M5	31,2	0,704	0,3
65 53 024	24	15x1,25x10	48	33	36	6,6	11,0	8,0	16,5	16,5	9	46,0	5	3	M5	31,2	0,647	0,2
65 53 025	25	15x1,25x10	78	51	—	9,0	15,0	9,0	29,0	18,0	—	55,5	5	—	M8	41,5	5,946	1,1
65 53 028	28	15x1,25x10	78	51	—	9,0	15,0	9,0	29,0	18,0	—	55,5	5	—	M8	41,5	5,871	1,1
65 53 035	35	15x1,25x10	78	51	—	9,0	15,0	9,0	29,0	18,0	—	55,5	5	—	M8	41,5	5,605	1,0
65 53 038	38	15x1,25x10	78	51	—	9,0	15,0	9,0	29,0	18,0	—	55,5	5	—	M8	41,5	5,432	0,9
65 54 009	9	25x1,25x18	49	35	—	6,6	11,0	8,5	18,0	17,0	—	68,0	5	—	M6	43,5	2,306	0,5
65 54 010	10	25x1,25x18	49	35	—	6,6	11,0	8,5	18,0	17,0	—	68,0	5	—	M6	43,5	2,300	0,5
65 54 011	11	25x1,25x18	49	35	—	6,6	11,0	8,5	18,0	17,0	—	68,0	5	—	M6	43,5	2,381	0,5
65 54 014	14	25x1,25x18	49	35	—	6,6	11,0	8,5	18,0	17,0	—	68,0	5	—	M6	43,5	1,161	0,5
65 54 015	15	25x1,25x18	49	35	—	6,6	11,0	8,5	18,0	17,0	—	68,0	5	—	M6	43,5	2,328	0,5
65 54 016	16	25x1,25x18	49	35	—	6,6	11,0	8,5	18,0	17,0	—	68,0	5	—	M6	43,5	1,161	0,5
65 54 019	19	25x1,25x18	49	35	—	6,6	11,0	8,5	18,0	17,0	—	68,0	5	—	M6	43,5	1,112	0,4
65 54 020	20	25x1,25x18	49	35	—	6,6	11,0	8,5	18,0	17,0	—	68,0	5	—	M6	43,5	2,268	0,5
65 54 022	22	25x1,25x18	49	35	—	6,6	11,0	8,5	18,0	17,0	—	68,0	5	—	M6	43,5	2,179	0,4
65 54 024	24	25x1,25x18	49	35	—	6,6	11,0	8,5	18,0	17,0	—	68,0	5	—	M6	43,5	1,007	0,4
65 54 025	25	25x1,25x18	78	51	—	9,0	15,0	9,0	29,0	18,0	—	68,0	5	—	M8	43,5	8,165	1,2
65 54 028	28	25x1,25x18	78	51	—	9,0	15,0	9,0	29,0	18,0	—	68,0	5	—	M8	43,5	8,061	1,2
65 54 032	32	25x1,25x18	78	51	—	9,0	15,0	9,0	29,0	18,0	—	68,0	5	—	M8	43,5	7,751	1,2
65 54 035	35	25x1,25x18	78	51	—	9,0	15,0	9,0	29,0	18,0	—	68,0	5	—	M8	43,5	7,690	1,1
65 54 038	38	25x1,25x18	78	51	—	9,0	15,0	9,0	29,0	18,0	—	68,0	5	—	M8	43,5	7,348	1,1
65 54 042	42	25x1,25x18	78	51	—	9,0	15,0	9,0	29,0	18,0	—	65,5	5	—	M8	43,5	6,595	1,1
65 55 014	14	38x1,25x29	78	51	—	9,0	15,0	9,0	29,0	18,0	—	72,5	5	—	M8	41,5	8,056	1,2
65 55 016	16	38x1,25x29	78	51	—	9,0	15,0	9,0	29,0	18,0	—	72,5	5	—	M8	41,5	8,029	1,2
65 55 019	19	38x1,25x29	78	51	—	9,0	15,0	9,0	29,0	18,0	—	72,5	5	—	M8	41,5	7,978	1,2
65 55 020	20	38x1,25x29	78	51	—	9,0	15,0	9,0	29,0	18,0	—	72,5	5	—	M8	41,5	7,945	1,2
65 55 022	22	38x1,25x29	78	51	—	9,0	15,0	9,0	29,0	18,0	—	72,5	5	—	M8	41,5	7,911	1,2
65 55 024	24	38x1,25x29	78	51	—	9,0	15,0	9,0	29,0	18,0	—	72,5	5	—	M8	41,5	7,860	1,2
65 55 025	25	38x1,25x29	78	51	—	9,0	15,0	9,0	29,0	18,0	—	72,5	5	—	M8	41,5	7,818	1,1
65 55 028	28	38x1,25x29	78	51	—	9,0	15,0	9,0	29,0	18,0	—	72,5	5	—	M8	41,5	8,105	1,3
65 55 032	32	38x1,25x29	78	51	—	9,0	15,0	9,0	29,0	18,0	—	72,5	5	—	M8	41,5	7,863	1,2
65 55 035	35	38x1,25x29	78	51	—	9,0	15,0	9,0	29,0	18,0	—	72,5	5	—	M8	41,5	7,610	1,1
65 55 038	38	38x1,25x29	78	51	—	9,0	15,0	9,0	29,0	18,0	—	72,5	5	—	M8	41,5	7,284	1,0
65 55 042	42	38x1,25x29	78	51	—	9,0	15,0	9,0	29,0	18,0	—	70,5	5	—	M8	41,5	6,547	1,0

GA-10頁的聯軸器一樣可以適用

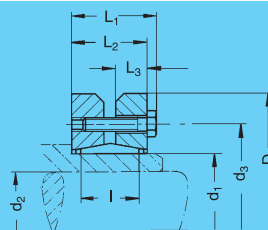
Couplings on page GA-10 can be used as well.





51 8. ...系列減速箱輸出驅動軸用免鍵軸襯組件
Shrink-disc clamping sets
for output drive shafts of gear series 51 8. ...

作為完整
一套供應
Supplied as
complete set



$$J_{\text{red}} = \frac{J}{i^2}$$



< 6 arcmin

訂貨號 Order code	BG	T _{2max} Nm	d ₁	d ₂	d ₃	D	L ₁	L ₂	L ₃	I	G	鎖緊扭矩 moment Torque	J 10 ⁻⁴ kg m ²	
80 84 036	50	609	36	28	52	72,2	27,5	23,50	10	22	5 x M6	12 Nm	4,029	0,4
80 85 050	63	920	50	36	72	90,2	31,5	27,54	12	22	9 x M6	12 Nm	11,322	0,8
80 86 062	80	1760	62	48	89	110,2	34,5	30,50	13	22	10 x M6	12 Nm	27,137	1,3



表中值根據12000小時滿負荷且在伺服運行環境條件下的磨損或最大齒廓載荷測得。對於連續滿負荷運行必須考慮溫度限制！（如果有疑問，請諮詢我們）

Values in the tables are based upon the strength of the tooth root and the load-carrying capacity of the bevel gear flanks; expected bearing life with full load and servo-operation is 12 000 hrs. For continuous full load operation it may be necessary to take temperature limits into account. If in doubt, ask for advice.
 T_{2max} = static torque against tooth fracture. P_1 = driving power in kW, T_2 = output torque in Nm.

T_{2max} = 避免齒斷裂的靜態扭矩（Nm）， P_1 =驅動功率（kW） T_2 =輸出扭矩（Nm）

傘齒輪減速箱 BG-bevel gear units

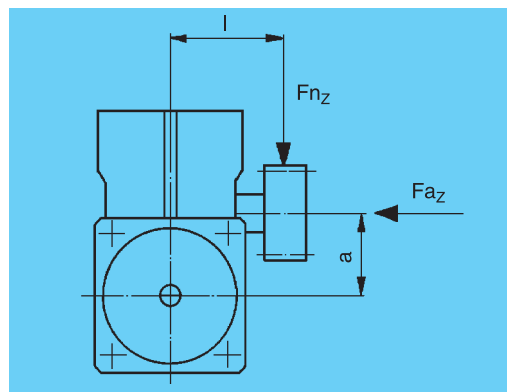
訂貨號 Order code	BG	i	T _{2 max.}	輸入轉速n ₁ / Driving speed n ₁ in min ⁻¹																η bei 1500
				500		750		1000		1500		3000		4000		5000				
				P ₁ (kw)	T ₂ (Nm)	P ₁ (kw)	T ₂ (Nm)	P ₁ (kw)	T ₂ (Nm)	P ₁ (kw)	T ₂ (Nm)	P ₁ (kw)	T ₂ (Nm)	P ₁ (kw)	T ₂ (Nm)	P ₁ (kw)	T ₂ (Nm)			
51 43 _05 51 83 _05	50	4,75	160	1,17	100	1,76	100	2,35	100	3,52	100	7,04	100	9,38	100	11,73	100	0,94		
51 43 _07 51 83 _07		6,75	160	0,84	100	1,26	100	1,69	100	2,53	100	5,06	100	6,75	100	8,43	100	0,92		
51 43 _09 51 83 _09		9,25	125	0,63	100	0,94	100	1,26	100	1,89	100	3,77	100	5,03	100	6,29	100	0,90		
51 44 _05 51 84 _05	63	4,75	330	2,35	200	3,52	200	4,69	200	7,04	200	14,07	200	18,76	200	23,45	200	0,94		
51 44 _07 51 84 _07		6,75	330	1,69	200	2,53	200	3,37	200	5,06	200	10,16	200	13,49	200	16,86	200	0,92		
51 44 _09 51 84 _09		9,25	260	1,26	200	1,89	200	2,52	200	3,77	200	7,55	200	10,06	200	12,58	200	0,90		
51 45 _05 51 85 _05	80	4,75	700	5,22	450	7,83	450	10,44	450	15,66	450	31,33	450	47,77	450	52,21	450	0,95		
51 45 _07 51 85 _07		6,75	680	3,75	450	5,63	450	7,51	450	11,26	450	22,52	450	30,03	450	37,53	450	0,93		
51 45 _09 51 85 _09		9,25	550	2,80	450	4,20	450	5,60	450	8,40	450	16,79	450	22,39	450	27,99	450	0,91		

輸出傳動的附加載荷

所列出的數據為參考值，你可以認為數值是由選擇不同的齒形系統而產生的。並假定力的作用點處於軸心位置而得到的，如果有附加軸向力，超過最大允許力的情況出現，請諮詢我們。

Additional loads on output drive

The data given are reference values. You should consider the values arising from the choice of the tooth system. It is assumed that the point of action of the force is the centre of the shaft. In cases where additional axial forces occur, over and above high transverse forces, please ask for advice.



中心距 Centre distance	a (mm)	32	50	63	80
殼體中心到輸出/ 齒輪中心距離 Dimensions centre casing/ centre teeth					
l (mm)		70 100	90 140	110 160	125 175
最大附加載荷 Max. additional load					
徑向 F_{nz}	[N]	1575 1100	2500 1600	3500 2450	5800 4200
軸向 F_{az}	[N]	1050 1050	1250 1250	1750 1750	2800 2800



簡述

ATLANTA傘齒輪減速箱專門開發用于最新交流和直流伺服電機和本樣本中的其它元件一樣，都常備有庫存，至少在短的時間可以交貨。

下列是傘齒輪減速箱的典型特性：

- 同98、58和59系列伺服減速箱相同的尺寸
- 減速比在設計上與98、58和59系列相同
- 低背隙（背隙<6'）
- 輕金屬殼體具有良好的散熱性能
- 強力滾子軸承支撐空心軸輸出，可承受較大的外力
- 低慣量

尺寸和減速比與現有的蝸輪蝸杆減速箱相同，內部使用和安裝傘齒輪并加以優化的軸承支撐。斜齒輪的良好重疊性保證減速箱平穩的運行。殼體上分布的裝配鑽孔和螺紋孔確保箱體在任意位置安裝。

驅動部分聯接使用一個專用聯軸器，傘齒輪減速箱輸入軸端外花鍵結構與聯軸器內花鍵嚙合，請確保沒有軸向力產生。

對於輸出傳動部分，有多種輸出軸選擇，有直齒和斜齒之分。除了齒輪軸外，還有諸多不同齒數的齒輪與定制軸組合使用。更不用說減速箱的配用輸出軸系列即有鍵結構的也有軸襯結構的。

我們寬範的伺服驅動標準產品系列還有齒條作為補充。庫存包括各種不同類型，從相對簡單的軟齒面到淬火齒面，再到磨削加工的精密齒條，齒形有直齒和傳動平滑的斜齒。

Short description

ATLANTA BG servo bevel gear units have been specially developed for use with new generation three-phase AC motors and DC motors. Like all other items in this catalogue they are usually available from stock or within very short time.

Our servo bevel gear units feature:

- dimensions compatible with the series 98, 58, and 59 servo gear units
- gear ratios which are similar, sometimes identical with those of the series 98, 58, and 59
- low-clearance gearing (clearance < 6')
- light-alloy housing for optimal heat dissipation
- robust tapered-roller bearing of the output hollow shaft for high additional forces
- low moments of inertia for high dynamics

Sizes and gear ratios correspond with those of the existing servo worm-gear unit series. The bevel gears are manufactured and installed with optimal tooth bearing. The use of bevel gears end-lapped in sets guarantees smooth running in both directions of rotation. The housing is machined on all sides and provided with many fixing holes and threaded bores and can thus be installed in any mounting position desired.

The drive or the connection to the driving motor, is realized via a special clutch. The internal gearing of this clutch in combination with the barrelled profile of the driving shaft of our bevel gear units assures the flow of forces without play.

For the output drive we offer quite a number of output shafts with straight or helical tooth systems and with different numbers of teeth. Besides toothed pinion shafts it is possible to combine and use a large variety of other numbers of teeth from our gear-wheel program with matching special output shafts. It goes without saying that analogous to our gear units the complete range of output shafts is not only available for key fitting but also for shrink-disc fitting.

Our wide range of standard elements for servo drives is supplemented by toothed racks. The ex-stock program comprises many different types from rather simple, soft racks through hardened versions with straight tooth system or optionally with helical tooth system for smooth running, to racks ground on all sides to very narrow tolerances.



< 6 arcmin



裝配說明

傘齒輪減速箱

五個安裝面上均有適用的裝配孔，可以保證在任何位置安裝，為了能承受所有的附加力（參見GA-8頁）我們建議在接觸面最大的一端安裝，即在兩側端蓋之一上安裝，即在兩側端蓋之一上安裝。潤滑適用於任何安裝位置。

聯軸器

所供貨的聯軸器已是預先裝配好的。在把聯軸器裝到電機軸上之前，必須清理所有接觸面，並且塗上一層薄油脂加以保護。一個重要的安裝尺寸是數值“×1”（比對樣本第GDA-8頁）。

推薦的安裝順序：

- 小心擦淨接觸面，並塗上一薄層油脂進行保護。
- 依照給出的距離尺寸“×1”（參見樣本GDA-8）將聯軸器裝在電機軸上；一把深度測量尺有助於距離尺寸的保證。
- 輕輕地緊上聯軸器上夾緊螺釘，檢查聯軸器轉動情況。
- 交替均勻地擰緊螺釘。
- 按照表中所需所知值，交替對角擰緊螺釘。
- 建議在合適的徑向參考位置做一次最後的實際運動檢驗。

電機

把帶聯軸器的電機插入減速箱的蝸杆驅動軸，并用螺栓緊固。

輸出驅動（齒輪）軸

除非輸出齒輪軸供貨時已完全裝配好，否則我們建議做如下處理：清潔齒輪軸和空心軸延伸部分，然後塗機油或油脂。

軸襯連結的輸出驅動軸

在減速箱空心軸上裝上軸襯（請不要先擰緊螺釘），從所要求的一側把輸出軸插入空心軸，注意完全插到底。均勻擰緊各個夾緊螺釘，使之產生橫向壓力聯接，依次擰緊各螺釘（不是對角擰緊）鎖緊扭矩按表中的扭矩要求。

鍵連接的輸出驅動軸

輸出驅動軸用卡環，盤和螺釘僅用于緊固輸出驅動軸，防止軸向移動，為此把卡環插在空心軸的凹槽，把輸出軸從所要求的一側推入空心軸，注意推到底，從減速箱的另一側，用螺釘把盤擰到輸出軸上，卡環必須夾緊小齒輪軸和盤。

Mounting Instructions

Bevel-gear unit

Five machined mounting surfaces with sufficiently dimensioned fixing holes and threaded bores are provided for tension-free installation in any mounting position. In order to make full use of the additional dynamic forces (see p. GDA-9) we recommend to choose the largest available contact surfaces, i.e. on the side of the cover or on the opposite side. Lubrication conditions are almost the same in all mounting positions.

Coupling

The coupling is supplied pre-assembled. Before fixing it on the motor shaft carefully clean all contact surfaces and protect them with a thin oil film. An important dimension for mounting is "X1" (compare page GDA-8)

螺紋孔 Thread-holes	鎖緊扭矩 Torque
M5	7 Nm
M6	10 Nm
M8	25 Nm

We recommend to proceed as follows:

- Clean the contact surfaces and protect them with a thin oil film.
- Position the coupling on the motor shaft at the distance "X1" (see page GDA-8) using a depth gauge for determining this dimension.
- Slightly tighten the screws alternately and check the coupling for true running
- Observe the tightening torque indicated in the table bearing in mind that the width of the gap on both sides of the clutch must remain the same.
- It is advisable to make another final concentricity check at the reference collar.

Motor

Slide the motor with the coupling mounted into the centering hole of the gear unit and screw it to the gearbox.

Output (pinion) shaft

Unless the output pinion shaft comes already fully assembled at delivery, we recommend to proceed as follows:

Clean the pinion shaft and the output hollow shaft of the gear unit and then grease or oil it.

Output shaft for shrink-disc connection

Slide the shrink-disc onto the hollow shaft of the gear unit (do not tighten the screws beforehand!). Insert the output shaft from the desired side fully into the hollow shaft right up to the stop. Transverse pressure fit is obtained by uniformly tightening the clamping screws

one after the other (not crosswise) in several passes to the tightening torque indicated in the table.

Output shaft for key connection

The retaining ring, the disc and the screw supplied with the output shaft serve for locking the output shaft axial direction. For this purpose the retaining ring is placed in the recess provided on the hollow shaft of the gear unit. Push the output shaft from the desired side into the hollow shaft right up to the stop. The disk and the screw are then screwed to the output shaft from the other side. The retaining ring must be clamped between the disk and the pinion shaft.

定貨號 Order code	扭矩 Torque
80 84 036	12 Nm
80 85 050	12 Nm
80 86 062	12 Nm



維護

潤滑劑更換

ATLANTA 伺服傘齒輪減速箱內灌充有合成潤滑劑。

在以下條件使用為終身免潤滑：

減速箱的放置依照ATLANTA樣本的要求嚴格同導軌保持一致。減速箱的運行完全在所容許的特性數值和極限範圍內，操作者周期性地（每四周一次）檢查減速箱以防漏油。減速箱表面溫度最高不超過80°C，經驗顯示完全適合正常狀況下的連接運行（間歇運行）。

我們推薦如下合成潤滑油：

Kl ü bersynth GH 6 – 220
訂貨號： 65 90 010 (1 升)

替代品為：
SHELL Tivela S 220, BP Energol SG-XP
220, ARAL Degol GS 220

防護等級

防護等級：IP65/67依據DIN40 050
（請單獨確認防腐性要求）。

Maintenance

Lubricant change

ATLANTA servo-assisted bevel-gear units are filled with synthetic polycyclo oil.

Under the following conditions this means lifetime lubrication: The layout of the gear unit is made strictly in conformance with the guidelines specified in the ATLANTA catalogue and the gear unit is operated exclusively within the permissible characteristic values and limits. The operator checks the gear regularly (every 4 weeks) for oil leakage. The surface temperature does not exceed max. 80° C. Experience has shown that this temperature is not reached with servo-operation (intermittent operation).

We recommend the following synthetic

gear lubricant:

Kl ü bersynth GH 6 – 220
Order code: 65 90 010 (1 litre)

alternative:

SHELL Tivela S 220, BP Energol SG-XP
220, ARAL Degol GS 220

中心距 Construction size	油 量 Oil quantity
BG 50	0,3 l
BG 63	0,5 l
BG 80	1,2 l



Degree of protection

Degree of protection: IP65/67 according to DIN 40 050
(Corrosion has to be verified separately).