



HP高扭矩减速箱 可调背隙 <2'	HP-High-performance gear units with adjustable backlash <2'	GB2 – GB11
中心距 50 mm	Centre distance 50 mm	GB2 – GB3
中心距 63 mm	Centre distance 63 mm	GB4 – GB5
中心距 80 mm	Centre distance 80 mm	GB6 – GB7
中心距 100 mm	Centre distance 100 mm	GB8 – GB9
中心距 125 mm	Centre distance 125 mm	GB10 – GB11
联轴器 and 胀紧盘	Couplings and shrink-disc	GB12
选型负载表格	Selection and load tables	GB13 – GB14
简述	Short description	GB15
安装和维护	Mounting and maintenance	GB16 – GB17
减速箱计算和选择	Gear units calculation and selection	GF1 – GF3
减速箱附件	Gear units accessories	GG1 – GG8
伺服电机选配表	Motor applications	GI1 – GI4





# ATLANTA

HP 高性能减速箱 可调背隙 < 2'  
HP-High-performance gear units with adjustable backlash < 2'

中心距 / Centre distance

$a_o = 50 \text{ mm}$

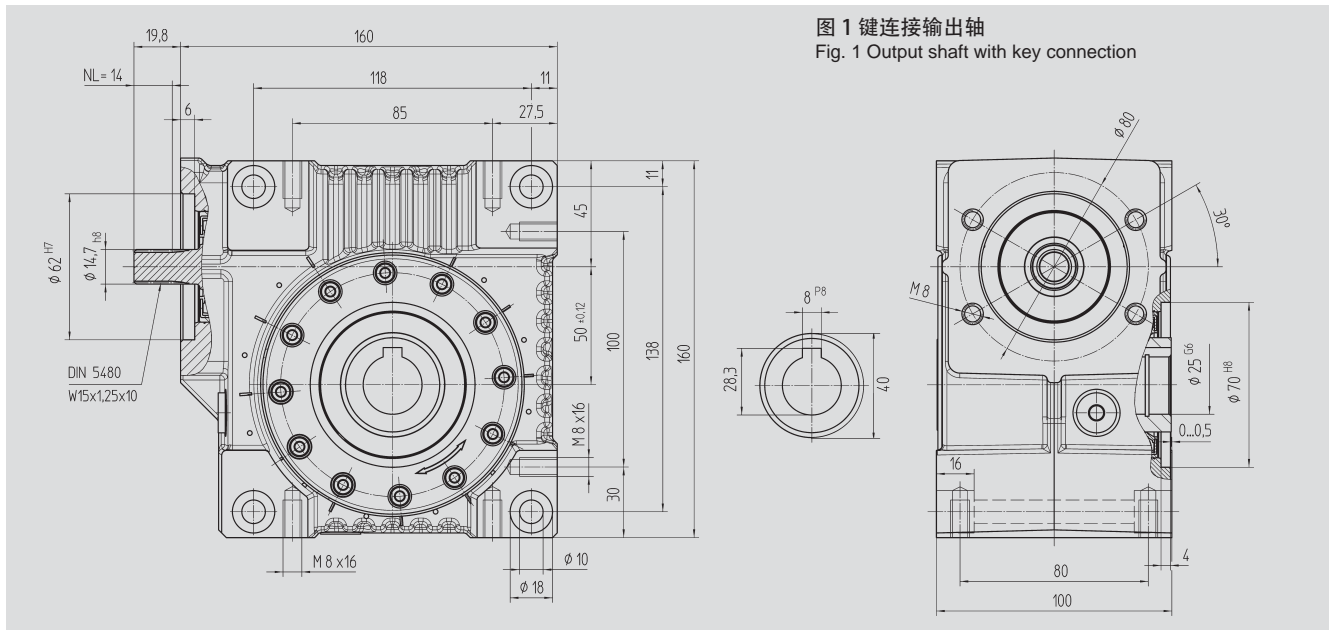


图 1 键连接输出轴  
Fig. 1 Output shaft with key connection

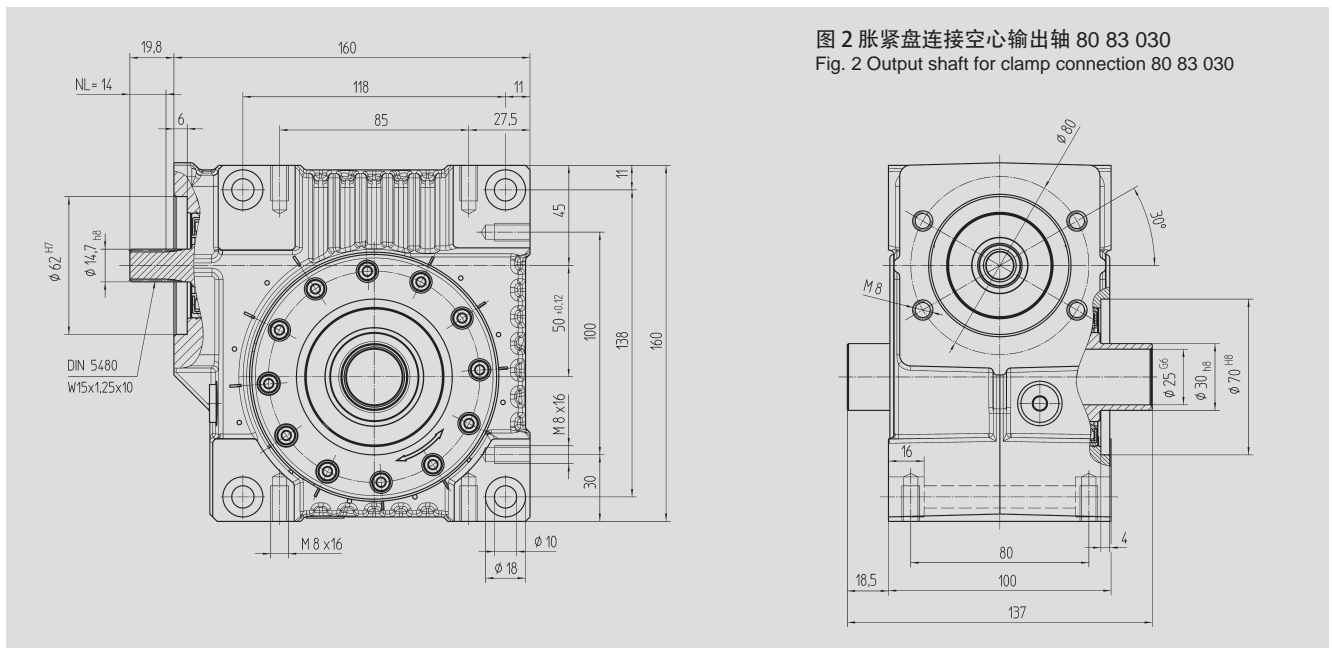


图 2 胀紧盘连接空心输出轴 80 83 030  
Fig. 2 Output shaft for clamp connection 80 83 030

订购代码 / Order code 图 1 / Fig. 1	图 2 / Fig. 2	减速比 i Ratio i	kg	$J_{red} 10^{-4}$ kg m <sup>2</sup>
58 03 005	58 13 005	4,75	6,5	0,8280
58 03 007	58 13 007	6,75	6,5	0,4140
58 03 009	58 13 009	9,25	6,5	0,3490
58 03 015	58 13 015	14,50	6,5	0,2800
58 03 020	58 13 020	19,50	6,5	0,1960
58 03 029	58 13 029	29,00	6,5	0,2694
58 03 039	58 13 039	39,00	6,5	0,2310
58 03 050	58 13 050	50,00	6,5	0,2140

润滑油来自食品行业用油  
订购代码: 58 03 1xx / 58 13 1xx

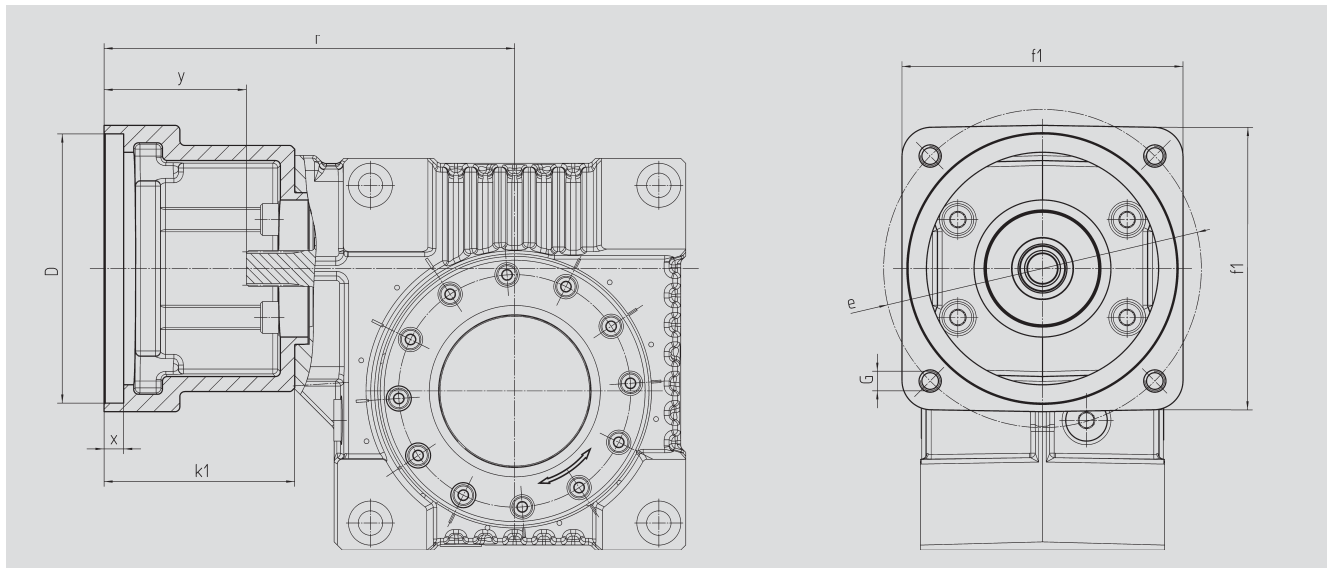
With suitable oil for food  
Order code 58 03 1xx / 58 13 1xx



**ATLANTA**

HP 高性能减速箱 可调背隙 <2'  
HP-High-performance gear units with adjustable backlash <2'

电机法兰 / Motor flange



中心距 / Centre distance

$a_o = 50 \text{ mm}$

订购代码.

Order code	D <sup>G7</sup>	k <sub>1</sub>	r	x	y	f <sub>1</sub>	e	G	
65 59 301	95,0	62	152	12,5	42	100	115	M8	0,60
65 59 302	50,0	62	152	10,0	42	100	70; 95; 115	M4; M6; M8	0,70
65 59 303	80,0	62	152	10,0	42	100	100	M6	0,65
65 59 304	95,0	78	168	10,0	58	115	130	M8	0,80
65 59 305	95,0	72	162	8,0	52	100	115	M8	0,75
65 59 306	60,0	74	164	21,0	54	100	75; 90; 115	M5; M5; M8	0,90
65 59 307	70,0	70	160	21,0	50	100	90; 115	M6; M8	0,80
65 59 401	95,0	73	163	8,0	53	100	115	M8	0,75
65 59 402	110,0	78	168	8,0	58	115	130	M8	0,80
65 59 403	95,0	73	163	12,0	53	115	130	M8	0,75
65 59 404	110,0	73	163	12,0	53	115	130	M8	0,70
65 59 405	95,0	78	168	11,0	58	140	165	M10	1,20
65 59 406	110,0	78	168	11,0	58	140	165	M10	1,15
65 59 407	130,0	78	168	11,0	58	140	165	M10	1,00
65 59 409	130,0	98	188	14,0	78	140	165	M10	1,10
65 59 410	110,0	74	164	8,0	54	120	145	M8	1,00
65 59 411	110,0	84	174	8,0	64	120	145	M8	1,20
65 59 412	114,3	105	195	8,0	85	180	200	M12	3,70
65 59 413	114,3	139	229	8,0	119	180	200	M12	3,35
65 59 414	114,3	91	181	8,0	71	180	200	M12	2,65
65 59 415	110,0	89	179	8,0	69	120	145	M8	1,30

订购代码需包括减速箱代码 58 03 0xx / 58 13 0xx 及法兰代码 65 59 3xx 或 . 4xx.

The order should contain gear box 58 03 0xx / 58 13 0xx and flange 65 59 3xx or 4xx.



**ATLANTA**

HP 高性能减速箱 可调背隙 <2'  
HP-High-performance gear units with adjustable backlash <2'

中心距 / Centre distance

$a_o = 63 \text{ mm}$

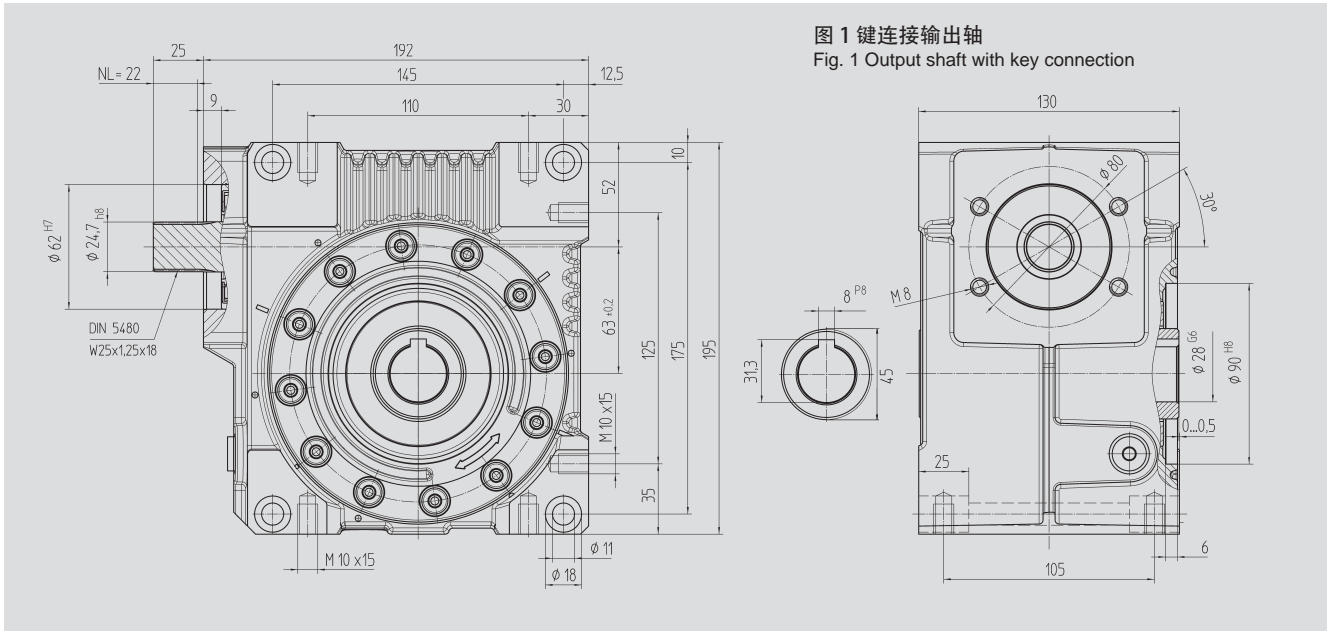


图 1 键连接输出轴  
Fig. 1 Output shaft with key connection

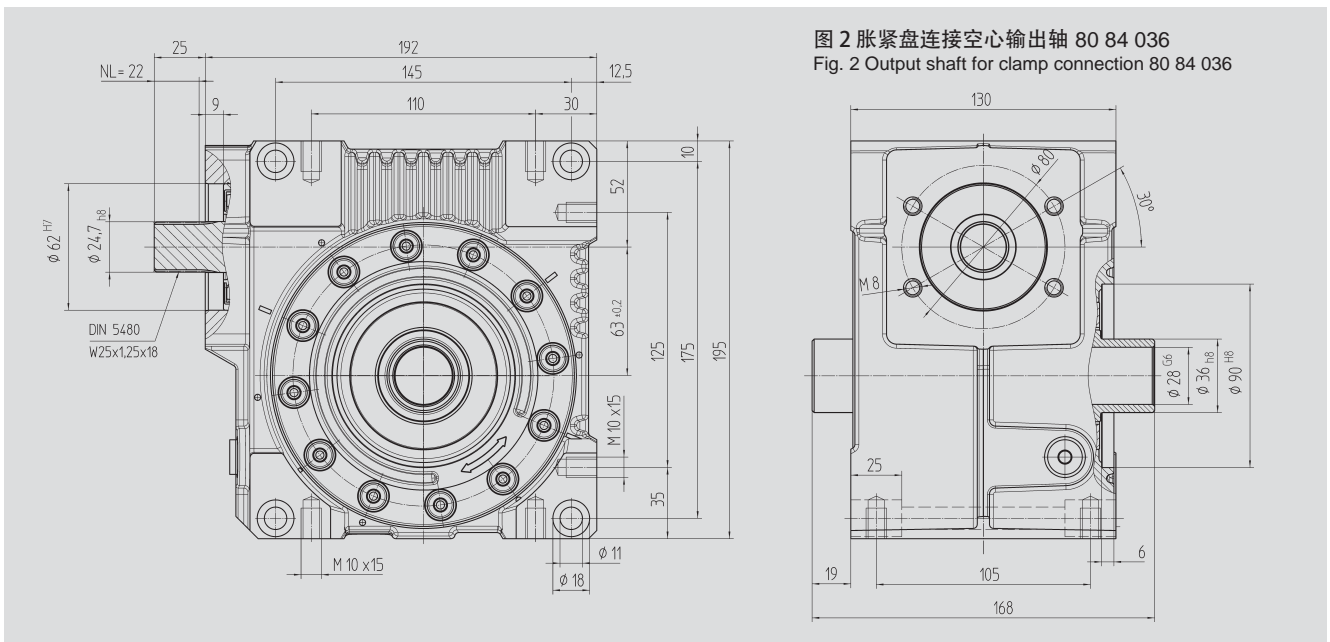


图 2 胀紧盘连接空心输出轴 80 84 036  
Fig. 2 Output shaft for clamp connection 80 84 036

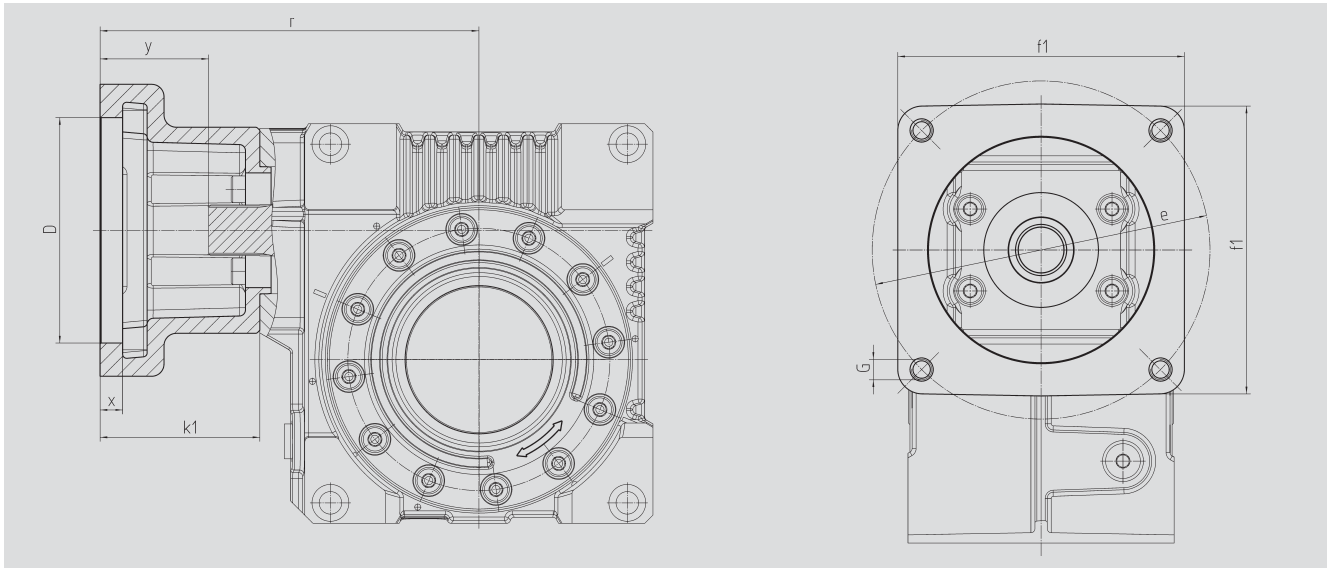
订购代码 / Order code 图 1 / Fig. 1	图 2 / Fig. 2	减速比 i Ratio i	kg	J <sub>red</sub> 10 <sup>-4</sup> kg m <sup>2</sup>
58 04 005	58 14 005	4,75	11,5	2,5350
58 04 007	58 14 007	6,75	11,5	1,3720
58 04 009	58 14 009	9,25	11,5	0,9825
58 04 015	58 14 015	14,50	11,5	0,9590
58 04 020	58 14 020	19,50	11,5	0,6940
58 04 029	58 14 029	29,00	11,5	0,9966
58 04 039	58 14 039	39,00	11,5	1,0100
58 04 052	58 14 052	52,00	11,5	0,5305

润滑油来自食品行业用油  
订购代码: 58 04 1xx / 58 14 1xx

With suitable oil for food  
Order code 58 04 1xx / 58 14 1xx



## 电机法兰 / Motor flange



## 中心距 / Centre distance

$a_o = 63 \text{ mm}$

订购代码。

Order code	DG7	$k_1$	r	x	y	$f_1$	e	G	
65 59 301	95,0	62	152	12,5	42	100	115	M8	0,60
65 59 302	50,0	62	152	10,0	42	100	70; 95; 115	M4; M6; M8	0,70
65 59 303	80,0	62	152	10,0	42	100	100	M6	0,65
65 59 304	95,0	78	168	10,0	58	115	130	M8	0,80
65 59 305	95,0	72	162	8,0	52	100	115	M8	0,75
65 59 306	60,0	74	164	21,0	54	100	75; 90; 115	M5; M5; M8	0,90
65 59 307	70,0	70	160	21,0	50	100	90; 115	M6; M8	0,80
65 59 401	95,0	73	163	8,0	53	100	115	M8	0,75
65 59 402	110,0	78	168	8,0	58	115	130	M8	0,80
65 59 403	95,0	73	163	12,0	53	115	130	M8	0,75
65 59 404	110,0	73	163	12,0	53	115	130	M8	0,70
65 59 405	95,0	78	168	11,0	58	140	165	M10	1,20
65 59 406	110,0	78	168	11,0	58	140	165	M10	1,15
65 59 407	130,0	78	168	11,0	58	140	165	M10	1,00
65 59 409	130,0	98	188	14,0	78	140	165	M10	1,10
65 59 410	110,0	74	164	8,0	54	120	145	M8	1,00
65 59 411	110,0	84	174	8,0	64	120	145	M8	1,20
65 59 412	114,3	105	195	8,0	85	180	200	M12	3,70
65 59 413	114,3	139	229	8,0	119	180	200	M12	3,35
65 59 414	114,3	91	181	8,0	71	180	200	M12	2,65
65 59 415	110,0	89	179	8,0	69	120	145	M8	1,30

订购代码需包括减速箱代码 58 04 0xx / 58 14 0xx 及法兰代码 65 59 3xx 或. 4xx.

The order should contain gear box 58 04 0xx / 58 14 0xx and flange 65 59 3xx or 4xx.



**ATLANTA**

HP 高性能减速箱 可调背隙 <2'  
HP-High-performance gear units with adjustable backlash <2'

中心距 / Centre distance

$a_o = 80 \text{ mm}$

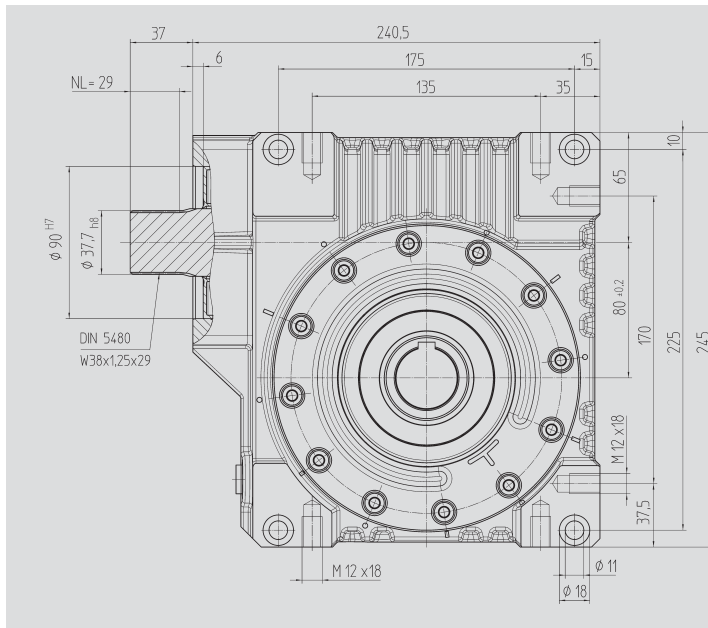


图 1 键连接输出轴

Fig. 1 Output shaft with key connection

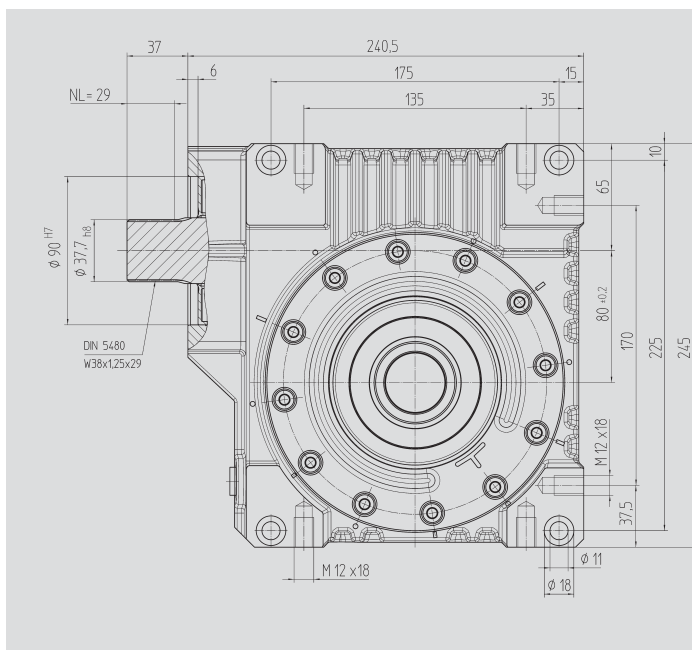
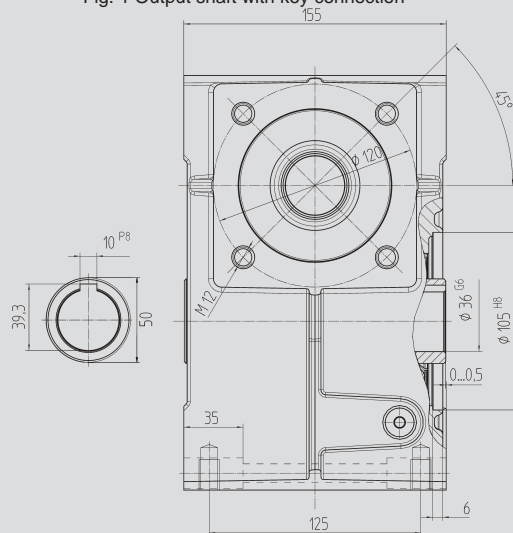
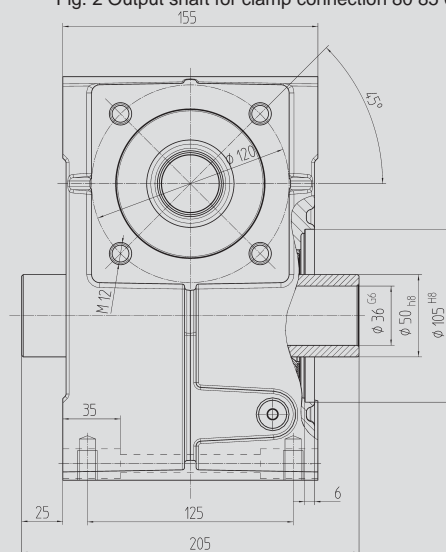


图 2 胀紧盘连接空心输出轴 80 85 050

Fig. 2 Output shaft for clamp connection 80 85 050



订购代码 / Order code  
图 1 / Fig. 1

图 2 / Fig. 2

减速比 i  
Ratio i

kg

$J_{red} 10^{-4}$   
kg m<sup>2</sup>

58 05 005	58 15 005	4,75	22	9,6180
58 05 007	58 15 007	6,75	22	6,0910
58 05 009	58 15 009	9,25	22	4,7650
58 05 015	58 15 015	14,50	22	5,3080
58 05 020	58 15 020	19,50	22	3,9350
58 05 029	58 15 029	29,00	22	4,0500
58 05 039	58 15 039	39,00	22	4,1800
58 05 052	58 15 052	52,00	22	3,7140

润滑油来自食品行业用油  
订购代码: 58 05 1xx / 58 15 1xx

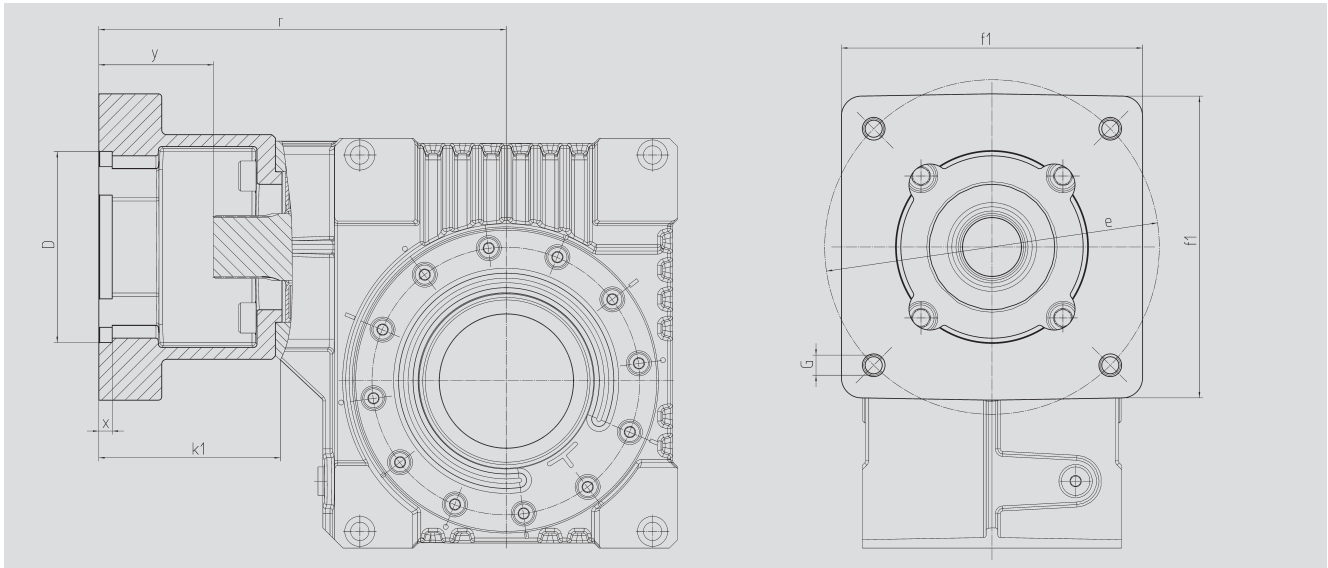
With suitable oil for food  
Order code 58 05 1xx / 58 15 1xx



# ATLANTA

## HP 高性能减速箱 可调背隙 <2' HP-High-performance gear units with adjustable backlash <2'

### 电机法兰 / Motor flange



### 中心距 / Centre distance

$a_o = 80 \text{ mm}$

订购代码.

Order code	D <sup>G7</sup>	k <sub>1</sub>	r	x	y	f <sub>1</sub>	e	G	
65 59 501	110,0	92,0	230,0	8,0	55,0	140	165	M10	2,00
65 59 502	130,0	92,0	230,0	8,0	55,0	140	165	M10	1,90
65 59 503	180,0	122,0	260,0	8,0	85,0	192	215	M12	3,40
65 59 504	180,0	127,0	265,0	8,0	90,0	192	215	M12	3,80
65 59 505	180,0	112,0	250,0	10,0	75,0	192	215	M12	2,70
65 59 506	130,0	112,0	250,0	10,0	75,0	192	215	M12	3,00
65 59 507	130,0	112,0	250,0	10,0	75,0	140	165	M10	2,50
65 59 508	110,0	90,0	228,0	8,0	53,0	140	145	M8	2,00
65 59 509	110,0	108,5	246,5	8,0	71,5	140	145	M8	2,50
65 59 510	114,3	129,5	267,5	8,0	92,5	180	200	M12	5,00
65 59 511	114,3	163,5	301,5	8,0	126,5	180	200	M12	4,20
65 59 512	114,3	105,5	243,5	8,0	68,5	180	200	M12	3,50
65 59 513	110,0	113,5	251,5	8,0	76,5	140	145	M8	2,70

订购代码需包括减速箱代码 58 05 0xx / 58 15 0xx 及法兰代码 65 59 5xx.

The order should contain gear box 58 05 0xx / 58 15 0xx and flange 65 59 5xx.



**ATLANTA**

**HP 高性能减速箱 可调背隙 <2'**  
 HP-High-performance gear units with adjustable backlash <2'

中心距 / Centre distance

$a_o = 100 \text{ mm}$

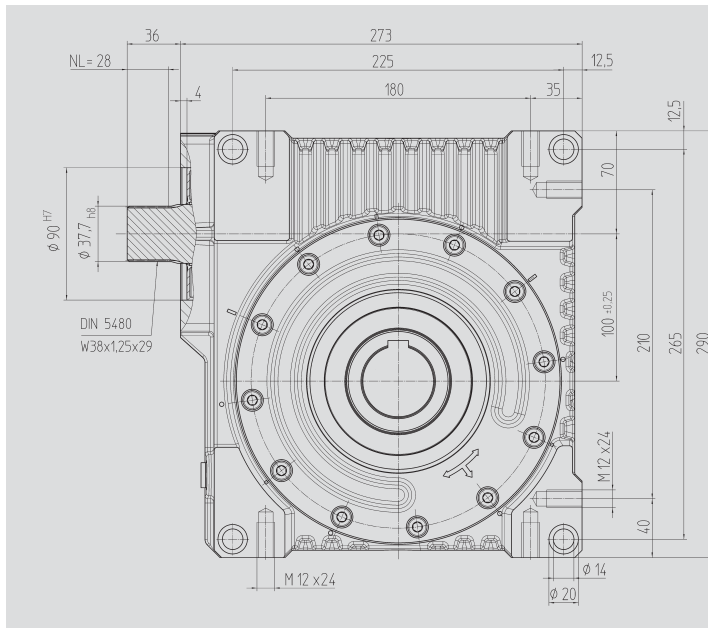


图 1 键连接输出轴  
 Fig. 1 Output shaft with key connection

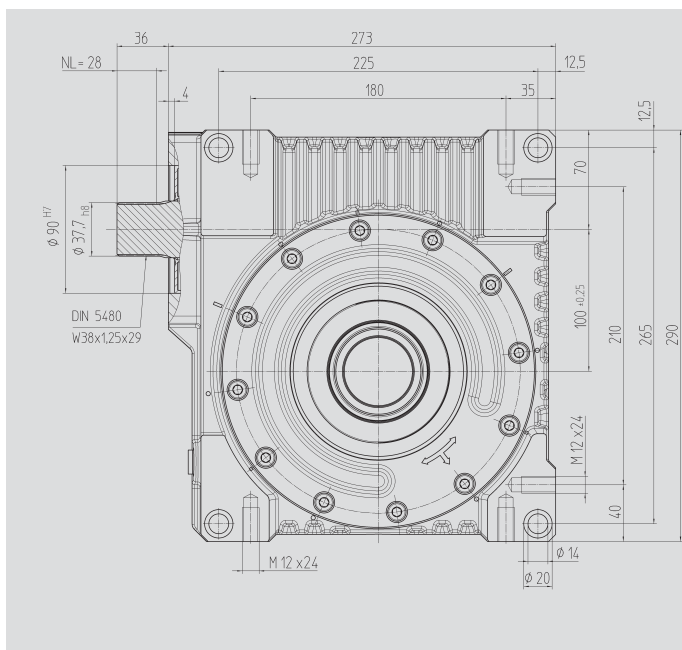
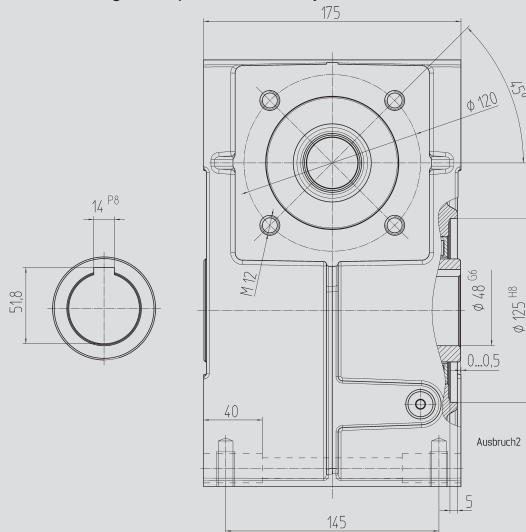
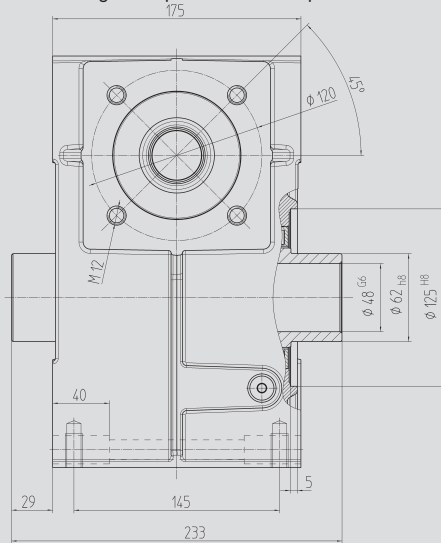


图 2 胀紧盘连接空心输出轴 80 86 062  
 Fig. 2 Output shaft for clamp connection 80 86 062



订购代码 / Order code 图 1 / Fig. 1	图 2 / Fig. 2	减速比 i Ratio i	kg	J <sub>red</sub> 10 <sup>-4</sup> kg m <sup>2</sup>
58 06 005	58 16 005	4,75	37	22,9320
58 06 007	58 16 007	6,75	37	12,8835
58 06 009	58 16 009	9,25	37	8,0975
58 06 015	58 16 015	14,50	37	7,2190
58 06 020	58 16 020	19,50	37	5,4030
58 06 029	58 16 029	29,00	37	4,7207
58 06 039	58 16 039	39,00	37	8,4300
58 06 052	58 16 052	52,00	37	9,7400

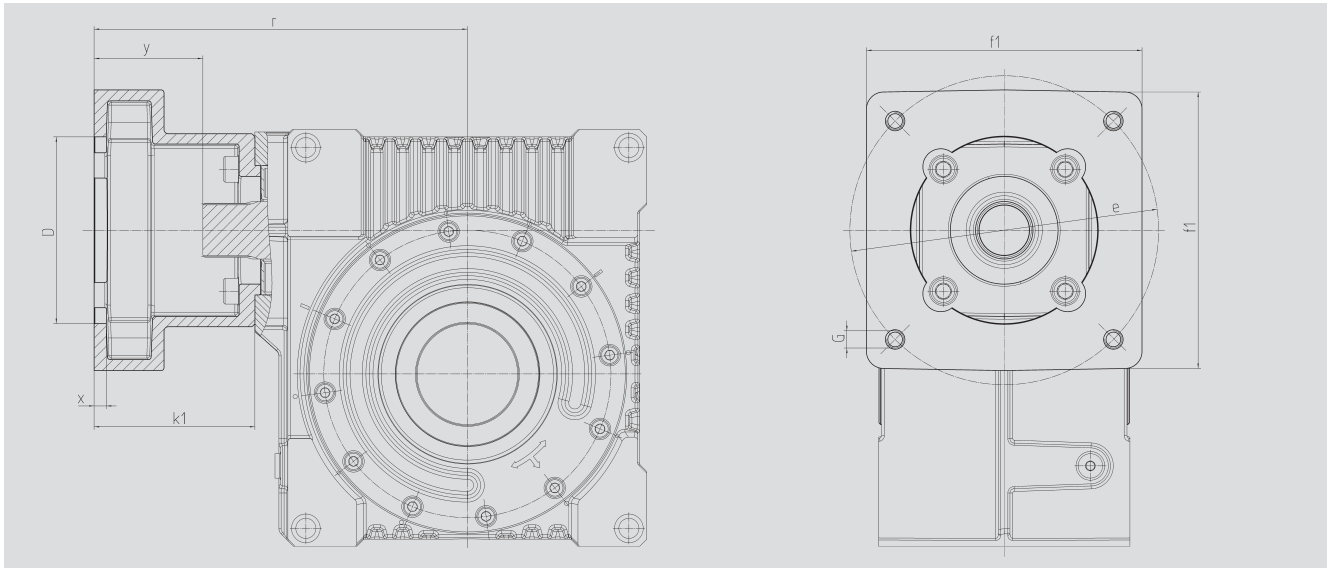
润滑油来自食品行业用油  
 订购代码: 58 06 1xx / 58 16 1xx

With suitable oil for food  
 Order code 58 06 1xx / 58 16 1xx





### 电机法兰 / Motor flange



### 中心距 / Centre distance

$a_o = 100 \text{ mm}$

订购代码.

Order code	DG7	k <sub>1</sub>	r	x	y	f <sub>1</sub>	e	G	
65 59 501	110,0	92,0	230,0	8,0	55,0	140	165	M10	2,00
65 59 502	130,0	92,0	230,0	8,0	55,0	140	165	M10	1,90
65 59 503	180,0	122,0	260,0	8,0	85,0	192	215	M12	3,40
65 59 504	180,0	127,0	265,0	8,0	90,0	192	215	M12	3,80
65 59 505	180,0	112,0	250,0	10,0	75,0	192	215	M12	2,70
65 59 506	130,0	112,0	250,0	10,0	75,0	192	215	M12	3,00
65 59 507	130,0	112,0	250,0	10,0	75,0	140	165	M10	2,50
65 59 508	110,0	90,0	228,0	8,0	53,0	140	145	M8	2,00
65 59 509	110,0	108,5	246,5	8,0	71,5	140	145	M8	2,50
65 59 510	114,3	129,5	267,5	8,0	92,5	180	200	M12	5,00
65 59 511	114,3	163,5	301,5	8,0	126,5	180	200	M12	4,20
65 59 512	114,3	105,5	243,5	8,0	68,5	180	200	M12	3,50
65 59 513	110,0	113,5	251,5	8,0	76,5	140	145	M8	2,70

订购代码需包括减速箱代码 58 06 0xx / 58 16 0xx 及法兰代码 65 59 5xx.

The order should contain gear box 58 06 0xx / 58 16 0xx and flange 65 59 5xx.0.



# ATLANTA

## HP 高性能减速箱 可调背隙 <2' HP-High-performance gear units with adjustable backlash <2'

中心距 / Centre distance

$a_o = 125 \text{ mm}$

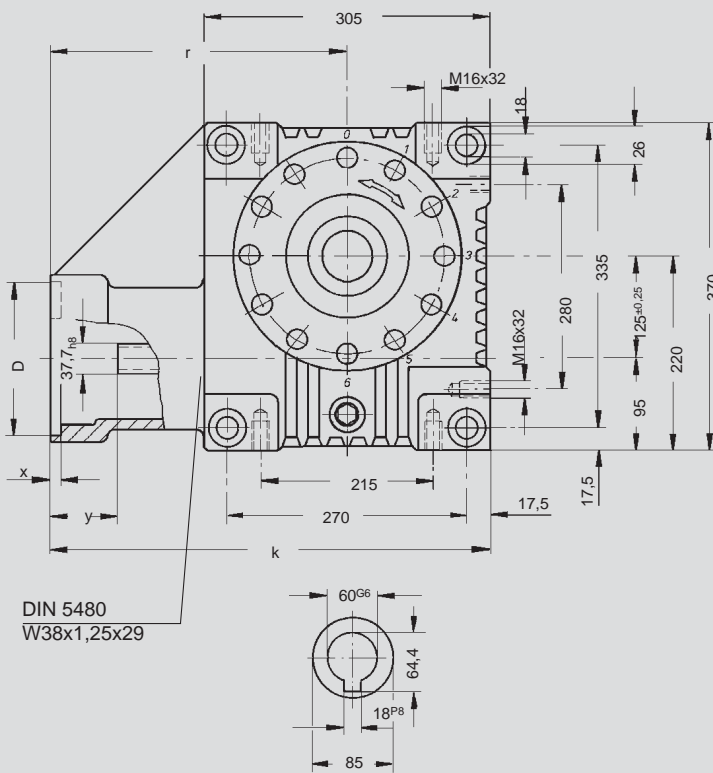


图1 键连接输出轴  
Fig. 1 Output shaft with key connection

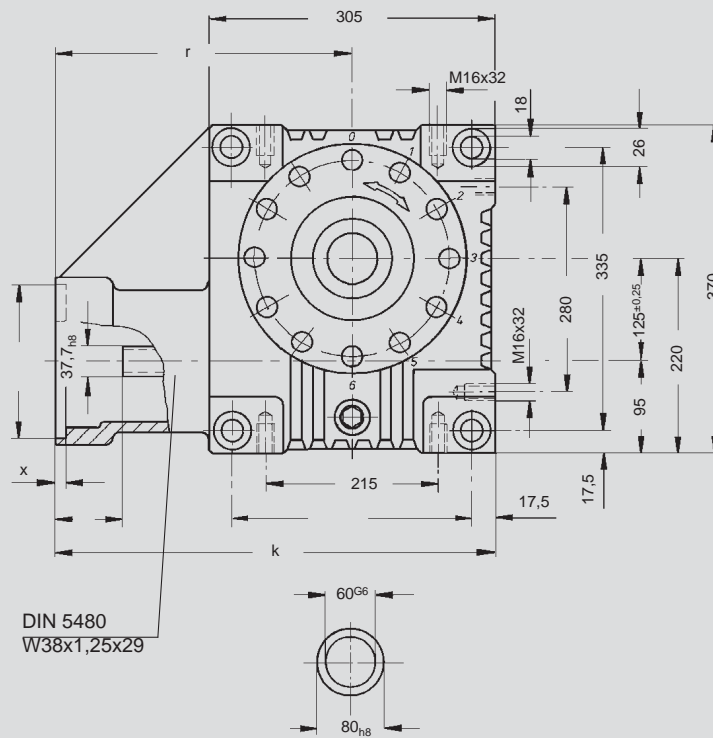



图2 胀紧盘连接空心输出轴 80 87 080  
Fig. 2 Output shaft for clamp connection 80 87 080



中心距 / Centre distance  $a_o = 125 \text{ mm}$

订购代码. / Order code 图 / Fig.1	图 / Fig. 2	减速比 i Ratio i	D <sup>G7</sup>	k	r	x	y	f <sub>1</sub>	e	G		J <sub>red</sub> 10 <sup>-4</sup> kg m <sup>2</sup>
58 47 007	58 87 007	6,75										35,9192
58 47 009	58 87 009	9,25										23,3256
58 47 015	58 87 015	14,50	180	468	315,5	6	75	200	215	M12	68	25,5742
58 47 020	58 87 020	19,50										16,4748
58 47 029	58 87 029	29,00										23,4384
58 47 039	58 87 039	39,00										15,3588
58 47 052	58 87 052	52,00										11,2943
58 47 107	58 87 107	6,75										35,9192
58 47 109	58 87 109	9,25										23,3256
58 47 115	58 87 115	14,50	180	484	331,5	6	91	200	215	M12	68	25,5742
58 47 120	58 87 120	19,50										16,4748
58 47 129	58 87 129	29,00										23,4384
58 47 139	58 87 139	39,00										15,3588
58 47 152	58 87 152	52,00										11,2943



按照您的需求，可提供其他中心距和减速比的产品 / other centre distances and ratios on request.



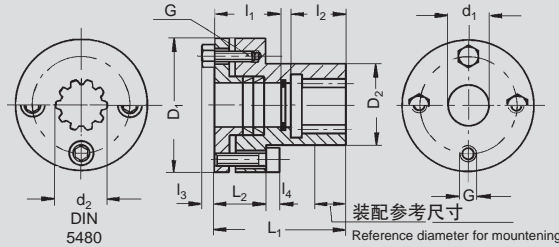
### 伺服电机与减速机专用特制联轴器，刚性联接，渗氮，与伺服电机安装无键槽

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



减速机输入轴侧  
采用符合DIN5480标准的  
内花键结构

Bore on gear unit side  
low-clearance tooth-hub  
profile corresponding to  
DIN 5480 for push-fitting



电机输出轴侧  
采用胀紧盘结构

Bore on motor side with locking  
elements as clamp connection

订购代码 / Order code

联轴器

Coupling	1)	d <sub>1</sub>	d <sub>2</sub>	D <sub>1</sub>	D <sub>2</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	L <sub>1</sub>	L <sub>2</sub>	G	J <sub>red</sub> 10 <sup>-4</sup> kg m <sup>2</sup>	kg
65 43 110	9 71 80 010	10	15x1,25x10	48	29	22	17	-	5	44	18	4xM5	0,835	0,40
65 43 111	9 71 80 011	11	15x1,25x10	48	29	20,5	17	-	5	64	18	4xM5	0,976	0,50
65 43 114	9 71 80 014	14	15x1,25x10	48	29	24	19	-	5	50	18	4xM5	0,835	0,45
65 43 116	9 71 80 016	16	15x1,25x10	48	29	27	16	-	5	50	18	4xM5	0,824	0,45
65 43 119	9 71 80 019	19	15x1,25x10	48	29	24	16	-	5	40	18	4xM5	0,799	0,40
65 43 914	9 71 80 014	14	15x1,25x10	48	29	26	19	-	5	64	18	4xM5	0,985	0,50
65 43 916	9 71 80 016	16	15x1,25x10	48	29	27	15	-	5	64,3	18,3	4xM5	0,975	0,40
65 43 919	9 71 80 019	19	15x1,25x10	48	29	23	17	-	5	55	18	4xM5	0,853	0,45
65 43 924	9 71 80 024	24	15x1,25x10	50	29	34	22	-	6	56	40	4xM6	1,041	0,52
65 44 024	9 71 80 024	24	25x1,25x18	50	29	41,5	24	-	6	66,5	59,5	4xM6	2,628	0,75
65 44 114	9 71 80 014	14	25x1,25x18	55	32	24	23,5	-	6	64	21	4xM6	1,645	0,50
65 44 116	9 71 80 016	16	25x1,25x18	55	32	34	23,5	-	6	64	21	4xM6	1,622	0,50
65 44 119	9 71 80 019	19	25x1,25x18	55	32	33	26,5	-	6	63	21	4xM6	1,598	0,50
65 44 120	9 71 80 020	20	25x1,25x18	55	32	33,2	26,5	-	6	63	21	4xM6	1,550	0,50
65 44 219	9 71 80 019	19	25x1,25x18	55	32	27	26,5	-	6	74	21	4xM6	1,703	0,50
65 44 919	9 71 80 019	19	25x1,25x18	55	32	31	26,5	-	6	78	21	4xM6	1,757	0,55
65 44 928	9 71 80 028	28	25x1,25x18	70	48	48	26	-	6	83	25	5xM6	5,998	0,85
65 44 932	9 71 80 032	32	25x1,25x18	70	48	43	23	-	6	78	25	5xM6	5,921	0,80
65 44 935	9 71 81 035	35	25x1,25x18	70	48	52	26	-	6	78	25	5xM6	6,155	0,95
65 46 024	9 71 80 024	24	38x1,25x29	55	-	38,5	31	4	6	72,5	-	5xM6	4,452	0,90
65 46 834	9 71 81 035	1 3/8"	38x1,25x29	80	58	63	34	-	6	100	40	6xM6	16,320	1,95
65 46 928	9 71 80 028	28	38x1,25x29	70	48	47	34	-	6	90	25	5xM6	5,882	0,90
65 46 932	9 71 80 032	32	38x1,25x29	70	48	43	34	-	6	86	25	5xM6	5,784	0,85
65 46 935	9 71 81 035	35	38x1,25x29	80	58	65	34	-	6	100	40	6xM6	16,550	1,95
65 46 938	9 71 80 038	38	38x1,25x29	80	58	62	34	-	6	100	40	6xM6	16,240	1,88
65 47 948	9 71 80 048	48	38x1,25x29	95	66	58	31	-	8	92	42	6xM8	41,860	3,10

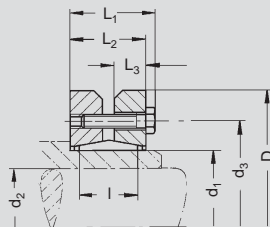
1) 胀紧环备件 / Spare part clamping element

### 98 1. ...系列减速机空心输出轴用胀紧盘.

Shrink-disc clamping sets for output drive shafts of gear series 98 1. ...

整体供货

Supplied as  
complete set



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

订购代码.

Order code	a <sub>0</sub> mm	T <sub>2max</sub> Nm	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	D	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	l	G	J 10 <sup>-4</sup> kg m <sup>2</sup>	kg
80 83 030	50	400	30	25	44	60	25,0	21,50	9	16	7 x M5	1,756	0,3
80 84 036	50	540	36	28	52	72	27,5	23,50	10	18	5 x M6	4,029	0,4
80 85 050	63	1180	50	36	70	90	31,5	27,50	12	22	9 x M6	11,322	0,8
80 86 062	80	2300	62	48	86	110	34,5	30,50	13	23	10 x M6	27,137	1,3
80 87 080	100	3240	80	60	100	145	38,0	32,50	14	25	7 x M8	88,870	1,9



表中所列数据 基于磨损和最大侧向负载 伺服电机操作  
12000小时的满负荷运行。连续的满负荷运行，必须考虑温  
度限制！（如有疑问，请与我们联系。）

The values in the tables are based upon wear or maximum flank load at 12,000 h full load and on servo-operation. Please see here for also our manual on the internet page [www.atlantagmbh.de](http://www.atlantagmbh.de). With continuous full-load operation it may be necessary to consider temperature limits! (Please ask us, if in doubt.)

$T_{2max.}$  = 避免齿断裂的静态扭矩,  
 $P_1$  = 驱动功率 (kW) ,  
 $T_2$  = 输出扭矩 (Nm)

$T_{2max.}$  = static torque to avoid tooth fracture,  $P_1$  = driving power in kW,  $T_2$  = output torque in Nm.



订购代码. Order code	$a_0$ (mm)	i	$T_{2max.}$	驱动速度 / Driving speed $n_1$ in $min^{-1}$														$\eta$ 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)		
58 03 003	58 10 003	50	3,00*																
58 03 005	58 13 005		4,75	550	0,81	65	1,20	65	1,70	70	2,52	70	5,00	70	6,20	65	7,30	61	0,93
58 03 007	58 13 007		6,75	400	0,50	56	0,77	59	1,10	63	1,75	69	3,50	69	4,40	65	5,20	61	0,90
58 03 009	58 13 009		9,25	275	0,32	48	0,50	51	0,70	54	1,10	58	2,55	70	3,55	70	4,10	65	0,88
58 03 015	58 13 015		14,50	350	0,26	57	0,40	60	0,57	65	0,89	70	1,82	75	2,50	75	3,15	75	0,84
58 03 020	58 13 020		19,50	250	0,16	45	0,25	48	0,34	50	0,55	55	1,20	65	1,65	65	2,10	65	0,83
58 03 029	58 13 029		29,00	300	0,14	48	0,20	52	0,29	55	0,44	60	0,93	70	1,23	70	1,41	65	0,76
58 03 039	58 13 039		39,00	200	0,12	53	0,17	56	0,24	60	0,37	65	0,77	75	1,00	75	1,25	75	0,70
58 03 050	58 13 050		50,00	150	0,08	42	0,12	44	0,16	47	0,25	50	0,51	60	0,72	60	0,90	60	0,63
58 04 003	58 14 003	63	3,00*																
58 04 005	58 14 005		4,75	1000	2,10	170	3,30	180	4,40	180	6,11	170	10,30	145	13,20	135			0,93
58 04 007	58 14 007		6,75	750	1,50	170	2,35	180	3,10	180	4,25	170	7,20	145	9,30	135			0,90
58 04 009	58 14 009		9,25	500	0,74	115	1,18	125	1,63	130	2,52	135	4,93	135	6,35	126			0,88
58 04 015	58 14 015		14,50	600	0,74	165	1,19	180	1,54	180	2,45	180	4,18	170	5,25	160			0,84
58 04 020	58 14 020		19,50	500	0,39	115	0,61	125	0,85	130	1,28	135	2,98	165	3,83	155			0,83
58 04 029	58 14 029		29,00	650	0,48	175	0,75	190	1,04	205	1,55	220	2,57	195	3,22	185			0,76
58 04 039	58 14 039		39,00	450	0,30	140	0,44	150	0,61	160	0,97	175	1,88	190	2,55	190			0,70
58 04 052	58 14 052		52,00	300	0,16	95	0,25	105	0,35	115	0,55	125	1,20	150	1,63	160			0,63
58 05 003	58 15 003	80	3,00*																
58 05 005	58 15 005		4,75	2000	5,20	420	6,90	380	8,53	360	11,60	330	19,50	280					0,93
58 05 007	58 15 007		6,75	1400	3,60	420	4,86	380	6,14	360	8,44	330	14,01	280					0,90
58 05 009	58 15 009		9,25	1100	2,38	370	3,53	370	4,53	360	6,22	330	10,30	280					0,88
58 05 015	58 15 015		14,50	1300	1,98	450	2,90	450	3,57	420	4,60	370	7,00	295					0,84
58 05 020	58 15 020		19,50	1000	1,24	370	2,00	400	2,60	400	3,60	380	5,73	320					0,83
58 05 029	58 15 029		29,00	1200	1,38	520	2,04	550	2,52	530	3,32	490	5,42	420					0,76
58 05 039	58 15 039		39,00	850	0,87	430	1,35	460	1,85	490	2,51	480	4,03	410					0,70
58 05 052	58 15 052		52,00	600	0,38	240	0,57	260	0,80	275	1,22	300	2,46	330					0,63
58 06 005	58 16 005	100	4,75	3300	10,77	880	14,22	800	17,77	750	24,10	685	40,37	580					0,93
58 06 007	58 16 007		6,75	2300	7,23	830	9,60	750	12,10	720	16,70	660	29,00	580					0,90
58 06 009	58 16 009		9,25	1900	5,34	830	7,10	750	9,10	720	12,30	660	21,20	580					0,88
58 06 015	58 16 015		14,50	2050	4,20	930	5,80	880	6,80	810	9,00	720	14,30	620					0,84
58 06 020	58 16 020		19,50	1800	3,02	900	4,27	870	5,20	810	6,67	720	11,10	620					0,83
58 06 029	58 16 029		29,00	2300	2,96	1150	4,02	1070	4,67	1010	5,97	850	10,31	800					0,76
58 06 039	58 16 039		39,00	1650	2,07	1080	2,88	1030	3,63	1000	4,53	900	7,48	780					0,70
58 06 052	58 16 052		52,00	1100	1,16	760	1,82	820	2,41	850	3,08	785	5,00	680					0,63
58 47 _07	58 87 _07	125	6,75	6450	15,06	1650	19,83	1500	24,68	1400	33,99	1300	54,94	1150 <sup>1)</sup>					0,90
58 47 _09	58 87 _09		9,25	4400	10,78	1600	14,31	1450	17,38	1350	23,90	1200	39,62	1050					0,88
58 47 _15	58 87 _15		14,50	5850	8,22	1800	10,90	1650	15,23	1750	19,12	1500	32,37	1300					0,84
58 47 _20	58 87 _20		19,50	3900	6,02	1750	8,16	1600	9,70	1500	13,42	1400	22,48	1200					0,83
58 47 _29	58 87 _29		29,00	5700	5,93	2200	8,04	2050	9,38	1950	12,83	1800	20,90	1550					0,76
58 47 _39	58 87 _39		39,00	3800	4,34	2100	5,86	1950	6,80	1850	9,13	1700	15,29	1500					0,70
58 47 _52	58 87 _52		52,00	2500	2,79	1800	3,78	1700	4,67	1600	6,04	1500	9,94	1300					0,63

\* 按需供货 /On request

功率和输出扭矩对应的转速

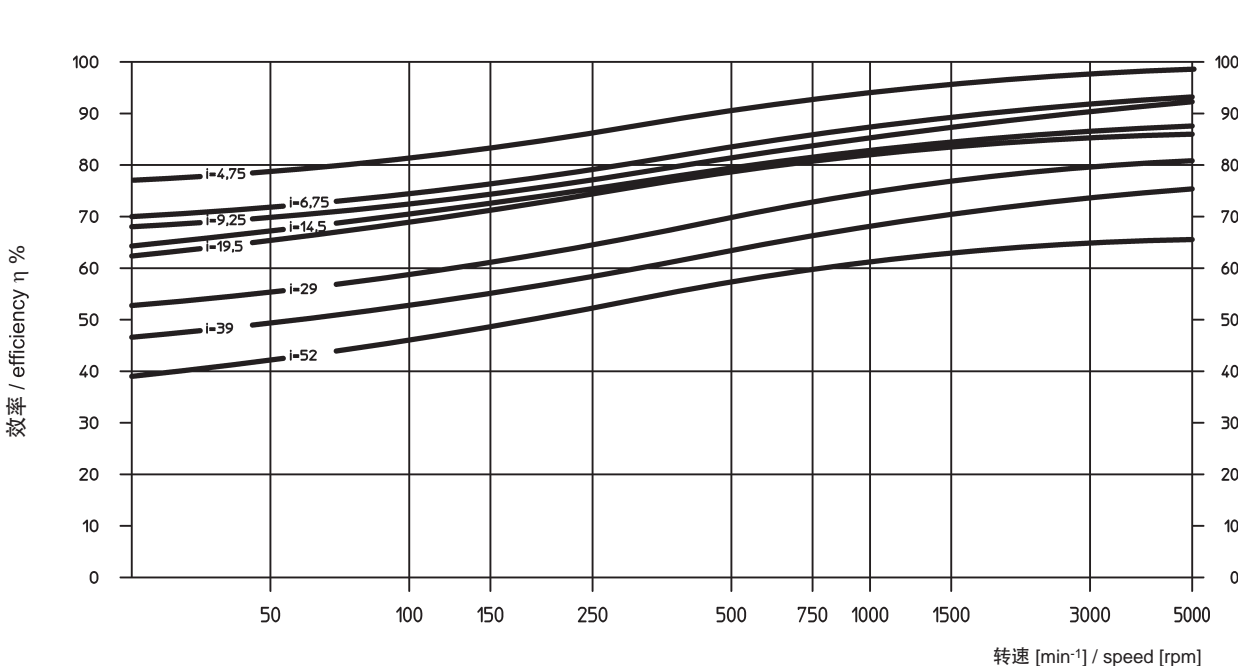
1) 最高输入转速 2800  $min^{-1}$

Power and driving torque corresponding to

1) max. input speed of 2800  $min^{-1}$

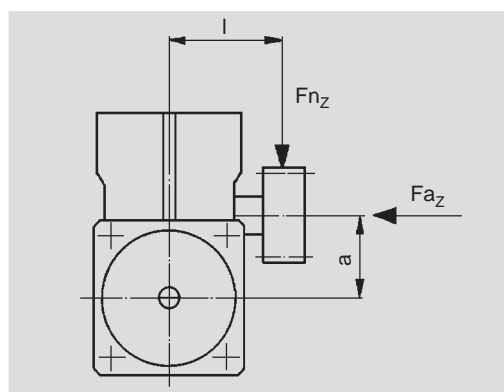


在满负荷情况下，伺服蜗轮蜗杆减速箱的传动效率。  
Gearing efficiency of servo worm gear units with driving worm and under full load.



作用在输出轴上的附加载荷  
给出的数据仅作参考。还应该考虑齿条系统选择时的数值。假设作用力的施力点在轴的中间位置。如果有额外的轴向力，或者高侧向力的情况，请与我们联系。

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)	50		63		80		100		125	
减速箱中心到齿轮中心的距离 Dimensions centre casing/ centre teeth	l (mm)	90	140	110	160	125	175	140	190	175	220
最大附加载荷 Max. additional load											
径向 radial	$F_{n_z}$ [N]	3600	2300	5000	3500	8400	6000	10000	7500	21000	16000
轴向 axial	$F_{a_z}$ [N]	1800	1800	2500	2500	4000	4000	5000	5000	10000	10000
仅是轴向载荷 ( $F_n = 0$ ) Only axial load	$F_{a_z}$ [N]	3000		5000		12000		15000		25000	



### 简述

亚特兰 HP 高性能蜗轮蜗杆减速箱是特殊开发用于最新的交流和直流伺服电机。同本目录中其他产品一样，都有常备库存，或者很短时间就可以发货。

HP 高性能减速箱的基本特征：

- 低背隙（背隙 < 2'）, 可调
- 高达70%负载能力
- 轻合金壳体结构具有很好的散热性能
- 坚固的滚柱轴承装配在空心输出轴上，可承受更大的附加力

中心距，减速比和齿轮系统根据DIN 3975/76标准选取。齿形进行了优化，以便能够简单地通过调整偏心法兰改变中心距的方法调整背隙。

使用经过磨削右旋的蜗杆，特制的铜合金蜗轮，并浸入特种润滑油中润滑，来保证较高的效率，平顺的运行和长效寿命。加工过的壳体上留有很多安装孔和攻丝孔，方便安装。

减速箱和输出轴之间的联接要求绝对可靠，无扭转变形，对于间歇运行这点很重要。该些列减速箱使用新的胀紧盘联接结构,保证以上需求。

减速箱和伺服电机的连接采用了特殊的联轴器。减速箱的输入轴为外花键结构，联轴器为内花键结构，完全吻合，达到无背隙传动。联轴器与电机轴之间通过胀紧结构也是同样的目的。

对于动力的输出，有多种输出驱动轴可供选择，如不同齿数的直齿和斜齿驱动系统。除了齿轮轴外，还有很多不同的齿轮和输出轴配合使用。所有驱动轴和我们的减速箱一致，可以用键形式和胀紧盘形式连接。

齿条是伺服驱动系统中理想的标准部件。齿条产品系列从相对简单的软材质齿条到淬火磨削的齿条等，有直齿和斜齿系统，所有表面磨削齿条，高精度类型等。

对于减速箱安全停止的最大传动扭矩（参考GB-13）和胀紧盘（GH-1）必须核对完毕。

### Short description

ATLANTA HP-high-performance worm gear units have been specially developed for use with the latest three-phase and DC servo-motors. Like all other components in this catalogue, they are usually available ex stock or, at least, within a very short time.

The following are typical features of our high-performance gear units:

- low-clearance gearing (back lash < 2'), adjustable
- up to 70% higher loading values
- casing of light metal for optimal heat dissipation
- robust bevel roller bearings for the output drive hollow shaft, permitting greater additional forces.

Centre distances, gear ratios and tooth systems have been chosen in accordance with DIN 3975/76. The tooth shape was optimised so as to permit the adjustment of the clearance simply by changing the centre distance by means of eccentric flanges.

The use of ground, right-hand worms, a worm gear of special worm-gear bronze and dip-feed lubrication (synthetic special oil) ensures a high degree of efficiency and also smooth running in both directions and a long service life. The fully machined casing with its many fixing bores and tapped holes permits mounting in any position.

The demand for an absolutely positive, and largely torsion-free connection between gear unit and output shaft, as it is especially important for intermittent operation, is fulfilled by our new gear units using shrink-plate coupling with the output drive shaft.

The drive, i.e. the connection with the driving motor, is achieved with a special clutch. Its internal gearing, together with the barrelled profile of the driving shaft of our worm gear unit ensures transmission of the power with no free play. The use of annular spring elements firmly fixed to the motor shaft serves the same purpose.

For the output drive you can choose from quite a number of output drive shafts with straight and helical tooth systems and various numbers of teeth. Apart from toothed pinion shafts there is a multitude of gearwheels with different numbers of teeth from our gearwheel program which can be combined and used together with suitable special output drive shafts. The whole range of drive shafts, like our gear units, is of course available for key and shrink-fit connection.

Toothed racks ideally supplement our programme of standard elements for servo-assisted drive units. Our off-the shelf programme ranges from relatively simple, soft racks through hardened racks available with straight tooth system or with helical tooth system for smooth running, to the fully ground, low-tolerance types.

For safety-stop is the maximum transmittable torque of the gear unit (see page GB-13) and shrink disc (see page GH-1) has to be checked. The output keyway has to be calculated separately.





### 安装说明

#### 蜗轮蜗杆减速箱

5个安装面都有合适尺寸的安装孔，方便任何角度安装。为了提供足够的侧向力支撑（参看GB-14），我们推荐最大接触面安装，就是带有输出轴的两个侧面。把输入轴置于输出轴的侧方或者下方，将有利于润滑。如果输入轴置于输出轴上方，将降低10%的驱动能力。



#### 联轴器

联轴器在出厂前已经装配好。在安装之前请擦拭干净所有接触面，并涂抹一小层油膜。联轴器中的卡簧能够卡住电机轴，使联轴器不能轴向移动。加入第二个卡簧也是有可能的。

推荐安装顺序：

- 把联轴器放到电机输出轴上，向内推动，直至停止移动。（轴肩/卡簧）
- 轻轻锁紧胀紧螺栓，并检查联轴器的转动情况。
- 使用扭力扳手交叉锁紧胀紧螺栓，达到表中所列响应扭矩，确保联轴器与接触面间隙均匀。
- 建议最后做径向跳动检测。

安装指导请参考GI-1~GI-4页。

#### 电机

将装有联轴器的电机对准减速箱输入轴轴心装入，并锁紧螺栓。

#### 输出轴（齿轮轴）

除非输出齿轮轴已经装配完毕，否则我们推荐如下安装步骤：清理齿轮轴和减速箱空心输出轴孔，然后涂抹一些油脂。对于特殊齿轮轴我们推荐轴径公差为h6 (DIN ISO286).材料必须拥有385 N/mm<sup>2</sup>以上的屈服点强度。重新计算扭力是必要。

#### 减速箱输出轴为胀紧盘式结构

将胀紧盘安装到减速箱空心输出轴上（切勿在未安装状态下锁紧胀紧盘螺栓！）。将齿轮轴插入减速箱空心输出轴希望安装的一侧，直至停止。均匀的锁紧胀紧盘上的螺栓。按照依次的顺序锁紧螺栓（不是交叉锁紧）达到表格中所需求的扭矩。

### Mounting instructions

#### Worm gear units

Five mounting faces with sufficiently dimensioned tapped holes are provided for mounting in any position. In order to accommodate all supplementary forces (see page GB-14) we recommend mounting at the largest contact faces., i.e. at one of the two cap sides. Putting the worm shaft (input shaft) in a lateral or inferior position is ideal for lubrication. Mounting the shaft in a top position will reduce the driving capacity by about 10%.

#### Coupling

The coupling will be delivered pre-assembled. Before attaching it to the motor shaft all contact surfaces must be cleaned and protected by applying a thin oil film. A retaining ring inserted in the hub of the coupling locks it on the motor shaft preventing axial movement of the coupling. It may be necessary to insert this ring in the next recess.

Recommended sequence:

- Slide the coupling onto the motor shaft until it clicks home (shoulder/retaining ring).
- Tighten the clamping screws slightly and check the coupling for true running.
- Tighten screws alternately crosswise using torque figures as shown in the operation and maintenance instructions ensuring that the gap between coupling and contact face remains even.
- A final check of true running is recommended at the applicable reference diameter!

A mounting guide can be found on page GI-1 to GI-4

#### Motor

Insert the motor with coupling mounted into the gear centering piece and bolt it to the gearbox.

#### Output drive (pinion) shaft

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

Clean pinion shaft and hollow shaft extension and then oil them. For the special output drive shaft we recommend tolerance h6 (DIN ISO286). the material must have a minimum yield point of 385 N/mm<sup>2</sup>. A recalculation of the strength is necessary.

Output drive shaft for shrink-disc connection - Slide shrink disc onto the hollow shaft extension of the gear unit (please do not tighten the screws beforehand!). Insert the output shaft from the desired side into the hollow shaft fully up to the stop. Make the transverse pressure connection by evenly tightening the clamping screws. Tighten the screws one after the other (not crosswise) in several passes to the torque indicated in the operation and maintenance instructions.





### 减速箱输出轴为键连接形式

通过卡簧，挡片和螺栓固定住齿轮轴的轴向方向。为了达到这个目的，先将卡簧卡在空心输出轴的卡簧槽内，再将齿轮轴插入减速箱空心输出轴另一侧，直至停止。挡片和螺栓从齿轮轴的另一侧拉住齿轮轴锁紧。卡簧必须卡住齿轮轴不令其移动。

Output drive shaft for key connection - The retaining ring, the disc and the screw supplied with the output drive shaft serve for locking the output shaft in axial direction. For this purpose insert the retaining ring in the applicable recess of the hollow shaft and slide the output drive shaft from the desired side into the hollow shaft up to the stop. Disc and screw are screwed to the output shaft from the other side of the gear unit. The retaining ring must be clamped between disc and pinion shaft.



### 维护

#### 背隙的调整

减速箱在出厂前已经调整到最小背隙。经过长时间的运行，由于磨损，背隙可能会增加（参考值>15'）。背隙可以通过调整装在减速箱两侧的偏心法兰盘再次调整（支撑蜗轮）。

### Maintenance

#### Adjustment of the circumferential backlash

The units are set up in the factory with a minimal amount of backlash. After prolonged usage, backlash may increase due to wear (reference value >15'). It can be adjusted by moving the eccentrically supported output shaft (= worm wheel).

我推荐按照如下步骤执行：

拧下两侧端盖上的内六角螺栓，为了避免漏油，不要取下两侧端盖。同时旋动两侧端盖，使箭头指向减速箱壳体上更高的数字。至少检测蜗轮旋转一周的背隙值，来评定调整背隙的结果。如果必要，再次调整。交叉锁紧螺栓达。通过以上调整，减速箱的中心距会变化，此时必须调整安装附件达到安装中心距的要求。

We recommend to proceed as follows:

Unscrew the hexagon socket head screw of the two end caps without removing the caps in order to avoid oil leakage. Turn both caps towards the next higher number marked on the casing ensuring that they are both moved by the same amount. Check the backlash by turning the worm gear at least one complete revolution. If necessary, adjust further by another step. Evenly retighten the hexagon socket head screws alternately crosswise. An alteration of the gear centre distance in relation to the overall operating conditions of the unit must be made up for by adjusting the attachment of the gear unit.

#### 更换润滑油

减速箱出厂前已经充满合成润滑油，并进行了运行测试。可以直接安装。运行期间建议每个月检查一次液位，运行的第一周建议多次检查。正常负载情况下，单班工作，我们建议每4年更换一次润滑油；如果2到3班工作建议每年更换一次。更换润滑油必须将原有废油排空，并用新油冲洗干净，再次填充新的推荐的润滑油至减速箱中部。

#### Lubricant change

In the factory the gear units are filled with a synthetic lubricant and test run. They are delivered ready for use. A check of the lubricant level once a month - during the first weeks of operation more frequently - is recommended. Under normal load conditions and with single shift working it is recommended that the lubricant be changed every four years; with 2 or 3 shift working the lubricant should be changed annually. To do this, the unit must be emptied, flushed through and then refilled to the oil-level hole approximately in the middle of the gear unit using one of the lubricants recommended below. (Important: Synthetic lubricants must not be mixed with mineral oils.) For oil quantities see table.

（重要：合成润滑油不可与矿物润滑油混用）请参考下表填充油量。

我们推荐如下合成润滑油：

**Klübersynth GH 6 - 220**  
订购代码: 65 90 010 (1 升)

替代品：

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

中心距 Centre distance	润滑油量 Oil quantity
a = 50 mm	0,3 l
a = 63 mm	0,5 l
a = 80 mm	1,2 l
a = 100 mm	2,0 l
a = 125 mm	4,0 l

We recommend the following synthetic gear lubricant:

Klübersynth GH 6 - 220  
Order code: 65 90 010 (1 litre)

alternative:

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

### 防护等级

防护等级：IP65/67 符合 DIN ISO 20653  
(腐蚀性已被单独验证)

### Degree of protection

Degree of protection: IP65/67 according to DIN ISO 20653  
(Corrosion has to be verified separately).



**ATLANTA**

