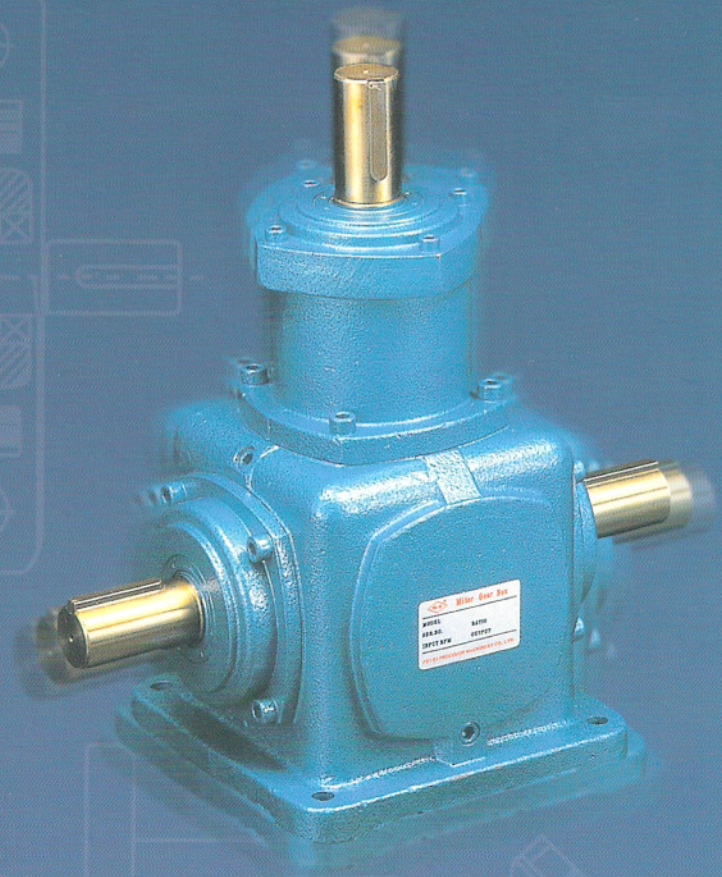
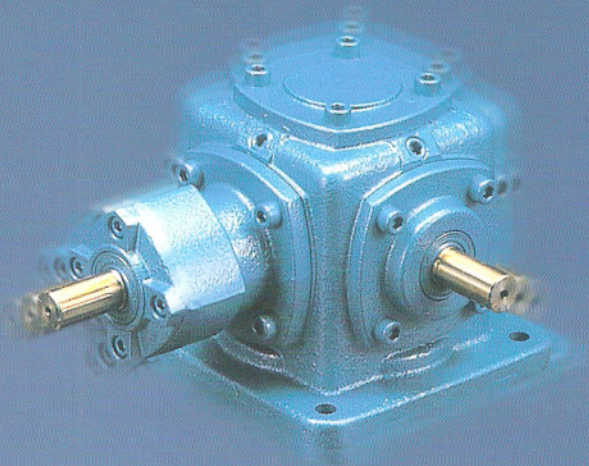
十字轉向機

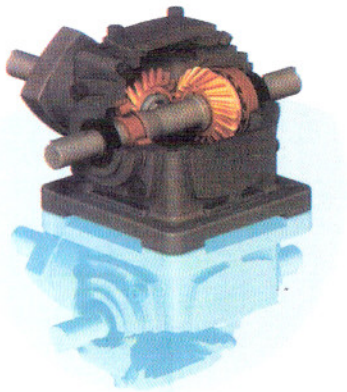
MITER GEAR BOX





北譯精機股份有限公司

PEI-EI Precision Machinery Co., Ltd.



機殼：高剛性FC-25鑄鐵鑄造。

齒輪：鉻鉬鋼螺線傘齒輪、表面經硬化處理及研磨。

主軸：碳鋼經高精度研磨處理、高懸重負荷能力。

軸承：配備重負荷能力的滾錐軸承。

油封：雙封唇片的油封、兼具防塵及防漏油的能力。

Housing :High tensile strength cast iron (FC-25).

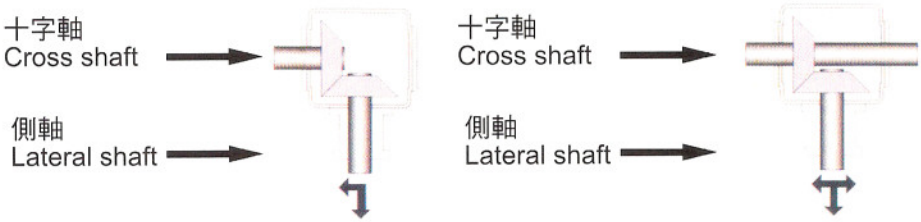
Gear :Cr-Mo-Steel Spiral Bevel Gear, surface hardened and polished.

Main shaft :Carbon alloy steel with precision grinding, high capacity of overhung and thrust loading.

Bearing :Taper roller bearings for high load capacity.

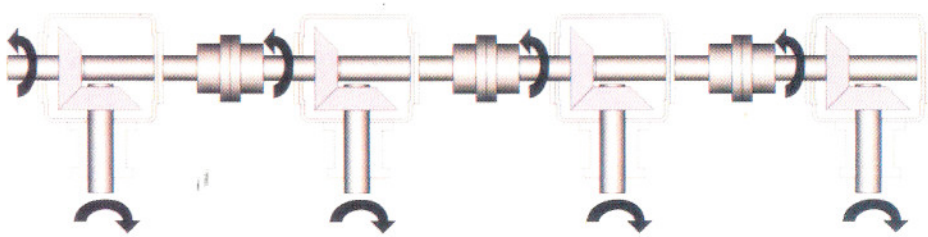
Sealer :Double lip oil sealer, prevent both dust and leakage.

轉向機基本傳動方式
Basic type of transmission of Miter Gear box:



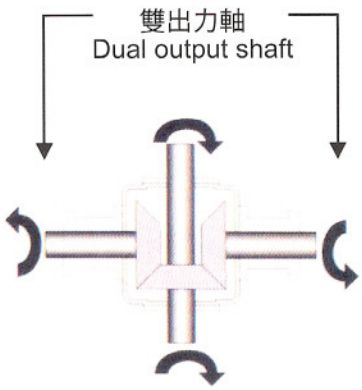
減速 Reduced	增速 Speed-up
1/2	2/1
Output / Input	Input / Output

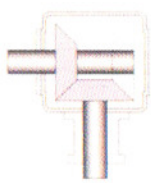
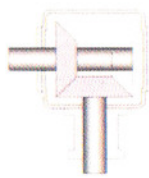
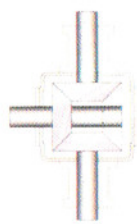
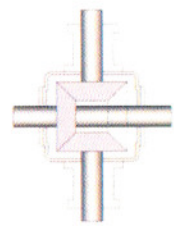
轉向機應用例
Examples of Applications for Miter Gear box:



特殊品
Special Design:

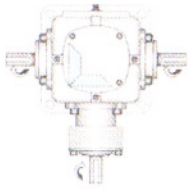
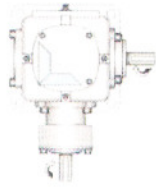
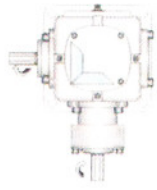
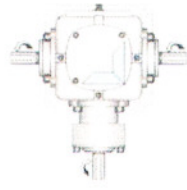
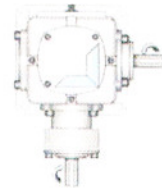
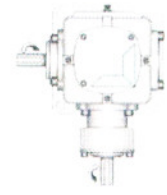
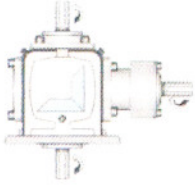
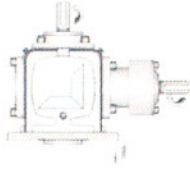
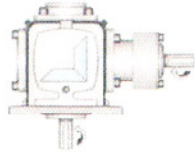
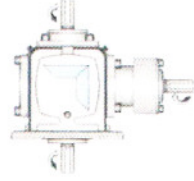
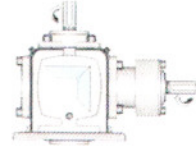
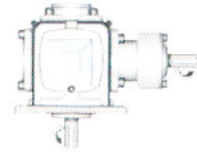
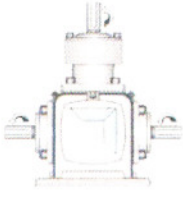
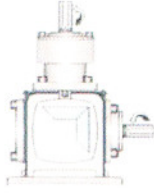
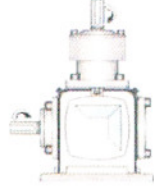
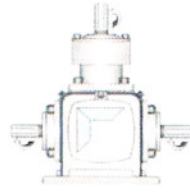
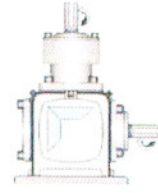
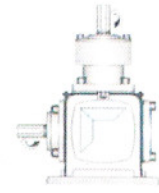
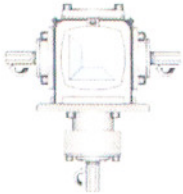
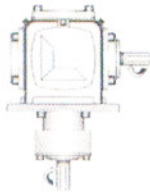
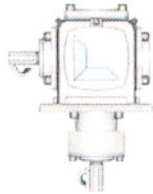
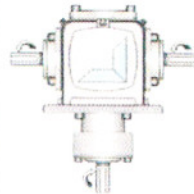
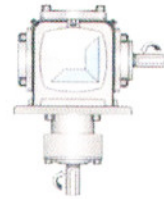
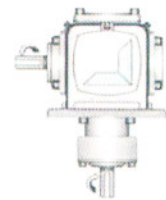
兩側旋向相反
sides rotate in opposite directions



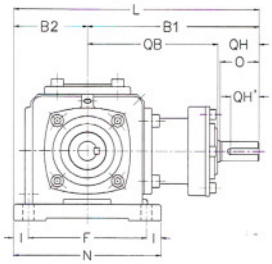
單出力軸 Single output shaft		雙出力軸 Dual output shaft	
2 Shaft Type	3 Shaft Type	3 Shaft Type	4 Shaft Type
			

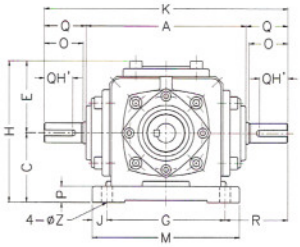
GM 02 - 10 ILR - O

- 轉向 Direction of rotation
- 軸配置 Shaft arrangement
- 速比 Speed ratio
- 規格 Size
- 產品別 Model

ILR	IR	IL	ILR-O	IR-O	IL-O
					
IUD	**IU**	**ID**	**IUD-O**	**IU-O**	**ID-O**
					
ULR	**UR**	**UL**	**ULR-O**	**UR-O**	**UL-O**
					
DLR	**DR**	**DL**	**DLR-O**	**D-R-O**	**D-R-O**
					

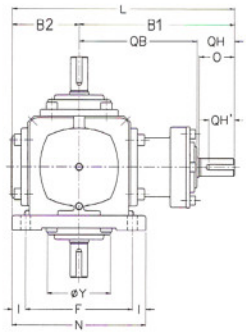
ILR
ILR-O

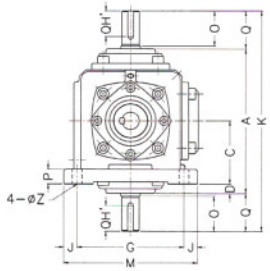


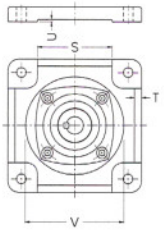




IUD
IUD-O

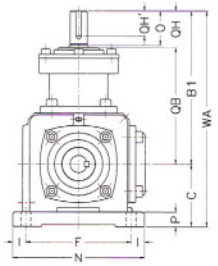


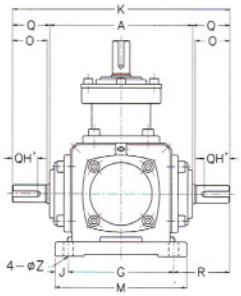


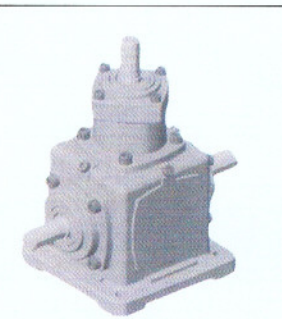




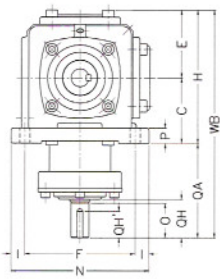
ULR
ULR-O

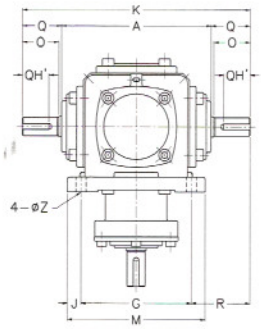






DLR
DLR-O





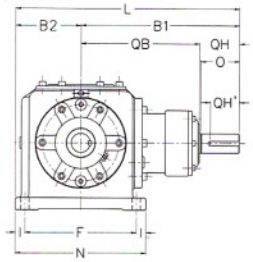


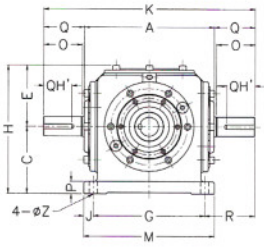
單位:Unit:(mm)

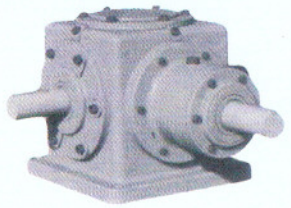
型　式 Size	A	B1	B2	C	*D	E	F,G	H	I,J	K	L	M,N	P	Q	QA	Q,B	QH	QH'	R
GM0210	110	123	52	52	2.85	50	84	102	10	180	175	104	10.5	35	71	89	34	23	48
GM0410(GM0420)	152	179.5	79	76	0	73	125	149	16.5	232	258	158	14	40	103	140	39.5	28	53.5
GM0610(GM0620)	206	222	95	90	13	93	152	183	19	314	316	190	21	54	131	168	54	37	81
GM0810(GM0820)	260	307	117.5	115	15	113	195	227	20	416	424.5	235	22	78	192	228	79	55.5	110.5
GM1010(GM1020)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

型　式 Size	WA	WB	Y	Z	U	S	T	V	側軸Lateral shaft			十字軸Cross shaft			GD^2 (Kgf-m^2)	重量 Weight (Kgf)
									øSD	O	Key	øSD	O	Key		
GM0210	175	173	48	9	-	-	-	80	15	33	5x5	15	33	5x5	0.0002	1.9
GM0410(GM0420)	255.5	252	58	10.5	3	92	9	110	19(16)	38	5x5	19	38	5x5	0.0006(0.00048)	9.5
GM0610(GM0620)	312	314	90	14	3	106	10	140	25	50	8x7	25	50	8x7	0.0054(0.00266)	20
GM0810(GM0820)	422	419	125	14	4	147	14.5	172	40	75	10x8	40	75	10x8	0.019(0.014)	47
GM1010(GM1020)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

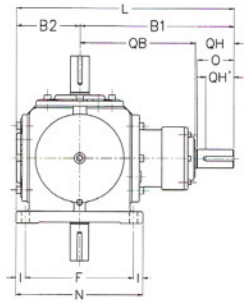
ILR
ILR-O

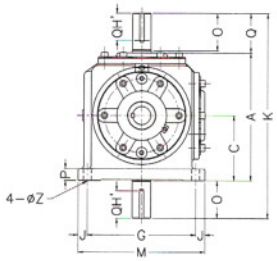


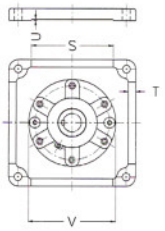


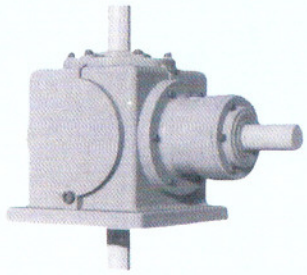


IUD
IUD-O

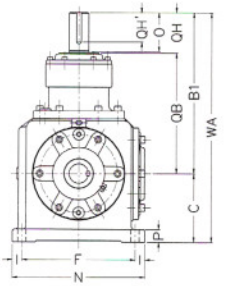


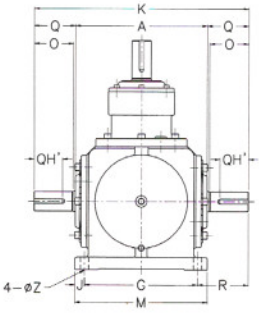






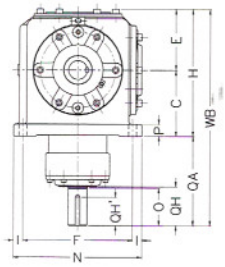
ULR
ULR-O

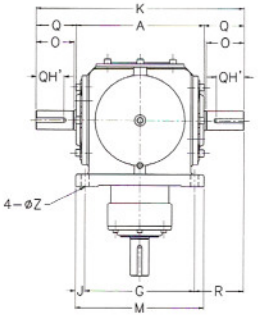


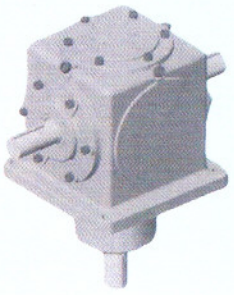




DLR
DLR-O







單位:Unit:(mm)

型　式 Size	A	B1	B2	C	*D	E	F,G	H	I,J	K	L	M,N	P	Q	QA	QB	QH	QH'	R
GM1210 (GM1220)	338	414	170	175	-6	170	290	345	25	550	584	340	32	106	239	309	105	75.5	130
GM1610 (GM1620)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

型　式 Size	WA	WB	Y	Z	U	S	T	V	側軸Lateral shaft			十字軸Cross shaft			GD^2 (Kgf-m^2)	重量Weight (Kgf)
									øSD	O	Key	øSD	O	Key		
GM1210 (GM1220)	589	584	134	21	-	220	20	234	50	100	12x8	50	100	12x8	0.10 (0.056)	117
GM1610 (GM1620)	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-

■ 轉向機機型選用

步驟1：決定補正係數<表一>。
步驟2：選擇適當轉向機需滿足扭力或kW值需求在<表二><表三>指示速比及出力軸轉速。

■ To Select correct model for miter gear box

Step1:Determine the service factor (table 1)
Step2:Select the proper gear box which satisfies both torque or kw requirement at the specified speed ratio and shaft rpm (table 2,3)

■ 表(一)Table(1)

馬達 motor / 負荷性質 load conditions	使用時間 operation time 0.5	2	10	24
均一負荷 uniform load	0.8	0.9	1.00	1.25
	(0.9)	(1.00)	(1.25)	(1.50)
中負荷 moderate shock	0.9	1.00	1.25	1.50
	(1.00)	(1.25)	(1.50)	(1.75)
重負荷 heavy shock	1.00	1.25	1.50	1.75
	(1.25)	(1.50)	(1.75)	2.00

扭力需求 ≥ 使用扭力 X 補正係數
kW值需求 ≥ 使用kW值 X 補正係數
Torque requirement ≥ Applied torque X Service factor
kW Requirement ≥ Applied kW X Service factor

註一：均一負荷及連續運轉期補正係為1.0
註二：每小時起動停止10回合以上採用( )內數值
note 1: the service factor for uniform load and continuous operation is 1.0
note 2: use the number in ( ) for start and stop over 10 cycles per hour.

■ 表(二) 速比 1:1
Table(2) Speed ratio 1:1

型號 Size / 轉速 R.P.M		3600	2750	1900	1750	1460	1150	870	580	400	300	200	150	100	50	10
GM02	kW	2.926	2.282	1.617	1.498	1.26	1.008	0.77	0.5236	0.3661	0.2772	0.1862	0.1407	0.0952	0.0476	0.0098
	kgf-m	0.77	0.791	0.812	0.819	0.826	0.833	0.861	0.861	0.875	0.882	0.889	0.896	0.91	0.91	0.931
GM04	kW	6.503	5.341	4.123	3.927	3.486	2.933	2.422	1.715	1.204	0.91	0.616	0.4655	0.3136	0.1589	0.0322
	kgf-m	1.722	1.855	2.072	2.142	2.275	2.436	2.66	2.821	2.87	2.891	2.94	2.961	2.996	3.031	3.073
GM06	kW	17.85	15.26	11.62	10.78	9.45	8.05	6.622	4.977	3.633	2.758	1.869	1.414	0.952	0.4851	0.0994
	kgf-m	4.732	5.292	5.838	5.88	6.174	6.678	7.28	8.19	8.68	8.75	8.89	8.96	9.1	9.24	9.45
GM08	kW	-	48.3	35.49	32.97	27.93	22.4	17.29	11.83	8.54	6.664	4.445	3.444	2.443	1.288	0.2702
	kgf-m	-	16.73	17.85	17.99	18.27	18.55	18.97	19.46	20.37	21.21	21.21	21.91	23.31	24.64	25.76
GM10	kW	-	-	50.05	47.11	41.23	35.07	28.9	21.35	15.05	11.48	7.77	5.92	4	2.04	0.4193
	kgf-m	-	-	25.13	25.69	26.95	29.12	31.5	35.14	35.91	36.54	37.1	37.66	38.22	38.85	40.04
GM12	kW	-	-	68.25	64.33	56.63	48.09	39.55	30.03	23.24	18.69	12.74	9.66	6.55	3.34	0.6881
	kgf-m	-	-	34.3	35.07	37.03	39.9	43.4	49.42	55.44	59.43	60.76	61.46	62.44	63.7	65.66
GM16	kW	-	-	-	-	114.8	97.3	79.8	60.27	46.48	37.94	25.83	19.39	12.95	6.47	1.33
	kgf-m	-	-	-	-	72.8	78.4	84.7	95.9	107.1	116.9	119.7	119.7	119.7	119.7	122.5

■ 表(三) 速比 2:1
Table(3) Speed ratio 2:1

型號 Size / 轉速 R.P.M		3600	2750	1900	1750	1460	1150	870	580	400	300	200	150	100	50	10
GM04	kW	5.45	4.242	2.996	2.779	2.338	1.869	1.428	0.966	0.6776	0.5124	0.3451	0.2604	0.175	0.0882	0.0182
	kgf-m	1.47	1.498	1.533	1.547	1.561	1.582	1.596	1.617	1.645	1.659	1.68	1.687	1.701	1.715	1.771
GM06	kW	12.95	10.08	7.14	6.65	5.607	4.48	3.437	2.338	1.638	1.239	0.833	0.6314	0.4249	0.2149	0.0434
	kgf-m	3.5	3.57	3.661	3.696	3.738	3.794	3.843	3.927	3.990	4.018	4.053	4.095	4.137	4.186	4.228
GM08	kW	-	18.62	12.81	11.83	9.87	7.91	6.09	4.144	2.905	2.205	1.491	1.127	0.756	0.385	0.0784
	kgf-m	-	6.594	6.594	6.594	6.594	6.699	6.818	6.958	7.07	7.14	7.21	7.28	7.35	7.49	7.63
GM10	kW	-	-	21.35	19.74	16.73	13.37	10.29	7.0	4.928	3.738	2.527	1.911	1.288	0.6538	0.1337
	kgf-m	-	-	10.92	10.99	11.13	11.27	11.48	11.76	11.97	12.11	12.32	12.39	12.53	12.74	13.02
GM12	kW	-	-	36.75	33.81	28.21	22.26	16.80	11.41	8.05	6.104	4.13	3.129	2.107	1.071	0.2191
	kgf-m	-	-	18.83	18.83	18.83	18.83	18.83	19.11	19.6	19.81	20.09	20.3	20.51	20.86	21.35
GM16	kW	-	-	-	61.39	52.01	41.72	32.20	22.05	15.54	11.76	7.98	6.055	4.088	2.079	0.4256
	kgf-m	-	-	-	34.16	34.65	35.28	36.05	37.03	37.8	38.15	38.85	39.27	39.83	40.46	41.44

■ 潤滑

適當的潤滑油使用，可以發揮轉向機的效率，並提高其運轉的壽命。

- 初期使用二週或100-200小時，為初摩耗期，這之間可能有少許金屬摩耗粉粒，請務必清潔內部，並換新潤滑油。
- 長期使用時，每半年-一年或者1000-2000小時，更換一次潤滑油。

■ Lubrication

Proper application of lubricating oil will raise the efficiency and prolong the life of the Miter Gears.

- The first two weeks or first 100 to 200 hours are break-in period.There might be some tiny metal powders during this time. Please clean interior and replace with new lubricating oil after break-in.
- For normal operation, replace lubricating oil every six months to one year or 1000 to 2000 hours whichever comes sooner.

■ 潤滑油種類

本產品潤滑油採用中國石油全效齒輪油90#-120#，低轉速、輕負荷條件，建議採用全效齒輪油90#，重負荷、高溫的條件，建議採用全效齒輪油120#。

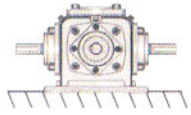
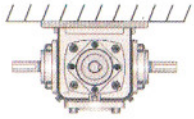
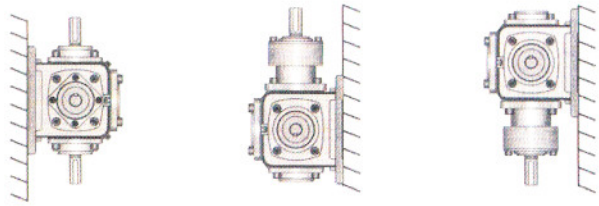
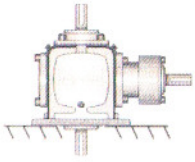
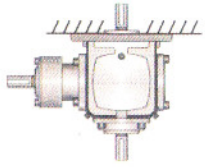
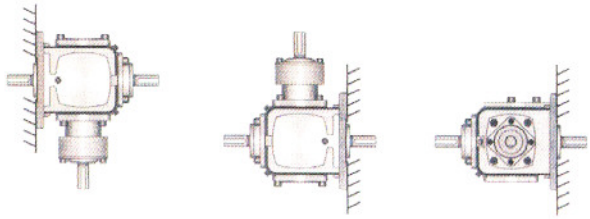
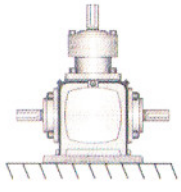
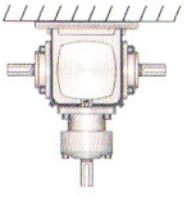
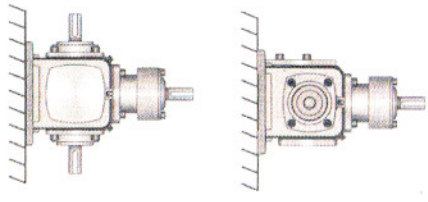
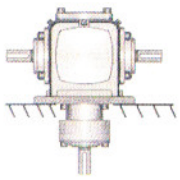
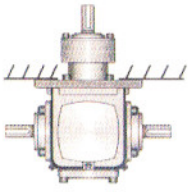
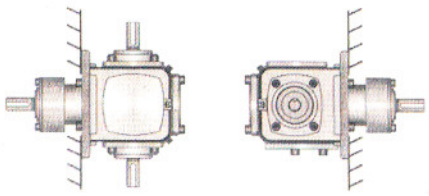
*如有特殊使用條件，請示先與本公司洽商。

■ The choices of lubricating oil

The product use Universal Gear Oil 90# to 120# by China Petroleum Corp. Use Universal Gear Oil 90# for low speed and light load. Use Universal Gear Oil 120# for heavy load and high temperature.

Note: For special operation. please contact the manufacturer or our dealer.

■ 安裝(Mounting)

軸配置 Shaft arrangement	臥式Horizontal	吊掛式Over Hung	側壁式Side Wall
ILR ILR-O IR IR-O IL IL-O			
IUD IUD-O IU IU-O ID ID-O			
ULR ULR-O UR UR-O UL UL-O			
DLR DLR-O DR DR-O DL DL-O			

總公司／本廠
台北縣新莊市化成路211巷24號
No. 24, Lane 211, Hua-Cheng Rd, Hsin-Chung, Taipei 242, TAIWAN
TEL:886-2-29943235　FAX:886-2-29966720

北譯二廠：
台北縣新莊市化成路229巷23號1樓
No. 23 Lane 229, Hua-Cheng Rd, Hsin-Chung, Taipei 242, TAIWAN
TEL:886-2-22797795　FAX:886-2-29916249

天津廠
天津市津南經濟開發區（雙港）北京街
Tianjin Jinnan Economic Development Area (Shuanggang), Street Beijing
TEL:86-22-28587246, 86-22-28587528
FAX:86-22-28587697

日本支店
〒550-0002大阪市西区江戸堀1丁目24-12
TAT江戸堀ビル7F
TEL:06-64482066（代表號）　FAX:06-64482068

網頁／電子郵件
web site：http//www.peei.com.tw
email：sales@peei.com.tw

代理商

關於型錄內容，本公司保留設計變更的權利

2005.03.2000