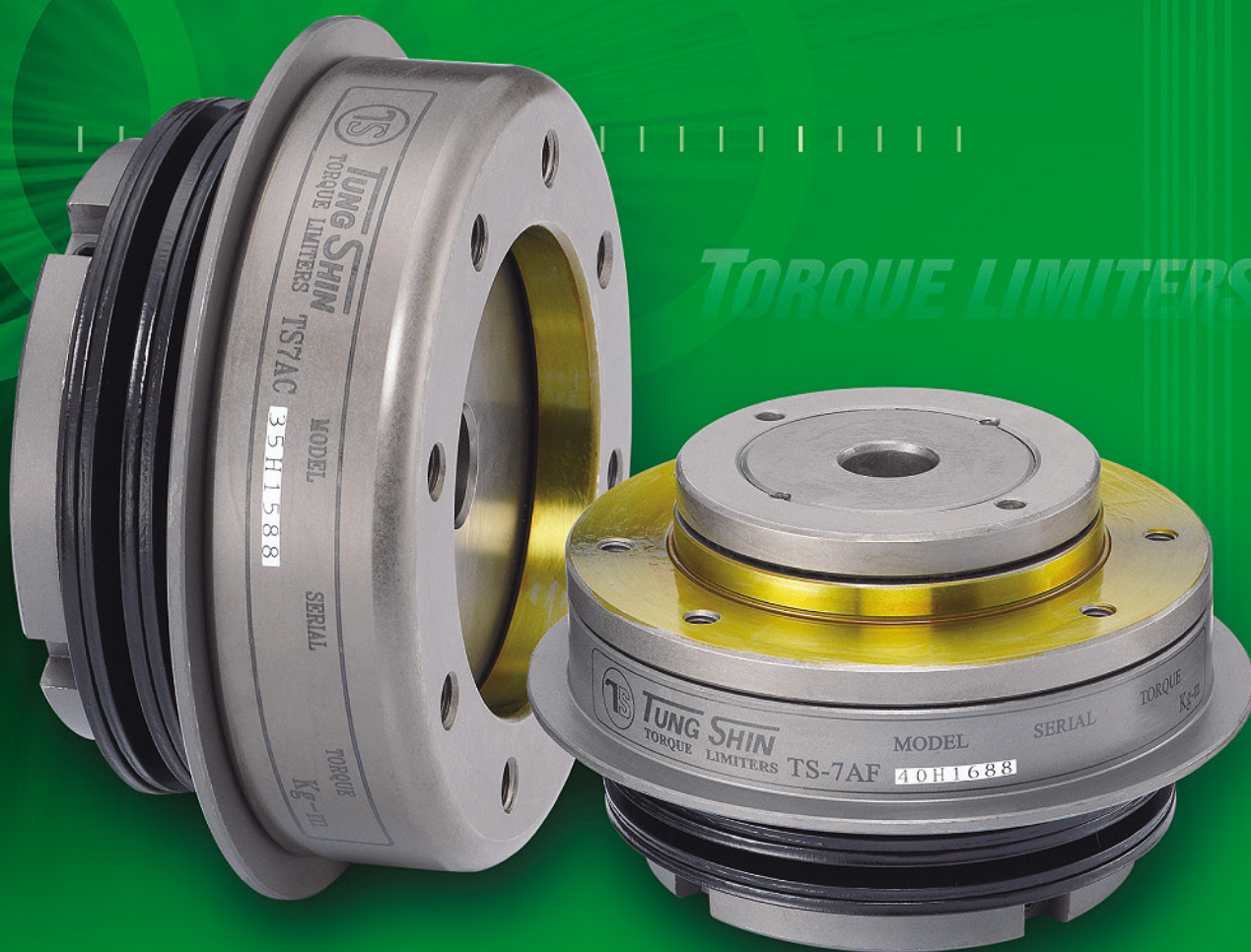


Sophisticated
One (Single) Position Engagement Ball Detent

TORQUE LIMITERS



TUNG SHIN

精密型扭力限制器

產品簡介：

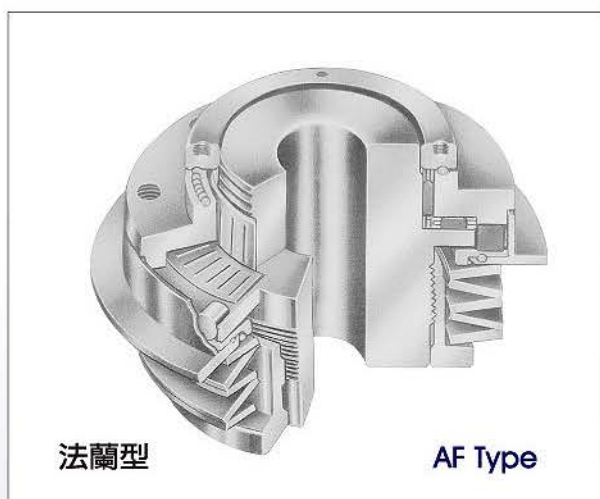
統信精密型扭力限制器為專門設計來保護機械設備免於過負載之安全裝置。當過負載發生時，扭力限制器會自動脫開以斷絕扭力的傳動來保護機械，並且維護人員的安全，更進一步防止昂貴的停機損失。

統信的產品是依照目前被視為最安全可靠的原則來設計，其扭力絆動的機構是以鋼珠及鋼珠袋或是滾珠及滾珠袋為基礎之機械式扭力傳動裝置所組合。此機構可精確地切斷扭力並且無需長時間將設備停機，再行調整設定。只要旋轉360°即可自動復歸到原設定嚙合位置，進而再行正常順利運轉。

適用機械指引：

需要定位 / 間歇分割運轉 / 自動復歸到原設定嚙合位置等多功能之任何機械或傳動系統，都極適用本公司之精密型單定位扭力限制器，來作為理想而可靠的過負載保護裝置。

■ 構造 *Structure:*



ONE (SINGLE) POSITION ENGAGEMENT BALL DETENT TORQUE LIMITERS

TUNG SHIN One (Single) Position Engagement Ball Detent Torque Limiter is a safety device designed to protect power transmission system from overload. When an overload occurs, our torque limiter will dis-engage automatically and precisely shut off the transmission of torque to protect the machine, and eliminate costly downtime.

TUNG SHIN adopts the updated design which is recently regarded as the most reliable principle. The torque tripping is based on the mechanical transmission of torque built by a combination of ball and ball pocket or roller and roller pocket. This mechanism ensures accurate torque shut-off and automatic resetting at every 360° of rotation without any interfering/degrading original performances.

APPLICATIONS GUIDE

Any machinery or transmission system that requires positioning/indexing/automatic resetting function is kindly suggested to use our One (Single) Position Engagement Torque Limiters as an ideal and reliable overload protection device.



AF系列〔法蘭型〕

統信的AF系列產品是以低剖面設計為特徵且附有法蘭面可直接設置於平台，齒輪、鏈輪上。

在正常的情况下可精確的傳動扭力且無背隙及動作上的耗損。

特點：

1. 滾珠及滾珠袋結構，經久耐用。
2. 容易調整絆動扭力。
3. 具復歸原嚙合點特性。
4. 近乎無背隙傳動扭力。
5. 精確限定扭力。
6. 可同步偵測過負載。

AF Series (Flange Type)

TUNG SHIN AF series One (Single) Position Engagement Ball Detent Torque Limiters carry a low-profile and a flange for mounting gear, table, sprocket, arm, etc. Torque transmission in the normal state is accurate with no backlash or lost motion.

Features:

- 1. Roller & roller pocket combination
- 2. Easy to adjust tripping torque
- 3. One (Single) position engagement
- 4. Backlash free transmission
- 5. Precise torque limitation
- 6. Signal overload synchronously



AF系列〔法蘭型〕

AF Series (Flange Type)

7AF

AC系列〔連軸型〕

統信的AC系列產品適用於軸與軸之間的負載保護。內置鋼珠軸承可保證精確的扭力傳動，此型扭力限制器額外具備了吸收軸與軸之間諸偏差的特性。

特點：

1. 鋼珠及鋼珠袋結構，經久耐用。
2. 具連軸功能。
3. 具復歸原嚙合點特性。
4. 近乎無背隙傳動扭力。
5. 精確限定扭力。
6. 可同步偵測過負載。

AC Series (Coupling Type)

TUNG SHIN AC series One (Single) Position Engagement Ball Detent Torque Limiters provide overload protection between two shafts. Besides rigid torque transmission, it can absorb misalignments between two shafts.

Features:

- 1. Ball & ball pocket combination
- 2. Coupling function
- 3. One (Single) position engagement
- 4. Backlash free transmission
- 5. Precise torque limitation
- 6. Signal overload synchronously



AC系列〔連軸型〕

AC Series (Coupling Type)

7AC

規格說明

- (T) : 絆動扭力的調整範圍。
(a) : 最大容許之垂直荷重。
(b) : 最大容許之水平荷重。
(c) : 最大容許扭曲力距。
(δ) : 最大容許角度偏差。
(α) : 最大容許銜接二軸間之間隙。
(ϵ) : 最大容許平行偏差。
(Nmax) : 最大容許轉動速度。
(J) : 扭力限制器之慣量力距。
(W) : 重量。
- (F) : 本體外徑及紋距。
(M) : 扭力調整螺帽內之固定螺栓之孔徑及紋距。
(N) : 裝置螺栓之深長。(※請勿超過)
(S) : 本體預留之孔徑尺寸。
(U) : 最大加工孔徑尺寸。
(X) : 當超負載發生時，偵測壓板之彈跳距離。
(Ymax) : 扭力調整螺帽鎖緊之最大長度。(※請勿超過)
(Z) : 當彈簧不受力時，扭力調整螺帽之高度。(僅供參考)

註: 使用於速度超過Nmax值時，請洽詢本公司。

Specifications

- (T) : Adjusting range for tripping torque
(a) : Maximum allowable radial load
(b) : Maximum allowable thrust load
(c) : Maximum allowable bending moment
(δ) : Maximum allowable angular misalignment
(α) : Maximum allowable clearance misalignment
(ϵ) : Maximum allowable parallel misalignment
(Nmax) : Maximum allowable rotating speed
(J) : Inertia moment of torque limiter
(W) : Weight
- (F) : Outer diameter of boss and its thread pitch
(M) : The diameter and pitch of the set-bolt inside the torque adjusting nut.
(N) : The depth of mounting taps (※please do not exceed this depth)
(S) : Pre-drilled pilot bore
(U) : Maximum drilling dimensions
(X) : When an overload occurs, the overload detection panel moves X mm.
(Ymax) : Maximum spring tightening length (※please do not exceed this length)
(Z) : This dimension indicates the height when the spring is free. (for reference only)

Note: Please consult us for use at speeds that exceed the value of Nmax.





AF規格表

Table of AF series specifications

Model	T (N.m)	a (N)	b (N)	c (N.m)	Nmax(rpm)	J (Kg.m ²)	W (Kg)
4AF-007S	0.3~0.7	69	392	3.4	2000	0.05 ×10 ⁻³	0.24
4AF-010S	0.4~1.0						
4AF-030S	1.0~3.0						
4AF-045S	1.5~4.5						
5AF-030S	0.8~3.0	108	569	6.9	1600	0.24 ×10 ⁻³	0.6
5AF-060S	1.5~6.0						
5AF-100S	2.0~10.0						
5AF-180S	4.0~18.0						
6AF-07S	2~7	3822	7938	118	800	1.3 ×10 ⁻³	1.7
6AF-1S	3~10						
6AF-3S	10~30						
6AF-5S	15~50						
7AF-7L	22~70	7154	10780	196	600	4.8 ×10 ⁻³	3.7
7AF-12L	40~120						
7AF-25H	80~250						
7AF-40H	120~400						
8AF-12L	50~120	10290	14700	372	400	0.015	6.7
8AF-20L	70~200						
8AF-40H	120~400						
8AF-60H	200~600						
11AF-25L	80~250	14700	22050	666	300	0.035	11.4
11AF-35L	120~350						
11AF-85H	220~850						
11AF-120H	350~1200						
14AF-30L	110~300	23520	28420	1019	250	0.085	20
14AF-45L	150~450						
14AF-120H	420~1200						
14AF-180H	600~1800						
18AF-130L	400~1300	30184	35280	1441	180	0.3	38.2
18AF-180L	800~1800						
18AF-300H	1500~3000						
18AF-500H	3000~5000						

● Specifications and dimensions are subject to change without notice.

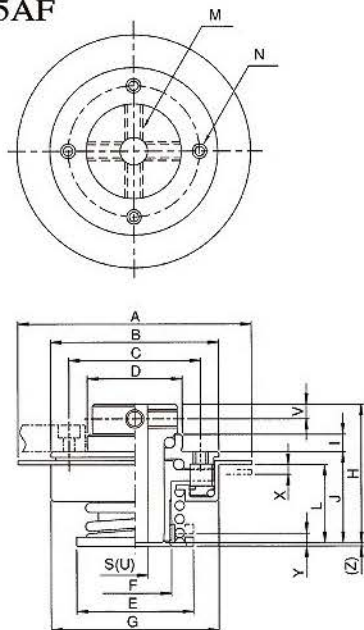
AC規格表

Table of AC series specifications

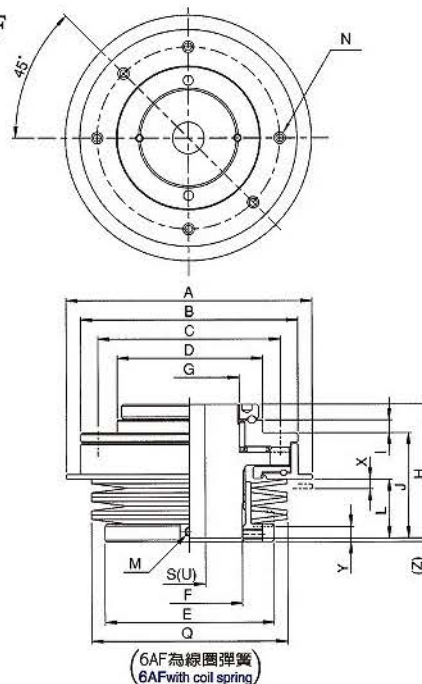
Model	T (N.m)	δ (deg)	α (mm)	ε (mm)	Nmax(rpm)	J (Kg.m ²)	W (Kg)
4AC-007S	0.3~0.7	1	±1.0	0.05	2000	0.09 ×10 ⁻³	0.22
4AC-010S	0.4~1.0						
4AC-030S	1.0~3.0						
4AC-045S	1.5~4.5						
5AC-030S	0.8~3.0	1	±1.0	0.05	1600	0.4 ×10 ⁻³	0.68
5AC-060S	1.5~6.0						
5AC-100S	2.0~10.0						
5AC-180S	4.0~18.0						
6AC-06S	2~6	1.5	±1.5	0.05	1000	1.7 ×10 ⁻³	1.5
6AC-1S	3~10						
6AC-3S	8~30						
6AC-5S	15~50						
7AC-6L	20~60	1.2	±1.8	0.1	700	5.8 ×10 ⁻³	3.2
7AC-10L	30~100						
7AC-20H	60~200						
7AC-35H	100~350						
8AC-12L	40~120	1.2	±2	0.1	500	0.014	5.9
8AC-15L	60~150						
8AC-35H	100~350						
8AC-45H	120~450						
11AC-20L	70~200	1	±2.5	0.1	400	0.035	10.5
11AC-35L	100~350						
11AC-65H	200~650						
11AC-100H	300~1000						
14AC-30L	100~300	0.7	±3.5	0.1	300	0.093	17.6
14AC-45L	150~450						
14AC-130H	500~1300						
14AC-200H	800~2000						
18AC-160L	700~1600	0.5	±3.5	0.1	200	0.4	42
18AC-250L	1000~2500						
18AC-380H	1600~3800						
18AC-500H	3000~5000						

● Specifications and dimensions are subject to change without notice.

4AF-5AF



6AF-18AF



AF 尺寸表

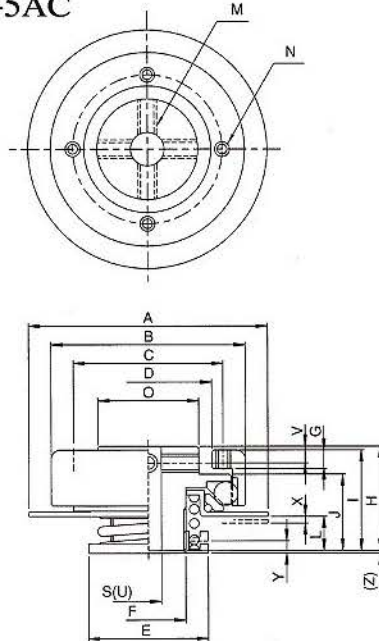
Table of AF series dimensions

(Unit:mm)

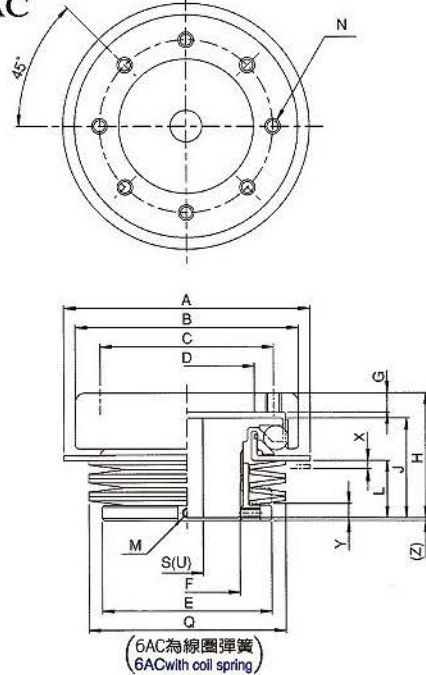
Model	A	B	C	D	E	F	G	H	I	J	L	M	N	Q	S	U	V	X	Y _{max}	(Z)
4AF-007S											21.4							1.3	2.2	0.7
4AF-010S	64	46	PCD	26h7	32	M20	46	38	4.7	25	21.4	4-M5	4-M4	-	7	12	4	1.3	2.4	0.5
4AF-030S			36			P1.0					21.4	P0.8	P0.7					1.3	2.5	0.7
4AF-045S											21.4		DP.4.7					1.3	3.3	0.5
5AF-030S											29.5							1.4	5.6	1.3
5AF-060S	82	63	PCD	35h7	45	M30	63	50	4.7	34	29.5	4-M6	4-M4	-	9	20	6	1.4	5.0	0.8
5AF-100S			50			P1.5					29.5	P0.8	P0.7					1.4	7.5	1.3
5AF-180S											29.5		DP.5.7					1.4	6.4	0.8
6AF-07S											25.5							2.0	9.0	3.9
6AF-1S	88	88	PCD	60h7	58	M40	M40	60	5	48	25.5	2-M5	6-M6	-	12.5	30	-	2.0	7.6	3.2
6AF-3S			75			P1.5	P1.5				25.5	P0.8	P1.0					2.0	9.5	3.9
6AF-5S											25.5		DP.7					2.0	9.8	3.2
7AF-7L											31.0							2.5	5.3	1.7
7AF-12L	128	113	PCD	75h7	88	55	M52	72	6.6	57	31.0	2-M5	6-M6	102	16.5	40	-	2.5	4.9	0.9
7AF-25H			95			P2.0	P1.5				31.0	P0.8	P1.0					2.5	6.2	1.4
7AF-40H											31.0		DP.9					2.5	6.2	0.6
8AF-12L											38.5							2.5	6.2	0
8AF-20L	164	138	PCD	100h7	108	75	M72	83	7.6	66	38.5	2-M5	6-M8	130	16.5	52	-	2.5	6.2	-0.8
8AF-40H			120			P2.0	P1.5				38.5	P0.8	P1.25					2.5	7.5	-0.7
8AF-60H											38.5		DP.11					2.5	7.0	-1.5
11AF-25L											43.0							3.0	7.3	2.0
11AF-35L	198	170	PCD	120h7	134	96	M90	95	9.6	75	43.0	2-M5	6-M10	160	27	68	-	3.0	5.0	1.0
11AF-85H			148			P2.0	P1.5				43.0	P0.8	P1.5					3.0	7.7	-0.5
11AF-120H											43.0		DP.13					3.0	7.4	-1.5
14AF-30L											44.5							3.5	6.4	4.2
14AF-45L	236	206	PCD	150h7	158	120	M120	105	10.4	85	44.5	2-M6	6-M12	186	27	90	-	3.5	5.5	2.9
14AF-120H			180			P2.0	P1.5				44.5	P1.0	P1.75					3.5	9.0	3.2
14AF-180H											44.5		DP.15					3.5	8.6	1.9
18AF-130L											60.5							5.0	10.7	5.0
18AF-180L	280	252	PCD	180h7	220	165	M140	135	12	110	60.5	2-M6	6-M16	236	50	110	-	5.0	7.7	3.3
18AF-300H			215			P3.0	P2.0				60.5	P1.0	P2.0					5.0	8.8	5.2
18AF-500H											60.5		DP.20					5.0	7.7	3.5

● Specifications and dimensions are subject to change without notice. Always double check before ordering.

4AC-5AC



6AC-18AC



AC 尺寸表

Table of AC series dimensions

(Unit:mm)

Model	A	B	C	D	E	F	G	H	I	J	L	M	N	Q	S	U	O	V	X	Ymax	(Z)
4AC-007S											8.0								1.1	2.7	0.6
4AC-010S	64	52	PCD	34	32	M20	5	28	27	20.5	8.0	4-M5	4-M4	-	7	15	27	4.5	1.1	3.0	0.2
4AC-030S			40	H7		P1.0					8.0	P0.8	P0.7						1.1	3.3	0.6
4AC-045S											8.0		DP.5						1.1	4.0	0.2
5AC-030S											13.7								1.2	5.4	0.3
5AC-060S	82	71	PCD	46	45	M30	7	40	39	30	13.7	4-M6	4-M4	-	9	22	36	5.5	1.2	6.5	-0.3
5AC-100S			55	H7		P1.5					13.7	P0.8	P0.7						1.2	7.6	0.3
5AC-180S											13.7		DP.7						1.2	8.0	-0.3
6AC-06S											19.0								2.2	8.7	3.2
6AC-1S	93	95	PCD	50	58	M40	9	52	-	40	19.0	2-M5	8-M6	-	12.5	30	-	-	2.2	5.7	2.8
6AC-3S			70	H7		P1.5					19.0	P0.8	P1.0						2.2	10.0	3.2
6AC-5S											19.0		DP.9						2.2	9.6	2.8
7AC-6L											31.0								2.6	6.4	2.0
7AC-10L	128	116	PCD	70	88	55	10	65	-	52	31.0	2-M5	8-M8	102	16.5	40	-	-	2.6	7.1	0.9
7AC-20H			90	H7		P2.0					31.0	P0.8	P1.25						2.6	6.4	1.7
7AC-35H											31.0		DP.10						2.6	6.2	0.6
8AC-12L											36.0								2.7	10.8	2.5
8AC-15L	164	142	PCD	90	108	75	12	75	-	60	36.0	2-M5	8-M8	130	16.5	52	-	-	2.7	5.9	1.6
8AC-35H			110	H7		P2.0					36.0	P0.8	P1.25						2.7	6.9	1.8
8AC-45H											36.0		DP.12						2.7	5.7	0.9
11AC-20L											43.0								3.2	10.8	2.4
11AC-35L	198	176	PCD	110	134	96	16	90	-	70	43.0	2-M5	8-M10	160	27	68	-	-	3.2	11.2	1.0
11AC-65H			130	H7		P2.0					43.0	P0.8	P1.5						3.2	7.4	-0.1
11AC-100H											43.0		DP.16						3.2	6.7	-1.5
14AC-30L											44.0								3.7	7.5	4.5
14AC-45L	236	208	PCD	130	158	120	16	100	-	80	44.0	2-M6	8-M12	186	27	90	-	-	3.7	6.0	4.5
14AC-130H			160	H7		P2.0					44.0	P1.0	P1.75						3.7	10.0	3.5
14AC-200H											44.0		DP.16						3.7	10.2	3.5
18AC-160L											59.0								6.2	12.5	4.8
18AC-250L	285	285	PCD	170	220	170	18	130	-	108	59.0	2-M6	8-M16	236	50	130	-	-	6.2	8.3	5.0
18AC-380H			220	H7		P3.0					59.0	P1.0	P2.0						6.2	8.0	5.0
18AC-500H											59.0		DP.18						6.2	6.5	5.2

● Specifications and dimensions are subject to change without notice. Always double check before ordering.

型號表示 Model Code

範 例	8	AF	60	H
Example	a	b	c	d

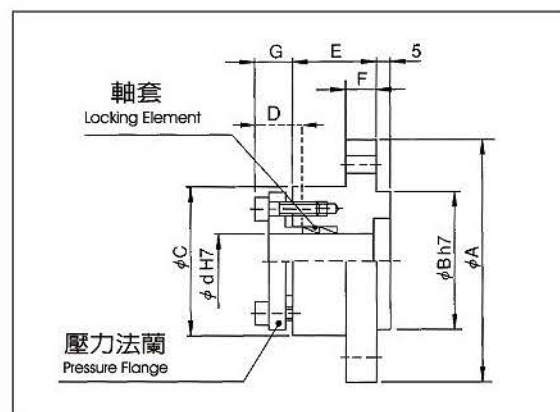
a	b	c	d
扭力限制器大小 Torque limiter size	型 號 Model	最大絆動扭力 Maximum tripping torque	彈簧形式 Type of spring
8	AF AF 系列 AF series	60	H 重磅 盤型彈簧 Heavy-duty Bellville springs
表示扭力限制器之大小 Indicates the size of the torque limiter	表示扭力限制器之種類 Indicates the type of torque limiter AF系列 (AF series) AC系列 (AC series)	表示最大絆動扭力 Indicates the maximum tripping torque	L 輕磅 盤型彈簧 Light-duty Bellville springs H 重磅 盤型彈簧 Heavy-duty Bellville springs S 線圈彈簧 Coil springs

裝置軸心法蘭 (外購品)

裝置軸心法蘭尺寸可參考下表：

Shaft mounting flange(option)

Shaft mounting flange dimensions can be recommended as shown in the table below.



尺寸表 Dimensions

	A	B	C	D	E	F	G
6AC	88	50	54	16~25	30	11	(13.6)
7AC	108	70	70	20~40	35	15	(16)
8AC	126	90	90	30~45	40	15	(20)
11AC	152	110	108	40~60	40	15	(26)
14AC	185	130	135	50~65	55	15	(33)

* Dimensions are subject to change without notice.

* 4AC, 5AC及18AC之用法請洽本公司。

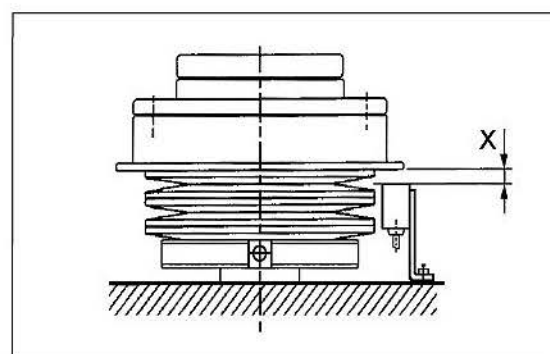
* Please consult us for use of 4AC, 5AC and 18AC.

使用超負載偵測開關或電眼 (外購品)

當超載發生時偵測壓板會彈跳Xmm。客戶可利用此特性將偵測開關或電眼連接驅動控制系統，以便偵測超載。(如下圖)

Overload detection switch or sensor (option)

When an overload occurs, the overload detection plate will move Xmm. The customer can use this feature to signal overload with a detection switch or sensor which should be carried into the drive control system. (as shown below)



近接開關或電眼

非常適合做為偵測超載之扭力限制器偵測壓板之彈跳動作。

Proximity switch or sensor

Proximity switch or sensor is ideal for signaling the movement of overload detection plate of a torque limiter.

扭力限制器的選擇

精密型扭力限制器是能自動脫開以防止傳動設備發生超負載之機械式安全裝置。它必須安裝於最靠近出力末端的地方。重要的是選擇適當型號/大小之扭力限制器以配合所需之用途，防止超載發生，以免影響傳動系統。〔下列為使用於分割器上之扭力限制器之選擇方法，供參考：〕

(1) 型號選擇

- (a) AF系列：直接安裝於平台、臂、齒輪、鏈輪等。
- (b) AC系列：用於連結二個心軸。

(2) 一般操作之所需扭力

- (a) 當裝設扭力限制器於分割器出力軸上時，出力軸之總扭力應計算為所需扭力。
- (b) 當裝設扭力限制器於分割器入力軸上時，凸輪心軸扭力應計算為所需扭力。

(3) 絆動的扭力

所需扭力×使用係數=絆動的扭力

(4) 大小尺寸選擇

- (a) AF系列：參考軸心大小，垂直/水平負載及轉向力距選擇單一的絆動扭力並參考第三點所需扭力/使用係數，來選擇符合T值之適當尺寸/型號（參考規格表之T值）。
- (b) AC系列：參考軸心大小，間隙、平行和角度選擇單一的絆動扭力並參考第三點所需扭力/使用係數，來選擇符合T值之適當尺寸/型號（參考規格表之T值）。

(5) 其他

確認最大絆動扭力超過分割器之靜扭力。

■ 使用係數表 *Service factor table*

軸心速度 (rpm) Shaft speed (rpm)	至40rpm upto 40	40-200rpm over 40 to 200	200rpm以上 over 200
分割器出力軸 Indexing device output shaft	1.5-2	1.75-2.2	2-3
分割器入力軸 Indexing device input shaft	1.4-1.75	1.6-2	1.75-2.5
變速機出力軸 Variator output shaft	1.5-2	1.75-2.2	2-3
減速機出力軸 Reducer output shaft	1.4-1.75	1.6-2	1.75-2.5

Model Selection

One (Single) Position Engagement Ball Detent Torque Limiter is a mechanical safety device used to prevent machines from damages by automatically disengaging in the event of overload torque. It should be mounted onto the nearest place of the final output position. It is important to choose the right model/size torque limiter which best fits the application. (For your information, hereunder is a selection method for torque limiter on indexing gearbox.)

(1) Type selection

- (a) **AF series:** for direct mounting of table, arm, gear, sprocket, etc.
- (b) **AC series:** for engagement of two shafts

(2) Required torque for normal operation

- (a) When mounting a torque limiter onto an output shaft of an indexing gearbox, the torque for the output shaft should be calculated as the required torque.
- (b) When mounting a torque limiter onto an input shaft of an indexing gearbox, cam shaft torque should be calculated as the required torque.

(3) Tripping torque

Service factor multiplied by the required torque is the tripping torque.

(4) Size selection

(a) AF series

In consideration of above-calculated load and bending moment, then select the size for which tripping torque (T) falls within the torque range.
(ref (T) of specification table)

(b) AC series

In consideration of shaft diameter, clearance, parallelism and angle, then select the size for which tripping torque (T) falls within the torque range.
(ref (T) of specification table)

(5) Etc

For proper selection, be sure that maximum tripping torque should exceed the static rated torque of an indexing drive.

功能特性

Functions & Features

		小型法蘭型 Small flange-type (4-5AF)	一般法蘭型 Flange-type (6-18AF)	小型連軸型 Small coupling-type (4-5AC)	一般連軸型 Coupling-type (6-18AC)
型 式 Type					
功 能 Function	大 小 Size	2 種類 Sizes 8 型號 Models	6 種類 Sizes 24 型號 Models	2 種類 Sizes 8 型號 Models	6 種類 Sizes 24 型號 Models
	絆動扭力範圍 Range Of Tripping Torque	0.03-1.8kgf.m 0.3-18N.m	0.2-500 kgf.m 2-5000N.m	0.03-1.8kgf.m 0.3-18N.m	0.2-500 kgf.m 2-5000N.m
	扭力絆動機制 Torque Tripping Mechanism	滾珠／滾珠袋 Roller and Roller pocket	滾珠／滾珠袋 Roller and Roller pocket	鋼珠／鋼珠袋 Ball and Ball pocket	鋼珠／鋼珠袋 Ball and Ball pocket
	自動再設定 Auto-resetting	是 Yes	是 Yes	是 Yes	是 Yes
	扭力調整方法 Torque Adjustment Method	旋轉螺帽來調整或 改變彈簧壓力 Change the pressure force of spring by turning the nut	旋轉螺帽來調整或 改變彈簧壓力 Change the pressure force of spring by turning the nut	旋轉螺帽來調整或 改變彈簧壓力 Change the pressure force of spring by turning the nut	旋轉螺帽來調整或 改變彈簧壓力 Change the pressure force of spring by turning the nut
	單一位置設定 Single Position Setting	是 Yes	是 Yes	是 Yes	是 Yes
	連 軸 功 能 Coupling Function	否 No	否 No	是 Yes	是 Yes
	偵測超載 Overload Detection	是 Yes	是 Yes	是 Yes	是 Yes
	潤滑 Lubrication	油脂 Grease	油脂 Grease	油脂 Grease	油脂 Grease
負 載 Load	扭力彈性 Torsional Modulus Of Elasticity	一般 Fair	優 Excellent	一般 Fair	佳 Good
	垂直負載 Radial Load	佳 Good	優 Excellent	—	—
	水平負載 Thrust Load	佳 Good	優 Excellent	—	—
	彎曲力矩 Bending Moment	佳 Good	優 Excellent	—	—
	容許轉速 Permissible Revolutions Per Minute	最大1600-2000rpm Max.1600-2000 rpm	最大180-800 rpm Max.180-800 rpm	最大1600-2000rpm Max.1600-2000 rpm	最大200-1000rpm Max.200-1000 rpm
精 度 Accu- racy	絆 動 精 度 Tripping Torque Accuracy	± 15%	± 10%	± 15%	± 10%
	重 設 精 度 Resetting Accuracy	最大 30 弧秒 Max.30 arc-sec.	最大 15 弧秒 Max.15 arc-sec.	最大 30 弧秒 Max.30 arc-sec.	最大 15 弧秒 Max.15 arc-sec.
	背 隙 精 度* Backlash Accuracy*	1-2 弧分 1-2 arc-min.	30 弧秒 30 arc-sec.	1-2 弧分 1-2 arc-min.	30 弧秒 30 arc-sec.

* Please consult us for upgraded backlash accuracy. ● Specifications are subject to change without notice.

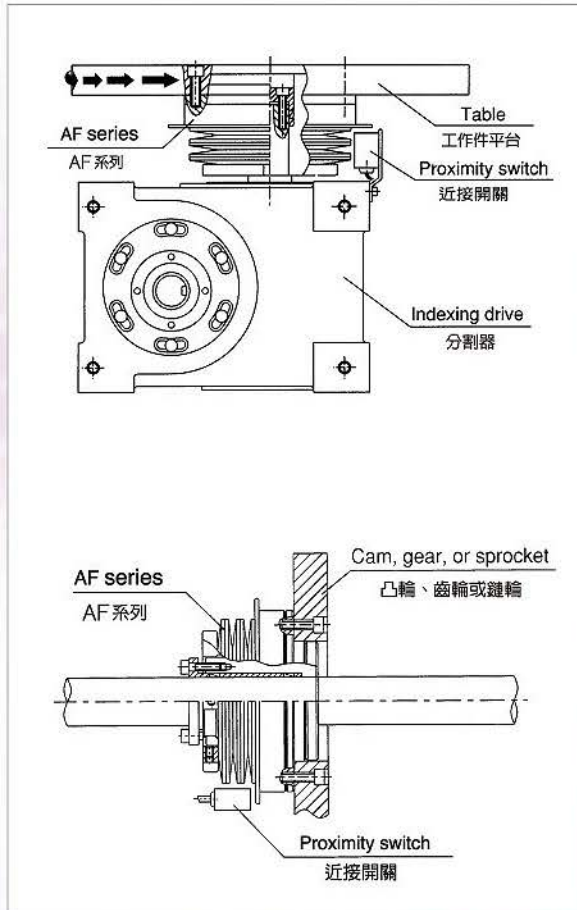


TUNG SHIN

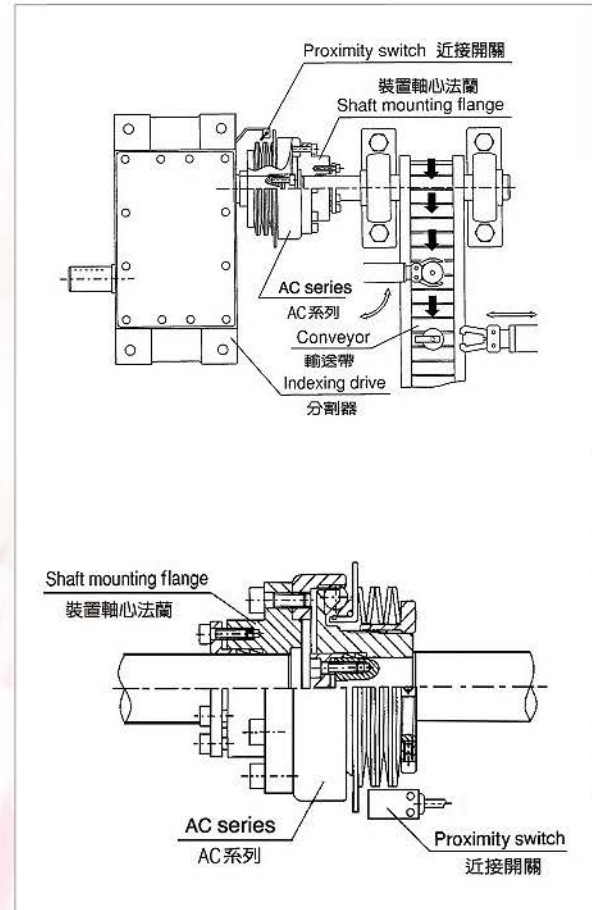
精密型扭力限制器

■ 實體裝置範例 *Actual erection examples*

AF系列 [AF Series]



AC系列 [AC Series]



Memo



TUNG SHIN

精密型扭力限制器

產品系列 PRODUCT LINES



■ TL AF/AC系列—精密型扭力限制器

TL AF/AC SERIES—ONE (SINGLE) POSITION ENGAGEMENT
BALL DETENT TORQUE LIMITERS



■ TH系列—扭力保持器

TH SERIES—TORQUE HOLDERS



■ TL系列—摩擦式扭力限制器

TL SERIES—FRICTION DISC TORQUE LIMITERS