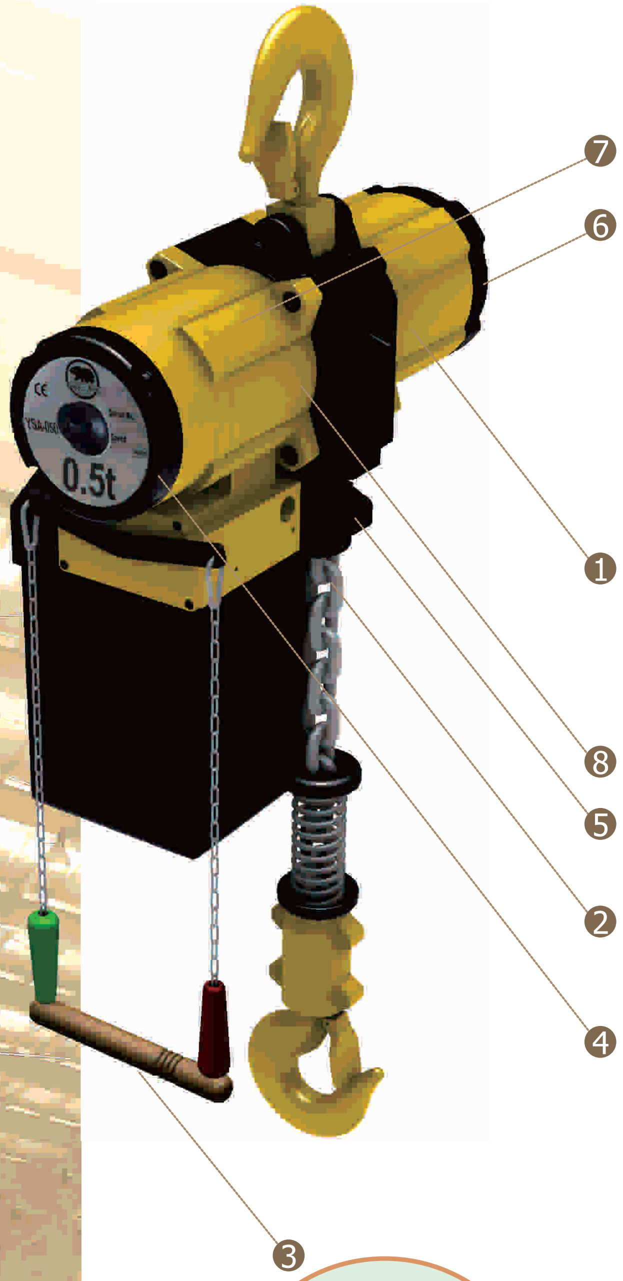
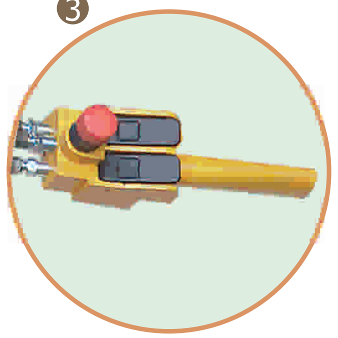
Black Bear

氣動鏈條吊車
AIR CHAIN HOIST

誠岱機械廠股份有限公司
CHENG DAY MACHINERY WORKS CO., LTD.





(選配)
押扣閥控制開關
(Optional)
Push Button Valve
(Switch Station)

❶ 密封的齒輪箱
密封行星齒輪箱符合嚴厲高循環，齒輪熱處理結合高強度低摩擦軸承提高使用壽命。

❷ 鏈條與調整器
使用標準 80級荷重鏈，鏈條調整器引導條鏈條在鏈心上快速移動，不會產生扭轉。

❸ 精確的控制器
押扣開關控制與掛鏈式，可提供多樣的速度控制，使負載準確及精確定位。

❹ 安全剎車
當吊車供氣停止時，非石棉剎車會自動作動。

❺ 上下極限
當吊鉤達最高或最低點時，吊升極限自動停止，極限在吊車作動時不會隨著上下而擺動，增加極限使用壽命。

❻ 低噪音的消音器
排氣經過齒輪箱排至大氣的設計使噪音降低，並對齒箱內齒輪提供冷卻效果。

❼ 高強度機殼
高強度球墨鑄鐵機殼能抵擋外來強力衝擊及耐腐蝕。

❽ 葉片馬達
當吊機啟動時彈簧協助葉片彈出使馬達能產生最大轉矩。

❶ Sealed gearbox
A sealed planetary gearbox complies with heavy duty cycles ; the gears are heat treated and mounted on high strength and low friction bearings to enlarge the life span.

❷ Chain and guides
Grade 80 load chain is applied as standard. The chain guide escorts load chain shift rapidly on load sheave without twisting.

❸ Precise controller
Pendent control or toggle control offers variable speed control with accurate and precise positioning of loads.

❹ Safety brake
Non-asbestos disc brake is applied automatically when the air supply to the hoist is shut off.

❺ Upper/lower limit
The hoist switches off automatically while hooks reaching the highest or lowest limits; limits won't sway while hosting up or down to extend the service life.

❻ Integral silencer
The design to exhaust through the gearbox reduces the noise in the air and offers the cooling effect on the gearbox.

❼ High strength housing
High strength nodular graphite cast iron housing ensures shocks, bumps and corrosion resistance.

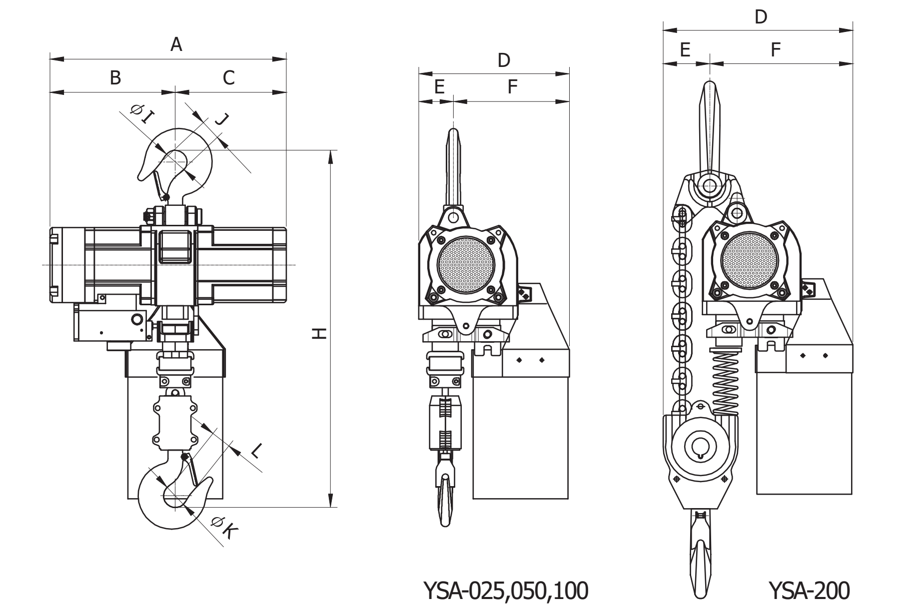
❽ Vane motor
The spring assists vane lifting when air supplied ensures maximum torque without delay while starting loading.

▲ 標準型式吊機(不含小車)
Standard configuration
(Without Trolley)

◀ 主機配合氣動小車
Hoist with air trolley

主機配合滑動小車 ▶
Hoist with plain trolley

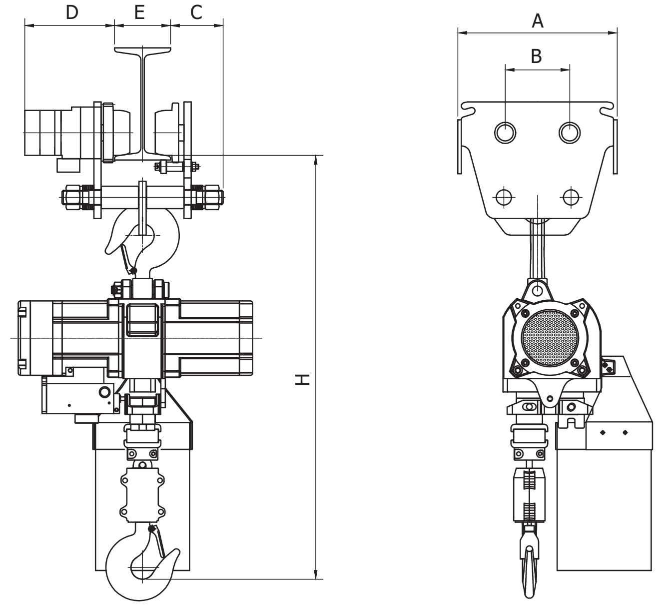
YSA Series 吊機系列



YSA-025,050,100

YSA-200

主機配合小車 Hoist with trolley



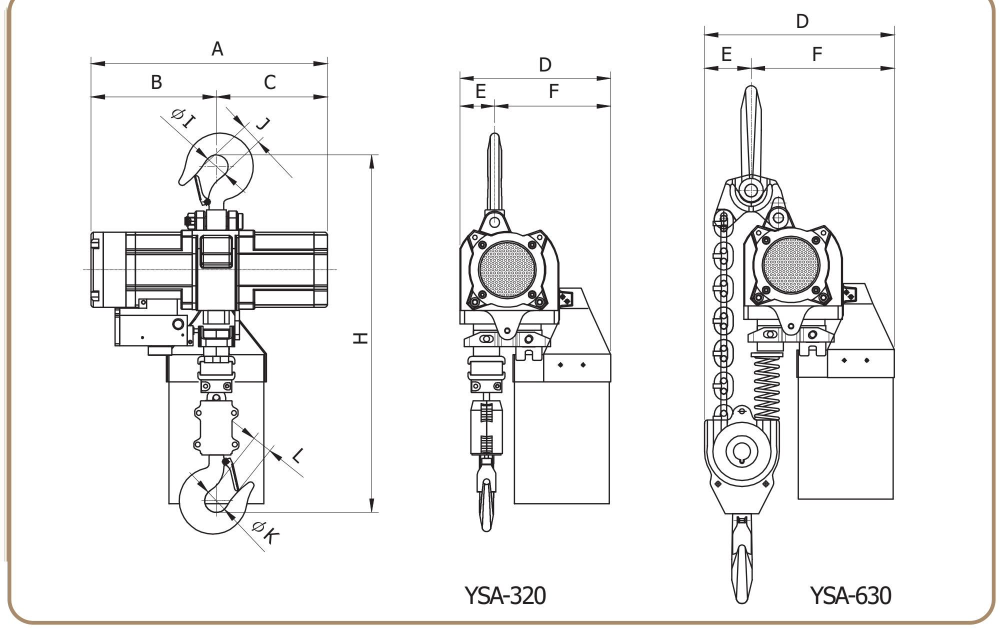
型號 Model	荷重 Capacity (ton)	掛數 Fall no.	尺寸 Dimension (mm) H	A	B	C	D	E	F	I	J	K	L	N.W. (kg)
YSA-025	0.25	1	493	350	176	174	227	50	177	40	32	40	32	32
YSA-050	0.5	1	493	350	176	174	227	50	177	40	32	40	32	36
YSA-100	1	1	522	433	228.5	204.5	247	55	192	40	32	40	32	51
YSA-200	2	2	720	433	228.5	204.5	325	73	252	46	40	46	40	60

型號 Model	荷重 Capacity (ton)	馬達 Motor (Kw)	使用壓力 Air supply pressure (kg/cm²)	橫行速度 Traversing Speed (m/min)	耗氣量 Air consumption (m³/min)	馬達剎車型式 Brake type	連接管尺寸 Air inlet
AT-100	1	0.2	6	20	0.6	碟式剎車	5/16"
AT-200	2	0.2	6	20	0.6	碟式剎車	5/16"

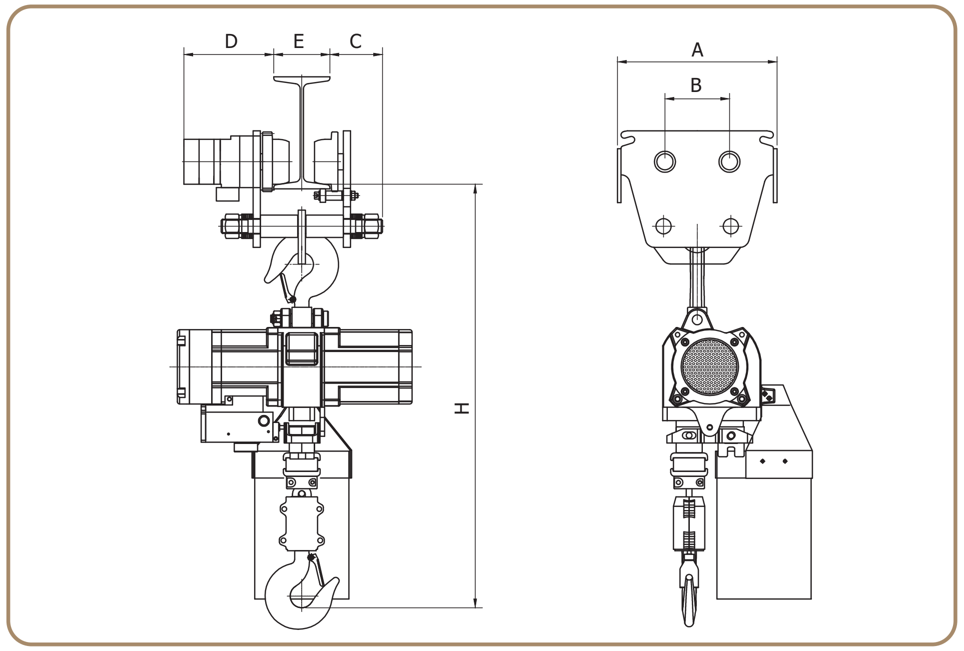
型號 Model	荷重 Capacity (ton)	尺寸 Dimension (mm) H	A	B	C	D	E
YSA-025+PT-050	0.25	608	194	89	35	-	50~150
YSA-050+PT-050	0.5	608	194	89	35	-	50~150
YSA-100+AT-100	1	645.5	294	116	95	208	75~125
YSA-200+AT-200	2	785.5	322	135	100	209.5	100~150

型號 Model	荷重 Capacity (ton)	掛數 Fall no.	鏈條尺寸 Load chain (mm)	標準揚程 Lift (m)	荷重等級 Classification	操作開關 Operation	工作壓力 Air supply pressure (kg/cm²)	馬達 Motor (kw)	揚速 Speed (m/min)	耗氣量 Air consumption (m³/min)	馬達剎車型式 Brake type	極限開關 Limit switch	連接管尺寸 Air inlet (in)	噪音值 Level of noise (dB) 負載 Load	空載 No load	主要管尺寸 Main line air supply (in)
YSA-025	0.25	1	ø6.3x19.1	3	2m	把手拉動式/押扣閥控制式 Handle pull type or push button valve type	6	1.5	18	2	碟式剎車 Disk type brake	上/下極限 Upper/Lower limit	1/2"	85	82	3/4"
							4	0.8	8	1						
YSA-050	0.5	1	ø6.3x19.1	3	2m		6	1.5	11	2			1/2"	85	82	3/4"
							4	0.8	5	1						
YSA-100	1	1	ø7.1x20.2	3	2m		6	2.0	7.6	2			1/2"	85	82	3/4"
							4	1.0	3.4	1						
YSA-200	2	2	ø7.1x20.2	3	2m		6	2.0	3.8	2			1/2"	85	82	3/4"
							4	1.0	1.7	1						

YSA Series 吊機系列



主機配合小車 Hoist with trolley



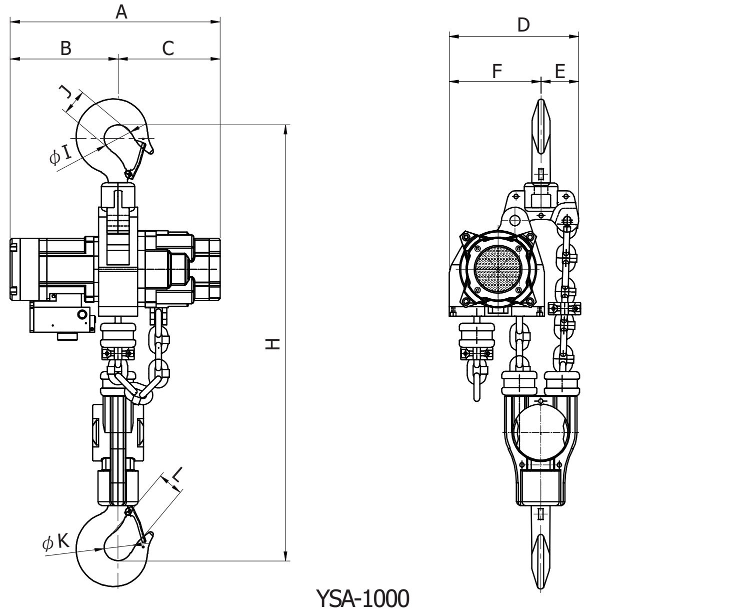
型號 Model	荷重 Capacity (ton)	掛數 Fall no.	尺寸 Dimension (mm) H	A	B	C	D	E	F	I	J	K	L	N.W. (kg)
YSA-320	3.2	1	850	523.5	277.5	246	334	77	257	52	47	52	47	108
YSA-630	6.3	2	1013	523.5	277.5	246	421	104	317	62	52	62	52	138

型號 Model	荷重 Capacity (ton)	馬達 Motor (Kw)	使用壓力 Air supply pressure (kg/cm²)	橫行速度 Traversing Speed (m/min)	耗氣量 Air consumption (m³/min)	馬達剎車型式 Brake type	連接管尺寸 Air inlet
AT-320	3.2	0.2	6	10	0.6	碟式剎車	5/16"
AT-630	6.3	0.2	6	4	0.6	碟式剎車	5/16"

型號 Model	荷重 Capacity (ton)	尺寸 Dimension (mm) H	A	B	C	D	E
YSA-320+AT-320	3.2	945	356	144	117.5	217	125~175
YSA-630+AT-630	6.3	1168	386	183	132.5	219	125~175

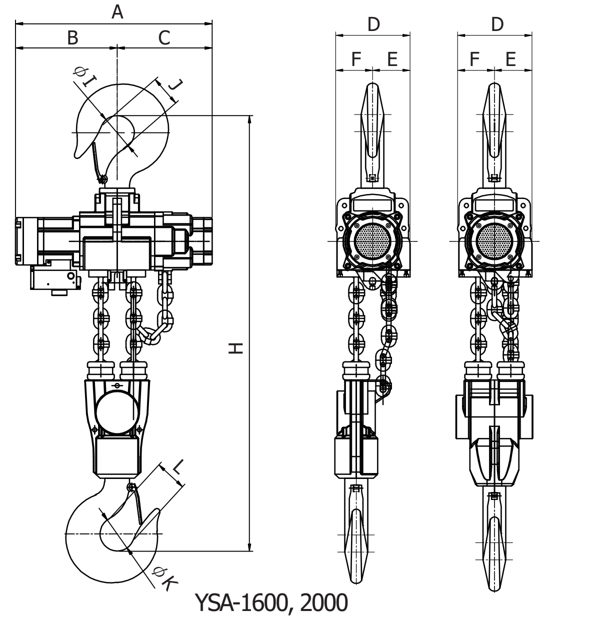
型號 Model	荷重 Capacity (ton)	掛數 Fall no.	鏈條尺寸 Load chain (mm)	標準揚程 Lift (m)	荷重等級 Classification	操作開關 Operation	工作壓力 Air supply pressure (kg/cm²)	馬達 Motor (kw)	揚速 Speed (m/min)	耗氣量 Air consumption (m³/min)	馬達剎車型式 Brake type	極限開關 Limit switch	連接管尺寸 Air inlet (in)	噪音值 Level of noise (dB) 負載 Load	空載 No load	主要管尺寸 Main line air supply (in)
YSA-320	3.2	1	ø13x36	3	2m	把手拉動式／押扣閥控制式 Handle pull type or push button valve type	6	3.5	4.8	4	碟式剎車 Disk type brake	上/下極限 Upper/Lower limit	3/4"	90	87	2"
							4	1.8	2.2	2						
YSA-630	6.3	2	ø13x36	3	2m		6	3.5	2.4	4			3/4"	90	87	2"
							4	1.8	1.1	2						

YSA Series 吊機系列



YSA-1000

YSA Series 吊機系列



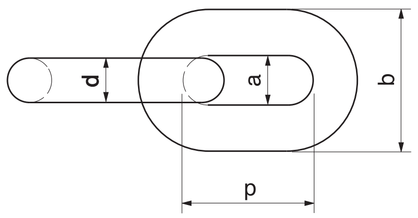
YSA-1600, 2000

型號 Model	荷重 Capacity (ton)	掛數 Fall no.	尺寸 Dimension (mm)											N.W. (kg)
			H	A	B	C	D	E	F	I	J	K	L	
YSA-1000	10	2	1100	562	289	273	347	101	246	75	69	75	69	186

型號 Model	荷重 Capacity (ton)	掛數 Fall no.	尺寸 Dimension (mm)											N.W. (kg)
			H	A	B	C	D	E	F	I	J	K	L	
YSA-1600	16	3	1350	687	355	332	260	131	129	120	109	120	109	327
YSA-2000	20	4	1400	687	355	332	260	131	129	120	109	120	109	383

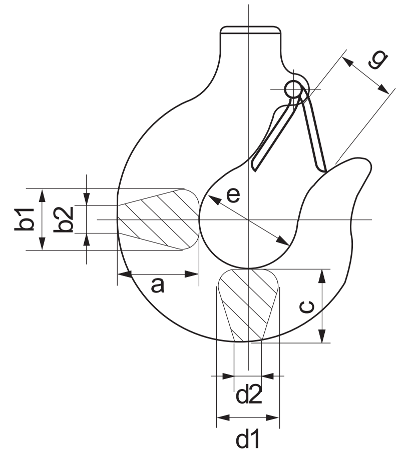
型號 Model	荷重 Capacity (ton)	掛數 Fall no.	鏈條尺寸 Load chain (mm)	標準揚程 Lift (m)	荷重等級 Classification	操作開關 Operation	工作壓力 Air supply pressure (kg/cm²)	馬達 Motor (kw)	揚速 Speed (m/min)	耗氣量 Air consumption (m³/min)	馬達剎車型式 Brake type	極限開關 Limit switch	連接管尺寸 Air inlet (in)	噪音值 Level of noise (dB)		主要管尺寸 Main line air supply (in)
														負載 Load	空載 No load	
YSA-1000	10	2	ø16x45	3	2m	把手拉動式／押扣閥控制式 Handle pull type or push button valve type	6	3.5	1.6	4	碟式剎車 Disk type brake	上/下極限 Upper/Lower limit	3/4"	90	87	2"
							4	1.8	0.7	2						
YSA-1600	16	3	ø16x45	3	2m		6	3.5	1.0	4			3/4"	90	87	2"
							4	1.8	0.4	2						
YSA-2000	20	4	ø16x45	3	2m		6	3.5	0.8	4			3/4"	90	87	2"
							4	1.8	0.3	2						

■ 鏈 條 Load Chain



直徑 Diameter d(mm)	使用機型 Model Reference Being Used	內長 Inner Length p (mm)	內寬 Inner Width a (mm)	外寬 Outer Width b (mm)	破裂荷重 Breaking Load (kg)
Ø6.3	YSA-025 YSA-050	19.1	7.6	21.4	5000
Ø7.1	YSA-100 YSA-200	20.2	8.4	23.6	6300
Ø13.0	YSA-320 YSA-630	36.0	15.6	44.2	21200
Ø16.0	YSA-1000 YSA-1600 YSA-2000	45.0	19.2	54.4	32000

■ 吊鉤 Hook



機型 Model	荷重 Capacity (ton)	T B	尺寸 Dimensions (mm)							
			a	b1	b2	c	d1	d2	e	g
YSA-025	0.25	T	33	18	8	23	18	8	35	30.4
		B	33	23	9	29	23	9	40	32
YSA-050	0.5	T	33	18	8	23	18	8	35	30.4
		B	33	23	9	29	23	9	40	32
YSA-100	1	T	33	23	9	29	23	9	40	32
		B	33	23	9	29	23	9	40	32
YSA-200	2	T	45	31	10	41	31	10	46	40
		B	35	27	13	35	27	13	40	32
YSA-320	3.2	T	55	34	19	48	34	19	52	47
		B	55	34	19	48	34	19	52	47
YSA-630	6.3	T	67	45	23	60	45	23	62	52
		B	68.8	44	19	56.2	41	19	63	51
YSA-1000	10	T	75	48	16	68	48	16	75	61.5
		B	75	48	16	68	48	16	75	61.5
YSA-1600	16	T	120	87	33	110	85	33	120	90
		B	120	87	33	110	85	33	120	90
YSA-2000	20	T	120	87	33	110	85	33	120	90
		B	120	87	33	110	85	33	120	90

● T : 上吊鉤 / B : 下吊鉤 T : Top hook / B : Bottom hook

■ FEM 歐洲聯合準則
Federation Europeenne De La Manutention

	負荷型態之定義 Cubic mean value Definitions	每一工作日(小時)之平均操作時間 Average operating time per day in hours							
1 輕 (light)	(k≦0.50) 只有偶爾有最高負荷，大部分僅有極輕度之負荷，小的靜負荷。 Mechanisms or parts thereof, usually subject to very small loads and in exceptional cases only to maximum loads.	0.25-0.5	0.5-1	1-2	2-4	4-8	8-16	＞16	
2 中 (medium)	(0.50＜k≦0.63) 常有最高負荷，連續輕微負荷，中等的靜負荷。 Mechanisms or parts thereof, usually subject to small loads but rather often to maximum loads.	0.12-0.25	0.25-0.5	0.5-1	1-2	2-4	4-8	8-16	＞16
3 重 (heavy)	(0.63＜k≦0.80) 經常有最高負荷，連續中等的負荷，大的靜負荷。 Mechanisms or parts thereof, usually subject to medium loads but frequently to maximum loads.	≦0.12	0.12-0.25	0.25-0.5	0.5-1	1-2	2-4	4-8	8-16
4 超重 (very heavy)	(0.80＜k≦1) 平均有最高負荷，極大的靜負荷。 Mechanisms or parts thereof, usually subject to maximum or almost to maximum loads.		≦0.12	0.12-0.25	0.25-0.5	0.5-1	1-2	2-4	4-8
	傳動機構分類別按 FEM 9.511 Classification of Mechanisms FEM 9.511	1 Dm	1 Cm	1 Bm	1 Am	2 m	3 m	4 m	5 m

■ ISO/FEM (9.511)

機構等級對照 (分組) 表：
Classification of mechanisms into groups

1 Dm	1 Cm	1 Bm	1 Am	2 m	3 m	4 m	5 m
M 1	M 2	M 3	M 4	M 5	M 6	M 7	M 8

機構等級：
Classification of mechanisms

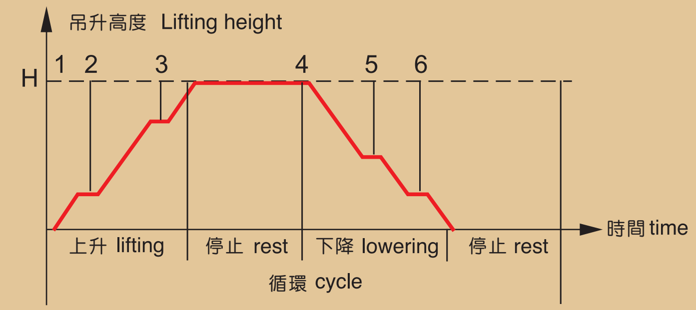
荷重狀態 Load spectrum		荷重率 Cubic mean value	運轉時間等級 Class of operation time								
			V0.06	V0.12	V0.25	V0.5	V1	V2	V3	V4	V5
			TO	T1	T2	T3	T4	T5	T6	T7	T8
			平均每天運轉時間(小時) Average operating time per day in hours								
			≦0.12	≦0.25	≦0.5	≦1	≦2	≦4	≦8	≦16	＞16
1	L1	k≦ 0.50			1 Dm	1 Cm	1 Bm	1 Am	2 m	3 m	4 m
2	L2	0.50＜k≦ 0.63		1 Dm	1 Cm	1 Bm	1 Am	2 m	3 m	4 m	5 m
3	L3	0.63＜k≦ 0.80	1 Dm	1 Cm	1 Bm	1 Am	2 m	3 m	4 m	5 m	
4	L4	0.80＜k≦ 1.00	1 Cm	1 Bm	1 Am	2 m	3 m	4 m	5 m		

運轉時間等級：
Class of operation time

運轉時間等級 Class of operation time		平均每天運轉時間（小時） Average operating time per day (in hours)	總運轉時間（小時） Calculated total operating time in hours
V0.06	T0	≤0.12	200
V0.12	T1	≤0.25	400
V0.25	T2	≤0.5	800
V0.5	T3	≤1	1600
V1	T4	≤2	3200
V2	T5	≤4	6300
V3	T6	≤8	12500
V4	T7	≤16	25000
V5	T8	>16	50000

■ 操作循環表 Operation Cycle

吊升單速 Hoist with one speed



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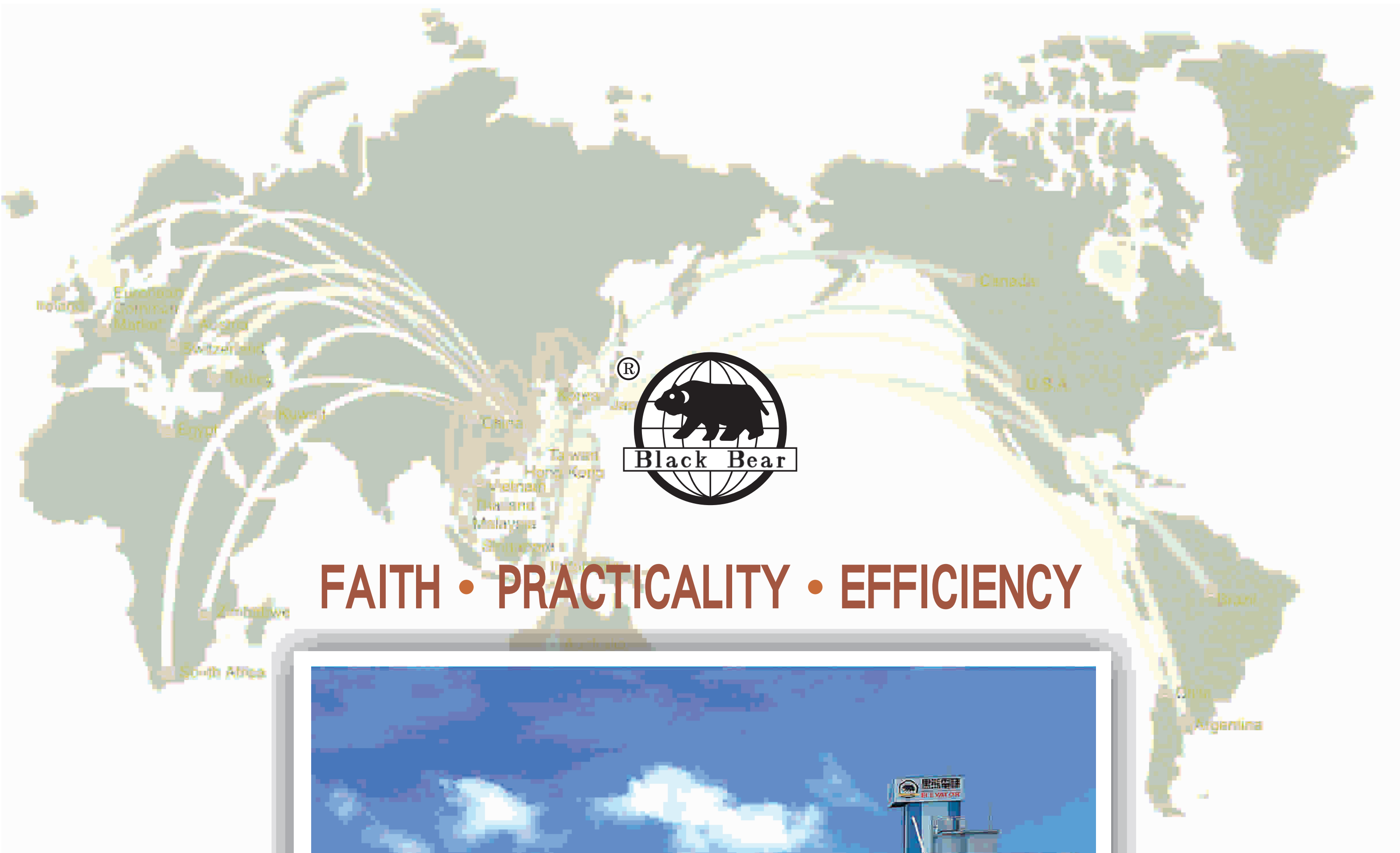

Black Bear ®

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