

Bore: $\phi 20$ - $\phi 80$ mm Pmax:140kg/cm²

產品簡介:

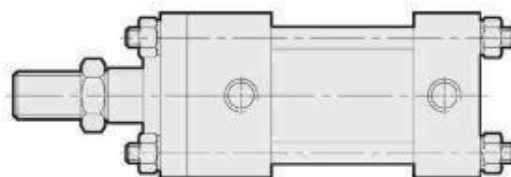
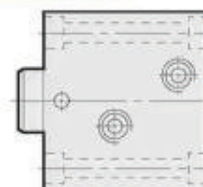
- 體積小,節省空間,安裝空間受限制的最佳選擇。
- 標準化規格,直接安裝,不需其他配件,降低成本。
- 缸體材質採用機械構造用碳素鋼,內壁特殊處理加工,表面光滑,使用壽命長。
- 軸向,側向油路板型,面配管提升整體美觀。

Product Introduction

- Compact construction for space saving, ideal for application in a Restricted space.
- Standardized specifications, Direct installation without need of any further accessories for saving cost.
- The cylinder barrel is manufactured from structural form structural carbon steel. Internal wall is specially treated, featuring maximum smoothness and long service life.
- Axial and side manifold type eliminate the use of piping for upgrading appearance elegance.

傳統油缸和薄油缸總長度之比較:

A comparison of length between the traditional hydraulic cylinder and thin type cylinder.



特性資料: Specifications

安裝方式 Installation	軸向 Axial	SD單軸; SW雙軸 Single end rod SD; Double end rod SW
	側向 Side	LA單軸; LW雙軸 Single end rod LA; Double end rod LW
操作壓力範圍 Operation pressure range	5-140kg/cm ²	
使用速度範圍 Operation speed range	8-100mm/sec	
使用溫度範圍 Operation temperature range	-10-+60°C	
使用流體 Fluid	已濾清之標準液壓油 Filtered hydraulic oil	
動作方式 Acting type	複動式 Double acting	
油缸本體材質 Material of cylinder barrel	炭素鋼 Carbon steel	

理論出力表: Clamping Force

F1:推出 Push out

F2:拉入 Pull in



缸體內徑 Bore of cylinder (mm)	活塞杆徑 Piston-rod (mm)	受壓面積 Pressure area(cm ²)		操作壓力 Operation pressure(kg/cm ²)									
				10		35		70		100		140	
		F1	F2	F1	F2	F1	F2	F1	F2	F1	F2	F1	F2
$\phi 20$	$\phi 12$	3.14	2.01	31	20	110	71	220	141	314	201	440	218
$\phi 25$	$\phi 14$	4.91	3.37	49	34	172	118	344	236	491	337	687	472
$\phi 32$	$\phi 20$	8.04	4.9	80	49	281	172	563	343	804	490	1126	686
$\phi 40$	$\phi 25$	12.57	7.66	126	77	440	268	880	536	1257	766	1760	1072
$\phi 50$	$\phi 30$	19.64	12.57	196	126	687	440	1375	880	1964	1257	2750	1760
$\phi 63$	$\phi 35$	31.17	21.55	312	216	1091	754	2182	1509	3117	2155	4364	3017
$\phi 80$	$\phi 45$	50.27	34.37	503	344	1759	1203	3519	2406	5027	3437	7038	4812

unit 單位: kg

HTB series

Hydraulic thin-type Cylinder

Bore: $\phi 20$ - $\phi 80$ mm Pmax:140kg/cm²

SD 軸向安裝型(單軸) $\phi 20$ - $\phi 80$
SD Axial Mounting Type (Single End Rod)



SW 軸向安裝型(雙軸) $\phi 32$ - $\phi 80$
SW Axial Mounting Type (Double End Rod)



SDM-A 軸向前油路板型 $\phi 20$ - $\phi 80$
SDM-A Axial Front Manifold Type



SDM-B 軸向後油路板型 $\phi 20$ - $\phi 80$
SDM-B Axial Back Manifold Type



HTM 薄型感應油壓缸 $\phi 32$ - $\phi 80$
HTM Magnetic-Type hydraulic cylinder
Pmax:70kg/cm²

行程規格參考訂購標示法

Refer to ordering code for stroke specifications



HTM 70
Pmax:70kg/cm²

HTM 140
Pmax:140kg/cm²

LA 側向安裝型(單軸) $\phi 32$ - $\phi 63$
LA Side Mounting Type (Single End Rod)



LW 側向安裝型(雙軸) $\phi 32$ - $\phi 63$
LW Side Mounting Type (Double End Rod)



LAM 側向油路板型(單軸) $\phi 32$ - $\phi 63$
LAM Side Manifold Type (Single End Rod)



LWM 側向安裝型(雙軸) $\phi 32$ - $\phi 63$
LWM Side Manifold Type (Double End Rod)



軸端型式接收定制，訂購時請提供尺寸 $\phi 20$ - $\phi 80$
Custom rod end type is available.
Provide your desired sizes when ordering.



行程規格表: Stroke Specifications

注：記號⊙之油缸本體長度需加長5mm

NOTE: Sizes marked with ⊙ should add 5mm to cylinder body length.

STROKE	TYPE BORE	SD							SW							LA LW LAM LWM			
		$\phi 20$	$\phi 25$	$\phi 32$	$\phi 40$	$\phi 50$	$\phi 63$	$\phi 80$	$\phi 20$	$\phi 25$	$\phi 32$	$\phi 40$	$\phi 50$	$\phi 63$	$\phi 80$	$\phi 32$	$\phi 40$	$\phi 50$	$\phi 63$
5		⊙	⊙	●	●	●	●	●	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙
10		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
15		⊙	⊙	●	●	●	●	●	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙
20		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
25		⊙	⊙	●	●	●	●	●	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙
30		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
40		×	●	●	●	●	●	●	×	●	●	●	●	●	●	●	●	●	●
50		×	●	●	●	●	●	●	×	×	●	●	●	●	●	●	●	●	●

HTB series

Hydraulic thin-type Cylinder

Bore: $\phi 20$ - $\phi 80$ mm Pmax:140kg/cm²

SD 軸向安裝型(單軸) $\phi 20$ - $\phi 80$
SD Axial Mounting Type (Single End Rod)



SW 軸向安裝型(雙軸) $\phi 32$ - $\phi 80$
SW Axial Mounting Type (Double End Rod)

LA 側向安裝型(單軸) $\phi 32$ - $\phi 63$
LA Side Mounting Type (Single End Rod)



LW 側向安裝型(雙軸) $\phi 32$ - $\phi 63$
LW Side Mounting Type (Double End Rod)

SDM-A 軸向前油路板型 $\phi 20$ - $\phi 80$
SDM-A Axial Front Manifold Type



SDM-B 軸向後油路板型 $\phi 20$ - $\phi 80$
SDM-B Axial Back Manifold Type

LAM 側向油路板型(單軸) $\phi 32$ - $\phi 63$
LAM Side Manifold Type (Single End Rod)



LWM 側向安裝型(雙軸) $\phi 32$ - $\phi 63$
LWM Side Manifold Type (Double End Rod)

HTM 薄型感應油壓缸 $\phi 32$ - $\phi 80$
HTM Magnetic-Type hydraulic cylinder
Pmax:70kg/cm²
行程規格參考訂購標示法
Refer to ordering code for stroke specifications



HTM 70
Pmax:70kg/cm²

HTM 140
Pmax:140kg/cm²

軸端型式接收定制，訂購時請提供尺寸 $\phi 20$ - $\phi 80$
Custom rod end type is available.
Provide your desired sizes when ordering.



行程規格表: Stroke Specifications

注：記號⊙之油缸本體長度需加長5mm
NOTE: Sizes marked with ⊙ should add 5mm to cylinder body length.

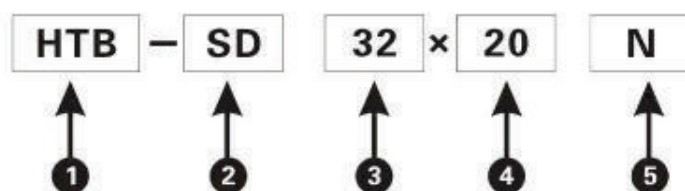
STROKE	TYPE BORE	SD							SW							LA LW LAM LWM			
		$\phi 20$	$\phi 25$	$\phi 32$	$\phi 40$	$\phi 50$	$\phi 63$	$\phi 80$	$\phi 20$	$\phi 25$	$\phi 32$	$\phi 40$	$\phi 50$	$\phi 63$	$\phi 80$	$\phi 32$	$\phi 40$	$\phi 50$	$\phi 63$
5		⊙	⊙	●	●	●	●	●	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙
10		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
15		⊙	⊙	●	●	●	●	●	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙
20		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
25		⊙	⊙	●	●	●	●	●	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙
30		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
40		×	●	●	●	●	●	●	×	●	●	●	●	●	●	●	●	●	●
50		×	●	●	●	●	●	●	×	×	●	●	●	●	●	●	●	●	●

Hydraulic thin-type Cylinder SD.SW

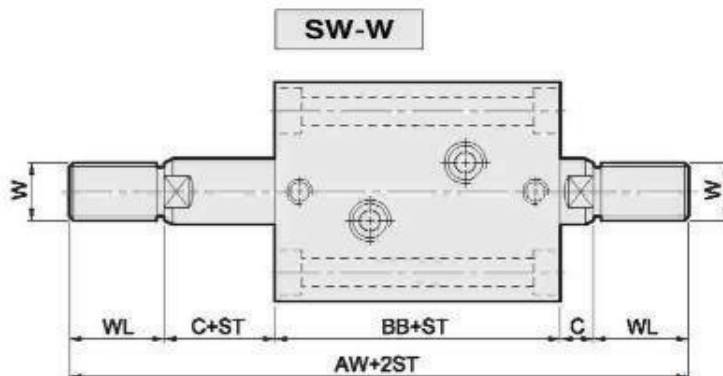
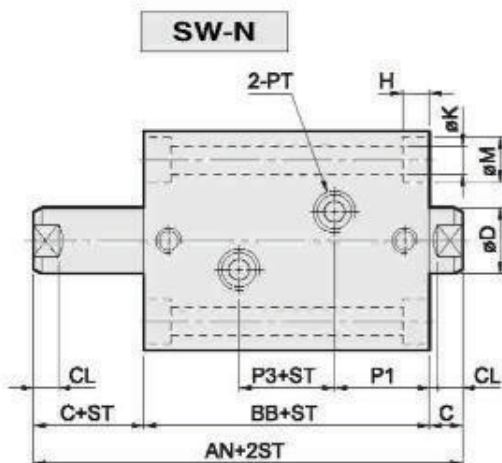
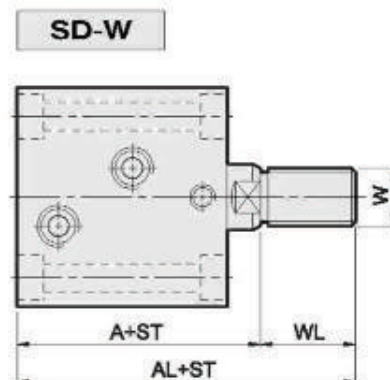
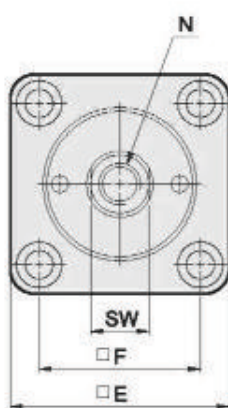
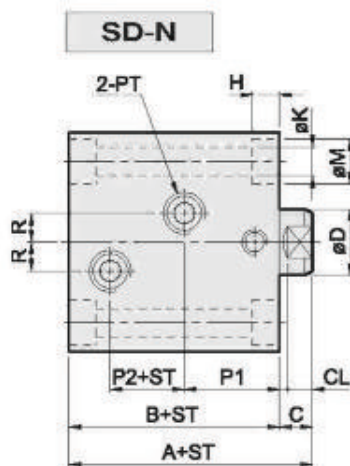
HTB series

Bore: $\phi 20$ - $\phi 80$ mm Pmax:140kg/cm²

訂購標示法: Ordering Code



1	系列別 series	HTB
2	安裝型式 Mounting type	SD 軸向單軸 Single endrod type SW 軸向雙軸 Double endrod type
3	缸體內徑 Bore of cylinder	$\phi 20, \phi 25, \phi 32, \phi 40, \phi 50, \phi 63, \phi 80$
4	標準行程 Standard stroke	請參考行程規格表 Please refer to the stroke specification
5	軸端型式 Rod end type	內牙N:Female thread N 外牙W:Male thread W

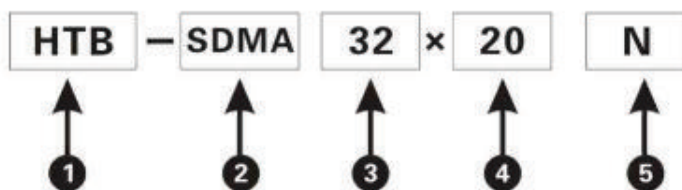


St=Stroke

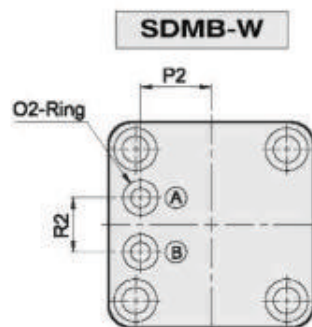
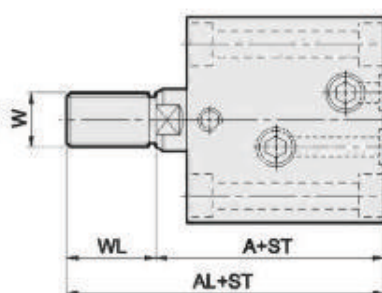
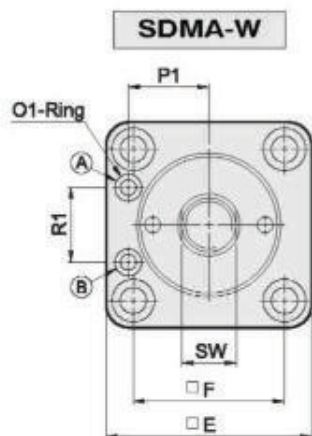
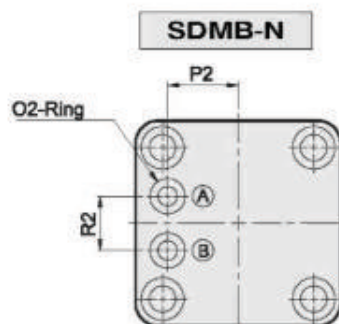
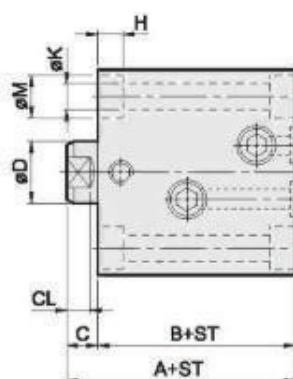
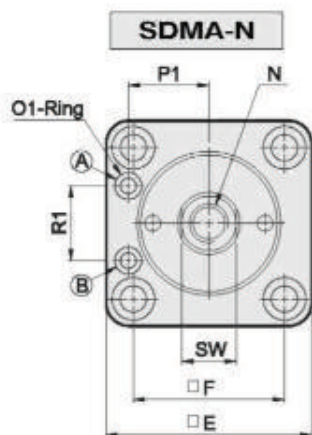
Dimensional Table

$\phi 20, \phi 25$ 右列行程之本體長度B尺寸相同 (5,10)(15,20)(25,30)
 $\phi 20, \phi 25$ The length "B" of cylinder body is the same of the stroke (5,10)(15,20)(25,30)

Bore	A	AL	AN	AW	B	BB	C	CL	D	SW	E	F	H	K	M	N	W	WL	P1	P2	P3	R	PT
$\phi 20$	51	71	72	112	43	56	8	6	12	10	42	30	5.5	5.6	9	M8×1.25×12D.	M10×1.25	20	22.5	11	11	5	1/8
$\phi 25$	53	75	74	118	45	58	8	6	14	12	48	36	5.5	5.6	9	M10×1.5×15D.	M12×1.25	22	23	12	12	5	1/8
$\phi 32$	64	89	89	139	54	69	10	7	20	17	62	47	6.5	6.8	11	M12×1.75×15D.	M16×1.5	25	28	14	13	10	1/4
$\phi 40$	65	95	90	150	55	70	10	7	25	22	70	52	9	9	14	M16×2.0×20D.	M22×1.5	30	28	15	14	10	1/4
$\phi 50$	71	106	97	167	60	75	11	8	30	27	80	58	11	11	18	M20×2.5×25D.	M26×1.5	35	29.5	18	16	10	1/4
$\phi 63$	80	120	108	188	67	82	13	10	35	32	94	69	13	13	20	M27×3.0×35D.	M30×1.5	40	31	20	20	10	3/8
$\phi 80$	95	140	127	217	78	93	17	14	45	41	114	86	15	15	22	M30×3.5×35D.	M39×1.5	45	33	27	27	15	3/8

訂購標示法: Ordering Code


1	系列別 series	HTB
2	安裝型式 Mording type	SDMA 軸向前油路板型 Axlia front manifold type SDMB 軸向後油路板型 Axlia back manifold type
3	缸體內徑 Bore of cylinder	$\phi 20, \phi 25, \phi 32, \phi 40, \phi 50, \phi 63, \phi 80$
4	標準行程 Standard stroke	請參考行程規格表 Please refer to the stroke specification
5	軸端型式 Rod end type	內牙N:Female thread N 外牙W:Male thread W



A	推出油孔 Push out
B	拉入油孔 Pull in

St=Stroke
Dimensional Table
 $\phi 20, \phi 25$ 右列行程之本體長度B尺寸相同 (5,10)(15,20)(25,30)
 $\phi 20, \phi 25$ The length "B" of cylinder body is the same of the stroke (5,10)(15,20)(25,30)

Bore	A	AL	B	C	CL	D	SW	E	F	H	K	M	N	W	WL	SDMA			SDMB		
																P1	R1	O1	P2	R2	O2
$\phi 20$	51	71	43	8	6	12	10	42	30	5.5	5.6	9	M8×1.25×12D.	M10×1.25	20	16.5	13	P4	13	11	P5
$\phi 25$	53	75	45	8	6	14	12	48	36	5.5	5.6	9	M10×1.5×15D.	M12×1.25	22	19.5	18	P4	16	13	P7
$\phi 32$	64	89	54	10	7	20	17	62	47	6.5	6.8	11	M12×1.75×15D.	M16×1.5	25	24	24	P6	20	20	P9
$\phi 40$	65	95	55	10	7	25	22	70	52	9	9	14	M16×2.0×20D.	M22×1.5	30	27	26	P6	24	20	P9
$\phi 50$	71	106	60	11	8	30	27	80	58	11	11	18	M20×2.5×25D.	M26×1.5	35	32	27	P8	29	20	P9
$\phi 63$	80	120	67	13	10	35	32	94	69	13	13	20	M27×3.0×35D.	M30×1.5	40	38	35	P8	35	26	P11
$\phi 80$	95	140	78	17	14	45	41	114	86	15	15	22	M30×3.5×35D.	M39×1.5	45	47	45	P11	44	30	P11

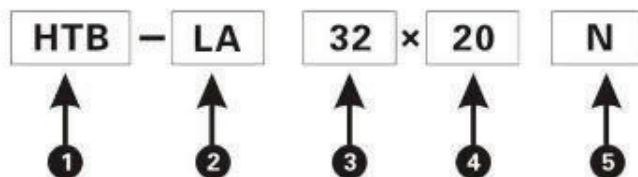
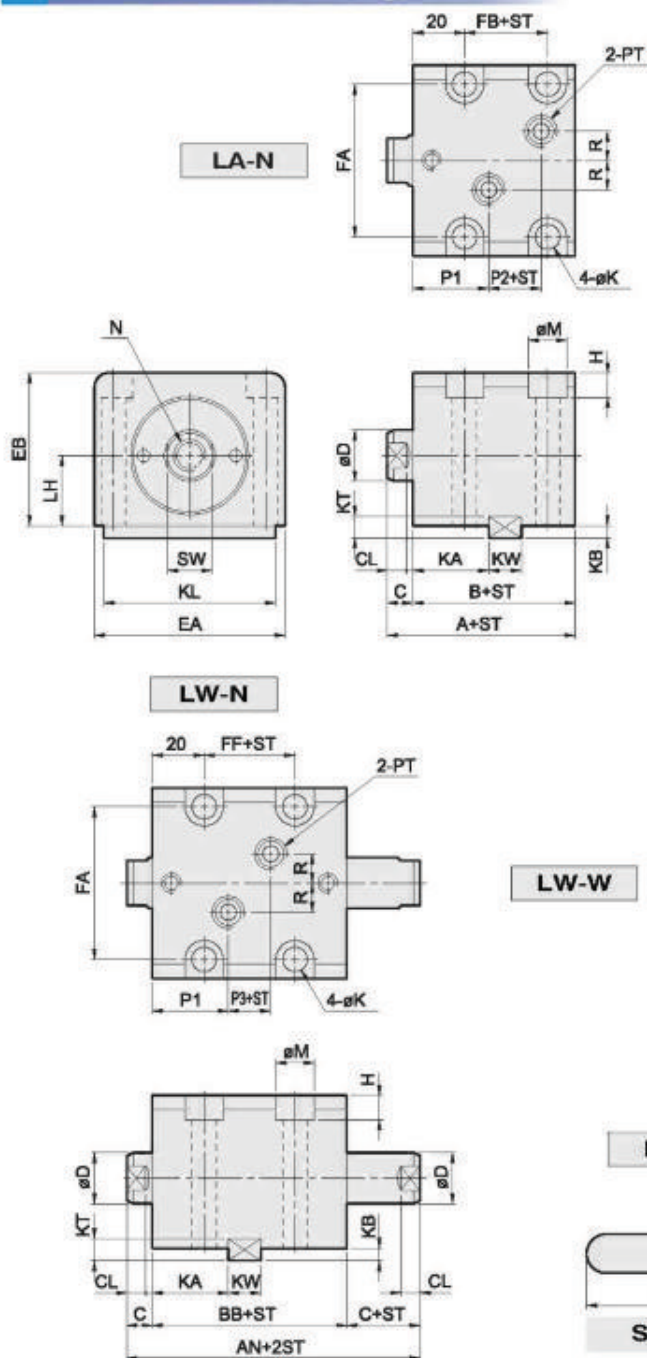
unit 單位: mm

Hydraulic thin-type Cylinder LA.LW

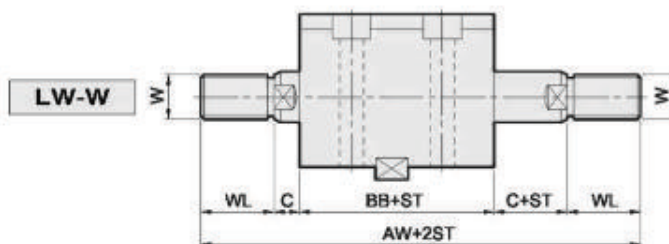
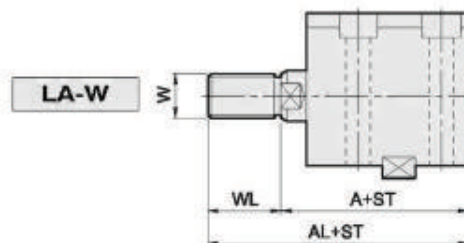
Bore: $\phi 32$ - $\phi 63$ mm Pmax:140kg/cm²

HTB series

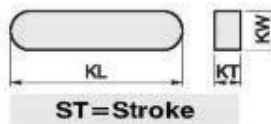
訂購標示法: Ordering Code



1	系列別 series	HTB
2	安裝型式 Mording type	LA 軸向單軸 Single endrod type LW 軸向雙軸 Double endrod type
3	缸體內徑 Bore of cylinder	$\phi 32, \phi 40, \phi 50, \phi 63$
4	標準行程 Standard stroke	10.20.30.40.50
5	軸端型式 Rod end type	內牙N:Female thread N 外牙W:Male thread W



KEY



Key Size

unit 單位: mm

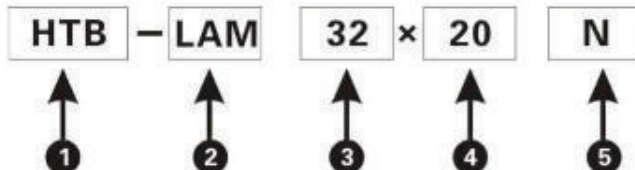
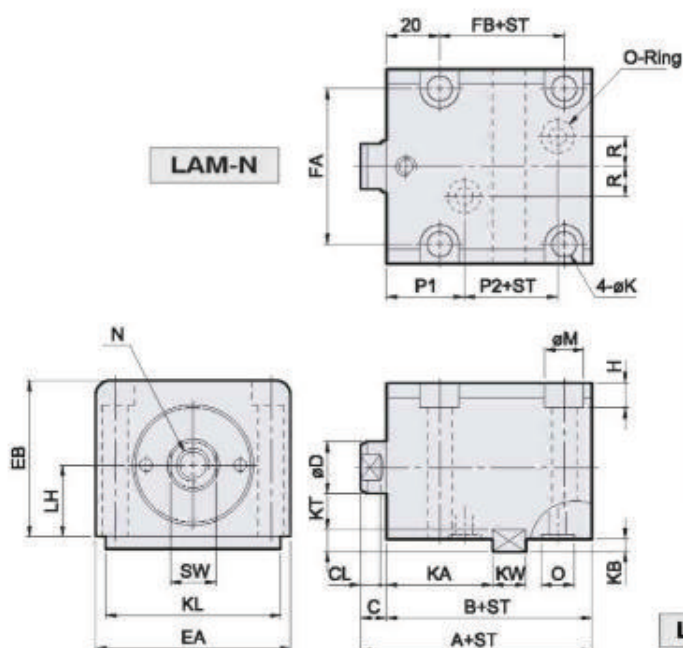
Bore	KW	KT	KL	KA	KB
$\phi 32$	12	8	63	28	4.5
$\phi 40$	12	8	70	28	4.5
$\phi 50$	14	9	80	29	5
$\phi 63$	16	10	100	31	5.5

Dimensional Table

右列行程之本體長度B及BB尺寸相同 (5,10)(15,20)(25,30)(35,40)(45,50)
The length "B" and "BB" of cylinder body is the same of the stroke (5,10)(15,20)(25,30)(35,40)(45,50)

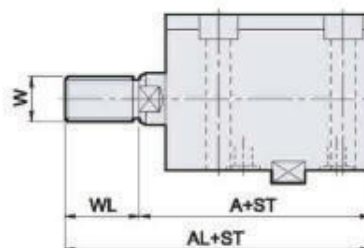
Bore	A	AL	AN	AW	B	BB	C	CL	D	SW	EA	EB	LH	FA	FB	FF	H	K	M	N	W	WL	P1	P2	P3	R	PT
$\phi 32$	64	89	89	139	54	69	10	7	20	17	70	56	25	56	24	32	9	9	14	M12×1.75×15D.	M16×1.5	25	28	14	13	10	1/4
$\phi 40$	65	95	90	150	55	70	10	7	25	22	80	64	29	62	23	32	11	11	18	M16×2.0×20D.	M22×1.5	30	28	15	14	10	1/4
$\phi 50$	71	106	97	167	60	75	11	8	30	27	94	74	34	74	27	35	13	13	20	M20×2.5×25D.	M26×1.5	35	29.5	18	16	10	1/4
$\phi 63$	80	120	108	188	67	82	13	10	35	32	114	89	42	90	32	42	15	15	22	M27×3.0×35D.	M30×1.5	40	31	20	20	10	3/8

unit 單位: mm

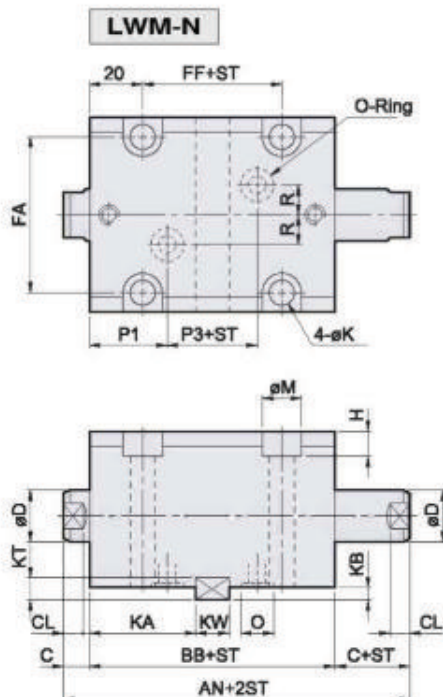
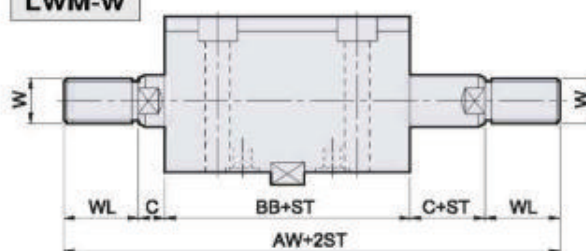


1	系列別 series	HTB
2	安裝型式 Mording type	LAM 軸向單軸 Single endrod type LWM 軸向雙軸 Double endrod type
3	缸體內徑 Bore of cylinder	$\phi 32, \phi 40, \phi 50, \phi 63$.
4	標準行程 Standard stroke	10.20.30.40.50
5	軸端型式 Rod end type	內牙N:Female thread N 外牙W:Male thread W

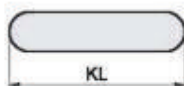
LAM-W



LWM-W



KEY



ST=Stroke

Key Size

unit 單位: mm

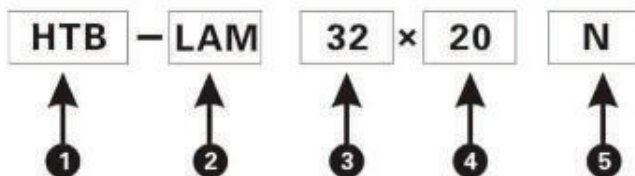
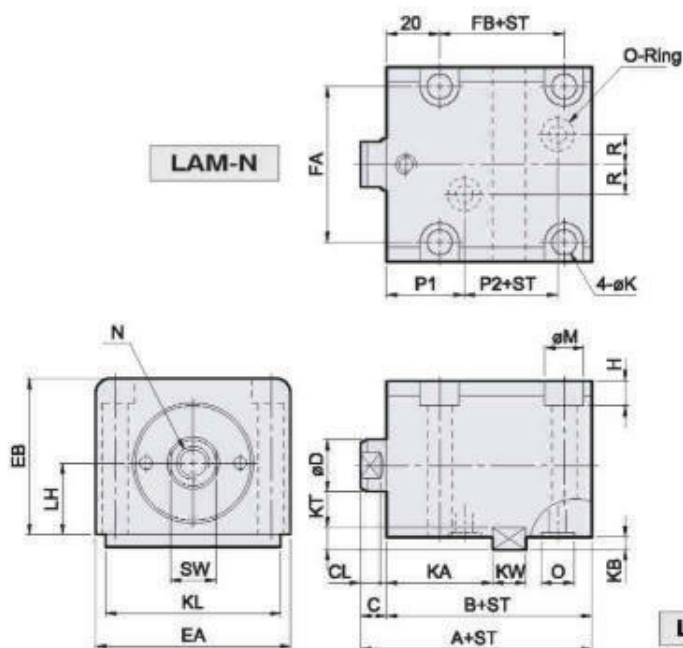
Bore	KW	KT	KL	KA	KB
$\phi 32$	12	8	63	38	4.5
$\phi 40$	12	8	70	38	4.5
$\phi 50$	14	9	80	40	5
$\phi 63$	16	10	100	42	5.5

Dimensional Table

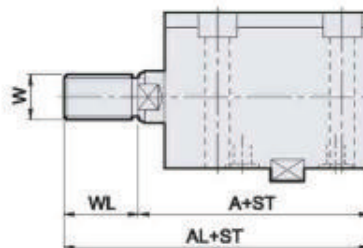
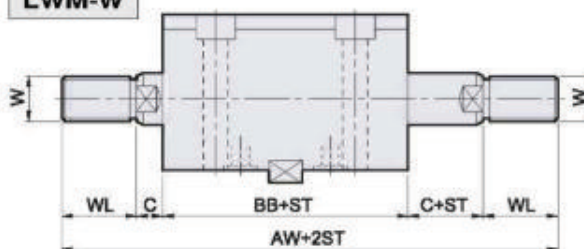
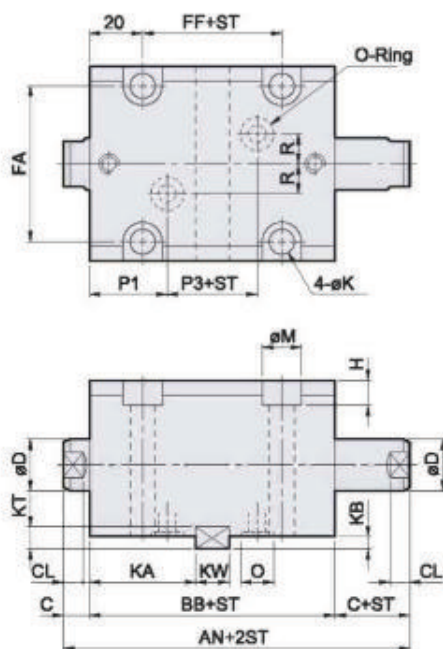
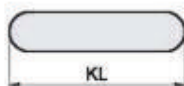
右列行程之本體長度B及BB尺寸相同 (5,10)(15,20)(25,30)(35,40)(45,50)
The length "B" and "BB" of cylinder body is the same of the stroke (5,10)(15,20)(25,30)(35,40)(45,50)

Bore	A	AL	AN	AW	B	BB	C	CL	D	SW	EA	EB	LH	FA	FB	FF	H	K	M	N	W	WL	P1	P2	P3	R	O
$\phi 32$	64	89	89	139	54	69	10	7	20	17	70	56	25	56	24	32	9	9	14	M12×1.75×15D.	M16×1.5	25	28	14	13	10	P9
$\phi 40$	65	95	90	150	55	70	10	7	25	22	80	64	29	62	23	32	11	11	18	M16×2.0×20D.	M22×1.5	30	28	15	14	10	P9
$\phi 50$	71	106	97	167	60	75	11	8	30	27	94	74	34	74	27	34	13	13	20	M20×2.5×25D.	M26×1.5	35	29.5	18	16	10	P11
$\phi 63$	80	120	108	188	67	82	13	10	35	32	114	89	42	90	32	42	15	15	22	M27×3.0×35D.	M30×1.5	40	31	20	20	10	P11

unit 單位: mm



1	系列別 series	HTB
2	安裝型式 Mording type	LAM 軸向單軸 Single endrod type LWM 軸向雙軸 Double endrod type
3	缸體內徑 Bore of cylinder	$\phi 32, \phi 40, \phi 50, \phi 63$.
4	標準行程 Standard stroke	10.20.30.40.50
5	軸端型式 Rod end type	內牙N:Female thread N 外牙W:Male thread W

LAM-W

LWM-W

LWM-N

KEY

ST=Stroke
Key Size

unit 單位: mm

Bore	KW	KT	KL	KA	KB
$\phi 32$	12	8	63	38	4.5
$\phi 40$	12	8	70	38	4.5
$\phi 50$	14	9	80	40	5
$\phi 63$	16	10	100	42	5.5

Dimensional Table

右列行程之本體長度B及BB尺寸相同 (5,10)(15,20)(25,30)(35,40)(45,50)

The length "B" and "BB" of cylinder body is the same of the stroke (5,10)(15,20)(25,30)(35,40)(45,50)

Bore	A	AL	AN	AW	B	BB	C	CL	D	SW	EA	EB	LH	FA	FB	FF	H	K	M	N	W	WL	P1	P2	P3	R	O
$\phi 32$	64	89	89	139	54	69	10	7	20	17	70	56	25	56	24	32	9	9	14	M12×1.75×15D.	M16×1.5	25	28	14	13	10	P9
$\phi 40$	65	95	90	150	55	70	10	7	25	22	80	64	29	62	23	32	11	11	18	M16×2.0×20D.	M22×1.5	30	28	15	14	10	P9
$\phi 50$	71	106	97	167	60	75	11	8	30	27	94	74	34	74	27	34	13	13	20	M20×2.5×25D.	M26×1.5	35	29.5	18	16	10	P11
$\phi 63$	80	120	108	188	67	82	13	10	35	32	114	89	42	90	32	42	15	15	22	M27×3.0×35D.	M30×1.5	40	31	20	20	10	P11

unit 單位: mm

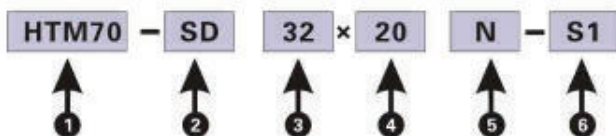


Hydraulic thin-type Cylinder SD.SDMB

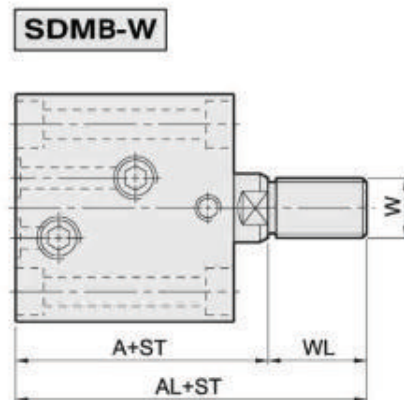
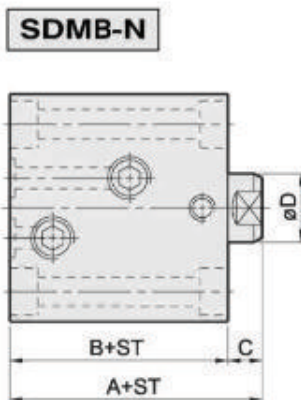
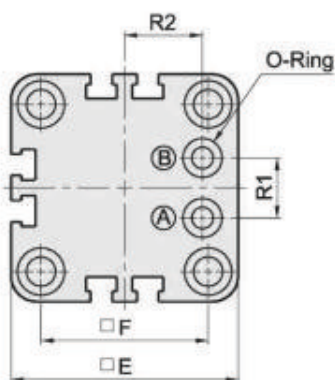
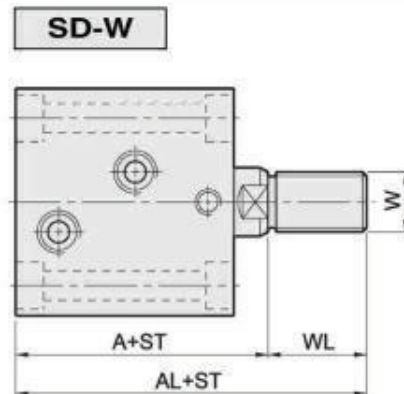
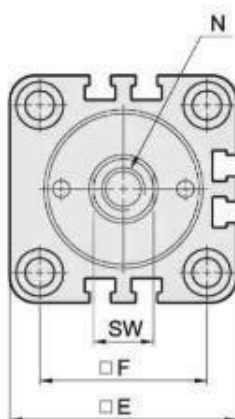
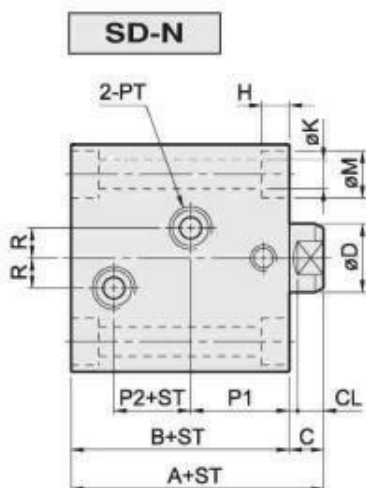
Bore: $\phi 32$ - $\phi 80$ mm Pmax:70kg/cm²

HTM70 series

訂購標示法: Ordering Code



1	系列別 series	HTM70	
2	安裝型式 Mording type	SD	標準型 Standard
		SDMA	油路板型 Manifold type
3	缸體內徑 Bore of cylinder	$\phi 32, \phi 40, \phi 50, \phi 63, \phi 80$	
4	標準行程 Standard stroke	10.20.30.40.50	
5	軸端型式 Rod end type	內牙N:Female thread N 外牙W:Male thread W	
6	接近開關 Sensor switch	S1:1一個 S2:2兩個 1Pc of S1,2Pcs of S2 電壓:Volt: DC4-21V AC4-120V 電流:Current:5-40mA	



(A)	推出油孔 Push out
(B)	拉入油孔 Pull in

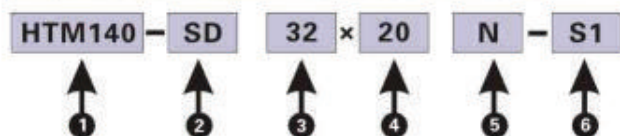
ST=Stroke

Dimensional Table

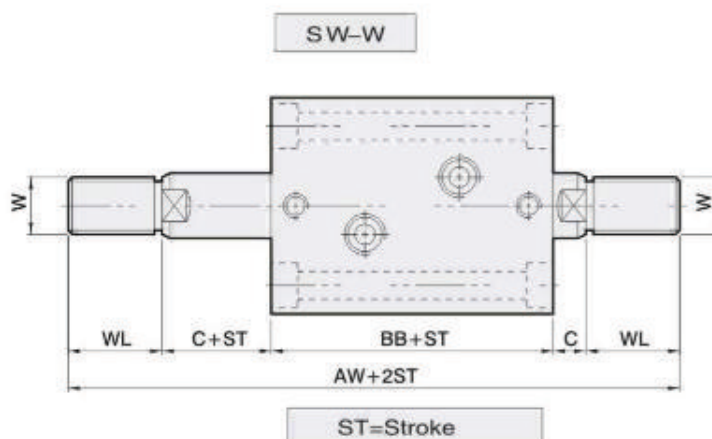
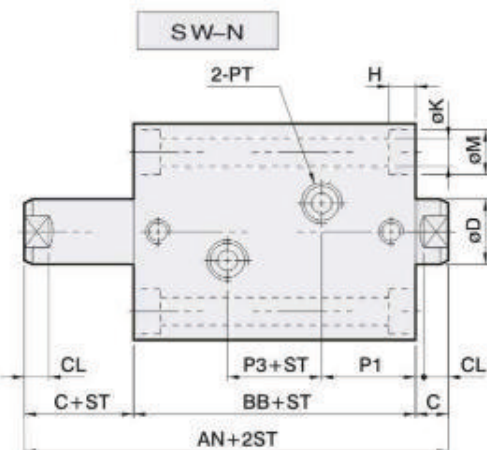
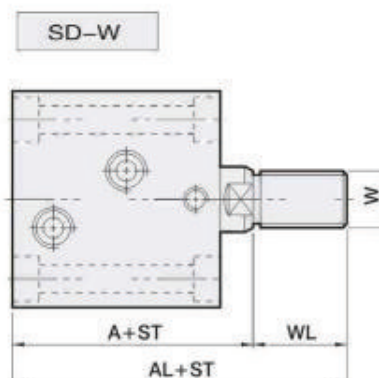
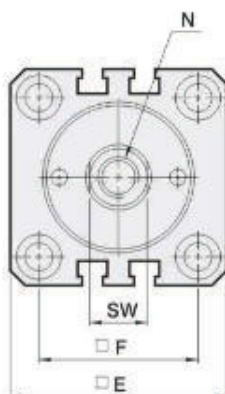
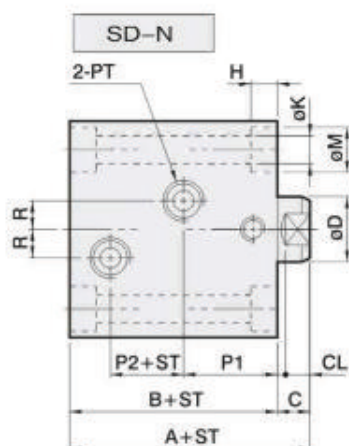
Bore	A	AL	B	C	CL	D	SW	E	F	H	K	M	N	W	WL	SD			SDMB			
																P1	P2	R	PT	R1	R2	O
$\phi 32$	64	89	54	10	7	20	17	62	47	6.5	6.8	11	M12x1.75x15D.	M16x1.5	25	28	14	10	1/4	20	20	P9
$\phi 40$	65	95	55	10	7	25	22	70	52	9	9	14	M16x2.0x20D.	M22x1.5	30	28	15	10	1/4	20	24	P9
$\phi 50$	71	106	60	11	8	30	27	80	58	11	11	18	M20x2.5x25D.	M26x1.5	35	29.5	18	10	1/4	20	29	P9
$\phi 63$	80	120	67	13	10	35	32	94	69	13	13	20	M27x3.0x35D.	M30x1.5	40	31	20	10	3/8	26	35	P11
$\phi 80$	95	140	78	17	14	45	36	114	86	15	15	22	M30x3.5x35D.	M39x1.5	45	33	27	15	3/8	30	44	P11

unit 單位: mm



Bore: $\phi 32$ - $\phi 80$ mm Pmax:140kg/cm²
訂購標示法: Ordering Code


1	系列別 series	HTM140	
2	安裝型式 Mording type	SD	軸向單軸 Standard
		SW	雙軸 Manifold type
3	缸體內徑 Bore of cylinder	$\phi 32, \phi 40, \phi 50, \phi 63, \phi 80$	
4	標準行程 Standard stroke	10, 20, 30, 40, 50 (行程標示外接受定做)	
5	軸端型式 Rod end type	內牙N: Female thread N 外牙W: Male thread W	
6	接近開關 Sensor switch	S1: 1一個 S2: 2兩個 1Pc of S1, 2Pcs of S2 電壓: Volt: DC4-21V AC4-120V 電流: Current: 5-40mA	


Dimensional Table

unit :mm

Bore	A	AL	AN	AW	B	BB	C	CL	D	SW	E	F	H	K	M	N	W	WL	P1	P2	P3	R	PT
$\phi 32$	83	108	104	154	73	84	10	7	20	17	62	47	6.5	6.8	11	M12x1.75x15D.	M16x1.5	25	27	29	30	10	1/4
$\phi 40$	80	110	101	161	70	81	10	7	25	22	70	52	9	9	14	M16x2.0x20D.	M20x1.5	30	27	27	27	10	1/4
$\phi 50$	86	121	109	179	75	87	11	8	30	27	80	58	11	11	18	M20x2.5x25D.	M24x1.5	35	28	31	31	10	1/4
$\phi 63$	97	142	120	210	84	94	13	10	35	32	94	69	13	13	20	M27x3.0x33D.	M30x1.5	45	30	36	34	10	1/4
$\phi 80$	112	167	140	250	95	106	17	14	40	37	114	86	15	15	22	M30x3.5x33D.	M36x1.5	55	35	38	36	15	3/8