

# 小型标准气缸(铝缸筒) Small Cylinder (Aluminium Tube)

## TCM1, TCDM1 (Ø20~Ø40) Series



### Common Specification (共同规格)

Bore(缸径)(mm)	Non-Lubricant (不给油型)			Low Pressure (低油压式)
	双动单活塞杆	双动双活塞杆	单动(弹簧压回/压出)	
Fluid(流体)	Clean Air(洁净空气)			透平油VG32
Proof Press.(保证耐压力)	1.5Mpa			
Max. Press.(最高使用压力)	1.0Mpa			0.5Mpa
Min. Press.(最低使用压力)	0.05Mpa	0.08Mpa	前进: 0.18Mpa 后退: 0.23Mpa	0.18Mpa
Amb.Temp.(环境及流体温度)	5~60°C(未冻结)			
Piston Speed(活塞速度)	橡胶缓冲: 50~750mm/s 气缓冲: 50~1000mm/s		橡胶缓冲: 50~750mm/s	橡胶缓冲: 15~300mm/s
	Rubber(橡胶缓冲) Air(气缓冲)		Rubber(橡胶缓冲)	
Tolerance Of Thread(螺纹公差)	KS Class 2 (KS 2级)			
Stroke Tolerance(行程公差)	+1.0 0			

### Symbol(图例)

Double Acting / Single Rod 双动/单活塞杆	Double Acting / Double rod 双动/双活塞杆	Single Acting / Spring Return 单动/弹簧压回	Single Acting / Spring Extend 单动/弹簧压出

### How To Order (型号表示方法)

20,25,32,40	Please refer to the table. 请参考行程表	Nil(空) Double Acting(双动) S Spring Return(弹簧压回) T Spring Extend(弹簧压出)	Nil(空) None(无) J Nylon Tarpaulin(尼龙防水帆布)(60°C) K Neoprene(氯丁橡胶外层)(110°C)	I I Type Y Y Type
Bore 缸径	Stroke 行程	Action 动作形式	*Gaiter Material 伸缩保护套材质	Accessory 附件
<b>TC D M1 W L 32 - 50 S A J Y - M9B S</b>				
Magnet 有无磁环	Mounting 附件安装方式	Cushion 缓冲	*Auto Switch 磁性开关	
Nil(空) None(无磁环) D Built-in Magnet(有磁环)	B Basic Type(基本型) L Foot Type(脚座型) F Front Flange(杆侧法兰) G Rear Flange(后法兰) C Single Clevis(单U钩型) D Double Clevis(双U钩型) U Front Trunnion(杆侧轴耳) T Rear Trunnion(后侧轴耳) E Integrated Clevis Type(原装单U型钩) Z Boss Cut(无凸台型)	Nil(空) Rubber(橡胶缓冲) A Air Cushion(气缓冲)	Nil(空) None(无磁性开关) A49 Reed Switch(带有接点磁性开关) M9B Reed Switch(带有接点磁性开关) M9NP Contactless Switch(无接点磁性开关) C72K Reed Switch(带有接点磁性开关)	
Type 类型			*Auto Switch (磁性开关) 引线长度表示记号: 无记号-1m(标准) L-3m Z-5m	
Nil(空) Single Rod(单活塞杆型) W Double Rod End(双活塞杆型) H Low Pressure(低油压式)			No. of Auto Switch 磁性开关数量 Nil(空) 2(个) S 1(个) 3 3(个)	

### Stroke (行程)

Bore (缸径)(mm)	Stroke(标准行程)	Max. Stroke (最大行程)
Ø20	10,15,20,25,30,40,45,50,60,75,100,125,150,175,	1000
	200,250,300,350,400,450,500,550,600	1500
		2000
Ø32		
Ø40	25,50,75,100,125,150,175,200,250,300,350,400,	2000
	450,500,600	

\* Single acting type cylinder is no air cushion.  
(单动型无气缓冲)

\* Order gaiter J/K type, Please contact the saler.  
(订购伸缩保护套J/K型, 请与营业员联络)

\* Contact us for other stroke.  
(非标行程请与营业员联系)

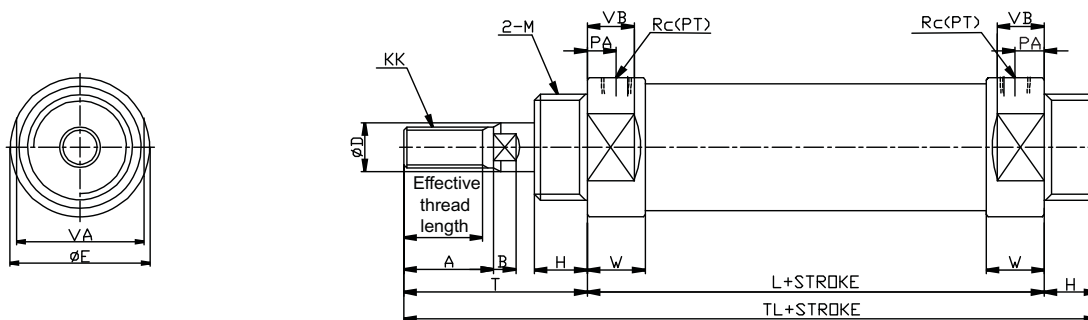
# 小型标准气缸(铝缸筒)

## Small Cylinder (Aluminium Tube)

### TCM1, TCDM1 (Ø20~Ø40) Series

#### Dimensions(mm)(外形尺寸图(毫米))

##### Basic Type (基本型) TCM1B / TCDM1B



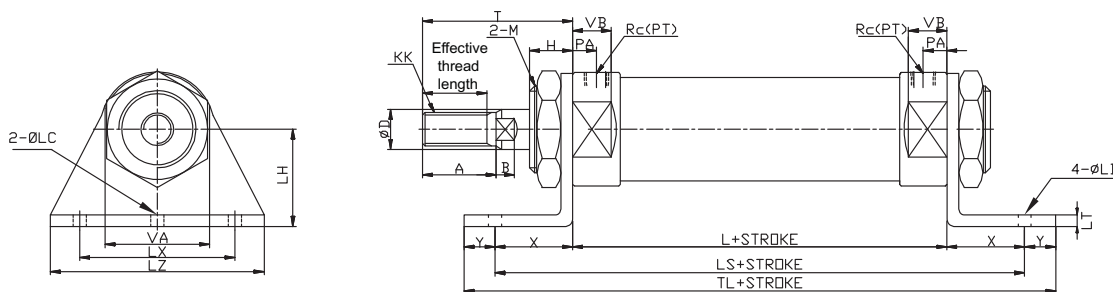
Unit : mm

Bore size	length	A	B	ØD	ØE	H	KK	L	M	PA	Rc(PT)	T	TL
Ø20	15.5	18	5.0	10	28	13	M8x1.25	62	M20x1.5	8	1/8	41	116
Ø25	19.5	22	5.5	12	34	13	M10x1.25	62	M26x1.5	8	1/8	45	120
Ø32	19.5	22	5.5	12	38	13	M10x1.25	64	M26x1.5	8	1/8	45	122
Ø40	21.0	24	7.5	16	50	16	M14x1.50	88	M32x2.0	11	1/4	50	154

Bore size	VA	VB	W
Ø20	24	12	15
Ø25	30	12	15
Ø32	32	12	15
Ø40	46	18	21

#### Dimensions(mm)(外形尺寸图(毫米))

##### Axial Foot Type (脚座型) TCM1L/TCDM1L



Unit : mm

Bore size	Effective thread length	A	B	ØD	H	KK	L	ØLC	ØLD	LH	LS	LT	LX	LZ
Ø20	15.5	18	5.0	10	13	M8X1.25	62	4	6.8	25	102	3	40	55
Ø25	19.5	22	5.5	12	13	M10X1.25	62	4	6.8	28	102	3	40	55
Ø32	19.5	22	5.5	12	13	M10X1.25	64	4	6.8	28	104	3	40	55
Ø40	21.0	24	7.5	16	16	M14X1.50	88	4	7.0	30	134	3	55	75

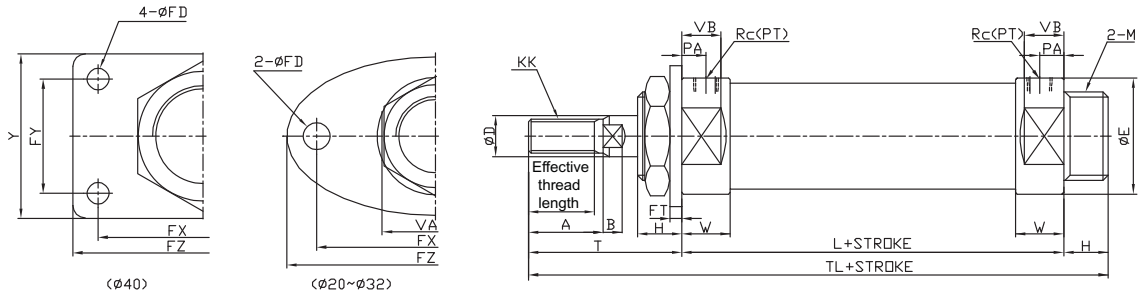
Bore size	M	PA	Rc(PT)	T	TL	VA	VB	W	X	Y
Ø20	M20X1.5	8	1/8	41	118	24	12	15	20	8
Ø25	M26X1.5	8	1/8	45	118	30	12	15	20	8
Ø32	M26X1.5	8	1/8	45	120	32	12	15	20	8
Ø40	M32X2.0	11	1/4	50	158	46	18	21	23	12

# 小型标准气缸(铝缸筒) Small Cylinder (Aluminium Tube)

## TCM1, TCDM1 (Ø20~Ø40) Series

### Dimensions(mm)(外形尺寸图(毫米))

#### Front Flange(杆侧法兰) TCM1F/TCDM1F



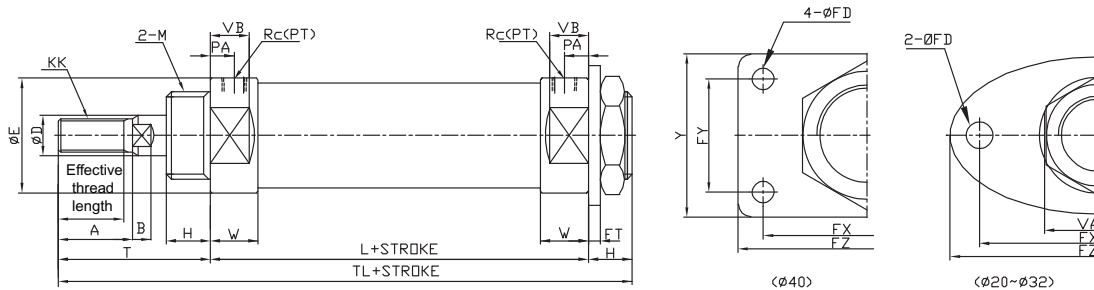
Unit : mm

Bore size	Effective thread length	A	B	ØD	ØE	ØFD	FT	FX	FY	FZ	H	KK	L	M
Ø20	15.5	18	5.0	10	28	7	3.2	60	-	75	13	M8x1.25	62	M20x1.5
Ø25	19.5	22	5.5	12	34	7	4.5	60	-	75	13	M10x1.25	62	M26x1.5
Ø32	19.5	22	5.5	12	38	7	4.5	60	-	75	13	M10x1.25	64	M26x1.5
Ø40	21.0	24	7.5	16	50	7	4.5	66	36	82	16	M14x1.50	88	M32x2.0

Bore size	PA	Rc(PT)	T	TL	VA	VB	W	Y
Ø20	8	1/8	41	116	24	12	15	40
Ø25	8	1/8	45	120	30	12	15	42
Ø32	8	1/8	45	122	32	12	15	42
Ø40	11	1/4	50	154	46	18	21	52

### Dimensions(mm)(外形尺寸图(毫米))

#### Rear Flange(后法兰) TCM1G/TCDM1G



Unit : mm

Bore size	Effective thread length	A	B	ØD	ØE	ØFD	FT	FX	FY	FZ	H	KK	L	M
Ø20	15.5	18	5.0	10	28	7	3.2	60	-	75	13	M8x1.25	62	M20x1.5
Ø25	19.5	22	5.5	12	34	7	4.5	60	-	75	13	M10x1.25	62	M26x1.5
Ø32	19.5	22	5.5	12	38	7	4.5	60	-	75	13	M10x1.25	64	M26x1.5
Ø40	21.0	24	7.5	16	50	7	4.5	66	36	82	16	M14x1.50	88	M32x2.0

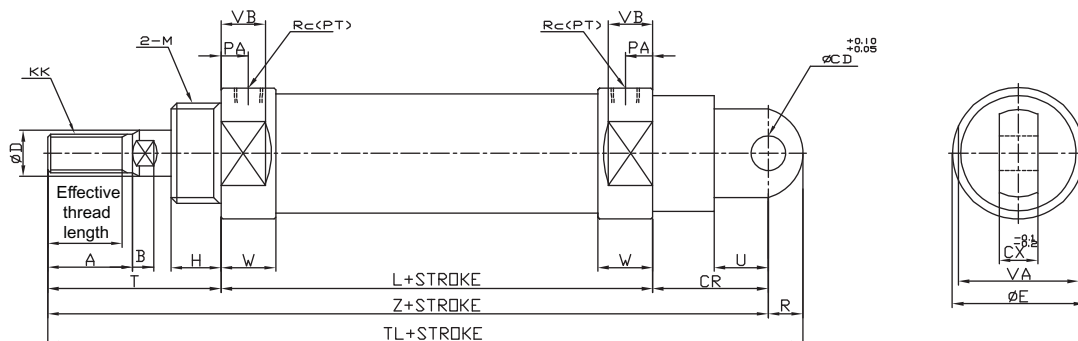
Bore size	PA	Rc(PT)	T	TL	VA	VB	W	Y
Ø20	8	1/8	41	116	24	12	15	40
Ø25	8	1/8	45	120	30	12	15	42
Ø32	8	1/8	45	122	32	12	15	42
Ø40	11	1/4	50	154	46	18	21	52

# 小型标准气缸(铝缸筒) Small Cylinder (Aluminium Tube)

## TCM1, TCDM1 (Ø20~Ø40) Series

### Dimensions(mm)(外形尺寸图(毫米))

#### Single Clevis Type (单U钩型) TCM1C/TCDM1C



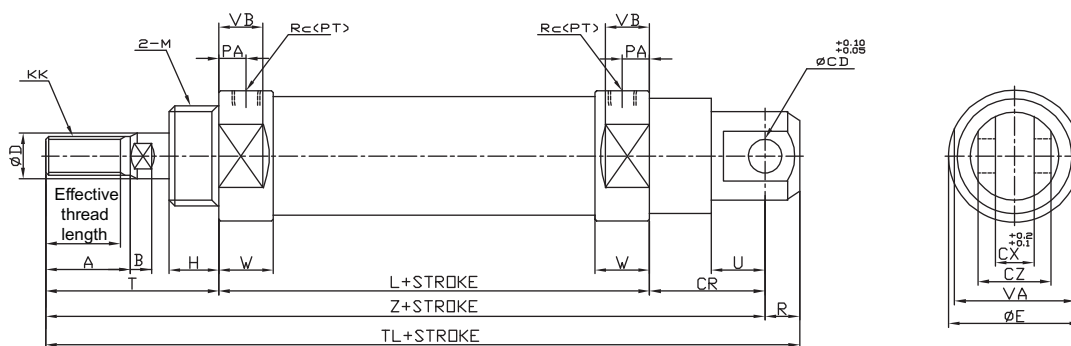
Unit : mm

Bore size	Effective thread length	A	B	ØCD	CR	CX	ØD	ØE	H	KK	L	M	PA
Ø20	15.5	18	5.0	9	30	10	10	28	13	M8x1.25	62	M20x1.5	8
Ø25	19.5	22	5.5	9	30	10	12	34	13	M10x1.25	62	M26x1.5	8
Ø32	19.5	22	5.5	9	30	10	12	38	13	M10x1.25	64	M26x1.5	8
Ø40	21.0	24	7.5	10	39	15	16	50	16	M14x1.50	88	M32x2.0	11

Bore size	R	Rc(PT)	T	TL	U	VA	VB	W	Z
Ø20	9	1/8	41	142	14	24	12	15	133
Ø25	9	1/8	45	146	14	30	12	15	137
Ø32	9	1/8	45	148	14	32	12	15	139
Ø40	11	1/4	50	188	18	46	18	21	177

### Dimensions(mm)(外形尺寸图(毫米))

#### Double Clevis Type (双U钩型) TCM1D/TCDM1D



Unit : mm

Bore size	Effective thread length	A	B	ØCD	CR	CX	CZ	ØD	ØE	H	KK	L	M
Ø20	15.5	18	5.0	9	30	10	19	10	28	13	M8x1.25	62	M20x1.5
Ø25	19.5	22	5.5	9	30	10	19	12	34	13	M10x1.25	62	M26x1.5
Ø32	19.5	22	5.5	9	30	10	19	12	38	13	M10x1.25	64	M26x1.5
Ø40	21.0	24	7.5	10	39	15	30	16	50	16	M14x1.50	88	M32x2.0

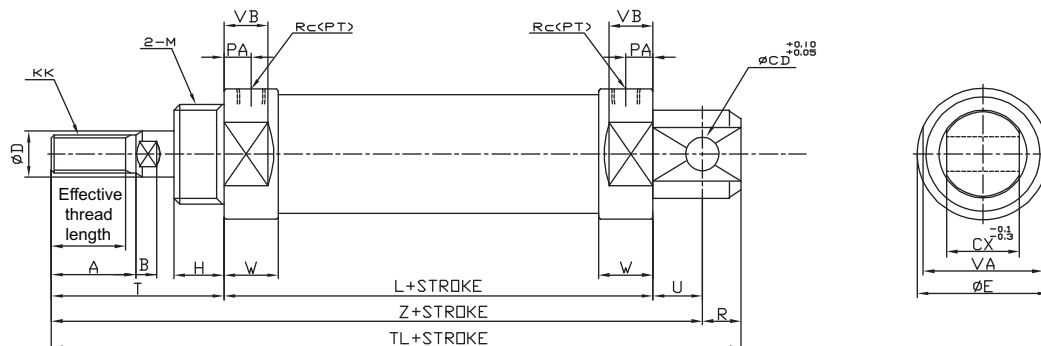
Bore size	PA	R	Rc(PT)	T	TL	U	VA	VB	W	Z
Ø20	8	9	1/8	41	142	14	24	12	15	133
Ø25	8	9	1/8	45	146	14	30	12	15	137
Ø32	8	9	1/8	45	148	14	32	12	15	139
Ø40	11	11	1/4	50	188	18	46	18	21	177

# 小型标准气缸(铝缸筒) Small Cylinder (Aluminium Tube)

## TCM1, TCDM1 (Ø20~Ø40) Series

### Dimensions(mm)(外形尺寸图(毫米))

#### Integrated Clevis Type (原装单U型钩) TCM1E/TCDM1E



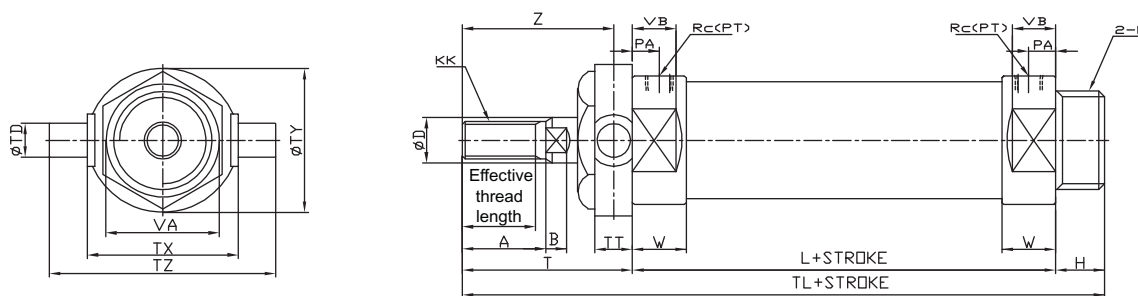
Unit : mm

Bore size	Effective thread length	A	B	ØCD	CX	ØD	ØE	H	KK	L	M	PA	R
Ø20	15.5	18	5.0	8	12	10	28	13	M8X1.25	62	M20X1.5	8	9
Ø25	19.5	22	5.5	8	12	12	34	13	M10X1.25	62	M26X1.5	8	9
Ø32	19.5	22	5.5	10	20	12	38	13	M10X1.25	64	M26X1.5	8	12
Ø40	21.0	24	7.5	10	20	16	50	16	M14X1.50	88	M32X2.0	11	12

Bore size	Rc(PT)	T	TL	U	VA	VB	W	Z
Ø20	1/8	41	124	12	24	12	15	115
Ø25	1/8	45	128	12	30	12	15	119
Ø32	1/8	45	136	15	32	12	15	124
Ø40	1/4	50	165	15	46	18	21	153

### Dimensions(mm)(外形尺寸图(毫米))

#### Front Trunnion Type(杆侧轴耳) TCM1U/TCDM1U



Unit : mm

Bore size	Effective thread length	A	B	ØD	ØE	H	KK	L	M	PA	Rc(PT)	T	ØTD
Ø20	15.5	18	5.0	10	28	13	M8x1.25	62	M20x1.5	8	1/8	41	8
Ø25	19.5	22	5.5	12	34	13	M10x1.25	62	M26x1.5	8	1/8	45	9
Ø32	19.5	22	5.5	12	38	13	M10x1.25	64	M26x1.5	8	1/8	45	9
Ø40	21.0	24	7.5	16	50	16	M14x1.50	88	M32x2.0	11	1/4	50	10

Bore size	TL	TT	TX	ØTY	TZ	VA	VB	W	Z
Ø20	116	10	32	32	52	24	12	15	36
Ø25	122	10	40	40	60	30	12	15	40
Ø32	124	10	40	40	60	32	12	15	40
Ø40	154	11	53	53	77	46	18	21	44.5

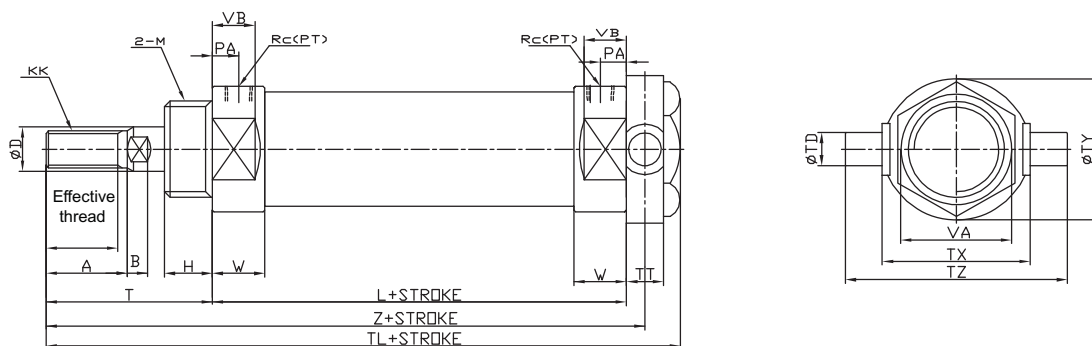
## 小型标准气缸(铝缸筒)

## Small Cylinder (Aluminium Tube)

## TCM1, TCDM1 (Ø20~Ø40) Series

## Dimensions(mm)(外形尺寸图(毫米))

## Rear Trunnion Type (后侧轴耳型) TCM1T/TCDM1T



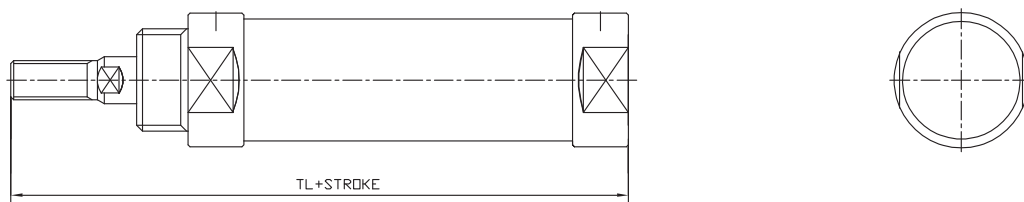
Unit : mm

Bore size	Effective thread length	A	B	ØD	ØE	H	KK	L	M	PA	Rc(PT)	T	ØTD
Ø20	15.5	18	5.0	10	28	13	M8x1.25	62	M20x1.5	8	1/8	41	8
Ø25	19.5	22	5.5	12	34	13	M10x1.25	62	M26x1.5	8	1/8	45	9
Ø32	19.5	22	5.5	12	38	13	M10x1.25	64	M26x1.5	8	1/8	45	9
Ø40	21.0	24	7.5	16	50	16	M14x1.50	88	M32x2.0	11	1/4	50	10

Bore size	TL	TT	TX	ØTY	TZ	VA	VB	W	Z
Ø20	116	10	32	32	52	24	12	15	108
Ø25	122	10	40	40	60	30	12	15	112
Ø32	124	10	40	40	60	32	12	15	114
Ø40	154	11	53	53	77	46	18	21	143.5

## Dimensions(mm)(外形尺寸图(毫米))

## Boss Cut (无凸台型) TCM1Z TCDM1Z



The total length of cylinder and space for attachment is reduced by removing the thread portion of head cover.

Unit : mm

Compact (Boss Cut type)	
Bore size	TL
Ø20	103
Ø25	107
Ø32	109
Ø40	138

Unit : mm

Dimensions Length Comparison (Comparison with Standard type).			
Ø20	Ø25	Ø32	Ø40
-13	-13	-13	-16

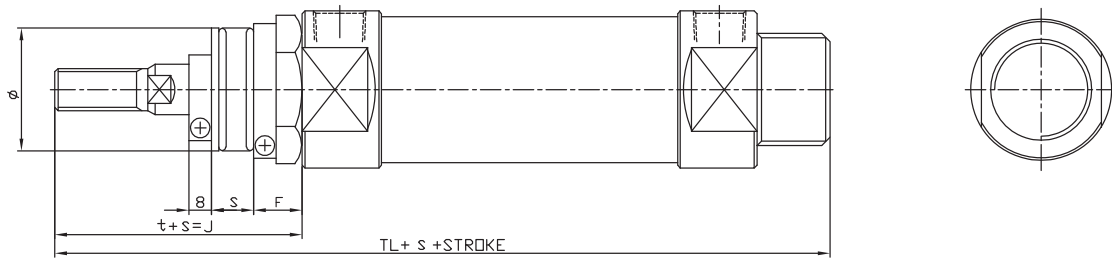
\* For not shown dimensions, refer to TCM1 Standard type.  
图纸中未标注的尺寸, 请参考TCM1标准型尺寸。

# 小型标准气缸(铝缸筒) Small Cylinder (Aluminium Tube)

## TCM1, TCDM1 (Ø20~Ø40) Series

### Dimensions(mm)(外形尺寸图(毫米))

#### Gaiter (带伸缩保护套) J/K



Unit : mm

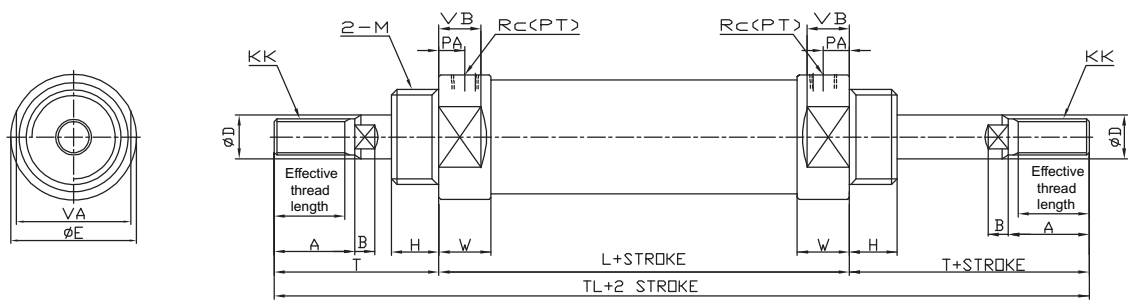
Bore size	F	ØG	s	t	TL
Ø20	16	39	0.3 stroke+3	56	131
Ø25	16	39	0.3 stroke+3	60	135
Ø32	16	39	0.3 stroke+3	60	137
Ø40	18	40	0.25 stroke+3	67	171

Type	J	K
Material	Nylon Tarpaulin	Neoprene cloth
Heat Resistant	60°C	110°C

\* For dimensions not shown in these figures, refer to the TCM1 standard type.  
\* SUS band is mounted at bellows at delivery.

### Dimensions(mm)(外形尺寸图(毫米))

#### Double Rod Cylinder (双活塞杆型) TCM1W/TCDM1W



Unit : mm

Bore size	Effective thread length	A	B	ØD	ØE	H	KK	L	M	PA	Rc(PT)	T	TL
Ø20	15.5	18	5.0	10	28	13	M8x1.25	62	M20x1.5	8	1/8	41	144
Ø25	19.5	22	5.5	12	34	13	M10x1.25	62	M26x1.5	8	1/8	45	152
Ø32	19.5	22	5.5	12	38	13	M10x1.25	64	M26x1.5	8	1/8	45	154
Ø40	21.0	24	7.5	16	50	16	M14x1.50	88	M32x2.0	11	1/4	50	188

Bore size	VA	VB	W
Ø20	24	12	15
Ø25	30	12	15
Ø32	32	12	15
Ø40	46	18	21

# 小型标准气缸(铝缸筒) Small Cylinder (Aluminium Tube)

## TCM1, TCDM1 (Ø20~Ø40) Series

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### Order Example (订购举例)

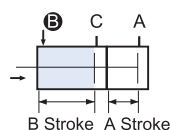
### Dual Stroke Cylinder/Single Rod Type (双行程气缸/单活塞杆型)

**TCDM1B32-50+(75-50)Y-M9BS-XC11**

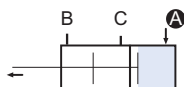
① ② ③ ④ ⑤ ⑥ ⑦ ⑧

- ① Magnet 有无磁环
- ② Mounting 附件安装方式
- ③ Bore 缸径
- ④ Stroke A 行程A
- ⑤ Stroke B- stroke A 行程B-行程A
- ⑥ Accessory 附件
- ⑦ Auto Switch 磁性开关
- ⑧ No.of Auto Switch磁性开关数量

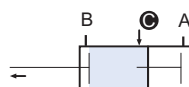
### Symbol (符号)



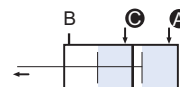
When air pressure is supplied to the B port, both A and B strokes retract.  
当B口进气时, A、B行程同时缩回。



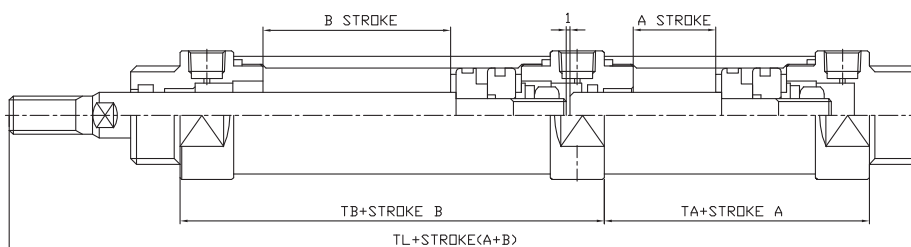
When air pressure is supplied to the A port, the rod extends by A Stroke.  
当A口进气时, A行程伸出。



When air pressure is supplied to the C port, the rod extends by B Stroke.  
当C口进气时, B行程伸出。



When air pressure is supplied to both ports B and C, double output force is obtainable in the range of the A stroke length.  
当B、C口同时进气, 在A行程范围内, 活塞杆输出力增加一倍。



Unit : mm

Bore size	TA	TB	TL
Ø20	48	62	164
Ø25	48	62	168
Ø32	50	64	172
Ø40	67	88	221

\* For dimensions not shown in these figures, refer to the TCM1 (Standard) type.

### Order Example (订购举例)

### Dual Stroke Cylinder/Double Rod Type (双行程气缸/双活塞杆型)

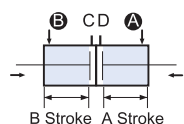
**TCDM1B32-50Y+75Y-M9BS-XC10**

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

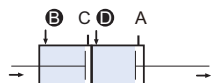
- ① Magnet 有无磁环
- ② Mounting 附件安装方式
- ③ Bore 缸径
- ④ Stroke A 行程A
- ⑤ Stroke B 行程B
- ⑥ Accessory 附件
- ⑦ Auto Switch 磁性开关
- ⑧ No.of Auto Switch磁性开关数量

### Symbol (符号)

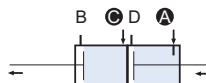
Two cylinders are constructed as one cylinder in a back-to-back configuration allowing the cylinder stroke to be controlled in three steps.  
两个气缸以背靠背形式组成一个气缸, 使气缸行程分三步控制。



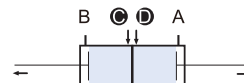
When air pressure is supplied to ports B and D, both A and B strokes retract.  
当B、D两口同时进气时, A、B行程同时缩回。



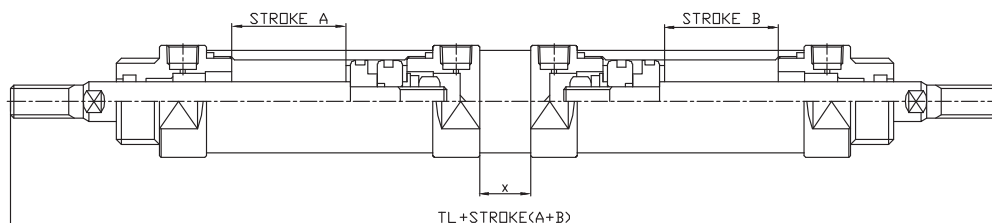
When air pressure is supplied to ports C and D, A stroke extends.  
当C、D两口同时进气时, 伸出A行程。



When air pressure is supplied to ports B and C, B stroke extends.  
当B、C两口同时进气时, 伸出B行程。



When air pressure is supplied to ports C and D, both stroke A and B out stroke.  
当C、D两口同时进气时, 同时伸出A、B行程。



Unit : mm

Bore size	TL	X
Ø20	232	26
Ø25	240	26
Ø32	244	26
Ø40	310	34

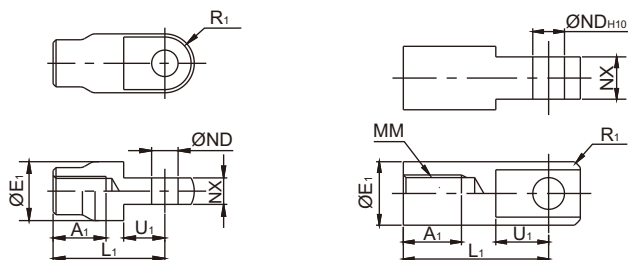


# 小型标准气缸(铝缸筒) Small Cylinder (Aluminium Tube)

## TCM1, TCDM1 (Ø20~Ø40) Series

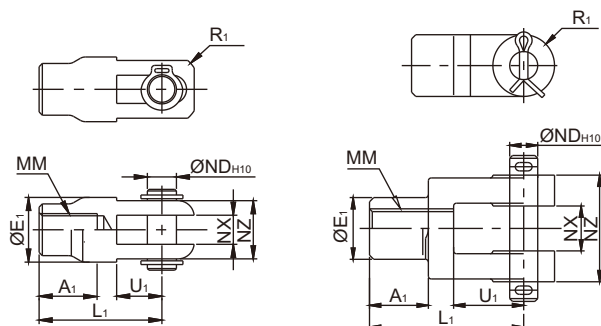
### Dimensions(mm)(外形尺寸图(毫米))

#### Single Knuckle Joint (I型单肘接头)



Part No.(型号)	Bore(缸径)	A <sub>1</sub>	E <sub>1</sub>	L <sub>1</sub>	MM	øND <sub>H10</sub>	NX	R <sub>1</sub>	U <sub>1</sub>
I-020B	20	16	20	36	M8×1.25	9 <sup>+0.0058</sup> <sub>0</sub>	9 <sup>-0.1</sup> <sub>-0.2</sub>	10	14
I-032B	25,32	18	20	38	M10×1.25	9 <sup>+0.0058</sup> <sub>0</sub>	9 <sup>-0.1</sup> <sub>-0.2</sub>	10	14
I-040B	40	22	24	55	M14×1.5	12 <sup>+0.0058</sup> <sub>0</sub>	16 <sup>-0.1</sup> <sub>-0.2</sub>	15.5	20

#### Double Knuckle Joint (Y型双肘接头)

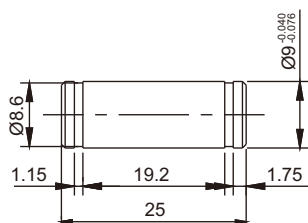


Part No.(型号)	Bore(缸径)	A <sub>1</sub>	E <sub>1</sub>	L <sub>1</sub>	MM	øND <sub>H10</sub>	NX	NZ	U <sub>1</sub>	R <sub>1</sub>
Y-020B	20	16	20	36	M8×1.25	9 <sup>+0.0058</sup> <sub>0</sub>	9 <sup>-0.1</sup> <sub>-0.2</sub>	18	14	12
Y-032B	25,32	18	22	38	M10×1.25	9 <sup>+0.0058</sup> <sub>0</sub>	9 <sup>-0.1</sup> <sub>-0.2</sub>	18	14	12
Y-040B	40	22	24	55	M14×1.5	12 <sup>+0.0058</sup> <sub>0</sub>	16 <sup>-0.1</sup> <sub>-0.2</sub>	38	25	13

#### Knuckle Joint Pin (肘节接头用销子)

Applicable Cylinder Bore(适合缸径): Ø20~Ø32

Material(材质): Carbon Steel(碳钢)



#### Knuckle Joint Pin (肘节接头用销子)

Applicable Cylinder Bore(适合缸径): Ø40

Material(材质): Carbon Steel(碳钢)

