

Series AXK

Non-Rotating Piston Rod Type/Double Acting:Single Rod

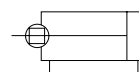
Bore Size(mm) : $\phi 20$, $\phi 25$, $\phi 32$, $\phi 40$



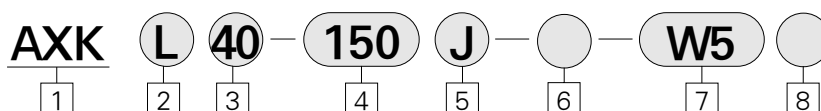
- NUMEROUS MOUNTING OPTIONS
- MAGNET STANDARD FOR AUTO SWITCH
- BUMPERS STANDARD
- DESIGNED FOR NON-LUBRICATED SERVICE
- COMPACT LIGHT DESIGN
- REPLACEABLE ROD GLAND
- CUSTOM DESIGNED PISTON ROD FOR NON-ROTATION
- MANUFACTURING CERTIFIED TO ISO 9001 / 9002

Symbol

Double Acting/Single Rod



How to Order



1 Non-Rotating Piston Rod Type

2 Mounting

B : Basic Type
 L : Axial Foot Type
 F : Rod Side Flange Type
 G : Head Side Flange Type
 C : Single Clevis Type
 D : Double Clevis Type
 T : Head Side Trunnion Type
 U : Rod Side Trunnion Type
 E : Integrated Clevis Type
 BZ : Boss-Cut Basic Type
 FZ : Boss-Cut Flange Type
 UZ : Boss-Cut Trunnion Type

3 Bore size(mm)

20 : $\phi 20$
 25 : $\phi 25$
 32 : $\phi 32$
 40 : $\phi 40$

4 Stroke (mm)

※ For Stroke Refer to Page A-82.

5 Rod Boot Option

Blank : Without Boot
 J : Nylon Tarpaulin
 K : Neoprene Cloth

6 Special Option

Blank : Standard type
 XC16 : Copper-free

7 Applicable Auto Switch Reed Switch

(Band mounted type)
 (Grommet)
 Blank : Without auto switch
 W5 : W5
 Standard Lead 0.5m
 (Up to 3m Optional)

8 Number of Switches

Blank : 2 pcs.
 S : 1 pc.
 N : (n) pcs.

PART No. of Mounting Bracket

Bore size(mm)	$\phi 20$	$\phi 25$	$\phi 32$	$\phi 40$
※Axial foot	TCM-L020B	TCM-L032B	TCM-L040B	
Flange	TCM-F020B	TCM-F032B	TCM-F040B	
Single clevis	TCM-C020B	TCM-C032B	TCM-C040B	
Double clevis	TCM-D020B	TCM-D032B	TCM-D040B	
Trunnion(With nut)	TCM-T020B	TCM-T032B	TCM-T040B	

※ 2 pcs. Required Per Cylinder

PART No. of Auto Switch Mounting Band

Auto Switch Model	Bore size(mm)			
	$\phi 20$	$\phi 25$	$\phi 32$	$\phi 40$
W5	TBM2-020	TBM2-025	TBM2-032	TBM2-040

ACP

UACP

AX

AS

AM

AL
ALX

UARD

UAQ

AJ

AG

UAG

ADM

ADR

AMR

UAMR

AST

W~

Model				
Bore Size(mm)	φ 20	φ 25	φ 32	φ 40
Action	Double Acting Single Rod			
Cushion	Rubber Cushion (Standard)			
Piping Method	Rc(PT) ¹ / ₈	Rc(PT) ¹ / ₈	Rc(PT) ¹ / ₈	Rc(PT) ¹ / ₄

Specifications		
Action	Double Acting Single Rod	
Fluid	Air	
Proof pressure	15kgf/cm ² (1.5 MPa)	
Max. Operating Pressure	9.9kgf/cm ² (1.0 MPa)	
Min. Operating Pressure	0.5kgf/cm ² (0.05 MPa)	
Ambient and Fluid Temperature	40~140°F (5~ 60℃)	
Lubrication	None (Non-Lube)	
Stroke Tolerance	${}^{\pm 1.4}_0$ mm	
Mounting	Basic Type, Axial Foot Type, Rod Side Flange Type, Head Side Flange Type, Single Clevis Type, Head Side Trunnion Type, Rod Side Trunnion Type, Integrated Clevis, Type Boss-Cut Type	
Non-Rotating Accuracy	φ 20, φ 25	±0.8°
	φ 32, φ 40	±0.5°

Piston Speed				
Bore Size(mm)	φ 20	φ 25	φ 32	φ 40
Piston Speed(mm/sec)	50 ~ 500			
Allowable Kinetic Energy(kgf/cm)	2.7	4	6.5	12

Auto Switch Specifications		
Mounting	Lead Wire Entry	Reed Switch
Band Mounting Type	Grommet	W5

Standard stroke(mm)	
Bore size(mm)	Standard stroke
φ 20	25, 50, 75, 100, 125, 150
φ 25	25, 50, 75, 100, 125, 150, 200
φ 32	25, 50, 75, 100, 125, 150, 200
φ 40	25, 50, 75, 100, 125, 150, 200, 250, 300

Material of Boot		
Symbol	Material of Boot	Max. Ambient Temperature
J	Nylon Tarpaulin	140°F (60℃)
K	Neoprene Cloth	※230°F (110℃)

※ The max. ambient temperature of gaiters only.

Boss-Cut Type

Boss for the head cover bracket is eliminated and the total length of the cylinder is shortened.

Compared to the total length of cylinder (mm)			
φ 20	φ 25	φ 32	φ 40
▲ 13	▲ 13	▲ 13	▲ 13

Mounting : ■ Boss-Cut Basic Type(BZ) ■ Boss-Cut Flange Type(FZ)
 ■ Boss-Cut Trunnion Type(UZ)

Mounting and Accessories

Mounting \ Accessories	Standard			Option		
	Mounting Nut	Rod End Nut	Clevis Pin	Knuckle Joint	Double Knuckle Joint	Boot
Basic Type	● (1pc.)	●	—	●	●	●
Axial Foot Type	● (2)	●	—	●	●	●
Rod Side Flange Type	● (1)	●	—	●	●	●
Head Side Flange Type	● (1)	●	—	●	●	●
Intergrated Clevis Type	—	●	—	●	●	●
Single Clevis Type	—	●	—	●	●	●
Double Clevis Type	—	●	●	●	●	●
Head Side Trunnion Type	● (1)	●	—	●	●	●
Rod Side Trunnion Type	● (1)	●	—	●	●	●
Boss-Cut Basic Type	● (1)	●	—	●	●	●
Boss-Cut Flange Type	● (1)	●	—	●	●	●
Boss-Cut Trunnion Type	● (1)	●	—	●	●	●
Note					With pin	

Weight Table (kgf)

		Bore Size(mm)			
		φ 20	φ 25	φ 32	φ 40
Basic weight	Basic Type	0.14	0.21	0.28	0.57
	Axial Foot Type	0.29	0.37	0.44	0.84
Mornting Bracket Weight	Flange Type	0.20	0.30	0.37	0.69
	Integrated Clevis Type	0.12	0.19	0.27	0.53
	Single Clevis Type	0.18	0.25	0.32	0.66
	Double Clevis Type	0.19	0.27	0.33	0.70
	Trunnion Type	0.18	0.28	0.34	0.67
	Boss-Cut Basic Type	0.13	0.19	0.26	0.54
	Boss-Cut Flange Type	0.19	0.28	0.35	0.66
	Boss-Cut Trunnion Type	0.17	0.26	0.32	0.64
Additional weight for each 50 mm of stroke		0.14	0.07	0.09	0.14
Accessories Weight	Single Knuckle joint	0.06	0.06	0.06	0.23
	Double Knuckle Joint (with pin)	0.07	0.07	0.07	0.20

Calculation Example

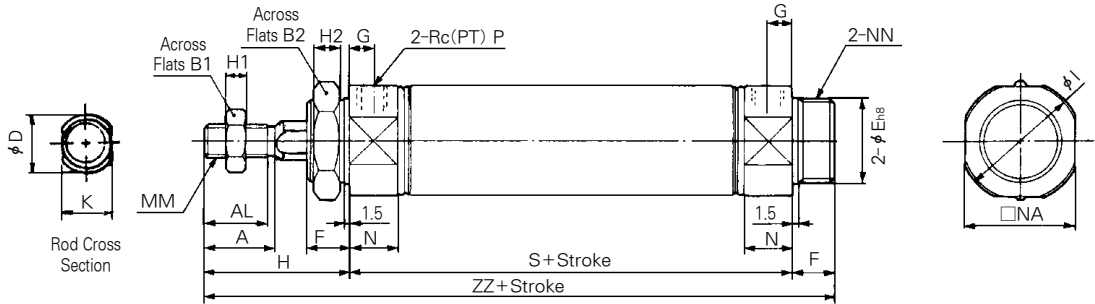
- AXKL 32-100
 - Basic weight : 0.44(Foot type φ 32)
 - Additional weight : 0.09/50 stroke
 - Cylinder stroke : 100 stroke
- 0.44+0.09×100/50=0.62kgf

- ACP
- UACP
- AX
- AS
- AM
- AL
- ALX
- UARD
- UAQ
- AJ
- AG
- UAG
- ADM
- ADR
- AMR
- UAMR
- AST
- W~

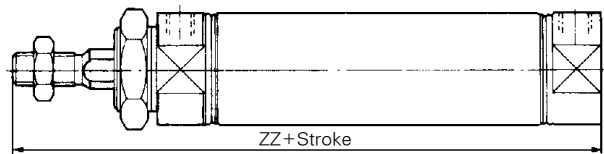
Series AXK

Basic Type(B)

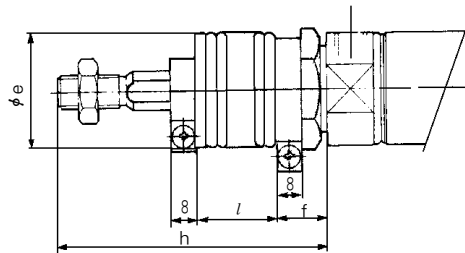
AXKB Bore Size Stroke



Boss-cut type



With Rod Boot



(mm)

Bore Size	A	AL	B ₁	B ₂	D	E	F	G	H	H ₁	H ₂	I	K	MM	N	NA	NN	P	S	ZZ
φ20	18	15.5	13	26	10 ^{-0.01/-0.05}	20 ^{0/-0.033}	13	8	41	5	8	27	8 ^{-0.01/-0.05}	M8×1.25	15	24	M20×1.5	1/8	62	116
φ25	22	19.5	17	32	10 ^{-0.01/-0.05}	26 ^{0/-0.033}	13	8	45	6	8	33	8 ^{-0.01/-0.05}	M8×1.25	15	30	M26×1.5	1/8	62	120
φ32	22	19.5	17	32	12 ^{-0.01/-0.05}	26 ^{0/-0.033}	13	8	45	6	8	37.5	10 ^{-0.01/-0.05}	M10×1.25	15	34.5	M26×1.5	1/8	64	122
φ40	24	21	22	41	16 ^{-0.01/-0.05}	32 ^{0/-0.039}	16	11	50	8	10	46.5	14 ^{-0.01/-0.05}	M14×1.5	21.5	42.5	M32×2	1/4	88	154

With Rod Boot

(mm)

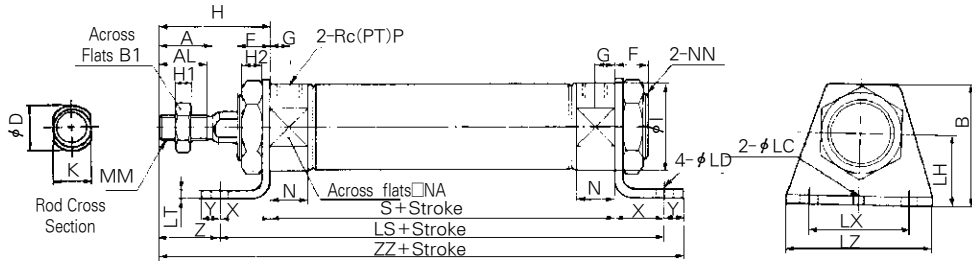
Bore Size	e	f	h					l				
			1~50°	51~100°	101~150°	151~200°	201~300°	1~50°	51~100°	101~150°	151~200°	201~300°
φ20	30	16	68	81	93	106	131	12.5	25	37.5	50	75
φ25	30	16	72	85	97	110	135	12.5	25	37.5	50	75
φ32	30	16	72	85	97	110	135	12.5	25	37.5	50	75
φ40	40	18	77	90	102	115	140	12.5	25	37.5	50	75

Boss-Cut Type

Bore Size	ZZ
φ20	103
φ25	107
φ32	109
φ40	138

Axial Foot Type(L)

AXKL Bore Size Stroke

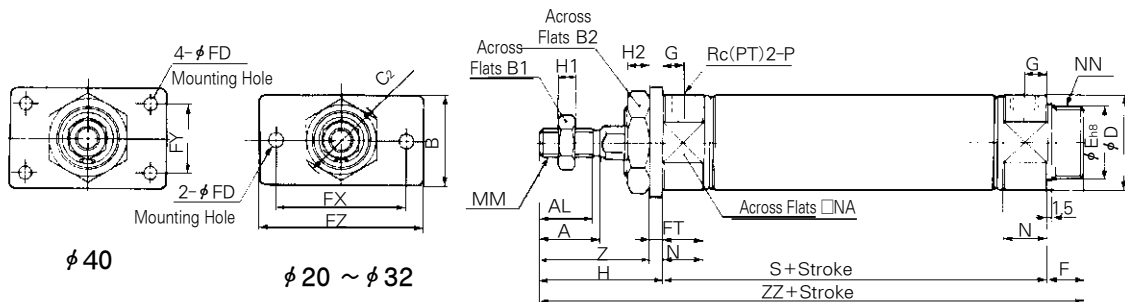


(mm)

Bore Size	A	AL	B	B ₁	B ₂	D	F	G	H	H ₁	H ₂	I	K	LC	LD	LH	LS	LT	LX	LZ	MM	N	NA	NN	P	S	X	Y	Z	ZZ
φ20	18	15.5	40	13	26	10 ^{-0.01/-0.05}	13	8	41	5	8	27	8 ^{-0.01/-0.05}	4	6.8	25	102	3.2	40	55	M8×1.25	15	24	M20×1.5	1/8	62	20	8	21	131
φ25	22	19.5	47	17	32	10 ^{-0.01/-0.05}	13	8	45	6	8	33	8 ^{-0.01/-0.05}	4	6.8	28	102	3.2	40	55	M8×1.25	15	30	M26×1.5	1/8	62	20	8	25	135
φ32	22	19.5	47	17	32	12 ^{-0.01/-0.05}	13	8	45	6	8	37.5	10 ^{-0.01/-0.05}	4	6.8	28	104	3.2	40	55	M10×1.25	15	34.5	M26×1.5	1/8	64	20	8	25	137
φ40	24	21	54	22	41	16 ^{-0.01/-0.05}	16	11	50	8	10	46.5	14 ^{-0.01/-0.05}	4	7	30	134	3.2	55	75	M14×1.5	21.5	42.5	M32×2	1/4	88	23	10	27	171

Rod Side Flange Type(F)

AXKF Bore Size Stroke



(mm)

Bore Size	A	AL	B	B ₁	B ₂	C ₂	D	E	F	FD	FT	FX	FY	FZ	G	H	H ₁	H ₂	I	K	MM
φ20	18	15.5	34	13	26	30	10 ^{-0.01/-0.05}	20 ^{0/-0.033}	13	7	4	60	—	75	8	41	5	8	27	8 ^{-0.01/-0.05}	M8×1.25
φ25	22	19.5	40	17	32	37	10 ^{-0.01/-0.05}	26 ^{0/-0.033}	13	7	4	60	—	75	8	45	6	8	33	8 ^{-0.01/-0.05}	M8×1.25
φ32	22	19.5	40	17	32	37	12 ^{-0.01/-0.05}	26 ^{0/-0.033}	13	7	4	60	—	75	8	45	6	8	37.5	10 ^{-0.01/-0.05}	M10×1.25
φ40	24	21	52	22	41	47.3	16 ^{-0.01/-0.05}	32 ^{0/-0.039}	16	7	5	66	36	82	11	50	8	10	46.5	14 ^{-0.01/-0.05}	M14×1.5

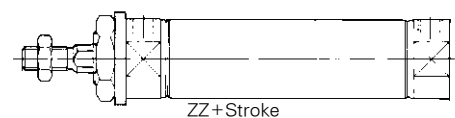
(mm)

Bore Size	N	NA	NN	P	S	Z	ZZ
φ20	15	24	M20×1.5	1/8	62	37	116
φ25	15	30	M26×1.5	1/8	62	41	120
φ32	15	34.5	M26×1.5	1/8	64	41	122
φ40	21.5	42.5	M32×2	1/4	88	45	154

Boss-Cut Type

Bore Size	ZZ
φ20	103
φ25	107
φ32	109
φ40	138

Boss-cut type



ACP

UACP

AX

AS

AM

AL
ALX

UARD

UAQ

AJ

AG

UAG

ADM

ADR

AMR

UAMR

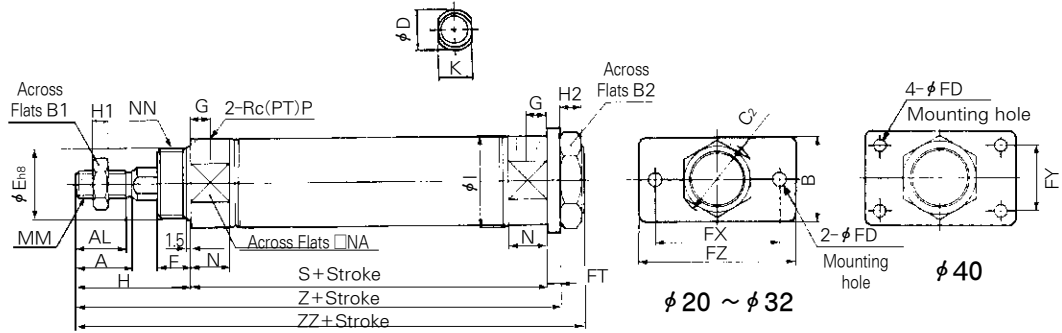
AST

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Series AXK

Head Side Flange Type(G)

AXKG (Bore Size) (Stroke)



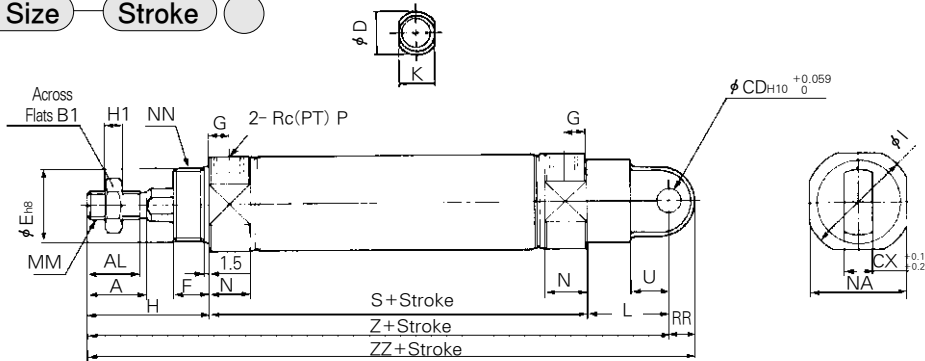
(mm)

Bore Size	A	AL	B	B ₁	B ₂	C ₂	D	E	F	FD	FT	FX	FY	FZ	G	H	H ₁	H ₂	I	K	MM
φ20	18	15.5	34	13	26	30	10 ^{-0.01/-0.05}	20 ^{0/-0.033}	13	7	4	60	-	75	8	41	5	8	27	8 ^{-0.01/-0.05}	M8×1.25
φ25	22	19.5	40	17	32	37	10 ^{-0.01/-0.05}	26 ^{0/-0.033}	13	7	4	60	-	75	8	45	6	8	33	8 ^{-0.01/-0.05}	M8×1.25
φ32	22	19.5	40	17	32	37	12 ^{-0.01/-0.05}	26 ^{0/-0.033}	13	7	4	60	-	75	8	45	6	8	37.5	10 ^{-0.01/-0.05}	M10×1.25
φ40	24	21	52	22	41	47.3	16 ^{-0.01/-0.05}	32 ^{0/-0.039}	16	7	5	66	36	82	10	50	8	10	46.5	14 ^{-0.01/-0.05}	M14×1.5

Bore Size	N	NA	NN	P	S	Z	ZZ
φ20	15	24	M20×1.5	1/8	62	107	116
φ25	15	30	M26×1.5	1/8	62	111	120
φ32	15	34.5	M26×1.5	1/8	64	113	122
φ40	21.5	42.5	M32×2	1/4	88	143	154

Single Clevis Type (C)

AXKC (Bore Size) (Stroke)



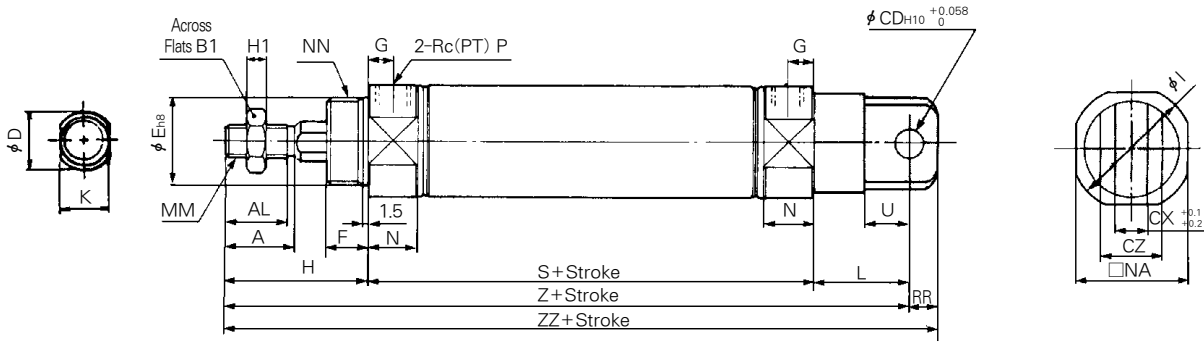
(mm)

Bore Size	A	AL	B ₁	CD	CX	D	E	F	G	H	H ₁	I	K	L	MM	N	NA	NN	P	RR
φ20	18	15.5	13	9	10	10 ^{-0.01/-0.05}	20 ^{0/-0.033}	13	8	41	5	27	8 ^{-0.01/-0.05}	30	M8×1.25	15	24	M20×1.5	1/8	9
φ25	22	19.5	17	9	10	10 ^{-0.01/-0.05}	26 ^{0/-0.033}	13	8	45	6	33	8 ^{-0.01/-0.05}	30	M8×1.25	15	30	M26×1.5	1/8	9
φ32	22	19.5	17	9	10	12 ^{-0.01/-0.05}	26 ^{0/-0.033}	13	8	45	6	37.5	10 ^{-0.01/-0.05}	30	M10×1.25	15	34.5	M26×1.5	1/8	9
φ40	24	21	22	10	15	16 ^{-0.01/-0.05}	32 ^{0/-0.039}	16	11	50	8	46.5	14 ^{-0.01/-0.05}	39	M14×1.5	21.5	42.5	M32×2	1/4	11

Bore Size	S	U	Z	ZZ
φ20	62	14	133	142
φ25	62	14	137	146
φ32	64	14	139	148
φ40	88	18	177	188

Double Clevis Type(D)

AXKD Bore Size Stroke

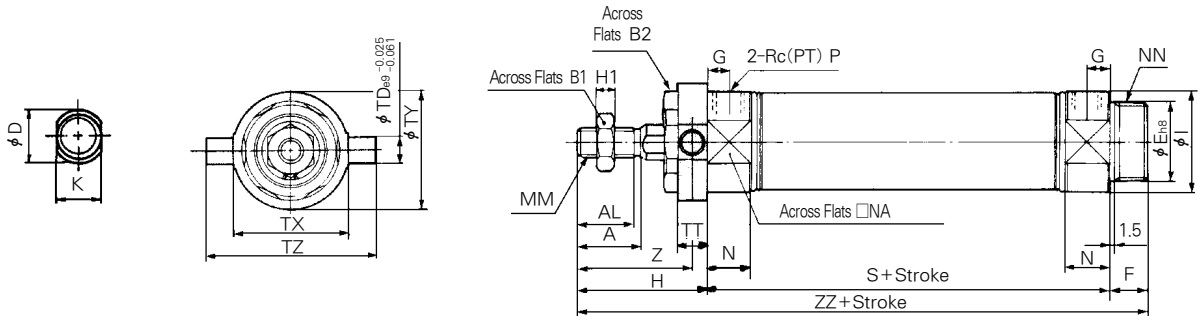


(mm)

Bore Size	A	AL	B ₁	CD	CX	CZ	D	E	F	G	H	H ₁	I	K	L	MM	N	NA	NN	P	RR	S	U	Z	ZZ
φ20	18	15.5	13	9	10	19	10 ^{-0.01} _{-0.05}	20 ⁰ _{-0.033}	13	8	41	5	27	8 ^{-0.01} _{-0.05}	30	M8×1.25	15	24	M20×1.5	1/8	9	62	14	133	142
φ25	22	19.5	17	9	10	19	10 ^{-0.01} _{-0.05}	26 ⁰ _{-0.033}	13	8	45	6	33	8 ^{-0.01} _{-0.05}	30	M8×1.25	15	30	M26×1.5	1/8	9	62	14	137	146
φ32	22	19.5	17	9	10	19	12 ^{-0.01} _{-0.05}	26 ⁰ _{-0.033}	13	8	45	6	37.5	10 ^{-0.01} _{-0.05}	30	M10×1.25	15	34.5	M26×1.5	1/8	9	64	14	139	148
φ40	24	21	22	10	15	30	16 ^{-0.01} _{-0.05}	32 ⁰ _{-0.039}	16	11	50	8	46.5	14 ^{-0.01} _{-0.05}	39	M14×1.5	21.5	42.5	M32×2	1/4	11	88	18	177	188

Rod Side Trunnion Type(U)

AXKU Bore Size Stroke



(mm)

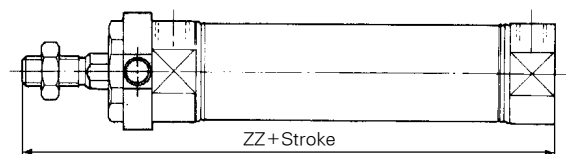
Bore Size	A	AL	B ₁	B ₂	D	E	F	G	H	H ₁	I	K	MM	N	NA	NN	P	S	TD	TT
φ20	18	15.5	13	26	10 ^{-0.01} _{-0.05}	20 ⁰ _{-0.033}	13	8	41	5	27	8 ^{-0.01} _{-0.05}	M8×1.25	15	24	M20×1.5	1/8	62	8	10
φ25	22	19.5	17	32	10 ^{-0.01} _{-0.05}	26 ⁰ _{-0.033}	13	8	45	6	33	8 ^{-0.01} _{-0.05}	M8×1.25	15	30	M26×1.5	1/8	62	9	10
φ32	22	19.5	17	32	12 ^{-0.01} _{-0.05}	26 ⁰ _{-0.033}	13	8	45	6	37.5	10 ^{-0.01} _{-0.05}	M10×1.25	15	34.5	M26×1.5	1/8	64	9	10
φ40	24	21	22	41	16 ^{-0.01} _{-0.05}	32 ⁰ _{-0.039}	16	11	50	8	46.5	14 ^{-0.01} _{-0.05}	M14×1.5	21.5	42.5	M32×2	1/4	88	10	11

Boss-Cut Type

Bore Size	TX	TY	TZ	Z	ZZ
φ20	32	32	52	36	116
φ25	40	40	60	40	120
φ32	40	40	60	40	122
φ40	53	53	77	44.5	154

Bore Size	ZZ
φ20	103
φ25	107
φ32	109
φ40	138

Boss-Cut Type



ACP

UACP

AX

AS

AM

AL
ALX

UARD

UAQ

AJ

AG

UAG

ADM

ADR

AMR

UAMR

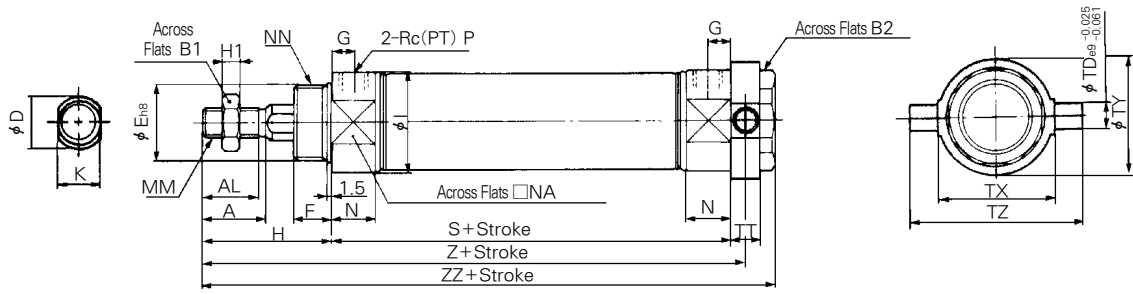
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Series AXK

Head Side Trunnion Type(T)

AXKT Bore size Stroke



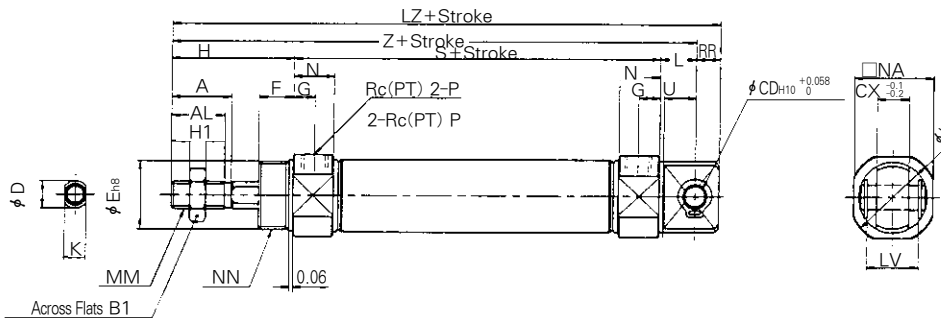
(mm)

Bore Size	A	AL	B ₁	B ₂	D	E	F	G	H	H ₁	I	K	MM	N	NA	NN	P	S	TD	TT
$\phi 20$	18	15.5	13	26	10 ^{-0.01} _{-0.05}	20 ⁰ _{-0.033}	13	8	41	5	27	8 ^{-0.01} _{-0.05}	M8×1.25	15	24	M20×1.5	1/8	62	8	10
$\phi 25$	22	19.5	17	32	10 ^{-0.01} _{-0.05}	26 ⁰ _{-0.033}	13	8	45	6	33	8 ^{-0.01} _{-0.05}	M8×1.25	15	30	M26×1.5	1/8	62	9	10
$\phi 32$	22	19.5	17	32	12 ^{-0.01} _{-0.05}	26 ⁰ _{-0.033}	13	8	45	6	37.5	10 ^{-0.01} _{-0.05}	M10×1.25	15	34.5	M26×1.5	1/8	64	9	10
$\phi 40$	24	21	22	41	16 ^{-0.01} _{-0.05}	32 ⁰ _{-0.039}	16	11	50	8	46.5	14 ^{-0.01} _{-0.05}	M14×1.5	21.5	42.5	M32×2	1/4	88	10	11

Bore Size	TX	TY	TZ	Z	ZZ
$\phi 20$	32	32	52	108	118
$\phi 25$	40	40	60	112	122
$\phi 32$	40	40	60	114	124
$\phi 40$	53	53	77	143.5	154

Integrated Clevis Type(E)

AXKE Bore Size Stroke



(mm)

Bore Size	A	AL	B ₁	CD	CX	D	E	F	G	H	H ₁	I	K	L	MM	N	NA	NN	P	RR
$\phi 20$	18	15.5	13	8	12	10 ^{-0.01} _{-0.05}	20 ⁰ _{-0.033}	13	8	41	5	27	8 ^{-0.01} _{-0.05}	12	M8×1.25	15	24	M20×1.5	1/8	9
$\phi 25$	22	19.5	17	8	12	10 ^{-0.01} _{-0.05}	26 ⁰ _{-0.033}	13	8	45	6	33	8 ^{-0.01} _{-0.05}	12	M8×1.25	15	30	M26×1.5	1/8	9
$\phi 32$	22	19.5	17	10	20	12 ^{-0.01} _{-0.05}	26 ⁰ _{-0.033}	13	8	45	6	37.5	10 ^{-0.01} _{-0.05}	15	M10×1.25	15	34.5	M26×1.5	1/8	12
$\phi 40$	24	21	22	10	20	16 ^{-0.01} _{-0.05}	32 ⁰ _{-0.039}	16	11	50	8	46.5	14 ^{-0.01} _{-0.05}	15	M14×1.5	21.5	42.5	M32×2	1/4	12

Bore Size	S	U	Z	ZZ	LV
$\phi 20$	62	11.5	115	124	18.4
$\phi 25$	62	11.5	119	128	18.4
$\phi 32$	64	14.5	124	136	28
$\phi 40$	88	14.5	153	165	28