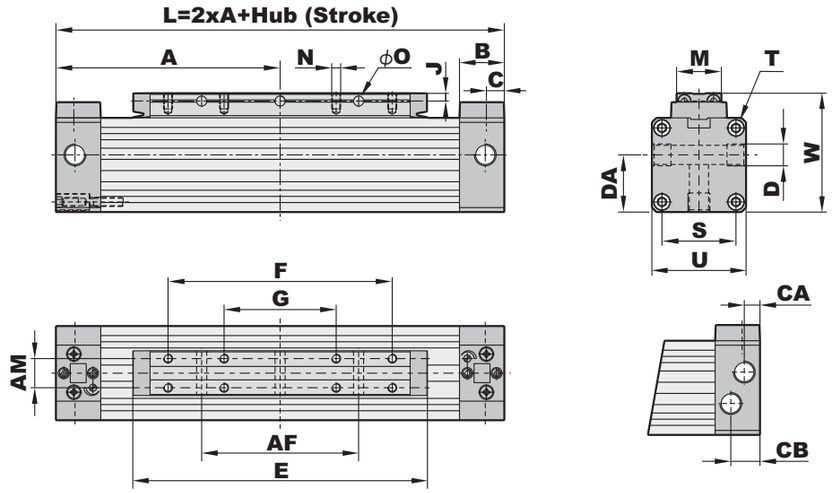
Features

* High-strength aluminum-extruded section to reduce deflection and increase the slot width.
* Front and side wipers on the yoke.
* Grooves in tube profile for fixing various additional components.
* Fixation at the front can be turned by 4 x 90°.
* New pin type cushioning.
* Large clamping surface on the yoke.
* Guiding over the entire stroke length.
* One-side connections possible.
* Torsion-proof.
* Exchangeable wear parts.
* High section modulus in all load directions.
* Adjustable slide guides save additional guiding systems.
* Carriage can be installed at a later date.

Dimensions



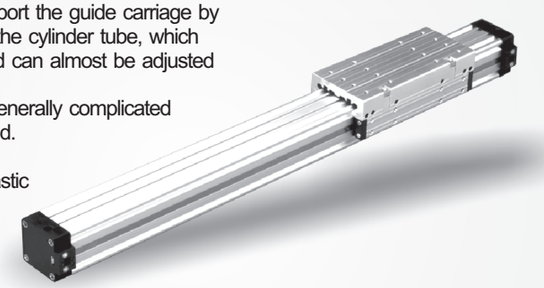
(Unit : mm)

Bore size	A	AF	AM	B	C	CA	CB	D	DA	DB	DD	E
φ18	80	50	10	16.5	6.5	–	–	M7x1/6	15.5	–	–	103
φ25	100	70	13	20	8.5	7	13	G1/8x8	25.5	14	18.5	131
φ32	120	100	16	20	8.5	7	13	G1/8x8	32	16	21	171
φ40	150	140	22	23	13	11	14.5	G1/4x12	37.5	18.5	29.5	220
φ50	180	180	29	23	13	12	14	G1/4x12	47.5	22.5	37	280
φ63	215	215	40	29	13	12.5	15.5	G3/8x12	59.5	24.5	44.5	333

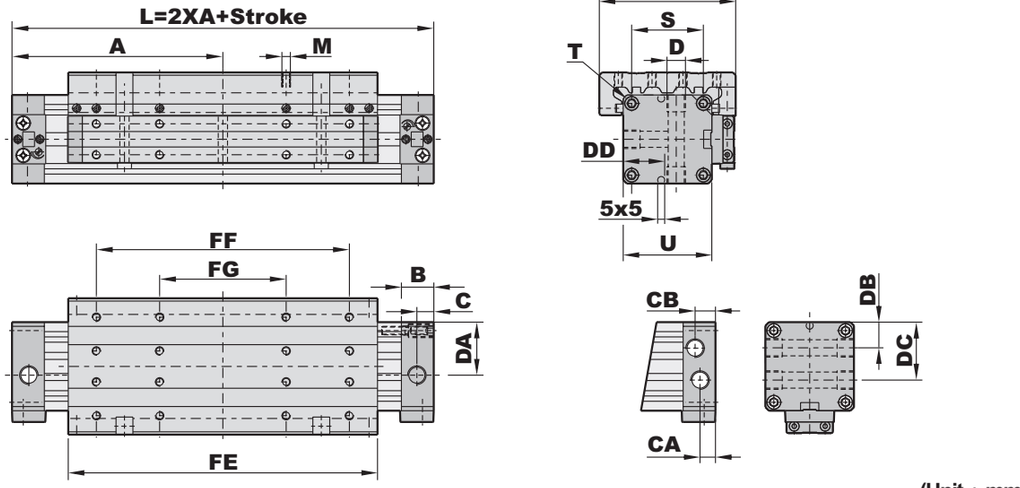
Bore size	F	FE	G	J	M	N	O	S	T	U	W
φ18	75	90	–	3	15.5	M3x6	3.5	23.5	M3x7	30	39
φ25	100	116	50	3.5	20	M4x7	4.5	33	M4x9	42	53
φ32	140	156	70	4.5	25	M5x9	5.5	41	M5x10	52	65
φ40	180	220	90	5	33	M6x10	7	51	M6x12	63	79
φ50	220	260	110	6.5	42	M8x12.5	7	63	M8x12	78	96
φ63	280	313	140	8	54	M8x15	9	78	M8x12	93	113.5

Features

* Accuracy and high loading capacity.
* The cylinder provides V-guide grooves on outer side which support the guide carriage by means of slide bars, the guide carriage is fitted to the sides of the cylinder tube, which means that the increase of the sloth width has no influence and can almost be adjusted without backlash.
* As the guide grooves are integrated into the cylinder tube,the generally complicated and expensive installation of additional guide profiles is eliminated.
* The adjustable slide bars are made of high-strength plastic. In combination with the anodized surface of the cylinder, these plastic gibes ensure a very favorable sliding effect.
* Exceptionally compact and space saving.
* Suitable for lower end supports, center supports, solenoid switch systems.
* Utilizing cross supports, two guiding cylinders can be connected to form portal support systems with infinitely chosen stroke, which is applicable to variety of applications.
* Provide highly versatile linear drive element which allows all designers and machine makers to implement future-oriented concepts at reasonable prices.



Dimensions



(Unit : mm)

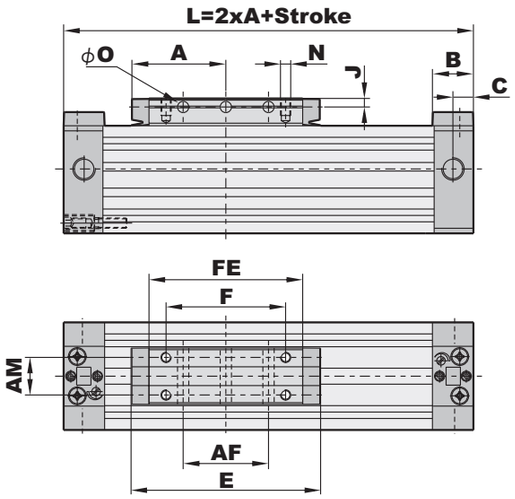
Bore size	A	AF	AM	B	MC	C	CA	CB	D	DA	DB	DC
φ18	80	50	10	16.5	35	6.5	–	–	M7x1/6	17.5	–	–
φ25	100	70	13	20	45	8.5	7	13	G1/8x8	25.5	14	28
φ32	120	100	16	20	55	8.5	7	13	G1/8x8	32	17.5	34.5
φ40	150	140	22	24	70	13	9.5	14.5	G1/4x12	37.5	20	42
φ50	180	180	29	24	85	13	9.5	14	G1/4x12	47.5	26	52
φ63	215	215	40	30	105	13	11	18.5	G3/8x12	59.5	30	62

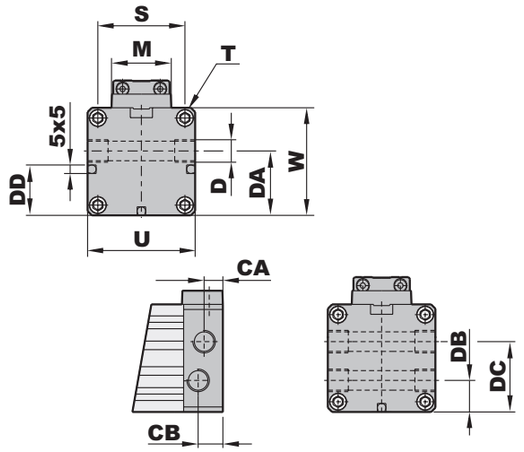
Bore size	DD	FE	FF	FG	FM	FW	N	S	T	U
φ18	–	103	75	–	50	39	M4x7.5	23.5	M3x7	30
φ25	18.5	131	100	50	66	53	M4x8	33	M4x9	42
φ32	21	171	140	70	80	65	M5x10	41	M5x10	52
φ40	29.5	220	180	90	97	79	M6x12	51	M6x12	63
φ50	37	280	220	110	116	96	M8x16	63	M8x12	78
φ63	44.5	333	280	140	136	113.5	M8x16	78	M8x12	93

Features

* Basic length (0-stroke) up to 42% shorter.
* Space-saving also in comparison to short-stroke standard cylinders with piston rod.
* Shorter total fitting length.
* Money-saving compact construction.

Dimensions





(Unit : mm)

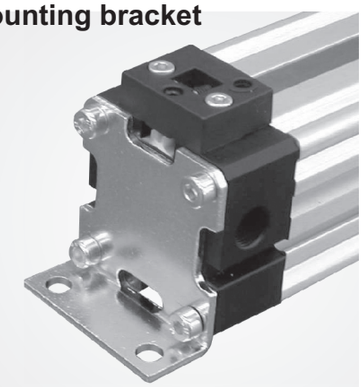
Bore size	A	AF	AM	B	C	CA	CB	D	DA	DB	DD
φ18	57.5	15	10	16.5	6.5	–	–	M7x1/6	17.5	–	–
φ25	67.5	19	13	20	8.5	7	13	G1/8x8	25.5	14	18.5
φ32	77.5	35	16	20	8.5	7	13	G1/8x8	32	17.5	21
φ40	95	50	22	24	13	9.5	14.5	G1/4x12	37.5	20	29.5
φ50	105	46	29	24	13	9.5	14	G1/4x12	47.5	26	37
φ63	125	70	40	30	13	11	18.5	G3/8x12	59.5	30	44.5

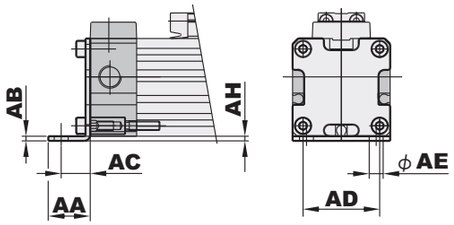
Bore size	F	FE	G	J	M	N	O	S	T	U	W
φ18	58	30	90	3	15.5	M3x6	3.5	23.5	M3x7	30	39
φ25	66	35	116	3.5	20	M4x7	4.5	33	M4x9	42	53
φ32	86	55	156	4.5	25	M5x9	5.5	41	M5x10	52	65
φ40	110	70	220	5	33	M6x10	7	51	M6x12	63	79
φ50	130	70	260	6.5	42	M8x12.5	7	63	M8x12	78	96
φ63	153	100	313	8	54	M8x15	9	78	M8x12	93	113.5

SHAKO RODLESS PNEUMATIC CYLINDER

Dimension of mounting parts

FB Mounting bracket

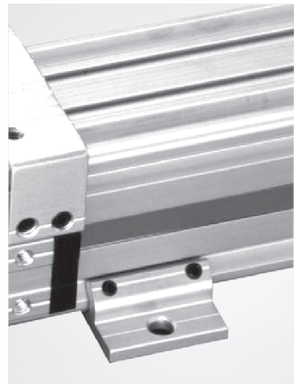


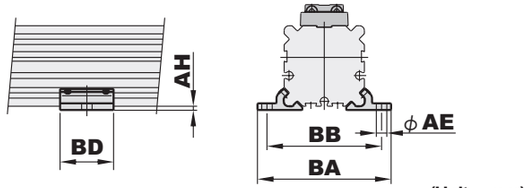


(Unit : mm)

Bore size	Order code	AA	AB	AC	AD	AE	AH
φ18	1182-0001	15	2	10	20	6	2
φ25	1252-0001	18	2	12.5	30	6	2
φ32	1322-0001	20	2.5	13.5	40	7	3
φ40	1402-0001	30	3	17.5	50	9	3.5
φ50	1502-0001	28	3	20	60	9	3
φ63	1632-0001	30	3	21	75	11	4.5

MB Middle support

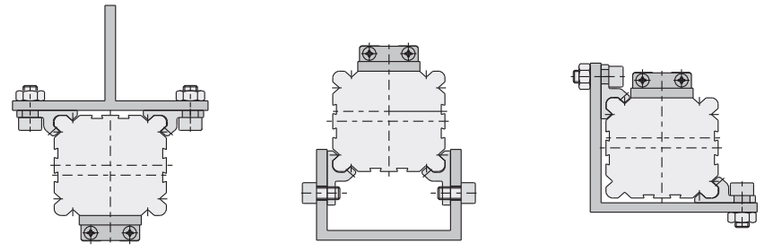




(Unit : mm)

Bore size	Order code	AE	AH	BA	BB	BC	BD	BE	BF
φ18	1183-0001	6	2	56	46	36.5	23	2.5	8.25
φ25	1253-0001	6	2	70	60	50	28	3.5	11
φ32	1323-0001	7	3	85	73	61.5	33	4	13.8
φ40	1403-0001	9	3	105	90	75	38	4.5	16
φ50	1503-0001	9	3	122	106	91	43	5	19
φ63	1633-0001	11	4.5	144	125	107	48	6	22

Mounting example for MB middle support



Deflection diagram

When using very long cylinders or applying heavy loads, the tube deflection is to be taken into consideration . One or more middle supports are to be used according to the admissible deflection.
Example:
A cylinder φ25 should deflect by a maximum of 0.5mm when applying a force FZ of 500N. According to the diagram the cylinder can be 750mm long. Longer cylinders must have a middle support.
Other possibilities
In case very long cylinders are installed without supports, and additional profile can be used as a support.
Examples: all versions with middle support and standard profiles.