

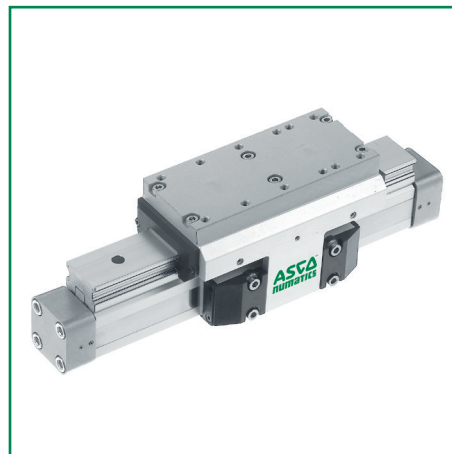
APPLICATION PRINCIPLE

The brake is designed to stop the loaded cylinder carrier and hold it in the end-of-stroke position in case of power or pressure failure.

The brake is a mechanical device that acts on the carrier's guide rail. It is released by pressurisation.

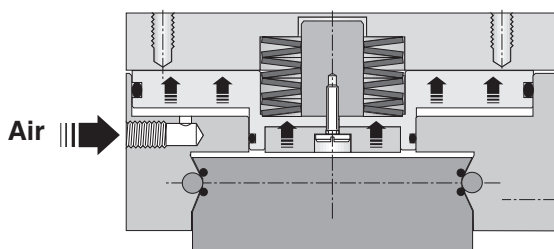
Advantages

- Stops and holds carrier in the end-of-stroke position.
- Intermediate stops possible.
- **Blocks in case of pressure loss.**
- Two-directional action.
- Any mounting position.

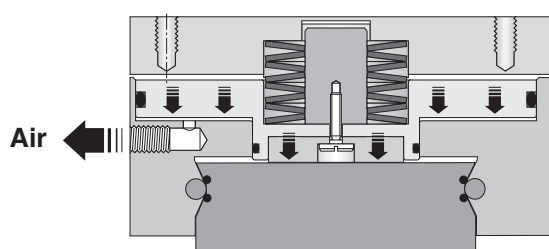


OPERATING PRINCIPLE

Pressure applied



No pressure applied



SPECIFICATIONS

CYLINDER: page 136 (www.asco.com)

PASSIVE BRAKE

FLUID : Air or neutral gas, unlubricated
RELEASE PRESSURE : > 4,5 bar
ALLOWABLE PRESSURE : 8 bar max.
AMBIENT TEMPERATURE : -10°C to +80°C
MOUNTING POSITION : Any

Loads, moments and forces :

Ø Cylinder (mm)	Bending moments (in N.m)			Load (in N)	Holding force (in N)
	M	M _s	M _v	L	
25	39	16	39	857	315
32	73	29	73	1171	490
40	158	57	158	2074	715
50	249	111	249	3111	1100

MECHANICAL CHARACTERISTICS: page 123 (www.asco.com)

CHOICE OF EQUIPMENT

Ø Cylinder (mm)	CYLINDER EQUIPPED FOR DETECTOR		Max. allowable stroke (mm)	Pipe size	Cushioning length (mm)
	CODE ⁽²⁾	REFERENCE			
25	44850034 ⁽¹⁾	STBB 25 A - 0 ⁽³⁾ - PB - ⁽¹⁾ - DM	3750	G 1/8	17
32	44850035 ⁽¹⁾	STBB 32 A - 0 ⁽³⁾ - PB - ⁽¹⁾ - DM	3750	G 1/4	20
40	44850036 ⁽¹⁾	STBB 40 A - 0 ⁽³⁾ - PB - ⁽¹⁾ - DM	3750	G 1/4	27
50	44850037 ⁽¹⁾	STBB 50 A - 0 ⁽³⁾ - PB - ⁽¹⁾ - DM	3750	G 1/4	30

For other strokes, contact us.

(1) Specify stroke (in mm)

(2) Position detectors are to be ordered separately


(3) 1 for slow speed option


When ordering, please specify the code of the STBB cylinder with passive brake, its stroke, reference and any accessories you may require.

Example:

Cylinder Ø 25 mm, 200 mm stroke, with passive brake, without slow speed option: code **44850034200 - STBB 25 A 0 PB 200 DM**

MOUNTINGS

Ø Cylinder (mm)	CODE  Low foot brackets (4)
25	43400494
32	43400495

Ø Cylinder (mm)	CODE  Flanges
40	43400496
50	43400497

Delivered with 2 foot brackets or 2 flanges plus cylinder mounting screws.

The mountings are delivered non assembled.

(4) Foot brackets for cylinders Ø 25 and 32 allow height adjustment.

ACCESSORIES

- [Tube support](#) (recommended to avoid buckling, depending on the stroke and load)
- [Shock absorbers](#)
- Magnetic detectors: [Reed switch](#) or [magneto-inductive](#) type

OPTIONS

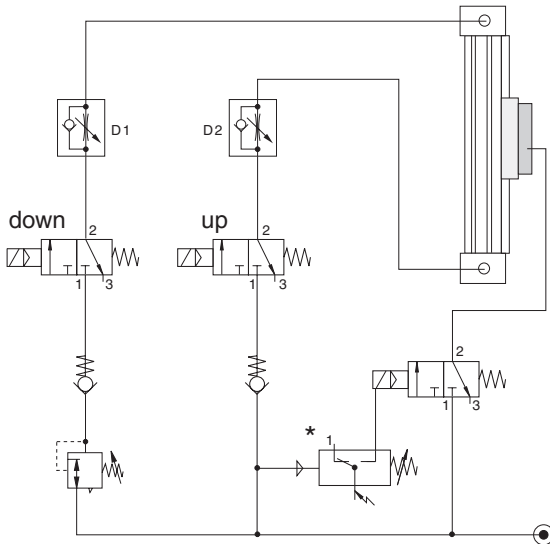
- Slow speeds from 5 mm/s to 0,2 m/s - code: Ø 25 : **995083** Ø 40 : **995085**
 Ø 32 : **995084** Ø 50 : **995086**

(When selecting this option, you will have to change the cylinder reference to: STBB .. A 1 ... DM)

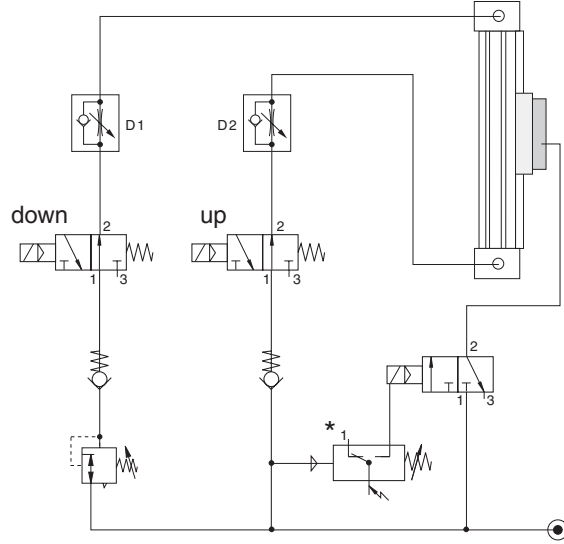
- Pressure supply ports on same side as guide rail (contact us)

WIRING DIAGRAM VERTICAL APPLICATION

Control of a cylinder with normally closed (NC) 3/2 spool valves (the cylinder chambers are exhausted when in the reset position).



Control of a cylinder with normally open (NO) 3/2 spool valves (the cylinder chambers are pressurised when in the reset position).



DESCRIPTION

Under normal operating conditions, the pressure switch is closed. The 3/2 spool valve supplies air to the brake to release it and allow the cylinder to move. In the event of loss of pressure or pressure failure, the pressure switch activates the cylinder valve and locks the movement of the cylinder. When pressure is restored to the two cylinder chambers, the brake is once again released.

The flow reducers D1 and D2 do not have any influence on the brake. The two non-return valves enhance the stability of the system.

The pressure regulator is used to compensate the force of the load in vertical applications.

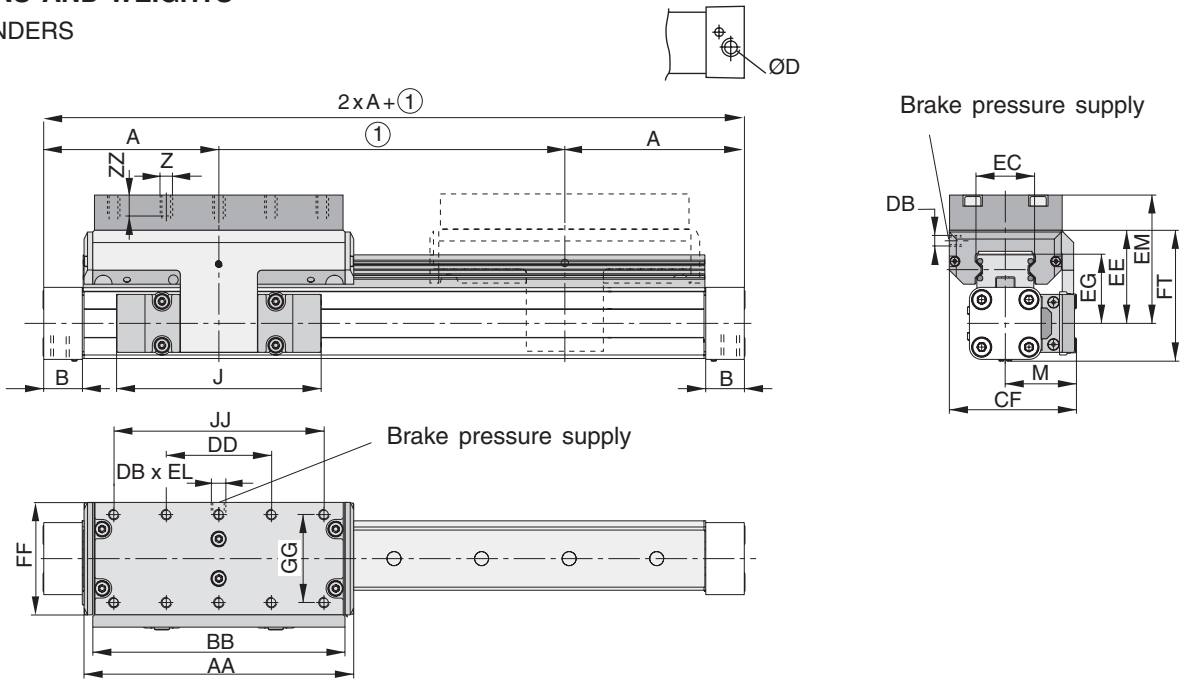
NOTE: Before releasing the brake, make sure both air chambers are pressurised. Pipe lengths and connection diameters have an influence on the reaction time of the brake. We recommend reducing piping lengths and using adequately sized fittings.

* An adjustable pressure switch locks the brake when the pressure drops below a pre-set value.

DIMENSIONS AND WEIGHTS

BARE CYLINDERS

Bottom view

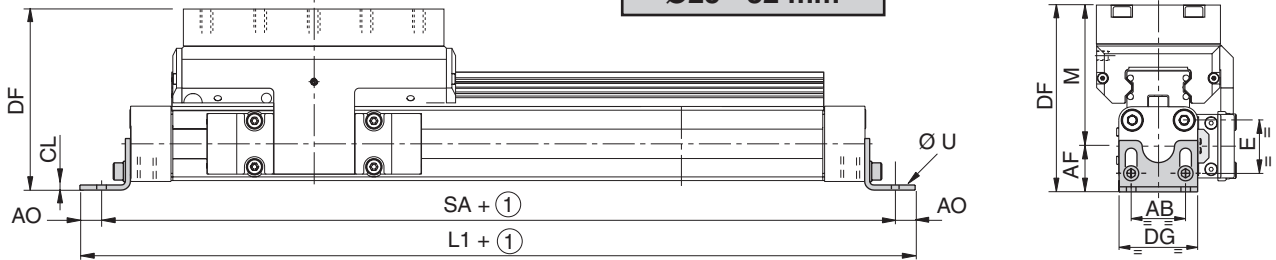


Bore (mm)	DIMENSIONS (mm)																			Cylinder weight (kg)		Carrier weight (kg)		
	A	B	D	J	M	Z	AA	BB	DB	DD	CF	EC	EE	EG	EL	EM	FF	FT	GG	JJ	ZZ		(1)	(2)
25	100,4	22	G1/8	117	40,5	M6	154	144	M5	60	72,5	32,5	53	39	5	73	64	73,5	50	120	12	2,14	0,40	1,24
32	125,2	25,5	G1/4	152	49	M6	197	187	G1/8	80	91	42	62	48	10	82	84	88	64	160	12	4,08	0,62	2,02
40	150	28	G1/4	152	55	M6	232	222	G1/8	100	102	47	64	50,5	10	84	94	98,5	78	200	12	5,46	0,70	2,82
50	175	33	G1/4	200	62	M6	276	266	G1/8	120	117	63	75	57	12	95	110	118,5	90	240	16	8,60	0,95	4,07

(1) Weight with 0 mm stroke
(2) Weight to be added per 100 mm length

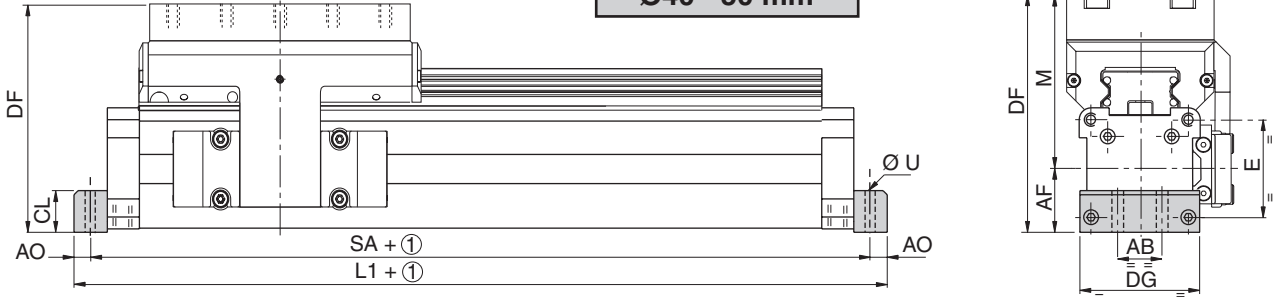
CYLINDER WITH MOUNTING BRACKETS

Ø25 - 32 mm



CYLINDER WITH MOUNTING FLANGES

Ø40 - 50 mm



① : stroke

Bore (mm)	AB		AF		A0	CL	DF		DG	E	L1	M	SA	U	Weights (kg)	
	min	max	min	max			min	max							Brackets	Flanges
25	27	22,7	32,3	9,5	2,5	95,7	105,3	39	27	250,8	73	231,8	6,6	0,072	-	
32	36	32,5	45,2	9,3	3	114,5	127,2	50	36	292,4	82	273,8	7	0,117	-	
40	30	35,2	11,3	24	119,2	68	54	348	84	325,4	9	-	0,210	-	-	
50	31,8	46	16,2	30	141	86	70	398	95	365,6	10	-	0,308	-	-	

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