

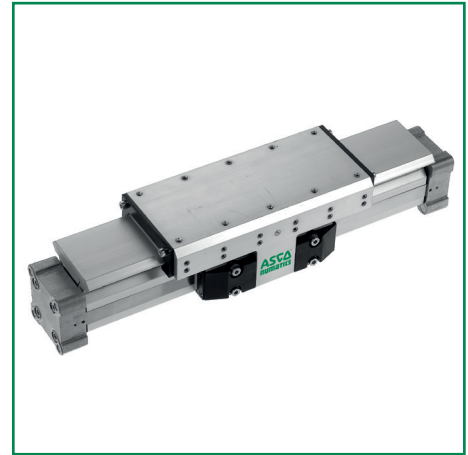
## APPLICATION PRINCIPLE

The brake is designed to stop the loaded cylinder carrier and hold it in the end-of-stroke position when it is supplied with pressure during machine operation.

The brake is a mechanical device which acts on the carrier's guide rail. It is released by spring actuation when the air pressure is removed.

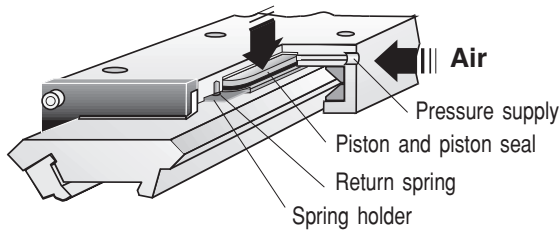
### Advantages

- Stops and holds carrier in the end-of-stroke position.
- Holds maximum allowable cylinder load without slipping.
- Intermediate stops possible.
- **Blocks by pressurisation.**
- Two-directional action.
- Any mounting position.

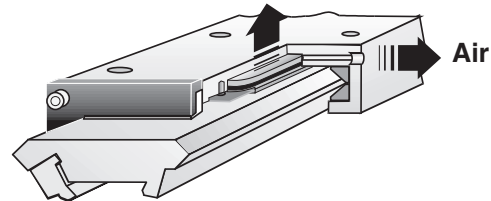


## OPERATING PRINCIPLE

Pressure applied



No pressure applied



## SPECIFICATIONS

**CYLINDER:** [see preceding pages](#)

### ACTIVE BRAKE

FLUID : Air or neutral gas, unlubricated  
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) L	Holding force at 6 bar (in N)
	M	M <sub>s</sub>	M <sub>v</sub>		
25	34	14	34	675	<b>325</b>
32	60	29	60	925	<b>545</b>
40	110	50	110	1500	<b>835</b>
50	180	77	180	2000	<b>1200</b>

**MECHANICAL CHARACTERISTICS:** [see preceding pages](#)

## CHOICE OF EQUIPMENT

Ø Cylinder (mm)	CYLINDER EQUIPPED FOR DETECTOR		Max. allowable stroke (mm)	Pipe size	Cushioning length (mm)
	CODE <sup>(2)</sup>	REFERENCE			
25	44850020 <sup>(1)</sup>	STB 25 A - 0 <sup>(3)</sup> - AB - <sup>(1)</sup> - DM	5500	G 1/8	17
32	44850021 <sup>(1)</sup>	STB 32 A - 0 <sup>(3)</sup> - AB - <sup>(1)</sup> - DM	5500	G 1/4	20
40	44850022 <sup>(1)</sup>	STB 40 A - 0 <sup>(3)</sup> - AB - <sup>(1)</sup> - DM	5500	G 1/4	27
50	44850023 <sup>(1)</sup>	STB 50 A - 0 <sup>(3)</sup> - AB - <sup>(1)</sup> - DM	5500	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 STB cylinder with active brake, its stroke, reference and any accessories you may require.

Example:

Cylinder Ø 25 mm, 200 mm stroke, with active brake, without slow speed option: code **44850020200 - STB 25 A 0 AB 200 DM**

**MOUNTINGS**

Ø Cylinder (mm)	CODE
	 Low foot brackets (4)
25	<b>43400494</b>
32	<b>43400495</b>

Ø Cylinder (mm)	CODE
	 Flanges
40	<b>43400496</b>
50	<b>43400497</b>

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**

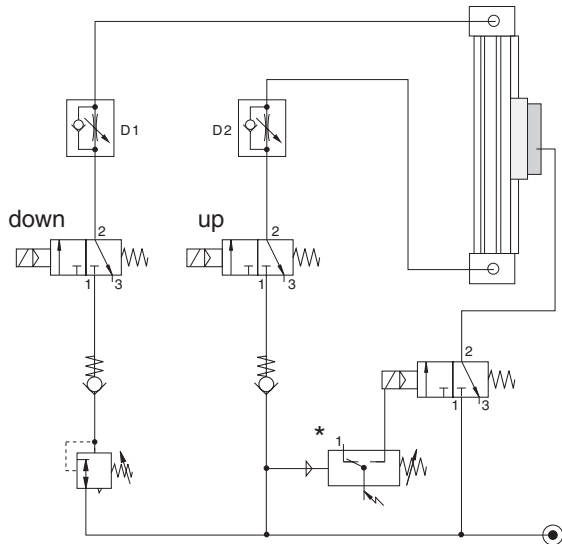
- **Tube support** (recommended to avoid buckling, depending on the stroke and load)
- **Shock absorbers**
- Magnetic detectors: [Reed switch](#) or [magneto-inductive](#) type

**OPTIONS**

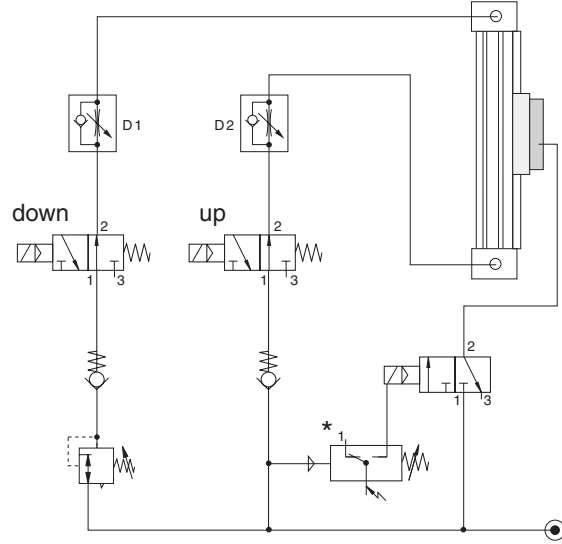
- Slow speeds from 5 mm/s to 0,2 m/s - code: Ø 25 : **995083**      Ø 50 : **995086**  
    Ø 32 : **995084**      Ø 63 : **995087**  
    Ø 40 : **995085**      Ø 80 : **995088**
- (When selecting this option, you will have to change the cylinder reference to: STB .. A 1 ... DM)
- Pressure supply ports 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.

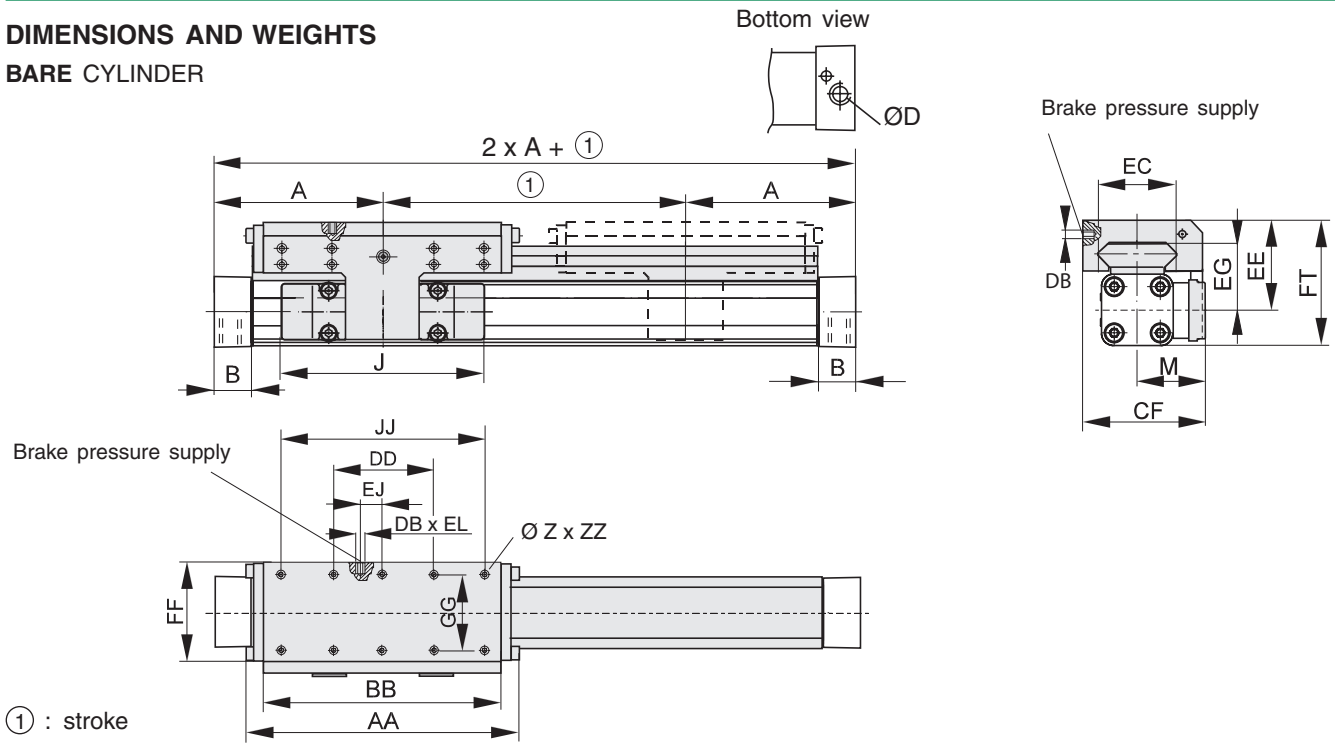
**NOTE:** Before releasing the brake, make sure both air chambers are pressurised. Pipe lengths and connection diameters have an influence on the reaction time of the brake. We recommend reducing piping lengths and using adequately sized fittings.

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

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**DIMENSIONS AND WEIGHTS**

**BARE CYLINDER**

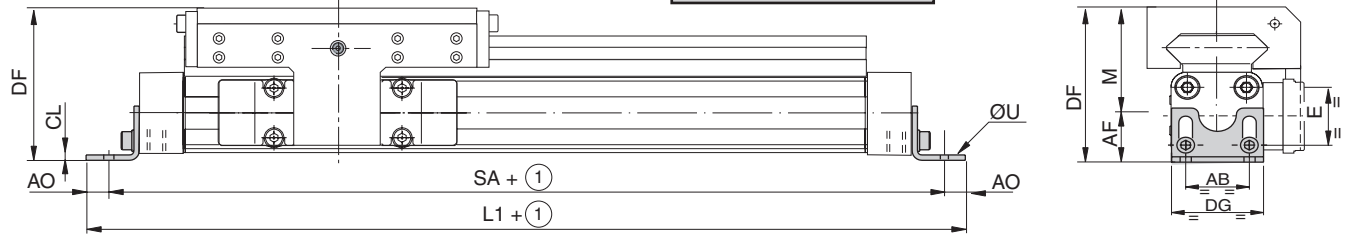


Bore (mm)	DIMENSIONS (mm)																			Weights (kg)				
	A	B	D	J	M	Z	AA	BB	DB	DD	CF	EC	EE	EG	EJ	EK	FF	FT	GG	JJ	ZZ	(1)	(2)	carrier
25	100,4	22	G1/8	117	40,5	M6	162	142	M5	60	72,5	47	53	39	22	6	64	73,5	50	120	12	1,55	0,39	0,61
32	125,2	25,5	G1/4	152	49	M6	205	185	M5	80	91	67	62	48	32	6	84	88	64	160	12	2,98	0,65	0,95
40	150	28	G1/4	152	55	M6	240	220	M5	100	102	77	64,3	50	58	6	94	98,8	78	200	12	4,05	0,78	1,22
50	175	33	G1/4	200	62	M6	284	264	M5	120	117	94	75	56	81	6	110	118,5	90	240	16	6,72	0,97	2,06

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

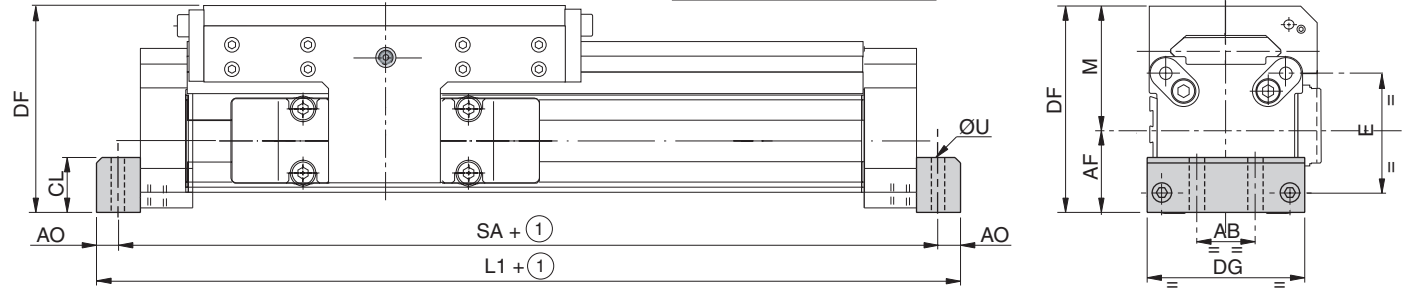
**CYLINDER WITH MOUNTING BRACKETS**

**Ø25 - 32 mm**



**CYLINDER WITH MOUNTING FLANGES**

**Ø40 - 50 mm**



① : stroke

Bore (mm)	DIMENSIONS (mm)												Weights (kg)		
	AB	AF min	AF max	A0	CL	DF min	DF max	DG	E	L1	M	SA	U	Brackets	Flanges
25	27	22,7	32,3	9,5	2,5	75,7	85,3	39	27	250,8	53	231,8	6,6	0,072	-
32	36	32,5	45,2	9,3	3	94,5	107,2	50	36	292,4	62	273,8	7	0,117	-
40	30	35,2	11,3	24	99,5	68	54	348	64,3	325,4	9	-	0,210	-	
50	31,8	46	16,2	30	121	86	70	398	75	365,6	10	-	0,308	-	