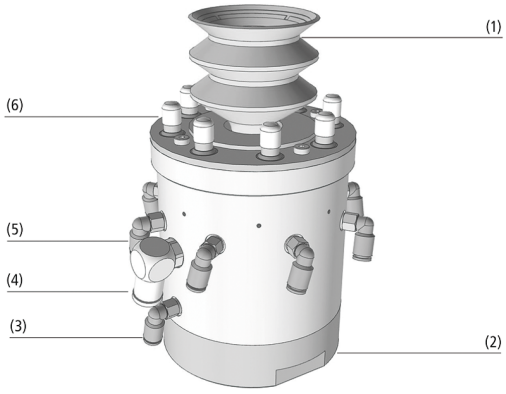
Suction Cup Balance SSCB

Gripping area Ø 22 mm and 60 mm

UNIVERSAL

Suction Cup Balance SSCB



System design Suction Cup Balance SSCB

Suction Cup Balance SSCB for automated gripping and clamping of a sheet metal part

Suitability for industry specific applications

Applications

- Suction Cup Balance for automated, precise gripping and clamping of various workpieces in a production line
- Ideal for securely gripping and clamping of uneven 3D free-form surfaces
- Mirrored gripping and clamping possible through precise mapping of the workpiece contour
- Driveless adjusting with no mechanical stops or positioning aids

Design

- Flexible bellows suction cup (1) for adapting perfectly to the workpiece
- Main body (2) made of aluminium
- Compressed air supply (3) for spring force
- Vacuum supply (4) for suction cup
- Compressed air supply (5) for releasing positioning Pins, one for each pin
- Positioning pins (6) with padded tips that are gentle on the workpiece

Product highlights

- Flexible design of gripping and clamping systems due to precise positioning of the workpiece support
- Software controlled 3D free-form surfaces via 2D reference surface enables automated set-up process
- Individually lockable, unpressurized positioning pins automatically adapt to the workpiece contour
- Special support material allows reliable fixation even of complex parts

Contact Schmalz: J. Schmalz GmbH / Johannes-Schmalz-Str. 1 / 72293 Glatten / +49 7443 2403-105 / kundencenter@schmalz.de

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Designation code Suction Cup Balance SSCB

SSCB	–	78	–	93.5-108	–	ZP	–	60
1		2		3		4		5

SAB	–	NBR
6		7

1 – Abbreviated designation

Code	Type
SSCB	Suction-Cup Balance

2 – Positioning pins

Code	Diameter in mm
30...78	ø 30 to 78

3 – Application

Code	Dimensions in mm
60.7-66.5... 141-171	60.7 to 171

4 – Fixing the positioning pins

Code	Type
EP	Individually fixed positioning pins
ZP	Centrally fixed positioning pins

5 – Connection

Code	Connection
M6-IG	M6-IG
60	60 mm Innospann mounting

6 – Suction cup

Code	Type
FSG	2.5 folds, round
SAB	1.5 folds, round

7 – Material Suction cup

Code	Material
VU1	VU1
NBR	Nitrile caoutchuc

The Suction Cup Balance SSCB is delivered assembled. The delivery consists of:

- Suction Cup Balance made of aluminium; with positioning pins
- Suction cups FSG-VU1 or SAB-NBR

Available spare parts: Suction cups (spare parts set), cover cap

Ordering data Suction Cup Balance SSCB

Type	Part no.
SSCB-30 60.7-66.5 ZP M4-IG SAB-NBR	10.01.41.00017
SSCB-78 93.5-107.5 ZP 60 SAB-NBR	10.01.15.00572
SSCB-78 141-171 EP M6-IG FSG-VU1	10.01.15.00850
SSCB-78 141-171 ZP M6-IG FSG-VU1	10.01.15.00922

Ordering data Spare parts Suction Cup Balance SSCB

Type	Spare parts		Part no.
SSCB-78 141-171 EP M6-IG FSG-VU1	Set of spare parts	ERS SSCB-FG60-VU1	10.01.15.00953
SSCB-78 141-171 ZP M6-IG FSG-VU1	Set of spare parts	ERS SSCB-FG60-VU1	10.01.15.00953
SSCB-78 93.5-107.5 ZP 60 SAB-NBR	Bellows suction cups (round)	SABT-C 60 NBR-60 M10-AG	10.01.06.01878

Type	Spare parts		Part no.
SSCB-78 93.5-107.5 ZP 60 SAB-NBR	Cap (round)	KAPP 7x10.5 SSCB	10.01.15.00918
SSCB-78 141-171 EP M6-IG FSG-VU1	Cap (round)	KAPP 7x10.5 SSCB	10.01.15.00918
SSCB-78 141-171 ZP M6-IG FSG-VU1	Cap (round)	KAPP 7x10.5 SSCB	10.01.15.00918

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Technical data Suction Cup Balance SSCB

Type*	Material workpiece support	Suction cup type	Size	Material	Suction force (-600 mbar) [N]**	Pull-off force [N]***	Weight [g]
SSCB-30 60.7-66.5 ZP M4-IG SAB-NBR	NBR	SAB	22	NBR	16	24	200
SSCB-78 93.5-107.5 ZP 60 SAB-NBR	NBR	SAB	60	NBR	82	130	1,300
SSCB-78 141-171 EP M6-IG FSG-VU1	NBR	FSG	60	VU1	61	100	2,598
SSCB-78 141-171 ZP M6-IG FSG-VU1	NBR	FSG	60	VU1	61	100	2,610

*Technical data and design data are max. values, actual values depend on application probably. We recommend that before handling, you would better to test every kind of workpiece. This is the only way to guarantee a safe handling process.
**Specifications are theoretical values at a -0.6 bar vacuum on dry, flat and even workpiece surfaces – they do not include safety factors.
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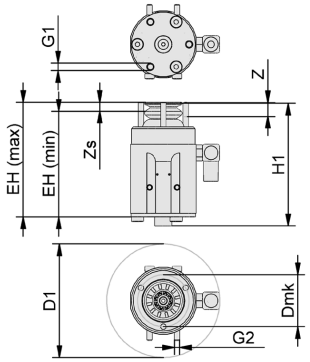
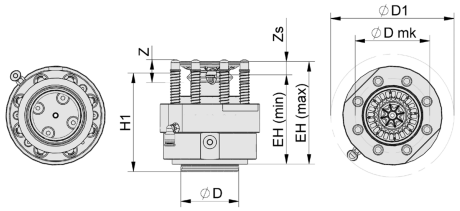
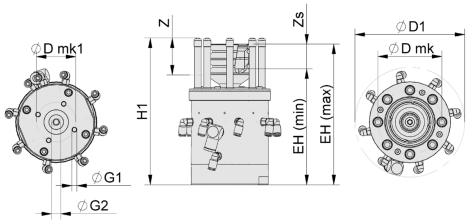


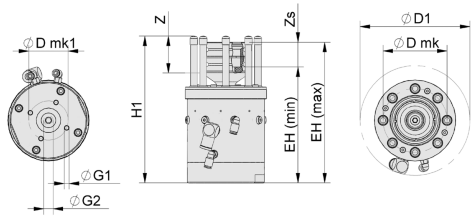
SSCB-30 ZP - SAB



SSCB-78 ZP - SAB



SSCB-78 EP - FSG



SSCB-78 ZP - FSG

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Type	D [mm]	D1 [mm]	Dmk [mm]	D mk1 [mm]	EH (max) [mm]	EH (min) [mm]	G1	G2	H1 [mm]	Zs [mm]	Z (Stroke) [mm]
SSCB-30 60.7-66.5 ZP M4-IG SAB-NBR	-	66	30	-	67	61	M4-F	M3-M	72	6	8
SSCB-78 93.5-107.5 ZP 60 SAB-NBR	60	117	78	-	108	94	-	-	118	14	22
SSCB-78 141-171 EP M6-IG FSG-VU1	-	134	78	48	171	141	M6-F	G1/4"-F	179	30	46
SSCB-78 141-171 ZP M6-IG FSG-VU1	-	134	78	48	171	141	M6-F	G1/4"-F	179	30	46

Multimedia product presentation

Medium	Link
Product video	https://vimeo.com/153886220

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