

Catalogue 10 **STAUFF Hydraulic Accessories** 

# **Germany**

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www.stauff.com

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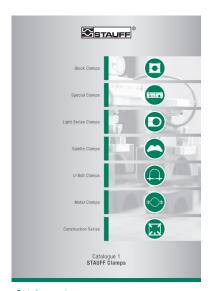
With the publication of this product catalogue, previous editions are no longer valid.

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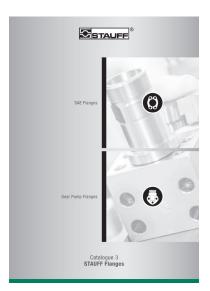
Catalogue 1 **STAUFF Clamps** 

- Block Clamps
- Special Clamps
- Light Series Clamps
- Saddle Clamps
- U-Bolt Clamps
- Metal Clamps
- Construction Series



Catalogue 2 **STAUFF Connect** 

- Tube Connectors
- Assembly Tools and Devices



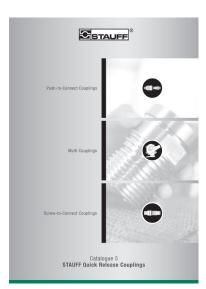
Catalogue 3 **STAUFF Flanges** 

- SAE Flanges
- Gear Pump Flanges



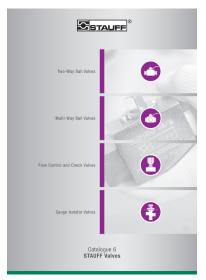
Catalogue 4 **STAUFF Hose Connectors** 

- Hose Connectors
- High-Pressure Hose Connectors



Catalogue 5 **STAUFF Quick Release Couplings** 

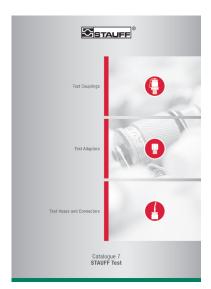
- Push-to-Connect Couplings
- Multi Couplings
- Screw-to-Connect Couplings



Catalogue 6 **STAUFF Valves** 

- Two-Way Ball Valves
- Multi-Way Ball Valves
- Flow Control and Check Valves
- Gauge Isolator Valves





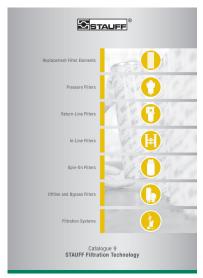
Catalogue 7 **STAUFF Test** 

- Test Couplings
- Test Adaptors
- Test Hoses and Connectors



Catalogue 8 **STAUFF Diagtronics** 

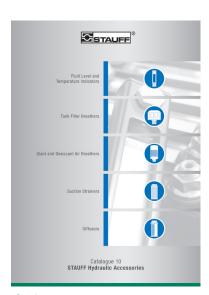
- Pressure Gauges
- Hydraulic Testers
- Oil Analysis Equipment



Catalogue 9

# **STAUFF Filtration Technology**

- Replacement Filter Elements
- Pressure Filters
- Return-Line Filters
- In-Line Filters
- Spin-On Filters
- Offline and Bypass Filters
- Filtration Systems



Catalogue 10

# **STAUFF Hydraulic Accessories**

- Fluid Level and Temperature Indicators
- Tank Filler Breathers
- Giant and Desiccant Air Breathers
- Suction Strainers
- Diffusers



For more than 50 years, the companies of STAUFF Group have been developing, manufacturing and distributing pipework equipment and hydraulic components for mechanical and plant engineering and for service and industrial maintenance.

In addition to mobile and industrial hydraulic machinery, typical applications also include commercial and special purpose vehicles, rail transportation and energy technology. Likewise, STAUFF products are used in marine, oil and gas applications and in the process, food and chemical industries.

The overall range currently includes about 40000 standard products as well as numerous special and system solutions according to customer's specifications or based on our in-house development.

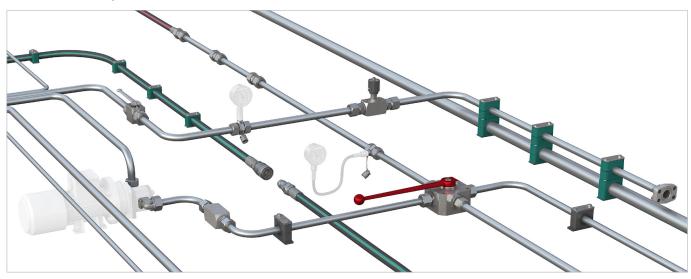
All STAUFF products undergo relevant testing in accordance with international regulations and are governed by the high standards of the in-house quality management system. Furthermore, many items have received certifications and approvals from various international institutes, organisations and authorities who have independently confirmed the quality and performance of the products.

Wholly-owned manufacturing, sales and service facilities in 18 countries and a tight global network of authorised distribution partners ensure high presence and service paired with a maximum of availability.



Quality Management – ISO 9001:2015 Environmental Management – ISO 14001:2015 Safety Management OHSAS - 18001:2007

# **STAUFF LINE** Components



With the seven dedicated STAUFF Line product groups

- STAUFF Clamps
- STAUFF Connect
- STAUFF Flanges
- STAUFF Hose Connectors
- STAUFF Quick Release Couplings
- STAUFF Valves
- STAUFF Test

from own, in-house development and manufacturing, the companies of the STAUFF Group provide a comprehensive range of components for fastening and connecting pipes. tubes and hoses for mobile and industrial hydraulic applications and many other industries.

The portfolio is completed by components for shutting-off, regulating, throttling and measuring fluid media.

In order to perfectly match each other, STAUFF Line products are designed and offered on a high, uniform level of quality. A large proportion of the range made from steel comes as standard with the premium STAUFF Zinc/Nickel surface coating, which is also optionally available for many of the other components.

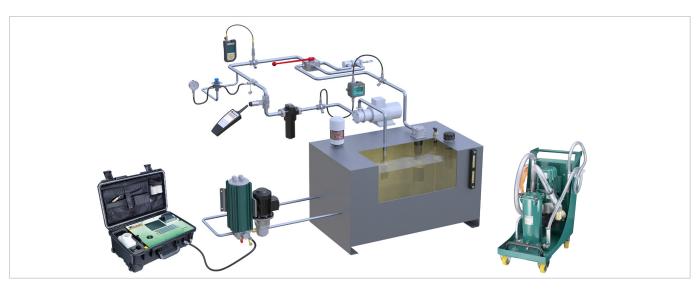
This coating offers the most reliable surface protection far beyond the previous market standards - even after transport, handling and assembly of the components and meets all current legal requirements.

If desired, Original Equipment Manufacturers can be supported with value-added services, from technical consultation to pre-assembly, assembly and kitting as well as logistics services:

- Support with the selection of suitable standard components and ordering options; provision of customised solutions according to customer's specifications or based on our in-house development from prototyping to large scale production
- · Analysis and optimization of existing and design and developments of new systems aimed at increasing the efficiency and performance of machines and equipment and creating value for customers by reducing the total cost
- · Pre-assembly, assembly and kitting of individual components to customer-specific system modules
- Individually coordinated procurement solutions (e.g. web shop and electronic data interchange) and supply models (e.g. from warehousing of customised components to Kanban logistics and just-in-time delivery of pre-fabricated system modules to the assembly lines of the customers) aimed at optimising material flows







Aligned with the needs of the market, the product groups

- STAUFF Test
- STAUFF Diagtronics
- STAUFF Filtration Technology
- STAUFF Hydraulic Accessories

include a comprehensive range of analogue and digital measuring equipment and devices, filtration systems and replacement filter elements as well as accessories for the construction of tanks, reservoirs, power packs and gear boxes in mobile and industrial hydraulics.

The offer is completed by relevant value-added services:

- Support with the selection of suitable components and ordering options; provision of customised solutions according to customer's specifications or based on our in-house development – from prototyping to large scale production
- Analysis of existing hydraulic circuits aimed at filtration systems, tank components and monitoring devices that perfectly match to the specific requirements, and developing integrated concepts to increase the efficiency and performance of machines and equipment
- Individually coordinated procurement solutions and supply models







# **STAUFF Hydraulic Accessories**

The consistently developed and enhanced STAUFF Hydraulic Accessories product range contains of well thought-out and sophisticated components suited to meet or exceed the increasing requirements of designing and building tanks, reservoirs, power packs and gear boxes for industrial and mobile hydraulic applications.

Whether you require visual or visual/electrical fluid level and temperature indicators, tank filler breathers in a variety of designs made of plastic or metal, or desiccant air breathers to protect your reservoir from contamination and moisture: STAUFF Hydraulic Accessories will provide you with the product you need.

The programme is completed by suction strainers and Diffusers that are positioned within the reservoir and connected directly to the suction and return lines.

For challenging applications, STAUFF is able to provide technically modified product versions, which, for example, convince with their outstanding resistance to external influences (such as high or low temperatures, aggressive media or UV exposure) or their compact and light-weight

 ${\it STAUFF guarantees prompt service, even for customised}$ solutions according to customer's specifications or based on our in-house development.













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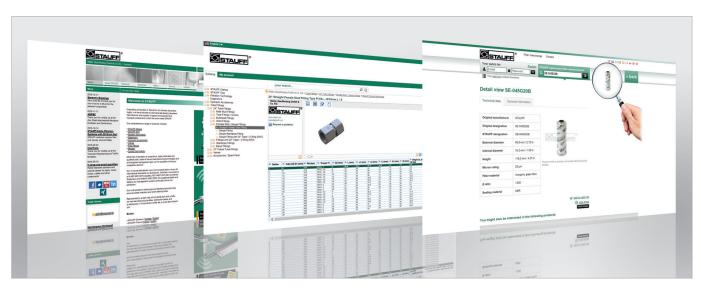


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# www.filterinterchange.com

Online database for the quick and easy identification and interchange of almost all common brands and types of replacement filter elements



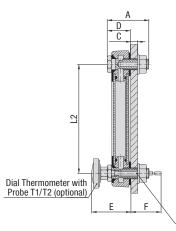


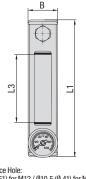
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# Level Gauge Type SNA







# Clearance Hole: Ø13 (Ø.51) for M12 / Ø10,5 (Ø.41) for M10 / Ø13,5 (Ø.53) for UNC, UNF and UNEF

# **Design of Scale Plates** Thermometer Options

YOUR LOGO

Capillary Tube Thermometer with a dual Celsius / Fahrenheit scale up to +80°C / +180°F



# **Characteristics**

Visual fluid level indication in hydraulic reservoirs with maximum tank pressures not exceeding 2 bar / 29 PSI

# **Nominal Sizes and Designs**

- 7 nominal sizes from 76 mm / 2.99 in to 381 mm / 15.00 in
- Display either undivided (SNA-076 ... 176) or subdivided by strut(s) into 2 (SNA-254) or 3 sections (SNA-305 and SNA-381)

Please see page 15 for alternative nominal sizes and designs.

# **Media Compatibility**

 Suitable for use with mineral and petroleum based hydraulic fluids (HL and HLP)

# Materials

- Housing made of Steel St 12, black powder-coated
- Sight tube and plugs made of Polyamide (PA)
- Sealings made of NBR (Buna-N®)
- Scale plate made of PVC

For the individual components of the level gauge (sight glass, housing, sealings, bolts), alternative materials for improved UV or chemical resistance, low-temperature applications down to -50°C / -58 °F and use with special media (such as bio-degradable fluids, diesel oils, gasolines) are available on request.

# Technical Data

- IP 65 protection rating: Dust tight and protected against water jets
- Operating temperature range: -30 °C ... +80 °C / -22 °F ... +176 °F
- Recommended tightening torque: 8 N·m / 5.9 ft·lb

# Accessories / Options

- $\blacksquare$  Red / blue capillary tube thermometers with a temperature display range of up to +80 °C / +180 °F
- Dial thermometers with probe and a Celsius or a dual Celsius / Fahrenheit scale with a temperature display range of up to +100 °C / +200 °F
- Thermo Switches
- Temperature Sensors
- Floating Ball
- Deutsch Adaptor Cable

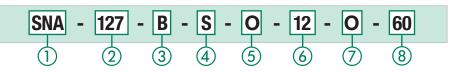
Please see pages 18 / 19 / 20 for details.

# **Dimensions**

Maximum admissible tolerance for the bolt center spacing (dimension L2) according to DIN ISO 2768-f: ±0,20 mm / .008 in for all nominal sizes.

Nominal Size	Dimensions (mm/ <sub>in)</sub>									
	Α	В	C (Max.)	D	E	F (with T1)	F (with T2)	L1	L2	L3
SNA-076	45	34,5	8	28	43,5	165,5	265,5	108	76	31
SNA-070	1.77	1.36	.32	1.10	1.71	6.52	10.45	4.25	2.99	1.22
SNA-127	45	34,5	8	28	43,5	165,5	265,5	159	127	76
3NA-121	1.77	1.36	.32	1.10	1.71	6.52	10.45	6.26	5.00	2.99
SNA-150	45	34,5	8	28	43,5	165,5	265,5	182	150	99
3NA-130	1.77	1.36	.32	1.10	1.71	6.52	10.45	7.17	5.91	3.90
SNA-176	45	34,5	8	28	43,5	165,5	265,5	208	176	124
SNA-170	1.77	1.36	.32	1.10	1.71	6.52	10.45	8.19	6.93	4.88
SNA-254	45	34,5	8	28	43,5	165,5	265,5	286	254	192
3NA-204	1.77	1.36	.32	1.10	1.71	6.52	10.45	11.26	10.00	7.56
SNA-305	45	34,5	8	28	43,5	165,5	265,5	337	305	244
SNA-303	1.77	1.36	.32	1.10	1.71	6.52	10.45	13.27	12.00	9.61
SNA-381	45	34,5	8	28	43,5	165,5	265,5	413	381	319
SINA-90 I	1.77	1.36	.32	1.10	1.71	6.52	10.45	16	15	12.56

# **Order Codes**



# ① Type

Level Gauge with visual fluid level indication SNA

# ② Nominal Size

SNA-076 (nominal size of 76 mm)	/ 2.99 in)	076
SNA-127 (nominal size of 127 mm	/ 5.00 in)	127
SNA-150 (nominal size of 150 mm	/ 5.91 in)	150
SNA-176 (nominal size of 176 mm	/ 6.93 in)	176
SNA-254 (nominal size of 254 mm	n / 10.00 in)	254
SNA-305 (nominal size of 305 mm	n / 12.00 in)	305
SNA-381 (nominal size of 381 mm	r / 15.00 in)	381
Please see page 15 for alternative	nominal sizes.	

# (3) Sealing Material

NBR (Buna-N®) (standard option)	В
FKM (Viton®)	V

# 4 Design of Scale Plate

With STAUFF logo (standard option)	S
Neutral design without any logo	N
Custom-designed scale plate (please specify)	X

# (5) Thermometer Option

mornionictor option	
Supplied without thermometer (standard option)	0
Red Capillary Tube thermometer on scale plate	Т
Blue Capillary Tube thermometer on scale plate	TB
Dial thermometer with probe (200 mm / 7.87 in) and a Celsius scale up to 100 $^{\circ}\text{C}$	T1C
Dial thermometer with probe (300 mm / 11.81 in) and a Celsius scale up to 100 $^{\circ}\text{C}$	T2C
Dial thermometer with probe (200 mm / 7.87 in) and a dual scale up to 100 °C / 200 °F	T1CF
Dial thermometer with probe (300 mm / 11.81 in) and a dual scale up to 100 $^{\circ}\text{C}$ / 200 $^{\circ}\text{F}$	T2CF

# (6) Banjo Bolt Size

Metric ISO thread M12 (standard option)	12
Metric ISO thread M10	10
Unified coarse thread 1/2-13 UNC	U1
Unified fine thread 1/2-20 UNF	U2
Unified extra-fine thread 1/2-28 UNEF	U3

# Thermo Switch / Temperature Sensor / Anti-Drain Valve Option

Supplied without Thermo Switch / Temperature Sensor / Anti-Drain Valve Thermo Switch TS-SNA/SNK; Break contact (normally closed): Equipped with standard connector Thermo Switch TS-SNA/SNK; Break contact 0D (normally closed); Equipped with connector M12 Thermo Switch TS-SNA/SNK; Make contact C (normally open); Equipped with standard connector Thermo Switch TS-SNA/SNK; Make contact CD (normally open); Equipped with connector M12 Temperature Sensor TS-SNA/SNK-PT100; PT100 Equipped with connector M12 Anti-Drain Valve Set A DA Anti-Drain Valve Set B DB Thermo Switches / Temperature Sensors only available for

(8) Switching Temperature

Contact switches at +60 °C / +140 °F	60
Contact switches at +70 °C / +158 °F	70
Contact switches at +80 °C / +176 °F	80
Contact switches at +90 °C / +194 °F	90
Only to be indicated when using a Thermo Switch.	

banjo bolt size M12. Please see pages 18 to 20 for details.

Options T1C/CF and T2C/CF are not available for banjo bolt size M10 and not be used in conjunction with Thermo Switches or Temperature Sensors.

Please see page 18 for details.

www.stauff.com/10/en/#14





# **Characteristics**

Visual fluid level indication in hydraulic reservoirs with maximum tank pressures not exceeding 2 bar / 29 PSI; ideal for custom applications in terms of reservoir capacities and dimensions

# **Nominal Sizes**

- Special sizes beyond the normal of 305 mm / 12 in up to a maximum nominal size of 950 mm / 37.4 in – even for small and medium quantities
- High-precision manufacturing within 1 mm tolerance to customer requirements

# Design

- Robust design thanks to one or more struts that subdivide the display into 2 or more sections
- Positioning of the strut(s) based on engineering considerations and/or according to particular customer requirements
- Precise visual indication of the fluid level by use of scale plates (only available for nominal sizes smaller than 670 mm / 26.4in) or by use of a coloured Floating Ball (recommended option for nominal sizes larger than 670 mm / 26.4in)

 Plastic dampening clips to reduce vibration of the sight tube are used for nominal sizes larger than 450 mm / 17.7 in

# **Materials**

Depending on the specific application, several different materials are available for the individual components of the level gauge (sight glass, housing, sealings, bolts); please see Inquiry Checklist for details.

STAUFF is always at your service if you need support in choosing the right materials or material combination for improved UV or chemical resistance or for low-temperature applications down to -50°C / -58 °F and use with special media (such as bio-degradable fluids, diesel oils, gasolines).

# Level Gauge (Special Options) Type SNA/SNK

# **Accessories / Options**

- $\blacksquare$  Red / blue capillary tube thermometers with a temperature display range of up to +80 °C / +180 °F
- Dial thermometers with probe and a Celsius or a dual Celsius / Fahrenheit scale with a temperature display range of up to +100 °C / +200 °F
- Thermo switches
- Temperature sensors
- Anti-Drain Valve
- Deutsch Adaptor Cable

Please see pages 18 / 19 / 20 for details.



# **Inquiry Checklist**

In case that you require a special property or custom-designed level gauge, please use this checklist to provide us with details. If necessary, please also include further details, like the type of fluid in use, its temperature and viscosity. **Nominal Size** Bolt centre distance (in mm) **Housing Material** Aluminium Stainless Steel **Housing Design** Regular housing design with positioning of strut(s) based on engineering considerations Please provide additional details / drawing for custom housing designs. **Banjo Bolt Size** 1/2-13 UNC 1/2-20 UNF 1/2-28 UNEF **Banjo Bolt Material** Stainless Steel Steel **Sealing Material** NBR (Buna-N®) FKM (Viton®) Alternative sealing materials to be defined separately. **Level Indication** Scale plate (only for nominal sizes smaller than 382 mm / 15.03 in) Scale plate made of PVC With STAUFF logo Neutral design without any logo Scale plate made of Aluminium Custom-design (please specify) Without thermometer on scale plate Capillary tube thermometer with dual Celsius / Fahrenheit scale up to +80 °C / +180 °F Floating Ball (recommended option for nominal sizes larger than 381 mm / 15.0 in) Other types of level indication (magnetic floats, etc.) to be defined separately. **Options** Dial thermometer with probe Celsius scale up to +100 °C Length of probe: 200 mm / 7.87 in Dual scale up to +100 °C / +200 °F Length of probe: 300 mm / 11.81 in Thermo Switch TS-SNA/SNK Break contact; Standard connector Contact switches at +60 °C / +140 °F Contact switches at +70 °C / +158 °F Break contact; Connector M12 Make contact; Standard connector Contact switches at +80 °C / +176 °F Make contact; Connector M12 Contact switches at +90 °C / +194 °F Temperature Sensor TS-SNA/SNK-PT100 **Deutsch Adaptor Cable** Anti-Drain Valve Set B Set A

Also available:

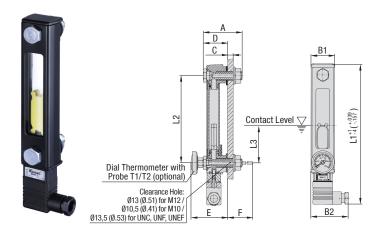
Level Gauges • Type SNK in Special Lengths

Visual / electrical fluid level indication in hydraulic reservoirs with level gauges up to a maximum nominal size of 950 mm / 37.4 in.

Please do not he itate to contact STAUFF for further details.

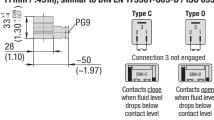
# STAUFF

# Level Gauge Type SNK

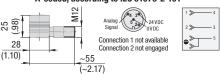


# **Connection Details and Electrical Functions**

Types C and O: Industrial standard connector (contact gap: 11 mm / .43 in), similar to DIN EN 175301-803-B / ISO 6952



Types CD and OD: Five-pin circular connector M12, A-coded, according to IEC 61076-2-101



# **Characteristics**

Visual / electrical fluid level indication in hydraulic reservoirs with maximum tank pressures not exceeding 2 bar / 29 PSI

# **Nominal Sizes and Designs**

- 6 nominal sizes from 127 mm / 5.00 in to 381 mm / 15.00 in
- Display either undivided (SNK-127 ... 176) or subdivided by strut(s) into 2 (SNK-254) or 3 sections (SNK-305 and SNK-381)

# **Media Compatibility**

 Suitable for use with mineral and petroleum based hydraulic fluids (HL and HLP)

## Materials

- · Housing made of Aluminium, black powder-coated
- Sight tube and plugs made of Polyamide (PA)
- Float made of Polyamide (PA)
- Sealings made of FKM (Viton®)

For the individual components of the level gauge (sight glass, housing, sealings, bolts), alternative materials for improved UV or chemical resistance, low-temperature applications down to -50°C / -58 °F and use with special media (such as bio-degradable fluids, diesel oils, gasolines) are available on request.

# **Electrical Specifications**

- Magnetic float activates switch when fluid level drops below contact level within 60 mm / 2.36 in of lower banjo bolt
- Available as a break contact (normally closed) or make contact (normally open)
- Either equipped with industrial standard connector (types C / 0) or five-pin circular connector M12 (types CD / 0D)
- Direction of the electrical contact box (right / left) can be chosen when assembling the electrical contacts (types C / D) or is right by default (types CD / OD)
- Contact ratings: max. 10 W (types C / CD) or 5 W (types 0 / 0D)
- Switching voltage: max. 50VAC/DC
- Switching current: max. 0,25 A

# **Technical Data**

- IP 65 protection rating: Dust tight and protected against water jets (IP 67 on request)
- Operating temperature range: -30 °C ... +80 °C / -22 °F ... +176 °F
- Recommended tightening torque: 8 N·m / 5.9 ft·lb
- Minimum lateral distance to other magnetic components and cables: 10 mm / .39 in

# **Accessories / Options**

- Dial thermometers with probe and a Celsius or a dual Celsius / Fahrenheit scale with a temperature display range of up to +100 °C / +200 °F
- Thermo Switches
- Temperature Sensors
- Deutsch Adaptor Cable

Please see pages 18 / 19 / 20 for details.

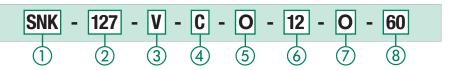
Dimensional drawings: All dimensions in mm (in).

# Dimensions

Table shows dimension L1 for the version with industrial standard connector (types C and 0) only Maximum admissible tolerance for the bolt center spacing (dimension L2) according to DIN ISO 2768-f: ±0,20 mm / .008 in for all nominal sizes

Nominal Size	Dimens	Dimensions (mm/in)									
	Α	B1	B2	C (Max.)	D	E	F (with T1)	F (with T2)	L1	L2	L3
SNK-127	56	34,5	~50	8	35,1	51,5	157,5	257,5	205	127	~60
SINK-121	2.20	1.36	~1.97	.32	1.26	2.03	6.20	10.14	8.07	5.00	~2.36
SNK-150	56	34,5	~50	8	35,1	51,5	157,5	257,5	228	150	~60
SINK-130	2.20	1.36	~1.97	.32	1.26	2.03	6.20	10.14	8.98	5.91	~2.36
SNK-176	56	34,5	~50	8	35,1	51,5	157,5	257,5	254	176	~60
SINK-170	2.20	1.36	~1.97	.32	1.26	2.03	6.20	10.14	10.00	6.93	~2.36
SNK-254	56	34,5	~50	8	35,1	51,5	157,5	257,5	332	254	~60
3NK-234	2.20	1.36	~1.97	.32	1.26	2.03	6.20	10.14	13.07	10.00	~2.36
SNK-305	56	34,5	~50	8	35,1	51,5	157,5	257,5	383	305	~60
SINK-305	2.20	1.36	~1.97	.32	1.26	2.03	6.20	10.14	15.08	12.00	~2.36
CNIV 201	56	34,5	~50	8	35,1	51,5	157,5	257,5	459	381	~60
SNK-381	2.20	1.36	~1.97	.32	1.26	2.03	6.20	10.14	18.07	15	~2.36

# **Order Codes**



# 1) Type

Level Gauge with visual / electrical fluid level indication

# ② Nominal Size

SNK-150 (nominal size of 150 mm / 5.91 in)       150         SNK-176 (nominal size of 176 mm / 6.93 in)       176         SNK-254 (nominal size of 254 mm / 10.00 in)       254         SNK-305 (nominal size of 305 mm / 12.00 in)       305         SNK-381 (nominal size of 381 mm / 15.00 in)       381         Contact STAUFF for alternative nominal sizes and designs.	5NK-127 (110111111al SIZE 01 127 111111 / 5.00111)	127
SNK-254 (nominal size of 254 mm / 10.00 in)       254         SNK-305 (nominal size of 305 mm / 12.00 in)       305         SNK-381 (nominal size of 381 mm / 15.00 in)       381	SNK-150 (nominal size of 150 mm / 5.91 in)	150
SNK-305 (nominal size of 305 mm / 12.00 in) 305 SNK-381 (nominal size of 381 mm / 15.00 in) 381	SNK-176 (nominal size of 176 mm / 6.93 in)	176
SNK-381 (nominal size of 381 mm / 15.00 in) <b>381</b>	SNK-254 (nominal size of 254 mm / 10.00 in)	254
,	SNK-305 (nominal size of 305 mm / 12.00 in)	305
Contact STAUFF for alternative nominal sizes and designs.	SNK-381 (nominal size of 381 mm / 15.00 in)	381
	Contact STAUFF for alternative nominal sizes and	designs.

# (3) Sealing Material

FKM (Viton®)

# **4** Electrical Function

ak contact, opens at contact level mally closed); Equipped with standard connector	0
ak contact, opens at contact level mally closed); Equipped with connector M12	OD
ke contact, closes at contact level mally open); Equipped with standard connector	C
ke contact, closes at contact level mally open); Equipped with connector M12	CD

# (5) Thermometer Option

	) Incinionicioi opuon	ソ
0	Supplied without thermometer (standard option)	
T1C	Dial thermometer with probe (200 mm / 7.87 in) and a Celsius scale up to 100 °C	
T2C	Dial thermometer with probe (300 mm / 11.81 in)	
	and a Celsius scale up to 100 °C  Dial thermometer with probe (200 mm / 7.87 in)	
T1CF	and a dual scale up to 100 °C / 200 °F	
T2CF	Dial thermometer with probe (300 mm / 11.81 in) and a dual scale up to 100 $^{\circ}\text{C}$ / 200 $^{\circ}\text{F}$	

# (6) Banjo Bolt Size

Metric ISO thread M12 (standard option)	12
Metric ISO thread M10	10
Unified coarse thread 1/2-13 UNC	U1
Unified fine thread 1/2–20 UNF	U2
Unified extra-fine thread 1/2-28 UNEF	U3

# 7 Thermo Switch / Temperature Sensor / Anti-Drain Valve Option

Supplied without Thermo Switch / Temperature Sensor / Anti-Drain Valve Thermo Switch TS-SNA/SNK; Break contact (normally closed): Equipped with standard connector Thermo Switch TS-SNA/SNK; Break contact 0D (normally closed); Equipped with connector M12 Thermo Switch TS-SNA/SNK; Make contact C (normally open); Equipped with standard connector Thermo Switch TS-SNA/SNK; Make contact CD (normally open); Equipped with connector M12 Temperature Sensor TS-SNA/SNK-PT100; PT100 Equipped with connector M12 Anti-Drain Valve Set A DA Anti-Drain Valve Set B DB Thermo Switches / Temperature Sensors only available for banjo bolt size M12. Please see pages 18 to 20 for details.

# (8) Switching Temperature

Contact switches at +60 °C / +140 °F	60
Contact switches at +70 °C / +158 °F	70
Contact switches at +80 °C / +176 °F	80
Contact switches at +90 °C / +194 °F	90
Only to be indicated when using a Thermo Switch.	

Options T1C/CF and T2C/CF are not available for banjo bolt size M10 and not be used in conjunction with Thermo Switches or Temperature Sensors.

Please see page 18 for details.

www.stauff.com/10/en/#16



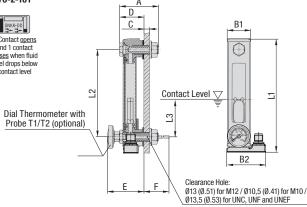
# **Connection Details and Electrical Functions**

Type DD: Five-pin circular connector M12, A-coded, according to IEC 61076-2-101









# **Level Gauge (Compact Design)** Type SNKK



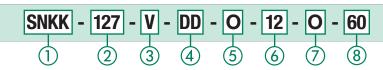


in comparison with Level Gauges SNK

### **Dimensions** Maximum admissible tolerance for the bolt center spacing (dimension L2) according to DIN ISO 2768-f: $\pm 0.20$ mm / .008 in for all nominal sizes.

Nominal Size	Dimens	Dimensions (mm/ <sub>in)</sub>									
	Α	B1	B2	C (Max.)	D	E	F (with T1)	F (with T2)	L1	L2	L3
SNKK-127	56	34,5	~55	8	35,1	51,5	157,5	257,5	165	127	~60
SINKK-121	2.20	1.36	~2.17	.32	1.26	2.03	6.20	10.14	6.50	5.00	~2.36
SNKK-150	56	34,5	~50	8	35,1	51,5	157,5	257,5	188	150	~60
SINKY-130	2.20	1.36	~1.97	.32	1.26	2.03	6.20	10.14	8.98	5.91	~2.36
CNIVIV 17C	56	34,5	~55	8	35,1	51,5	157,5	257,5	214	176	~60
SNKK-176	2.20	1.36	~2.17	.32	1.26	2.03	6.20	10.14	8.43	6.93	~2.36
SNKK-254	56	34,5	~55	8	35,1	51,5	157,5	257,5	292	254	~60
3NNN-234	2.20	1.36	~2.17	.32	1.26	2.03	6.20	10.14	11.50	10.00	~2.36
SNKK-305	56	34,5	~55	8	35,1	51,5	157,5	257,5	343	305	~60
SINKK-305	2.20	1.36	~2.17	.32	1.26	2.03	6.20	10.14	13.50	12.00	~2.36
CNIVIV 2014	56	34,5	~55	8	35,1	51,5	157,5	257,5	419	381	~60
SNKK-381	2.20	1.36	~2.17	.32	1.26	2.03	6.20	10.14	18.07	15	~2.36

# **Order Codes**



# (1) Type

Level Gauge with visual / electrical SNKK fluid level indication (compact design)

# 2 Nominal Size

SNKK-127 (nominal size of 127 mm / 5.00 in) 127 SNKK-150 (nominal size of 150 mm / 5.91 in) 150 SNKK-176 (nominal size of 176 mm / 6.93 in) 176 SNKK-254 (nominal size of 254 mm / 10.00 in) 254 SNKK-305 (nominal size of 305 mm / 12.00 in) 305 SNKK-381 (nominal size of 381 mm / 15.00 in) 381 Contact STAUFF for alternative nominal sizes and designs.

# (3) Sealing Material

FKM (Viton®)

# **4** Electrical Function

SPDT (Single Pole Double Throw) contacts, ממ 1 contact opens and 1 contact closes at contact level; Equipped with connector M12

# (5) Thermometer Option

mornionicioi option	
Supplied without thermometer (standard option)	0
Dial thermometer with probe (200 mm / 7.87 in) and a Celsius scale up to 100 °C	T1C
Dial thermometer with probe (300 mm / 11.81 in) and a Celsius scale up to 100 $^{\circ}\text{C}$	T2C
Dial thermometer with probe (200 mm / 7.87 in) and a dual scale up to 100 $^{\circ}\text{C}$ / 200 $^{\circ}\text{F}$	T1CF
Dial thermometer with probe (300 mm / 11.81 in) and a dual scale up to 100 $^{\circ}\text{C}$ / 200 $^{\circ}\text{F}$	T2CF
	Supplied without thermometer (standard option) Dial thermometer with probe (200 mm / 7.87 in) and a Celsius scale up to $100^{\circ}\text{C}$ Dial thermometer with probe (300 mm / 11.81 in) and a Celsius scale up to $100^{\circ}\text{C}$ Dial thermometer with probe (200 mm / 7.87 in) and a dual scale up to $100^{\circ}\text{C}$ / $200^{\circ}\text{F}$ Dial thermometer with probe (300 mm / 11.81 in)

# (6) Banjo Bolt Size

Metric ISO thread M12 (standard option)	12
Metric ISO thread M10	10
Unified coarse thread 1/2-13 UNC	U1
Unified fine thread 1/2-20 UNF	U2
Unified extra-fine thread 1/2-28 UNEF	U3

# (7) Thermo Switch / Temperature Sensor / Anti-Drain Valve Option

Supplied without Thermo Switch / Temperature Sensor / Anti-Drain Valve Break Contact, opens at contact level (normally closed); Equipped with standard connector Break Contact, opens at contact level 0D (normally closed); Equipped with connector M12 Make Contact, closes at contact level C (normally open); Equipped with standard connector Make Contact, closes at contact level CD (normally open); Equipped with connector M12 Temperature Sensor TS-SNA/SNK-PT100; PT100 Equipped with connector M12 Anti-Drain Valve Set A DA Anti-Drain Valve Set B DB Thermo Switches / Temperature Sensors only available for banjo bolt size M12. Please see pages 18 to 20 for details.

# (8) Switching Temperature

Contact switches	at +60°	C / +140 °F	6	0
Contact switches	at +70°	C / +158°F	7	0
Contact switches	at +80°	C / +176 °F	8	0
Contact switches	at +90°	C / +194°F	9	0
Only to be indicat	ted when	using a Therm	Switch.	

Options T1C/CF and T2C/CF are not available for banjo bolt size M10 and not be used in conjunction with Thermo Switches or Temperature Sensors. Please see page 18 for details

Visual / electrical fluid level indication in hydraulic reservoirs with maximum tank pressures not exceeding 2 bar / 29 PSI; ideal for applications in which space is limited

# **Nominal Sizes and Designs**

- 6 nominal sizes from 127 mm / 5.00 in to 381 mm / 15.00 in
- · Compact design allows space-saving installation: Always 40 mm / 1.57 in shorter than Level Gauges SNK of the comparable nominal size
- Display either undivided (SNKK-127 ... 176) or subdivided by strut(s) into 2 (SNKK-254) or 3 sections (SNKK-305 and SNKK-381)

# **Media Compatibility**

 Suitable for use with Mineral and Petroleum based hydraulic fluids (HL and HLP)

# **Materials**

- · Housing made of Aluminium, black powder-coated
- Sight tube and plugs made of Polyamide (PA)
- Float made of Polypropylene (PP)
- Sealings made of FKM (Viton®)

For the individual components of the level gauge (sight glass, housing, sealings, bolts), alternative materials for improved UV or chemical resistance, low-temperature applications down to -50°C / -58 °F and use with special media (such as bio-degradable fluids, diesel oils, gasolines) are available on request.

# **Electrical Specifications**

- · Magnetic float activates switch when fluid level drops below contact level within 60 mm / 2.36 in of lower banjo bolt
- · Available as a SPDT (Single Pole Double Throw) contact
- Equipped with five-pin circular connector M12 or Deutsch connector
- Direction of the electrical contact box is right to top by default

# **Technical Data**

- . IP 67 protection rating: Dust tight and protected against powerful water jets; even immersion (up to 1 m / 3.28 ft) in water is possible under defined conditions of pressure and time (IP 69K on request)
- Operating temperature range:
- -30°C ... +80°C / -22°F ... +176°F Recommended tightening torque: 8 N·m / 5.9 ft·lb
- . Minimum lateral distance to other magnetic components and cables: 10 mm / .39 in

# **Accessories / Options**

- Dial thermometers with probe and a Celsius or a dual Celsius / Fahrenheit scale with a temperature display range of up to +100 °C / +200 °F
- Thermo Switches
- Temperature Sensors
- Deutsch Adaptor Cable

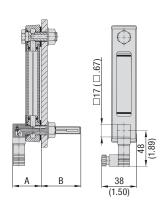
Please see pages 18 / 19 / 20 for details.

www.stauff.com/10/en/#17

# **Thermo Switch Type TS**

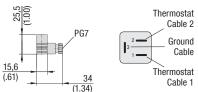




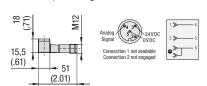


# **Connection Details and Electrical Functions**

Types C and O: Industrial standard connector (contact gap: 9,4 mm / .37 in), similar to DIN EN 175301-803-C / ISO 6952



Types CD and OD: Five-pin circular connector M12, A-coded, according to IEC 61076-2-101



# **Characteristics**

Fluid temperature measurement in conjunction with STAUFF Level Gauges SNA, SNK and SNKK

# Installation

- Replaces the lower banjo bolt of the Level Gauge
- Available for bolt size M12 only
- Clearance hole: Ø13 mm / Ø.51 in

## **Materials**

- Metal parts made of Stainless Steel (1.4305)
- Plastic parts made of glass-fibre reinforced Polyamide (PA)

# **Electrical Specifications (General)**

- Thermo switch is activated when the fluid temperature reaches the respective switching temperature
- Available with switching temperatures of +60 °C / +140 °F,  $+70 \,^{\circ}\text{C} / +158 \,^{\circ}\text{F}, +80 \,^{\circ}\text{C} / +176 \,^{\circ}\text{F} \text{ or } +90 \,^{\circ}\text{C} / +194 \,^{\circ}\text{F}$ (with a switching tolerance of  $\pm 5\,^{\circ}\text{C}\,/\,\pm 9\,^{\circ}\text{F}$  and a hysteresis of 35 °C / 63 °F)
- Available as a break contact (normally closed) or make contact (normally open)
- Either equipped with industrial standard connector (types C / 0) or five-pin circular connector M12 (types CD / 0D)
- Thermo switch can be rotated by 360° to its final direction

# **Dimensions**

	Dimensions (mm/in)	
	Α	В
In conjugation with Lavel Cause SNA	39	76
In conjunction with Level Gauge SNA	1.54	2.99
In conjugation with Lavel Cause SNV	47	68
conjunction with Level Gauge SNK	1.85	2.68
In conjugation with Lavel Cause SNIV	47	68
In conjunction with Level Gauge <b>SNKK</b>	1.85	2.68

# **Electrical Specifications (Alternating Current)**

- Maximum voltage: 250 V, 2,5 (1,6) A, 50 Hz
- Maximum current at 2000 operations: 4,0 A at cos  $\phi$  = 4,45 / 250 V, 135 °C
- Maximum current at 10000 operations: 2,5 A at cos  $\phi$  = 1,00 / 250 V, 150 °C
- Minimum current: 20 mA

# **Electrical Specifications (Direct Current)**

■ Maximum voltage: 42 V

# **Accessories / Options**

 Deutsch Adaptor Cable Please see page 20 for details.

# **Order Codes**



# ① Type

Thermo Switch TS for use with	TO ON 4 (ON)
Level Gauges SNA, SNK and SNKK	TS-SNA/SNK

# **(2) Electrical Function**

Break contact, opens at switching temperature (normally closed); Equipped with standard connecto	, <b>0</b>
Break contact, opens at switching temperature (normally closed); Equipped with connector M12	OD
Make contact, closes at switching temperature (normally open); Equipped with standard connector	C
Make contact, closes at switching temperature (normally open); Equipped with connector M12	CD

# **3** Switching Temperature

_	3 - 1	
	Contact switches at +60 °C / +140 °F	60
	Contact switches at +70 °C / +158 °F	70
	Contact switches at +80 °C / +176 °F	80
	Contact switches at +90 °C / +194 °F	90

# **Dial Thermometer with Probe Types T1/T2**



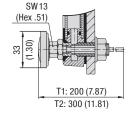
# **Characteristics**

Visual fluid temperature measurement in conjunction with STAUFF Level Gauges SNA, SNK and SNKK

# **Nominal Sizes and Designs**

- Probe lengths of 200 mm / 7.87 in or 300 mm / 11.81 in
- Scale diameter of 33 mm / 1.30 in

Please contact STAUFF for special versions.



# Scale Options

- Celsius scale of 0°C ... +100 °C
- Dual Celsius / Fahrenheit scale of up to +100 °C / +200 °F

# **Materials**

■ Probe made of Stainless Steel V4A (1.4571)

# Technical Data

 IP 65 protection rating: Dust tight and protected against water jets

# Installation

- Requires a special banjo bolt (with internal M8 port for the dial thermometer with probe) to replace the lower standard banjo bolt of the Level Gauge
- Use suitable wrench SW 13 (Hex .51) to fasten: turning on the body itself may damage the product

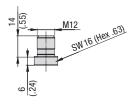
Please note that Dial Thermometers with Probe can only be ordered in conjunction with Level Gauges SNA, SNK and SNKK. Please see page 14 to 17 for details.



# STAUFF®

# **Connection Details and Electrical Functions**

Four-pin circular connector M12, A-coded, according to IEC 61076-2-101



Pin Assignment



Temperature Sensor PT100



TS-SNA/SNK-PT100

# M12 SW 16 (Hex 63) SW 16 (Hex 63) A B

# Temperature Sensor Type TS-SNA/SNK-PT100



# **Order Codes**

# TS-SNA/SNK-PT100

# **Dimensions**

	Dimensions (mm/in)		
	Α	В	
In conjugation with Lovel Course CNA	43,5	45,5	
In conjunction with Level Gauge SNA	1.71	1.79	
In conjugation with Level Course CNIV	51	38	
n conjunction with Level Gauge <b>SNK</b>	2.01	1.50	
In conjugation with Lovel Course SNIVI	51	38	
In conjunction with Level Gauge <b>SNKK</b>	2.01	1.50	

# Technical Data

- Operating temperature range (for the connector area):
   -25 °C ... +80 °C / -13 °F ... +176 °F
- IP 68 protection rating: Dust tight and protected against powerful water jets; even immersion (beyond 1 m / 3.28ft) in water is possible under defined conditions of pressure and time

# Accessories / Options

Deutsch Adaptor Cable
 Please see page 20 for details.

# **Characteristics**

Fluid temperature measurement in conjunction with STAUFF Level Gauges SNA, SNK and SNKK; Analysis of signals with required equipment, simply connect to your on board control unit or PLC.

## Installation

- Replaces the lower banjo bolt of the Level Gauge
- Available for bolt size M12 only
- Clearance hole: Ø13 mm / Ø.51 in

## Materials

 Metal parts (including all fluid-affected parts) made of Stainless Steel V2A (1.4305)

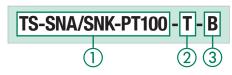
# **Electrical Specifications**

- Measuring temperature range: -40 °C ... +150 °C / -40 °F ... +302 °F
- Platinum measuring element PT100 according to DIN EN 60751, class A
- Accuracy: ±(0,15 K + 0,002 x |t|)
- Max. contact current: 2,0 mA
- Equipped with four-pin circular connector M12 with gold-plated contacts

**Temperature Sensor with Direct Installation Set** 

Power supply 20...32V DC

# **Order Codes**



1 Type

Temperature Sensor PT100 TS-SNA/SNK-PT100

# ② Direct Adaptor

Direct installation set including M12 screw nut, gasket, front ring and 0-ring

# 3 Sealing Material

 NBR (Buna-N®) (standard option)
 B

 FKM (Viton®)
 V

 EPDM
 E

The direct installation set can also be used in conjunction with Thermo Switches TS (see page 18). Please contact STAUFF for further information.

# 28 61 (1.10) (2.40)

# Materials

- Fluid-affected parts made of Stainless Steel V2A (1.4305)
- M12 screw nut made of Steel, zinc-plated
- Front ring made of Stainless Steel V2A (1.4305)
- 0-ring and gasket made of NBR (Buna-N®) (standard option), FKM (Viton®) or EPDM

Please see top of this page for Technical Details and Electrical Specifications for the Temperature Sensor.

# Accessories / Options

Deutsch Adaptor Cable
 Please see page 20 for details.

Type TS-SNA/SNK-PT100-T

# **Characteristics**

Direct fluid temperature measurement without STAUFF Level Gauges SNA, SNK and SNKK; Analysis of signals with required equipment, simply connect to your on board control unit or PLC.

# Installation

- Direct installation to the outer wall of the hydraulic reservoir or gearbox
- Compact design and easy installation
- Clearance hole: Ø13 mm / Ø.51 in





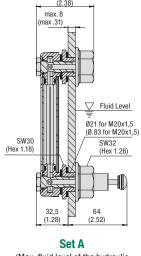
# **Anti-Drain Valve Type SDV-SNA/SNK**

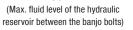


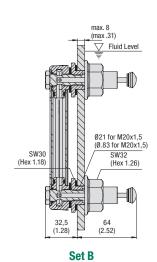


# **Distance Adaptor Anti-Drain Valve**

55 (2.17)







(Max. fluid level of the hydraulic reservoir above the banjo bolts)

# **Characteristics**

Anti-drain valve to be used in conjunction with banjo bolts of level gauges, allowing these to be removed and replaced quickly and easily without spillage of fluid from the hydraulic reservoir

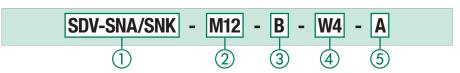
- Used in conjunction with either the lower or both the lower and the upper banjo bolts of the Level Gauge
- Distance adaptor for the upper banjo bolt available when the check valve is used with the lower banjo bolt only
- Available for bolt size M12 only

## **Materials**

- Housing made of Stainless Steel V2A (1.4301)
- · Hexagon head nuts made of Steel, zinc/nickel-plated (Fe/Zn Ni 6)
- Sealings made of NBR (Buna-N®)

Contact STAUFF for alternative materials.

# **Order Codes**



1) Type Anti-Drain Valve for use with SDV-SNA/SNK Level Gauges SNA, SNK and SNKK 2 Banjo Bolt Size Metric ISO thread M12 M12 **3** Sealing Material NBR (Buna-N®)

**4** Housing Material

Stainless Steel V2A (1.4301)

**5** Set Type

Set A consisting of 1 anti-drain valve to be used with the lower banjo bolt and 1 distance adaptor to be used with the upper banjo bolt Set B consisting of 2 anti-drain valves to be used with both banjo bolts

В

W4

Α

# **Deutsch Adaptor Cable** Type DT04-4P



# **Characteristics**

Deutsch adaptor to use for adaption from M12 to Deutsch Plug DT04-4P.

- Adapts to cable box M12 of SNK
- Adapts to M12 connector of SNKK and TS-SNA/SNK ...
- Adapts to M12 connector of TS-SNA/SNK-PT100
- Adapts to any electrical M12 connector in other Stauff series

# **Technical Data**

- IP 68 protection rating: Dust tight and protected against powerful water jets
- Length: 100mm (3.93 in)
- Operating temperature range: -30 °C ... +80 °C / -22 °F ... +176 °F

# **Order Codes**



(1) Type **Deutsch Adaptor Cable** 

EACC-CAB-M12A/5-DT04-4P-0.1

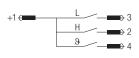


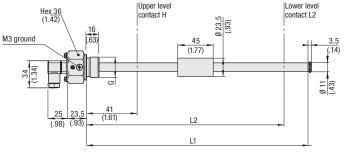


Schemes for float in low position

# Wiring Scheme (CB)

two level contacts one temperature contact



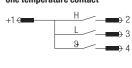


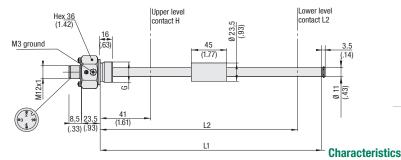
# Level-Temperature Switch Type SLTS



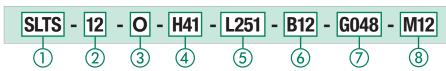
# Wiring Scheme (M12)

two level contacts one temperature contact





# **Order Codes**



Series and Type

Level-Temperature Switch SLTS

② Stem Length

L1: 305 mm / 12 in L2: 251 mm / 9.88 in 12
L1: 457 mm / 18 in L2: 403 mm / 15.87 in 18

③ Switching Temperature

Without temperature switch	0
+60 °C / +140 °F	060
+70 °C / +158 °F	070

(4) H (Upper Level Contact)

Without upper level contact	0
41 mm / 1.61 in	H41

(5) L (Lower Level Contact)

Without lower level contact	0
251 mm / 9.88 in (SLTS-12 only)	L251
403 mm / 15.87 in (SLTS-18 only)	L403

**(6) Thread Connection** 

G3/4 (standard option)	B12
1 NPT	N16
Note: Others on request	

7 Voltage (Volt AC/DC)

48 Volt max. (standard option)	G048
115 Volt max. (for thread N16 only)	G115

**(8) Electrical Connection** 

similar DIN VDE 0627 / IEV	61984 <b>CB</b>
M12 pin terminal	M12

The STAUFF Level-Temperature Switches (SLTS Series) are unique in their design and modularity. One of the greatest advantages is the ability of the end-user to adjust the switching level. The internal support wire carrying the level and temperature switches makes it a simple and quick job to change the level switch position.

Level contact positions (L, H) are set as given in the order code. They can be adjusted individually later on. Please consider a minimum distance of 40 mm / 1.57 in between the switching points.

## Features

- Suitable for Mineral Oil and HFC fluids, other fluids on request
- Either 1 or 2 level contacts available
- 1 integrated temperature switch (optional)

Standard electrical function:

Level contacts: Normally closed,

opens with falling level

Temperature contacts: Normally closed,

opens with rising temperature

STAUFF Level-Temperature Switches SLTS are available with other electrical functions on request.

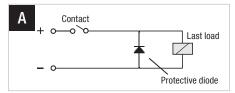
# **Contact Life Time**

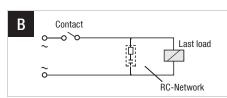
Due to their design Reed contacts have a very high life expectancy. However, it is worthwhile to note the following information.

# **Contact Protection**

To reduce the high reverse voltage produced when a reed switch opens, the following contact protection can be applied.

- DC voltage: a diode parallel to the load, see figure A
- AC voltage: a RC-network parallel to the load, see figure B and table below





Open contact voltage V	10 VA	10 VA		25 VA		50 VA		75 VA		100 VA	
	R (Ω)	C (µF)									
24	22	0,022	1	0,1	1	0,47	1	1	1	1	
48	120	0,0047	22	0,022	1	0,1	1	0,47	1	0,47	
110	470	0.001	120	0.0047	22	22	22	0.047	22	0.1	

# Options

- 1 NPT and others availble on request
- max. 115 Volt switching (for thread N16 only)
- Deutsch Adaptor Cable
   Please see page 20 for details.

# Materials

• Stem: Brass

■ Float/Sealing: NBR (Buna-N®)

■ Max. operating temp.: +80 °C / +176 °F

# Electrical Data and Output

- Max. current level contact: 0.5 A
- Max. current temp. contact: 2.0 A
- Contact load level contact: 10 VA
- Max. operating voltage: (See ordering code)
- Specific gravity of fluid: ≥0,8 kg/dm³ ■ Hysteresis: +18 °C / +64.4 °F

# Protection Rating

 IP 65 protection rating: Dust tight and protected against water jets

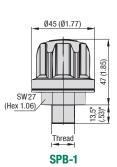


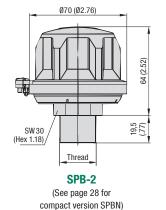


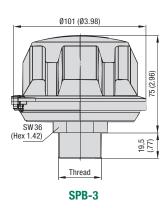
	Plastic Filler Breather	24 - 31		Metal Filler Breather	32 - 37
	SPB-1 / 2 / 3 (Threaded Version)	24		SMBT-47 (Threaded Version)	32
P	SPB-4 / 5 (Flange Version)	25		SMBB-47 (Bayonet Version)	33
	Accessories / Options  Dipsticks / Baskets / Pressurisation	26		SMBT-80 (Threaded Version)	34
	Pressure Drop Flow Curves	27		SMBB-80 (Bayonet Version)	35
	SPBN (Compact Design; Threaded Version)	28		SMBP-80 (Push-On Version)	36
	SPBN (Compact Design; Bayonet Version)	28		Lockable Metal Filler Breather  SMBL (Clamping, Threaded and Push-On Version)	37
	Accessories / Options / Pressure Drop Flow Curves	29		Accessories / Options	38 - 39
	Dipsticks / Baskets / Pressurisation				
	Plastic Filler Breather Mini	30		Side Mount Bracket	38
	SPBM (Threaded Version)		6	ASMB-1 (Polyamide Version)	
	SES (Threaded Version)	31		Side Mount Bracket  ASMB-2 (Aluminium Version)	38
	SES (Welded Version)	31		Extended Bayonet Flange	39
				Weld Riser WR	39

# **Plastic Filler Breather** Types SPB-1 / 2 / 3 (Threaded Version)









\* for thread type N12: 16,0 (.63)

# **Characteristics**

Designed to be used as filler ports for hydraulic reservoirs, allowing the reservoir to breathe whilst protecting it from contamination found in harsh environments

# **Features**

- · Available with 3 different cap diameters
- Threaded version, equipped with male BSP thread (ISO 228) or male NPT thread (ANSI B1.20.1)
- Operating temperature range:
  - -40°C ... +120°C / -40°F ... +248°F

## **Materials**

- Made of non-corrosive materials
- Body and cap made of glass-fibre reinforced Polyamide (PA)
- Sealings made of NBR (Buna-N®)

Contact STAUFF for alternative materials.

# **Accessories / Options**

- Pressurisation up to 0,7 bar / 10 PSI (not available for SPB-1)
- Air filter element
- Anti-splash feature
- Plastic dipstick with integrated anti-splash feature
- · Plastic dipstick with integrated magnet
- Oil Demister (not available for SPB-1)

Please see pages 26 and 47 for details.

# **Maximum Air Flow Rate**

- 0,15 m³/min / 5.30 cfm for SPB-1
- 0,40 m³/min / 14.13 cfm for SPB-2
- 1,00 m³/min / 35.31 cfm for SPB-3

Please see page 27 for detailed air flow curves.

# Installation

Recommended mounting spaces: Ø48 mm / Ø1.89 in for SPB-1, Ø90 mm / Ø3.54 in for SPB-2, and  $\emptyset$ 122 mm /  $\emptyset$ 4.80 in for SPB-3

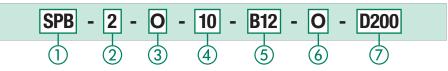
# **Thread Options**

Thread		SPB-1	SPB-2	SPB-3	Code
ad	G1/4	•	0	0	B04
Thread 228)	G3/8	•	•	0	B06
<b>SP</b> 1	G1/2	•	•	•	B08
Male BSP (ISO 22	G3/4	0	•	•	B12
Ma Ma	G1	0	0	•	B16

Thread		SPB-1	SPB-2	SPB-3	Code
ad _	1/4	•	0	0	N04
<b>Thread</b> .20.1)	3/8	•	0	0	N06
F 9	1/2	•	0	0	N08
Male NPT (ANSI B1.	3/4	•	•	•	N12
₽	1	0	0	•	N16

Standard Option

# **Order Codes**



# (1) Type Plastic Filler Breather Threaded version; Cap diameter Ø45 mm (Ø1.77 in) 1 Threaded version; Cap diameter Ø70 mm (Ø2.76 in) Threaded version; Cap diameter Ø101 mm (Ø3.98 in) 3

# ③ Pressurisation

Without pressurisation (standard option)	0
Pressurised at 0,2 bar / 3 PSI	B0.2
Pressurised at 0,35 bar / 5 PSI	B0.35
Pressurised at 0,7 bar / 10 PSI	B0.7

Type SPB-1 is only available without pressurisation. Please see page 26 for details.

# (4) Air Filter Element (Material / Micron Rating)

/	All I litter Element (material /	micron namy
	10 µm Foam / PUR (standard option)	10
	40 μm Foam / PUR	40
	3 µm Inorganic Glass-Fibre, pleated	E03
	10 µm Filter Paper, pleated	L10

Options E03 and L10 are only available for type SPB-3. Contact STAUFF for alternative materials / micron ratings.

# (5) Connection Thread (Male)

G1/4 (for SPB-1 only)	B04
G3/8 (for SPB-1 and 2 only)	B06
G1/2 (for SPB-1, 2 and 3)	B08
G3/4 (for SPB-2 and 3 only)	B12
G1 (for SPB-3 only)	B16
1/4 NPT (for SPB-1 only)	N04
3/8 NPT (for SPB-1 only)	N06
1/2 NPT (for SPB-1 only)	N08
3/4 NPT (for SPB-1, 2 and 3)	N12
1 NPT (for SPB-3 only)	N16

# **6** Anti-Splash Feature

With anti-splash feature (standard option)	Α
Without anti-splash feature	0

The anti-splash feature for the SPB-1, can only be achieved in conjunction with a dipstick, but is not available for the SPB-1 with connection sizes B04 and NO4. Please see page 26 for details.

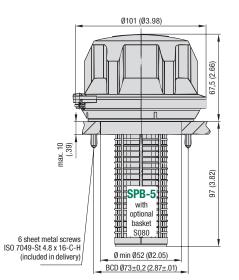
# 7 Dipstick

A shorter dipstick length can be achieved by simply cutting down the total length according to individual requirements. Please see page 26 for details.





# **Plastic Filler Breather** Types SPB-4 / 5 (Flange Version)



**Clamping jaw installation** to a single mounting hole

optiona

hasket S080

Ø min. Ø63 (Ø2.48)

Ø101 (Ø3.98)

Installation to a six-hole bolt pattern with flange interface similar to DIN 24557, Part 2

# **Characteristics**

Designed to be used as filler ports for hydraulic reservoirs, allowing the reservoir to breathe whilst protecting it from contamination found in harsh environments

# **Features**

- Cap diameter of Ø101 mm / Ø3.98 in
- Either for clamping installation (with 3 clamping jaws and cross-drive screws) or with a six-hole bolt pattern
- Operating temperature range:
- -40°C ... +120°C / -40°F ... +248°F

# Materials

- Made of non-corrosive materials
- Body and cap made of glass-fibre reinforced Polyamide (PA)
- Sealings made of NBR (Buna-N®)

Contact STAUFF for alternative materials.

# **Accessories / Options**

- Plastic basket (800 µm)
- Pressurisation up to 0,7 bar / 10 PSI
- Air filter element
- Anti-splash feature
- Plastic dipstick with integrated anti-splash feature
- · Plastic dipstick with integrated magnet

Please see page 26 for details.

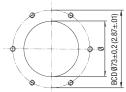
# **Maximum Air Flow Rate**

■ 1,00 m³/min / 35.31 cfm for SPB-4 / 5

Please see page 27 for detailed air flow curves.

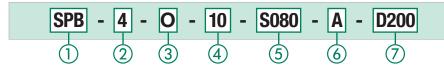
# Installation

- Recommended mounting space: Ø122 mm / Ø4.80 in
- · Six-hole bolt pattern for flange interfaces similar to DIN 24557, part 2 (type SPB-5):



- 6 sheet metal screws (ISO 7049-St 4.8 x 16-C-H) are included in delivery (type SPB-5); can be replaced by regular M5 socket cap screws (ISO 4762), if required
- Recommended diameters of the screw holes, depending on the sheet thickness of the reservoir (type SPB-5):  $\emptyset$ 4,0 mm /  $\emptyset$ .16 in at a thickness of 1,20 mm / .05 in,  $\emptyset$ 4,1 mm /  $\emptyset$ .16 in at a thickness of 2,00 mm / .08 in, Ø4,3 mm / Ø.17 in at a thickness of 4,00 mm / .16 in, and  $\emptyset 4,4\,\text{mm}$  /  $\emptyset.17$  in at a thickness of  $5,00\,\text{mm}$  /  $.20\,\text{in}$

# **Order Codes**



4

5

1) Type Plastic Filler Breather SPB

# ② Version

Bayonet version for clamping jaw installation to a single mounting hole; Cap diameter Ø101 mm (Ø3.98 in) Bayonet Version with six-hole bolt pattern for flange interfaces similar to DIN 24557, part 2; Cap diameter Ø101 mm (Ø3.98 in)

# (3) Pressurisation

	Without pressurisation (standard option)	0
	Pressurised at 0,2 bar / 3 PSI	B0.2
	Pressurised at 0,35 bar / 5 PSI	B0.35
	Pressurised at 0.7 bar / 10 PSI	B0.7

Please see page 26 for details.

# (4) Air Filter Element (Material / Micron Rating)

10 µm Foam / PUR (standard option)	10
40 μm Foam / PUR	40
3μm Inorganic Glass-Fibre, pleated	E03
10 µm Filter Paper, pleated	L10

Contact STAUFF for alternative materials / micron ratings.

# (5) Basket Option

Plastic basket (105 mm / 4.13 in)	S080
Telescopic plastic basket (max. 205 mm / max. 8.07 in)	\$200
Plastic basket with flange interface similar to DIN 24557, part 2 (95 mm / 3.74 in)	S095P
Without basket	X

Option S095P is only available for type SPB-5. Please see page 26 for details.

6	Anti-Splash Feature	
	With anti-splash feature (standard option)	Α
	Without anti-splash feature	0

# (7) Dipstick

Plastic dipstick (200 mm / 7.88 in)	D200	
with integrated anti-splash feature	5200	
Plastic dipstick (300 mm / 11.81 in)	D300	
with integrated anti-splash feature	D300	
Plastic dipstick (300 mm / 11.81 in)	D300M	
with integrated magnet	DOUGH	
Without dipstick	-	

A shorter dipstick length can be achieved by simply cutting down the total length according to individual requirements. When choosing a combination of a basket and a dipstick, the dipstick has to be at least 15 mm / .59 in shorter than the basket. Please see page 26 for details.



# **Plastic Dipstick** Types DS-1 / 2 / 3 **Anti-Splash Feature**



Integrated Anti-Splash Feature Green Adjustable 200 (7.87) 300 (11.81 Level Indicators Red Type D200: 2 Type D300: 3 8,5 (.33) 3,4 (.13)

For all Plastic Filler Breathers (except type SPB-1 with connection sizes B04 and N04), dipsticks made of Polyamide are available as an option. These dipsticks are available in 2 standard lengths of 200 mm / 7.87 in and 300 mm / 11.81 in and equipped with 2 adjustable level indicators in green and red colour.

A shorter dipstick length can be achieved by simply cutting down the total length according to individual requirements. The markings at 25,4 mm / 1.00 in to assist simply cutting.

All dipsticks have an integrated anti-splash feature protecting the SPB from backspilling fluid and avoiding an early breakdown of the air filter element.

Optionally a powerful magnet collects metal particles from the oil and gives extra safety for your application.

Please note: When choosing a combination of a dipstick and a basket (see below), the dipstick has to be at least 15 mm / .59 in shorter than the basket.

Conne	ction	Code	For Type	Suitable Dipstick*	ØD (mm/in)
	G1/4	B04	SPB-1	Dipstick Option Not Available	
_	G3/8	B06	SPB-1/2	DS-1	10 / .39
Male BSP Thread (ISO 228)	G1/2	B08	SPB-1/2/3 SPBM	DS-2	14 / .55
SO 2	00/4	D40	SPB-1/2	DS-3	18 / .71
/ale	G3/4	B12	SMBT-80	DS-1	10 / .39
_	01	B16	SPB-3	DS-3	18 / .71
	G1		SMBT-80	DS-1	10 / .39
	1/4	N04	SPB-1	Dipstick Option Not Available	
ad (	3/8	N06	SPB-1	DS-1	10 / .39
<b>Thre</b> 20.	1/2	N08	SPB-1	DS-2	14 / .55
Male NPT Thread (ANSI B1.20.1)	3/4	/4 N12	SPB-1/2/3	DS-3	18 / .71
NS NS			SMBT-80	DS-1	10 / .39
B €	1 N16	N16	SPB-3	DS-3	18 / .71
	'	IVIO	SMBT-80	DS-1	10 / .39
ᇯᇴ	S080		SPB-4/5	DS-3	18 / .71
Plastic Basket	S095-P		SPB-5	DS-3	18 / .71
- 6	S200		SPB-4/5	DS-3	18 / .71
w/o Basket X		V	SPB-4/5	DS-3	18 / .71
		^	SMBB-80	DS-1	10 / .39

\* When ordered seperately, please add the length of the dipstick (in mm) to the ordering code (e.g. DS-2-300).

Special designs and alternative materials available on request. Please contact STAUFF for further details.

# Plastic Basket Types S080 / S095-P / S200

For the Plastic Filler Breathers SPB-4 and SPB-5, different types of baskets are available as an option. All baskets have a reinforced 0,8 x 3,5 mm / .03 x .14 in mesh (800  $\mu$ m), so that rough dirt particles are filtered out of the medium and a smooth flow into the tank is being

The Plastic Basket S080 (length of 105 mm / 4.13 in) snaps into the breather housing and suitable for the SPB-4 and SPB-5.

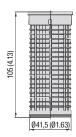
The Plastic Basket S095-P (length of 95 mm / 3.74 in) is equipped with a six-hole bolt pattern with flange interface similar to DIN 24557, part 2. It is suitable for the SPB-5 / SMBB-80 only and is installed between the breather housing and the reservoir.

The Telescopic Plastic Basket S200 (maximum length of 205 mm / 8.07 in) is ideal to further improve the straining ability and oil flow-through and allowing longer dipstick lengths, where reservoir depth allows. It also snaps into the breather housing and is suitable for the SPB-4 and SPB-5.

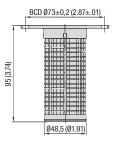
Please note: When choosing a combination of a dipstick (see above) and a basket, the dipstick has to be at least 15 mm / .59 in shorter than the basket.

Special designs and alternative materials available on request. Please contact STAUFF for further details.

# **Plastic Basket** S080 (for SPB-4/5) Material: Polypropylene (PP)

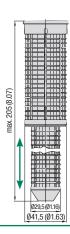


**Plastic Basket** S095-P (only for SPB-5 / SMBB-80) Material: Polyamide (PA)



Six-hole bolt pattern with flange interface according to DIN 24557, part 2

# **Telescopic Plastic Basket** \$200 (for SPB-4/5) Material: Polypropylene (PP)



# **Pressurisation**

Many tank filler breathers of the SPB, SMBB and SMBT series are also available as pressurised versions. Information on the specific valve and pressurization settings that are available by default can be found on the corresponding catalogue pages.

When the fluid level inside the reservoir rises, no air is expelled from the reservoir until the pressurisation level is reached. With decreasing fluid level inside the reservoir, the tank pressure drops and it is ensured that air is drawn into the reservoir.

Due to less breathing, the service life of a filler breather and the oil can be increased by using the pressurisation feature. It also minimizes foaming and cavitation, and provides additional protection from moisture entering the reservoir which causes erosion and oil degradation.

# **Further Accessories / Options**



Weld Riser . Type WR Suitable for SPB-5 (See page 39 for details)



**Side Mount Bracket** (Polyamide) - Type ASMB-1 Suitable for SPB-5 (See page 38 for details)



Side Mount Bracket (Aluminium) - Type ASMB-2 Suitable for SPB-5 (See page 38 for details)





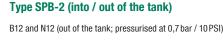
.15 0,01 0

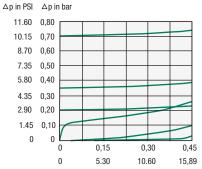
# Type SPB-1 (into / out of the tank) Δp in PSI Δp in bar 1.02 0.07 B04 and N04 (into / out of the tank) .87 0,06 .73 0.05 B06 and N06 (into / out of the tank) .58 0,04 B08 and N08 (into / out of the tank) .44 0.03 B12 and N12 (into / out of the tank) .29 0,02

0,09 0,12 0,15 0,18 Q in m<sup>3</sup>/min

1.06 2.12 3.18 4.24 5.30 6.35 Q in cfm

# **Pressure Drop Flow Curves Plastic Filler Breathers**





0,06

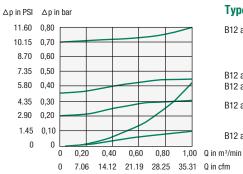
B12 and N12 (out of the tank; pressurised at 0,35 bar / 5 PSI)

B12 and N12 (into the tank; pressurised at 0,7 bar / 10 PSI, 0,35 bar / 5 PSI or 0,2 bar / 3 PSI)

B12 and N12 (out of the tank; pressurised at 0,2 bar / 3 PSI) B12 and N12 (out of the tank; without pressurisation)

B12 and N12 (into the tank; without pressurisation)

0,45 Q in m<sup>3</sup>/min 15.89 Q in cfm



# Type SPB-3 (into / out of the tank)

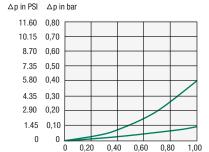
B12 and N12 (out of the tank; pressurised at 0,7 bar / 10 PSI)

B12 and N12 (out of the tank: pressurised at 0.35 bar / 5 PSI)

B12 and N12 (into the tank; pressurised at 0,7 bar / 10 PSI, 0,35 bar / 5 PSI or 0,2 bar / 3 PSI)

B12 and N12 (out of the tank; pressurised at 0,2 bar / 3 PSI)

B12 and N12 (into / out of the tank; without pressurisation)



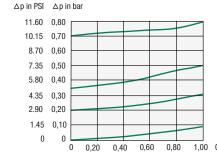
n

# Type SPB-4/5 (into the tank)

(into the tank; pressurised at 0,7 bar / 10 PSI, 0,35 bar / 5 PSI or 0,2 bar / 3 PSI)

(into the tank; without pressurisation)

1,00 Q in m<sup>3</sup>/min 14.12 21.19 28.25 35.31 Q in cfm



# Type SPB-4/5 (out of the tank)

(out of the tank; pressurised at 0,7 bar / 10 PSI)

(out of the tank; pressurised at 0,35 bar / 5 PSI)

(out of the tank; pressurised at 0,2 bar / 3 PSI)

(out of the tank; without pressurisation)

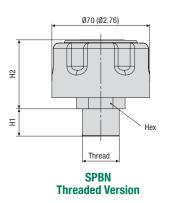
1,00 Q in m<sup>3</sup>/min 7.06 14.12 21.19 28.25 35.31 Q in cfm

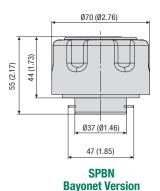
# **E**STAUFF ®

# Plastic Filler Breather Type SPBN

# (Compact Design; Threaded or Bayonet Version)







# **Characteristics**

Designed to be used as filler ports for hydraulic reservoirs, allowing the reservoir to breathe whilst protecting it from contamination found in harsh environments; ideal for applications in which space is limited

# **Features**

- Cap diameter of Ø70 mm / Ø2.76 in
- Threaded version, equipped with male BSP thread (ISO 228) or male NPT thread (ANSI B1.20.1)
- Bayonet version for flange interfaces, with a six-hole bolt pattern, similar to DIN 24557, part 2
- Operating temperature range:-40°C ... +120°C / -40°F ... +248°F

# Materials

- Body and cap made of glass-fibre reinforced Polyamide (PA)
- Socket made of Steel, zinc-plated
- Bayonet flange made of Steel, zinc-plated
- Basket made of Steel, zinc-plated or Polyamide (PA)
- Sealings made of NBR (Buna-N®)

Contact STAUFF for alternative materials.

# **Accessories / Options**

- Mounting set including bayonet flange, steel or plastic basket (800 µm), gaskets and bolts
- Pressurisation up to 0,7 bar / 10 PSI
- Air filter element
- Anti-splash feature (for Threaded version only)
- Plastic dipstick with integrated anti-splash feature
- Plastic dipstick with integrated magnet
- Oil Demister

Please see pages 29 and 47 for details.

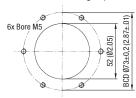
# **Maximum Air Flow Rate**

■ 0,40 m³/min / 14.13 cfm

Please see page 29 for detailed air flow curves.

# Installation

 Six-hole bolt pattern for flange interfaces similar to DIN 24557, part 2 (bayonet version with mounting set):



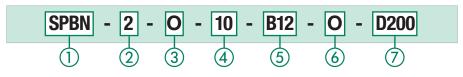
 6 slotted pan head screws (ISO 1580 M5 x 12-5.8) are included in delivery of the bayonet version with mounting set

# **Dimensions (Threaded Version)**

Thread	Dimensions (mm/in)		
	H1	H2	Hex
Male G3/4 BSP	19,5	49,5	30
(ISO 228)	.77	1.95	1.18

Thread	Dimensions (mm/in)		
	H1	H2	Hex
Male 3/4 NPT	19,5	49,5	30
(ANSI B1.20.1)	.77	1.95	1.18

# **Order Codes**



1 Type
Plastic Filler Breather (Compact Design)

SPBN

2 Version

Cap diameter Ø70 mm (Ø2.76 in) 2

③ Pressurisation

Without pressurisation (standard option)	0
Pressurised at 0,2 bar / 3 PSI	B0.2
Pressurised at 0,35 bar / 5 PSI	B0.35
Pressurised at 0,7 bar / 10 PSI	B0.7

Please see page 29 for details.

4 Air Filter Element (Material / Micron Rating) 10 µm Foam / PUR (standard option) 10

10 μm Foam / PUR (standard option) 10 40 μm Foam / PUR 40

Contact STAUFF for alternative materials / micron ratings.

# **⑤** Connection

B12	Threaded version; Male G3/4 thread
N12	Threaded version; Male 3/4 NPT thread
BS	Bayonet version; Breather only
ВМ	Bayonet version; Breather including mounting set (with bayonet flange, gaskets and bolts)
\$080	Bayonet version; Option BS and metal basket with flange interface (80 mm / 3.15 in)
\$100	Bayonet version; Option BS and metal basket with flange interface (100 mm / 3.94 in)
\$150	Bayonet version; Option BS and metal basket with flange interface (150 mm / 5.91 in)
\$200	Bayonet version; Option BS and metal basket with flange interface (200 mm / 7.87 in)
S095P	Bayonet version; Option BS and plastic basket with flange interface (95 mm / 3.74 in)

# (6) Anti-Splash Feature

With anti-splash feature	Α
Without anti-splash feature (standard option)	0

Please see page 29 for details.

# O Dipstick

Plastic dipstick (200 mm / 7.88 in) with integrated anti-splash feature	D200
Plastic dipstick (300 mm / 11.81 in) with integrated anti-splash feature	D300
Plastic dipstick (300 mm / 11.81 in) with integrated magnet	D300M
Without dipstick	-

A shorter dipstick length can be achieved by simply cutting down the total length according to individual requirements. Please see page 26 for details.





# Plastic Dipstick Anti-Splash Feature

For all Plastic Filler Breathers SPBN, dipsticks made of Polyamide are available as an option. These dipsticks are available in 2 standard lengths of 200 mm / 7.87 in and 300 mm / 11.81 in and equipped with 2 adjustable level indicators in green and red colour. A shorter dipstick length can be achieved by simply cutting down the total length according to individual requirements.

All dipsticks have an integrated anti-splash feature protecting the SPBN from backspilling fluid and avoiding an early breakdown of the air filter element. For Plastic Filler Breathers without dipstick, the anti-splash function can be achieved by an integrated concave baffle.

Please note: When choosing a combination of a dipstick and a basket, the dipstick has to be at least  $15\,\mathrm{mm}$  /  $.59\,\mathrm{in}$  shorter than the basket.

Special designs and alternative materials available on request. Please contact STAUFF for further details.

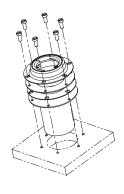
# **Pressurisation**

Many tank filler breathers of the SPB, SMBB and SMBT series are also available as pressurised versions. Information on the specific valve and pressurization settings that are available by default can be found on the corresponding catalogue pages.

When the fluid level inside the reservoir rises, no air is expelled from the reservoir until the pressurisation level is reached. With decreasing fluid level inside the reservoir, the tank pressure drops and it is ensured that air is drawn into the reservoir.

Due to less breathing, the service life of a filler breather and the oil can be increased by using the pressurisation feature. It also minimizes foaming and cavitation, and provides additional protection from moisture entering the reservoir which causes erosion and oil degradation.

# Mounting Set for Baskets (including Bayonet Flange, Gaskets and Bolts)





# **Scope of Delivery / Order Codes**

Mounting sets for baskets include the following components:

- 6 slotted pan head screws made of steel, zinc-plated (ISO 1580 M5 x 12-5.8)
- Bayonet flange made of steel, zinc-plated, with six-hole bolt pattern acc. to DIN 24557, part 2
- 2 gaskets made of NBR (Buna-N®) one for underneath and one for on top of the basket
- · Metal or plastic basket (only if required):

 Metal basket (80 mm / 3.15 in):
 S-080-M-F-SPBN-BS-B

 Metal basket (100 mm / 3.94 in):
 S-100-M-F-SPBN-BS-B

 Metal basket (150 mm / 5.91 in):
 S-150-M-F-SPBN-BS-B

 Metal basket (200 mm / 7.87 in):
 S-200-M-F-SPBN-BS-B

 Plastic basket (95 mm / 3.74 in):
 S-095-P-F-SPBN-BS-B

 Without basket:
 Adapter-SPBN-BM-B

Mounting sets can also be ordered as part of a complete breather assembly. Please see page 28 for details.

# **Further Accessories / Options**



Extended Bayonet Flange • Type EBF Suitable for SPBN; Bayonet Version BM (See page 39 for details)



Side Mount Bracket (Polyamide) = Type ASMB-1 Suitable for SPBN; Bayonet Version BM (See page 38 for details)

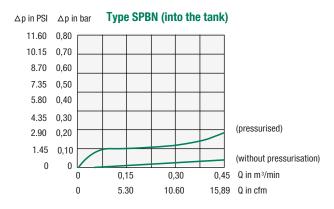


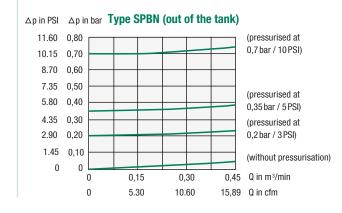
Weld Riser = Type WR Suitable for SPBN; Bayonet Version BM (See page 39 for details)



Side Mount Bracket (Aluminium) = Type ASMB-2 Suitable for SPBN; Bayonet Version BM (See page 38 for details)

# Pressure Drop Flow Curves Plastic Filler Breathers

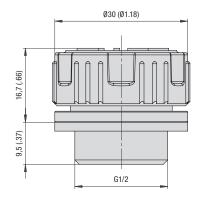




# **Plastic Filler Breather Mini Type SPBM** (Threaded Version)







# **Characteristics**

Designed to be used as filler ports for hydraulic reservoirs, allowing the reservoir to breathe whilst protecting it from contamination found in harsh environments

## Features

- · Available with different cap Logos
- Threaded version, equipped with male BSP thread (ISO 228)
- Operating temperature range:
- -40°C ... +120°C / -40°F ... +248°F

## **Materials**

- Made of non-corrosive materials
- Body and cap made of glass-fibre reinforced Polyamide (PA)
- Sealings made of NBR (Buna-N®)

Contact STALIFF for alternative materials

# **Accessories / Options**

- Air filter element
- Anti-splash feature
- · Plastic dipstick with integrated anti-splash feature
- · Plastic dipstick with integrated magnet

Please see page 26 for details.

# **Maximum Air Flow Rate**

■ 0,25 m³/min / 8.83 cfm

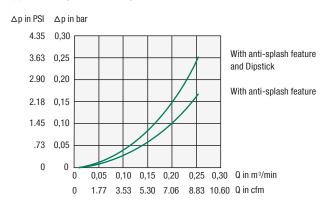
Please see below for detailed air flow curves.

# Installation

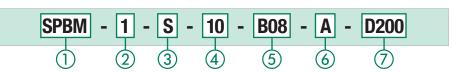
• Recommended mounting spaces: Ø48 mm / Ø1.89 in

# **Pressure Drop Flow Curves**

# Type SPBM (into the tank)



# **Order Codes**





G1/2 BSP (6) Anti-Splash Feature With anti-splash feature (standard option) Without anti-splash feature

(5) Connection Thread (Male)

7 Dipstick

Plastic dipstick (200 mm / 7.88 in) D200 with integrated anti-splash feature Plastic dipstick (300 mm / 11.81 in) D300 with integrated anti-splash feature Plastic dipstick (300 mm / 11.81 in) D300M with integrated magnet Without dipstick

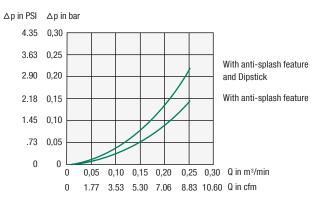
B08

Α

0

A shorter dipstick length can be achieved by simply cutting down the total length according to individual requirements. Please see page 26 for details.

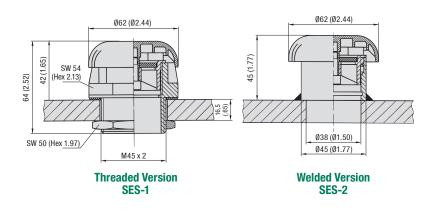
# Type SPBM (out of the tank)





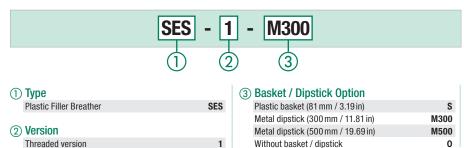


# Plastic Filler Breather Type SES (Threaded or Welded Versions)





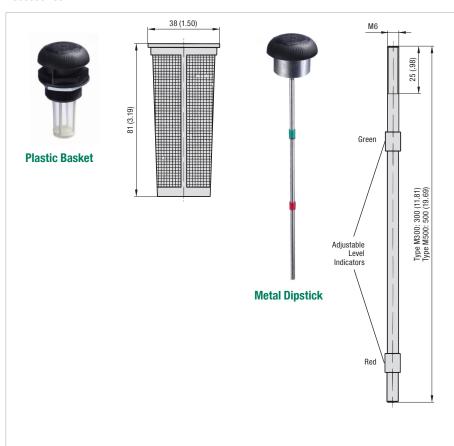
# **Order Codes**



2

# **Accessories**

Welded version



# **Characteristics**

Designed to be used as filler ports for hydraulic reservoirs, allowing the reservoir to breathe whilst protecting it from contamination found in harsh environments

## Features

- Cap diameter of Ø62 mm / Ø2.44 in
- Threaded version, equipped with male Metric ISO thread M45 x 2 and lock nut, or welded version with welding socket made of Steel (1.0718), untreated
- Supplied with 45 µm air filter element
- Operating temperature range:-40°C ... +120°C / -40°F ... +248°F

# Materials

- Breather cap made of Polyamide (PA)
- Breather body / stud made of Polyamide (PA)
- Nut (type SES-1) made of Steel (1.0718);
   Polyamide (PA) available on request
- Welding socket (type SES-2) made of Steel (1.0718), untreated; Stainless Steel (V2A) available on request
- Air filter element made of Sintered Bronze
- Basket made of Polyamide (PA)
- Dipstick made of Steel (1.0718)
- Sealings made of NBR (Buna-N®)

Contact STAUFF for alternative materials.

# **Accessories / Options**

- Plastic basket (300 µm)
- Metal dipstick

# Maximum Air Flow Rate

■ 0,30 m³/min / 10.60 cfm

Contact STAUFF for detailed air flow curves.

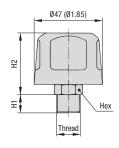
# Installatio

■ Recommended diameter in the reservoir cap SES-1:  $\emptyset$ 46 ±1 mm /  $\emptyset$ 1.81 in ±.04 mm SES-2:  $\emptyset$ 38 ±1 mm /  $\emptyset$ 1.50 in ±.04 mm

# STAUFF ®

# Metal Filler Breather Type SMBT-47 (Threaded Version)





# **Characteristics**

Designed to be used as filler ports for hydraulic reservoirs, allowing the reservoir to breathe whilst protecting it from contamination found in harsh environments

### **Features**

- Cap diameter of Ø47 mm / Ø1.85 in
- Threaded version, equipped with male BSP thread (ISO 228) or male NPT thread (ANSI B1.20.1)
- Operating temperature range: -30°C ... +120°C / -22°F ... +248°F

# **Materials**

- Breather cap made of Steel, zinc/nickel-plated (Fe/Zn Ni 6) and free of hexavalent chromium CrVI (standard option); chrome-plated and epoxy-coated versions available
- Threaded socket made of Steel, zinc-plated

Contact STAUFF for alternative materials.

# **Accessories / Options**

Air filter element

# **Maximum Air Flow Rate**

■ 0,40 m³/min / 14.13 cfm

Contact STAUFF for detailed air flow curves.

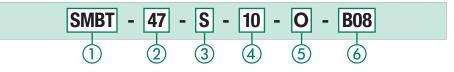
# **Dimensions**

Thread	Dimensions (mm/in)		
	H1	H2	Hex
Male G1/4 BSP	10	41	17
(ISO 228)	.39	2.38	.67
Male G3/8 BSP	13	41	19
(ISO 228)	.51	2.38	.74
Male G1/2 BSP	14	41	22
(ISO 228)	.55	2.38	.88

Thread	Dimensions (mm/in)			
	H1	H2	Hex	
Male 1/4 NPT	13	41	17	
(ANSI B1.20.1)	.51	2.38	.67	
Male 3/8 NPT	15	41	19	
(ANSI B1.20.1)	.59	2.38	.74	

Contact STAUFF for alternative threads.

# **Order Codes**



1 Type / Version

Metal Filler Breather; Threaded version SMI

(2) Cap Diameter / Material / Surface Finishing Cap diameter Ø47 mm (Ø1.85 in); Breather cap

made of Steel, cinc/nickel-plated (standard option)

Cap diameter Ø47 mm (Ø1.85 in); Breather cap made of Steel, chrome-plated

Cap diameter Ø47 mm (Ø1.85 in); Breather cap made of Steel, expoxy-coated

47E

3 Label

With STAUFF logo (standard option)

Neutral design without any logo

N

(4) Air Filter Element (Material / Micron Rating)

)	AII 1 II	LUI	Licinoni (material /	micron naung)
	Without	Bre	ather Function	0
	3 µm Fil	ter	Paper	03
	10 μm F	oan	n / PUR (standard option)	10
	40 µm F	oar	n / PUR	40

Contact STAUFF for alternative materials / micron ratings.

⑤ Pressurisation

Without pressurisation (standard option)

No pressurisation available for this cap diameter.

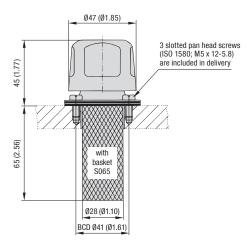
**6** Connection Thread (Male)

ン		······ouu (····u··o)	
	G1/4	В	04
	G3/8	В	06
	G1/2	В	80
	1/4 NPT	N	04
	3/8 NPT	N	06

Contact STAUFF for alternative threads.



# **Metal Filler Breather Type SMBB-47** (Bayonet Version)



# **Characteristics**

Designed to be used as filler ports for hydraulic reservoirs, allowing the reservoir to breathe whilst protecting it from contamination found in harsh environments

# Features

- Cap diameter of Ø47 mm / Ø1.85 in
- Bayonet version with a three-hole bolt pattern
- Operating temperature range: -30 °C ... +120 °C / -22 °F ... +248 °F

## **Materials**

- Breather cap made of Steel, zinc/nickel-plated (Fe/Zn Ni 6) and free of hexavalent chromium CrVI (standard option); chrome-plated and epoxy-coated versions available
- Bayonet flange made of Steel, zinc-plated
- Basket made of Steel, zinc-plated
- · Sealings made of Cork

Contact STAUFF for alternative materials.

# **Accessories / Options**

- Metal basket (800 µm)
- Air filter element

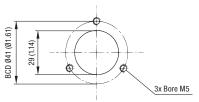
# **Maximum Air Flow Rate**

0.40 m³/min / 14.13 cfm

Contact STAUFF for detailed air flow curves.

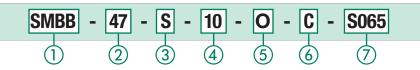
# Installation

• Three-hole bolt pattern for flange interfaces:



■ 3 slotted pan head screws (ISO 1580 M5 x 12-5.8) are included in delivery; can be replaced by regular M5 bolts, if required

# **Order Codes**



(5) Pressurisation

**6** Sealing Material

(7) Basket Option

Without basket

Cork (standard option)

Without pressurisation (standard option)

No pressurisation available for this cap diameter.

Metal basket (65 mm / 2.56 in) (standard option) \$065

1 Type / Version

Metal Filler Breather; Bayonet version SMBB

2 Cap Diameter / Material / Surface Finishing

Cap diameter Ø47 mm (Ø1.85 in); Breather cap made of Steel, zinc/nickel-plated (standard option) Cap diameter Ø47 mm (Ø1.85 in); Breather cap 47C made of Steel, chrome-plated Cap diameter Ø47 mm (Ø1.85 in); Breather cap 47E made of Steel, expoxy-coated

3 Label

With STAUFF logo (standard option) S Neutral design without any logo

(4) Air Filter Element (Material / Micron Rating)

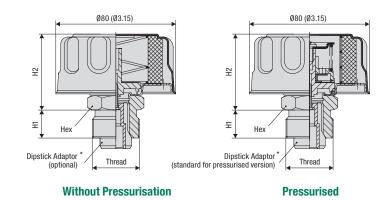
Without Breather Function	0
3μm Filter Paper	03
10 µm Foam / PUR (standard option)	10
40 μm Foam / PUR	40

Contact STAUFF for alternative materials / micron ratings.



# **Metal Filler Breather Type SMBT-80** (Threaded Version)





\* Please note: The disptick adaptor is not available for connection threads G1/2 and 1/2 NPT.

# **Characteristics**

Designed to be used as filler ports for hydraulic reservoirs, allowing the reservoir to breathe whilst protecting it from contamination found in harsh environments

## Features

- Cap diameter of Ø80 mm / Ø3.15 in
- Threaded version, equipped with male BSP thread (ISO 228) or male NPT thread (ANSI B1.20.1)
- Operating temperature range: -30 °C ... +120 °C / -22 °F ... +248 °F

# **Materials**

- Breather cap made of Steel, zinc/nickel-plated (Fe/Zn Ni 6) and free of hexavalent chromium CrVI (standard option); chrome-plated and epoxy-coated versions available
- Threaded socket made of Steel, zinc-plated
- Dipstick adaptor made of Polyamide (PA)

Contact STAUFF for alternative materials.

# **Accessories / Options**

- Pressurisation up to 0,7 bar / 10 PSI
- Air filter element
- Dipstick adaptor suitable for plastic dipstick DS-1 (not for connection threads G1/2 and 1/2 NPT)
- Plastic dipstick DS-1 with integrated anti-splash feature (not for connection threads G1/2 and 1/2 NPT)
- Plastic dipstick with integrated magnet
- Oil Demister

Please see pages 26 and 47 for details.

# **Maximum Air Flow Rate**

■ 0,45 m<sup>3</sup>/min / 15.89 cfm

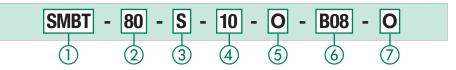
Contact STAUFF for detailed air flow curves.

# **Dimensions**

Thread	m/in)		
	H1	H2	Hex
Male G1/2 BSP	14	54	24
(ISO 228)	.55	2.13	.94
Male G3/4 BSP	16	54	30
(ISO 228)	.63	2.13	1.18
Male G1 BSP	19	54	36
(ISO 228)	.75	2.13	1.42

Thread	Dimensions (mm/in)		
	H1	H2	Hex
Male 1/2 NPT	14	52,5	24
(ANSI B1.20.1)	.51	2.07	.94
Male 3/4 NPT	16	52,5	30
(ANSI B1.20.1)	.59	2.07	1.18
Male G1 NPT	19	52,5	36
(ANSI B1.20.1)	.75	2.07	1.42

# **Order Codes**



# 1) Type / Version Metal Filler Breather; Threaded version

# 2 Cap Diameter / Material / Surface Finishing Cap diameter Ø80 mm (Ø3.15 in); Breather cap

made of Steel, zinc/nickel-plated (standard option) Cap diameter Ø80 mm (Ø3.15 in); Breather cap 80C made of Steel, chrome-plated Cap diameter Ø80 mm (Ø3.15 in); Breather cap 80E made of Steel, expoxy-coated

# 3 Label

With STAUFF logo (standard option) S Neutral design without any logo

# (4) Air Filter Element (Material / Micron Rating)

Without Breather Function	0
3 μm Filter Paper	03
10 µm Foam / PUR (standard option)	10
40 μm Foam / PUR	40

Contact STAUFF for alternative materials / micron ratings.

# (5) Pressurisation

Without pressurisation (standard option)	0
Pressurised at 0,35 bar / 5 PSI	B0.35
Pressurised at 0,7 bar / 10 PSI	B0.7

Please see page 26 for details.

# (6) Connection Thread (Male)

/	comiconomican (mano)	
	G1/2	B08
	G3/4	B12
	G1	B16
	1/2 NPT	N08
	3/4 NPT	N12
	1NPT	N16

Contact STAUFF for alternative threads.

# ⑦ Dipstick

Without dipstick (standard option) 0 With dipstick adaptor suitable for dipstick DS-1 Α (not for connection threads G1/2 and 1/2 NPT) With dipstick adaptor and plastic dipstick DS-1 (300 mm / 11.81 in) with integrated anti-splash D300 feature (not for connection threads G1/2 and 1/2 NPT) Plastic dipstick (300 mm / 11.81 in) D300M with integrated magnet

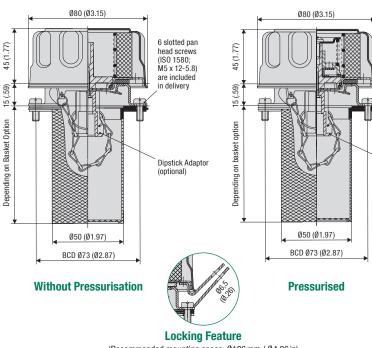
A shorter dipstick length can be achieved by simply cutting down the total length according to individual requirements.

Please note: The dipstick adaptor is required for the subsequent installation of plastic dipsticks DS-1 (see page 26 for details), and is included in delivery when ordering a pressurised version. The dipstick adaptor is not available for connection threads G1/2 and 1/2 NPT.



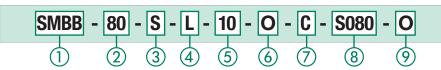


# Metal Filler Breather Type SMBB-80 (Bayonet Version)



(Recommended mounting space:  $\emptyset$ 126 mm /  $\emptyset$ 4.96 in)

# **Order Codes**



# 1) Type / Version

Metal Filler Breather; Bayonet version SMI

# 2 Cap Diameter / Material / Surface Finishing

Cap diameter Ø80 mm (Ø3.15in); Breather cap made of Steel, zinc/nickel-plated (standard option)
Cap diameter Ø80 mm (Ø3.15in); Breather cap made of Steel, chrome-plated
Cap diameter Ø80 mm (Ø3.15in); Breather cap made of Steel, expoxy-coated

# 3 Label

With STAUFF logo (standard option) S
Neutral design without any logo N

# (4) Locking Feature

Without locking feature (standard option)
With locking feature (see drawing above)

# (5) Air Filter Element (Material / Micron Rating)

Without Breather Function	0
3μm Filter Paper	03
10 µm Foam / PUR (standard option)	10
40 μm Foam / PUR	40

Contact STAUFF for alternative materials / micron ratings.

# 6 Pressurisation

Without pressurisation (standard option)	0
Pressurised at 0,35 bar / 5 PSI	B0.35
Pressurised at 0,7 bar / 10 PSI	B0.7

Please see page 26 for details.

# 7 Sealing Material

Cork (for filler breathers without pressurisation)
NBR (Buna-N®) (for pressurised filler breathers)

# (8) Basket Option

Without basket	0
Metal basket (80 mm / 3.15 in) (standard option)	S080
Plastic basket (95 mm / 3.74 in)	S095P
Metal basket (100 mm / 3.94 in)	S100
Metal basket (150 mm / 5.91 in)	S150
Metal basket (200 mm / 7.87 in)	S200

# Dipstick

Without dipstick (standard option)	0	
Dipstick adaptor (suitable for dipstick DS-1)	Α	
With dipstick adaptor and plastic dipstick DS-1		
(300 mm / 11.81 in) with integrated anti-splash	D300	
feature		
Plastic dipstick (300 mm / 11.81 in)	D300M	
with integrated magnet	DOUGHI	

A shorter dipstick length can be achieved by simply cutting down the total length according to individual requirements.

Please note: The dipstick adaptor is required for the subsequent installation of plastic dipsticks DS-1 (see page 26 for details), and is content of delivery when ordering a pressurised version.

# **Characteristics**

Designed to be used as filler ports for hydraulic reservoirs, allowing the reservoir to breathe whilst protecting it from contamination found in harsh environments

### **Features**

6 slotted pan

head screws (ISO 1580; M5 x 12-5.8)

are included in delivery

(standard for pressurised version)

- Cap diameter of Ø80 mm / Ø3.15 in
- Bayonet version with a six-hole bolt pattern for flange interfaces similar to DIN 24557, part 2
- Operating temperature range: -30°C ... +120°C / -22°F ... +248°F

## Materials

- Breather cap made of Steel, zinc/nickel-plated (Fe/Zn Ni 6) and free of hexavalent chromium CrVI (standard option); chrome-plated and epoxy-coated versions available
- Bayonet flange made of Steel, zinc-plated
- Basket made of Steel, zinc-plated or Polyamide (PA)
- Dipstick adaptor made of Polyamide (PA)
- Sealings made of Cork (for filler breathers without pressurisation) or NBR (Buna-N®) (for pressurised filler breathers)

Contact STAUFF for alternative materials.

# **Accessories / Options**

- Metal or plastic basket (800 µm)
- Pressurisation up to 0,7 bar / 10 PSI
- · Air filter element
- Locking feature

C

В

- Dipstick adaptor (suitable for plastic dipstick DS-1)
- Plastic dipstick with integrated anti-splash feature
- Plastic dipstick with integrated magnet

Please see page 26 for details.

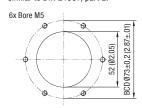
# **Maximum Air Flow Rate**

■ 0,45 m³/min / 15.89 cfm

Contact STAUFF for detailed air flow curves.

# Installation

 Six-hole bolt pattern for flange interfaces similar to DIN 24557, part 2:

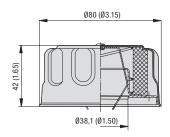


 6 slotted pan head screws (ISO 1580 M5 x 12-5.8) are included in delivery; can be replaced by regular M5 bolts, if required



# **Metal Breather Type SMBP-80** (Push-On Version)





# **Characteristics**

Designed to be used as filler ports for hydraulic reservoirs, allowing the reservoir to breathe whilst protecting it from contamination found in harsh environments

## **Features**

- Cap diameter of Ø80 mm / Ø3.15 in
- Push-on version, suitable for pipe diameters up to 38 mm/ 1.50 in
- Operating temperature range: -30 °C ... +120 °C / -22 °F ... +248 °F

# **Materials**

Breather cap made of Steel, zinc/nickel-plated (Fe/Zn Ni 6) and free of hexavalent chromium CrVI (standard option); chrome-plated and epoxy-coated versions available

Contact STAUFF for alternative materials.

# **Accessories / Options**

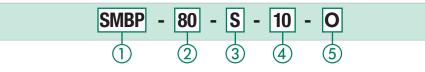
· Air filter element

# **Maximum Air Flow Rate**

■ 0,45 m³/min / 15.89 cfm

Contact STAUFF for detailed air flow curves.

# **Order Codes**



1 Type / Version

Metal Breather; Push-on version

2 Cap Diameter / Material / Surface Finishing Cap diameter Ø80 mm (Ø3.15 in); Breather cap made of Steel, zinc/nickel-plated (standard option)

Cap diameter Ø80 (Ø3.15 in); Breather cap 80C made of Steel, chrome-plated Cap diameter Ø80 (Ø3.15 in); Breather cap 80E made of Steel, expoxy-coated

3 Label

With STAUFF logo (standard option) S Neutral design without any logo

4 Air Filter Element (Material / Micron Rating)

Without Breather Function 0 10 µm Foam / PUR (standard option) 10 40 µm Foam / PUR 40

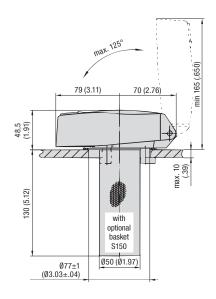
Contact STAUFF for alternative materials / micron ratings.

⑤ Dipstick

Without dipstick (standard option)

www.stauff.com/10/en/#36





#### **Clamping Version**

# 13,5 max.

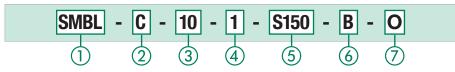
#### **Threaded Version**

Recommended mounting space:  $\emptyset 162\,\text{mm}$  /  $\emptyset 6.38\,\text{in}$ 2 locking screws M6 x 6 (DIN 916) at positions A and B

#### **Push-On Version**

3 locking screws M6 x 6 (DIN 916) at positions A, B and C

#### **Order Codes**



1) Type Lockable Metal Filler Breather SMBL

② Version

Clamping version with 3 clamping jaws; Installation to a tank mounting hole of C Ø77±1 mm / Ø3.03±.04 in Threaded version with female G2 BSP thread G32 Threaded version with female G2-1/2 BSP thread G40 Push-on version for stand pipe mounting

3 Air Filter Element (Material / Micron Rating)

Without Breather Function 10 µm Foam / PUR (standard option) 10 40 µm Foam / PUR 40

Contact STAUFF for alternative materials / micron ratings.

(4) Air Flow

Air flow in both directions (standard option) No air flow 2 Air flow only into the tank 3

(5) Basket Option

Without basket	0
Metal basket (150 mm / 5.91 in) (standard option)	\$150
Plastic basket (80 mm / 3.15 in)	S080
Telescopic plastic basket (max. 205 mm / max. 8.07 in)	\$200

The baskets of the SMBB-47/80 series cannot be used in conjunction with the SMBL series.

(6) Sealing Material

NBR (Buna-N®) (standard option) В FKM (Viton®)

(7) Cap Design

Breather cap made of Aluminium, 0 lacquered (light-grey, RAL 9022)

## **Lockable Metal Filler Breather Type SMBL** (Clamping, Threaded and Push-On Version)



#### **Characteristics**

Designed to be used as lockable filler ports for hydraulic reservoirs, allowing the reservoir to breathe whilst protecting it from contamination found in harsh environments

#### **Features**

- Available as clamping version (with 3 clamping jaws), as threaded version (with female BSP thread) or push-on version, suitable for stand pipe mounting with pipe diameters up to 77,5 mm/ 3.05 in (secured by 3 locking screws)
- Key-lockable cap (2 keys included)
- Lock protected by rotating flap
- Operating temperature range: -30°C ... +100°C / -22°F ... +212°F
- · Air flow in both directions, one direction only or no direction

#### **Materials**

- · Breather cap made of Aluminium, lacquered (light-grey, RAL 9022)
- Breather body made of Aluminium and steel zinc-plated
- Basket made of Steel, zinc-plated or Polypropylene (PP)
- Sealings made of NBR (Buna-N®) (standard option); FKM (Viton®) sealed version available

Contact STAUFF for alternative materials.

#### **Accessories / Options**

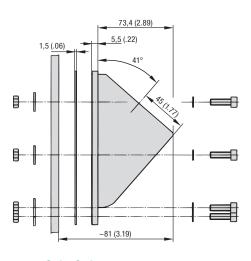
- Metal or plastic basket (800 μm; telescopic)
- · Air filter element



#### **Side Mount Bracket Type ASMB-1** (Polyamide Version)



## 117 (4.61) 102 (4.02) 86 (3.38) 29,5 (1.16) ◍ (2.01)148 (5.83) **( (4)** 51 (2.01) **(** 8,5 (.33)



#### **Characteristics**

Lateral fastening of filler breathers with a six-hole flange connection similar to DIN 24557, part 2 to vertical or sloped walls of hydraulic reservoirs; ideal for applications in which space is limited

#### Suitability

 Suitable for Plastic Filler Breathers SPB-5 and SPBN (bayonet version) and Metal Filler Breathers SMBB-80

#### **Materials**

- Mounting bracket made of Polyamide (PA)
- · Seal plate made of Klingerit
- Screws and hex nuts made of Steel, zinc-plated
- Washers made of Steel, zinc-plated
- Plastic spacers made of Polyamide (PA)

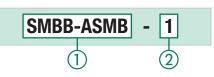
#### Scope of Delivery

- 1 mounting bracket
- 1 seal plate
- 7 socket cap screws M6 x 25 (ISO 4762)
- 7 plastic spacers 6,4 (DIN 125)
- 7 hex nuts M6 (ISO 4032)
- 7 washers 6,4 (DIN 9021)
- 6 sheet metal screws 4,8x13 (ISO 7049)

#### Installation

- Bolted to the side of the reservoir
- Bayonet flange of filler breather is placed on top
- Flange interface similar to DIN 24557, part 2 with 6 equally spaced mounting bores Ø4,5 mm / Ø.18 in (BCD Ø71±0,2 mm / Ø2.80±.01 in)

#### **Order Codes**



① Type Side Mount Bracket

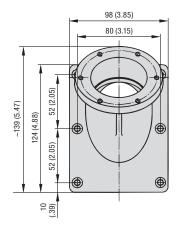
SMBB-ASMB

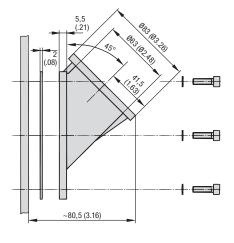
(2) Housing Material

Polyamide (PA)

## **Side Mount Bracket Type ASMB-2** (Aluminium Version)







#### **Characteristics**

Lateral fastening of filler breathers with a six-hole flange connection similar to DIN 24557, part 2 to vertical or sloped walls of hydraulic reservoirs; ideal for applications in which space is limited

#### Suitability

• Suitable for Plastic Filler Breathers SPB-5 and SPBN (bayonet version) and Metal Filler Breathers SMBB-80

- Mounting bracket made of Aluminium
- Seal plate made of NBR (Buna-N®)
- Screws made of Steel, phosphated
- · Washers made of gasket paper

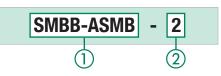
#### Scope of Delivery

- 1 mounting bracket
- 1 seal plate
- 6 socket cap screws M6 x 20 (ISO 4762)
- 6 plastic spacers 6,4 (DIN 125)

#### Installation

- Bolted to the side of the reservoir
- · Bayonet flange of filler breather is placed on top
- Flange interface similar to DIN 24557, part 2 with 6 equally spaced bores M5 (BCD Ø73±0,2 mm / Ø2.87±.01 in)

#### **Order Codes**



1) Type

Side Mount Bracket

SMBB-ASMB

(2) Housing Material Aluminium

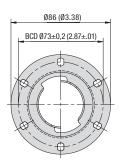
2

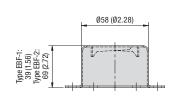
Dimensional drawings: All dimensions in mm (in).





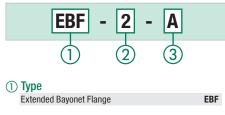
#### **Extended Bayonet Flange Type EBF**







#### **Order Codes**



#### ② Size Total height of 39 mm (1.56 in)

Total height of 69 mm (2.72 in)

#### 3 Anti-Splash Feature

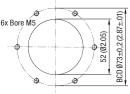
Without anti-splash feature (standard option) With anti-splash feature

#### Installation

2

Α

• Six-hole bolt pattern for flange interfaces similar to DIN 24557, part 2:



Supplied without gaskets and bolts

#### **Characteristics**

Designed to raise filler breathers either 24 mm / .94 in or 54 mm / 2.12 in above the actual mounting surface of the reservoir to prevent contamination from blocking the filter element

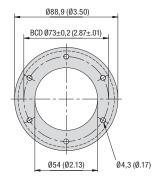
#### Suitability

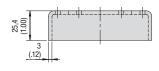
- Suitable for Metal Filler Breathers SMBB-80 and Plastic Filler Breathers SPBN (bayonet version)
- Replaces the existing bayonet flanges of these breathers

#### Materials

■ Bayonet flange made of Steel, zinc-plated

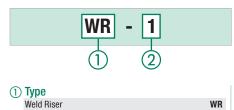
#### **Weld Riser** Type WR







#### **Order Codes**



#### ② Size Total height of 25,4 mm (1.00 in)

· Weld riser made of Steel, untreated

#### Installation

- Welded to the top of the reservoir
- · No requirement to drill and tap on the reservoir
- Bayonet flange of filler breather is placed on top

#### **Characteristics**

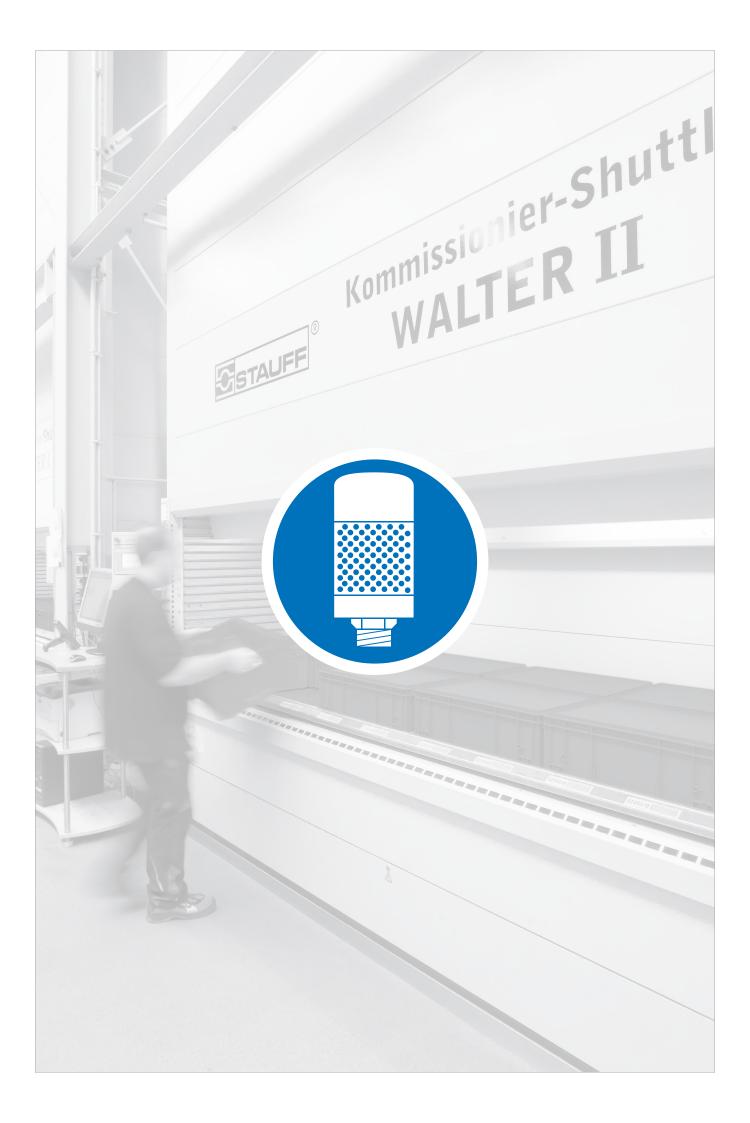
Designed to raise filler breathers 25,4 mm / 1.00 in above the actual mounting surface of the reservoir to prevent contamination from blocking the filter element whilst eliminating the requirement to drill and tap on the reservoir

#### Suitability

• Suitable for Metal Filler Breathers SMBB-80 as well as Plastic Filler Breathers SPB-5 and SPBN (bayonet version) and all components with a six-hole flange connection similar to DIN 24557, part 2

Dimensional drawings: All dimensions in mm (in).





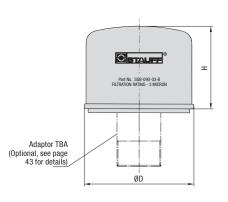


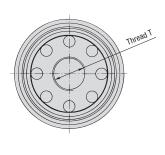
	Giant Air Breathers	42 - 43
	Giant Air Breather	42
A Print to make confident	SGB	
	Air Breather Adaptor	43
	TBA	
	Desiccant Air Breathers	44 - 47
3337	SDB	44
	SVDB (Disposable Version)	45
	SDB-CV (with Check Valves)	46
	Adaptor Plate	47
	AP	
	Visual Contamination Indicator	47
43	FM	
0	Oil Demister	47
	TBA-OD	



#### **Giant Air Breather Type SGB**







#### **Characteristics**

Originally designed to be used as replaceable air filter elements for STAUFF Desiccant Breathers, they can also be used as seperate air filters for hydraulic reservoirs

#### **Features**

- Diameter of Ø68 mm / Ø2.68 in (SGB-060), Ø100 mm / Ø3.94 in (SGB-090) or Ø130 mm / Ø5.12 in (SGB-120)
- Equipped with female BSP thread (ISO 228)
- Including sealing made of NBR (Buna-N®)
- Operating temperature range: -32 °C ... +100 °C / -25 °F ... +212 °F

#### **Accessories / Options**

Adaptors (for direct installation on top of hydraulic reservoirs)

Please see page 43 for a selection of adaptors available, and contact STAUFF for further information.

#### **Air Flow**

Maximum air flow rates:  $0,\!05\,m^3\!/min$  /  $1.77\,cfm$  for SGB-060, 0,70 m3/min / 24.71 cfm for SGB-090, and 1,50 m<sup>3</sup>/min / 52.97 cfm for SGB-120

#### **Dimensions and Filter Specifications**

Туре	Thread T*	Dimensions (mm/in)		Filter	Micron	Filter	Max. Air
		ØD	Н	Material	Rating	Surface	Flow Rate
SGB-060-03-B	Female M20 x 1,5	68	60	Combbatia Fibra	3um	415 cm <sup>2</sup>	0,05 m³/min
	(ISO 13-2)	2.68	2.36	Synthetic Fibre	Зиш	63 in <sup>2</sup>	1.77 cfm
SGB-090-03-B	Female G3/4 BSP	100	64	Combbatia Fibra	2	752 cm <sup>2</sup>	0,70 m³/min
Sub-090-03-B	(ISO 228)	3.94	2.52	Synthetic Fibre	3µm	115 in²	24.71 cfm
SGB-120-03-B	Female G1-1/4 BSP	130	100	Synthetic Fibre	3um	2095 cm <sup>2</sup>	1,50 m³/min
	(ISO 228)	5.12	3.94	Syridied Fibre	эµп	320 in <sup>2</sup>	52.97 cfm

\* Use adaptors TBA to change female BSP thread into male BSP or male NPT thread. Please see page 43 for details.

#### **Order Codes**





#### **4** Connection Thread

Female BSP thread (according to dimension table)

#### **⑤ Adaptor Option**

Without adaptor With adaptor TBA-075-B (for SGB-090-03-B) or TBA-125-B (for SGB-120-03-B)

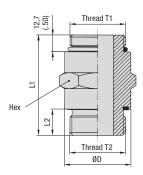
Option A is only available for type SGB-090 and SGB-120.

If required, Giant Air Breathers SGB can also be supplied in combination with a wide range of further adaptors. Please see page 43 for a selection of adaptors available, and contact STAUFF for further information.

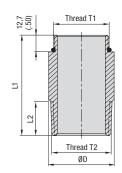




#### Breather Adaptor Type TBA



TBA-038-B TBA-075-B TBA-125-B



TBA-075 TBA-120 TBA-125

#### Characteristics

Converts from female threaded Giant Air Breather or Spin-On Filter Element to a male thread, and thus allows for direct installation on top of hydraulic reservoirs

#### Features

- Several thread combinations available to suit most common Spin-On filter elements
- Versions with male BSP threads on both ends are equipped with hex to simplify installation
- Sealings included in delivery

#### Materials

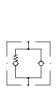
- Adaptor made of Steel, zinc-plated
- Sealings made of NBR (Buna-N®)

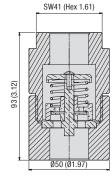
Contact STAUFF for alternative materials.

#### **Order Codes and Dimensions**

Thread T1	Thread T2	Dimen:	sions <sup>(mm</sup> /i	øD	Hex	For Use with*	Order Code	
Male G3/8 BSP	Male G3/8 BSP	43	11	21,9	22	Desiccant Air Breathers	TBA-038-B06-B06-B	
(ISO 228)	(ISO 228)	1.69	.43	.86	.86	SDB-061-CV	15A 000 500 500 5	
Male 1–12 UNF	Male 3/4 NPT	51	20	27		Spin-On Series SF-65	TBA-075-U16-N12-B	
(ANSI B1.1)	(ANSI B1.20.1)	2.00	.79	1.05		Spiii-Oil Series Sr-65	1BA-075-016-N12-B	
Male G3/4 BSP (ISO 228)		57	16	32	32	Giant Air Breathers SGB-090  Desiccant Air Breathers	TBA-075-B12-B12-B	
	Male G3/4 BSP (ISO 228)	2.24	.63	1.26	1.26	SVDB-093, SVDB-096 Spin-0n Series SF-35 Spin-0n Series SF-36		
Male G1-1/4 BSP	Male 1-1/4 NPT	76	22	42		Giant Air Breathers SGB-120		
(ISO 228)	(ANSI B1.20.1)	3.00	.88	1.65		Spin-On Series SF-57 Spin-On Series SF-58	TBA-120-B20-N20-B	
Male 1-1/2-16 UN	Male 1-1/4 NPT	76	26	45		Spin-On Series SF-67	TDA 125 H24 N20 P	
(ANSI B1.1)	(ANSI B1.20.1)	3.00	1.01	1.77		3µ11-011 361163 3F-01	TBA-125-U24-N20-B	
Male G1-1/4 BSP	Male G1-1/4 BSP	76	20	50	50	Giant Air Breathers SGB-120 Spin-On Series SF-57	TDA 125 D20 D20 D	
(ISO 228)	(ISO 228)	3.00	.79	1.97	1.97	Spin-On Series SF-58	TBA-125-B20-B20-B	

<sup>\*</sup> Please see Filtration Technology Catalogue for technical details on Spin-On filter elements.





#### Dimensional drawings: All dimensions in mm (in).

#### **Characteristics**

Increasing the service life and reducing maintenance intervals of tank filler breathers and desiccant breathers due to less breathing

#### Features

- Connections: Female G3/4 BSP threads (ISO 228)
- Pressurisation of 0,35 bar / 5 PSI (no air is expelled from the reservoir until the pressurisation level is reached)
- Suitable for use with various types of Desiccant Air Breathers including SDB-096/2, SDB-093/2, SVDB-096, SVDB-093 and SDB-096-CV as well as Tank Filler Breathers including SPB-2, SPB-3 and SMBT-80

#### Materials

Housing made of Aluminium

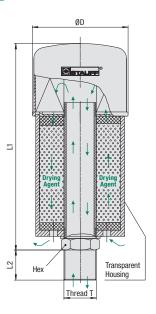
#### Pressurised Breather Adaptor Type TBA-075-B12F-B12F-B0.35



# STAUFF ®

# Desiccant Air Breather incl. Air Filter Element Type SDB





#### **Drying Agent**

Capable in changing colours with increasing moisture



This product does not contain any dangerous substances according to EC Council directives 99/45/EC and 2001/60/EC.

#### **Dimensions and Technical Data**

Туре	Thread T	Dimensions				Weight		Volume	Max. Water	Air Filter Element	is			
		(mm/in)	(mm/in)			(g/ <sub>lbs)</sub>		(cm <sup>3</sup> / in <sup>3</sup> )	Absorption		Filter	Micron	Filter	Max. Air
		ØD*	L1*	L2*	Hex	Complete Unit	Drying Agent	Drying Agent	(g/ <sub>lbs)</sub>	Туре	Material	Rating	Surface	Flow Rate
CDD 000/0	Male G3/4 BSP	98	160	18	32	1200	225	300	86	CCD 000 00 D	Synthetic Fibre	2	752 cm <sup>2</sup>	0,70 m³/min
SDB-093/2	(ISO 228)	3.86	6.30	.71	1.26	2.65	.50	18.3	.19	SGB-090-03-B	Syridied Fibre	ЗИШ	115 in²	24.71 cfm
CDD 000/0	Male G3/4 BSP	98	220	18	32	1500	450	600	172	SGB-090-03-B	3 Synthetic Fibre	2	752 cm <sup>2</sup>	0,70 m³/min
SDB-096/2	(ISO 228)	3.86	8.66	.71	1.26	3.31	.99	36.6	.38			ЗµП	115 in²	24.71 cfm
CDD 101/0	Male G1-1/4 BSP	130	258	25	50	2700	750	1000	288	00D 100 00 D	Cunth atia Fibra	2	2095 cm <sup>2</sup>	1,50 m³/min
SDB-121/2	(ISO 228)	5.12	10.16	.98	1.98	5.92	1.65	61.0	.63	SGB-120-03-B	Synthetic Fibre	ЗИШ	320 in²	52.97 cfm
CDD 100/0	Male G1-1/4 BSP	130	355	25	50	4000	1500	2000	576	CCD 100 00 D	Cunthatia Fibra	2	2095 cm <sup>2</sup>	1,50 m³/min
SDB-122/2	(ISO 228)	5.12	13.98	.98	1.98	8.82	3.31	122.0	1.27	SGB-120-03-B	Synthetic Fibre	Зµп	320 in <sup>2</sup>	52.97 cfm

\*  $\pm$  2 mm / .08 in

#### **Characteristics**

#### Combination of air breather and water removal filter

When a reservoir or gearbox breathes, air containing water vapor is ingested into the system. Temperature fluctuations will cause this water vapor to condense which can speed up the oxidation of the fluid and lead to damage in the system.

While inhaling, Desiccant Air Breathers SDB first dry the air as it passes through the drying agent. The air then passes through a  $3\mu m$  air filter element to remove any solid contamination particles.

As moisture is absorbed, the drying agent will gradually change from red to orange. When it is orange, replace the drying agent. If required, an optional visual indicator gives an indication of the status of the air breather. With the moisture absorbed, the oxidation process can be decreased and the lifetime of the oil and the entire machinery will be extended.

Desiccant Air Breathers SDB can also be re-fitted with a layer of active carbon (1/3) and a layer of regular drying agent (2/3) for vapor filtration.

#### Features

- Available in 4 different sizes
- Diameter of Ø100 mm / Ø3.94 in or Ø130 mm / Ø5.12 in
- Refillable with drying agent (non-toxic ZR gel grain) or a mix of drying agent and active carbon
- Replaceable air filter element SGB
- Connection: Male BSP thread (ISO 228) on Stainless Steel tube
- Available with adaptor plate to simplify installation and to enable the use of a visual contamination indicator
- Operating temperature range:
   -40 °C ... +90 °C / -40 °F ... +194 °F\*

#### **Accessories / Spare Parts**

#### Adaptor plate

■ for SDB-093/2 and SDB-096/2: AP-1 ■ for SDB-121/2 and SDB-122/2: AP-2

#### **Visual contamination indicator**

• for all sizes (in conjunction with adaptor plate only): FM

Drying agent refilling material (supplied in air tight container)

 • for SDB-093/2 (300 cm³ / 18.3 in³):
 RD-093

 • for SDB-096/2 (600 cm³ / 26.6 in³):
 RD-096

 • for SDB-121/2 (1000 cm³ / 61.0 in³):
 RD-121

 • for SDB-122/2 (2000 cm³ / 122.0 in³):
 RD-122

Active carbon refilling material (supplied in air tight container)

■ for SDB-093/2, SDB-096/2

RC-093/096/121

and SDB-121/2 (300 cm<sup>3</sup> / 18.3 in<sup>3</sup>): • for SDB-122/2 (600 cm<sup>3</sup> / 18.3 in<sup>3</sup>):

RC-122

Please note: Use one layer of active carbon (1/3) and one layer of regular drying agent (2/3).

#### Replacement air filter element (sealing included)

■ for SDB-093/2 and SDB-096/2:

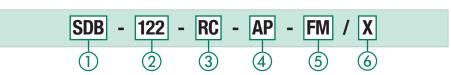
SGB-090-03-B

• for SDB-121/2 and SDB-122/2:

SGB-120-03-B

# retime of the oil and the entire machinery will be exte

#### Order Codes



122

Type
 Desiccant Air Breather

 Max. Water Absorption and Size

Please see table above for further technical details.

576 g / 1.27 lbs at Ø130mm / Ø5.12 in

3 Drying Agent Material

Regular drying agent (standard option)

One layer of active carbon (1/3) and one layer of regular drying agent (2/3) for vapor filtration

RC

(4) Adaptor Plate

Without adaptor plate

With adaptor plate

AP

**(5) Contamination Indicator** 

Without contamination indicator
With visual contamination indicator FM
(in conjunction with adaptor plate AP only)

Please see page 47 for details.

6 Design Code
Only for information

\* Note: The operation of the Desiccant Air Breather may vary at temperatures below 0°C / 32°F due to very low humidity %.



FΜ



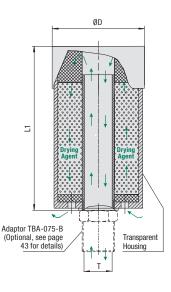
# Desiccant Air Breather (Disposable Version) Type SVDB

# **Drying Agent**Capable in changing colours

with increasing moisture



This product does not contain any dangerous substances according to EC Council directives 99/45/EC and 2001/60/EC.





#### **Dimensions and Technical Data**

Туре	Thread T	Dimensions (mm/in)		Weight (9/tbs)		Volume (cm³/in³)	Max. Water Absorption	Max. Air Flow Rate	
		ØD*	L1*	L2*	Complete Unit	Drying Agent	Drying Agent	(g/ <sub>lbs)</sub>	
SVDB-093 Female G3/4 BSP (ISO 228)	94	109	18	400	225	300	86	0,70 m³/min	
	(ISO 228)	3.70	4.68	.71	.88	.50	18.3	.19	24.71 cfm
SVDB-096 Female G3/4 BSP (ISO 228)	94	179	18	700	450	600	172	0,70 m³/min	
	3.70	7.05	.71	1.54	.99	36.9	.38	24.71 cfm	

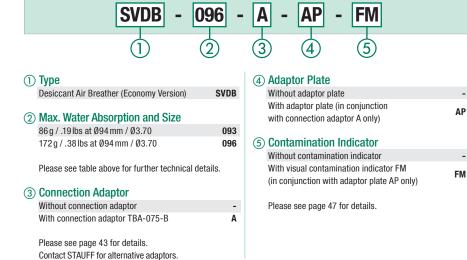
<sup>\*</sup>  $\pm$  2 mm / .08 in

#### Features

- Light-weight alternative to the SDB series
- Available in 2 different sizes
- Diameter of Ø94 mm / Ø3.70 in
- Filled with drying agent (non-toxic ZR gel grain)
- Connection: Female BSP thread (ISO 228) in Plastic housing
- Operating temperature range:-40 °C ... +90 °C / -40 °F ... +194 °F\*

Please note that neither the air filter element nor the drying agent can be replaced when saturated.

#### **Order Codes**



#### Characteristics

#### Combination of air breather and water removal filter

When a reservoir or gearbox breathes, air containing water vapor is ingested into the system. Temperature fluctuations will cause this water vapor to condense which can speed up the oxidation of the fluid and lead to damage in the system.

Desiccant Air Breathers SVDB are the light-weight alternative to the proven SDB series, offering an almost identical filtration and absorption performance.

While inhaling, Desiccant Air Breathers SVDB also first dry the air as it passes through the drying agent. The air then passes through a  $10 \mu m$  coarse filter to remove any solid contamination particles.

As moisture is absorbed, the drying agent will gradually change from red to orange. When it is orange, replace the entire unit. If required, an optional visual indicator gives an indication of the status of the air breather. With the moisture absorbed, the oxidation process can be decreased and the lifetime of the oil and the entire machinery will be extended.

#### **Accessories / Spare Parts**

Connection adaptor (see page 43 for details)

• for all sizes: TBA-075-B

#### Adaptor plate

• for all sizes (in conjunction with adaptor plate only): AP-1

#### Visual contamination indicator

• for all sizes (in conjunction with adaptor plate only): FM

<sup>\*</sup> Note: The operation of the Desiccant Air Breather may vary at temperatures below 0°C / 32°F due to very low humidity %.

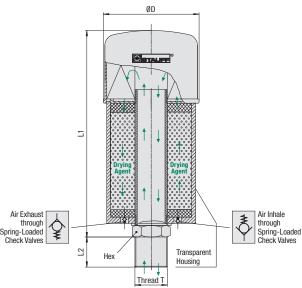




## **Desiccant Air Breather with Check Valves Type SDB-CV**







#### **Drying Agent**

Capable in changing colours with increasing moisture



This product does not contain any dangerous substances according to EC Council directives 99/45/EC and 2001/60/EC.

#### **Dimensions and Technical Data**

Туре	pe Thread T Dimensions			Weight	nt Volume N		Max. Water	Air Filter Elemen	ts							
		(mm/in)				(g/ <sub>lbs)</sub>	(g/lbs)		Absorption		Filter	Micron	Filter	Max. Air		
		ØD*	L1*	L2*	Hex	Complete Unit	Drying Agent	Drying Agent	(g/ <sub>lbs)</sub>	Туре	67	Rating	Surface	Flow Rate		
CDD OC4 OV	Female G3/8	68	143	14	22	350	75	100	29	SGB-060-03-B	000 000 00 0	Synthetic	0	415 cm <sup>2</sup>	0,05 m³/min	
SDB-061-CV	BSP (ISO 228)	2.68	5.63	.55	.87	.77	.17	6.1	.06		Fibre	3µт	63 in <sup>2</sup>	1.77 cfm		
SDB-096-CV	Male G3/4	98	220	18	32	1500	450	600	172	000 000 00 0	CCD 000 00 D	SGB-090-03-B	Synthetic	2	752 cm <sup>2</sup>	0,70 m³/min
2DR-080-CA	BSP (ISO 228)	3.86	8.66	.71	1.26	3.31	.99	36.6	.38	SGB-090-03-B	Fibre	3µт	115 in <sup>2</sup>	24.71 cfm		
SDB-121-CV	Male G1-1/4	130	258	25	50	2700	750	1000	288	CCD 100 00 D	Synthetic	0	2095 cm <sup>2</sup>	1,50 m³/min		
20B-121-0A	BSP (ISO 228)	5.12	10.16	.98	1.98	5.92	1.65	61.0	.63	SGB-120-03-B	Fibre	3µт	320 in <sup>2</sup>	52.97 cfm		
SDB-122-CV	Male G1-1/4	130	355	25	50	4000	1500	2000	576	SGB-120-03-B	Synthetic	Synthetic	0	2095 cm <sup>2</sup>	1,50 m³/min	
3DD-122-0V	BSP (ISO 228)	5.12	13.98	.98	1.98	8.82	3.31	122.0	1.27		Fibre	3µm	320 in <sup>2</sup>	52.97 cfm		

\*  $\pm$  2 mm / .08 in

#### **Characteristics**

Combination of air breather and water removal filter with integrated check valves to increase the lifetime of the desiccant material; particularly suited for gearbox applications

When a reservoir or gearbox breathes, air containing water vapor is ingested into the system. Temperature fluctuations will cause this water vapor to condense which can speed up the oxidation of the fluid and lead to damage in the system.

While inhaling, Desiccant Air Breathers SDB-CV first dry the air as it passes through the drying agent. The air then passes through a 3 µm air filter element to remove any solid contamination particles

Thanks to the spring-loaded check valves with an opening pressure of 0,01 bar / .15 PSI, the drying agent will be isolated from the atmosphere unless inhaling or exhaling, which increases the lifetime of the Desiccant Air Breather SDB-CV as well.

As moisture is absorbed, the drying agent will gradually change from red to orange. When it is orange, replace the drying agent. If required, an optional visual indicator (not for the SDB-061-CV) gives an indication of the status of the air breather. With the moisture absorbed, the oxidation process can be decreased and the lifetime of the oil and the entire machinery will be extended. Desiccant Air Breathers SDB-CV can also be re-fitted with a layer of active carbon (1/3) and a layer of regular drying agent (2/3) for vapor filtration.

#### Features

- · Available in 4 different sizes with diameter of Ø68 mm / Ø2.68 in, Ø100 mm / Ø3.94 in or Ø130 mm / Ø5.12 in
- Equipped with spring-loaded check valves in opposing directions with an opening pressure of 0,01 bar / .15 PSI
- Refillable with drying agent (non-toxic ZR gel grain) or a mix of drying agent and active carbon
- Replaceable air filter element SGB
- Connection: BSP thread (ISO 228)
- · Operating temperature range:

-40 °C ... +90 °C / -40 °F ... +194 °F\*

Please note: Using a Desiccant Air Breather with integrated spring-loaded check valves may cause an under or over pressure of 0,01 bar / .15 PSI inside the system, which does not cause any problems for the majority of gearboxes and reservoirs. In case of doubt, please contact your equipment supplier.

#### **Accessories / Spare Parts**

#### Adaptor plate

- for SDR-096-CV-AP-1 • for SDB-121-CV and SDB-122-CV: AP-2
- **Visual contamination indicator**
- for SDB-096-CV, SDB-121-CV and SDB-122-CV FΜ (in conjunction with adaptor plate only):

#### Drying agent refilling material (supplied in air tight container)

- for SDB-061-CV (100 cm3 / 6.1 in3): RD-061 • for SDB-096-CV (600 cm3 / 26.6 in3): RD-096 • for SDB-121-CV and SDB-122-CV **RD-121** (1000 cm<sup>3</sup> / 61.0 in<sup>3</sup>):
- for SDB-122-CV (2000 cm3 / 122.0 in3): **RD-122**

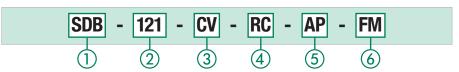
#### Active carbon refilling material (supplied in air tight container)

- for SDB-096-CV and SDB-121-CV RC-093/096/121 (300 cm3 / 18.3 in3):
- for SDB-122-CV (600 cm3 / 18.3 in3): RC-122 Please note: Use one layer of active carbon (1/3) and one layer of regular drying agent (2/3).

#### Replacement air filter element (sealing included)

■ for SDB-061-CV: SGB-060-03-B ■ for SDB-096-CV: SGB-090-03-B • for SDB-121-CV and SDB-122-CV: SGB-120-03-B

#### **Order Codes**



Desiccant Air Breather SDB 2 Max. Water Absorption and Size

29g / .06lbs at Ø68mm / Ø2.68in 061 172g / .38 lbs at Ø100 mm / Ø3.94 in 096 288 g / .63 lbs at Ø130mm / Ø5.12 in 121 576 g / 1.27 lbs at Ø130mm / Ø5.12 in 122

Please see table above for further technical details.

#### ③ Check Valves

With integrated spring-loaded CV check valves (0,01 bar / .15 PSI)

#### (4) Drying Agent

Regular drying agent (standard option) One layer of active carbon (1/3) and one layer of regular drying agent (2/3) for vapor filtration

#### (5) Adaptor Plate

Without adaptor With adaptor plate (not for SDB-061-CV)

#### **(6) Contamination Indicator**

Without contamination indicator With visual contamination indicator FM FΜ (in conjunction with adaptor plate AP only)

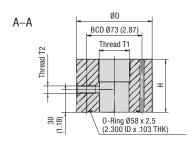
Please see page 47 for details.

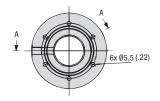
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<sup>\*</sup> Note: The operation of the Desiccant Air Breather may vary at temperatures below 0°C / 32°F due to very low humidity %







#### Adaptor Plate Type AP

Desiccant Air Breather SDB with Adaptor Plate AP



#### **Order Code and Dimensions**

Thread T1 (Breather Port)	Thread T2 (Indicator Port)	Dimension H	s <sup>(mm</sup> / <sub>in)</sub>	Socket Cap Screws included	For Use with Desiccant Air Breathers	Order Code
Female G3/4 BSP (ISO 228)	Female G1/8 BSP (ISO 228)	50	88	M5 x 60 - 8.8	SDB-096/2 SDB-093/2 SVDB-096	AP-1
		1.98	3.46	(Steel, zinc-plated)	SVDB-093 SDB-096-CV	AF-I
Female G1-1/4 BSP	Female G1/8 BSP	70	100	M5 x 80 - 8.8	SDB-121/2 SDB-122/2	AD 2
(ISO 228)	(ISO 228)	2.76	3.94	(Steel, zinc-plated)	SDB-121-CV SDB-122-CV	AP-2

#### **Characteristics**

Designed to simplify the installation of Desiccant Air Breathers and enable the use of a visual contamination indicator

With Adaptor Plates AP, desiccant air breathers can be directly mounted to existing connections with a six-hole bolt pattern for flange interfaces similar to DIN 24557, part 2.

They are also equipped with a female G1/8 BSP thread (ISO 228) to connect with the Visual Contamination Indicator FM.

Adaptor Plates AP are made of Polyamide (PA). A blind plug, 0-ring made of NBR (Buna-N®) and 6 socket cap screws (ISO 4762) are supplied with AP as a standard.

Contact STAUFF for other Adaptor Plates.

# Signal Plug Signal Plug SW 14 (Hex .55)

# Visual Contamination Indicator Type FM

Desiccant Air Breather SDB with Adaptor Plate AP and Visual Contamination Indicator FM



#### **Order Code and Dimensions**

Thread T	Dimensions (m	m/ <sub>in)</sub>	Order Code		
	L1	L2			
Male G1/8 BSP	75	10			
(ISO 228)	2.54	.39	FM		

Reset Button

#### Materials

Housing made of Polycarbonate

#### **Technical Data**

- Operating temperature range:-40 °C ... +121 °C (-40 °F ... +250 °F)
- Accuracy: ±10% at red marking

#### Characteristics

#### Designed to indicate the status of air filter elements

Visual Contamination Indicators FM – the so-called Filter Minders® – are connected to the female G1/8 BSP thread (ISO 228) of the Adaptor Plate AP and give a visual indication of the contamination level of the air filter element SGB. A red marking indicates when the air filter element has to be replaced.

Visual Contamination Indicators FM can be reset afterwards.

#### **Order Code and Dimensions**

Dimensions (mm/in)		Order Code				
Length	Diameter					
140	60	TBA-075-B12F-B12-B-0D-140				
5.51	2.36	1BA-U/3-B12F-B12-B-UU-14U				
210	60	TBA-075-B12F-B12-B-0D-210				
8.27	2.36	IDA-U/ 3-D 12F-B12-B-UD-210				

Dimensional drawings: All dimensions in mm (in).

#### **Characteristics**

Designed to prevent oil mist from leaving the hydraulic reservoir through air breathers

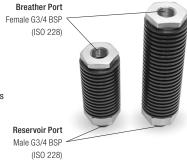
#### Features

- Available in 2 different sizes with lengths of 140 mm / 5.51 in or 210 mm / 8.27 in
- Suitable for use with various types of Desiccant Air Breathers including SDB-096/2, SDB-093/2, SVDB-096, SVDB-093 and SDB-096-CV as well as Tank Filler Breathers including SPB-2, SPB-3, SMBT-80 and SPBN

#### Materials

- Housing with cooling ribs made of Aluminum housing with cooling ribs
- Threaded adaptors made of Steel

## Oil Demister Type TBA-OD



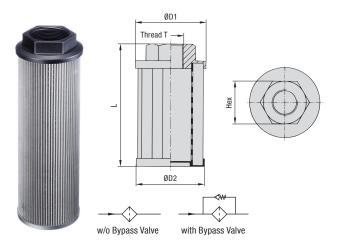




Suction Strainers	48 - 51
SUS (Polyamide End Cap)	50
SUS (Aluminium End Cap)	51



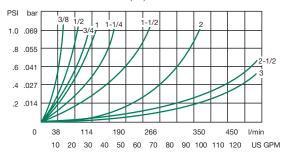
#### **Suction Strainer (Polyamide End Cap) Type SUS**



#### **Flow Characteristics**

#### Nominal Flow Rate vs. Pressure Drop $\Delta P$

The following characteristics are valid for Mineral oils with a mass density of 0,85 kg/dm3 and a kinematic viscosity of 30 mm<sup>2</sup>/s (cSt) at +38 °C / +100 °F.



#### **Characteristics**

Designed as in-tank suction strainer elements for direct installation into suction lines of pumps; should always be installed below the minimum fluid level of the reservoir

- Available with female BSP thread (ISO 228) or female NPT thread (ANSI B1.20.1)
- · Operating temperature range: -20 °C ... +100 °C / -4 °F ... +212 °F

#### **Media Compatibility**

• Suitable for use with Mineral and Petroleum based hydraulic fluids (HL and HLP)

- Threaded end cap made of glass-fibre reinforced Polyamide (PA); see page 51 for version with Aluminium end cap
- Lower end cap and support tube made of Steel, zinc-plated
- Standard filter material is Stainless Steel Mesh (125 μm); alternative micron ratings of  $60\,\mu m$  and  $250\,\mu m$  on request

Contact STAUFF for alternative materials.

#### **Options**

 Integrated bypass valve with an opening pressure of 0,2 bar (3 PSI) to reduce the risks of high-pressure drops that can be caused by contaminated strainer elements or high-viscosity fluids

Special sizes, designs, materials and configurations are available on request. Contact STAUFF for details.

#### **Dimensions and Technical Data** (Female BSP Threaded Version)

Group Size	Thread T	Dimen	sions (mm	/in)		Filter	Max.
		ØD1	ØD2	L	Hex	Surface	Flow Rate
040 006 075	G3/8 BSP	39,5	38,5	75	22	279 cm <sup>2</sup>	12 l/min
040-G06-075	G3/8 B5P	1.56	1.53	2.93	.87	43 in <sup>2</sup>	3.1 US GPM
050 000 007	G3/8 BSP	50	49	67	26	296 cm <sup>2</sup>	12 l/min
050-G06-067	G3/8 B3P	1.97	1.93	2.64	1.02	46 in <sup>2</sup>	3.1 US GPM
050 000 405	C4 /O DCD	50	49	105	26	518 cm <sup>2</sup>	15 l/min
050-G08-105	G1/2 BSP	1.97	1.93	4.13	1.02	80 in <sup>2</sup>	3.9 US GPM
000 040 405	G3/4 BSP	68	66	105	34	676 cm <sup>2</sup>	25 l/min
068-G12-105	G3/4 D3P	2.68	2.60	4.13	1.34	105 in <sup>2</sup>	6.5 US GPM
000 040 440	G1 BSP	68	66	140	42	930 cm <sup>2</sup>	50 l/min
068-G16-140	GI DOP	2.68	2.60	5.51	1.65	144 in²	13.0 US GPM
000 000 110	G1-1/4 BSP	88	85	140	50	1172 cm <sup>2</sup>	65 I/min
088-G20-140	G1-1/4 BSP	3.46	3.35	5.51	1.97	182 in <sup>2</sup>	16.9 US GPM
000 004 440	G1-1/2 BSP	88	85	140	60	1172 cm <sup>2</sup>	140 l/min
088-G24-140	G1-1/2 DOP	3.46	3.35	5.51	2.36	182 in <sup>2</sup>	36.4 US GPM
400 004 000	G1-1/2 BSP	102	100	200	72	2427 cm <sup>2</sup>	140 l/min
102-G24-200	G1-1/2 DOP	4.02	3.94	7.87	2.83	376 in <sup>2</sup>	36.4 US GPM
100 000 000	G2 BSP	102	100	200	72	2427 cm <sup>2</sup>	230 l/min
102-G32-200	GZ DOP	4.02	3.94	7.87	2.83	376 in <sup>2</sup>	59.8 US GPM
100 000 005	G2 BSP	102	100	225	72	2811 cm <sup>2</sup>	230 l/min
102-G32-225	GZ DOP	4.02	3.94	8.86	2.83	436 in <sup>2</sup>	59.8 US GPM
100 000 000	G2 BSP	102	100	260	72	3249 cm <sup>2</sup>	230 l/min
102-G32-260	GZ DOP	4.02	3.94	10.24	2.83	504 in <sup>2</sup>	59.8 US GPM
100 000 000	G2 BSP	102	100	300	72	3798 cm <sup>2</sup>	230 l/min
102-G32-300	GZ DOP	4.02	3.94	11.81	2.83	589 in <sup>2</sup>	59.8 US GPM
404 040 404	G2-1/2 BSP	131	128	191	86	2430 cm <sup>2</sup>	340 l/min
131-G40-191	GZ-1/2 DOP	5.16	5.04	10.24	3.39	377 in <sup>2</sup>	88.4US GPM
101 040 010	G2-1/2 BSP	131	128	212	86	2748 cm <sup>2</sup>	340 l/min
131-G40-212	UZ-1/2 DSP	5.16	5.04	8.35	3.39	426 in <sup>2</sup>	88.4 US GPM
101 040 070	G3 BSP	131	128	272	96	3626 cm <sup>2</sup>	400 l/min
131-G48-272	GO DOP	5.16	5.04	10.71	3.78	562 in <sup>2</sup>	104 US GPM
450 000 454	G2 BSP	150	145	151	70	1812 cm <sup>2</sup>	400 l/min
150-G32-151	UZ DOP	5.91	5.71	5.94	2.76	281 in <sup>2</sup>	104 US GPM

#### **Dimensions and Technical Data** (Female NPT Threaded Version)

Group Size	Thread T	Dimensions (mm/in)			Filter	Max.	
		ØD1	ØD2	L	Hex	Surface	Flow Rate
050 NOC 007	O /O NIDT	50	49	67	26	296 cm <sup>2</sup>	12 l/min
050-N06-067	3/8 NPT	1.97	1.93	2.64	1.02	46 in <sup>2</sup>	3.1 US GPM
0E0 NOC 000	O/O NIDT	50	49	90	26	430 cm <sup>2</sup>	12 l/min
050-N06-090	3/8 NPT	1.97	1.93	3.54	1.02	67 in <sup>2</sup>	3.1 US GPM
050 NOO 405	1 /O NDT	50	49	105	26	518 cm <sup>2</sup>	15 l/min
050-N08-105	1/2 NPT	1.97	1.93	4.13	1.02	80 in <sup>2</sup>	3.9 US GPM
000 N40 405	3/4 NPT	68	66	105	34	676 cm <sup>2</sup>	25 l/min
068-N12-105	3/4 NPT	2.68	2.60	4.13	1.34	105 in <sup>2</sup>	6.5 US GPM
000 1140 440	1 NPT	68	66	140	42	930 cm <sup>2</sup>	50 l/min
068-N16-140	INFI	2.68	2.60	5.51	1.65	144 in <sup>2</sup>	13.0 US GPM
000 NO0 140	1-1/4 NPT	88	85	140	50	1172 cm <sup>2</sup>	65 l/min
088-N20-140	1-1/4 NF1	3.46	3.35	5.51	1.97	182 in <sup>2</sup>	16.9 US GPM
000 NO0 105	1-1/4 NPT	88	85	195	60	1709 cm <sup>2</sup>	65 l/min
088-N20-195	1-1/4 NF 1	3.46	3.35	7.68	2.36	265 in <sup>2</sup>	16.9 US GPM
088-N24-140	1-1/2 NPT	88	85	140	60	1172 cm <sup>2</sup>	140 l/min
U00-N24-14U	1-1/2 NF1	3.46	3.35	5.51	2.36	182 in <sup>2</sup>	36.4 US GPM
088-N24-226	1-1/2 NPT	88	85	226	60	2012 cm <sup>2</sup>	140 l/min
U00-N24-220	1-1/2 NF1	3.46	3.35	8.90	2.36	312 in <sup>2</sup>	36.4 US GPM
088-N24-260	1-1/2 NPT	88	85	260	60	2344 cm <sup>2</sup>	140 l/min
U00-N24-20U	1-1/2 NF1	3.46	3.35	10.24	2.36	363 in <sup>2</sup>	36.4 US GPM
102-N24-200	1-1/2 NPT	102	100	200	72	2427 cm <sup>2</sup>	140 l/min
102-N24-200	1-1/2 NF1	4.02	3.94	7.87	2.83	376 in <sup>2</sup>	36.4 US GPM
102-N32-260	2 NPT	102	100	260	72	3249 cm <sup>2</sup>	230 l/min
102-1132-200	Z INF I	4.02	3.94	10.24	2.83	504 in <sup>2</sup>	59.8 US GPM
131-N40-212	2-1/2 NPT	131	128	212	86	2748 cm <sup>2</sup>	340 l/min
131-1140-212	Z=1/Z NI'I	5.16	5.04	8.35	3.39	426 in <sup>2</sup>	88.4 US GPM
131-N48-272	2 NDT	131	128	272	96	3626 cm <sup>2</sup>	400 l/min
131-N48-2/2	3 NPT	5.16	5.04	10.71	3.78	562 in <sup>2</sup>	104 US GPM

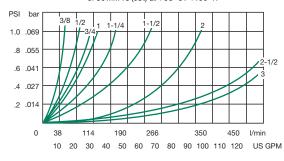


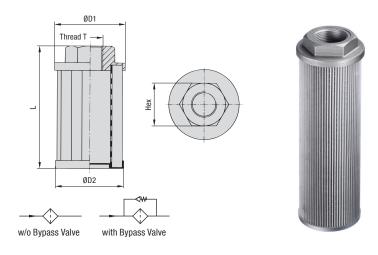
# Suction Strainer (Aluminium End Cap) Type SUS

#### **Flow Characteristics**

#### Nominal Flow Rate vs. Pressure Drop $\Delta P$

The following characteristics are valid for Mineral oils with a mass density of  $0.85\,kg/dm^3$  and a kinematic viscosity of  $30\,mm^2/s$  (cSt) at  $+38\,^{\circ}C$  /  $+100\,^{\circ}F$ .





#### **Characteristics**

Designed as in-tank suction strainer elements for direct installation into suction lines of pumps; should always be installed below the minimum fluid level of the reservoir

#### Features

- Available with female NPT thread (ANSI B1.20.1)
- Operating temperature range:
- -20 °C ... +100 °C / -4 °F ... +212 °F

#### **Media Compatibility**

 Suitable for use with Mineral and Petroleum based hydraulic fluids (HL and HLP)

#### Materials

- Threaded end cap made of Aluminium; see page 50 for version with Polyamide (PA) end cap
- · Lower end cap and support tube made of Steel, zinc-plated
- Filter material made of Stainless Steel Mesh (125 μm);
   alternative micron ratings of 60 μm and 250 μm on request

Contact STAUFF for alternative materials.

#### **Options**

 Integrated bypass valve with an opening pressure of 0,2 bar (3 PSI) to reduce the risks of high-pressure drops that can be caused by contaminated strainer elements or high-viscosity fluids

Special sizes, designs, materials and configurations are available on request. Contact STAUFF for details.

#### **Dimensions and Technical Data** (Female NPT Threaded Version)

Group Size	Thread T	Dimensions (mm/in)			Filter	Max.	
		ØD1	ØD2	L	Hex	Surface	Flow Rate
050-N06-067	3/8 NPT	50	49	67	26	296 cm <sup>2</sup>	12 l/min
030-1100-007	3/0 NI 1	1.97	1.93	2.64	1.02	46 in <sup>2</sup>	3.1 US GPM
050-N06-090	3/8 NPT	50	49	90	26	430 cm <sup>2</sup>	12 l/min
030-1100-030	3/0 INF I	1.97	1.93	3.54	1.02	67 in <sup>2</sup>	3.1 US GPM
050-N08-105	1/2 NPT	50	49	105	26	518 cm <sup>2</sup>	15 l/min
001-808-100	1/2 NP1	1.97	1.93	4.13	1.02	80 in <sup>2</sup>	3.9 US GPM
068-N12-105	3/4 NPT	68	66	105	34	676 cm <sup>2</sup>	25 l/min
008-N12-105	3/4 INF I	2.68	2.60	4.13	1.34	105 in <sup>2</sup>	6.5 US GPM
000 N40 440	1 NPT	68	66	140	42	930 cm <sup>2</sup>	50 l/min
068-N16-140	TINFI	2.68	2.60	5.51	1.65	144 in <sup>2</sup>	13.0 US GPM
088-N20-140	1-1/4 NPT	88	85	140	50	1172 cm <sup>2</sup>	65 l/min
088-N20-140	1-1/4 INF I	3.46	3.35	5.51	1.97	182 in <sup>2</sup>	16.9 US GPM
088-N20-195	1-1/4 NPT	88	85	195	60	1709 cm <sup>2</sup>	65 l/min
088-N20-195		3.46	3.35	7.68	2.36	265 in <sup>2</sup>	16.9 US GPM
088-N24-140	1-1/2 NPT	88	85	140	60	1172 cm <sup>2</sup>	140 l/min
U00-N24-14U	1-1/2 NF1	3.46	3.35	5.51	2.36	182 in <sup>2</sup>	36.4 US GPM
088-N24-226	1-1/2 NPT	88	85	226	60	2012 cm <sup>2</sup>	140 l/min
U00-N24-220	1-1/2 NF1	3.46	3.35	8.90	2.36	312 in <sup>2</sup>	36.4 US GPM
088-N24-260	1-1/2 NPT	88	85	260	60	2344 cm <sup>2</sup>	140 l/min
U00-N24-20U	1-1/2 NF1	3.46	3.35	10.24	2.36	363 in <sup>2</sup>	36.4 US GPM
088-N32-260	2 NPT	88	85	260	70	2344 cm <sup>2</sup>	230 l/min
000-1432-200	∠ INF I	3.46	3.35	10.24	2.76	363 in <sup>2</sup>	59.8 US GPM
150-N40-213	2-1/2 NPT	150	145	213	90	2741 cm <sup>2</sup>	340 l/min
100-1140-213	Z-1/Z NP1	5.91	5.71	8.39	3.54	425 in <sup>2</sup>	88.4US GPM
150 NAO 070	3 NPT	150	145	272	100	3625 cm <sup>2</sup>	400 l/min
150-N48-272	S INF I	5.91	5.71	10.71	3.94	562 in <sup>2</sup>	104 US GPM

#### **Order Codes**



1) Type

Suction Strainer for direct installation into suction lines of pumps

SUS

(2) Group Size

Select 'Group Size' from corresponding column in dimensional tables

The group size is defined by the diameter ØD1 of the threaded end cap, the thread code (type and size) and the total length of the suction strainer element (e.g. 040-B06F-075).

(3) Filter Material / Micron Rating

 Stainless Steel Mesh, 125 μm (standard option)
 125

 Stainless Steel Mesh, 60 μm
 060

 Stainless Steel Mesh, 250 μm
 250

Contact STAUFF for alternative materials / micron ratings

(4) Material of Threaded End Cap

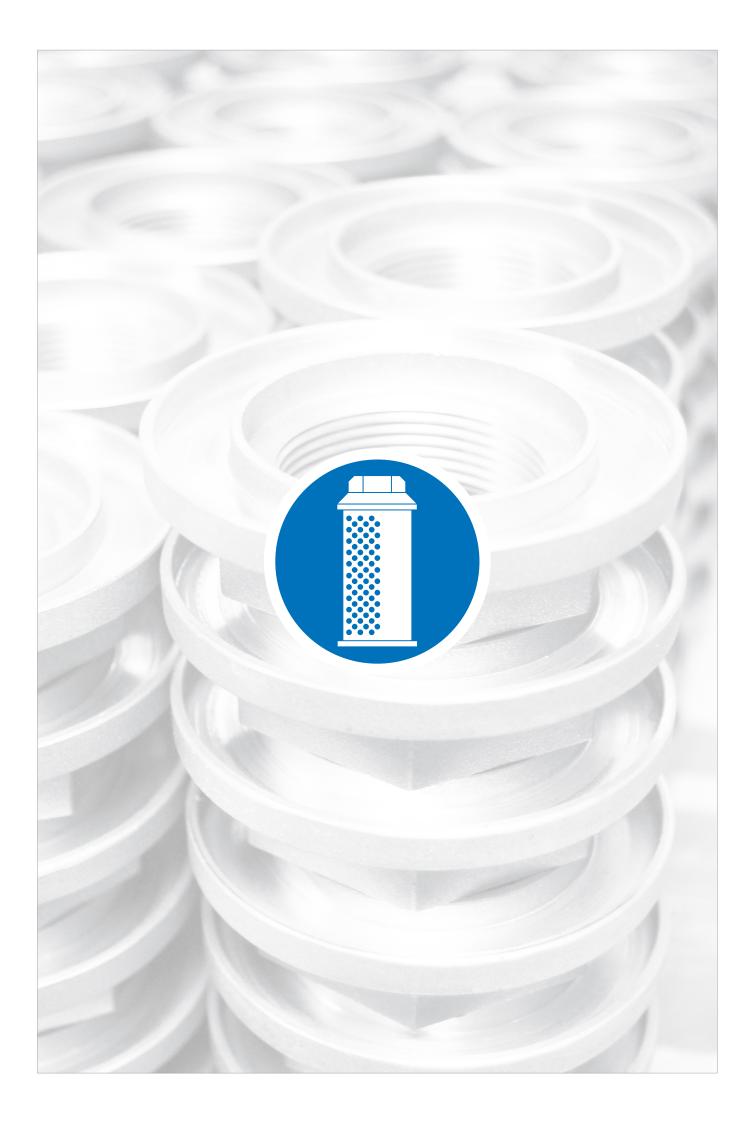
Glass-fibre reinforced Polyamide Pluminium (for female NPT threaded version only) A

⑤ Bypass Option

Without bypass valve (standard option)

Integrated bypass valve with opening pressure of 0,2 bar (3 PSI)

B0.2



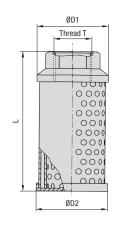


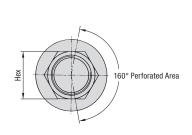
Diffusers	52 - 55
SRV (Female BSP Threaded Version)	54
SRV (Female NPT Threaded Version)	55



# Diffuser Type SRV (Female BSP Threaded Version)

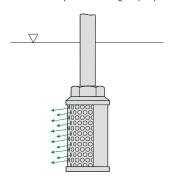






#### Installation

Installation below the minimum fluid level of the reservoir with the plain area facing the pump inlet



#### **Characteristics**

Designed for direct installation into return lines to reduce fluid aeration, foaming and noise; should always be installed below the minimum fluid level

#### Features

- Available with female BSP thread (ISO 228) Operating temperature range:
- -20 °C ... +100 °C / -4 °F ... +212 °F
- Max. working pressure: 20 bar / 290 PSI

#### **Media Compatibility**

 Suitable for use with Mineral and Petroleum based hydraulic fluids (HL and HLP)

#### **Construction and Materials**

- 2 concentric tubes with inner spaced holes
- Threaded end cap made of Aluminium
- Other components made of Steel, zinc-plated

Special sizes, designs, materials and configurations are available on request. Contact STAUFF for details.



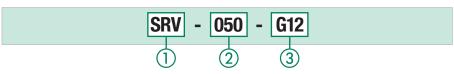
Diffusers SRV are ideally suited for use with STAUFF Return Line Filters of the RF series with threaded connection.

For details, please see Catalogue 9 - STAUFF Filtration Technology.

#### **Dimensions and Order Codes** (Female BSP Threaded Version)

Thread T	Dimensions (mm/in)	Max.			
	ØD1	ØD2	L	Hex	Flow Rate
G3/4	64	62	109	36	50 l/min
03/4	2.52	2.44	4.29	1.42	13 US GPM
G1	64	62	139	46	114 l/min
GI	2.52	2.44	5.47	1.81	30 US GPM
G1-1/4	86	84	139	60	200 l/min
G1-1/4	3.39	3.31	5.47	2.36	52 US GPM
G1-1/2	86	84	200	60	227 l/min
G1-1/2	3.39	3.31	7.87	2.36	59 US GPM
G2	86	84	260	70	454 l/min
GZ.	3.39	3.31	10.24	2.76	118 US GPM
G2-1/2	150	148	212	90	6501/min
UZ-1/Z	5.91	5.83	8.35	3.54	169 US GPM
G3	150	148	272	100	950 I/min
us	5.91	5.83	10.71	3.94	247 US GPM

#### **Order Codes**



(1) Type	
Diffuser	SRV
② Max. Flow Rate	
50 I/min / 13 US GPM	050
114 I/min / 30 US GPM	114
200 l/min / 52 US GPM	200
227 I/min / 59 US GPM	227
454 I/min / 118 US GPM	454
650 I/min / 169 US GPM	650
950 I/min / 247 US GPM	950

#### **③ Connection Thread (Female)**

G3/4	G12
G1	G16
G1-1/4	G20
G1-1/2	G24
G2	G32
G2-1/2	G40
G3	G48

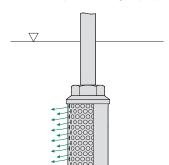
Contact STAUFF for alternative threads.

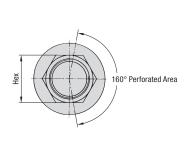


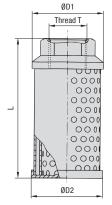
## Diffuser Type SRV (Female NPT Threaded Version)

#### Installation

Installation below the minimum fluid level of the reservoir with the plain area facing the pump inlet





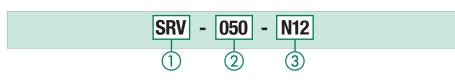




#### **Dimensions and Order Codes** (Female NPT Threaded Version)

Thread T	Dimensions (mr	Dimensions (mm/in)					
	ØD1	ØD2	L	Hex	Flow Rate		
3/4 NPT	64	62	109	36	50 l/min		
3/4 INP I	2.52	2.44	4.29	1.42	13 US GPM		
1 NPT	64	62	139	46	114 l/min		
INFI	2.52	2.44	5.47	1.81	30 US GPM		
1 1/4 NDT	86	84	139	60	200 l/min		
1-1/4 NPT	3.39	3.31	5.47	2.36	52 US GPM		
1 1/0 NDT	86	84	200	60	227 l/min		
1-1/2 NPT	3.39	3.31	7.87	2.36	59 US GPM		
O NIDT	86	84	260	70	4541/min		
2 NPT	3.39	3.31	10.24	2.76	118 US GPM		
0.4/0.NDT	150	148	212	90	650 l/min		
2-1/2 NPT	5.91	5.83	8.35	3.54	169 US GPM		
O NIDT	150	148	272	100	950 l/min		
3 NPT	5.91	5.83	10.71	3.94	247 US GPM		

#### **Order Codes**



1	Туре	
	Diffuser	SRV
2	Max. Flow Rate	
	50 I/min / 13 US GPM	050
	114 I/min / 30 US GPM	114
	200 I/min / 52 US GPM	200
	227 I/min / 59 US GPM	227
	454 I/min / 118 US GPM	454
	650 I/min / 169 US GPM	650
	950 I/min / 247 US GPM	950

#### (3) Connection Thread (Female)

3/4 NPT	N12
1 NPT	N16
1-1/4 NPT	N20
1-1/2 NPT	N24
2 NPT	N32
2-1/2 NPT	N40
3 NPT	N48

Contact STAUFF for alternative threads.

#### **Characteristics**

Designed for direct installation into return lines to reduce fluid aeration, foaming and noise; should always be installed below the minimum fluid level

#### Feature

- Available with female NPT thread (ANSI B1.20.1)
- Operating temperature range:-20 °C ... +100 °C / -4 °F ... +212 °F
- Max. working pressure: 20 bar / 290 PSI

#### **Media Compatibility**

• Suitable for use with Mineral and Petroleum based hydraulic fluids (HL and HLP)

#### **Construction and Materials**

- 2 concentric tubes with inner spaced holes
- Threaded end cap made of Aluminium
- Other components made of Steel, zinc-plated

Special sizes, designs, materials and configurations are available on request. Contact STAUFF for details.



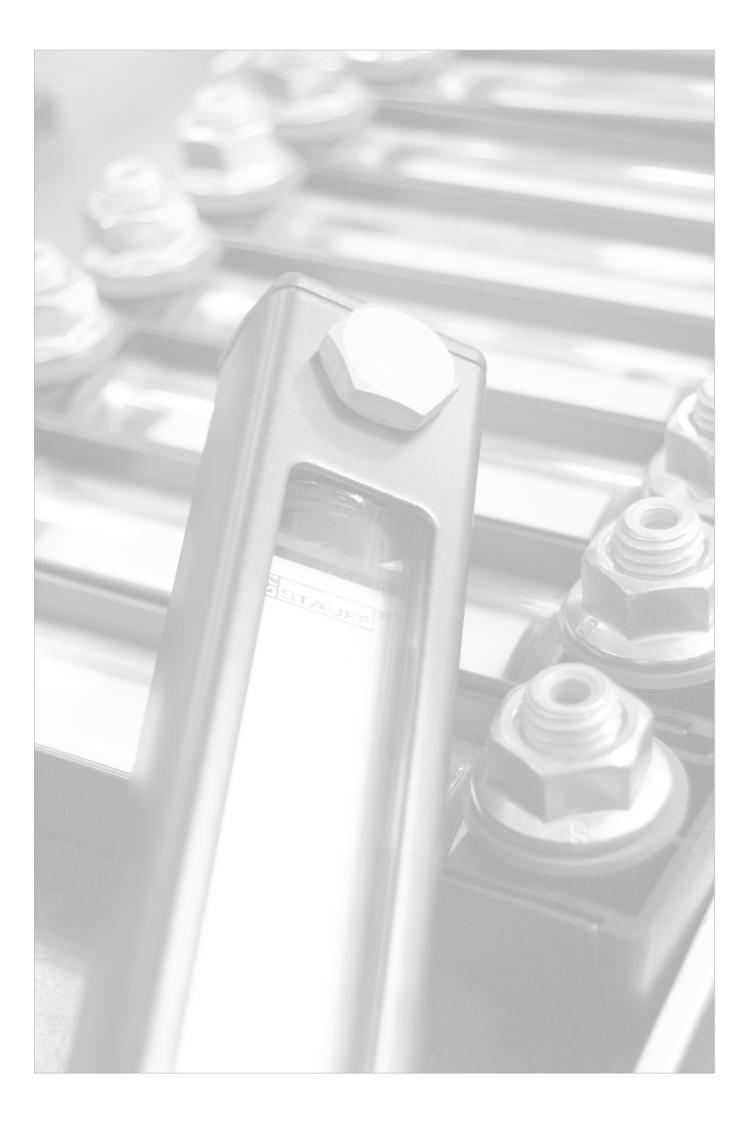
Diffusers SRV are ideally suited for use with STAUFF Return Line Filters of the RF series with threaded connection.

For details, please see Catalogue 9 -STAUFF Filtration Technology.



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## **Product-Specific Abbreviations**

Abbreviation	Product Category	Product Description	Page
AP	Giant and Desiccant Air Breathers	Adaptor Plate	47
ASMB-1	Tank Filler Breathers	Side Mount Bracket (Polyamide Version)	38
ASMB-2	Tank Filler Breathers	Side Mount Bracket (Aluminium Version)	38
DT04-4P	Fluid Level and Temperature Indicators	Deutsch Adaptor Cable	20
EBF	Tank Filler Breathers	Extended Bayonet Flange	39
FM	Giant and Desiccant Air Breathers	Visual Contamination Indicator	47
SDB	Giant and Desiccant Air Breathers	Desiccant Air Breathers	44
SDB-CV	Giant and Desiccant Air Breathers	Desiccant Air Breathers (with Check Valves)	46
SDV-SNA / SNK	Fluid Level and Temperature Indicators	Anti-Drain Valve	20
SES	Tank Filler Breathers	Plastic Filler Breather (Threaded Version)	31
SES	Tank Filler Breathers	Plastic Filler Breather (Welded Version)	31
SGB	Giant and Desiccant Air Breathers	Giant Air Breather	42
SLTS	Fluid Level and Temperature Indicators	Level-Temperature Switch	21
SMBB-47	Tank Filler Breathers	Metal Filler Breather (Bayonet Version)	33
SMBB-80	Tank Filler Breathers	Metal Filler Breather (Bayonet Version)	35
SMBL	Tank Filler Breathers	Lockable Metal Filler Breather (Clamping, Threaded and Push-On Version)	37
SMBP-80	Tank Filler Breathers	Metal Filler Breather (Push-On Version)	36
SMBT-47	Tank Filler Breathers	Metal Filler Breather (Threaded Version)	32
SMBT-80	Tank Filler Breathers	Metal Filler Breather (Threaded Version)	34
SNA	Fluid Level and Temperature Indicators	Level Gauge	14
SNK	Fluid Level and Temperature Indicators	Level Gauge	16
SNKK	Fluid Level and Temperature Indicators	Level Gauge	17
SPB-1 / 2 / 3	Tank Filler Breathers	Plastic Filler Breather (Threaded Version)	24
SPB-4 / 5	Tank Filler Breathers	Plastic Filler Breather (Flange Version)	25
SPBM	Tank Filler Breathers	Plastic Filler Breather Mini (Threaded Version)	30
SPBN	Tank Filler Breathers	Plastic Filler Breather (Compact Design; Threaded Version)	28
SPBN	Tank Filler Breathers	Plastic Filler Breather (Compact Design; Bayonet Version)	28
SRV	Diffusers	Diffusers (Female BSP Threaded Version)	54
SRV	Diffusers	Diffusers (Female NPT Threaded Version)	55
SUS	Suction Strainers	Suction Strainers (Polyamide End Cap)	50
SUS	Suction Strainers	Suction Strainers (Aluminium End Cap)	51
SVDB	Giant and Desiccant Air Breathers	Desiccant Air Breathers (Disposable Version)	45
T1 / T2	Fluid Level and Temperature Indicators	Dial Thermometer with Probe	18
TBA	Giant and Desiccant Air Breathers	Air Breather Adaptor	43
TBA-OD	Giant and Desiccant Air Breathers	Oil Demister	47
TS	Fluid Level and Temperature Indicators	Thermo Switch	18
TS-SNA / SNK-PT100	Fluid Level and Temperature Indicators	Temperature Sensor	19
TS-SNA / SNK-PT100-T	Fluid Level and Temperature Indicators	Temperature Sensor with Direct Installation Set	19
WR	Tank Filler Breathers	Weld Riser	39







#### **Global Contact Directory**

STAUFF products and services are globally available through wholly-owned subsidiaries and a tight network of authorised distributors and representatives in all major industrial regions of the world.

Contact information on this page may be subject to changes and additions over time. Frequently updated and complete contact information can always be found at www.stauff.com.

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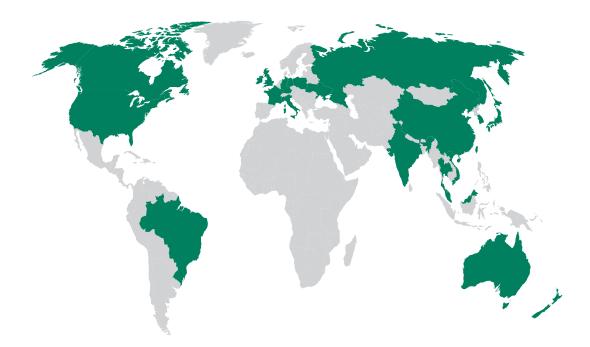
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## Catalogue 10 **STAUFF Hydraulic Accessories**



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