Bedienungsanleitung
Operating Instructions
Mode d'emploi
Istruzioni per l'uso

Stierius®

Bremsen - Service - Geräte

VARIO 5

VARIO 20 II

VARIO 20 II PRO

EG 30-60 EPC

EG 30-60 EPC PRO

General safety notes

1. The unit may only be connected to a power supply with voltage, current type and frequency matching the specification on the type plate! Never pull the power plug on the cord when unplugging it!
2. Do not start operation of the unit if the power cord has been damaged or the housing or the pressure hose shows sign of damage.
3. Never connect the unit to compressed air!
4. Operate only wirh pure brake fluid on glycol base (DOT 3, DOT 4, DOT 5.1). **Products containing mineral oil will destroy the unit!**
5. Before corrective maintenance, cleaning or repairs on electric devices, the user must ensure that the device is without current, i. e. switched off and the power plug pulled and the brake fluid has been drained from the unit.
6. Repairs may only be performed by trained professionals with corresponding shop equipment.
7. Improper repair or handling may lead to significant hazards to the user and may damage the unit. Unintended use or improper operation of the unit will void the liability for possible damages.
8. A function and leakage check must be performed after the repair of the unit has been completed. It must be ensured herby that units for brake fluids are only operated with brake fluid on glycol base (DOT 3, DOT 4, DOT 5.1). The use of brake fluids not recommended will lead to the destruction of the unit.
9. **Do not** put oil, or gasoline, soaked rags on the bleeder unit because of fire hazard.

General Information

The new STIERIUS Brake Bleeding Unit uses the latest technical advances in bleeding and filling hydraulic brake systems. One man is all it takes to operate and perform a complete brake bleeding service. Designed for all brake- and hydraulic clutch systems.

This unit is built extremely well for industrial and shop use. It is universal and can be used in many different applications. Any technician using our unit will appreciate the value and ease of use.

Every device is subject to special tests and certification.
Therefore every unit does conform to the EEC-Guidelines. Certificates are available on request.

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Important!

Brake fluid which is contaminated with dirt or water can cause the brake system to fail. It is recommended to use only brake fluid from its original container.

The hygroscopic properties of brake fluid cause it to draw and take in moisture from the air. This dangerously reduces the boiling point of the brake fluid.

The heat generated by the brake system with moisture in the brake fluid, causes steam bubbles to collect. This reduces the function and in extreme cases can eliminate the effectiveness of the brakes all together.

Corrosion such as electrolosis is caused inside of brake systems with brake fluid containing moisture.

The steam bubbles in the brake fluid carry in themselves oxygen which causes oxidation an corrosion of the brake system.

It is therefore recommended to replace the old brake fluid with new fluid annually or every 15,000 km.

By pressure bleeding the hydraulic brake system, the new fluid flushes the old out of the system leaving you with the most thorough bleed available.

Delivery Status / Installation / Operation start-up

The packing will contain the following parts at the delivery status:
1 Control Assy. (incl. Pressure hose and Power cord)
1 Chassis
4 Mounting Screws
1 Suction tube assy.
1 Adapter no. 20
1 Recovery bottle (only PRO)
Please check the unit after unpacking for any transportation damage.
Transport damages should be immediately reported to the responsable carrier!

Part	*Part Description*		*Part*	*Part Description*
1	Control assy.		11	Suction tube assy.
2	Pressure hose		12	Sealing cone
3	Pressure hose coupler		13	Unmistakeable nipple for suktion tube
4	Power cord		14	Coupler for suktion tube
5	ON/OFF-Switch		15	Connection low fluid indicator
6	Fuse		16	Container security barr
7	Low fluid level indicator		17	Wheel with cap
8	Self purging nipple		18	Caster cpl.
9	Pressure regulator	EPC: Button +/-	19	Adapter No. 20
10	Gauge			
PRO-Version:				
21	Spiral hose		23	Recovery bottle
22	Pipet		24	Recovery bottle hose

Corrective maintenance / Repair

Corrective maintenance and repair at the unit may only be performed by expert personal!

The device is designed so in case of any defect only the control assy. must be sent in for inspection.
In this case:
The mounting screws on the left and right panel must be unscrewed.
Take down the control assy. incl. filling hose and power cord from the chassis.

Technical Data VARIO 5:

H x W x D:	460 x 300 x 320 mm	Power supply:	AC 230 V / 50/60 Hz
Capacity:	5 l	Output E.-Motor:	120 W
Pressure hose lenght:	ca. 3,5 m	Electrical fuse	M2,0A (5x20 mm)
Length of power cord:	ca. 4,5 m	Reg. pressure range:	0-3,5 bar adjustable
Empty weight:	10 kg	Low fluid level shut off:	Yes
Temp.-work area:	0°C - +45°C	Pressure gage:	0-4 bar (0-86 psi)

Technical changes, including engineering changes, remain expressly reserved!

Technical Data VARIO 5-20 and VARIO 5-20 PRO:

H x W x D:	850 x 400 x 330 mm	Power supply:	AC 230 V / 50/60 Hz
Capacity:	5 – 20 l	Output E.-Motor:	120 W
Pressure hose lenght:	ca. 3,5 m	Electrical fuse	M2,0A (5x20 mm)
Length of power cord:	ca. 4,5 m	Reg. pressure range:	0-3,5 bar adjustable
Empty weight:	23 kg	Low fluid level shut off:	Yes
Temp.-work area:	0°C - +45°C	Pressure gage:	0-6 bar (0-86 psi)

Technical changes, including engineering changes, remain expressly reserved!

Technical Data EG 30-60 II EPC and EG 30-60 II EPC PRO:

H x W x D:	920 x 450 x 560 mm	Power supply:	AC 230 V / 50/60 Hz
Capacity:	30 – 60 l	Output E.-Motor:	230 W
Pressure hose lenght:	ca. 3,5 m	Electrical fuse	M2,0A (5x20 mm)
Length of power cord:	ca. 4,5 m	Reg. pressure range:	0-3,5 bar adjustable
Empty weight:	33 kg	Low fluid level shut off:	Yes
Fluid flow:	ca. 40 l/h	Pressure gage:	0,5-6 bar (0-86 psi)
(at 2,5bar dynamic/2,0bar flow)		Temp.-work area:	0°C - +45°C

Technical changes, including engineering changes, remain expressly reserved!

Operating Instructions:

1. Place a new brake fluid container on the fluid can holding platform. Next secure the hold down chain to prevent can from slipping (16).

2. Remove the large container opening and place the fluid pick-up tube (11) into the opening. Be sure to press the seal cone (12) against the opening of the container.

3. Connect the quick coupler (3) of the pressure hose (2) to the self purging nipple (8).

4. Plug the power cord (4) of the unit into the proper wall outlet. (230V AC, 0,1kW, 50Hz)

5. To insure an air free bleed run the unit for at least 30 seconds with the quick coupler (3) of the pressure hose (2) connected to the self purge nipple (8). This purges the air from the hose and the pump. This procedure should be performed before every bleed job. When the unit is well purged, turn the unit off (5) and remove the quick coupling (3) from the nipple (8). The unit is now ready to use.

6. Connect the quick coupler (3) of the pressure hose (2) to a properly installed master cylinder adapter.

7. Turn the power switch (5) to the ON position. The green switch light should be illuminated.

8. Adjust the bleeding pressure by turning the pressure regulator knob (9) to the recommended pressure by the vehicle manufacturer. The bleeding can now begin. According to the vehicle manufactures procedure, bleed the system. These instructions are to be specifically followed when working on ABS systems.

9. Before removing the pressure hose (2) from the master cylinder adapter, relieve the pressure by switching the unit off (5). Return the original master cylinder cover back onto the master cylinder reservoir.

General Information

In the case the brake / clutch pedal becomes soft or the operation activity of the brake / clutch pedal is to long it is needed to vigorously pump the pedal and repeat the bleeding procedure again.

Adjusting the proper bleeding pressure

The pressure is adjusted at the factory to 2 bar. This guarantees that master cylinder reservoirs are not warped or deformed with too much pressure. This also keeps the outer boots or dust seals from leaking.
In case less pressure is required to bleed certain systems, turn the hand knob CCW to decrease pressure. In case higher pressure is required, the pressure can be increased by turning the pressure regulator knob CW to the desired pressure.

Attention!

After changing the pressure adjustment of the bleeding unit, readjust it back to the factory setting of 2 bar.

Feature: Pre-suction system (PRO version only)

Recovery bottle (23) must be connected to the nipple of the rear panel.
Turn On/OFF-Switch (5) to suction position.
Use the pipet (22) to extract the old brake fluid from the master cylinder reservoir. Clip the pipet back to the fitting on the rear panel.
Turn the unit off (ON/OFF-Switch (5) in position 0)
Refill the master cylinder reservoir with fresh brake fluid (according to the manufactures recommendation).

Please follow the steps shown under „Operation instructions“.

The pre-suction system of the PRO version may not be used for the transfer of any other fluids!

ONLY FOR BRAKE FLUID!

Failure to observe any deleted warranty claim.

Note

If the device is switched on and still shows no function, the power supply may be interrupted. Please check the fuse (6) and exchange it if needed (please see “Technical Data”).

To reduce the pressure inside the unit it is necessary to turn off the unit on the ON/OFF switch (5). Turn the pressure regulator knob CCW totally. Turn on the unit with the ON/Off switch (5). Now you can adjust the fluid pressure independently by turning the pressure regulator knob CW.

Important:
After bleeding the brake system with a lower or higher pressure than 2 bar, the pressure regulator must be reset to 2 bar!

When does the unit needs to be refilled?

After reaching a low level of brake fluid inside the container, the unit will shut off the motor + pump automatically. This will ensure that no air will reach the brake system at all.
As an additional control feature an acoustic warning signal and control lamp (7) lights up.
In this case, the empty brake fluid container must be exchanged for a full one. For this the unit should be turned off on the ON/OFF switch (5). Please continue the procedure according to the heading “Operation start-up”.

Disposal

The unit is to be returned to your sales partner or be disposed off in compliance with the legal and official waste regulations.

Practical Tips for bleeding and servicing hydraulic brake and clutch systems

It is recommended to use the proper master cylinder adapter with the unit before beginning your bleeding jobs.

Allow the brake cylinder bleeding nipple to remain open until the fluid becomes clear, and free of air before tightening.

To maintain a more accurate invoicing control and cleanliness, we recommend using our specially designed retrieval bottle. The bottle is equipped with a flexible hose and a metered bottle to determine the amount of brake fluid used. This is to assist you in determining the cost of brake fluid in the bleeding job.

In an initial brake system fill it is recommended to open all bleeder nipples at once to insure the complete purging of air. This allows the air to flow out in accord to the shortest path and least resistance. This also prevents the mixing of residual brake fluid still in the system. As the brake fluid begins to flow evenly and cleanly, the nipples can be hand tightened one at a time in the correct order and then tightened properly with a wrench.

During bleeding process we recommend that the pedal be pressed a few times to flush the primary and secondary chambers of the master cylinder. This flushes the dirt and air from the master cylinder.

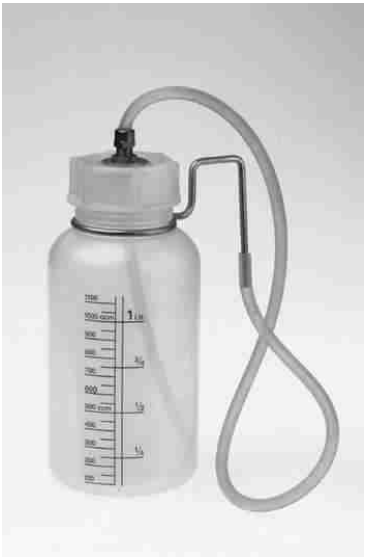
In bleeding brake calipers it is recommended to note that they require a larger amount of brake fluid to completely flush them out. Some of the brake fluid in the caliper may not be in line with the direct flow of the brake fluid. This is why some manufactures have installed more that one brake bleed nipple in the caliper. Please look for additional nipples and use them alternately in flushing out the caliper.

Some vehicles come with load sensitive brakes. It may be necessary to jack up the rear end, placing it at a certain level in order to activate the valve for the rear brakes. Please refer to your manufacture shop manual for proper bleeding instructions.

In bleeding and flushing some clutch systems, it is recommended to use our #67 bleeder hose. It seals itself on the bleed nipple and allows pressure to be introduced into the bleed nipple of the slave cylinder. You can then reduce the fluid level of the master cylinder reservoir with a suction hose.

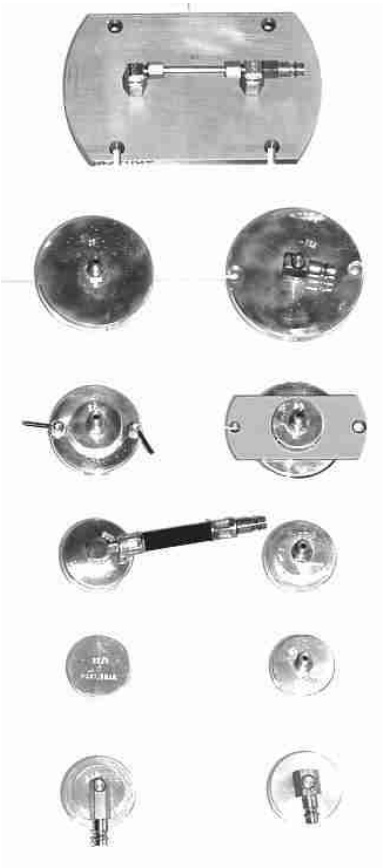
Please take note to our adapter application list:
www.stierius.com!

Accessories:



Recovery Bottle (Part-No. 3-0070)

Reverse Bleeder Hose No. 67
(Part-No. 3-0069)



Various adapters

Please take note to our adapter application list:
www.stierius.com!

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