

BINKS[®]

Instruction Manual

Back Pressure Regulator (Low Shear ¾")

- 9.0 Bar - 107749
- 15 Bar - 107750

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General Description – Section 1.1

A complete range of Binks low shear back pressure regulators are available to suit most pressure and technical requirements for paint circulating systems.

This equipment is designed for use with Solvent based and Waterborne materials. Suitable for use in Zone 1 and 2, Protection Level: II 2 G X

This ¾” model is extremely flushable as no gauge ports passages are drilled into the body to create ‘dead’ areas.

The Binks low shear back pressure regulators adjust to control the paint system back pressure within the pipe line and minimises ‘paint shear’ due to the large surface area of the valve seating.

The ‘back pressure’ regulator responds to the changes in system fluid pressure, (due to variable paint usage) by dynamically adjusting to maintain the set pressure, thus maintaining the required system back pressure.

If the pressure in the system drops below the regulated level (system demand exceeds pump supply rate) then the valve will close.

Installation - Mounting – Section 2.1

1. Connect the unit into the paint system pipework; either port can be used as the inlet connection. Connection ports are ¾” NPT
2. Always connect the unit using the correct fittings and a suitable thread sealant that is compatible with the fluids passing through the valve.
3. A pressure gauge should be mounted directly into the pipework on the inlet side of the unit to allow precise adjustment for the regulated back pressure. (See accessories for relevant part number.)

Installation – Setting to work – Section 2.2

The Back pressure regulator is tested with demineralised water, therefore the fluid chamber should be flushed with suitable material prior to use.

Note: Before attempting any maintenance ensure that all relevant directions for working safety are followed.

1. If circulating system pressure testing is carried out with the back pressure regulator in circuit, the fluid test pressure must not exceed 25 Bar and the back pressure valve **MUST** 'be unloaded' have no spring pressure acting on the diaphragm.
2. When the paint pipework is to be flushed with the back pressure regulator installed, the back pressure regulator **must not** have any spring pressure acting on the diaphragm. This status must remain until the paint system has been accepted as clean and contaminant free.
3. Following pressure testing and flushing procedures the diaphragms should be examined and replaced if necessary to ensure the integrity of the unit prior to use in production.
4. Turning the main adjusting screw clockwise will increase the spring pressure on the unit and therefore the back pressure on the paint system. Turning the screw anti-clockwise will decrease back pressure.
5. Use the locking nut to secure the adjusted pressure setting.

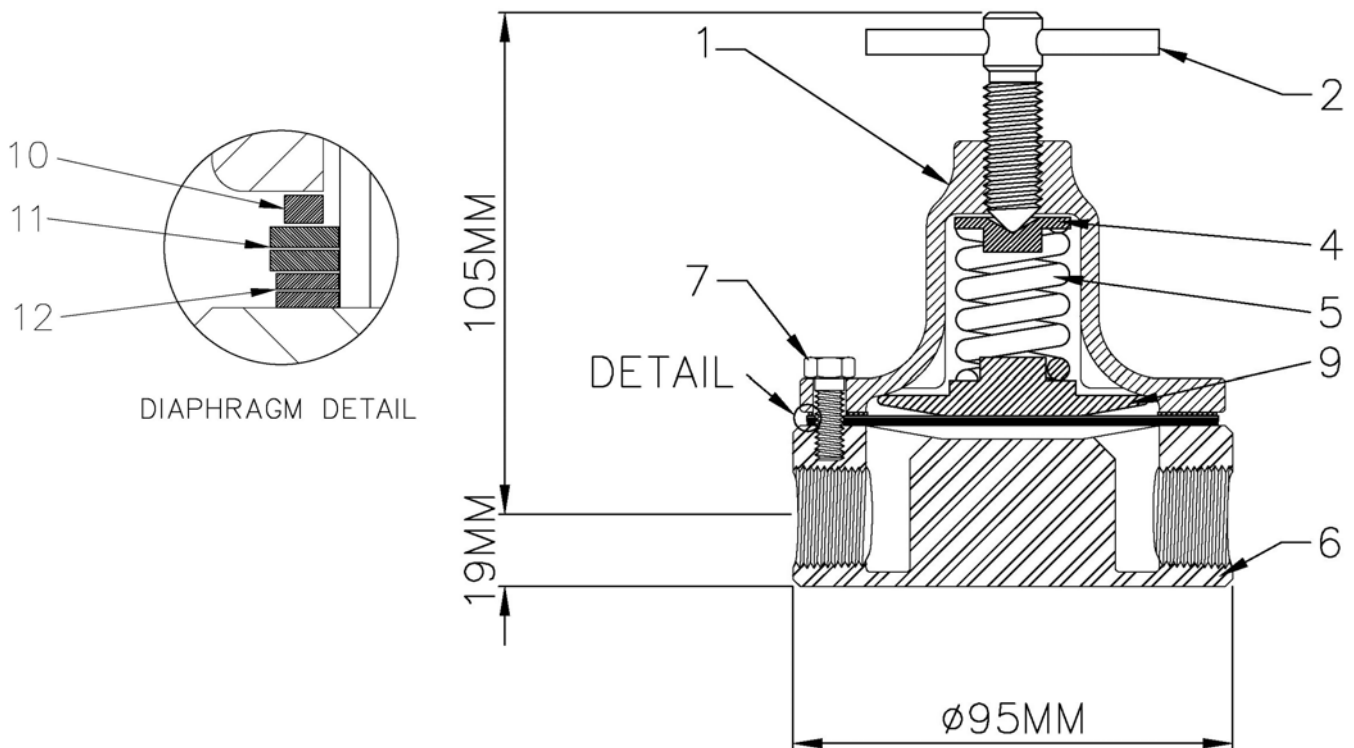
Dismantle / Assembly Procedure – Section 3.1

The Back pressure regulator can be serviced and maintained without removing the unit from the paint pipework.

1. Fully unscrew the adjusting screw to remove all paint line pressure.
2. Isolate the unit from the paint system pipework.
3. Position a suitable 'drip tray' underneath the unit to minimise any residual paint spillage when dismantling.
4. Unscrew the 6 off bonnet screws by 2 turns and pull the bonnet away from the unit; this should then release any residual paint within the unit. Fully remove the 6 off bonnet screws.
5. Remove the bonnet and diaphragms and clean all parts of the unit.
6. Reassemble the unit with new diaphragms (plus gasket on 107749 unit)
7. Tighten the 6 off Bonnet screw to 12 N-M (9 foot-pound) Tighten opposed screws in stages to maintain an even clamping force.
8. Reintroduce the paint system pressure and adjust the back pressure regulator to the required setting.

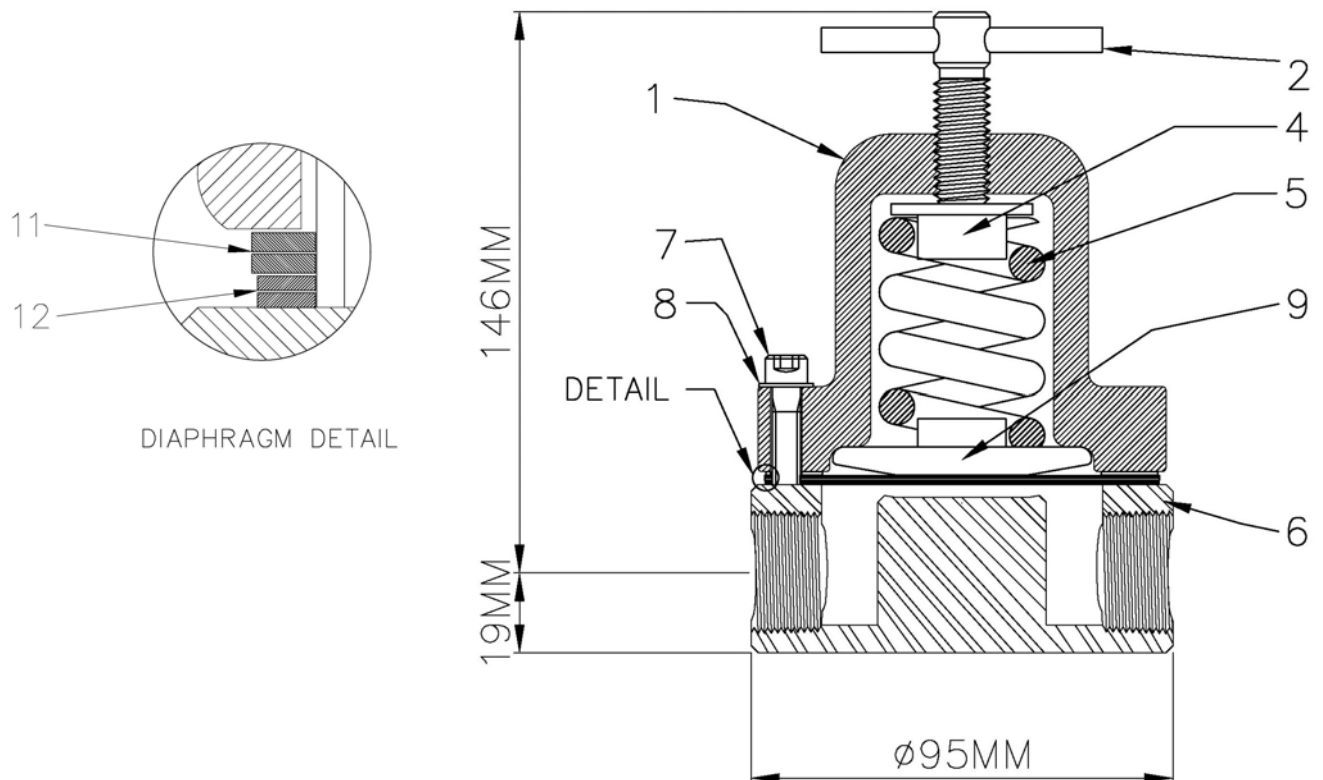
Parts Lists – Section 3.2

Parts List - 107749 (9.0 Bar)				
Item	Part No.	Description	Qty	Remarks
1	84-359	Bonnet	1	
2	84-351	Adjusting Screw	1	
3				
4	192491	Button	1	
5	160511	Spring	1	
6	192470	Body	1	
7	164527	Hex Head Screw	6	
8				
9	192495	Spring Disc	1	
10	184514	Gasket	1	#
11	84-567	Diaphragm (Nylon)	2	#
12	84-566	Diaphragm (PTFE)	2	#
# Included in 250586 Spares Kit				



Parts Lists – Section 3.2

Parts List - 107750 (15.0 Bar)				
Item	Part No.	Description	Qty	Remarks
1	192468	Bonnet	1	
2	84-351	Adjusting Screw	1	
3				
4	185010	Button	1	
5	160186	Spring	1	
6	192470	Body	1	
7	163930	Cap Head Screw	6	
8	165129	Plain Washer	6	
9	192469	Disc	1	
10				
11	84-567	Diaphragm (Nylon)	2	#
12	84-566	Diaphragm (PTFE)	2	#
# Included in 250586 Spares Kit				



Spare Parts List – Section 3.3

Spare Parts Kit - 250586				
Item	Part No.	Description	Qty	Remarks
1	184514	Gasket	1	
2	84-567	Diaphragm (Nylon)	2	Spring Side
3	84-566	Diaphragm (PTFE)	2	Paint Side

Accessories				
Item	Part No.	Description	Qty	Remarks
1	167189	10 Bar Pressure Gauge	1	
2	167184	20 Bar Pressure Gauge	1	

Important Information - Section 4.1**Directions for Working Safety**

This Product has been constructed according to advanced technological standards and is operationally reliable. Damage may, however, result if it is used incorrectly by untrained persons or used for purposes other than those for which it was constructed.

The locally current regulations for safety and prevention of accidents are valid for the operation of this product under all circumstances.

International, national and company safety regulations are to be observed for the installation and operation of this product, as well as the procedures involved in maintenance, repairs and cleaning.

These instructions are intended to be read, understood and observed in all points by those responsible for this product. These operating and maintenance instructions are intended to ensure trouble free operation. Therefore, it is recommended to read these instructions carefully before start-up. ITW Automotive Finishing cannot be held responsible for damage or malfunctions resulting from the non-observance of the operating instructions. These instructions including regulations and technical drawings may not be copied, distributed, used for commercial purposes or given to others either in full or in part without the consent of ITW Ltd.

We reserve the right to alter drawings and specifications necessary for the technical improvement of this product without notice.

High Pressure/Electrostatic Warning

High pressure equipment can be dangerous if used incorrectly, serious bodily injury may occur if the following instructions are ignored. Installation and maintenance should only be carried out by suitably qualified personnel.

1. Before attempting any work on a high-pressure system ensure material pump, hydraulics, compressed air motor are isolated where relevant.
2. Relieve all pressure from the system. Note: It is possible for pressure to get locked into a system, therefore ensure all sections of the system are checked thoroughly for remaining pressure.
3. Take care when releasing fittings
4. Always replace worn hoses immediately
5. Never plug a leak with your finger, adhesive tape or other stop gap devices
6. Always ensure equipment is suitably earthed before running, to avoid any chance of electrostatic build up.

BINKS®

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