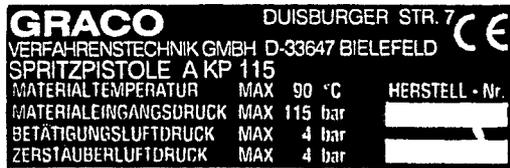


SPRAY GUN A KP 115

Pneumatically operated automatic air-assisted spray gun for spraying liquid materials with air boost (Airless Plus®), - also possible without air boost (Airless).



Read and understand the operator manual and the safety instructions before taking the gun into operation

This symbol appears in the operator manual at all points regarding safety.  Ensure that all other users know and understand all safety directions.

The original manufacturer's nameplate can be found on the spray gun. Please compare the specifications and complete if necessary.

CORRECT USE

The spray gun A KP 115 is exclusively manufactured for normal use in surface technology (for spraying coating substances) or for similar work.

Any other purpose above and beyond this is considered as incorrect use. We are not liable for any damage or injury resulting from this; the user will bear sole liability in such cases.

Correct use includes observing operating, maintenance and inspection conditions and regulations laid down by us.

The spray gun A KP 115 may only be installed, maintained and repaired by personnel familiar with, and trained to recognize the inherent dangers.

The relevant accident prevention regulations as well as safety rules must be respected.

Unilateral changes to the spray gun will cause us to waive our responsibility for any damage or injury caused.

The user is responsible for the correct installation of the appliance.

THE USER INFORMATION SHOULD BE KEPT FOR FUTURE USE

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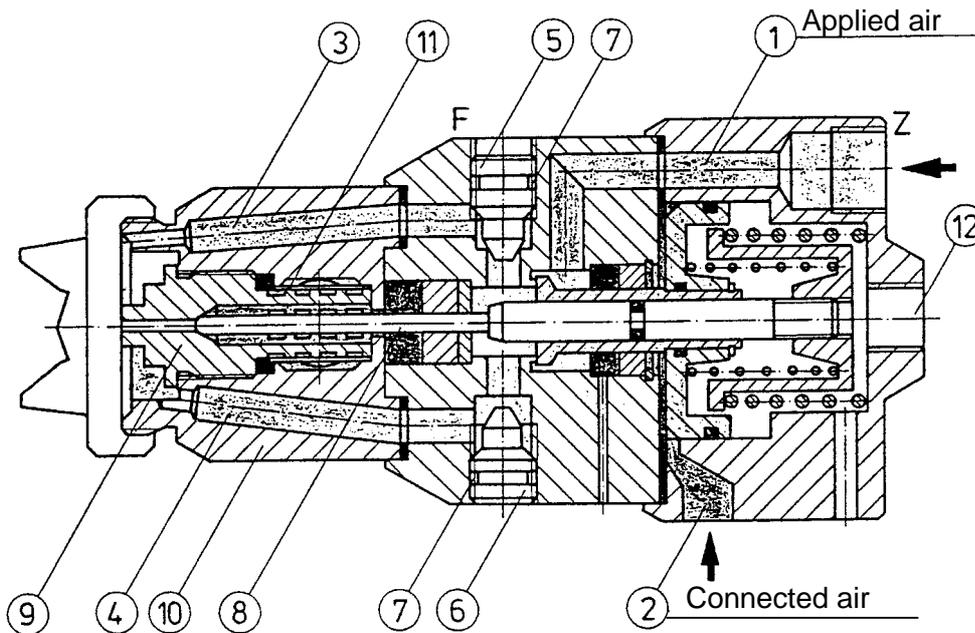


Subject to change

Continued on pages 2 to 9

Prepared 31.07.95 by Stengele	USER INFORMATION	Issued 09.99
Approved 04.08.95 by Kuhn	- OPERATING INSTRUCTIONS -	B.2.20.83-B

DESCRIPTION



The spray gun A KP 115 is operated pneumatically.

The atomizing air ①, connection marked with "Z" is supplied permanently.

After switching on, the control air ②, (connection without any marking) first opens the path for the atomizing air and then the fluid valve. The reverse order applies when switching off.

In the gun, the path for the atomizing air is divided into horn air ③ and atomizing air ④.

The horn throttle valve ⑤, marked "F", influences the fan jet (F = fan jet).

The atomizing air throttle valve ⑥ without any marking improves spraying.

The throttle valve screws are provided with thread sealing rings ⑦; they can be used to shut off the respective air path.

With the air paths shut off, airless spraying up to 115 bar fluid pressure is possible.

The parts of the spray gun in contact with the fluid are suitable for water-based paints (stainless steel).

The needle ⑧ is made of hardened steel throughout.

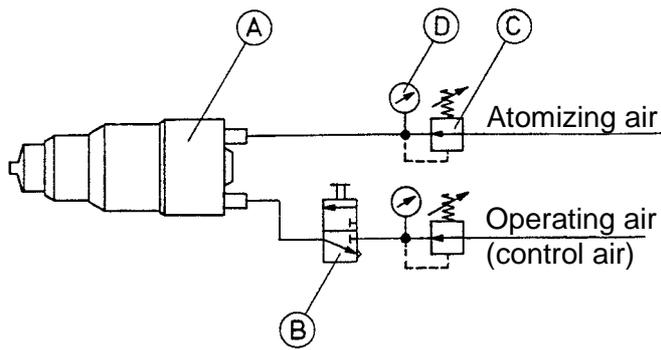
The valve seat (diffuser) ⑨ and the body of the gun ⑩ are designed in such a way that a filter element ⑪ of varying mesh size can be inserted and that an additional filter does not obstruct the flow of fluid through the gun.

The spray gun is fixed centrally at the rear end ⑫.

The spray gun includes the air cap and union nut.

Nozzles (cartridge), pre-atomizer, filter elements and connections should be specified separately by the operator.

FUNCTIONAL DIAGRAM



- A Automatic spray gun
- B 3/2-way valve
- C Air pressure regulator
- D Pressure gauge

MATERIAL

Solids content	Compatibility
low	highly suitable
low to 1 %	suitable
medium 1 to 6 %	suitable under certain conditions
over 6%	suitable under certain conditions
over 50%	not suitable

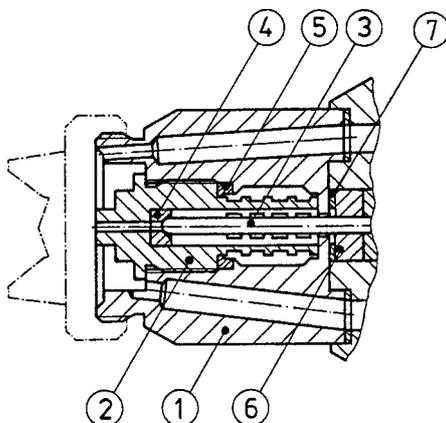
Behavior	Compatibility
neutral	highly suitable
corrosive	highly suitable
abrasive	suitable under certain conditions
caustic	suitable under certain conditions
inflammable ¹⁾	highly suitable

¹⁾ danger class AI, AII, AIII, the spray gun must be properly grounded.

Kinematic viscosity in mm ² /s	Compatibility
up to 500	highly suitable
500 to 750	suitable
over 750	suitable under certain conditions (Application must be tested)

Please consult us when processing highly abrasive and aggressive materials.

MATERIALS IN CONTACT WITH THE FLUID



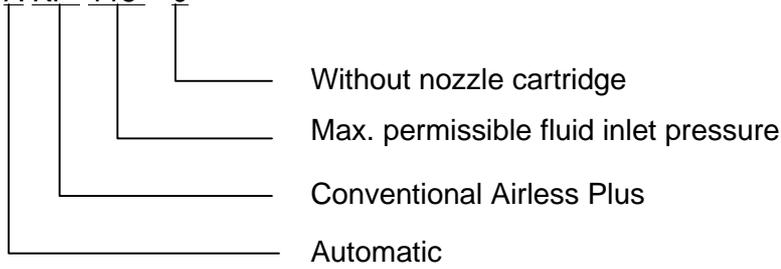
Pos.	Description	Material
1	Gun body	SST 1.4305
2	Valve seat (diffuser)	SST 1.4305
3	Needle	Hardened steel
4	Frame	Hardened steel
5	Profile sealing ring	POM
6	Grooved ring	PE
7	Spacer	POM



Take care with materials that contain chlorinated hydrocarbons such as trichloro-ethane or methylene chloride. They react with aluminum to form metal-organic compounds. These compounds are explosive and extremely caustic.
 – The use is not permissible

TECHNICAL DATA

Spray gun A KP 115 - 0



Spray gun A KP 115 (in the standard version) Part nbr.: 79331 004002

Fluid inlet pressure max. perm. 115 bar

Fluid temperature max. perm. 90 °C

Compressed air temperature max. perm. 50 °C

- Higher compressed air temperature require consultation

Operating air pressure max. perm. 4 bar

Atomizer air pressure < 4 bar

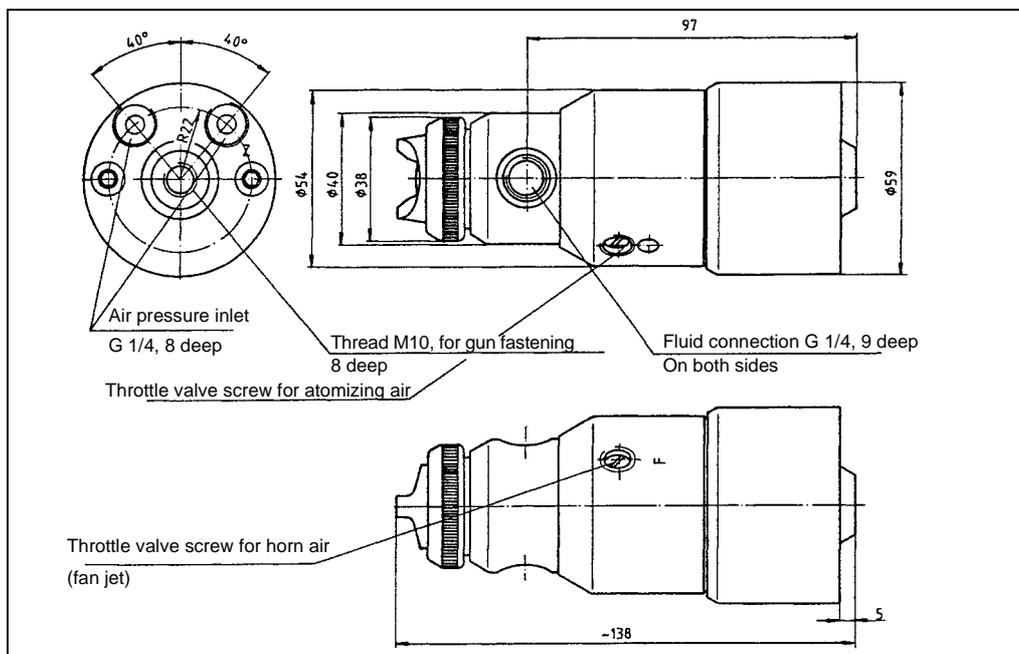
Recommended switching frequency not more than 160 strokes/min

Air flow rate at 4 bar operating air pressure, connection tube DN 6, length 4 m, with air cap and opened throttle valves 315 l/min

Mesh size of the filter elements 0.08 0.18 0.30

Weight of the spray gun without accessories 800g

DIMENSIONAL DRAWING

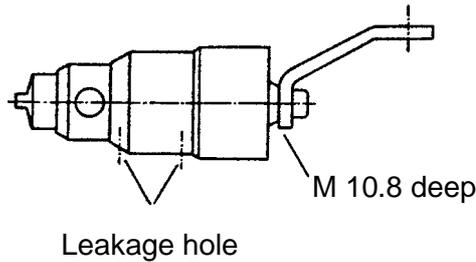


Nominal diameter of the air pressure hose preferred DN 6.

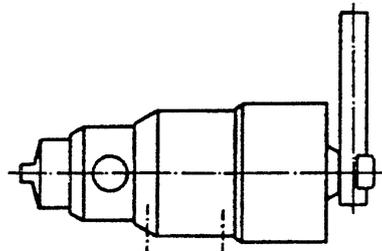
- Hose length: < 1.5 m DN 4, > 4.5 m DN 8

SPRAY GUN FASTENING

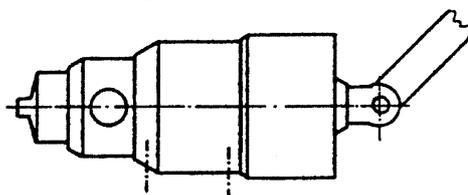
- Centrally at the rear end



- On a stationary support or a bracket,



- By means of a rod,

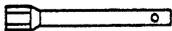
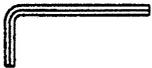
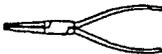
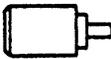
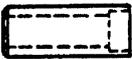


- Reciprocating arm

TORQUES, LIST OF TOOLS

Torque for the cheese-head screws M5, 7 Nm

Tool for the spray gun in its standard version

				
Tubular socket wrench DIN 659, SW 10	Allen screw DIN 911, SW4, SW5	Pliers DIN 5256 C For locking ring $\varnothing 16$	Drift Part nbr. 70641 001002	Drift Part nbr. 70642 001002

Tools for the spray gun accessories

Open-end spanner DIN 895

SW 15 for fluid connection (angular connection)

SW 14 for air pressure connection (plug-in screw connection for DN 4 and DN 6)

SW 17 for air pressure connection (plug-in screw connection for DN 8)

Allen screw DIN 911 SW 6 for fluid connection (locking screw)

Bolt Part nbr. 76131 058001

Drift Part nbr. 70641 005002

START-UP, OPERATION, MAINTENANCE AND INSPECTION

Fasten spray gun

The threaded connection M 10 must be locked.

The leakage holes should point downwards.

Connect hoses and hose line(s)

Then check for tightness.

Install the in-line filter element

Automatic spray guns are delivered without filter element.

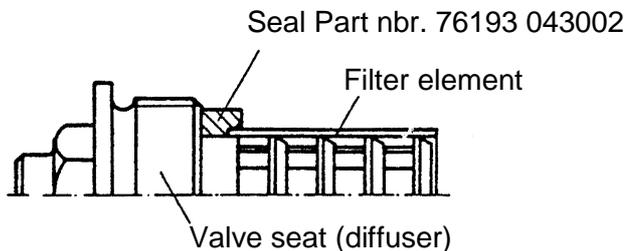
The filter element (choice of mesh size depends on the nozzle used) must be fitted later.



Before dismantling the valve seat (diffuser), the needle must be brought into the opened position.

Switching on the control air (Pos. 2, page 2), does this.

- Then
- Screw out the valve seat (diffuser)
 - Place the filter element on the valve seat (diffuser)
- Note the mounting position for the seal



- Install the valve seat (diffuser) with filter element
- The needle is in the opened position.

Install the nozzles (cartridge) and pre-atomizer

- Insert the nozzle cartridge in the air cap
 - Insert the pre-atomizer in the nozzle cartridge
 - Install the air cap with nozzle and tighten the union nut by hand.
- Do not use any extra seals (nozzle and pre-atomizer are self-sealing). It is recommended to install the sealing ring Part nbr. 76194 015002 when no pre-atomizer is used.

OPERATION

Do not exceed the specified technical data (page 4).

MAINTENANCE AND INSPECTION

- **The automatic spray gun A KP 115 requires little maintenance.**
- Flush thoroughly before operating pauses
- Drain the condensed water every day from the filter or filter regulator if there is no automatic water drainage in the compressed air supply to the spray gun.
- Regularly dismantle the filter element and clean thoroughly.
 - The cleaning interval depends on the process fluid or solvent, and must be determined by the user.
- Check leakage behavior (air or fluid escaping from the leakage holes) at regular intervals – e.g. once per week.
 - The seals should be replaced when large amounts of air or fluid are escaping. Special tools are necessary for this (drift, socket, see page 9).



The parts should be greased lightly before assembly.

– We recommend “grease OKS 270” (Tube 100g, Part nbr. 70950 003001).

- The service life of the hose line is adversely affected, and thus shortened, by surrounding influences (oxygen in air, temperature, light, etc.), even if correctly handled. It is recommended that they undergo regular visual checks and occasional checking of performance.
- As a precaution, the hose lines should be replaced by new ones at intervals set by the operator (- after 2 to 3 years).



NEVER dismantle a spray gun under pressure.

TROUBLESHOOTING				
Component group	Nature of defect	Defect symptoms	Possible cause	Counter measure
Nozzle, filter element	Irregular fluid delivery	Alteration of the spray pattern no fluid delivery	Nozzle or pre-atomizer obstructed Filter element clogged up	Clean nozzle, pre-atomizer and filter element
Throttle valve screws	Fluid delivery not uniform	Formation of stripes, coarse atomization	Throttle valve screws closed or not sufficiently open	Correct the adjustment of the throttle screws
Sealing system (Needle seal, piston seal)	Leakage at the body of the gun	Air or fluid escaping from the leakage holes	Seal(s) worn out	Replace seals
Air connections	Spray gun does not work	No connection, no air to the nozzle	Air supply interrupted	Check the plug connection and air hose

GENERAL SAFETY INFORMATION



For noise level see the instructions of the manufacturer of the machine (automatic machine, robot).



Only to be used in well ventilated areas.



Do not point the spray gun in the direction of persons or animals.



During operating pauses and shutdowns no energy potential (fluid and/or air pressure and/or electricity) should be present at the spray gun.

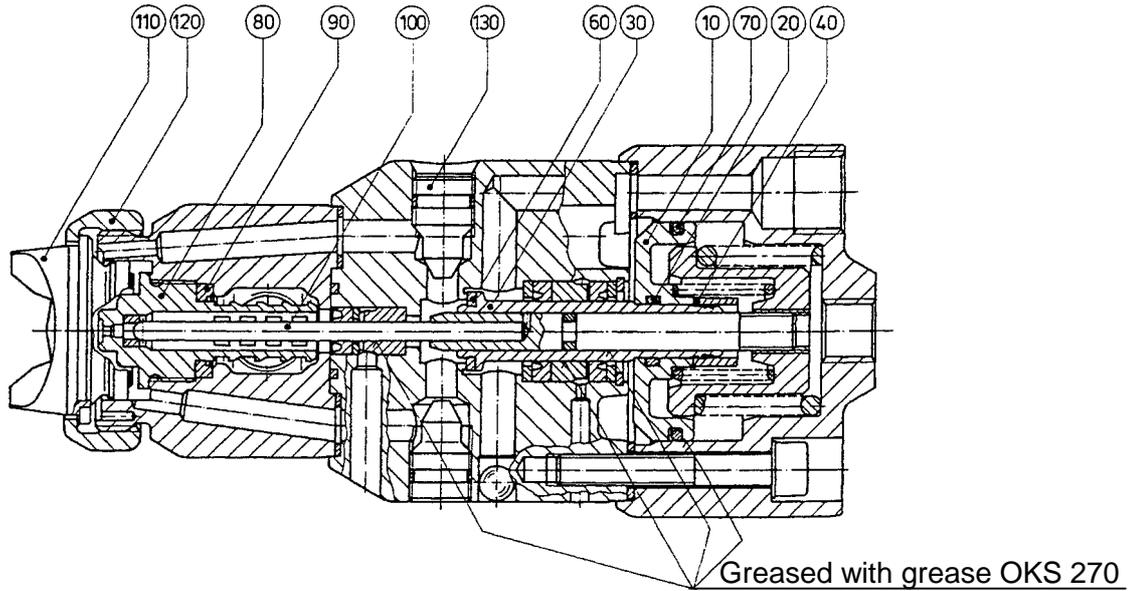


The recommendations of the manufacturer of the fluid should be followed.



Protective equipment should be worn in the operating area of the spray gun.

LIST OF SPARE PARTS

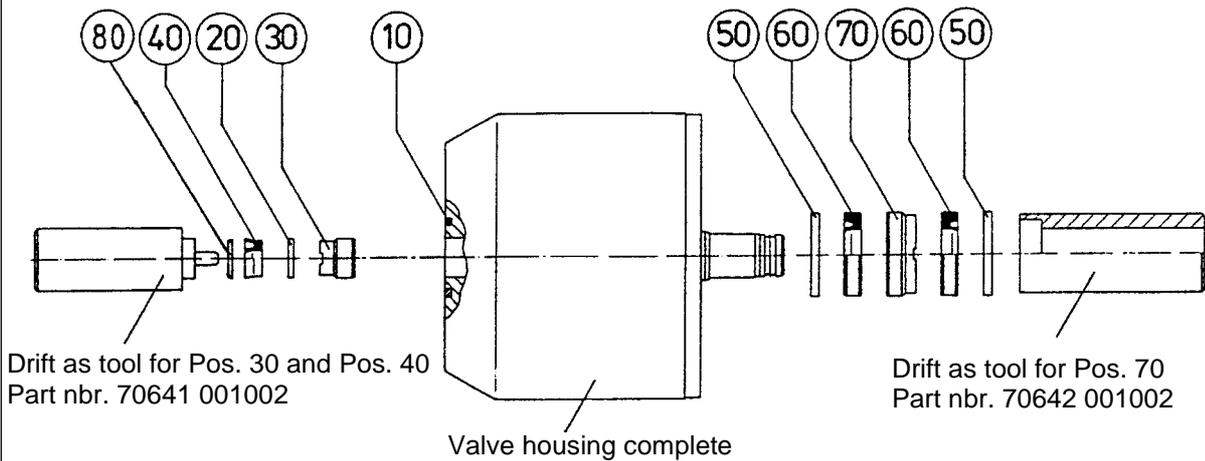


Replacement part set, air valve				Part nbr. 79978 916002	
Pos. 10	1 off	Ring piston	D34.8x9.5		
Pos 20	1 off	O-ring	8.5 x 1.5B		
Pos. 30	1 off	Drive pin	D12.5 L43		
Pos. 40	1 off	Split taper socket	7.8 x 1.85 x 7		
Pos 60	1 off	Sealing washer	7.8 x 12.5 x 1.5		
Pos 70	1 off	O-ring	32x2B		

Repair kit, fluid valve				Part nbr. 79978 916003	
Pos 80	1 off	Valve seat (diffuser) complete	M 16 x 1 x 34.5		
Pos 90	1 off	Profile sealing ring	9.5 x 14 x 3.2		
Pos 100	1 off	Needle complete	D3 L107.5		

Repair kit, throttle valve screws				Part nbr. 79978 916004	
Pos. 130	2 off	Throttle valve screw complete	M 10 x 1		

Spare part					
Pos 110	1 off	Air cap	KP		76562 006002
Pos 120	1 off	Union nut	M 32 x 1.5		76089 084002



Note assembly position

Repair kit, seals			Part nbr. 79978 330003	
Pos. 10	1 off	Seal	15x12x1.5	
Pos. 20	1 off	Washer	3.7x7.4x1	
Pos. 30	1 off	Bearing bushing complete		
Pos. 40	1 off	Grooved ring	3x7.5x3.35	
Pos 50	2 off	Washer	11 x 15.9 x 1.5	
Pos 60	2 off	Grooved ring	9.2 x 16.1 x 3	
Pos 70	1 off	Bearing bush	9.55 x 16 x 6	
Pos 80	1 off	Spacer	6 x 7.5 x 0.6	

NOTES

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GRACO STANDARD WARRANTY

Graco warrants all equipment referenced in this document which is manufactured by Graco and bearing its name to be free from defects in material and workmanship on the date of sale by an authorized Graco distributor to the original purchaser for use. With the exception of any special, extended, or limited warranty published by Graco, Graco will, for a period of twelve months from the date of sale, repair or replace any part of the equipment determined by Graco to be defective. This warranty applies only when the equipment is installed, operated and maintained in accordance with Graco's written recommendations.

This warranty does not cover, and Graco shall not be liable for general wear and tear, or any malfunction, damage or wear caused by faulty installation, misapplication, abrasion, corrosion, inadequate or improper maintenance, negligence, accident, tampering, or substitution of non-Graco component parts. Nor shall Graco be liable for malfunction, damage or wear caused by the incompatibility of Graco equipment with structures, accessories, equipment or materials not supplied by Graco, or improper design, manufacture, installation, operation or maintenance of structures, accessories, equipment or materials not supplied by Graco.

This warranty is conditioned upon the repaired return of equipment claimed to be defective to an authorized Graco distributor for verification of claimed defect. If the claimed defect is verified, Graco will repair or replace free of charge any defective parts. The equipment will be returned to the original purchaser transportation prepaid. If inspection of the equipment does not disclose any defect in material or workmanship, repairs will be made at a reasonable charge, which charges may include the costs of parts, labor, and transportation.

THIS WARRANTY IS EXCLUSIVE, AND IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

Graco's sole obligation and buyer's sole remedy for any breach of warranty shall be as set forth above. The buyer agrees that no other remedy (including, but not limited to, incidental or consequential damages for lost profits, lost sales, injury to person or property, or any other incidental or consequential loss) shall be available. Any action for breach of warranty must be brought within two (2) years of the date of sale.

Graco does not extend its warranty to accessories, appliances, materials or components which are sold by Graco but are not manufactured by Graco and makes no guarantee, however implied, with regard to the brand capability and suitability for a certain purpose. These parts sold by Graco but not manufactured by Graco (such as electric motors, switches, hoses, etc.) are covered by the warranties of the respective manufacturers. Graco will support the buyer in enforcing any warranty claim with the proviso that in no event can Graco be made liable for indirect, incidental, special or consequential damages which arise from the supply of appliances by Graco under the conditions governed by these provisions, or the supply, performance or use of any products or other goods which are sold under the conditions governed by these provisions, whether as the result of breach of contract, breach of warranty, negligence on the part of Graco or for any other reason.

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