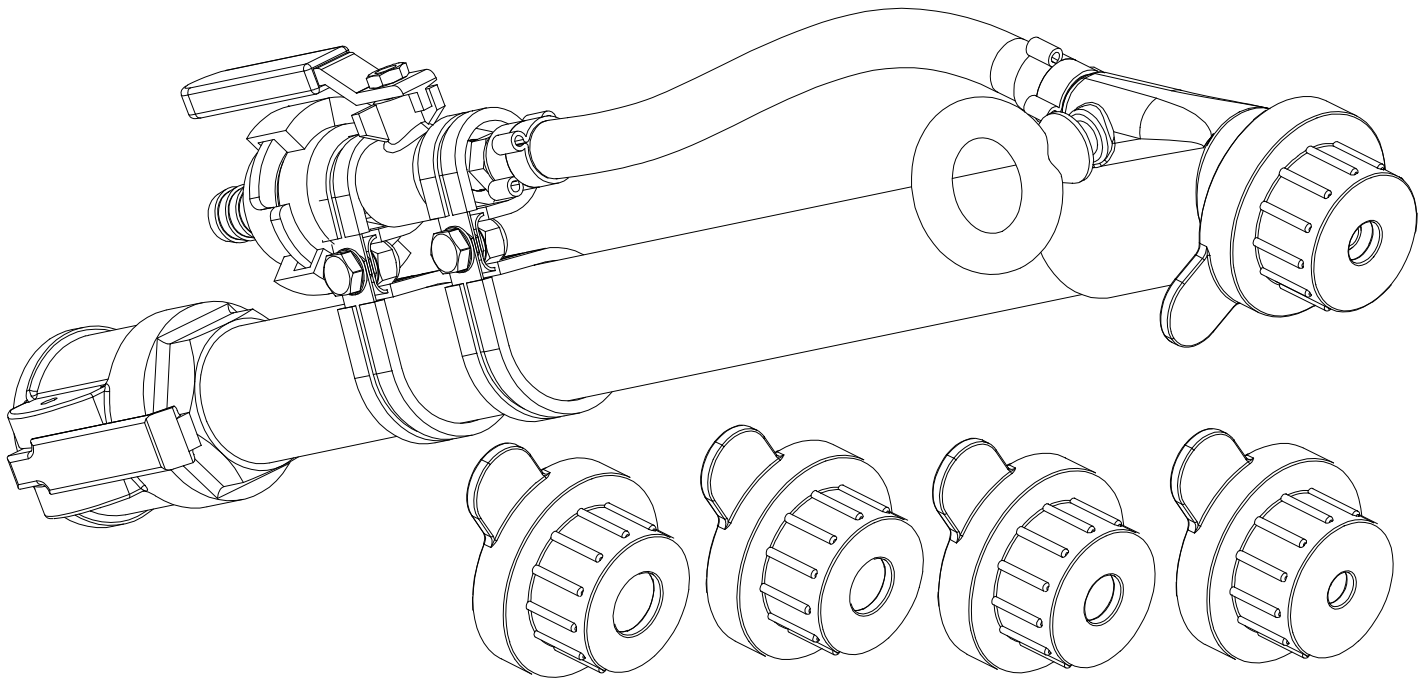




**"Brownin"  
Spray gun (wet) assembly  
and operation.**

**ASSY,BROWNIN GUN-16" WAND-FULL-KIT  
#60010082**



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## **Section 1 - General Safety information**

### ***Danger***

Follow these instructions very carefully, in order to avoid injury to yourself or others.

NEVER look directly into the nozzle.

Always keep the nozzle pointed away from people and animals.

Never disassemble the spray gun while material is flowing, or when air is flowing.

Never use sharp objects to clean the spray gun.

## **Section 2 – Spray gun description / Views**

### ***Spray gun function***

The spray gun is pneumatically and hydraulically powered.

Pneumatically by the air pressure used to help “atomize” the material, and hydraulically by the material pushed from the pump unit through the spray head and chosen nozzle.

The spray gun is coupled to the material supply via the cam-lock fitting.

Material is pumped from the pump unit through a hose into the spray gun.

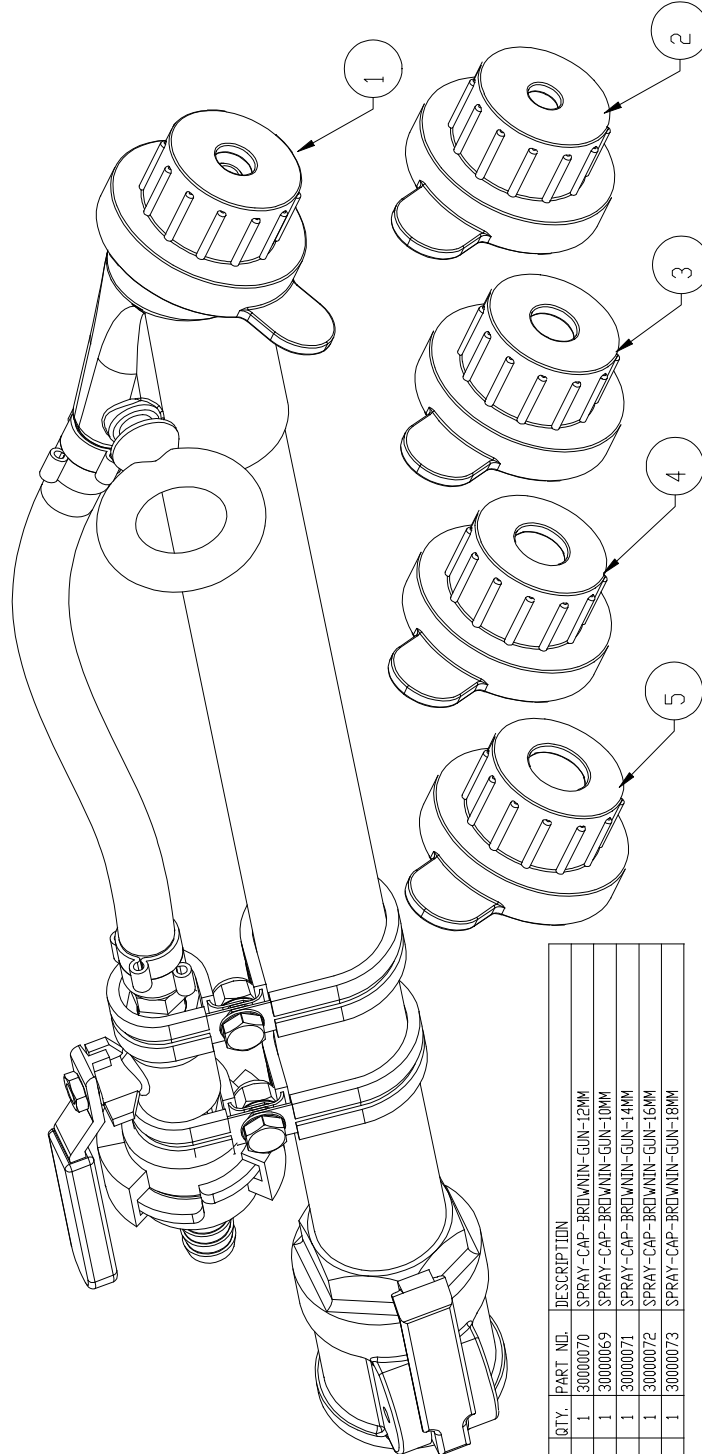
As the material passes through the spray head, and in turn the spray cap, air is forced into the stream of material, from the spray jet, causing the material to “atomize” or breakup into a “spray”. The spray is directed towards the wall or structure to be coated, and moved around to evenly coat the area.

The spray “pattern” or fan size can be adjusted by altering the position of the spray jet, within the material flow.

Do not apply too much material to one spot at anyone time, as the material will tend to “run” or “slump” and may fall from the area being coated.

# Spray gun illustrations

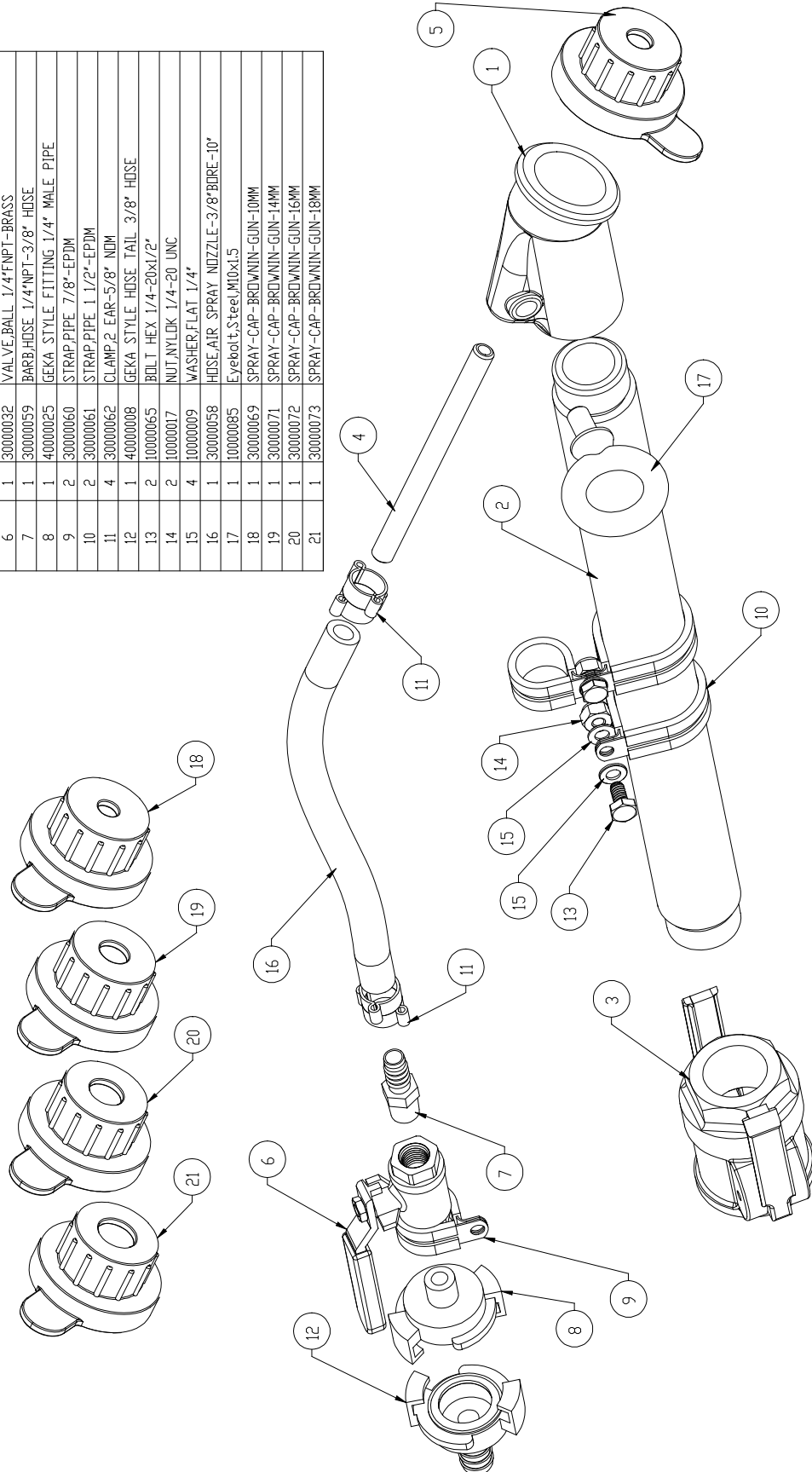
## Spray gun assembly.



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	3000070	SPRAY-CAP-BREWING-GUN-12MM
2	1	3000069	SPRAY-CAP-BREWING-GUN-10MM
3	1	3000071	SPRAY-CAP-BREWING-GUN-14MM
4	1	3000072	SPRAY-CAP-BREWING-GUN-16MM
5	1	3000073	SPRAY-CAP-BREWING-GUN-18MM

# Spray gun components

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	30000067	SPRAYHEAD-30DEG-BROWNIN-GUN
2	1	30000038	WAND, SPRAY NOZZLE-16"
3	1	30000037	COUPLER,25MM-1"FNPT CAM LOCK PLASTIC
4	1	30000068	SPRAYJET-130MM-BROWNIN GUN
5	1	30000070	SPRAY-CAP-BROWNIN-GUN-12MM
6	1	30000032	VALVE BALL 1/4"FNPT-BRASS
7	1	30000059	BARB HOSE 1/4"NPT-3/8" HOSE
8	1	40000025	GEKA STYLE FITTING 1/4" MALE PIPE
9	2	30000060	STRAP PIPE 7/8"-EPDM
10	2	30000061	STRAP PIPE 1 1/2"-EPDM
11	4	30000062	CLAMP 2 EAR-5/8" NDM
12	1	40000008	GEKA STYLE HOSE TAIL 3/8" HOSE
13	2	10000065	BOLT HEX 1/4-20x1/2"
14	2	10000017	NUT NYLON 1/4-20 UNC
15	4	10000009	WASHER,FLAT 1/4"
16	1	30000058	HOSE,AIR SPRAY NOZZLE-3/8"BORE-10"
17	1	10000085	Eyebolt,Steel,MIDx1.5
18	1	30000069	SPRAY-CAP-BROWNIN-GUN-10MM
19	1	30000071	SPRAY-CAP-BROWNIN-GUN-14MM
20	1	30000072	SPRAY-CAP-BROWNIN-GUN-16MM
21	1	30000073	SPRAY-CAP-BROWNIN-GUN-18MM



## **Section 3 – Operation of the spray gun.**

### ***Preliminary connections***

Ensure that your air compressor is capable of outputting approximately 10 to 13 CFM, free air delivery. Pressure is not an important issue, compared to physical flow through the nozzle. The typical pressure that the gun will run at is between 25 and 50 PSI, but at a high flow rate.

Ensure that your air line has a suitable fitting to connect to the air fitting on the gun (a GEKA style fitting is supplied with the gun, with a hose tail suitable for ½” bore air hose)

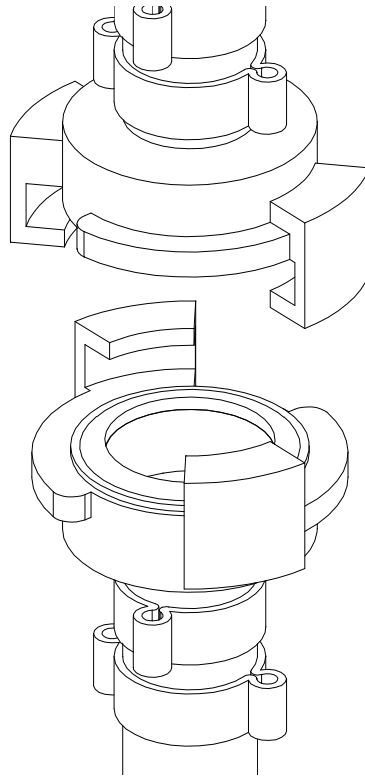
Ensure that you have a 25mm male cam-lock fitting at the end of the pump hose, allowing a direct connection to the fitting on the spray gun.

Ensure that your pump unit has hoses primed, and ready to discharge, a smooth, wet, lump free grout mix. Any lumps in the mix will increase the likelihood, of a blockage in the nozzle, the smaller the nozzle, the smaller then lump.

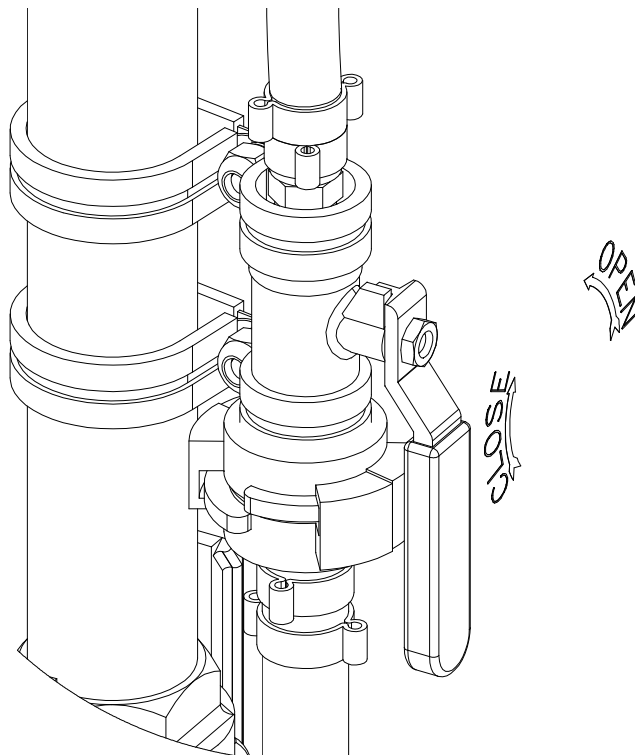
Ensure that you have the required nozzle fitted to the spray gun.

## *Running the Spray gun*

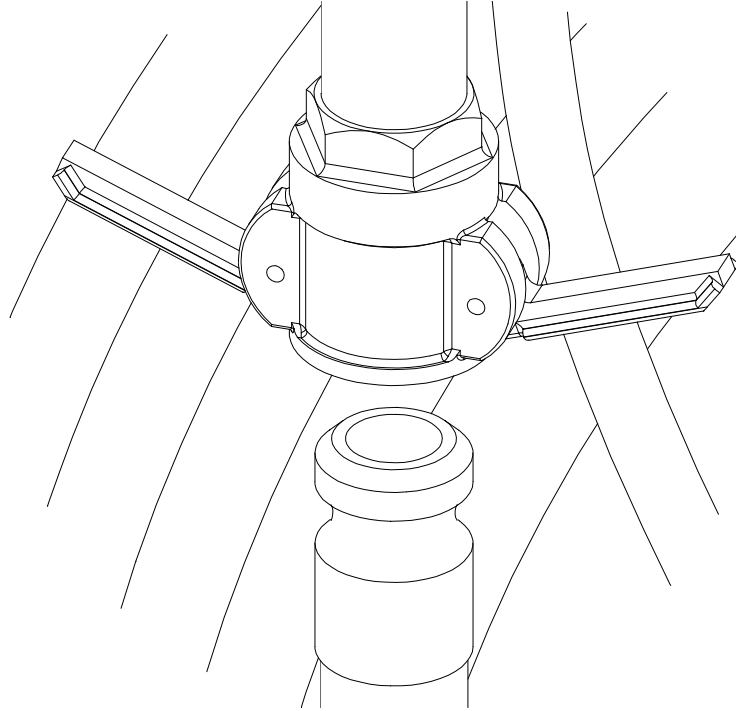
With the air turned OFF connect the spray gun to your air supply, via the GEKA fittings supplied. Typical GEKA shown



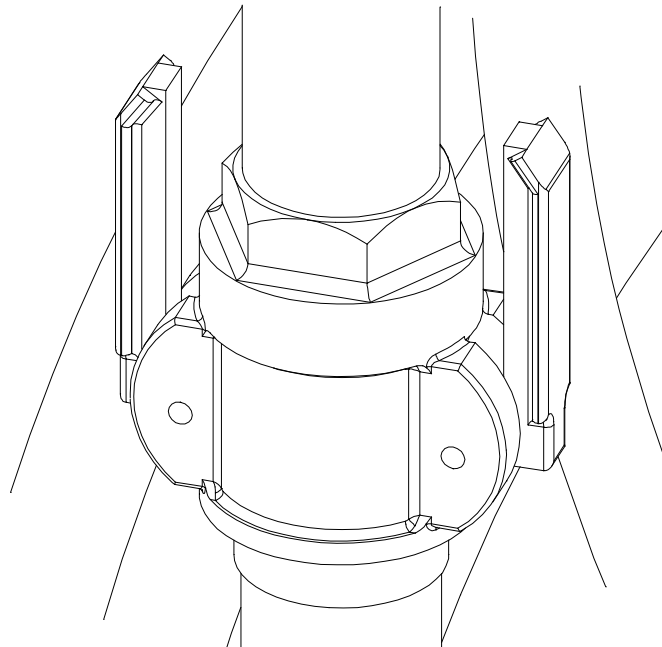
Operation of air flow control lever on spray gun



With the pump unit turned off, and no material flow, clean the end of your grout hose, and connect to the spray gun.



Ensure that both cam-locks are engaged.

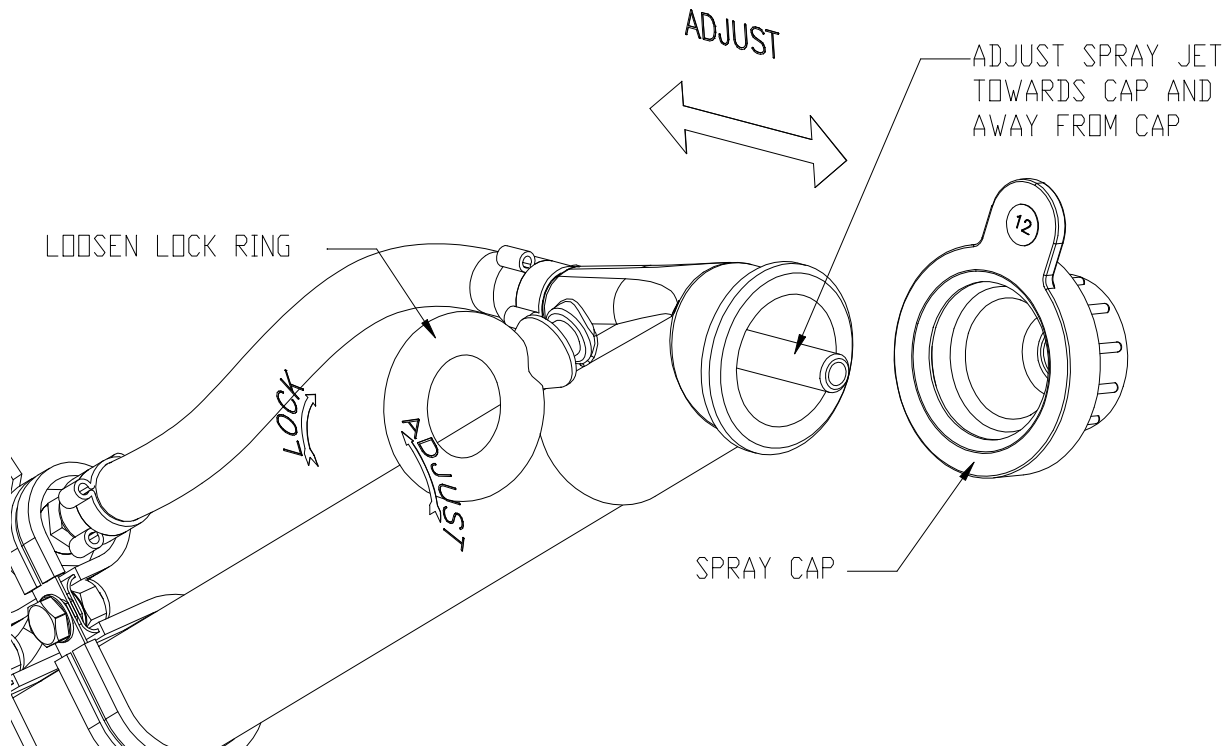


Turn on the air supply.

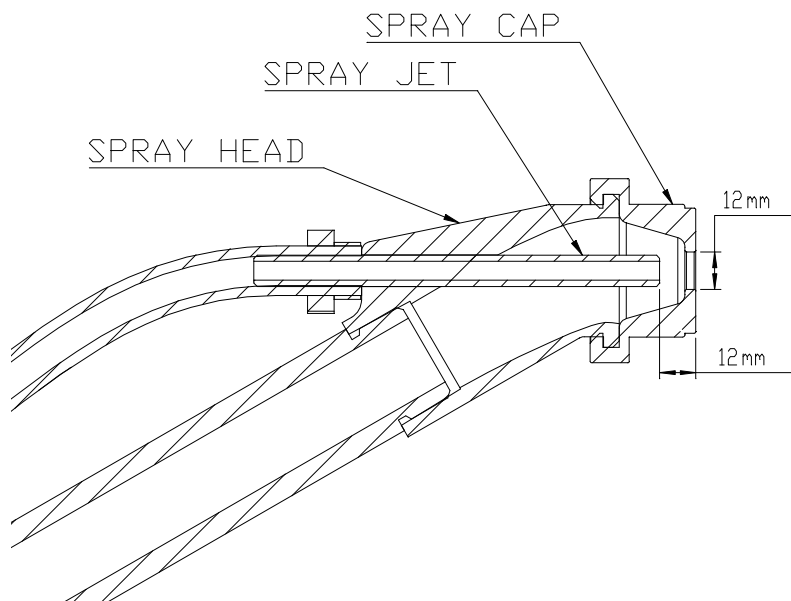
Open the air control valve on the spray gun, so that air can be heard coming from the gun. Then turn on the material flow, and then adjust both the material flow and the air flow until the desired spray results are seen.

## Material spray adjustments

Due to the infinite number of adjustments for spray jet position, material type, air flow, and spray cap size, there is only one hard and fast rule for setting up the spray gun.



Pick a spray cap (recommended 12mm), set the spray jet back from the front of the assembled spray cap, the diameter of the spray cap hole.



Spray caps are available with five sizes, of hole, namely 10mm, 12mm, 14mm, 16mm and 18mm.

## **Section 4 - Spray Gun clean up, gun care, and simple trouble shooting**

### ***Cleaning***

After use, or sometimes during use, the gun will start to suffer from material build up, either through being handled by dirty hands, being placed in or on fresh material, or from back spray.

Any material must be removed before it hardens, using a warm water and soap solution.

Ensure that the material pump is turned off, the air pump be turned off and any air / material, discharged before any disassembly is carried out.

Avoid the use of sharp objects to remove any hardened material, or damage could result to the alloy spray head, the spray jet or the spray cap.

Avoid the use of caustic cleaning solutions, or damage to the alloy spray head will result.

### ***Gun care***

Once cleaned, store all parts in an, unsealed, breathable, clean case or container to prevent loss.

Ensure that the rubber seal fitted to each of the air connections is in good condition, and NOT oiled.

Ensure that the sealing washer fitted inside the cam-lock fitting is in good condition and NOT oiled, or contaminated with hardened material.

## ***Trouble shooting***

The spray gun, is a simple, mechanically operated component, comprising of few parts.

In the event of a malfunction of the spray gun, it should be obvious as to the reason for malfunction, and to the solution, however the following can occur.

If the material being supplied to the spray gun has not been mixed well, or poor quality materials have been added to the mix, such as larger particles of stone, rock or similar, then the spray gun will “block”, allowing only air to spray out.

A blockage can manifest itself in a number of ways, such as a reduction in the material flow rate, being a partial blockage, causing a poor spray coverage, or the material flow suddenly stopping, being a full blockage, causing no coverage, a total blockage will even result in the spray cap being “blown” from the end of the spray head.

A partial blockage will likely keep reoccurring reflecting the poor quality of the mix, but will most likely not stop the job, except for a possible poor finish to the coated surface, the effects of which could be reduced by setting up the gun to use a larger nozzle, if possible, or ensuring a correct mix with smaller or no “rock” in it.

A full blockage will cause the main material feed pipe to suddenly swell in diameter, and for it to try to straighten out as the internal pressure builds. In the event of a blockage, **STOP** the pump immediately, shut off the air at the air valve on the gun, and perform the following as soon as possible.

## **Blockage removal**

To remove the blockage, all pressure inside the material hose must be relieved, this can be done by leaving for a short period of time until the pressure naturally dissipates, or by turning the pump to “reverse” for a couple of seconds.

**NOTE.** Do not run the pump in reverse for more than a second or two or the “blockage” may get sucked back into the material hose, requiring further removal, and/or the pump may become damaged.

- Once the pressure in the material hose is removed, unclip the cam-locks on the material hose connection, and remove the hose from the back of the gun.
- Apply a water hose the front of the spray gun through the nozzle to “flush out the blockage. Doing this over a clean concrete surface will allow the easier detection of the blockage, allowing the reason for blockage to be determined.
- If required, remove the rubber spray cap from the gun to help with the flushing operation.
- Keep flushing the spray gun until a clear sight path can be established through the gun. Pay particular attention to the material fitting when flushing.
- Turn the pump ON, for approx 10 seconds, with the material hose placed in a waste collection vessel, allowing the contaminated material to purge from the pipe.
- Turn OFF the pump, clean the hose end, and reassemble the gun to the material hose, making sure the cam-locks are secure.
- Open the air valve, and re-start the pump, to continue spraying.

It is not recommended that the compressed air in the pipe be used to “reverse” purge the material from a disconnected cam-lock fitting.



## **LIMITED WARRANTY POLICY**

Machine Technologies warrants each of its new machines to be free of defects in material and workmanship under normal use and services for a period of one (1) year from the date of delivery.

The warranty is issued **ONLY** to the **INITIAL USER**. The warranty period begins when the product is delivered to the initial user or when first put into service, whichever occurs first. Said warranty is void if the machine is subject to misuse, neglect, accident or abuse.

Machine Technologies' obligation under this warranty is limited to correcting without charge, at its warehouse, any parts or parts thereof which shall be returned to its warehouse, transportation/shipping prepaid and upon Machine Technologies' examination proves to have been originally defective. Correction of such defects by repair or replacement shall constitute fulfillment of all obligations to the initial user. This warranty does not include labor or transportation charges unless specifically identified and authorized in writing by Machine Technologies. Nor does the warranty apply to any unit upon which repairs or unauthorized alterations have been made.

The warranty does not apply to normal maintenance service or to normal replacement of certain machine parts which are subject to normal wear (including but not limited to pins, bushings, rotors, stators, hoses, spray caps, spray nozzles, mixing shafts, shaft couplings and connectors, dosing shafts, pump shafts, filter elements and tires).

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