



Clean-out and start-up procedures Water-miscible metalworking fluids

Blaser Swisslube
Customer Service



Safety precautions

Where appropriate, when working in and around automated equipment, follow an effective lockout / tag out procedure.

Coolants with recommended pH <8.3
Do not use a system cleaner that will raise the pH while machining with Synergy 735 or any other competitor's coolant that has a normal operating pH below 8.3.

Contact your Blaser representative for support.



Normal pre-clean-out procedure (best practice)

1

Add 2-3% by volume of Blasoclean AF or Blasorun 5 to coolant system prior to system clean out. Allow to circulate for 5-7 days while maintaining pH at 9 (most effective is 7 days). Additional product may need to be added to the coolant system in order to maintain pH over the course of treatment. Additive C41 may be used to boost pH during this time. Any decant tanks, coalescer, centrifuge, sump suckers, recycling systems, filtration systems and anything else that holds, distributes or processes coolant should be evaluated before cleaning with Blasoclean AF or Blasorun 5.

2

In case the coolant is highly contaminated (fungus, extreme foul odor, etc.), bactericide and/or fungicide may need to be added. This should be added on the day of the initial Blasoclean/Blasorun dose.

3

Also keep in mind any additional cleaning steps that might be “system” specific (e.g. large central systems): flumes, tanks without conveyors, pits around the machines, especially when coolant is pumped back into the sump.
For central distribution systems: overhead piping, distribution tanks.

High-production pre-clean-out procedure (best practice)

To reduce downtime for mechanical cleaning

1

Use Blasoclean AF as top off coolant for 4-8 weeks.
Blasoclean AF contains all relevant components of a metalworking fluid (EP additives, corrosion protection, foam control). Therefore production is not affected.

2

Be sure the system maintains pH of 9 or more over the course of treatment.
Additive C41 may be used to achieve this.

3

In case the coolant is highly contaminated (fungus, extreme foul odor, etc.), bactericide and/or fungicide may need to be added. This should be added on the day of the initial Blasoclean dose.

4

Also keep in mind any additional cleaning steps that might be “system” specific (e.g. large central systems): flumes, tanks without conveyors, pits around the machines, especially when coolant is pumped back into the sump.
For central distribution systems: overhead piping, distribution tanks.

Clean-out procedure (best practice)

- 1 Watch machine tool / coolant system clean-out video (see slide after next).
- 2 Remove old coolant/cleaner mix from tanks, vessels and cavities.
- 3 If Blasoclean/Blasorun was not approved for use, it is recommended to clean the machine with a machine cleaner/degreaser according to manufacturer's recommendations after removing the old coolant.
- 4 Remove any covers and panels on machines, tanks, fluid filters, chillers and air filters.
- 5 Remove filters from filter housings and vacuum out remaining coolant.

Clean-out procedure (best practice)

- | | |
|----|--|
| 6 | Disconnect all hoses and pipes at both ends and drain completely. |
| 7 | Disconnect and drain/vacuum any remaining coolant inside of chiller unit. |
| 8 | Scrape off and remove any accumulated chips, swarf and sludge. |
| 9 | If possible, clean any air handling systems and duct work. |
| 10 | If possible, it is advised to use a steam cleaner and/or pressure washer. |
| 11 | Replace all panels, hose connections, pipe fittings, ducts and brackets. Tighten all connections. |

Rinse cycle (best practice)

– right before (re)filling the machine

1

After pumping out all of the old coolant/cleaner, refill the system with a minimum amount of rinse coolant at 1-2% concentrate by volume. Circulate for 45 minutes.

2

Evaluate the rinse coolant.
If it is extremely dirty, remove and repeat the rinsing process.

3

When removing the rinse coolant from the tank and all filter vessels etc.: vacuum any floating oil/debris on top of the sump first rather than let it stick to the side walls of the tank as the fluid level lowers.

Additional rinse cycle when switching from water-miscible to neat oil

When changing from water-miscible metalworking fluid to neat oil

Repeat rinse cycle twice. A small amount of residual water can cause major problems.

Please consult your Blaser representative for support.

1

After removing the rinse coolant, remove all of the remaining water-based rinse solution prior to filling with neat oil. Use rags or other absorbent materials to soak up as much as possible. Remaining rinse coolant can be detrimental to neat oil.

2

It is recommended to flush (after soaking up the rinse coolant) with rinse oils like Blasorinse 4. Please consult your Blaser representative.

Start-up procedure (best practice)

- 1 Install new filters/filter paper.
- 2 Fill system at the recommended target concentration.
- 3 Check for any leaks.
- 4 Start up system. If possible, collect the first few gallons in a bucket or similar from the coolant nozzles, as there may still be some residues.

If there is doubt about the thoroughness of the cleaning procedure, a 0.5 to 1% dose of Blasoclean AF / Blasorun 5 can be added to the charge up (**do not add to Synergy 735**).

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