

BLASOCUT MAINTENANCE

The monitoring and maintenance of Blasocut is simple and can be performed by shop personnel.

Initial Cleaning and Filling

- Remove the previous coolant, chips and swarf from the coolant sump, machine tool, chip conveyor and any auxiliary unit such as a chiller or high pressure pump. For cleaning the machine it is recommended to use a machine cleaner/degreaser or, in extremely contaminated systems (fungus, etc.), our Blasoclean B, Art. 4322 (tech sheet & MSDS available upon request).
- Rinse the machine with 1-2% Blasocut emulsion, and run the coolant pump.
- Clean all screens and change any filters that are part of the coolant system.
- Remove the rinse and fill with Blasocut at the correct concentration. Be sure metal surfaces are rinsed with coolant to prevent rust.
- After the machine is filled, collect the first few gallons out of the coolant nozzle(s) and discard of it properly with the waste coolant.

Mixing by Jetmix/Minimix

- Our Jetmix has been specially developed to guarantee homogeneous and finely dispersed mixtures, allowing for fast and proper preparation of our products. Experience has shown that with the use of a Jetmix/Minimix the concentrate consumption is reduced by 10% on average.

Mixing by Hand (Oil In Last)

- We always recommend the use of a Jetmix or Minimix!
- Pour cold tap water into a clean container and slowly add the appropriate amount of Blasocut concentrate, while stirring vigorously. Mix until a homogeneous emulsion is achieved.
- Compressed air, coolant pumps, proportioning units or water jets are not suitable means of mixing the emulsion.

Mixing Precautions

- Blasocut emulsions must never be stored or mixed in galvanized containers, and should never be mixed with other brands of coolant.
- The concentrate and water temperature should be between 50° F and 86° F.

Concentrations

- Never allow concentrations below 5% (3% for Kombi) in the machine. Higher concentrations provide better lubricity for improved tool performance on tough materials/operations.
- Always use fresh coolant for make-up/top-off coolant (normally 2 – 3%). The make-up/top-off concentration is usually 1/3 of the desired operating concentration. Example: Desired operating concentration = 9% Make-up/top-off = 3%. Brix scale refractometer reading is 1:1.

Water Quality Requirements

- A water analysis before the initial filling is highly recommended.
- Good quality drinking water must be used.
- Never use plant process water.
- Ideal water hardness is 100 to 350 ppm CaCO₃.
- If the water is too hard (>350 ppm), the installation of a D.I. or R.O. unit is recommended.

Foaming

- If the water is too soft, and foaming tendencies exist, we recommend increasing the hardness of the water, up to 400 ppm, with food grade calcium acetate (2 oz. of powder by weight per 100 gallons of water will increase hardness by 100 ppm) or use SW or NF version of Blasocut. Foam Ban XTD 2821 may also be used (2 – 5 liquid ounces per 100 gallons of coolant).

Storage

- Blasocut resists cold temperatures to -90°F (-70°C). Agitate contents if stored over 6 months without use. Direct solar irradiation of the storage containers must be avoided.

Blasocut Monitoring and Maintenance

- Monitor the concentration with a hand refractometer.
- Check pH value weekly. Normal range: 8.3 – 9.2. If pH <8.0, dispose of the fluid, clean and re-charge the machine. If there are questions, contact your local distributor or Blaser Swisslube Inc.
- Check emulsion hardness with a test strip. Normal range: 100-400 ppm. (Does not apply for SW or NF versions.) If hardness >450, then D.I. or R.O. water may be necessary. Consult with your distributor or Blaser Swisslube.
- Continuous or periodic removal of tramp oil is necessary. (Shop vac, oil skimmer, centrifuge or coalescer may be used.)
- Periodic removal of sludge/chips from coolant tank/machine sumps.
- Additives such as biocides, corrosion inhibitors, pH adjusters, etc. are not required.

Recycling

- Used emulsions can be filtered, decanted or centrifuged for re-use. Refer to the Blasocut Decantation Procedure for decanting instructions. Decanted coolant should be used to re-fill machines, not for make-up/topoff.

Procedures for shutting down machines

On occasions you may find it necessary to shut down a machine (or machines) for an extended period (in excess of 5-7 days). To maintain coolant stability during this period implement the following:

- Make sure the concentration is 8-10%, and the sump is full.
- Make sure the pH is 8.3-9.2
- Remove fines, dirt, sludge and chips from the coolant tank.
- Skim off all tramp oils prior to and during the shut down period. Unless the machine's electronics are completely shut off, some machines will continually discharge waylube oil.
- Occasionally (every 5 – 7 days) run the pumps for at least 30 minutes to circulate the coolant.