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HOW TO USE SHARPSHOT®XL FOR ABRASIVE BLASTING

Many blasters are accustomed to using lighter abrasives (e.g., coal slag). Sharpshot®XL (iron silicate), a heavier material, requires some blasting adjustments, especially with respect to equipment settings. Here are some useful tips:

COMPRESSOR

Coal slag can run as light as 85 lbs. per cubic foot, and occasionally as high as 95. Sharpshot®XL weighs closer to 120 lbs. per cubic foot. This means that in order to move the material, more pressure (PSI) and more air volume are needed. Air volume is measured in cubic feet per minute (CFM). Blasters often concentrate only on the PSI while overlooking the CFM. A good first step for blasters would be to determine the make and model of the compressor they are using, then get recommendations from the manufacturer as to what CFM and PSI are needed for a heavier material like Sharpshot®XL (iron silicate).

DEHUMIDIFIER

If the air in your region (e.g., the MidWest) is moist and humid in the summer months, first identify the make and model of the dehumidifier you are using. **Make sure that it is big enough to dry the moist air. Moisture can be the biggest problem in abrasive flow.** To achieve positive blasting results, blasters **must have dry air** going through the pot and into the hoses.

THE SANDBLASTING POT

The make and type of metering valve in the sandblasting pot is also important. The best metering valves are the piston type, first developed by Schmidt. They are known as Schmidt Thompson valves, or simply Thompson valves. Blasters should open the clean-out door, on the front of the pot, to check for extraneous material. They should also check the pop-up valve on the top to make sure they have a tight closure when the pot is pressurized. Often, when blasters fill a pot, the pop-up valve gets abrasive in the seal. One solution involves the use of a spray bottle with water and dishwashing. Spray some on the pop-up valve and bubbles will appear if there is a leak. The same method can be used to check the hose couplings and CQ gaskets inside the couplings.

HOSE AND NOZZLE

Far too much pressure and CFM are lost in inadequate hose couplings, too many lengths of hose, crimped hose, and worn out nozzles. Always test the pressure at the nozzle, while the abrasive is flowing through the nozzle. The reading on the compressor gauge compared to the needle gauge at the nozzle can be very different. Often the pressure at the nozzle is much lower. If there is a disparity, or major loss of pressure at the nozzle, try eliminating each length of hose that is not needed. Also check each coupling with the spray bottle for leaks. Then, using the nozzle gauge, check the condition of the nozzle. Blasters should be using a Venturi nozzle, not a straight bore. The Venturi works much like a carburetor in accelerating the abrasive flow; however, a worn out Venturi nozzle is useless for production. Blasters may think they are using a #6 Venturi nozzle when it is really a worn out #7 with no Venturi effect at all!

NEED HELP?

Whatever problem our customers are having with blasting operations, UMKI is ready to help. Only a phone call or an e-mail away, we are prepared to visit blasters onsite to observe and advise. With years of experience marketing these abrasive products, the Ensio group of companies is equipped to solve problems quickly, thereby enabling our customers to move more cost-effectively on their projects.

PLANT MANAGER

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