



Helping a pharmaceutical machinery manufacturer transition to wet blasting for their surface finishing of stainless steel and hygienic surfaces.

Iskra PIO is a designer and manufacturer of equipment for cleaning technology and pharmaceutical equipment. Not only are they proficient in the production of industrial machinery and equipment – they also offer several services, including surface treatment and CNC metalworking.

Iskra PIO approached Vapormatt to learn more about wet blasting and the solutions we could offer. Their ultimate goal for adopting wet blasting was to enhance their surface treatment operations for sanitary, stainless steel surface cleaning and cut down the time it would take to process each component. Prior to wet blasting, they were using a combination of manual polishing, brushing and circular brushing for the surface finishing of their products.

The advantages of using wet blasting on stainless steel and hygienic surfaces over polishing or brushing not only results in non-directional “isotropic” finishes that improve cleaning ability. Wet blasting produces a highly hydrophilic surface – which is ideal for pharmaceutical-grade equipment! Wet blasting also comes with a range of benefits such as being able to provide higher

resistance to corrosion over polishing through the use of corrosion inhibitors as part of the process, it takes less time to clean components which reduces the overall processing costs and lastly, the process of wet peening can strengthen the components for better longevity.



Case study



The shapes of the stainless-steel parts they use to build their machinery and equipment vary from very large (anywhere between 1.5m – 2.5m) all the way to smaller hand-held pieces. Because of this, they were more interested in exploring our manual machine options in order to adjust their wet blasting process for each piece individually. Another requisite for Iskra PIO was the ability to achieve a certain Ra below 0.8µm as well as an aesthetic uniform finish. This is easily achievable as standard Ra wet blasting produces a surface roughness of about 0.6µm; on top of that, the removal of any welds and heat scale is also possible.

In order to accommodate the different sizes and shapes of components, Iskra PIO was interested in the robust and large working area of the Leopard Sump machine for its bigger stainless-steel components. On the other hand, they found that the more compact Puma machine with its adaptable cabinet features was an attractive prospect for their small to medium-sized parts.

The Leopard Sump presents a more open approach to wet blasting with its patented “doughnut” sump which contributes to its low-level loading without the requirement of a machine pit or raised walkway. Atop the sump are large GRP work grids that can withstand heavier components and makes it easier to maneuver them for maximum blast coverage. It is ideal for manually wet blasting larger components where the sizing might vary from component to component.

The Puma is highly adaptable, versatile and ergonomically designed. Boasting a large working envelope, it is suitable for a variety of components. All within its relatively small footprint. It is the ideal machine for surface preparation with the processing time and coverage easily changed via a pressure regulator and abrasive concentration. A key part of the Puma is the S-tank filtration system, it helps keep running costs low by cleaning and recirculating water



for rinsing. This machine like all our manual wet blasting machines, the Puma and Leopard Sump are fully featured so you can achieve the exact finish you need.

We've produced a video of our Puma manual machine in action which you can find on our dedicated Puma website page:

vapormatt.com/machines/manual/puma

We also have a dedicated page for our Leopard Sump which you can find on our website:

vapormatt.com/machines/vapormatt-sump

