

ADVANTAGES OF DRY BAG ISOSTATIC PRESSES

SIMAC

Productivity..

For a given pressed part size Dry Bag systems can offer as much as 80% reduction in overall cycle times.

There is no need to de-air the pressure vessel before pressurisation or clean and dry the tooling before extracting the pressed part.

Dry bag systems contain no more fluid than is required for the application thus reducing pump up and decompression times dramatically.

Part Consistency..

Consistent pressed part dimensions can only be achieved by having a consistent cavity shape to fill with powder.

Conventional wet bag tooling often uses a very thin rubber bag which makes it very difficult to achieve this consistency of "fill" cavity.

Dry Bag tooling system completely overcome this situation by providing a stable design which ensures a very high degree of accuracy and repeatability to the cavity for filling the powder.

Material Waste..

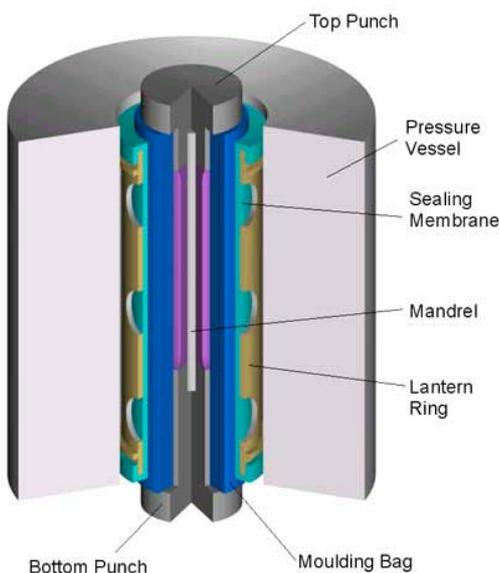
A major benefit derived from achieving a consistent "fill" cavity, and thus a more repeatable pressed part, is that it becomes possible to achieve much nearer net shape pressing.

This can greatly reduce waste material from the production process and lead to significantly reduced machining time required for obtaining the final pre-sintered dimensions required.

Automation..

Wet bag system designs are very varied but suffer from major limitations when considering automation to achieve higher output rates.

Dry Bag systems, however, do not have these limitations and thus a comprehensive range of semi and fully automatic designs can now be obtained. This has led to the extensive use of Dry Bag Isostatic presses in high volume production.



Contamination..

Wet bag systems give a high risk of powder contaminating the pressure liquid with the consequence of high wear rates on pumps, valves etc.

Dry Bag systems eliminate this problem and by protecting pumps, valves etc from harmful abrasive materials much longer service life is achieved.

Wet bag systems also require that the liquid is in direct contact with the flexible tool containing the powder charge.

Inevitably leaks into the tool occur causing loss of the pressed part as scrap.

Dry bag systems seal the liquid by a separate tool item to the one containing the powder eliminating this problem.

Working Environment..

A factor which, in the past, was often overlooked but is now, in many Countries, a requirement on companies is the cleanliness of the working environment.

With their integrated tooling designs, sealed fluid systems and integral powder handling devices Dry Bag Isostatic presses fit well into the modern production factory providing fast, efficient and far cleaner output than their historical forerunners.

Dry Bag Isostatic systems are the technology required to meet the future demands of the powder processing industries.

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