New Continuous Shot Blast Machines by Trowal

WALTHER TROWAL GMBH & CO. has recently commissioned a THM troughed belt continuous shot blast machine for a customer in Mexico that is equipped with a brand new generation of blast turbines. These turbines were specifically designed for shot blasting of aluminum components. With a considerably higher blast media throwing speed, the new turbines produce significantly shorter cycle times than previous models.

The Mexican customer already successfully operates four continuous Trowal shot blast machines. Because of their excellent performance, he chose to purchase another THM machine when he had to expand his production capacity.

Up-and-Coming: Aluminum: The Gentle Blast Media

The increasing sales trend at Walther Trowal indicates that ever more customers are switching to aluminum media when shot blasting aluminum components. Because of its lower bulk density, aluminum media is a lot gentler than, for example, stainless steel shot. Typical automotive forgings made from aluminum are steering knuckles or swivel bearings. Aluminum die-castings processed in THM shot blast machines can be all kinds of housings, covers or levers.

Because of its lower density, the impact energy of aluminum media on the work pieces is considerably lower compared to other blast media. To offset this limitation, Walther Trowal developed turbines with curved throwing blades which generate a significantly higher blast media throwing speed than straight blades. This, combined with the fact that in THM machines the turbines are located very close to the work pieces, and the media throughput is considerably higher, results in optimized energy utilization and surprisingly short cycle times. However, the shot blast treatment remains very gentle. In short, despite the relatively low density of aluminum blast media, the shot blast process is highly effective and at the same time surprisingly gentle, preventing any warping or distortions of delicate work pieces.

Another benefit of aluminum blast media is that it reduces the wear rate in the turbines and the machine to a fraction of the wear caused by steel shot, resulting in higher uptimes and lower operating costs.

Walther Trowal offers a range of different machine sizes equipped with up to four turbines. For example, for forged aluminum components the new THM 700/4/E with four turbines and a power of 15 kW for each turbine, produces an exceptionally high degree of productivity.

Specifically Designed for Handling Aluminum Media

To meet all the challenges posed by aluminum shot, the Trowal engineers redesigned many machine assemblies, among them the media dosing system and the turbines. One detail of many: A rough surface of the throwing blades would quickly destroy the aluminum particles. Therefore, Walther Trowal is smoothing the blade surface with in-house vibratory finishing equipment. The result: A greatly reduced blast media consumption, lower dust emissions and significantly improved turbine uptimes.

Visit www.walther-trowal.de for more information on these new shot blast machines.

W Abrasives and ICSP-13

AS A WORLD MARKET LEADER in steel shot and grit, W Abrasives is pleased to participate to the 13th International Conference on Shot Peening.

During the three exhibit days, the W Abrasives team will be presenting the complete line of surface enhancement solutions including high carbon steel shots, cut wire, stainless steel products and ultra-fine shots.

The W Abrasives large spectrum of media offering includes solutions for the Automotive, Aerospace, Spring and many other markets.

In addition to meet the most common SAE standards (J827 and J441), the W Abrasives products can meet the VDFI 8001, AMS 2431/1, 2, 3, 4 and 8, DMR 71-110 (Safran Group) standards, to name a few.

The W Abrasives team will also take the opportunity to present an "ultra fine shot" in the order of 70-100 µm which is used for the peening of small parts such as gears or valve springs.

With its expertise, worldwide availability, innovations and product performances, W Abrasives will be able to optimize its customers' shot peening applications.

The W Abrasives staff looks forward to seeing you in booth #5 at ICSP-13.

The 13th International Conference of Shot Peening
Hotel Delta Montreal
475, President-Kennedy Avenue
Montreal, H3a 1j7 Canada
September 18-21, 2017

Visit W Abrasives in Booth #5