

PRODUCT APPLICATION REPORT

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TEXAS MACHINE SHOP REALIZES SIGNIFICANT 50% TO 85% DECREASE IN SET-UP TIME USING SPINSELECT™ MULTI-POCKET SELECTABLE TOOL HOLDER

Texans are famous for wanting to “super-size” just about everything...and Thomas Roden’s Ft. Worth-based All-Star Machine & Mfg., was no exception when it came to making a big commitment to try out a new product that claimed to substantially reduce set-up time and change-overs...and at the same time, increase throughput.

Since its’ founding in 2000, “Tommy” has seen his All-Star Machine & Mfg. grow to be a very big player in the niche market for taking on projects that most other competitors “no quote”...such as the production of small to medium diameter, complex turning applications. Today, All-Star’s reputation has grown throughout the region for their “we can handle it” machining/metalworking mindset.

All-Star Machine & Manufacturing operates out of a plant with over 40,000 sq. ft. dedicated to production and manufacturing. The company specializes in high quality machining from the design & engineering of prototypes, to production runs up to +100,000 pieces. The company employs 65 machine tool operators and runs 17 CNC lathes, 3 Multi-tasking centers, 16 CNC machining centers,

5 EDMs and more. Tommy and his sons have more than 110 years combined machine shop experience.

Roden’s All-Star manufactures parts for many industries including banking, food production, resource extraction, aircraft, automotive and telecommunications, using beryllium-copper, Monel, Inconel, titanium, Hiduron, Toughmet, tungsten, tool-steels and many other metals as well as Peek and engineering grade plastics.

GROWING A REPUTATION FOR HANDLING THE DIFFICULT JOBS...

Despite a growing reputation for handling the difficult projects, All-Star has come to know that operating smart by reducing such functions as set-up time and change-overs are just as important on “special” jobs as it is on “regular” jobs. So, when he discovered a new tool holder capable of holding up to 5 or more inserts at one time, Tommy had to investigate.

Prior to installing SpinSelect™ Multi-Pocket Selectable Tool Holders, All-Star was mostly using shank tools & modular grooving tools. “Performance was inconsistent and typical change-over and set-up times varied between 2-6 hours depending on complexity and tolerances, etc. Obviously, machines sitting idle for that long are major profit-killers, losing money with every tick of the clock and we couldn’t grow our business by losing out on big chunks of time with machines down waiting for the next set-ups,” stated Tommy.

EARLY SUCCESSES GIVE WAY TO EXPANDED USES...

Intrigued by SpinSelect™ productivity claims, All-Star pushed forward and installed their first SpinSelect™ tool holders in January, 2013. Early successes with the tooling gave way to an expanded and broader use of the new SpinSelect™ tooling for such operations as...

- **Turning** – Roughing, finishing, profiling, etc.
- **Grooving** – O-ring, thread relief, thread blocking, deep profiling, etc.
- **Threading** – 60 deg. “V”, Acme, Stub Acme, API, etc.

"All-Star Machine has had four sets of SpinSelect™ tool holders in operation for well over a year now and the product performance claims have definitely been as-advertised." Tommy adds..."Since using SpinSelect™, the ROI benefits and other tangible advantages we have realized...including operating improvements versus the standard single tool holders, have been significant." He added..."as we cut the full range of materials from 12L14 to Inconel, our operators have been able to try out the SpinSelect™ Multi-Pocket Selectable Tool Holders on the full gamut of metals and have consistently found improved operating performance."

"These tools increase the versatility of our work cells by providing 20 or more tool geometries at our fingertips, without needing to re-qualify them before use."

OUR AVERAGE CHANGE-OVER/SET-UP TIMES HAVE DECREASED 50-85% FOR MOST LATHE PARTS.

"Additional benefits we have realized include; deeper cuts, faster feeds, less vibration & chatter and the ability to benefit from offline insert changes. Increases in operational complexity such as single chucking have subsequently decreased the number of operations required to complete the part."

Tommy explained..."All-Star Machine & Mfg. operators especially like the ability to switch-out roughing inserts virtually on the fly. For example, roughing inserts invariably wear out the fastest...so one great thing about SpinSelect™ is that insert changes take just seconds...not minutes. Plus, offline insert changes/reloading can create a virtually continuous runtime. Super rigid grooving allows for faster grooving without chatter and increased tool life. Plus, groovers can also be changed in seconds, as well."

"The mPower SpinSelect™ Multi-Pocket Selectable Tool Holders have particularly excelled cutting harder materials faster by loading 'the pocket' with more rigid tools and having multiple inserts available, without any need to re-qualify them before use. Each of SpinSelect's five individual pockets is 30% stronger than its conventional shank counterparts."

THE 5 MOST VALUABLE SPINSELECT FEATURES...

Tommy adds..."If I had to prioritize five key SpinSelect™ product features that our machine operators have found

to be particularly valuable, I would probably arrange the top five this way"...

- a. Increased tool capacity
- b. Offline insert changes
- c. Decreased change-over/setup times
- d. Capability to run more complex parts in a single setup
- e. Repeatability. No need to re-qualify tools for new setups"

"We understand that during the fourth quarter of 2013, Modern Industries based in Erie, PA began the process of integrating SpinSelect™ Multi-Pocket Selectable Tool Holders into their popular mPower™ line of quick-change workholding products."

"Our machine tool operators have also found that the specific design of mPower's SpinSelect™ Multi-Pocket Selectable Tool Holders makes it easier and faster to machine harder materials and requires less downtime changing out worn inserts...chatter is also decreased which also allows for faster machining."

Tommy summarizes..."So...if you are like most machine shop operators and are looking for better ways to minimize downtime for tool and insert changes, reduce set-ups to seconds and cut downtime to the tool crib, then my recommendation would be to look into mPower's SpinSelect™ Multi-Pocket Selectable Tool Holders."

OUR MOST POWERFUL COMPETITIVE EDGE...

mPower's SpinSelect™ offers machining operations significantly better throughput, especially on machining tasks like heavy roughing, harder material removal, and short runs. All-Star Machine & Mfg. has realized up to 85% savings on turning set ups and realized a very fast ROI." Tommy concludes..."On average, we've cut 1-3 hrs. on set-ups per project and even more savings by eliminating mistakes from extra handling. We definitely are believers."

The new SpinSelect™ Multi-Pocket Selectable Tool Holders, will be on display at Modern Industries booth W-1819, in addition to other mPower products that enable set-ups and change-overs in seconds while also improving throughput even on older, existing machines.



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