



Established in 1987 in Taiwan's central county of Changhua, Nan Shun Spring Co. is living proof that modest size does not necessarily hinder corporate growth and excellence. A specialized supplier of springs and related industrial parts with around 30 workers in two plants, the maker uses one as warehouse and the other the factory. After years of devotion to improving manufacturing skills, the company has built a solid name with a broad product range and professionalism.

Initially an OEM (original equipment manufacturer) of springs and wire forms, Nan Shun fared adequately but could not build enough momentum to grow and prosper for long. Later the company diversified into stamping, die-casting, punching and lathing, which helped to enrich its metallurgy and metalworking know-how, with the realization that sustainable development is built upon becoming versatile and specialized.

Vertically Better Compete Globally

Learning-by-doing helps the maker to achieve firsts in Taiwan's manufacturing

Diversification Necessary

Responding to why his company branched out into other metalworking technologies when already recognized as a specialized maker of springs, Larry Lin, the chairman, answered that an OEM that focuses on making springs alone can not build a sustainable future, so the firm expanded its product line to be more versatile than competitors and to add value to products.

To realize product diversification, the company overcame resource limitation by upgrading machinery to maximize production efficiency. The company now has in-house over 20 sets of CNC (computerized numerically controlled) machines and machining centers, as well as 10-plus sets of wire forming machines, all of which, Lin added, are periodically maintained and calibrated to ensure performance as if new.

To guarantee upmost reliability and quality, the company has a full line of inspection instruments, including hardness and torsion testers, IR testers and gauges in its quality control lab. Lin emphasized that with assistance from R&D institutions and quality assurance agencies, such as the Metal Industries Research & Development Centre, Industrial Technology Research Institute and SGS, Nan Shun can also inspect special characteristics, like leadand hexavalent-free chromium electrodeposition, according to customer requirements.





Being able to supply qualitydependable products implies that the
maker has to be an expert in metallurgy,
which is true of Nan Shun, whose other
competitive advantage lies in its ample
knowledge of metals. Lin said that the company, via
research and real-world experience, consistently
enriches its metallurgical and processing know-how,
gradually accumulating knowledgeable about steel, stainless
steel, iron, copper, zinc, plastic, aluminum and special steel
alloys.

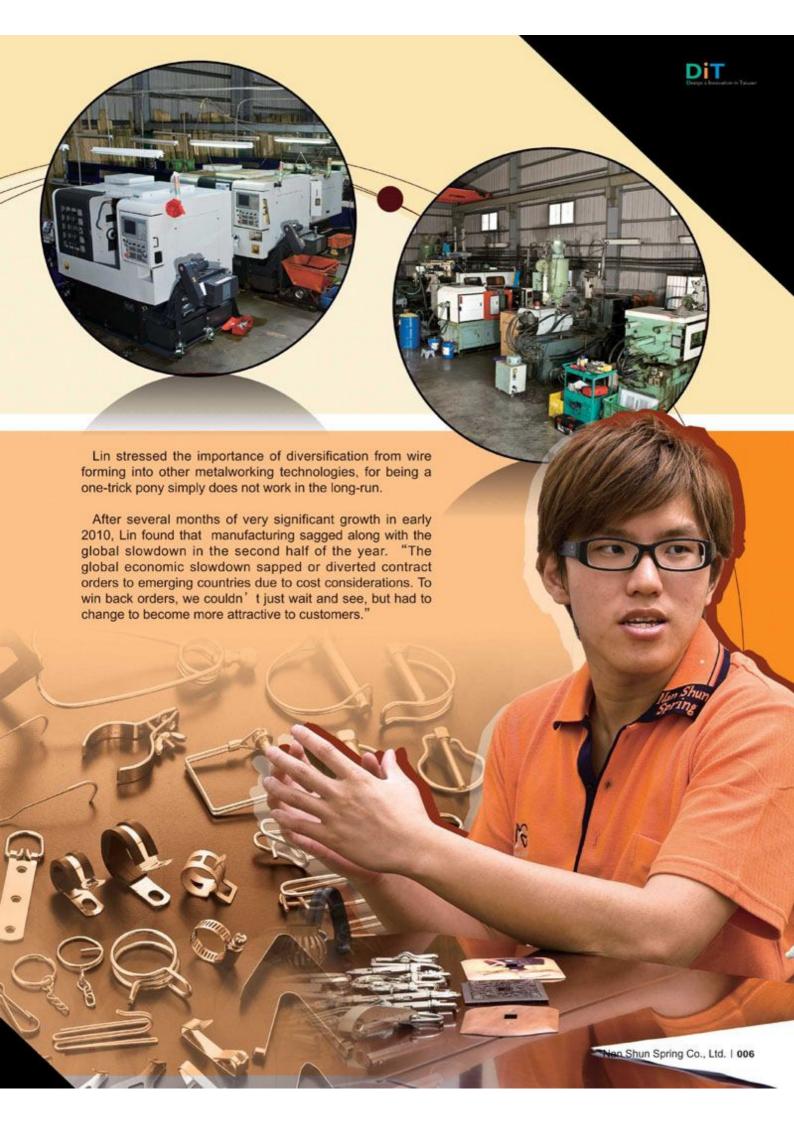
Citing the company's experience to fabricate cable hooks for aircrafts, Lin said that "such products are made of 2024 high-grade aluminum alloy for the metal's lightness and structural characteristics. But we were totally ignorant of the material at the time." To overcome the deficiency, Lin and his R&D engineers spent over a year and considerable resources studying the material and working with American heat-treatment companies, with learning-by-doing having helped to enhance the company's capacity to handle the special alloy.



Also notable is the company's success in applying Teflon cables to produce parts for special power systems in large stores as B&Q and Toys "R" Us. To meet electrical safety requirements, Lin said, his company imported Teflon cables from the U.S. and then extensively studied their characteristics to minimize production defects and enhance the quality of the power-system parts.

"No company in Taiwan sold Teflon-coated cables then, so we were novices and had no choices but to initiate, again, a time-consuming and costly research program. Thankfully our efforts paid off and the parts made with the special cables were finally all UL certified. The power-system builder was very satisfied with our achievement and has become a loyal customer," Lin noted.

Verticallyintegrated Manufacturing







sometimes fails due mainly to poor coordination among operators for unfamiliarity with each other's business and inconsistent quality assessment. However, with ample knowledge about materials and metalworking skills from wire forming to stamping, die casting, and forging, Nan Shun aims to be an exception, according to Lin.

Meanwhile, Lin said that the company has also been engaged in research and development of advanced processing technologies for steel plates and composites, which will further broaden product line.

Demonstrating a move upwards to become an ODM (original design manufacturer), Lin showed a classical, luxurious cellphone stand made of a combination of metal and plastic, adding that evolving into an ODM is the next objective for Nan Shun. "We plan to deliver such finished products to retailers and box-type wholesalers in the U.S. and Central and South Americas." (SC)



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