



Vallero International—drumming up business around the world



Nearly 80 years separate these photos—Vallero craftsmen pose in front of a drum in 1927, while the current installation team repeat the pose in front of one of their latest vessels.

Vallero International S.p.A can trace the foundation of the family business back to 1847, when Pietro Vallero set up a factory for the production of barrels for the storage and maturing of wine, in the area north of Turin. When local tanneries changed from pit tanning at the beginning of the twentieth century, the Vallero family business took on the challenge of developing watertight wooden vessels that could be filled with hides and tanning solutions and rotated. Very early tanning drums were often barrel-shaped, showing the origins of the craftsmen that made them. Having over 150 years of accumulated experience in the working of wood is a priceless asset, but the company knows it cannot rest on its laurels, and has now developed a range of stainless steel processing vessels to complement its mainstay of production in wood.

Ing. Giacomo Vallero, company president, and his brother Piero, financial director, are the fifth generation of the Vallero family involved in the manufacture of wooden vessels, and it is hoped that the family involvement in the management of the company will continue into the future. Their current 14,000 m² factory was established in 1991 in Oglanico, about 35 kilometres north of the centre of Turin, and from there Vallero supplies its drums and vessels to tanners throughout the world.

Wood is at the heart of the business, and over a third of the site is taken up with storing timber, totalling three years of production requirement (*Figure 1*); indeed, the yard is often referred to as the 'alternative bank account' of the company because of the value of the wood stored there. Vallero uses various tropical hardwoods from the teak family, sourced from

sustainable forestry world-wide. The rough-sawn timber is stacked with spacing pieces to allow the air to circulate around it, and left exposed to the elements through two or three years of the cold winters and fiercely hot summers of the Piedmont region. This natural seasoning of the wood allows all of the natural stresses in the wood to come out, so that when it is precision-machined it will remain absolutely dimensionally stable, and there will be no shrinkage or distortion in the finished vessel.

Inside the factory, the manual skills of the carpenter have given way to CNC machine tools, as the seasoned wood is so hard, dense and stable that it can be considered a true engineering ➤



Figure 1: Timber for three years of production stacked for seasoning outside the factory



Figures 2 & 3: C.N.C. machining centres shape timber into precision components

material. Drawings for the individual pieces of the drum are produced in the technical office using computer design systems, and the requirements are fed into computer-controlled machining centres (Figures 2 & 3) that perform an automatic sequence of planing, drilling and mortising while the operator oversees the process via closed circuit television. As befits a company whose ethos is founded on high quality, all production operations are monitored to ISO 9001 standards.

These same high standards are applied to the production of the 'ironwork' on the drum. Cast crown wheels, spiders and bearing housings are delivered from the foundry and allowed to season outside in the woodyard for several months before machining (Figure 4). Vallero cuts all of its own gearing in its factory, and also manufactures the massive gearboxes used to drive the drums (Figure 5). Since a quality hardwood tanning drum can have a working life of twenty-five years, its drive train must be of the highest quality, and Vallero believes that the way to ensure this is to undertake all of the precision machining work in-house. Completed gearboxes are run continuously for thirty-six hours

on a special test rig before despatch, to ensure that all bearings and gearing are 'bedded-in' and running perfectly.

The very high precision of the machined wooden components means that it is no longer necessary to completely assemble the drum in the factory then strip it down for despatch, thus saving both time and money. The two ends of the drum will be assembled for despatch, with the crown wheels and spiders mounted; they are usually transported on steel support frames to allow them to fit inside standard truck trailers. A section of the staving to carry the main door will also be pre-assembled with



Figure 4: Crown wheel castings seasoning outside before machining

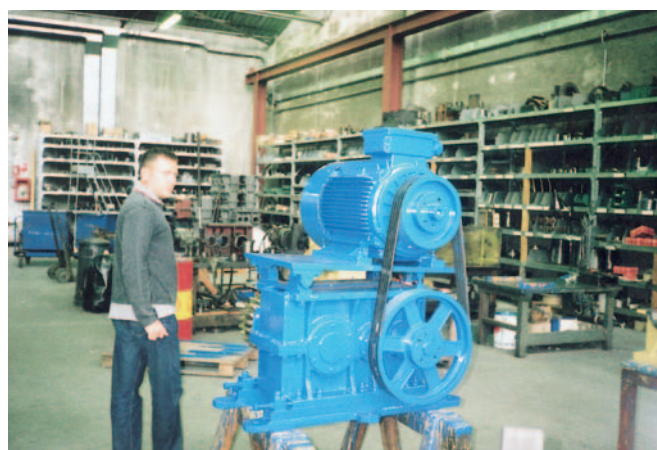


Figure 5: Drum drive gearboxes are built in Vallero's own factory



Figure 6: Pre-fabricated drum door section and staves await packing for despatch



Figure 7: The finished article—Vallero drum installation at Blutonic tannery, Santa Croce

have been supplied to just about every country in the world with a tanning industry worthy of note, from North America to Australia and New Zealand, via Europe, Africa, and Asia.

Vallero has devoted years of development to circulation systems within its drums to maximise the penetration and distribution of chemicals into the leather, and to allow recirculation, filtration and heating of the float. It has also developed, with partners, modular automation systems for beamhouse, tanyard and dyeshop processes, and can design and supply complete installations for new tanneries (Figure 7). Vallero International will concede that most countries with a tanning industry are capable of producing simple, cheap tannery drums, but Vallero maintains that those tanners who want to produce the

the reinforcing timber around the frame (Figure 6), but the bulk of the circumferential staving will be shipped just as it came from the machining centre. On-site assembly and mounting of the drum requires expert knowledge, and Vallero's team of experienced technicians are well-travelled men indeed. Drums

highest quality leathers will accept that they need sophisticated processing vessels of the highest quality. The Vallero family and its team of experts intends to carry on supplying them for many generations to come. 

TMM



I knew I should have
subscribed to  **leatherbiz.com**