High-end Total Stations

Clear trends characterising todayâ€™s high-end total stations are cool design and â€˜all in oneâ€™ instruments. Most remarkable, however, is Chinaâ€™s emergence as manufacturer of instruments for the most demanding area of the market.

Four years ago (see Product Survey October 2002) we predicted that China would become a significant player as manufacturer of High-end Total Stations. We wrote: "For the future [â€¦] competition may come from an unexpected part of the world, and that is China. At the moment, the total-station industry in China is still focusing on construction-site personnel. However, the industry there is developing very fast and it is only a matter of time before the Chinese survey industry has risen on the ladder to reach high-order precision instruments directed towards the professional surveying market."
The moment at which China enters the top segment of the market has now definitely arrived. Already last year we welcomed the frontrunners, the firm called South, of Guangzhou, and FOIF from Suzhou. This year we welcome another three companies: Phenix from Shanghai City, LHL from Tianjin, and Geotech, based in Xiamin. Some are so brand new that English-language brochures are not yet ready.

Designers increasingly determine the look of our instruments; striking colours and strong lines characterise todayâ€™s instruments. Maybe survey instruments will follow the same way travelled by so many consumer goods, appearance becoming at least as important as functionality. Perhaps one day the look of a total station will be personalised, so that we can order our favourite colour. Chinese manufacturers, however, still have to take that turning. At present their products remarkably resemble those of others in appearance.

Todayâ€™s instruments often integrate several specific functionalities for which up until a few years ago the surveyor had to buy different instruments. Leicaâ€™s smartstation, for example, is a combination of theodolite, EDM device(s), GPS receiver and powerful software. Topconâ€™s GPT 7000i combines theodolite, EDM(s) and digital camera, so that the instrument offers photogrammetric capabilities. Software enables some instruments to be used as a scanner. Integration enables the surveyor on the spot to choose the best method. This trend will continue for the foreseeable future, and maybe within a few years we may welcome instruments equipped with two-way radio, one in the instrument and another in the reflector or mobile phone for online transfer of data to the office.