



new face on the scene is taking time to learn slowly and build its business in a city steeped in craftsmanship, writes *Simon de Burton*

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**Hydro-powered** HYT takes fluid-system technology to the next level



Watchmakers have spent decades perfecting the art of keeping liquids out of watch cases, writes *Simon de Burton*, but one of the industry's more avant garde brands is now working to keep them in.  
"Hydro mechanical horology" has been pioneered by HYT, the niche company that broke new ground with the launch of its H1 watch in 2012. The main feature of the H1 is that it displays the minutes not with a conventional hand but with "an aqueous liquid filled with fluorescein" - fluorescent, coloured water - which

moves slowly around a capillary tube. The water is contained in one reservoir, while another reservoir holds a "transparent viscous liquid" (in other words, oil), with both reservoirs linked to a pair of piston-driven bellows. These are connected to a hand-wound mechanical watch movement with a 65-hour power reserve, which drives the bellows to push the unmixable fluids in opposite directions around an 11cm long, borosilicate glass capillary with an internal diameter of just 1mm. The position of the fluorescent water indicates

the minutes, while the hour is shown by a single, conventional hand. When the water reaches the six o'clock position, having made a full circuit of the tube, its pump compresses while the pump for the oil extends. The water is pushed back and the whole process begins again. Frivolous as the idea may seem, it has taken more than a decade of research and a team of 30 technicians to perfect HYT's liquid display, first mooted by its inventor, Lucien Vouillamoz, in 2002. It came about thanks to the involvement of Patrick Berdoz, an investor, and

Vincent Perriard, an industry veteran who as president of Concord, the Swiss watchmaker oversaw the creation of a timepiece with a liquid-filled power reserve display. HYT's watches are vastly more sophisticated, so much so that a sister company called Proclifix was created so that the fluid system could be patented. Such technology does not come cheap. The H1 is available from £34,000 in titanium, while the next-generation H2 model, due to go on sale next month, will have a starting price of £93,000.