

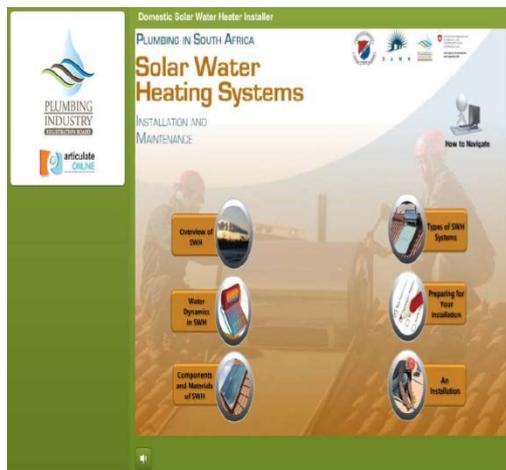
CHANGING THE SOUTH AFRICAN PLUMBING ENVIROMENT FOR GREEN

With the onset of the Eskom demand side rebate program, whereby the domestic residential market was encouraged to convert ordinary electrical water heaters to solar water heaters through a rebate subsidy program, it created an environment for mass roll-out that the ordinary plumbing installers were not ready for, and not at all skilled for.

While the plumbing industry had the foresight to incorporate solar water heating into the national plumber's curriculum, this only took effect in 2009/10. While the skill of solar water heating would have only been imparted into the current plumber learners that passed through the accredited plumbing curriculum the short coming was that the current plumbers in the marketplace did not have the necessary skill to install domestic solar hot water heating systems. While the challenge was to address the mass roll-out of domestic solar water heating, a bigger challenge was that the already weakened training environment was not geared up and not ready to provide an accredited solar skilling program.

In March 2010 a journey began with the Plumbing Industry through the auspice of the Plumbing Industry Registration Board (PIRB) who came together with The Swiss Agency for Development and Cooperation (SDC). The goal and objective; to create a national training system to accommodate compliant installation of large volumes of solar water heaters.

The solar water heating training project began with the foundation already been laid by the plumbing industry and with the largest contribution already coming from the DAWN Group of companies. The solar water heating training project was made up of many components with the majority geared towards the up-skilling of the current and existing accredited plumber training providers in the industry. By the project end in 2012, 17 training centres were accredited to provide accredited solar training which culminated in 760 plumber's skilled-up by February 2013 from a baseline of 84 in March 2010.



A further process of up-skilling the solar market and the qualified plumber, and through the contributions received as part of the project, the plumbing industry ventured into the electronic training environment. While a lot of energy and time was poured into this component it is still early days to ascertain the impact that this component will have on the industry and how the industry will take to this type of learning. The advantage to this type of learning and up-skilling is that the platform has no boundaries. During the course of the developments most of the learning development concentrates around the actual solar installation taking place on site. By centring the developments on the actual solar installations it would allow the plumber on site to make use of the media as a quick and easy frame of reference.

A further continuation of the up-skilling of the plumbing industry on solar was to skill the plumbers assistant and with a challenging ratio of one plumber to four assistants it was a thought-provoking task. At the onset of the project it was believed that the less challenging method of up-skilling this assistant base was to make use of the electronic media such as electronic learning similar to what was done with the qualified plumber. However, during the course of the project it was realised that due to current skill level of the assistant base it would not achieve the desired effect and after careful consideration it was agreed that the most appropriate method to up-skill this sector of the market was to provide the learning material in a useful hard wearing pocket guide, that the assistant (and plumber) could use, not only for learning, but to recap on the learning and more importantly due to it pocket size to use on site during the actual solar installation for easy reference, and thus achieve a compliant solar installation. The guides have been well

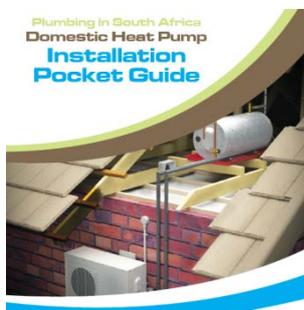
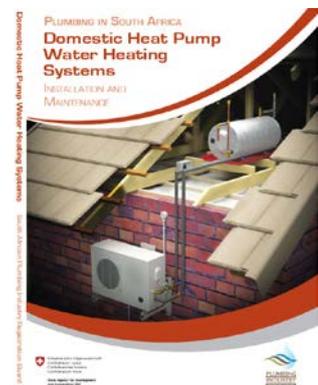


received in the industry and it is planned to continue with a series into other plumbing disciplines.

In September 2011 with the introduction of heat pump technologies as an alternate method of water heating to that of solar water heating, and as part of the Eskom subsidy program the project was extended to incorporate the development and set up of a training environment for heat pumps. While the heat pump project was similar in nature to that of the solar project the only difference was that there was no foundation to build from. So while the solar had the foundation with respect to the national curriculum and training material, none was in place for heat pumps and further to that, no national installation standard was in place to use as bases to development a national heat pump curriculum.

The commencement of the heat pump project could not have come at a better time for the plumbing industry. With the implementation of a new training environment by government in the form of the Quality Council for Trades and Occupations (QCTO), meant that changes in the national training were imminent. In short, the QCTO is to create an environment for the respective industries to take ownership of their own training environment, and as a result of this the heat pump project outcomes were directed in such away so as to support these objectives of the QCTO.

The outcome of the project's components was a resounding success, with the highlights that included the development and implementation of a National heat pump installation standard. The development of the national curriculum under the QCTO format not only for the heat pump's but for solar and plumbing, and a further success was the development of a national heat pump textbook and pocket guide similar to that of the solar pocket guide. By the project end in 2012, 9 training centres were accredited to provide heat pump training, culminating in 546 individuals skilled on the heat pump skills program.



Today's Plumber will reduce the effects of climate change more than any other trade or industry in the world and both the solar and heat pump projects have certainly supported this. While the outcomes of both projects were a resounding success it is important to note that while the South African plumbing industry is at the starting point of these changes, the achievements and outcomes within the project have laid a firm foundation for the plumbing industry to build on, well into the future.

