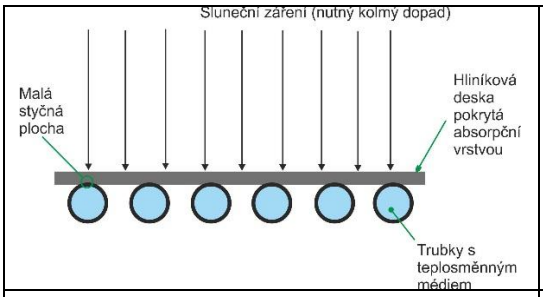
AQUAdem s.r.o.
Tovární 739/1, 643 00 Brno-Chrlice, info@aquadem.cz
Tel.: +420 545 229 775, Fax: +420 545 220 056

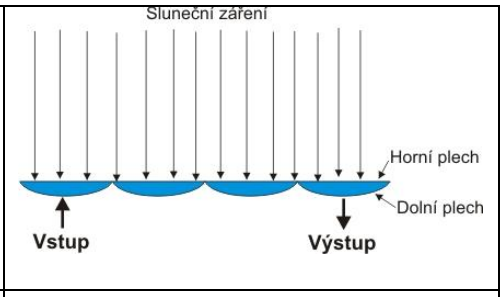
ISO 9001 BUREAU VERITAS Certification
TGA-ZM-02-92-00

Solar Absorbers

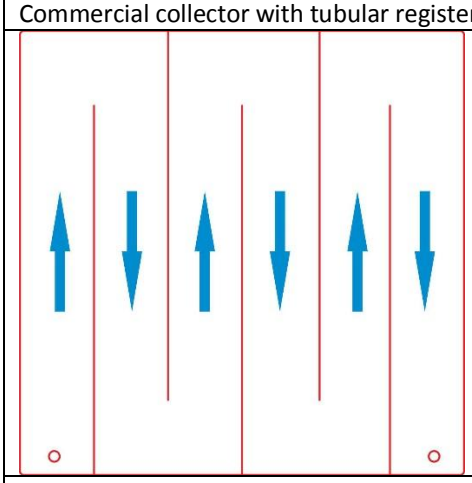
In cooperation with the Faculty of Mechanical Engineering VUT Brno and the Institute of Apparatus Technology AV ČR, AQUAdem is involved in the development of solar thermic collectors for water heating TUV. These collectors have a completely new design and manufacturing technology. In commercial collectors, the heat is removed by the tubular register mounted on the rear side of the absorptive plate, where the heat loss arises necessarily due to the heat conduction from the absorptive plate via the linear contact in the tubes. The type developed is characterized by the cushion structure wherein the heat exchange fluid flows in the meander system over the entire surface of the absorptive plate. This design thus significantly reduces the heat loss during the transfer of the absorbed heat to the liquid. Also, the hydraulic resistance and therefore the pressure loss in the absorber are lower. The technological process of the production is already protected by patent.



Commercial collector with tubular register



Cushion collector - section



Meander structure provides the even flow over the entire surface of the collector

Cushion collector welded from sheets 0.5mm thick

Solar cushion collectors in AQUAdem