**Waste heat recovery based clothes dryer**

The present invention relates to drying system comprising,

- a frame with a polygonal shape and a plurality of faces corresponding to the polygonal shape,
- a plurality of header pipes mounted on the frame, wherein the plurality of header pipes comprises at least one opening positioned circumferentially on the plurality of the header pipes,
- a plurality of pipes mounted at an angle to the plurality of header pipes, wherein at least one pipe from the plurality of pipes connects at least two header pipes from the plurality of header pipes
- and at least one outlet positioned on a face from the plurality of faces and a plurality of mesh placed over the plurality of pipes and the invention further relates to a drying unit utilizing compressor waste heat wherein the drying unit consists of an external compressor and a removable clothes drying frame.

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