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## ZERO IMPACT FOR WATER RESOURCES FOR A STEEL INDUSTRY COMPLEX

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A Middle East Customer Contracts PERTEco (PERT environmental department) for the supply of the new Water Treatment Plant (WTP) for his Steel Complex composed of 1,500,000 tons Meltshop and two 500,000 tpy Bar and Wire Rod Rolling Mills.

The Steel Complex is located in a desert region, with a very limited water availability. In the aim of the sustainability the new WTP is design on zero impact to the regional water sources.

A supplementary wastewater treatment plant will be installed to treat the municipality water coming from the nearest city in order preserve the groundwater reserves.

With reference to the WTP in service to the Steel Complex The solution adopted, in order to reduce the water consumption is to use of equipment with low or negligible water consumption (hybrid-cooling towers and dry coolers) -application of a dedicated plant for the treatment and recovery of the drains (drain recovery DR-WTP). This allowed to respect the limits imposed by the availability of water on site and to maintain a safety margin for a future planned upgrade of the plant. The solution finally results also economically interesting, especially thanks to the water chemical conditioning saving.

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