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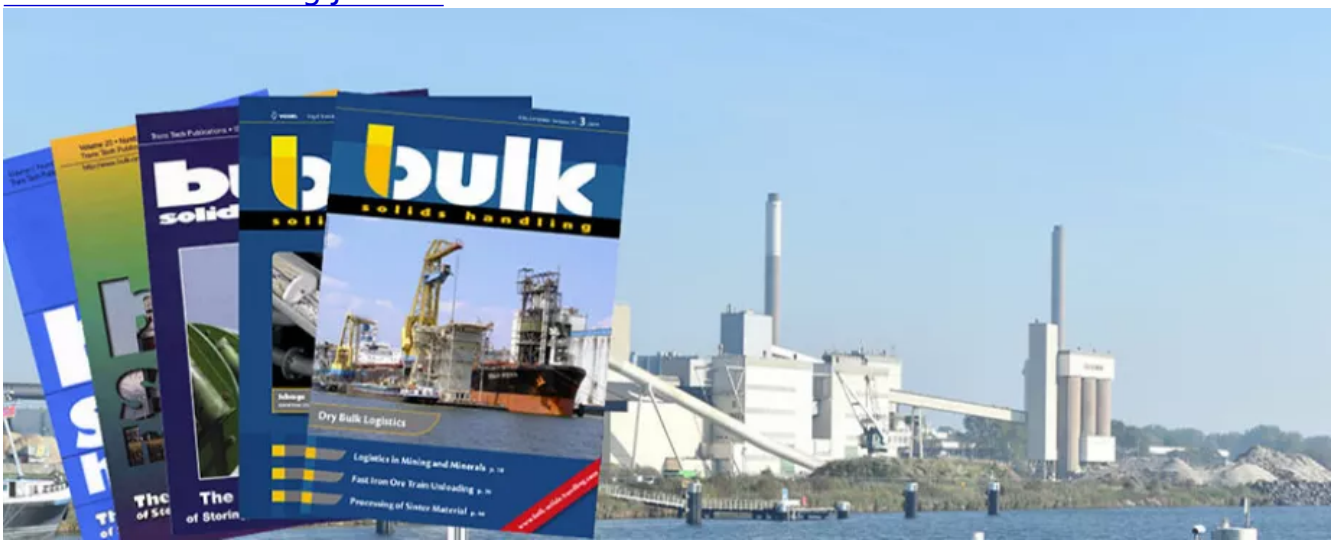

Technical Article

Steel Pipe for Slurry Pipelines

Edited by on 9. Oct. 2023
Published in bulk solids handling, Vol. 1 (1981) No. 3

In every instance, steel pipe fulfills the requirements demanded of slurry pipelines. They have the strength to absorb stresses, the essential deformability for their manufacture, pipe-laying, and operation, and the toughness required from the point of view of fracture mechanics. They allow the construction of technically reliable, economical pipe connections and are distinguished in particular by their weld ability, oriented towards modern pipe-laying methods. Wear due to erosion and corrosion presents no problem when provision has been made for wear from the very beginning in the design, construction, and operation of slurry pipelines.

The high level of pipeline technology in gas and oil pipelines characterized by steel piping and distinguished by technical safety, economy, non-pollution, and reliability, can be transferred to slurry pipelines without any restriction.

In general the term "slurry pipeline' is understood to mean pipeline transportation systems in which significant quantities of solids can be conveyed as a pumpable mixture often over long distances on a fluid mechanics basis using carrying fluids – mainly water to date [1,2). Because of the internal pressure stresses prevailing slurry pipelines in operation are made almost exclusively of steel pipe and like gas and oil pipelines the sections of pipe are normally butt-to-butt welded to form an endless pipe and are laid in the earth [3]. Pipelines form the principal

components of such transportation systems and account for much more than half the overall capital investment costs for example on long-distance pipelines.

The properties of the pipes the materials of which they are made, and the dimensions upon which the optimum transportation conditions depend are, therefore, of decisive importance for the technical safety and economy of this transportation system which is uncomplicated in principle and is environmentally acceptable.