NEOMETRIX DEFENCE NMX-DSK-85

Chemical Dosing System

CAPABILITY SHEET · FLOW SETS THE DOSE; THE RESIDUAL TRIMS IT · A PACED METERING-PUMP SKID WITH A S

THE ONE IDEA

PRINCIPLE	Flow sets the dose; the residual trims it.
WHY IT MATTERS	A stream does not run at one rate, so the pump is paced to the flow at once. The chemical is used up by what the stream carries, so a slow trim from a residual analyser corrects the ratio.

THE SYSTEM

VESSEL AND PUMPS	A day vessel with a level signal, a vent and a drain, and duplex controlled-volume metering pumps, duty and standby.
PUMP CHECK	A calibration column on the suction side that measures the pump's output against a volume of liquid, used on a schedule.
DISCHARGE	A pulsation dampener, a back-pressure valve, a relief valve that returns to the vessel, and a flow meter on the dose line.
INJECTION AND SAMPLE	An injection fitting with a check valve ahead of a mixing section, and a sample point and residual analyser after it.
CONTROLS AND CONTAINMENT	A flow-proportional ratio, a limited slow trim, changeover, alarms and interlocks, and a bunded drip tray under the skid.

THE METHOD

ORDER	Specify, select, pace, inject, contain and prove. The pacing and the injection are the two that a quick order skips.
LIMITS	Flows, pressures, concentrations, times and ratios come from the customer's stream and chemical, and are not printed here.

CONFIGURATIONS

WATER-CYCLE SKID	A conditioning chemical paced to the feedwater and trimmed from its analyser, with duplex pumps so that the dose never stops.
COOLING AND PROCESS WATER	Several chemicals into one circuit, each with its own pump pair and calibration column, paced to make-up and blow-down.
LINE INJECTION SKID	An additive or an odorant paced to the flow in a line, with a quill and a check valve, and a column that proves the pump.

STANDARDS & SCOPE

STANDARDS	Public reference: API 675 for controlled-volume positive displacement pumps in petroleum, chemical and gas industry services.
SCOPE BOUNDARY	It is the chemical dosing system: not a foam proportioning system, not a gas mixing system and not an instrument calibration bench.
STATUS	Neometrix has quoted against successive chemical dosing system requirements, and no delivered chemical dosing system is claimed.

DEFENCE PROGRAMMES DESK

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