1.3.28.6 Flow Meter

A. Electromagnetic flow meters shall be installed at each common discharge pipe. The measuring range shall be between 25 % and 125 % of the combined pump capacity and the accuracy shall be 0.5%. Flow meters shall be supplied and installed complete with amplifiers, cables, transducers/transmitters, indicators, flow recorders for installation in the motor control centre. Magnetic Flow Meters shall be used for:

a. flow rate reading, accumulating of total flow, low/high flow alarm.

b. Dosing flow: For each. flow meter one identical spare pipe shall be provided for replacement of the flow meter in case of repair.

c. The analog signal shall be transferred to Display / RTU / Telemetry / SCADA system

d. The flow sensor and transmitter shall be IP 68, explosion proof

e. The sensor material shall be hest alloy (C) material

B. Ultra sonic type flow meter system, designed for open channel continuous flow measurement, suitable for installation in explosion hazardous areas, to be mounted above special designed flumes. The system shall mainly consist of:

a. Ultra sonic sensor (sender / receiver) IP 68, explosion proof

b. Transmitter for panel mounted installation

c. Power supply unit (to be installed inside the MCC)

d. Illuminated Display, key bad programmable and flow counter unit (to be installed inside the MCC)

e. Cabling / wiring

f. Supports / brackets made from stainless steel grade 316L

g. Fixing material, made from stainless steel, grade 316L

h. Lifting chain for maintenance and repair including self locking bracket

i. Indicator (panel mounted) with 4 nos. programmable relay contacts

j. Output 4 – 20 mA

1.3.29 Display/Control Units

A. Display / control units, installed at the MCC panel shall also include display for