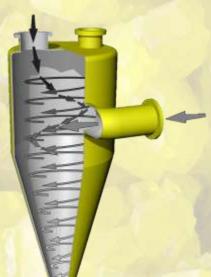
## SULPHUR MELTING AUXILIARIES

Sulphurnet offers various technologies and specialty products for sulphur processing:

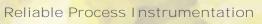
Special Heat Traced Knife Valve for large openings up to 20 inches.

Manually operated or with actuator. Execution: cast iron body with knife in Stainless Steel.



Flash Sulphur Melter
Offering the following features:

- ♦ For Sulphur with high moisture contents
- ♦ Suitable for fine powder Sulphur
- ♦ Compact design (small plot space)
- ♦ No moving parts
- ♦ No internal coils, less corrosion



- ◆ Level special jacketed radar
- ♦ Pressure, or pressure differential
- ◆ Temperature
- ◆ Flow; mass flow





# Turbidity Measurement

- ♦ Real-Time monitoring ash level
- Measures Low ppm range
- ♦ Suitable for high temperatures
- ♦ No calibration required



Sulphur Sampling Valve
Take a sulphur sample without line pressure.

Gas Scrubber Systems to clean emissions to atmosphere.



10-2014



# FULL ENGINEERING SULPHUR MELTING & PURIFICATION



OOO «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВ<mark>КА ТЕХНОЛО</mark>ГИЧЕСКОГО ОБОРУДОВАНИЯ Интернет: www.tisys.ru www.tisys.kz www.tisys.by www.tesec.ru www.tu-системс.рф Телефоны для связи: +7 (495) 7774788, 7489626, 5007154, 55, 65 Эл. почта: info@tisys.ru

### SULPHURNET DESIGN PACKAGES

No two businesses are alike. The process design requirements for sulphur melting and purification circuit is depending the type of the industry.

Sulphurnet offers engineering services for melting and purification facilities from less than 24 Mton per day to over 2500 Mton clean sulphur per day.

# SULPHUR MELTING

Sulphurnet offers a modular sulphur melting and purification process which offers the following advantages:

Heat Transfer Resulting in a reduced footprint

No Dead Zones Resulting in reduced settling of impurities

Impuriti

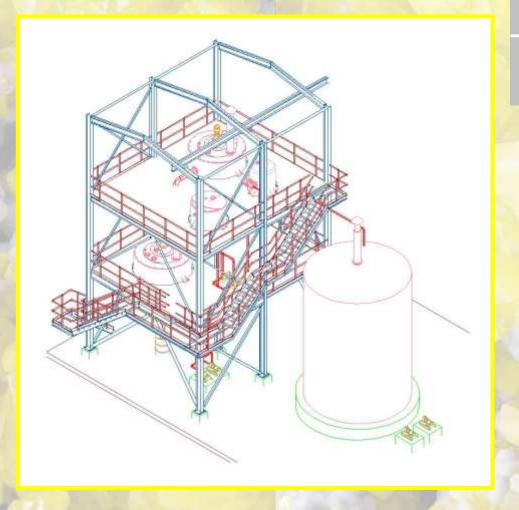
Overflow System Reducing the amount of solids being transferred to the pump pit

Draining System

Allows for in-line cleaning of settled solids

Automated Cleaning Minimises sulphur losses





## BASIC ENGINEERING

Sulphurnet provides customised support throughout the complete process:

- ♦ Auditing
- Process optimisation
- ◆ Initial study / Concept design phase
- ♦ Basic engineering of the plant (support in the design and set-up)
- ♦ Involvement in HAZOP studies and Risk Assessment
- Execution of the project (set-up of the technical specifications and procurement support)
- ♦ Implementation of operation procedures, operator training as well as start-up of the plant

Sulphurnet provides the following information in a Basic Engineering Design (BED)

- Kick off meeting with the technical staff
- Process Flow Diagrams (PFD) Including all process details
- ♦ Piping and Instrument Diagrams (P&ID)
- Definition and sizing of main equipment resulting in process specifications
- ♦ Mechanical data sheets of the main equipment
- Definition of control and safety devices
- Preparation of tender packages for the main equipment
- Development of process and utility P&ID for detail engineering
- ♦ Development of detailed plot plans
- ◆ Assistance with the main piping, instrument, electrical and civil works layouts

# SULPHUR PURIFICATION

All filtration systems for the purification step:

- Are closed systems
- ♦ Are self-cleaning
- ♦ Require minimal operator involvement
- ♦ Produce a high grade purity of sulphur

### HEALTH SAFETY AND ENVIRONMENTAL

These aspects play an important role in Sulphurnet's design. Low emissions, automation and minimum operator involvement form the basis of the design.

Waste reduction, minimisation of sulphur losses are also taken into account.