

# 33. Submerged Arc Scraper Conveyor

## Product Overview

The submerged arc scraper conveyor is a newly developed piece of equipment in the oil extraction process, incorporating additional functionality into conveying machinery. It utilizes the inherent characteristics of the submerged scraper elevator to incorporate a drainage screen plate and a squeezing drainage screen plate. In the oil extraction process, this equipment pre-dehydrates the solvent in the meal, thereby reducing steam consumption in the “steam stripper,” lowering residual oil content in the meal, reducing solvent consumption, and increasing production capacity.

## Product Features

1. **High Efficiency and Energy Saving:** By pre-dehydrating the solvent from the meal, it reduces steam consumption of the steam desolventizer, lowers solvent consumption, and increases production capacity.
2. **Compact Structure:** The equipment has a simple structure, small size, minimal floor space, and lightweight design, enabling multi-point loading and unloading.
3. **Multi-Functionality:** It can transport materials along two branches in opposite directions, enabling multi-point feeding and unloading.
4. **High Safety:** The operating speed is relatively low. Since the solvent used in the extraction process is flammable and explosive, equipment with a low linear speed has higher safety, lower failure rates, and higher reliability.

## Working Principle

In the oil extraction process, the buried scraper conveyor utilizes the characteristics of the buried scraper elevator. By adding a drainage screen plate and squeezing it, the purpose of squeezing and draining the solvent from wet meal is achieved. No additional electrical power consumption is required; no additional equipment is needed. By pre-dehydrating the solvent from the meal, it reduces steam consumption in the steam distillation unit; lowers residual oil content in the meal; and reduces solvent consumption.

## Application Areas

Submerged scraper conveyors are widely used in oil extraction processes for conveying wet meal and other materials. They are particularly suitable for conveying dusty, toxic, or explosive materials, improving working conditions, and preventing environmental pollution.

## Technical Parameters

Specific technical parameters may vary depending on the model and application, but typically include conveying capacity, hopper dimensions, scraper chain, and conveying length.

## **Maintenance and Inspection**

Maintenance and inspection of submerged arc scraper conveyors are relatively simple, primarily involving regular checks of screen wear, timely replacement of damaged screens; regular lubrication of vibrators and other moving parts to ensure normal equipment operation; regularly cleaning accumulated material inside the screen body to prevent blockages; and regularly inspecting the electrical control system to ensure safe operation of the equipment.

## **Conclusion**

Submerged arc scraper conveyors, with their high efficiency, energy savings, and durability, are an ideal choice for material conveyance in oil extraction processes. We are committed to providing customers with high-quality submerged arc scraper conveyor equipment to help them improve production efficiency, reduce production costs, and achieve sustainable development.