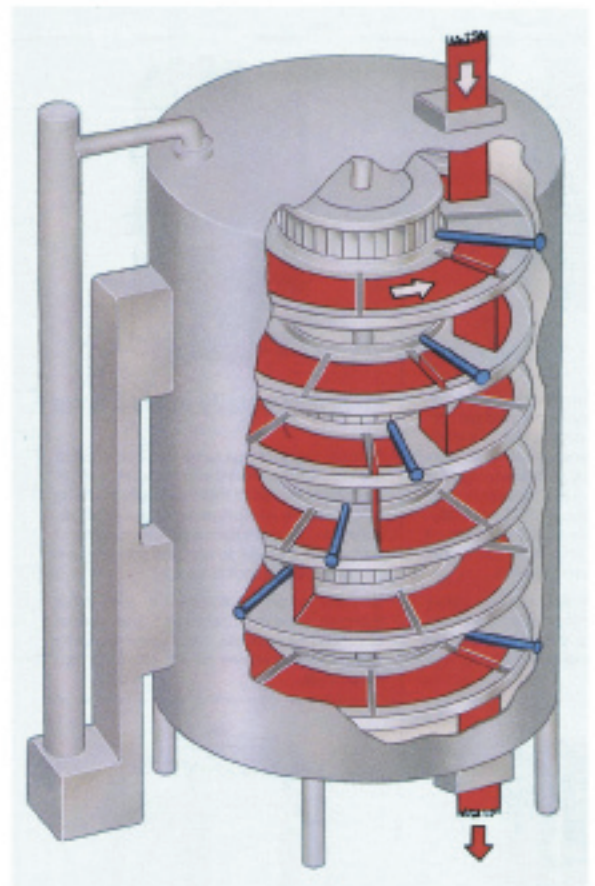


SHALE OIL EXTRACTION FROM OIL SHALE WITH THE WYSSMONT® TURBO-DRYER® THERMO PROCESSOR

Wyssmont® utilizes the Wyssmont® TURBO-DRYER® Thermo Processor to heat oil shale ex situ in order to extract shale oil in vapor form and recover it as a liquid. After crushing, the oil shale is fed continuously through an airlock into the Thermo Processor, which is under inert gas. The oil shale then will be transferred down from shelf-to-shelf inside the Thermo Processor and heated to temperatures not exceeding 600°C (1110°F). During this process the shale oil will be released in gaseous form and delivered to a condenser, where it will be cooled and finally collected. The spent shale residue will be discharged through a discharge chute at the bottom of the Thermo Processor and then through another airlock.

Advantages of the Wyssmont® TURBO-DRYER® Thermo Processor include:

- Precise temperature control (avoids char formation, superior quality of oil).
- Uniform treatment of the crushed shale.
- Very low kerogen in the solids residue.
- Avoids ground water contamination.
- Easy start-up (usually 1-2 days).
- Reliable unattended operation with all the product on-spec for years.
- Very low maintenance – usually less than 1% of the capital cost per year.
- Lowest operating cost.
- Lowest Horsepower required.
- Best thermal efficiency.
- Low housekeeping requirements – doesn't make or leak dust.
- High on-stream time – often runs for years without shut down for any reason.
- Many users say "We turn it on and forget it".
- Many users say "It's the best piece of equipment in our plant".
- Efficient utilization of the Customer's real-estate.



IT PAYS TO BUY THE BEST
TURBO-DRYER® THERMO PROCESSOR
BY

Wyssmont®