

INCREASE PRODUCTION BY RECYCLING RAP

*Produce quality asphalt with a maximum % of RAP
(Reclaimed Asphalt Pavement)*

Current Challenges

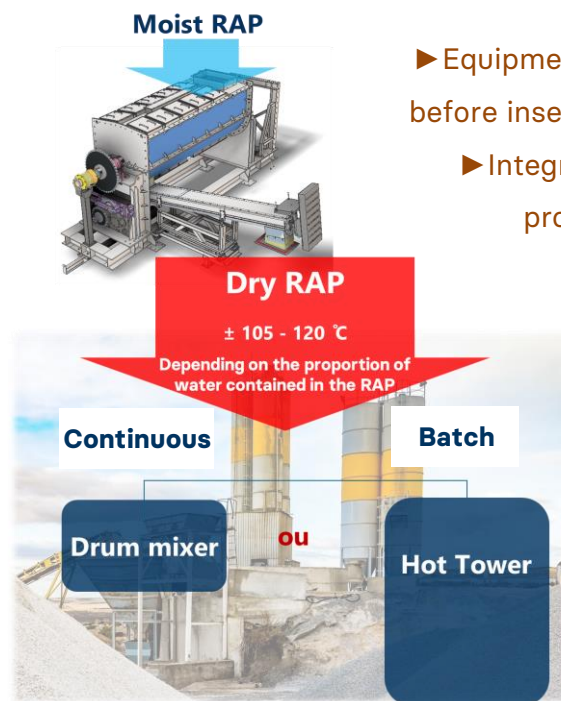
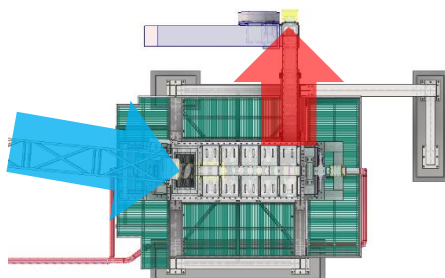
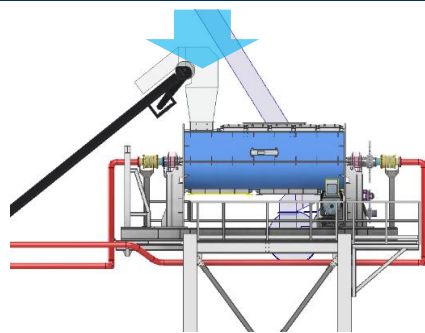
- High Bitumen Cost.
- Quality issues using ; too moist RAP + Aggregates too hot.
- Performance loss: VOCs and polymers, being sensitive to heat, degrade and lead to emissions at high temperatures in addition to odor.
- Equipment maintenance cost & life span of associated equipment.
- Challenge in balancing costs with environmental compliance.
- Existing RAP inventory is too large.
- Oxidation of bitumen exceeding 170°C (New standard in 2027, ≤ 170°C).

Our Solution

THERMAL PRE-HEATING AND DRYING

Preheats RAP, dries moisture, reduces aggregate heating temperature and extends equipment life.

THERMOGENIC SCREW - CAPACITY OF 50Tm/Hre - 15 HP



- Equipment that **dries the RAP** before insertion into the process
- Integration into current production lines

Advantages & Benefits

- **Improved asphalt quality** : Ensures consistent asphalt quality by controlling the humidity and temperature of the "RAP".
- **Increased efficiency** : Optimizes the mixing process by preheating the "RAP", which allows for better homogeneity of the final mixture.
- **Increase in overall production tonnage**
- **Reduces the production cost per ton**
- **Eligible for subsidies** : Reduction of "GHG" linked to dryer gas consumption.

Technical specifications

Category	Unit	Value	Note
Processing capacity	Tm/h	50	Model of 25 to 100 Tm/h available (multiples of 25)
Input % moisture STD	%	5	
Temperature: Dried RAP Outlet	°C	≤ 125	
Motorization	HP	15	
Three-phase voltage	V	575	
Rotation speed	rpm	≤ 1.5	

Performance data

Category	Unit	Value	Note
Energy savings in the dryer Lower T° & reduced hot air flow	%	15 - 20	Annual Production ±100,000Tm/year
Annual reduction (GHG)	Tm	250 - 350	
Improved production throughput	%	12 +	Aggregates ≤ 170 °C
Reduction of operating costs (savings on injected bitumen and maintenance)	\$/year	± 300 000	RAP from 15% to 20%
ROI (Return on investment)	year	± 3	

Installation & compatibility

Category	Unit	Value	Note
Typically installed in parallel without disturbing production	%	Reduction H ₂ O from 5 to 0.5	Replaces the traditional method of adding RAP
Compatibility with existing systems	%	100	Location : Near the mixer
Heat transfer fluid used	Iso-32	Thermal Oil	2 000 GPM at 200 °C
Integration into the production line	Oui	In Series Or Parallel	Types ; Batch or Continuous
Dimensions / Weight	ft / Tm	25L x 6W x 10H / ± 30 Weighing Structure	

Maintenance and lifespan

Category	Unit	Value	Note
Maintenance frequency	Month	1	Visual inspection
Annual maintenance cost	\$ CAD	< 10 000	Low
Parts availability	Week	6 to 12	Few so-called consumable parts
Estimated lifespan	Year	35	According to the abrasiveness

Project realization

