STATE-OF-THE-ART REVIEW OF COMMERCIAL EQUIPMENT FOR COMMINUTION AND SORTING

Practical experiments with comminution and sorting equipment for possible future use in refining at terminals are an important part of the project. The selection of equipment and of the experimental parameters is important. A thorough review of equipment currently available on the market is needed to ensure that the experimental conditions are realistic and relevant.

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Lists of manufacturers are available from several sources. Technical specifications available on the web are used, together with patent databases. When necessary, manufacturers are contacted for additional information.

Equipment data to be recorded include:

- Quality of the processed material (e.g. particle size)
- Productivity
- Technical availability
- Energy efficiency
- Requiremens on logistics and work place

Regarding comminution, 158 chipper models and 148 crushers have so far been classified. Data recorded include:

- Comminution mechanism (chipping drum, chipping disc, conical screws, swinging hammers...)
- Particle size
- Power source (PTO, diesel engine, petrol engine, electrical motor), power (kW)
- Mobility (stationary, vehicle-mounted, towed, self-propelled, outer dimensions, weight)
- Productivity
- Feeding system (conveyor, rolls, manual feeding), maximum log diameter
- Discharging system (pneumatically, screws)

Regarding sorting methods, data to be recorded include:

- Principle (drum screen, deck of screens, disc/star screen)
- Inclination of screens (fixed/adjustable)
- Screen sizes available
- Throughput, (tonnes/h)
- Mobility (stationary, vehicle-mounted, towed, outer dimensions, weight)

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