

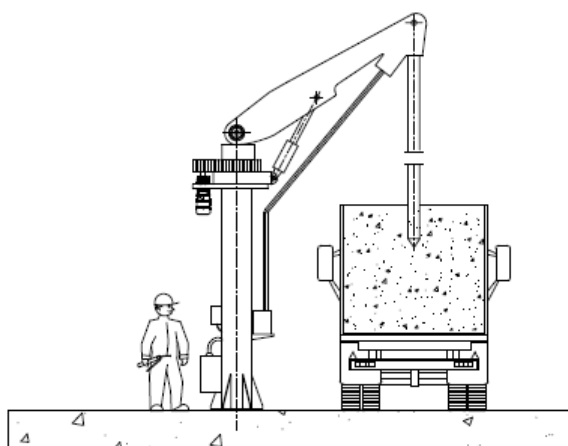
TSS – TRUCK SAMPLING SYSTEMS

SAMPLING OF MATERIAL FROM TRUCKS



- Suction based sampling of biomass.
- Sampling collection with a grab.
- Sampling using the Auger-principle.
- Sampling system for long shredded material.

SUCTION BASED SAMPLING OF BIOMASS



GENERAL DESCRIPTION

The suction unit is swiveling and suspended to a crane arm, where the vacuum is created from compressed air in the suction pipe.

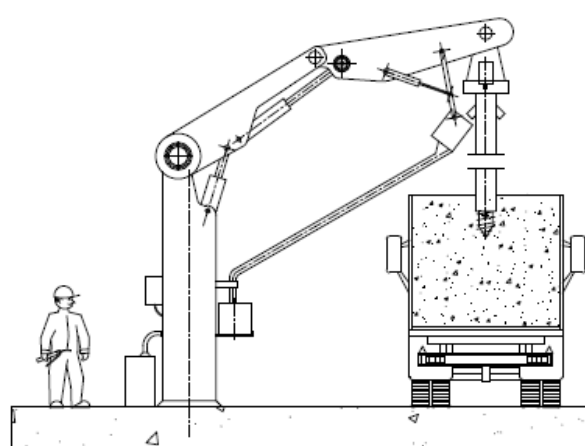
The collected material is transported from the top of the unit through a hose to the canister, located close to the crane column.

The swiveling crane arm is suspended to the upper part of the vertical steel column, which is rotated by means of a motorized gear unit drive, so the operator can choose the collection point freely.

All movements are activated from a hydraulic power unit, located close to the base of the column.

The operation of the system takes place on a control panel located at the foot of the column.

SAMPLING USING THE AUGER-PRINCIPLE



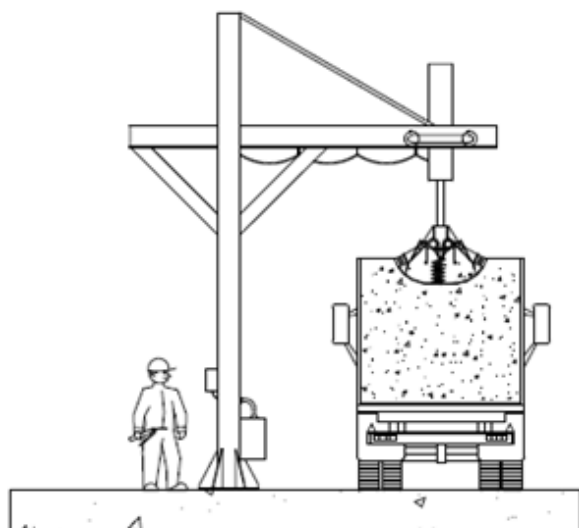
GENERAL DESCRIPTION

The swiveling screw unit (Auger) is suspended to the upper crane arm. The sampling is transported up through the screw-pipe, as the "drill" works itself down through the material. The top of the screw-pipe has some openings, from where the material falls back into the pile of the truck.

From the control panel, the operator can choose where the samples are to be taken and at what depth. The control panel is located at the foot of the column. When the sampler has drilled down to the desired depth, the collected material drops into a sample pan at the foot of the column.

The upper crane arm is attached to the lower crane arm through bearings, and a hydraulic cylinder provides the required free movement. The lower crane arm is hung in a heavy-duty ball bearing, located at the top of a strong steel column. A hydraulic cylinder between the column and the lower crane arm provides the necessary arm movement. All movements are activated from a hydraulic power unit located close by the foot of the column.

SAMPLING COLLECTION WITH A GRAB



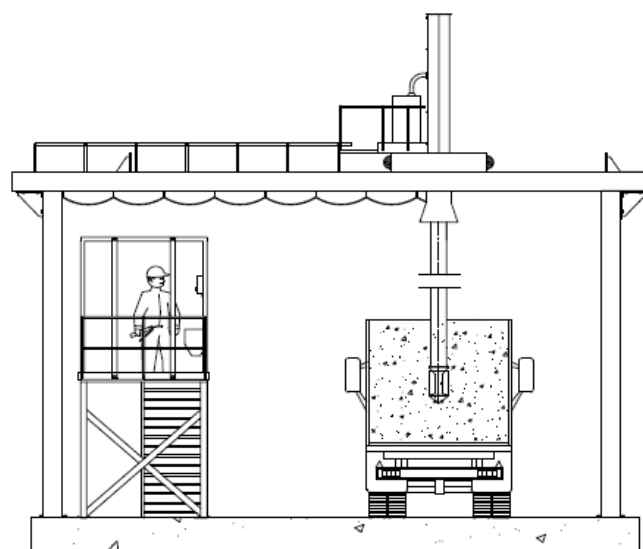
GENERAL DESCRIPTION

If the material from where the sample shall be collected contains particles that in size that are unsuitable for collection through Suction or by means of Auger principle – Grab sampling can be used.

A strong steel column, embedded to ground through an anchored foot plate is equipped with a pair of horizontal crane beams at the top. The beams are supported through diagonally on-welded cross members.

The steel arrangement allows horizontally movement of a cross traversing trolley, equipped with an Open Top Grab. Vertical movement of the grab is done by means of a hydraulic station, located at the base of the column. The open top, allows the grab to force itself (penetrate) into a desired material depth, from where the sample shall be collected.

SAMPLING FOR LONG SHREDDED MATERIAL



GENERAL DESCRIPTION

The system is designed as a fixed portal unit with tracks on which a cross moving cart is collecting a sample of material from the truck and delivers it into a container close to the operator. The operator is placed on a small landing, from where he can overlook and operate the system on the control panel.

The Sample Collector is in principle located at the end of a big hydraulic cylinder that provides vertical movement in both directions.

A collection area is created by the distance between two cylindrical cones and an outer (displacable) pipe, that open/close due to material friction when the Sample Collector is inserted and retracted. The construction allows longer shreds to be collected.

ABOUT US

M&W Jawo Handling designs and builds units and complete systems for representative sampling with calculated precision for granular bulk material for industries worldwide.

Representative sampling is required to make the right decision. Technical decision for process control as well as commercial decision for valuation of a batch of material. Our solutions are compatible with international and national sampling standards for materials like coal, brown coal, lignite, ore, minerals, limestone, cement clinker, solid chemicals, solid biofuels, building materials and electronic scrap.

We provide a full range of equipment for mechanically extraction of samples from a wide range of dry granular materials. Many of these machines take cuts or increments, taken from a moving stream of material and are designed to comply with the requirements and practices outlined by applied standards like ATSM, ISO and many more.

WHY SAMPLING IS NECESSARY?

- **Use of bulk materials in production:**
Quality control for approval / rejection
- **Sale/purchase of bulk materials:**
All parameters of importance for price are to be determined

Environmental requirement from the Local Authorities

PRODUCT RANGE

SAMPLERS

- CROSS BELT HAMMER SAMPLER (HP)
- CROSS BELT BUCKET SAMPLER (CBBS)
- CHAIN BUCKET SAMPLER (CBS)
- CHUTE SAMPLER (FP)
- DOUBLE CHUTE SAMPLER (DFP)
- SCREW SAMPLER (SCR)
- SCREW SAMPLER WITH MIXING TANK (SMX)
- AIR SLIDE SAMPLER (AS)

DIVIDING PLANTS

- ROTARY TUBE DIVIDING PLANT (RDP)
- MOBILE DIVIDING PLANT (MDP)

DIVIDERS

- ROTARY TUBE DIVIDER (PD)
- ROTARY TUBE DIVIDER MOTORISED (PDM)
- DISC DIVIDER (DD)
- VERTICAL DISC DIVIDER (VDD)

OTHER EQUIPMENT

- DOSING CONVEYOR (DC)
- SAMPLE COLLECTOR (PK/PKT)
- BUCKET ELEVATOR (BE)
- BUCKET LIFTER (BL)
- VIBRATION FEEDER (VF)
- DELUMPER (DL)
- TWIN ROLL CRUSHER (VK)
- CONTROL PANEL

COMPANY PROFILE

M&W JAWO HANDLING IS AN INTERNATIONALLY WORKING ENGINEERING COMPANY SPECIALISED IN DESIGN, MANUFACTURING AND SUPPLY OF INDIVIDUAL MACHINE UNITS AND SYSTEMS FOR REPRESENTATIVE SAMPLING OF POWDER AND BULK MATERIAL. SEVERAL HUNDRED SYSTEMS ARE SUCCESSFULLY SAMPLING IN THE INDUSTRY WORLD-WIDE.