TEUMAN S.R.L.
Strada Castellana, 1206 Lusurasco
29010 Alseno (PC)
P.IVA – C.F. 01494760331
Tel. ++39 0523 243379 - 248654
Fax ++39 0523 646944
www.teuman.it – nicolini@teuman.it

SUBJECT: Walking floor semitrailer compactor press

TEUMAN S.R.L.
Strada Castellana, 1206 Lusurasco
29010 Alseno (PC)
P.IVA – C.F. 01494760331
Tel. ++39 0523 243379 - 248654
Fax ++39 0523 646944
www.teuman.it – nicolini@teuman.it

Construction:

The compactor press, built by us, is composed of the following parts:

1. Compacting chamber
2. Main compacting cylinder and shovel
3. Loading hopper
4. Upper guillotine
5. Rear unloading door
6. Stabilizer legs
7. Anti-crushing bar

Compacting chamber with compacting cylinder and shovel

The structure is realized, in our workshops, with antiwear metal plates having an 8mm thickness. These form the compacting chamber. Then. FE 510 (thickness 5mm) tubulars are positioned, forming a high resistance to wear and corrosion parallelepiped structure.

At the front, inside the structure, the support of the pressure cylinder is housed. This is denominated "3 elements telescopic cylinder" which ensures the compaction of the material. During the unloading phase there is an outflow of the pusher of about 1200 mm in order to guarantee a good coupling with the conveyor means and to minimize the eventual falling out of material.

This cylinder is coupled with the pressure plate, whose structure is made up of pantographed metal sheets and different sized/thickness tubulars to form a suitable structure to withstand the loads. This structure is provided with a guillotine, in the upper point, which can cut the material that is located between the shovel and the chamber at the time of closing of the hopper.

The guillotine is located in the upper front part. This is built with electro-welded tubular and metal sheets whose skids run on two side guides assembled with bolts, in order to facilitate maintenance or replacement. The front top of the guillotine is composed of antiwear metal sheets. This horizontal movement device over the compacting shovel allows the containment of the material itself during the compacting phases, avoiding the dropping of material into the compacting chamber. With this device, the transfer of the material is continuous up to the total formation of the bale.

The hopper, built with FE 510 metal sheets, is built on top of the guillotine. It is appropriately sized and dimensioned as per the capacity requested by the customer.

The unloading door is located at the end part of the compactor unit. It is built with 5mm thickness tubular member and covered with 5mm metal sheet (the part touching the material) and 4mm metal sheet in the outer part. The whole structure scrolls on high resistant / strong vertical guides (Hoesch) in the guides formed on the sides of the compactor unit and held into position with M16 bolts, and the whole structure is dimensioned to withstand the maximum thrust of the cylinder. The press, structured in this way, is supported by four fixed stabilizer legs: two at the front and two at the rear. The stabilizers are equipped with two hydraulic cylinders for height regulation in the coupling phase with the semitrailer.

All structures are designed in such a way to optimize weights and costs.

The unit is designed and built in compliance with the current regulations:

- ✓ Machinery Directive 2006\42\CE.
- ✓ Low voltage Directive 2006\95\CE
- ✓ Electromagnetic Compatibility Directive 2004\108\CE

and its amendments or updates.

Loading hopper

After an eventual site inspection and according to your production request and type of material to be trated, we will calculate the dimensions and the structure of the hopper.

The loading hopper will be built with press-pleated metal sheets and completely bolted between the walls and on top of the compacting unit.

In the hopper, furthermore, level sensors will be positioned for the controlling of the maximum filling level.

TEUMAN S.R.L.
Strada Castellana, 1206 Lusurasco
29010 Alseno (PC)
P.IVA – C.F. 01494760331
Tel. ++39 0523 243379 - 248654
Fax ++39 0523 646944
www.teuman.it – nicolini@teuman.it

Weighing system

The weighing system is made up of:
n° 4 load cells with the following main characteristics:
Precision class C1

- ✓ Material: Stainless steel
- ✓ Protection degree IP 68
- ✓ Carrying capacity 20.000 kg
- ✓ Diameter 50 mm
- ✓ Length mm to be defined

Junction box having IP67 protection degree for connecting the cables outgoing from the cells, complete with linker boards for signal compensation and for connection to the remote converter.

Digital weight indicator series DGTQ

Panel-mounted multifunction weight indicator / transmitter, 4 dependent or independent channels for direct reading and diagnostics of each connected load cell. The wide range of available interfaces makes it easier and safer to integrate weighing to any control and automation system.
CE-M approved (OIML R-76 / EN 45501)

TEUMAN S.R.L.
Strada Castellana, 1206 Lusurasco
29010 Alseno (PC)
P.IVA – C.F. 01494760331
Tel. ++39 0523 243379 - 248654
Fax ++39 0523 646944
www.teuman.it – nicolini@teuman.it

Main characteristics

- ✓ Simplified waterproof 5-key keyboard;
- ✓ high efficiency red LEDs display with N.6 13mm digits and 6 LEDs for indicating active functions;
- ✓ Abs panel casing in compliance with DIN 96x96x75mm (lxhxd) standards. 90x89 mm (lxh) drilling for panel mounting
- ✓ Calibration, Set-Up parameters, configurable from keyboard or from PC with DINI TOOLS
- ✓ OIML Max. 10,000e or multi-range 2 x 3000e @ 0.3 µV / d in the version approved for legal use CE-M
- ✓ Max. 800,000d displayable with internal resolution up to 3,000,000 points
- ✓ Up to 8 signal linearization points with DINITOOLS (3 from keyboard)
- ✓ A/D 24 bit sigma-delta 4-channel conversion, max. 200 conv./sec. with automatic selection
- ✓ Connectable up to 16 analog load cells with 350 Ohm input resistance
- ✓ Management of a 4-cell weighing system with digital equalization or management of 4 independent weighing systems
- ✓ Master / Slave management (max. 4 Slave / 1 Master)
- ✓ 12 Vdc to 24 Vdc power supply

Functions:

- ✓ **From keyboard:**

Zeroing; Self-weighed and pre-settable tare; Print and/or send data; Power on/Stand-by; Weight totalization; Formulation; Net/Gross weight exchange; Piece counter; Hold; Peak; Kg / Lb conversion

- ✓ **Remotable from external input:**

Zeroing; Self-weighed tare; Print and/or send data; Selected function command; Power on/Stand-by.

- ✓ **Universal weight repeater:**

Connectable to any scale or PC through RS232 or RS485 serial connection, **with software configuration of the input data string**.

- ✓ **From serial:**

Reading of net, gross, tare weight, microvolts or ADC converter for all channels; Zeroing; Self-weighed and pre-settable tare; Balance change; Print; Message display; PMU setting in piece counting; Output setpoint setting; Key pressure simulation; Alibi Memory Read/Write

Options, upon request

- ✓ printer for panel mounting;
- ✓ calendar clock;
- ✓ Alibi Memory;
- ✓ expansion up to 6 relays.

I/O Section

- ✓ RS232 / C bidirectional port configurable for connection to external units
- ✓ RS485 bidirectional port configurable for network connection;
- ✓ 2 photomosfet outputs 150 mA 48 Vac/150 mA 60 Vdc (NO) configurable as direct control or weight stability, with programmable weight thresholds (deactivation thresholds and activation)
- ✓ 2 inputs (photocouplers optocouplers) configurable: 12 ÷ 24 Vdc, 5 mA min - 20 mA max;

Electrohydraulic unit

Built with a self-supporting frame, for its movement. On it are housed the following:

- Tank
- Oil leakage containment tank
- Electric motors
- Hydraulic circuitry
- Heat exchanger
- Electrical panel

The tank is built with press-pleated and electro-welded metal sheets with internal bulkheads, with a capacity of 3000 liters, complete with filling cap and vents.

TEUMAN S.R.L.
Strada Castellana, 1206 Lusurasco
29010 Alseno (PC)
P.IVA – C.F. 01494760331
Tel. ++39 0523 243379 - 248654
Fax ++39 0523 646944
www.teuman.it – nicolini@teuman.it

N.2 - 37 kW electric motors for the commanding of the two variable flow piston pumps for the control of the main cylinder.
N.1 - 15 kW motor with gear pump for the control of the tailgate, guillotine, stabilizers and cylinder hook services.
N.1 - 14 kW oil recirculation motor
N.1 - heat exchanger with N.2 0.75 kW motors
N.3 – resistances, 2 kW each, for oil heating
Valves and accessories for the hydraulic circuit realization.

Example of a non-soundproofed control unit

Example of a soundproofed control unit

Electrical panel
Designed and constructed in our workshops, with IP55 protection degree.
The wiring is made with an electronic programmer (PLC) (brand SIEMENS). Such device, with an automatic system, controls all the movements of the compacting press until complete formation of the bale.
A diagnostic system is created via the control terminal to identify alarms and anomalies that may arise, in order to notify maintenance personnel how to intervene by solving the problem independently. The electrical panel is mounted on the electro-hydraulic unit. In addition to the automatic operation of the baler, we also have a manual system which, by means of a safety push-button panel, allows us to do all the movements manually and also the bale unloading operations. All wired and built with materials corresponding to current standards. An ethernet card will be installed for the connection and data exchange with your system. In addition, signals will be made available (at your suggestion) to be interfaced with the existing system to monitor its operation.

TEUMAN S.R.L.
Strada Castellana, 1206 Lusurasco
29010 Alseno (PC)
P.IVA – C.F. 01494760331
Tel. ++39 0523 243379 - 248654
Fax ++39 0523 646944
www.teuman.it – nicolini@teuman.it

The compactor press is mounted on four supports, two adjustable in height and two fixed which at the base are inserted 4 load cells connected to the weight detection and display unit, and will be equipped with an interface card for remote local weight display.

Control panel of the machine

Hydraulic components used:

- ✓ Vickers
- ✓ Sesino
- ✓ Parker
- ✓ Vivoil
- ✓ Ghibson
- ✓ Giacomello
- ✓ MP Filtri

Electrical components used:

- ✓ Telemecanique
- ✓ Siemens
- ✓ Finder
- ✓ Phoenix
- ✓ Sarel
- ✓ Bocchiotti
- ✓ Merlin Gerin

The following will also be provided:

- ✓ Use and maintenance manual
- ✓ Mechanical assembly drawings
- ✓ Wiring diagrams
- ✓ Description of the acceptance tests
- ✓ EC Declaration of conformity
- ✓ CE Declaration annex IIB
- ✓ Spare parts manual

TEUMAN S.R.L.
Strada Castellana, 1206 Lusurasco
29010 Alseno (PC)
P.IVA – C.F. 01494760331
Tel. ++39 0523 243379 - 248654
Fax ++39 0523 646944
www.teuman.it – nicolini@teuman.it

Anti-crushing bar

Designed and built in our workshops.
The mechanical device is installed to carry out the material transfer operations from the compacting press to the semi-trailer in greater safety. Upon arrival of the semitrailer, an operator using the push-button panel on the press, from the material unloading side, after checking that there are no people between the two machines, raises the bar allowing the coupling. Once the transfer has been performed and the semitrailer has moved away via proximity radar, the bar lowers and returns to the starting position.

TEUMAN S.R.L.
Strada Castellana, 1206 Lusurasco
29010 Alseno (PC)
P.IVA – C.F. 01494760331
Tel. ++39 0523 243379 - 248654
Fax ++39 0523 646944
www.teuman.it – nicolini@teuman.it

TECHNICAL DATA

✓	Loading hopper:	upon request
✓	Loading inlet:	23 cbm
✓	Compacting chamber:	about 70 cbm
✓	Bale width:	2,3 mt
✓	Bale height:	2,5 mt
✓	Bale length:	from 9 to 10,5 mt
✓	Bale weight with material 150kg/cbm	25T
✓	Max pressure (cylinder test):	260 bar
✓	Working pressure:	180 bar
✓	Max working potential:	from 20 to 40 ton/h
✓	Max length compactor press:	22,1 mt
✓	Max width compcator press:	3,7 mt
✓	Total weight compactor press:	43,5 ton
✓	Total weight compacting shovel:	9,1 ton
✓	Weight of the main cylinder:	3,5 ton
✓	Weight of the stabilizer with cylinder:	560 kg
✓	Weight of the stabilizer without cylinder:	530 kg

Compactor press painting:
Metallic parts degreasing treatment.
Epoxy primer and poliurethanic pain in the requested RAL colour.
100 microns min. Thickness painting

Please note:
- ✓ The compactor press will be equipped with suitable attachments or eyebolts to facilitate its handling and assembly.
- ✓ Sensor mounting with 5mm brackets for a greater resistance.
- ✓ Upper guillotine horizontal guides with drains, to allow the material deposited in the guides to come out.
- ✓ End plates supporting stabilizers with different asethetics, to avoid corners and compartments that are difficult to clean.
- ✓ Rear unloading door guides inserted directly into the sides.