

BioStor™

WOOD PELLET STORAGE AND CONVEYING



Wood pellet boilers are an environmentally friendly, safe and convenient way of heating a multitude of applications, appliances require a constant supply of wood pellets and for larger systems an automated system is the only way to ensure a reliable supply of heat.

The 60° cone and smooth internal walls of BioStor provide excellent mass flow for EN plus grade wood pellets.

Special Features

- Volumes from 6.7m³ to 54.3m³
- Plasteel™ (Plastic coated galvanised steel) construction
- Smooth internal walls
- Heavy Duty (5mm) / Large Radius (500mm) Filler Bend
- Pressure relief valve (0.1 bar)
- AutoVent to divert dust to ground level
- FloView™ SafetyClean Panel
- External filler pipe with Storz coupling for electrical bonding, other couplings available on request
- Independent exhaust pipe for discharge of dust to a safe zone
- Level Indicators (Perspex Windows)
- Crane lifting points
- Galvanised support structure designed to Eurocode 1, Part 1-4
- Clearance under cone plate: 1300mm
- Explosion Panels and Burst Detection Sensors (ATEX Zone 22)
- BioStor™ Control Panel (can be integrated with BMS)
- High Level Sensor to prevent overfilling (ATEX Zone 22)
- Low Level Sensor to shut down the system (ATEX Zone 22)
- CE Marked





Collinson specialise in the design and planning of wood pellet storage and conveying systems to suit medium to large scale installations to include commercial, agricultural and public buildings such as schools, hospitals and libraries to name just a few.

Wood pellets are a sustainable source of energy usually made of highly compressed sawdust, just by the nature of the product there are many factors to be considered when choosing your storage, a basic silo is not always sufficient. The BioStor range incorporates many features to enable compliance with HSE guidelines ATEX and DSEAR for the safe storage of potentially explosive materials.

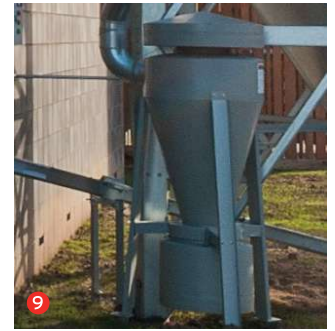
Based on our extensive experience, to assist in supplying the most appropriate technology for the project, Collinson provide guidance notes for all involved in the 'system' process.

All our equipment complies with guidelines to provide a safe, efficient material handling solution whilst maintaining pellet quality.

Experience tells us that every installation is different, for specific advice on your project contact our sales team on **01995 606 451**

Delivery info

- Collinson Silos are delivered and erected by vehicles fitted by hydraulic tipping gear which erects the silo onto the concrete base.
- The concrete base must be easily accessible with a firm approach of all obstructions, overhead wires, trees etc.
- Overhead wires must not be too close to the silo when erected. For single silo delivery the vehicle and its load is approximately 10m long, 3.5m wide and 4.8m high. If access is not suitable the silo can be lifted into position utilising a crane.



Recommended specification

- 1) ATEX (Zone 22) High Level Sensor to prevent overfilling
- 2) ATEX (Zone 22) Low Level Sensor to shut down the system
- 3) ATEX (Zone 22) Explosion Panels and Burst Detection Sensors
- 4) Filler pipe with Storz couplings, lockable upgrade is available
- 5) BioStor™ Control Panel

Optional equipment

- 6) ATEX (Zone 22) Re-order Sensor to prompt the operator
- 7) ATEX (Zone 22) Pneumatic pinch valve to prevent over filling/pressurisation
- 8) Adaptors, if our standard aperture does not match your conveyor we are able to fabricate a suitable adaptor
- 9) Cyclone dust collector to retain dust expelled during filling, minimising atmospheric dust and keeping the surrounding base clean.
 - DayStor acts as a buffer storage to supply wood pellets to the boiler when multiple silos are used
 - Centreless and vacuum conveyors to safely transport the pellets in a closed system to contain any dust
 - Load Cells and a load cell mounting frame for accurate weighing of silo contents

* A full explanation of DSEAR and ATEX guidance and regulations is available on our website

IMPORTANT NOTE

Please allow extra capacity in the silo you choose to allow for:

- a) Variations in product density due to aeration of product during pneumatic silo filling.
- b) Variable density of the product due to manufacturing specification.
- c) Internal design, to facilitate even distribution of pellets during pneumatic filling.

As such we recommend you allow extra spare capacity of 30% over and above the size of loads you are planning to have delivered.