

Pellet bulk stores explained

Essential accessories for pellet installation

There are many common features that ensure safe and usable pellet store access. Shown below is a pellet store with auger to vacuum transfer head.



Viewing panel. Its important to be able to view the pellet store level so more pellets can be ordered, it also helps the delivery driver to know how many more pellets to fill.

A 300 x 300 mm toughened 12 mm glass viewing panel should be considered necessary.

Zeroridge also supplies 100 x 300 mm panel.

Pellet fill and vacuum tubes. The style shape and design of these is very important. Each tube has a special connection called a Storz. This allows the delivery driver to connect his hose safely and reliably to the store. The position of these is important so the lorry driver can reach the connections without having to use portable steps or other unsafe supports. The pellet when passing through the tubes must take a gentle route without sharp bends to prevent break up of the pellet.

Anti-shatter mats. Special rubber reinforced material which hangs from the ceiling. As the pellets are blown into the store they hit the matt helping to prevent break up of the pellet.

The pellet tube should be well supported as the force of filling the store may otherwise loosen the tubes. Always use dedicated wall supports and/or ceiling supports at least two per metre.

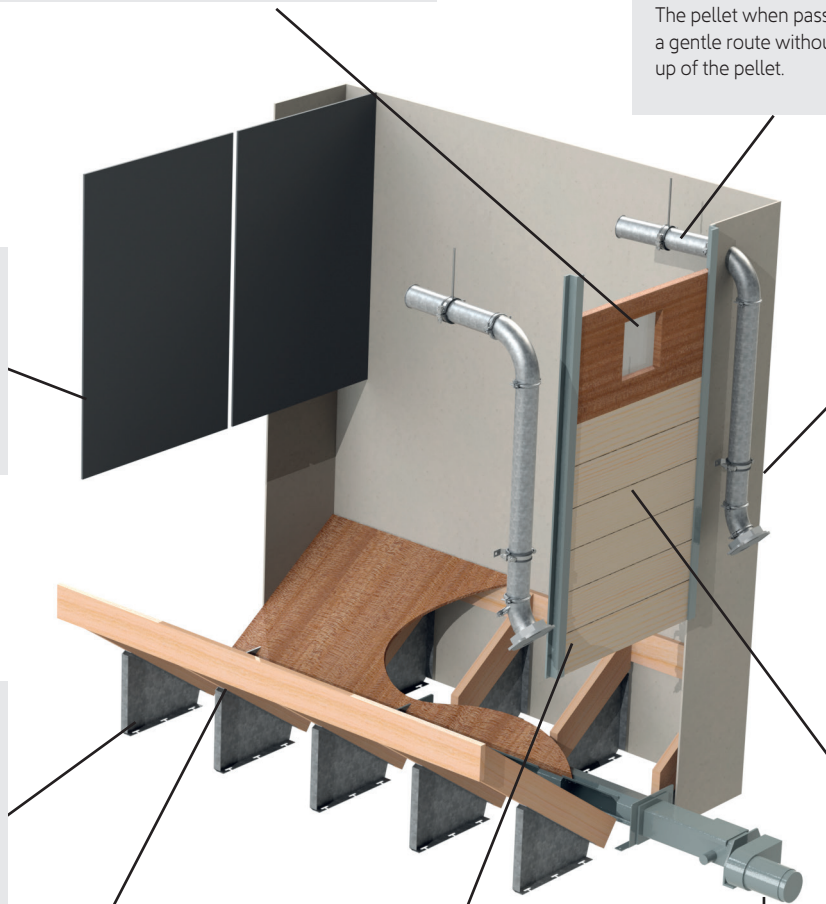
Slanted floor support 35°
Supplied in pairs. Galvanised angle plates to support sloping floor.
(Required number depends on size of store. As a guide one should be fitted every 400 mm) Order number HDG2104.

The pellet store requires access. A suitable door system which is sealed to the pellet dust is installed with each installation. An alternative to an on site build is to install Zeroridge's purpose design bulk head which includes pellet tubes and vision panel.

Sloping floor is normally constructed from suitable wood material capable of supporting the weight. Wood pellets are 650 kg/m³. This is low friction.

This example shows an auger transferring pellets from the store to a vacuum transfer head. Very similar design can be used for pellet probe installation although a larger space may be left in the centre of the store.

Door rails. Z shaped pre-folded to support wash board door system. Available from Zeroridge in two lengths 900 and 1900 mm.



Pellet store bulk head

Ready to fit pellet store bulk head, including pellet fill tubes

Ready to fit manufactured steel, painted bulk head

The bulk head can be built into almost any construction to provide all the necessary safety requirements for storing and accessing pellet stores.

The bulk head is fitted with the following equipment.

Starter set of 2 fill and vacuum tubes. Access door with 12mm glass, 300 x 300mm viewing panel. Electrical safety switch to isolate boiler. Access steps.



Pellet fill and vacuum tubes. The style shape and design of these is very important. Each fill/vent tube is fitted with a Storz connection. This allows the delivery driver to connect his hose safely and reliably to the store. The position of these is important so the lorry driver can reach the connections without having to use portable steps or other unsafe supports.

Viewing panel. It is important to be able to view the pellet store level so more pellets can be ordered. Like wise it helps the delivery driver to know how many more pellets to fill. A 300 x 300 mm viewing panel made from toughened 12 mm thick glass is fitted.

Over and under pressure relief flaps. The bulk head is fitted with security flaps which open if the pressure or vacuum exceeds pre-set levels.

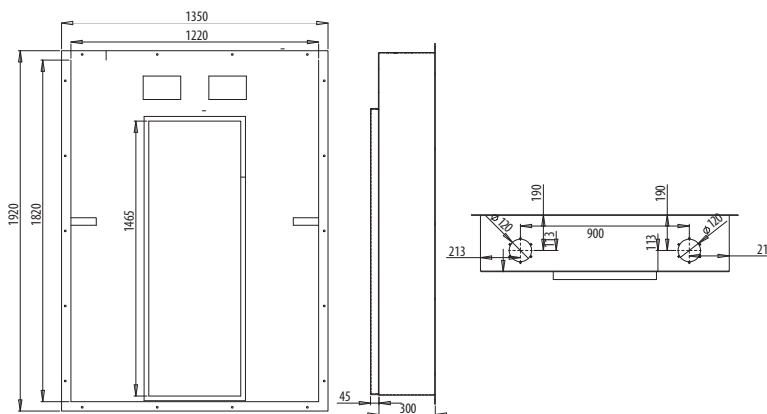
The bulk head has vertical and horizontal mounting edges. This allows the bulk head to be mounted on the inside edge of the pellet store, outside edge or built into the wall during construction.

Electrical safety switch is fitted to the upper door. This switches off the boiler for safety when the door is opened. IP658 rated.

Set of steps. As an option steps can be added to the bulk head when it is mounted above the ground.

Pellet tubes are securely mounted both with wall and ceiling supports. The pellet tube can be increased in height by adding an additional length to the vertical section. The horizontal support can be extended by increasing the length of the connecting threaded rod.

Access doors. The upper door includes the viewing glass and locks the lower door in place. The steel doors can easily be removed to allow access to the fuel store. Each door is held in place by knurled screw knobs.



Bulk head

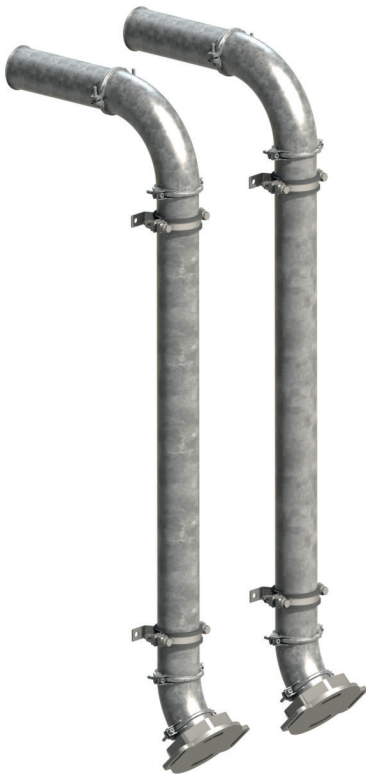
Order code

Complete bulk head including starter pellet tube kit, glass viewing panel, safety switch and access steps

MS4021

Pellet store fill and vent tubes

Technical information & pricing



Horizontal length depends on length of store and distance between fill and vent tube.

Long swept bends to reduced pellet damage during filling.

Wall and ceiling support brackets to ensure secure mounting

Wall type for direct mounting and ceiling type for spacing with M8 threaded bar. Two brackets per metre should be considered a minimum.

Vertical and horizontal pellet tubes allow for easy delivery tube connection and correct pellet store filling.

45 degree bend allows easy access for connection of pellet delivery tubes.

Pellet delivery connections (storz) clamp directly to fill tubes with external covers.



The Zeroridge pellet tube U ring seals are made of EPDM This allows earth connectivity between joints. A single earth connection is all that is required. However if the specification insist on additional earth connectivity, earth clamps can be installed.



Pellet fill & vent starter kit

Starter kit components

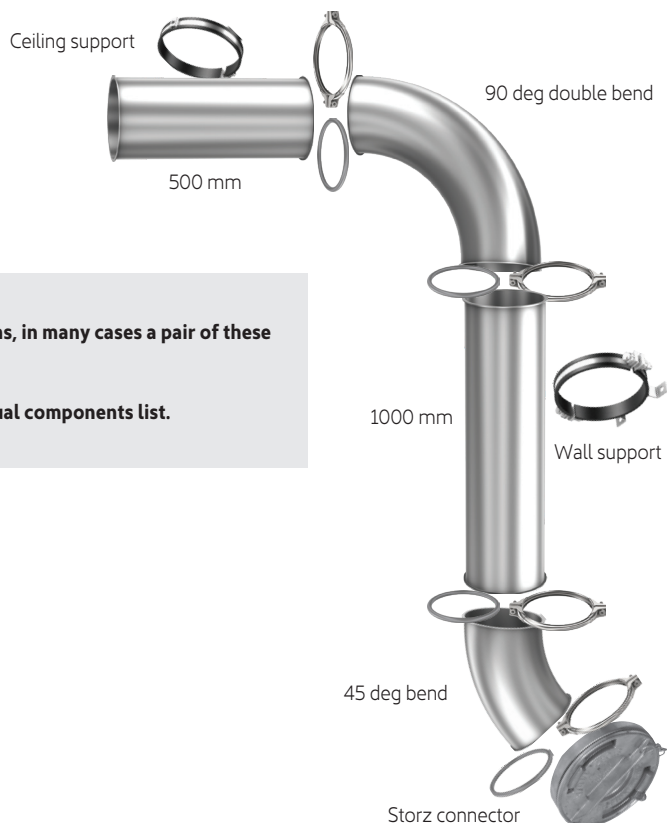
1 x 500 mm length, 1 x 1000 mm length, 1 x 90° bend, 1 x 45° bend, 4 x clamp band, 4 x "O" ring seal, 1 x ceiling support, 1 x wall support, 1 storz connector kit

Order code


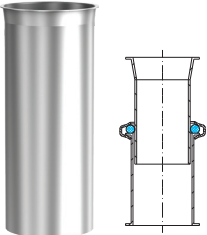




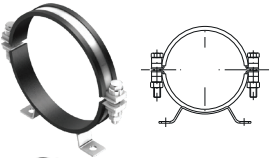



TP502

Kit includes the most common starter kit items, in many cases a pair of these will be all that is required.

Add additional components from the individual components list.



Individual components list

Pellet tube equipment	Diagram no.	Size	Order code	PG	
	1	2000mm	MS4000	40	
		1000mm	MS4001		
		500mm	MS4002		
		200mm	MS4003		
	2	Telescopic length, galvanised diameter 100mm	500mm	MS4004	
	3	Telescopic "O" seal for telescopic connection at tapered end		MS4012	
Telescopic installation requires special telescopic "O" seal (MS4012) and clamp ring (MS4007)					
	4	90 deg double diameter length swept bend, galvanised diameter 100mm Flanged both ends Connection to additional pipes by "U" seal and clamp ring		MS4005	
			5	45 deg double diameter length swept bend, galvanised diameter 100mm Flanged both ends Connection to additional pipes by "O" seal and clamp ring	
	6			Clamp ring (pull ring) galvanised diameter 100mm One required per flange	
			7	"O" Ring joint seal. EPDM colour black, electricity conductive One required per flange	
	8			Earth clamp. (Not normally required) The "O" seal & ring seals are suitable for transferring earth connectivity. In some circumstances additional earth may be requested. Spring loaded earth clamp bridges across 2 pipe sections. Per pack of 10	
			9	Wall support with rubber insert EPDM Galvanised diameter 100mm	
	10			Ceiling-mounting with rubber insert EPDM. Suitable for 10mm suspended M8 threaded bar connection. Galvanised diameter 100mm	
			11	Storz connector A Ø107mm, including, aluminium coupling with ventilated plastic weather proof cap and u-ring joint seal (Requires MS4007 clamp ring and MS4008 U seal to attach to pipe, please order separately)	



DELIVERY, FEED & ASH SYSTEMS

Pellet installation accessories

Essential accessories for pellet installation

Commonly used pellet store installation equipment



Accessories		Order code	PG
	Pellet injection tube straight for sack silo applications For blown filling including Storz A Ø 107 mm length 500 mm	HDG2101	
	Pellet injection tube for sack silo applications Terminated at 45° for blown filling inc Storz A Ø 107 mm length 500 mm	HDG2102	
	Injection tube extension for sack silo applications 500 mm Ø 107 mm	HDG2107	
	Injection tube extension elbow 45° for sack silo applications	HDG2108	
	Pellet anti-shatter mat (140 cm x 100 cm) with mounting bracket for ceiling mounting	MS4025	
	Slanted floor support 35° Supplied in pairs. Galvanised angle plates to support sloping floor (Number depends on size of store. As a guide one should be fitted every 400 mm) Includes screw set 6x M10 coach bolts with raw plugs, 6x M6 coach bolts	HDG2104	
	HDG door rails with screws and screw anchors 1 pair Z- prefolded for door wash boards, length 900 mm	HDG2105	40
	HDG door rails with screws and screw anchors 1 pair Z-prefolded for door wash boards, length 1900 mm	HDG2106	
	Pellet hose set – standard, with copper strand, PVC spiral coiled tube, inner diameter 50 mm – standard up to 50 kW, (20m roll) 65mm external diameter	HDG2109	
	Pellet hose set – special, with copper strand, PVC spiral coiled tube, inner diameter 50 mm – up to 200kW, PU- internal coating for reinforced standards, (20m roll) 65 mm external diameter	HDG2148	
	Munsen ring rubber lined for mounting pellet hose	MS4014	
	Mounting foot for Munsen ring	MS4015	
	Safety switch for pellet and chip store doors. IP 65 sealed for dust applications. Fitted with thermoplastic roller lever	MS4013	
	Pellet store inspection window. 12 mm toughened glass (300 x 300 mm)	MS2055	
	Pellet store inspection window. 12 mm toughened glass (1000 x 300 mm)	MS230	

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