



introduce a new concept for the storage of bulk materials

THE ISO-SILO

The Ultimate Storage and Pneumatic Transfer System

1. Combined storage silo and pneumatic transfer system.
2. Two sizes – 30ft x 2475mm Dia = 37m³ Volume
40ft x 2475mm Dia = 48m³ Volume
3. Designed and supplied for quick installation (48 hours).
4. No foundations necessary.
5. ISO-Silo comes complete with a precast concrete base (2 sections, combined weight 15T).
6. Only three major lifts involved with the installation (2 x base, 1 x silo).
7. No access necessary to the top of the silo.
8. All equipment at ground level.
9. Units supplied with integral PLC control system.
10. Integral self-contained dust filtering system.
11. No planning permission necessary, can be considered as a temporary facility.
12. Available on lease or as a capital purchase.
13. Services required – Compressed air supply at 2barg volume, 350m³/hour.
Control voltage 110V.
Control air 7barg volume, .002m³/min (Solenoid operation).

AMW/29.04.04



ISO-SILO

Operating Parameters

The ISO-Silo is built within a standard ISO frame which allows transportation by conventional road trailers. The ISO-Silo is so designed to act as a combined storage and pneumatic transfer system.

Three external connections are required after installation – electrical supply (single phase), air supply and discharge pipeline. To operate the system an air supply of 2barg, 340m³/hr volume is required to pressurise the silo and transfer the product to the process feed hopper/s. A separate 7barg supply is also required (0.002m³/min) for solenoid valve operation.

Once in position the silo is filled by conventional road tanker by connecting a hose to the inlet pipe of the silo which is supplied with a Unicone coupling and automated butterfly valve. Once the hose is connected the operator will turn a switch on the control panel to the “fill position”. This will open the butterfly valve on the inlet pipe and allow filling to take place.

On completion of filling the operator will move the same switch from the “fill position” to the “auto position”. The system will then operate automatically by closing the valve on the inlet pipe and opening the air supply valve to pressurise the silo. Once the silo has reached a predetermined pressure (2barg) and a signal is received from the process hopper/s level control system, the butterfly valve on the discharge pipe will open to allow product transfer to take place. On receipt of a high level signal the valve will close and remain so until it receives another signal from the level probe and the top up procedure will be repeated.

The silo will be equipped with 2 level probes.

1) Tanker fill permit

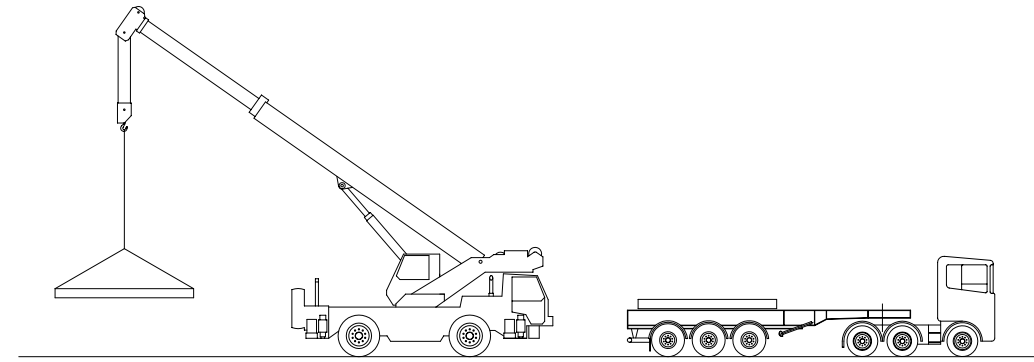
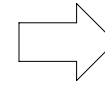
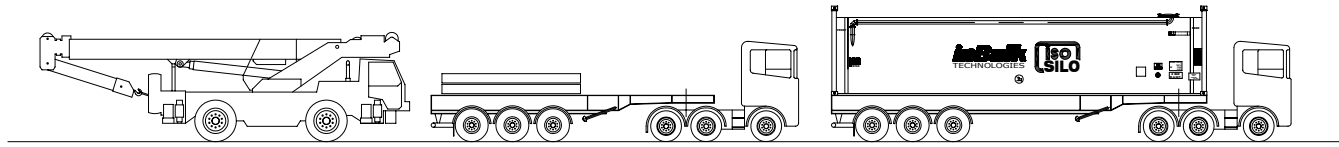
This probe when uncovered indicates (on the control panel) that the silo can receive a tanker load of material. This avoids any likelihood of the silo being overfilled.

2) Low level

This probe when uncovered will automatically shut the system down. The exact position of these probes will be agreed during engineering review meetings.

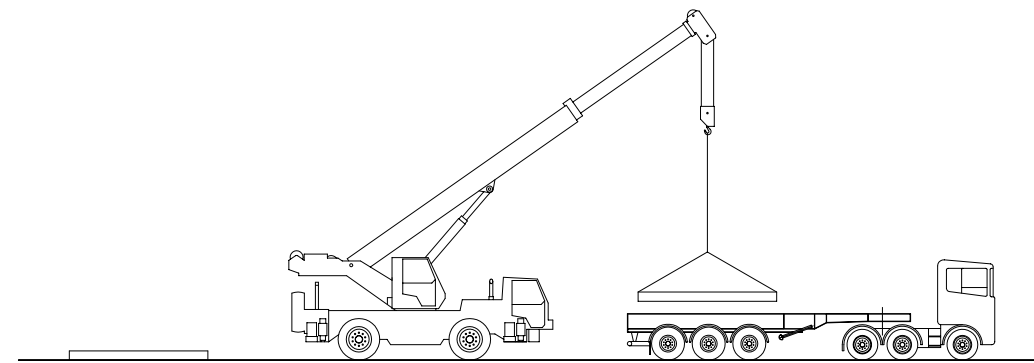
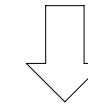
A reverse jet cartridge filter system will be an integral part of the silo (in the vent line at ground level) and will be cleaned when the “fill cycle” is complete and the operator switches from “fill” mode to “auto”. Any residue will be discharged directly into the product transfer line via an automated butterfly valve on the outlet of the filter casing. After a time delay the valve on the outlet of the filter will close and the “auto” start up procedure will commence.

AMW/ 29.04.04



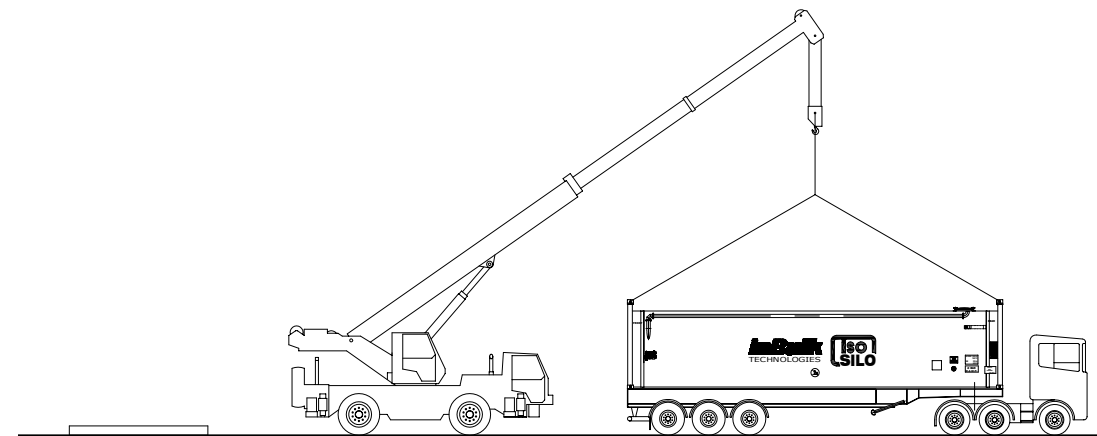
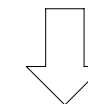
LIFT No. 1

1st SECTION OF FOUNDATION PAD



LIFT No. 2

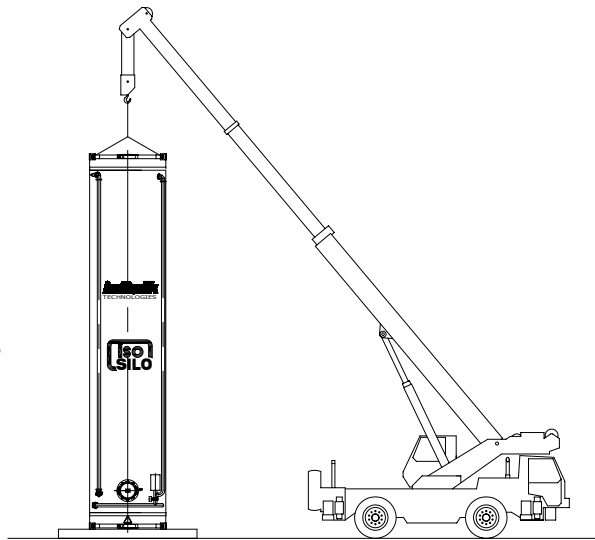
2nd SECTION OF FOUNDATION PAD



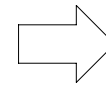
LIFT No. 3

ISO-SILO LIFTED FROM TRAILER

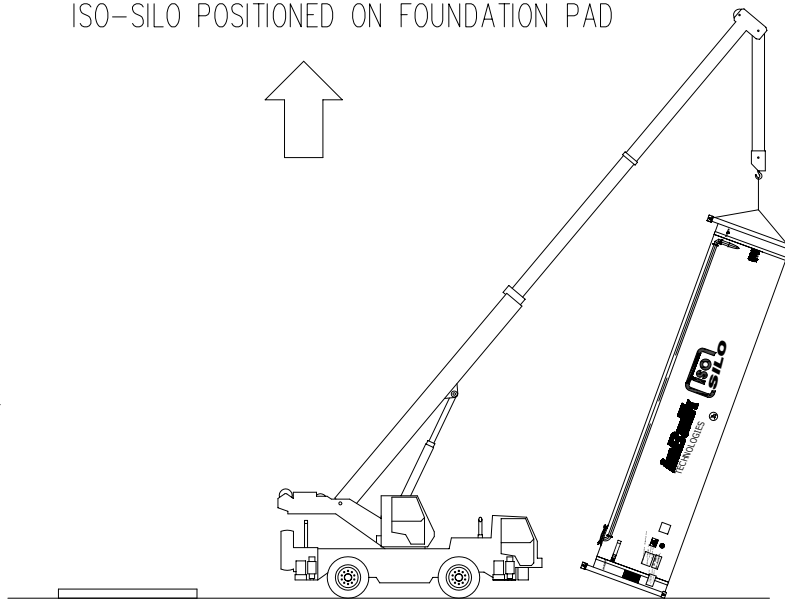
LIFT No. 5



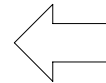
ISO-SILO POSITIONED ON FOUNDATION PAD



LIFT No. 4



ROTATIONAL LIFT - HORIZONTAL TO VERTICAL



CONFIDENTIAL

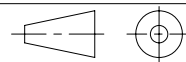
inBulk TECHNOLOGIES

inBulk TECHNOLOGIES
 SHAW LANE INDUSTRIAL ESTATE,
 DONCASTER, SOUTH YORKSHIRE,
 DN2 4 SE, ENGLAND.
 Tel: +44 (0)1302 321313
 Fax: +44 (0) 1302 554400
 www.inbulktechnologies.com

No reproduction or publication of this drawing may be made and no article may be manufactured or assembled in accordance with this drawing without prior written consent. Protected by U.K. Design Right under the terms of the copyright, design and patent act 1988.

Title: ISO-SILO INSTALLATION PROCEDURE			
40' ISO-SILO - 12192 x 2500 x 2591 - ø2475 VESSEL			
30' ISO-SILO - 9125 x 2500 x 2591 - ø2475 VESSEL			
Drawn: M.NEWTON	Date: 29.04.04	Drawing No:	Rev:
Checked:	Date:	P38175D-00	01
Scale: 1:250 1:100	Project No:		

Rev:	Description:	Date:
A3	DO NOT SCALE. IF IN DOUBT, ASK	



1st ANGLE PROJECTION