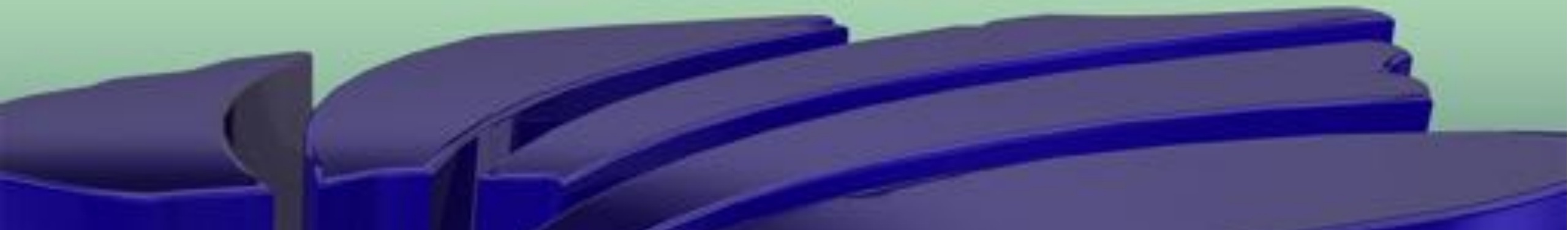
UCP AFRICA

Unique Core Products Africa (PTY) LTD.

Core Tray Storage Pods



A highly efficient and practical, multipurpose archival core storage system, that can be used to transport the core trays to and from the drill site, to maneuver the core trays around the core shack, and serve as a permanent archival core storage system...

…. improving core shed capacity by up to 100%

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Multifunctional

Transport

The Pods can be used to safely transport the core trays to and from the drill site, either by vehicle or helicopter.

The four-way entrance allows the Pods to be packed end-on or sideways depending on the vehicle configuration.

For greater security and protection of the core the Core Trays lids are used.

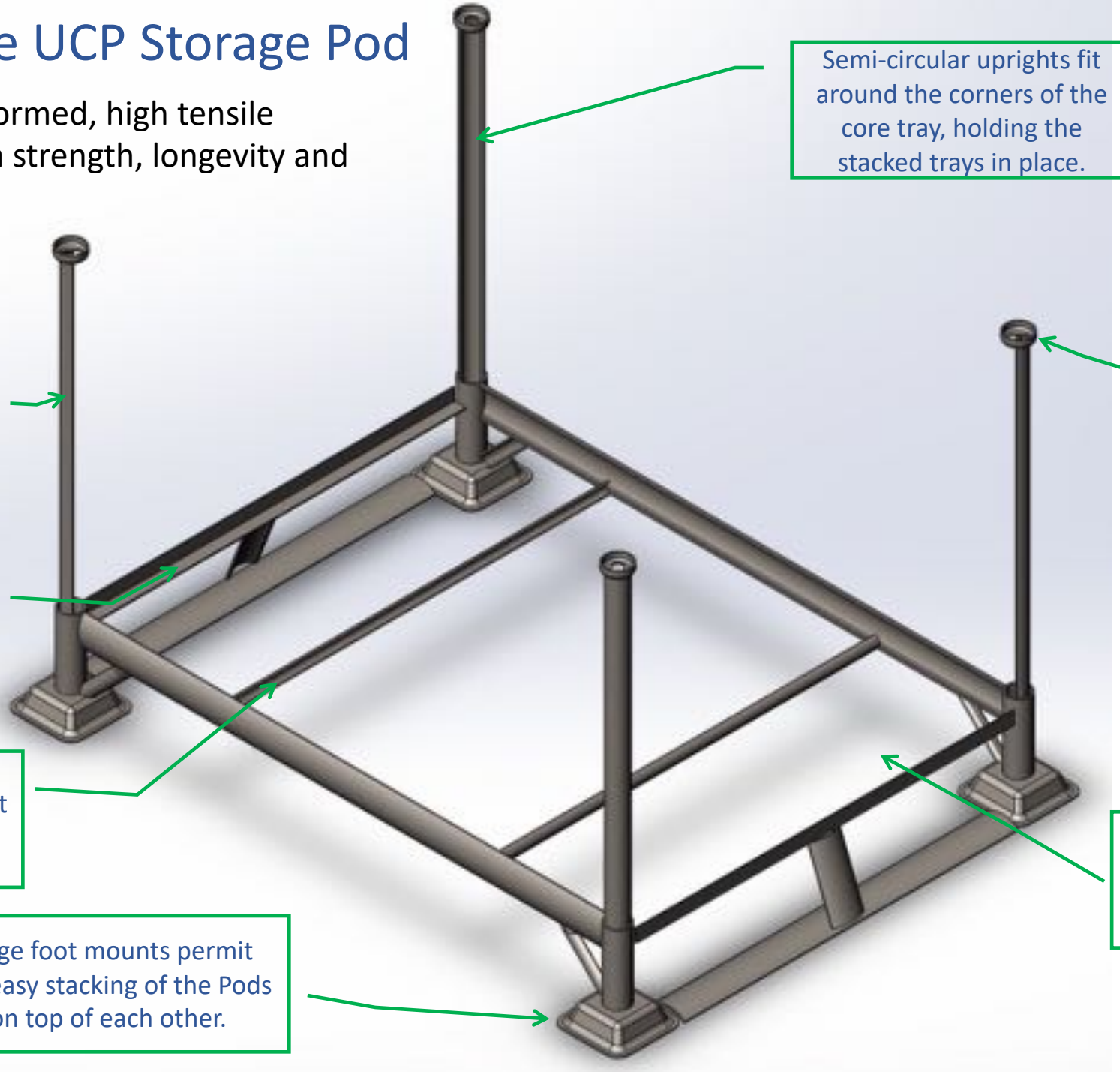
The Pods are specially designed to fit on the back of a utility vehicle providing safe and secure transport of core trays from the drill site to the core shack;

- eliminates the necessity for strapping the trays.
- Restricted to a maximum 650kg core per Pod

The core trays can be manually stacked into the Pod with the Pod on the back of the UT, transported to site and then lifted off the vehicle using a forklift or pallet truck.

Features of the UCP Storage Pod

Manufactured from formed, high tensile steel profiles for extra strength, longevity and durability.



Semi-circular uprights fit around the corners of the core tray, holding the stacked trays in place.

Removable uprights for easy transportation and storage

Angle iron support bracket holds the bottom core tray securely in place.

Additional brackets ensure that the core trays do not get damaged with incorrect locating of the forks.

Large foot mounts permit the easy stacking of the Pods on top of each other.

Circular caps locate precisely into the foot mounts ensuring that the stacks are precisely vertical

Four way access allowing the Pods to be stacked length ways or side ways.

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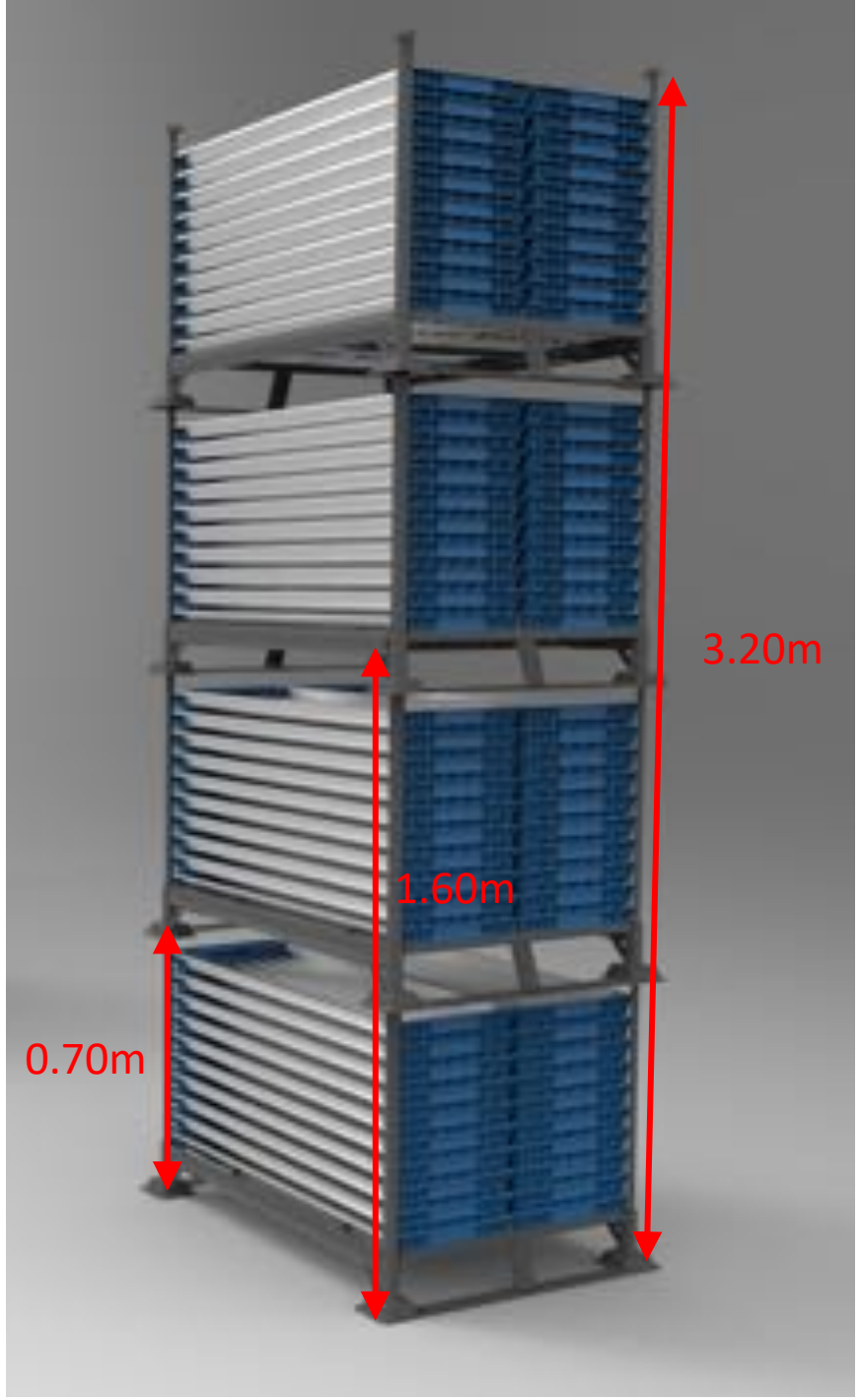
Stack ability

The Pods can be stacked to a height of 3.20m using a conventional electric or manual pallet stacker.

Stackers can reach to a maximum height of 1.80m this and having the ability to lift two pods at once permits four pods to be stacked in sequence.



Statistics

Critical information:

Max mass per loaded Pod – is the maximum weight (kg) of a single fully laden Pod. This constrains the load placed on the back of a transport vehicle to 650kg per Pod. Two stacked Pods will also weigh less than 1300kg allowing a conventional pallet stacker to be use move the Pods around and place them in the stack.

Load bearing on the bottom Pod– is the maximum load (kg) that the bottom Pod will experience in a 4 Pod stack, <2000kg. The legal amount of stillage bins that can be stacked is 4.

Max m core per stack - is the amount of core that can be housed in a single stack of 4 Pods. This is the figure, combined with the isle width is what determines the comparative exercise between core meters stored per m^2 for the various core storage methods.

	Core Size	BQ	NQ	HQ	PQ
Core Diameter	Dia(mm)	36.5	47.6	63.5	85
Metre per Tray		7	5	4	3
Tray mass (kg)		2.2	2.2	2.2	2.2
Min. tray mass Kg		**19.92**	**23.72**	**32.84**	**43.38**
Max. tray mass Kg		**24.16**	**28.88**	**40.18**	**53.24**
Pod weight (kg)		17.85	17.85	17.85	17.85
No. Trays per pod		26	18	16	12
max mass per loaded Pod		646	538	661	657
min mass per loaded Pod		536	445	543	538
No.of Pods per stack.		4	4	4	4
Load bearing on the bottom Pod		1938	1613	1982	1970
Max m core per stack		728.00	360.00	256.00	144.00
	Density gm/cm3	Kg/m	Kg/m	Kg/m	Kg/m
Iron Ore	3.00	3.14	5.34	9.50	17.01
Granite	2.72	2.84	4.84	8.61	15.43
Gneiss	2.69	2.81	4.78	8.51	15.26
Limestone	2.69	2.81	4.78	8.51	15.26
Quartz	2.64	2.76	4.70	8.36	14.97
Dolomite	2.56	2.68	4.55	8.10	14.52
Sandstone	2.42	2.53	4.30	7.66	13.73

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Safety Aspects

A fully laden UCP core tray weighs anything from 20 to 50kg depending on the core size and the rock density.

All HSE organizations are in accordance that the maximum weight that can be lifted above shoulder height and from below knee height is 10kg and then it should not be more than a bent arms length away from the body.

Lifting core trays from the ground, or mid lower leg height or above shoulder height, even with two people lifting the tray, represents a risk and a potential safety hazard and should be avoided.

The safe zones determine what the suitable weight and height of a load should be for safe manoeuvring. It also addresses the way the load should be held.

Utilizing the UCP Pods system with a manual or electric pallet stacker can reduce the risk considerably.

The stacker can be height adjusted to ensure that the trays are lifted with in the safely zones, in some instances the trays can simply be slid onto the logging tables.

Assembly

The pods are supplied in flatpack form, designed to cross pack to reduce transportation and storage costs.

To assemble simply insert the four uprights into the pallet pipes and ensure that they lock into place with the vertical slot facing towards the center of the Pod.

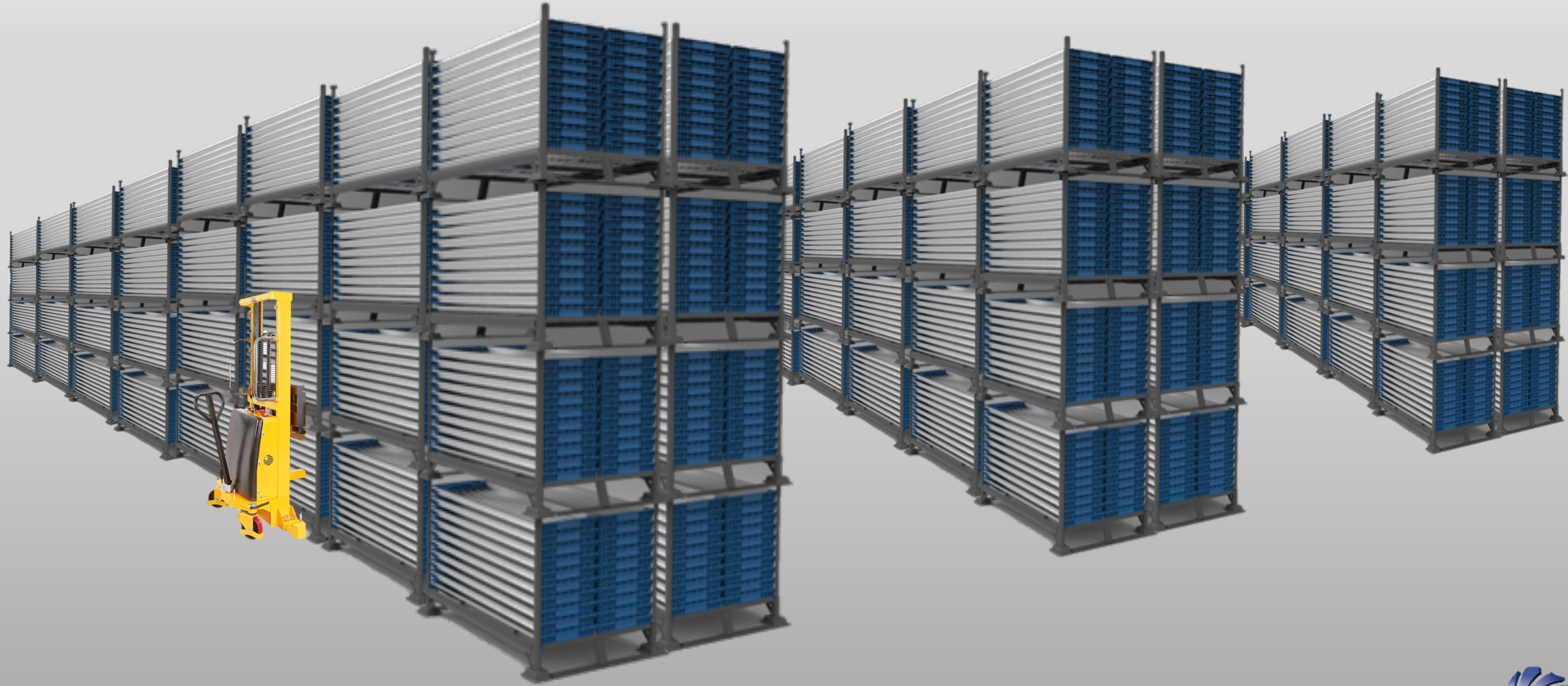
The Pod is turned on the side, the four bolts are inserted into the base of the upright and tightened, using a No.19 ring spanner. Providing a strong, ridged construction.

The core trays can now be packed into Pod. The Pod should be lifted into the ‘safe zone’ before the trays are packed or removed.

The core trays can be maneuvered around the core shack using a pallet truck or a height adjusting pallet stacker or a fork lift.

When the logging and sampling procedures are complete the pods can be stored in an archival storage system using a simple pallet.

Pods stored in a latitudinal stacking system



Pods stored in a longitudinal stacking system