DOME TECHNOLOGY®

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GOOD BUSINESS DESERVES TO GROW

Selecting the right structure is just one part of the solution for bulk storage. Companies also have to make decisions on conveyance, throughput, storage conditions, monitoring, and more.

But by working with Dome Technology as a turnkey contractor, guesswork is eliminated, and the likelihood of a seamless facility is extremely high.

REACH YOUR POTENTIAL FASTER

Our quality guarantee? Give us a list of your needs. We'll present a plan—you approve it, and we build it, top to bottom. Easy as that.

Your project takes shape in three easy steps:

1. Contact our sales team:
   www.dometechnology.com/company/people
   +1 208.529.0833
2. We discuss and analyze your needs.
3. We provide a value-added solution utilizing 40+ years of expertise in the industry.

Don't settle for systems that work only for today. Invest in systems for the future. Let's work together to reach your professional goals.

At right: Barrette-Chapais—Port of Saguenay, Quebec, Canada

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10 REASONS

TO CHOOSE THE DOME

STRONGER
Dome Technology's steel-reinforced concrete domes are the most durable bulk-storage structures on the market. Domes withstand natural disaster and the test of time.

GREATER CAPACITY
Product can be stacked deeper on a smaller footprint. The dome's double curvature provides strength at all points of the structure, so product can be stored to the apex.

100 PERCENT WATERPROOF
The dome's single-ply PVC exterior membrane ensures complete waterproofing for the structure and material stored inside.

100 PERCENT INSULATED
A continuous layer of polyurethane foam insulates the concrete dome from extreme temperature fluctuations, preventing structural fatigue and interior condensation.

INNOVATIVE FOUNDATION OPTIONS
Establishing the right foundation will always be of utmost importance. The Dome Technology team specializes in providing proven and efficient foundation solutions.

HEAT, FIRE, & EXPLOSION PROTECTION
The dome uniquely maintains structural integrity in extreme heat and fire conditions. Its designed strength delivers superior explosion containment.

SAFER, FASTER BUILDING PROCESS
Inflating the dome's airform membrane takes a few hours, after which construction takes place safely *inside* the inflated dome, regardless of the weather.

DIVERSE SHAPE & RECLAIM SYSTEMS
The variety of dome shapes can accommodate the entire range of product loading, storage, and reclaim systems, including reclaim tunnels.

COST EFFICIENT & LOW MAINTENANCE
The dome requires fewer construction materials to enclose more storage volume than comparative structures. The airform and concrete structure require virtually no maintenance.

GREENER CONSTRUCTION
The seamless concrete structure prevents stored product from escaping into the environment.

10 REASONS
TO CHOOSE THE DOME

1

STRONGER

For a new clinker-storage site in Santiago, Chile, BSA Cementos needed massive storage capacity that would stay secure, no matter the size of the earthquake. A dome was the ideal solution.

Because of its geometry, a dome can be engineered to support sizable structures like a headhouse, conveyors, and dust-control systems, even during an earthquake. Chile is known for its rigorous and stringent building codes because of frequent seismic activity, and the dome design meets mandatory seismic requirements.

BSA Cementos—Santiago, Chile

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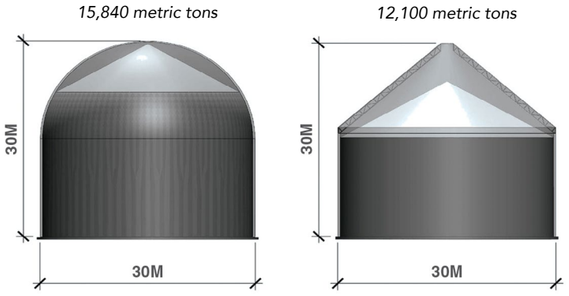
GREATER CAPACITY

The example illustrated at right compares a 30 meter (98.4 ft) wide by 30 meter (98.4 ft) tall DomeSilo to a traditional cylindrical silo with the same diameter and height. For a product with a specific gravity equal to 1.0 and 30-degree angle of repose, the dome stores **3,740 additional metric tons—30 percent more** than the silo.

The strength of the dome's curve allows product to be stored from the floor to the apex. Similar increases in capacity are realized for other specific gravities and angles of repose.



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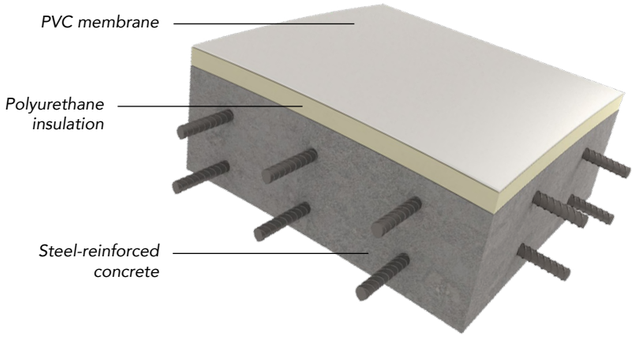
100 PERCENT WATERPROOF

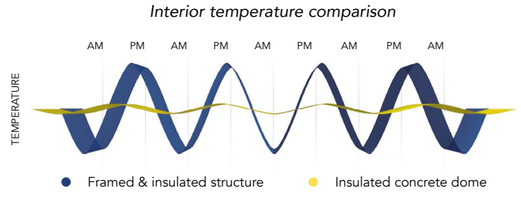
The dome's seamless exterior airform membrane is made from one of the most durable and longest lasting high-tension fabrics on the market, with membrane layers fused to provide water tightness.



4

100 PERCENT INSULATED

In traditional structures, temperature fluctuations create damaging stresses that fatigue and destroy conventional concrete and steel silos over time. In contrast, the dome's outer continuous polyurethane-foam insulation, combined with the inner concrete layer, provides an insulated thermal mass that minimizes temperature fluctuations within. This also minimizes internal condensation from moisture in stored products.



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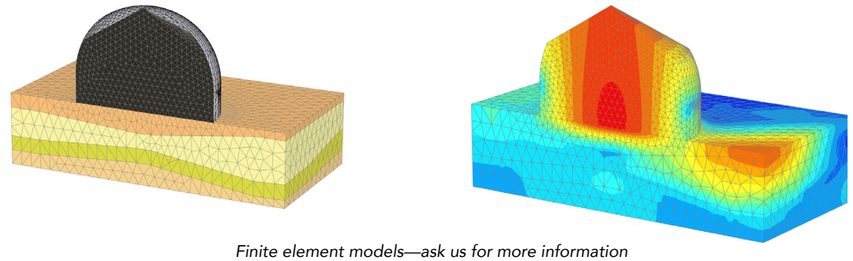
INNOVATIVE FOUNDATION OPTIONS

Dome Technology's expertise in geotechnical engineering and advanced finite-element analysis ensures the structural stability of the dome and its integrated foundation system. The foundation and reinforced-concrete dome structure provide exceptional rigidity that distributes loading over irregular subsurface conditions, providing a tolerance for differential settlement. Customers consistently save on construction and total costs by working with Dome Technology on foundation solutions.



Finite element models—ask us for more information

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HEAT, FIRE, & EXPLOSION PROTECTION

While fires are rare, real-world examples demonstrate the dome's double curvature is structurally stable under extreme fire and heat. The reinforced concrete dome also provides excellent explosion containment; the interior surface discourages dust buildup, which has potential to self-combust or cause fire or explosion when dislodged. These reduced risks can result in insurance-premium savings.

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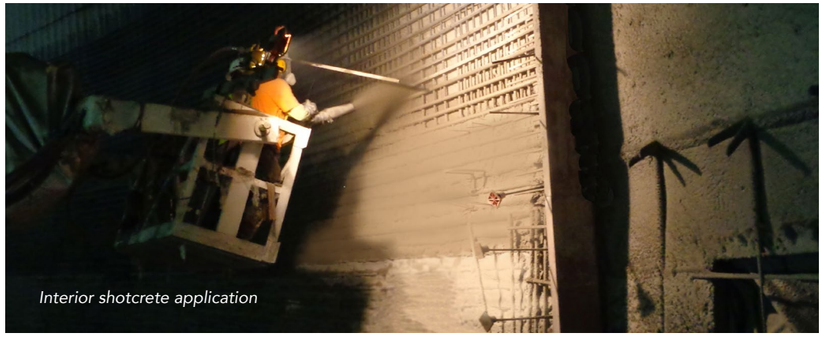
SAFER, FASTER BUILDING PROCESS

A dome can be built quickly; once the outer weatherproofing membrane is in place, construction work is completed from the inside, so the project can proceed regardless of the weather.

Domes can be built in most areas of the world any time of year, allowing ultimate flexibility in scheduling. The inflated dome envelops and protects construction activities carried on inside its moderated environment. This facilitates efficient construction sequencing and improved quality control.

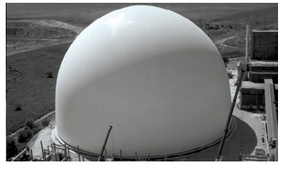


Interior shotcrete application

Foundation

Airform inflation begins

During airform inflation



Airform inflation complete

10 REASONS
TO CHOOSE THE DOME

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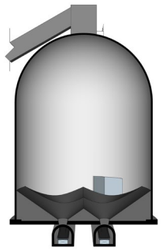
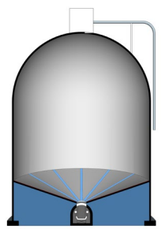
DIVERSE SHAPE & RECLAIM SYSTEMS

The entire handling and storage configuration, including above- or below-ground reclaim tunnels, can be built for domes of all shapes and sizes. We design these to complement your location, storage capacity, throughput requirements, and loading and reclaim needs. By selecting Dome Technology to provide the dome and its related systems, the facility is built to work seamlessly.



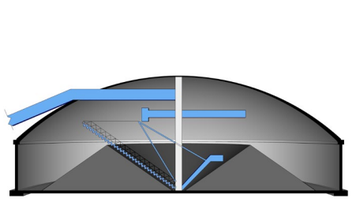
Gravity/ Vibrafloor



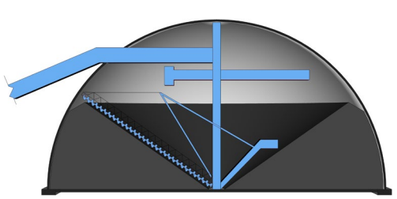
Airslide/ Fluidized floor

Mechanical horizontal-screw reclaimer

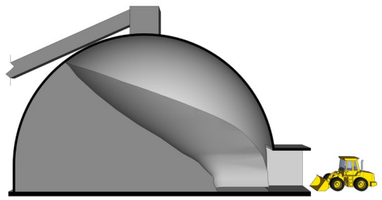
Mechanical rotary plow



Mechanical stacker reclaimer



Mechanical stacker reclaimer



Front-end loader

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COST EFFICIENT & LOW MAINTENANCE

Local materials and less construction waste mean greater overall savings. Domes are built with locally available concrete and steel, minimizing costly long-distance delivery. A dome requires fewer construction materials overall compared to other structures, and once it's done, exterior maintenance is easy: If the surface looks dirty, a few simple tools—mild detergents, soft brushes, and low-pressure water—are all it needs.

10

GREENER CONSTRUCTION

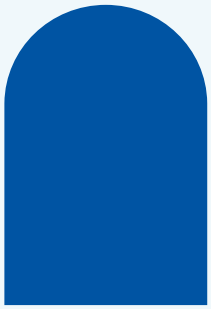
A dome is built with minimal environmental impact. Some construction materials are made with recycled products, and by building from the inside out, construction-related dust emissions are greatly reduced. The completed dome is sealed to prevent pollution or environmental contamination from stored products.

At right: Drax—Selby, England

JOIN THE RANKS

BE PART OF OUR HISTORY OF EXCELLENCE

WHICH MODEL SUITS YOU BEST?



DOMESILO

Hemispherical dome on vertical stem wall

Ideal for small footprint

Increased capacity

HEMISPHERICAL DOME

Height is half diameter

Competitive with silos and warehouses

LIQUID-STORAGE TANK

Low cost

Low maintenance

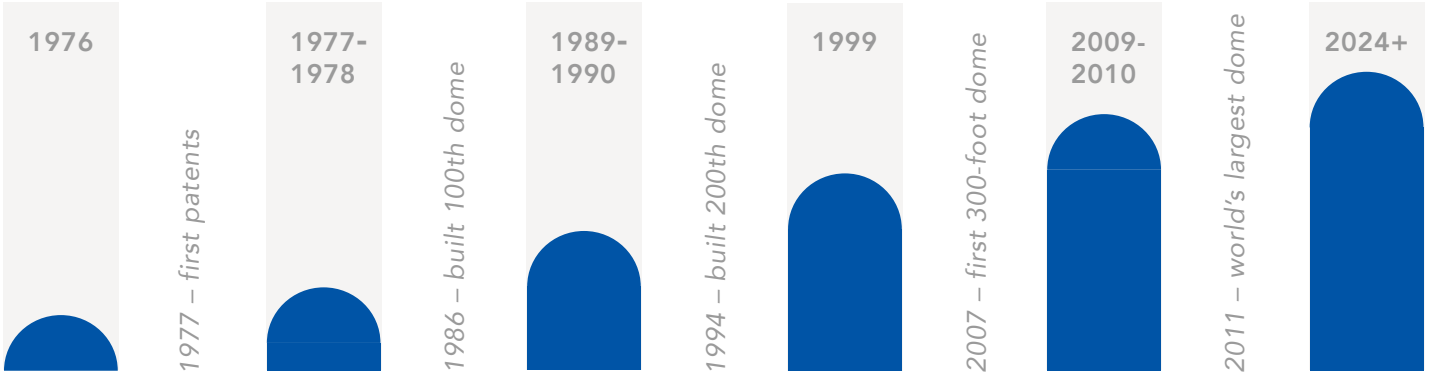
Sterile storage

DRIVE-THRU DOMESILO

Moving product is easy

Cost competitive with traditional drive-through silos

GROW WITH DOME TECHNOLOGY



Company begins & first dome is built

First grain & fertilizer domes built

First cement & coal domes built

300th dome & first clinker dome built

500th dome & first wood-pellet dome built

750+ projects in the portfolio, including engineering, structural steel, & repair work

DOME TECHNOLOGY®

www.dometechnology.com