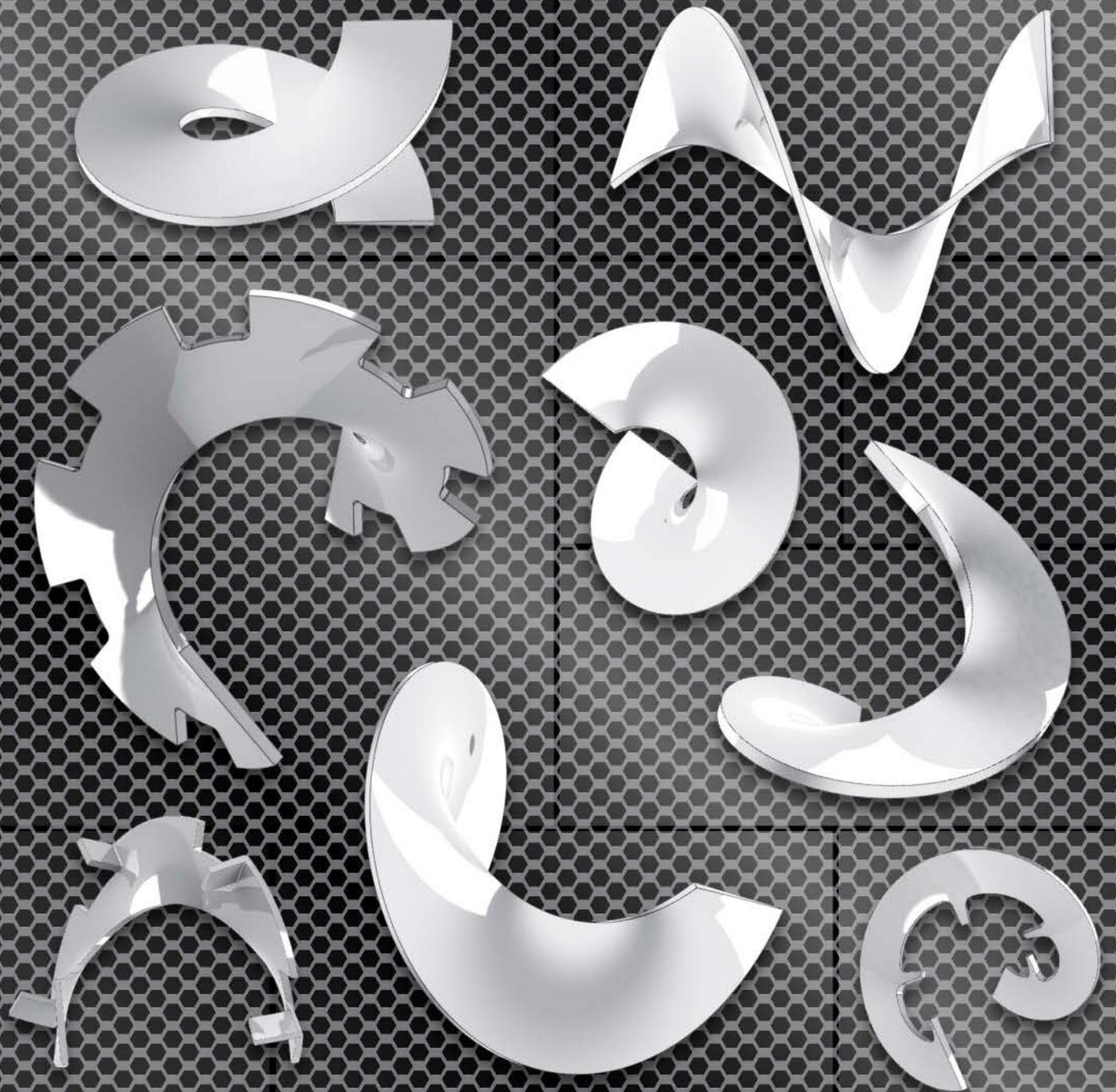




SCREW FLIGHTS and Auger Blades



Applications

Conveyor Spirals



**Foundation, Piling
& Digging Augers**



**Screw Piles &
Ground Anchors**



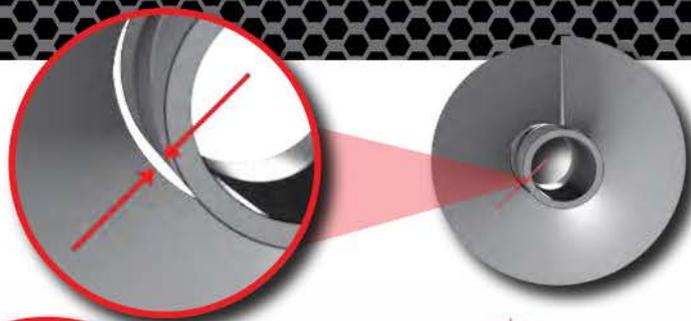
**Archimedean
Turbines**



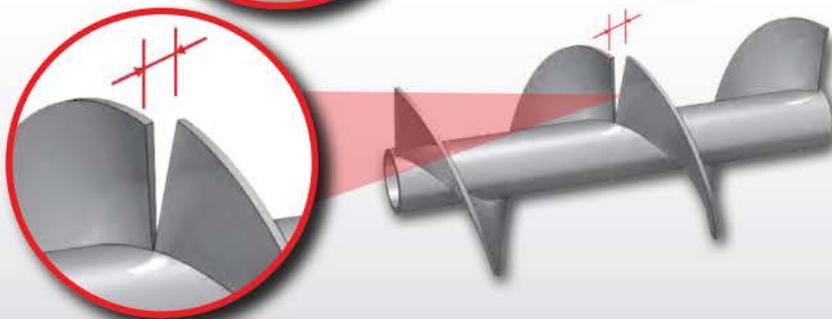
**Ribbon Blenders
Decanters... and many more**

Common Flight Problems

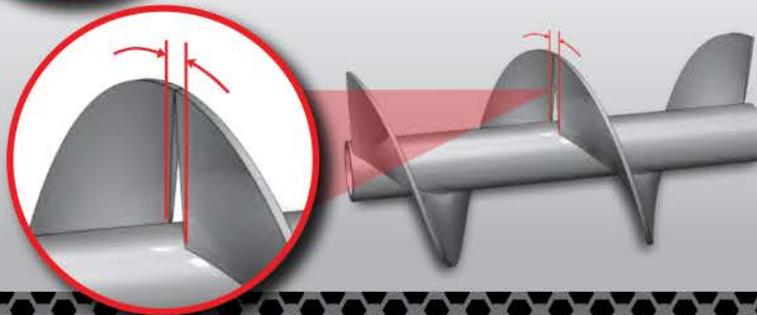
Flights are gapped around pipe



Flight ends are misaligned



Flight ends are gapped



All these problems cost you time and money and result in an inferior product

PROBLEM SOLVED

BULKNET TruHelix Standard Tolerances

- **Outside Diameter $\pm 1\%$**
- **Pitch $\pm 5\%$**
- **Inside Diameter** - It is expected that all flights click onto the centre pipe
- **Match up alignment** - It is expected that the misalignment where flights meet will be no more than half the material thickness
- **Match up gap** - It is expected that the gap where flights meet will be no more than the material thickness

BULKNET TruHelix Premiere Tolerances

BulkNet can and will meet the most demanding tolerances you care to set when you specify them in your request for quotation.

BULKNET "Breakdown Service" guarantees a maximum 48 hour turnaround on orders.

...where your flight dollars buy solutions, not problems.

Flight Types

Standard Flight



Screws with a pitch spacing equal to the diameter are considered standard and are suitable for most conveyors of conventional horizontal design.

Short Pitch Flight



Short pitch screws are used in inclined conveyors. They are also used to control the feed at the inlet and to reduce flushing of free flowing materials. The shorter the pitch the more efficient is the screw.

Variable Pitch Flight



Variable pitch flights are used to control the amount of material drawn down along the length of a hopper. By increasing the pitch at each flight along a screw you can incrementally increase the volume of product that is allowed to enter the screw.

Integraleg® Flight



Ribbon flights with integral support legs are used for sticky or cohesive materials that tend to build up on the flight-pipe interface.

Notched Flight



Notched flights are used to provide a gentle mixing action. Notched flights are useful in blending different materials during the conveying process.

Notched & Folded Flight



Notched and folded flights provide a more aggressive mixing action where material that passes through the notch is lifted and mixed with the trailing material. They can also be used for aerating or cooling materials.

Double Start Flight



Double start flights are used to accelerate the conveying process at the conveyor inlet and even out the pulsing effect at the outlet. They are also typically used in drilling and post-hole augers to equalise the torsional forces on the auger.

Centreless Flight



Centreless flights are used for extremely sticky or fibrous materials that tend to wrap around or build up on a centre pipe.

Tapered Flight



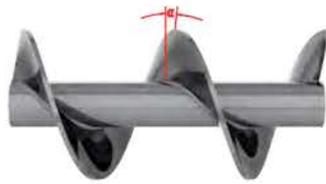
Tapered flight spirals provide a continuous incremental change in swept volume of the screw. This promotes even drawdown in a full hopper situation. Tapered flights leave residual material in the conveyor unless the casing is tapered to suit.

Coned Flight



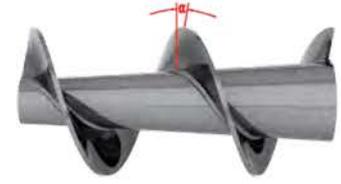
Conical flight centres provide a continuous incremental change in swept volume of the screw. This promotes even drawdown in a full hopper situation. Combined with variable pitch the coned screw provides the best possible solution to even hopper drawdown. Standard troughs can be used with coned flights.

Canted Flight



Canted flights are used to counter the bending forces experienced when a flight is used in an extrusion process. The flight leans forward at a specific angle to the centre pipe.

Compressing Flight



Compressing flight centres provide a continuous decrease in swept volume of the screw. This compresses and compacts the material as it is conveyed. The flights are typically canted forward to counter the forces of the compacting process. These are used in compacting, dewatering and decanting situations.

Hollohelix® Flight



Hollow flights are used to pass heating or cooling liquids around the helix. Typically both the hollow centre pipe and the hollow flight are used as a heat exchanger to cool, heat or thaw the material being conveyed.

Paddles



Paddles are set in a helical form around a square or round centre tube to form a segmented spiral. They are used in mixers and pug mills to mix and condition dry products when liquid is added during the process.

Flight Accessories and Variations

Wear Shoes



Bolt on wear shoes are used as a sacrificial flight tip for conveying extremely abrasive products. Wear shoes significantly extend the working life of the spiral.

Ceramic Coating



A matrix of ceramic coating is applied to the tip and leading face of the flight to reduce the wear caused by abrasive and corrosive materials being conveyed by the spiral.

Bristle Edging



Bristle edging is a polymer brush formed into a spiral and attached to the trailing edge of the flight. This helps to clean out residual product from the conveyor and prevent breakage of delicate products such as fertilizer prill.

Flight Edging



Flight edging is an ultra high molecular weight polyethylene (UHMWPE) extrusion that is formed into a spiral and wraps around and snaps over the tip of the helix. Flight edging is used as an intermediate bearing on long slender spirals where hanger bearings are undesirable. It can also be used to take up the space between the flight tip and the casing to provide greater clean out of the conveyor.

Centreless Drive Plate



A centreless drive plate is attached to a centreless spiral to enable the transmission of the driving torque to the spiral.

Advanced Spiral Technology

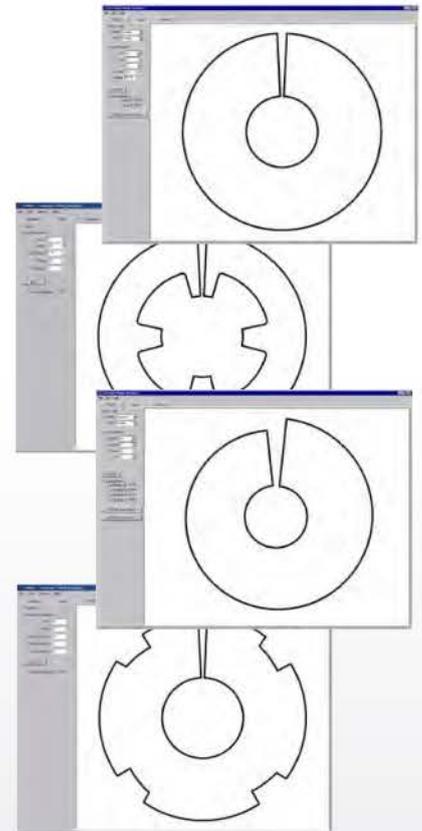


BulkNet through their R&D partner, **Advanced Spiral Technology (AST) Pty Ltd**, has brought sectional screw flight manufacture into the 21st Century.

Whether they be...

- Standard flights
- Integraleleg™ flights
- Tapered flight
- Notched flights

BulkNet utilises **AST's** award winning, proprietary "**Blanks Program**"[®] allowing us to quickly and accurately predict myriad flight patterns and send them directly to our cutting machines by direct link or DXF files ensuring accurate, foolproof developments.



BulkNet's manufacturing process, developed by **AST**, is a complete state-of-the-art system, enjoying many years of refinement and reflects decades of invention and innovation. With our high speed **Numerically Controlled** forming equipment, coupled with our specially designed forming tools (made to compliment high speed forming), **BulkNet** is able to ensure a consistent helical form and accurate match up, which has seen **BulkNet** propelled to the forefront of sectional screw flight manufacturing.



Developed by **AST**, a recognised leader and innovator in the field of screw flight manufacture, this is the only screw flight system to win a position in the prestigious '**Australian Technology Showcase**'.



... **BULKNET's** competitive edge.

Ordering

OD

ID

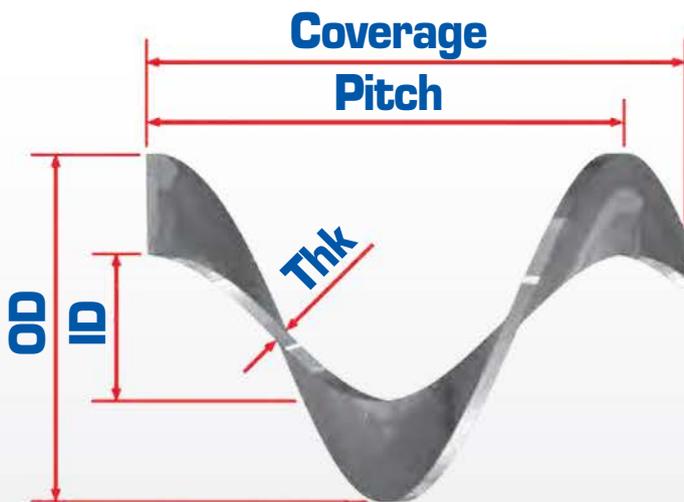
Mat

Feature

Pitch

Thk

Hand

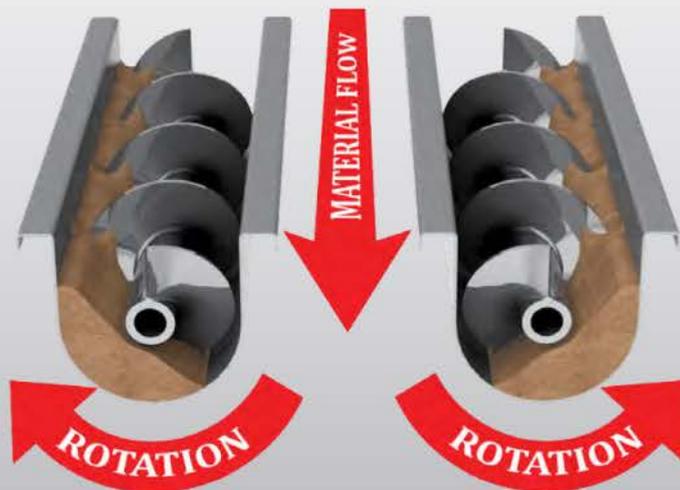


Features

*Integraleleg
Notched
Tapered
Holes/Windows
Cut and Folded
Canted
Others as desired*

Right Hand

Left Hand



Materials

*Carbon Steel
Stainless Steel
Duplex Steel
Wear Resistant Steel
Impact Resistant Steel
Laminated Plate
Aluminium
Copper
Etc, Etc...*

NOTE ON PITCH:

Most finished flights cover more than one pitch along its axis (coverage). The pitch is measured from a point on the flight to its corresponding point along the axis, not tip to tip.

With screw flights from
50mm - 4000mm diameter
and 1.6mm - 75mm thick

BULKNET offers...

The **LARGEST RANGE**
of Sectional Screw
Flights

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BULKNET

Suppliers of:

- Auger/Screw Flights
- Spirals
- Screw Conveyors
- Conveyor Components
- Screw Feeders
- Pug Mills
- Air Slides
- Belt Feeders
- Bucket Elevators
- Drag Chain Conveyors
- Diverter Valves
- Slide Gates
- Heavy Duty Earth Drilling Tools
- Zero Speed Switches
- Bulk Materials Handling
Equipment & Systems