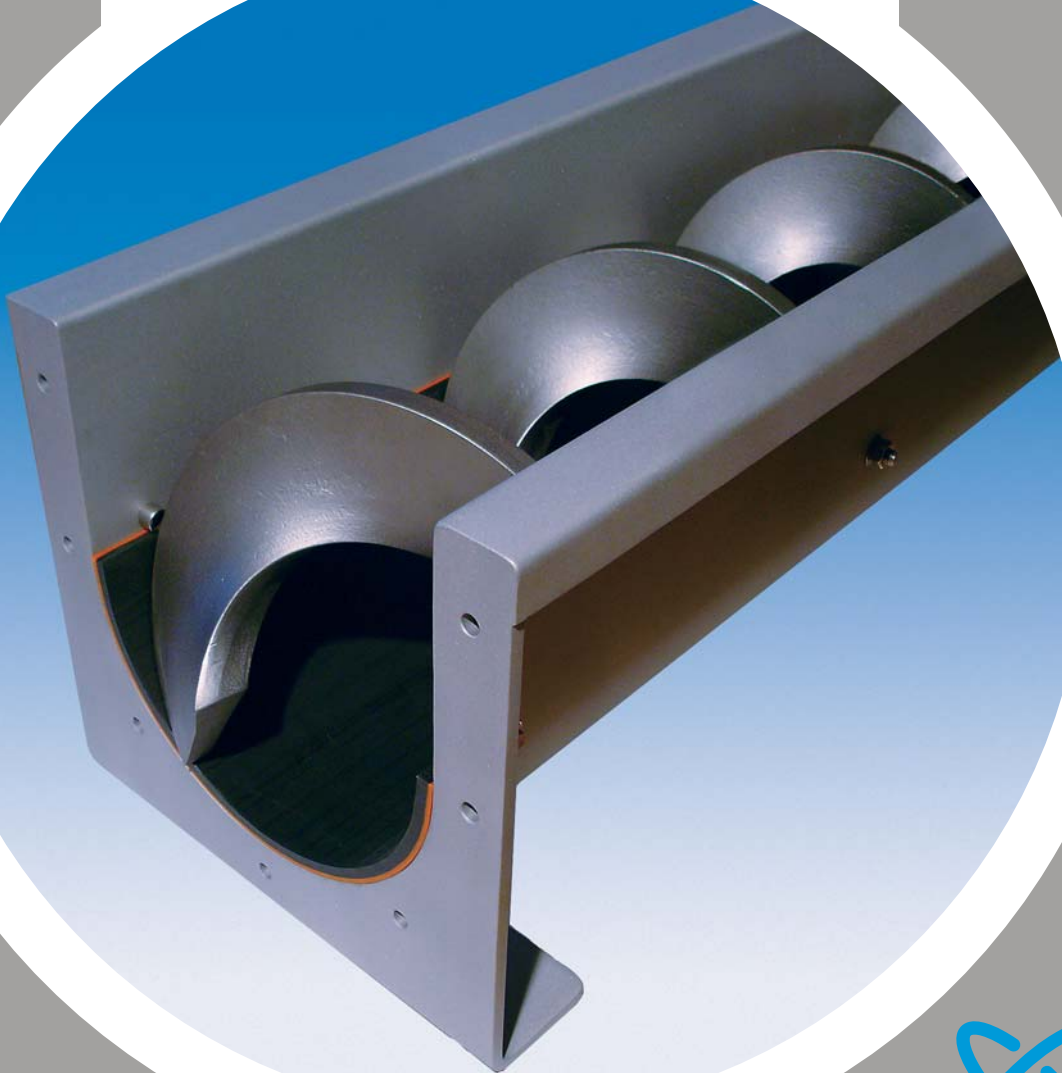


screwtech

shaftless screw conveyors
a **concept solutions** product

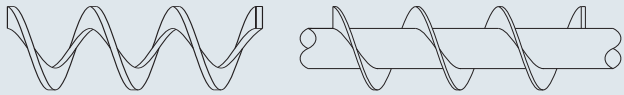


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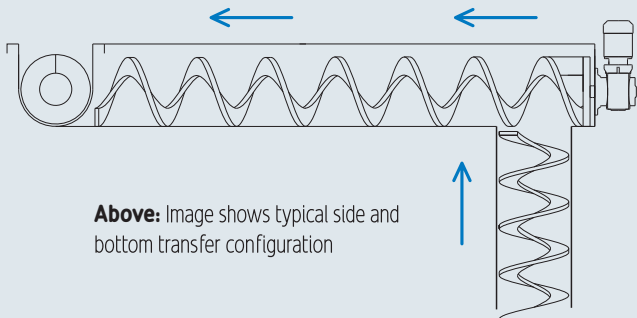
ScrewTech - Shaftless Screw Conveyors

As the name suggests a Shaftless Screw Conveyor is without a core. The power is transmitted directly to the helix rather than via a central shaft. The helix is far heavier and manufactured of a higher tensile strength material compared to shafted screws. Shaftless Screw Conveyors run directly on the lined casing and without hanger or tail end bearings. The drive unit is typically a direct coupled hollow shaft flange mount type eliminating the need for drive chains, belts or guards.



Above: Shaftless Screw Above: Shafted Screw

A unique feature of the **ScrewTech** Shaftless Screw Conveyor system is its ability to transfer product directly into the side or bottom of downstream conveyors due to the use of “push” drives and the elimination of tail end bearings.



Above: Image shows typical side and bottom transfer configuration

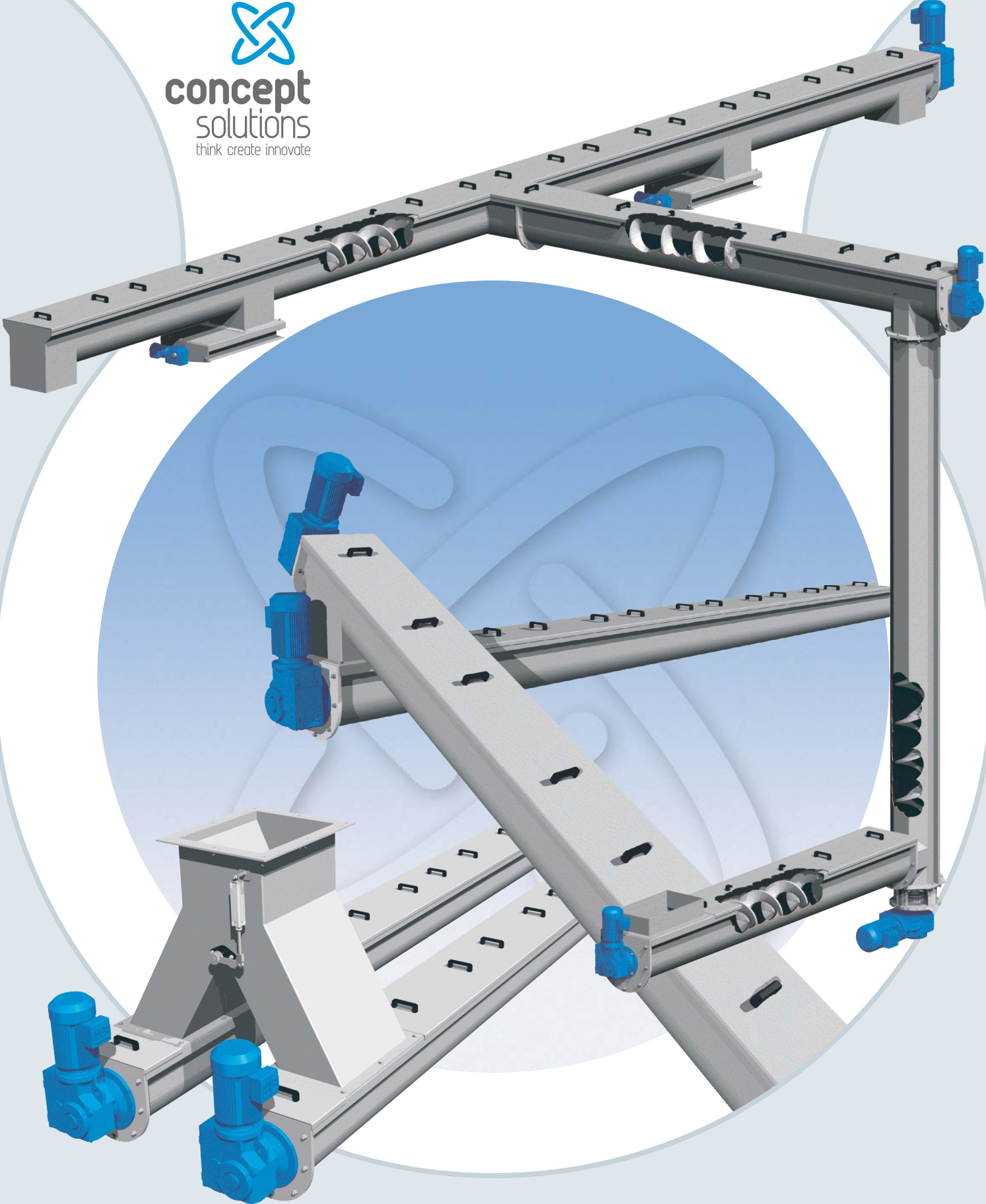
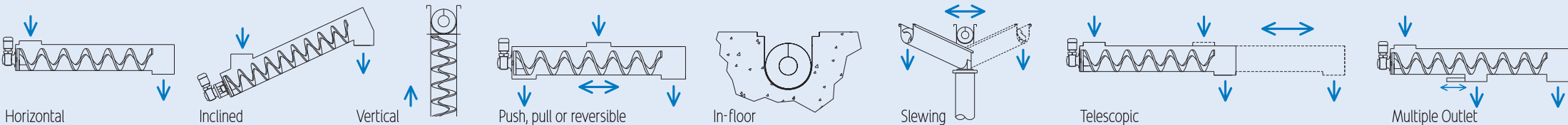
ScrewTech Shaftless Screw Conveyor systems are totally enclosed for safety, completely spill-free operation and to contain the odour of the conveyed product.

- ⊗ **Typical Conveyed Product**
- Plug and arch forming products such as dewatered sludge, screenings and offal
 - Irregular products such as slaughterhouse carcasses, heads, bones and waste
 - Grains, ash, sand, marc, soil and sawdust
 - Stringy, sticky or fibrous products such as organic waste, manure or compost
 - Difficult inconsistent materials & variable flow rates

- ⊗ **Applications**
- Municipal head/inlet works
 - Slaughterhouses and fish processing plants
 - Wood chip and MDF plants
 - Pulp & paper plants
 - Food & Wine processors
 - Compost & fertiliser processors

- ⊗ **Advantages**
- Non-plug forming & non-arch forming
 - Simple and direct transfer via side or bottom entry
 - No tail or hanger bearings
 - Approximately 30% increase in capacity or 30% reduction in rpm compared to shafted screws
 - Long service life and low maintenance
 - Low power consumption
 - Space saving
 - Odour control - totally enclosed design

⊗ **Configurations**



ScrewTech System Components

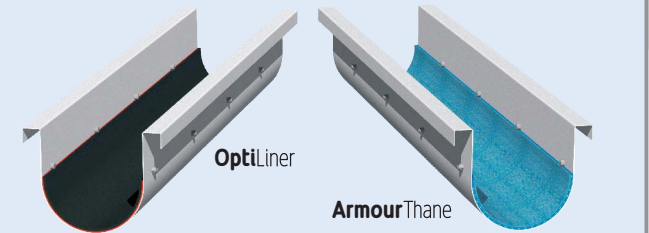
The **ScrewTech** product range includes a complete line of screw conveyor associated products enabling single source supply and responsibility of all system components.

- ⊗ **Slide gates and Diverter Gates**
- Watertight one piece polyurethane cartridge seal
 - Square, rectangular or round options
 - Pneumatic, electric or manually actuated
 - Numerous configurations from simple open/close to multi-position duty/standby
 - Complete with position sensors suitable for automated operation
- ⊗ **Rotation Failure Alarm**
- Non-contact sensors
 - Senses through the metal conveyor casing
 - Mounted at the non-drive end to detect loss of rotation due to a fault or breakage
- ⊗ **Emergency Stops**
- Pull cord on one or both sides of the conveyor
 - Micro-switch cut out systems on the covers
- ⊗ **Electronic Shearpin**
- Automatic overload protection
 - Infinitely adjustable Overload Trip Point, Trip Time Delay and Motor Start Time
- ⊗ **Electrical Control Cabinets**
- Full range from basic on/off, to fully automated and programmable systems
 - Variable speed drives (VSD) and PLC options
- ⊗ **Conveyor Supports**
- Full scope, from supply of supports through to full design and installation.

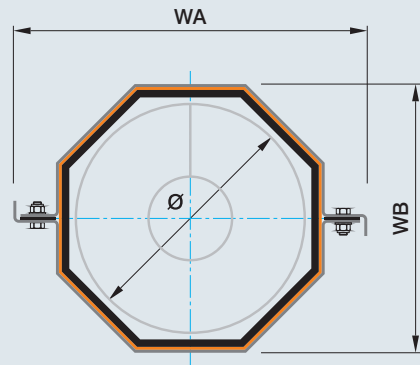
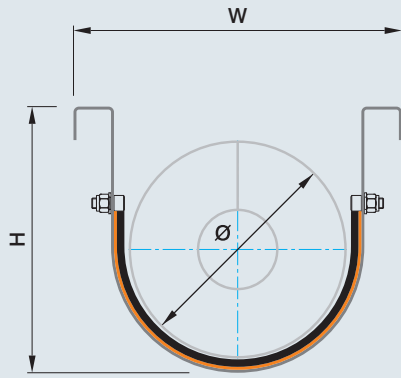
ScrewTech Lining Systems

OptiLiner - Consists of a twin layer composite sheet encompassing dual properties and functions. The upper surface being the wear resistant layer of black UV stabilised UHMWPE and the lower layer being an orange polyethylene providing a visual indication of wear and requirement for scheduled replacement. **OptiLiner** offers long service life, low friction, noise reduction and chemical resistance.

ArmourThane - For extreme abrasion environments such as grit screws. It consists of a ceramic filled polyurethane sheet with an expanded metal backing. The wear surface features 85% alumina ceramic chips with a hardness of MOH 9 encapsulated in hot cast polyurethane. The expanded metal allows **ArmourThane** to be readily formed to suit the screw casing and also provides a visual indication of wear.



- ⊗ **Other liner material options:**
- UHMWPE**
 - White Ultra-High Molecular Weight PE for edible food applications
 - Stainless steel**
 - 304 or 316 austenitic or duplex in pressed sheet or strip form.
 - High tensile wear plate**
 - Various grades in either pressed sheet or strip form.



Horizontal and Incline Conveyors			
Model	Screw Ø	W	H
U150	150	260	186
U160	160	270	197
U200	200	310	243
U215	215	325	260
U250	250	374	304
U280	280	404	338
U285	285	409	344
U300	300	424	361
U315	315	459	378
U350	350	494	419
U365	365	509	436
U400	400	544	476
U440	440	584	522
U450	450	614	535
U480	480	644	569
U500	500	664	592
U600	600	764	707

Vertical Conveyors			
Model	Screw Ø	WA	WB
O150	150	260	186
O160	160	270	196
O200	200	310	236
O215	215	325	251
O250	250	374	290
O280	280	404	320
O285	285	409	325
O300	300	424	340
O315	315	459	357
O350	350	494	392
O365	365	509	407
O400	400	544	442
O440	440	584	482
O450	450	614	494
O480	480	644	524
O500	500	664	544
O600	600	764	644

• Numerous pitch and cross section options available • Non-standard sizes available upon request

Construction Options

Spiral • High-tensile special micro-alloy

- Austenitic stainless steel - 304 or 316
- Duplex stainless steel

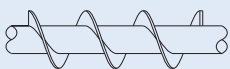
Casings • Austenitic stainless steel - 304 or 316

- Duplex stainless steel
- Mild steel - Galvanised or painted

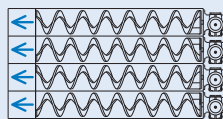
Covers • Austenitic and duplex stainless steel

- Mild steel - Galvanised or painted
- Grating or chequer plate

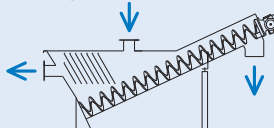
Additional Concept Solutions Screw Conveyor Products



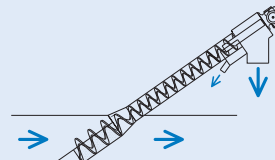
Shafted Screws



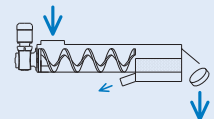
Live Bottom Screws



ISO-Grit Classifier



Screen Press



Screw Compactor
Screw Wash Press



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