

- Conveyor Technology
- Blending Technology
- Feed and Discharge
- Metering and Handling
- Tanks, Vessels and Apparatuses
- Special Machinery and Plants
- Components
- Service

## Made to Measure Solutions

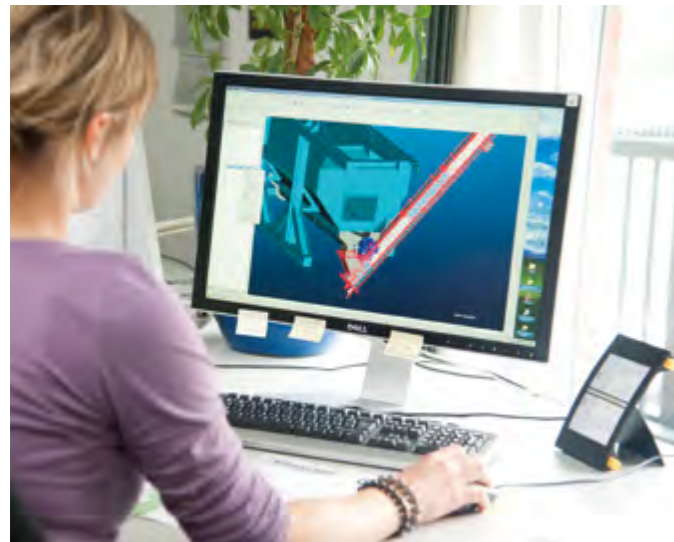
For more than 100 years, the SEGLER company has been synonymous with material handling technology of the highest standard. Our solutions are as diverse and individual as our customers and their industries. Whether its assemblies, machines or complex systems – you will receive a service package designed to meet your specific needs. If you like, from the first idea, process consultation, design, manufacturing and assembly, to a comprehensive customer service.

**We are your single source supplier:  
reliable, quick and precise.**

## Certified excellent quality

- Pressure equipment directive 97/23/EG, AD 2000-Merkblatt HPO (TÜV Nord)
- Manufacturing qualification DIN 18800-7 C (DIN EN 1090-2 EXC2) (TÜV Nord)
- Specialized company according to WHG (TÜV Nord)
- Certified welding specialist DIN EN ISO 3834-3 (TÜV Nord)

Recent awards for our product developments as well as for our employee qualification activities underscore the expertise of SEGLER.



## SEGLER Customers

Our 120 employees create solutions for companies in the following industries:

- Chemical Industry
- Food
- Energy
- Primary Resources
- Environment
- Construction
- Plant and Mechanical Engineering
- And much more

## Products and Services

The portfolio of SEGLER has consistently expanded. We offer comprehensive services in the following areas:

- Conveyor Technology
- Blending Technology
- Feed and Discharge
- Metering and Handling
- Tanks, Vessels and Apparatuses
- Special Machinery and Plants
- Components
- Service

**At a glance:**

## Different types of facilities and customized designs

Examples for the variety of areas and made to measure designs of our machines and facilities include:

- For industrial facilities and pilot plants
- For bulk goods of all kinds, pasty materials, liquids
- Conveying, blending, heating, cooling, coating, crystallising, deagglomeration, grading, pressing, purifying, storing and much more.
- Use of different types of high-alloy steel
- Pipe, U, V, double trough
- Single shaft (E-Class), multiple shaft (M-Class) screws
- Full, ribbon, paddle, double paddle screws, double thread, conical screw flights
- Hardfacing, plating, special coatings
- Product specific lining
- Vacuum and pressure operation
- Integrated weighing technology
- Modular construction
- Comprehensive additional equipments
- Food-grade, ATEX, WHG conform variants
- And much more



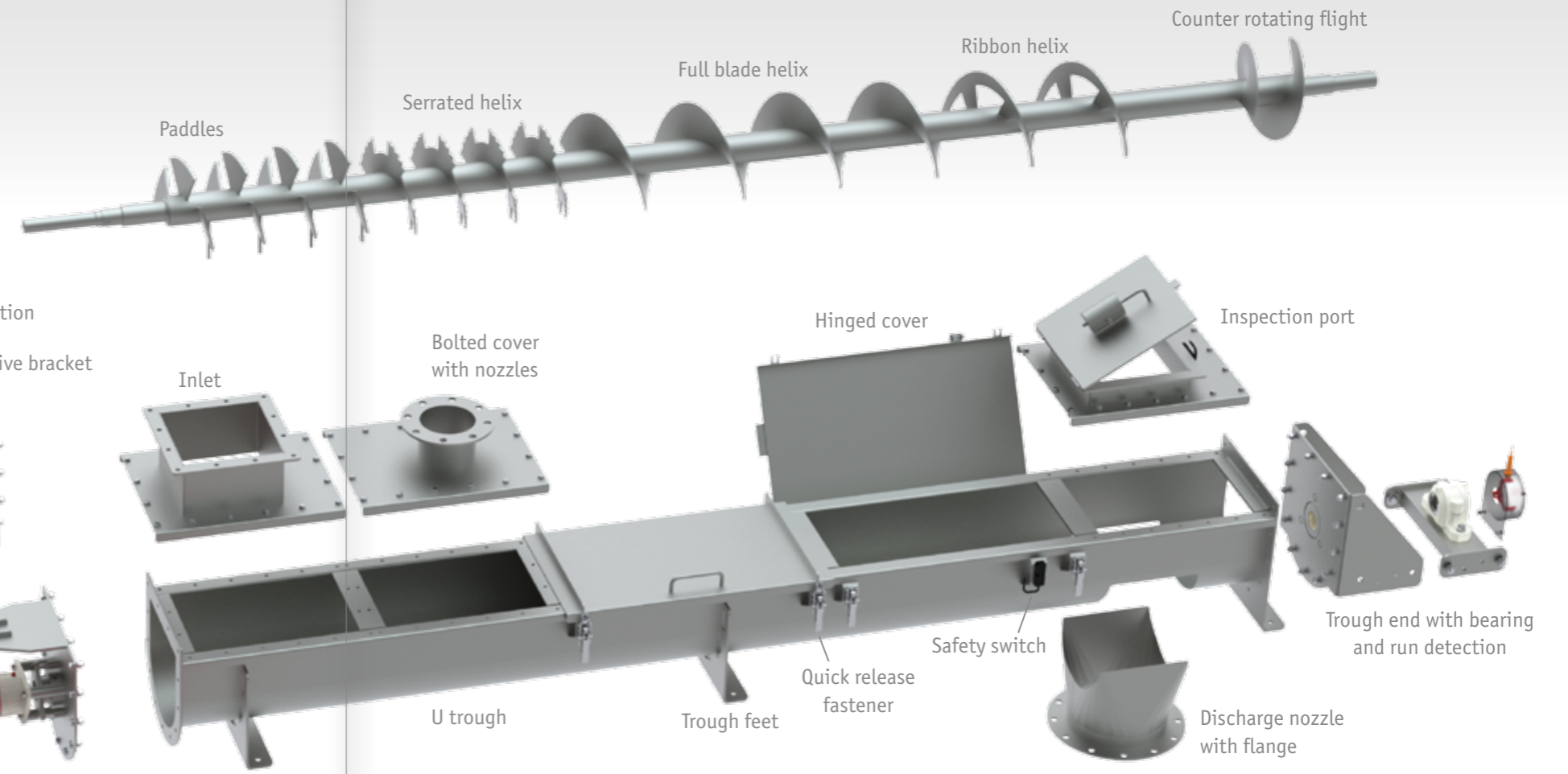
**SEGLER**  
materials in motion

**Screw conveyors**  
**SPIRATOR**

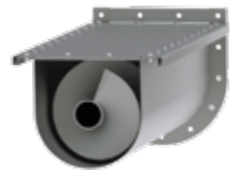
- Horizontal screws
- Vertical screws
- Inclined screws
- Spiral screws
- Ribbon screws
- Paddle screws
- And more

**Process screws**  
**PROSPIRATOR**

- Screw conveyors with additional functions like:
- Cooling/heating
  - Drying/moistening
  - Blending
  - Crystallising
  - Sanitising



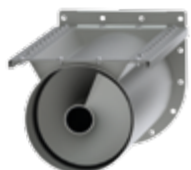
Pipe trough



U trough



V trough



Omega Trough



Double-U Trough, intermeshing

**Application Example Chemical Industry:**

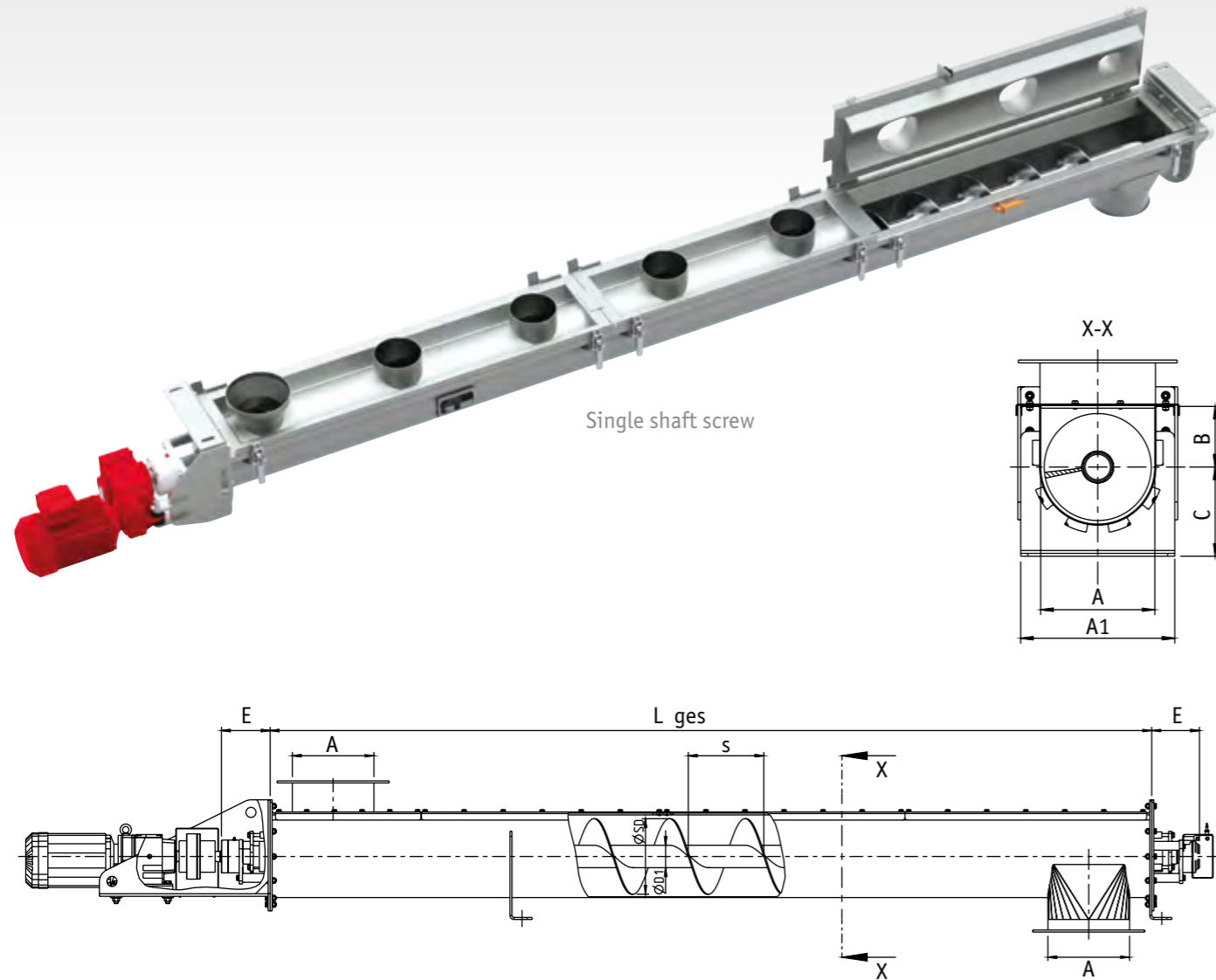
**Screw conveyors**

Developed and produced by SEGLER, these horizontal screw conveyors move powder bulk goods with a temperature of over 60°C.

**Implementation:**

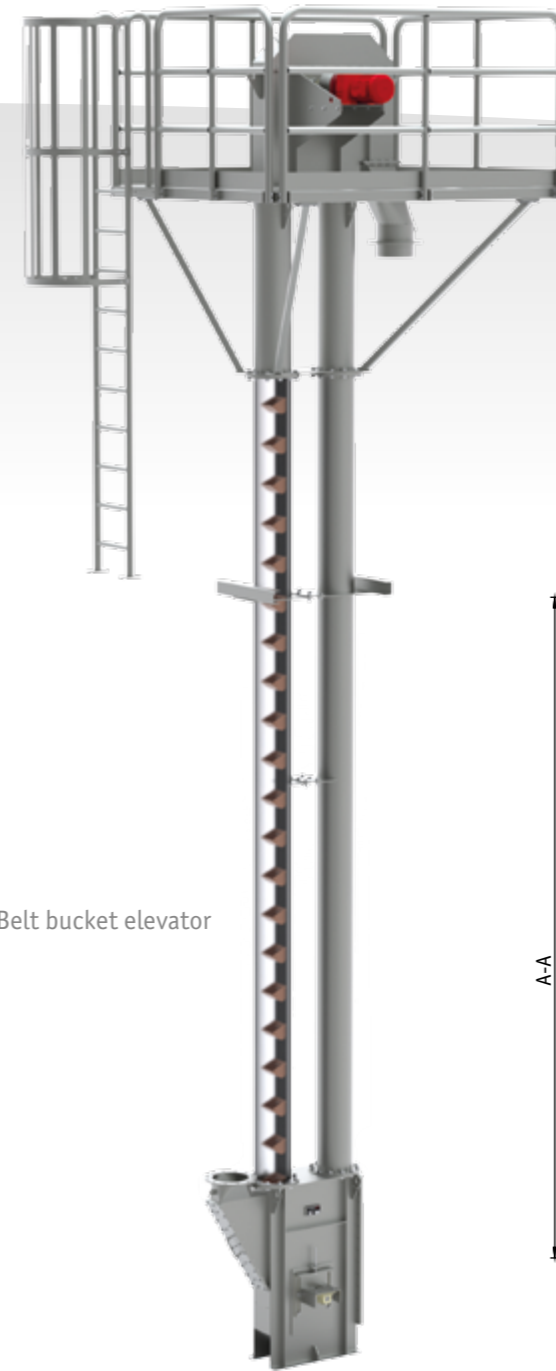
- Single shaft screw conveyors
- Heavy-duty, dust-proof design
- Achieves 880 kg/h, continuous duty
- Sturdy pipe shaft with continuously on both sides full penetration welded helix
- Discharge area with counter-rotating flight
- Protection against accidental contact
- Cleaning ports
- Drive console with spur geared motor and clutch





Single shaft screw

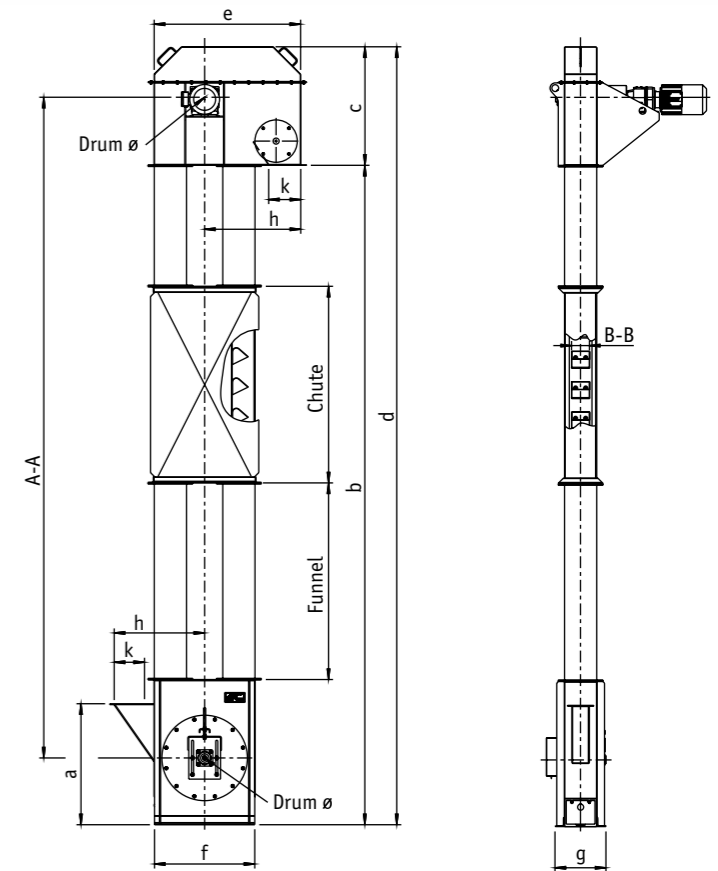
Screw diameter Ø SD	Shaft pipe diameter Ø D1	Recommended pitch S	Maximum screw RPM (1/min)	Conveying velocity at n max (m³/s)	Flow rate at n max (m³/h) φ=0,15 φ=0,45	A	A1	B	C	E	Centre bearing from L tot
100	30	100	190	0,32	1,3 ... 4	112	210	63	130	180	3500
130	44,5	130	168	0,35	2,3 ... 7	150	256	85	150	185	3500
150	44,5	150	150	0,40	4,3 ... 13	170	276	90	160	185	4000
200	60,3	200	135	0,45	7,6 ... 23	220	326	112	190	195	4000
250	60,3	250	120	0,50	13,2 ... 40	270	376	140	225	195	4000
300	76,1	300	108	0,56	24 ... 71,6	320	440	170	250	205	4000
400	76,1	350	96	0,56	38,5 ... 116	425	535	220	300	255	4000
500	88,9	400	84	0,56	60 ... 178	525	669	280	360	270	4000
630	101,6	450	75	0,56	94,7 ... 284	660	804	355	435	270	4000
800	133	500	67	0,56	151 ... 455	835	987	450	525	270	4000
1000	159	560	60	0,56	237 ... 712	1040	1240	570	640	300	4000
1250	219,1	630	54	0,56	380 ... 1130	1290	1500	725	780	300	4000



Belt bucket elevator

### Bucket Elevators

- Belt bucket elevators
- Chain bucket elevators
- Maintenance platforms



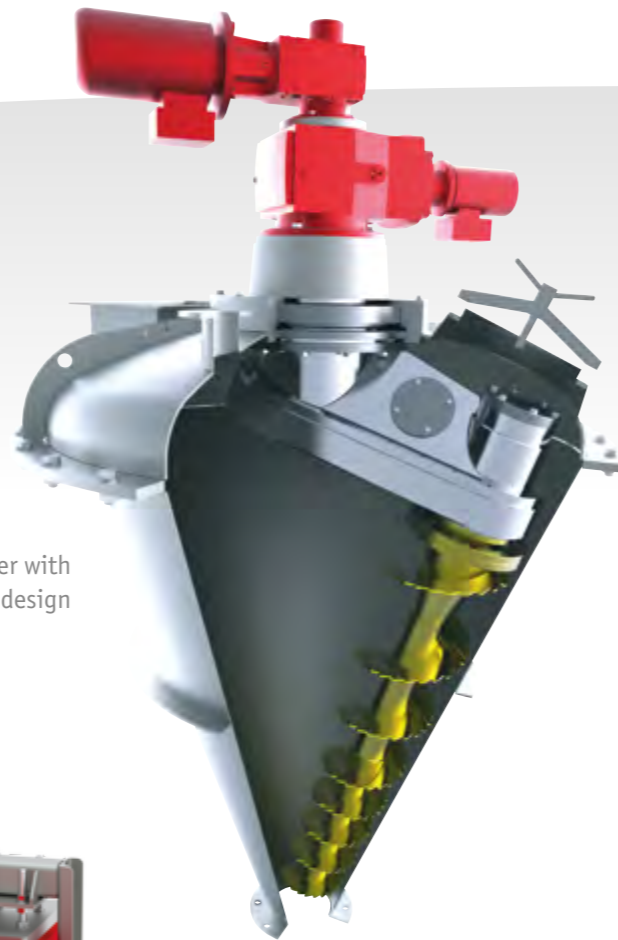
Bucket width B-B	mm	120	200	250	315	400	500	630	800	1000
Drum diameter	mm	355	500	500	500	630	630	900	1000	1250
a	mm	700	950	1000	1000	1100	1200	1430	1750	1850
c	mm	750	950	1210	1260	1470	1800	1900	2100	2400
e	mm	950	1300	1380	1550	1800	1950	2100	2925	3325
f	mm	656	908	938	1008	1250	1300	1380	1500	1700
g	mm	298	408	478	580	680	780	900	980	1080
h	mm	610	800	915	1050	1150	1375	1550	1675	1775
k	mm	217	250	350	450	475	575	600	775	875

**Process Blenders  
PROMIX BATCH**

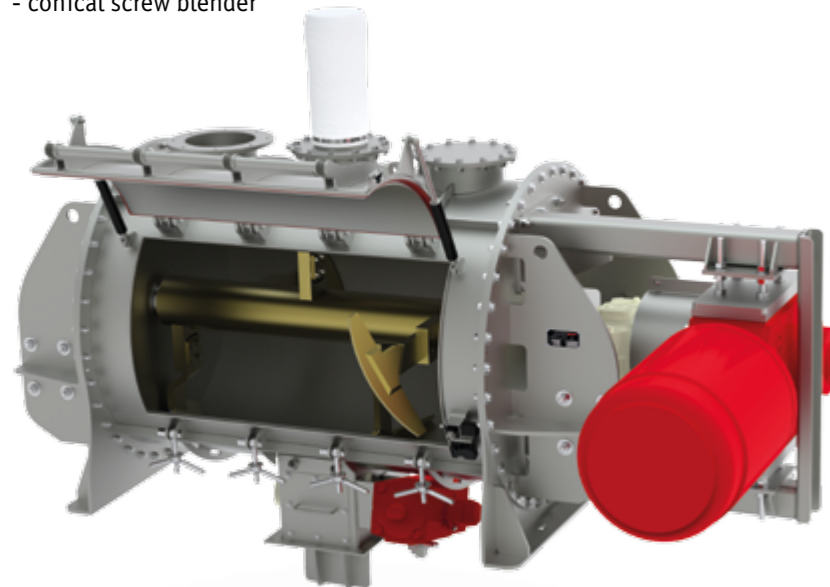
Blenders in batch operation:

- Paddle blender
- Ribbon blender (horizontal blender)
- Vertical blender:
  - agitator blender
  - conical screw blender

Conical blender with new drive design



Single shaft paddle blender



**Process Blenders  
PROMIX CONTI**

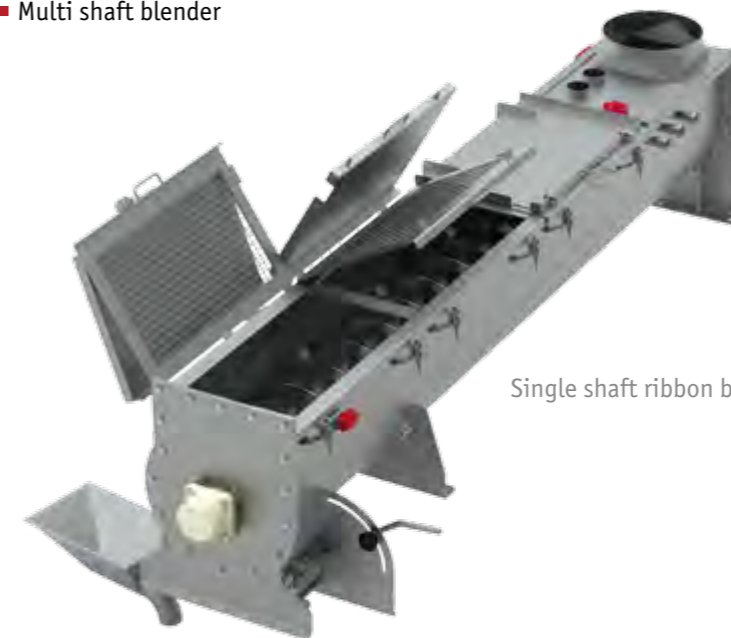
Continuously running blenders:

- Paddle blender
- Ribbon blender
- Single shaft blender
- Multi shaft blender

Multi shaft paddle blender



Single shaft ribbon blender



**Application Example Chemical Industry:**

**Conical screw blender**

SEGLER has designed and is producing conical screw blenders for the processing of a cellulose based material. The fibrous mixture is e. g. used as a thickening and binding agent.

**Implementation:**

- Conical screw shaft with progressively pitch to enable perfect mixing irrespective of the fill
- Agitator with robust chain drive
- Lid with a sturdy bumped boiler head
- Blender screw shaft without bottom bearing (overhung arrangement)
- Reduced drive power required due to regional energy input



- No mixture impurity hazard by oil lubrication
- Drive designed for minimal maintenance
- Food-grade, suitable for CIP cleaning
- Conical screw blender with CE type examination and TÜV certificate approved for ⚡ zone 20 and/or 0

**Application Example Primary Industry:**

**Continuous shovel mixer**

Two SEGLER continuous blenders in nonstop operation provide a reliable and homogenous blend of salts with various liquids.

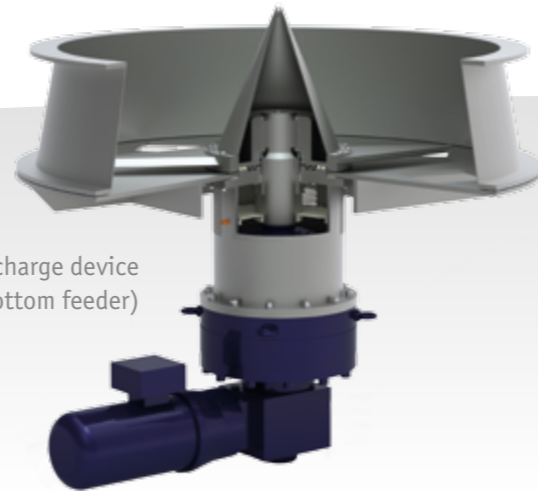
**Implementation:**

- Double shaft paddle blender
- Continuous operation with a flow rate up to 250 tons/hour
- Convertible bolted paddle with wear protection hardfacing
- Heavy duty and robust machine
- Blender shafts with intermeshing paddles
- Premium spur-gear drive ensures the mechanical synchronism of both shafts



## | Feed and Discharge

- Discharging device
- Discharge screws activator
- Furnace screw feeder
- Silo allocation
- Stuffing screw



Silo discharge device  
(life bottom feeder)



Triple U trough  
discharge screws activator  
with U trough gathering screw



Double U trough buffer screw with a  
pressure tunnel for pump feeding

## | Metering and Handling

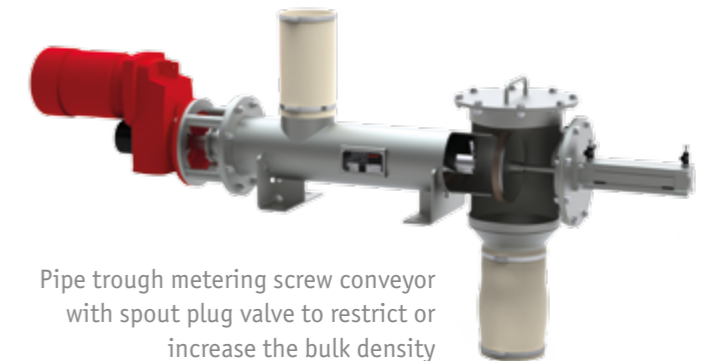
- Big bag facilities
- Metering screws
- Dry material feeder



Big bag discharge station with  
hopper and metering screw



Bag discharge station with  
filter and exhaust fan,  
bulking agitator,  
discharge screw and  
metering screw



Pipe trough metering screw conveyor  
with spout plug valve to restrict or  
increase the bulk density

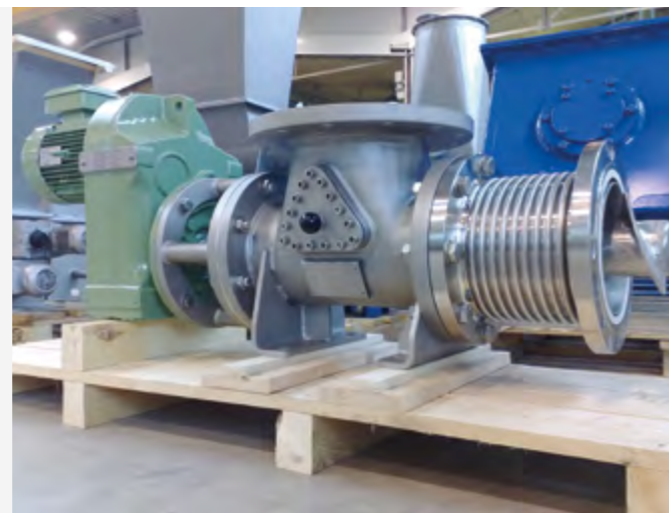
### Application Example Chemical Industry:

#### Screw conveyor for mill feeding

In order to lead a fibrous chemical product into the mill, SEGLER has developed and is producing that screw feeders. In this application, the risk of explosion, narrow space available and an enormous additional load by the rotary valve were decisive factors.

##### Implementation:

- Horizontal pipe trough screw conveyor
- Single screw shaft in overhung arrangement
- Space saving drive design with compactly bearing
- Chemical-grade, gas tight
- Flow rate 300 kg/h, continuous duty
- ⚠ zone 20 (inside), and 22 (outside)
- Sturdy casing design with inspection port



### Application Example Plastics Industry:

#### Double big bag filling station

Realisation of a low-dust big bag filling station with product switch for plastic flakes.

##### Implementation:

- Filling station with frame in a stable quadratic pipe design welded
- Frame with springs is height adjustable so that the tension of the big bags can be re-adjusted
- Vibration table to compact the big bag filling
- Distributor and maximum level indicator for optimising the bag fill level
- Height adjustable big bag traverse
- Platform scale

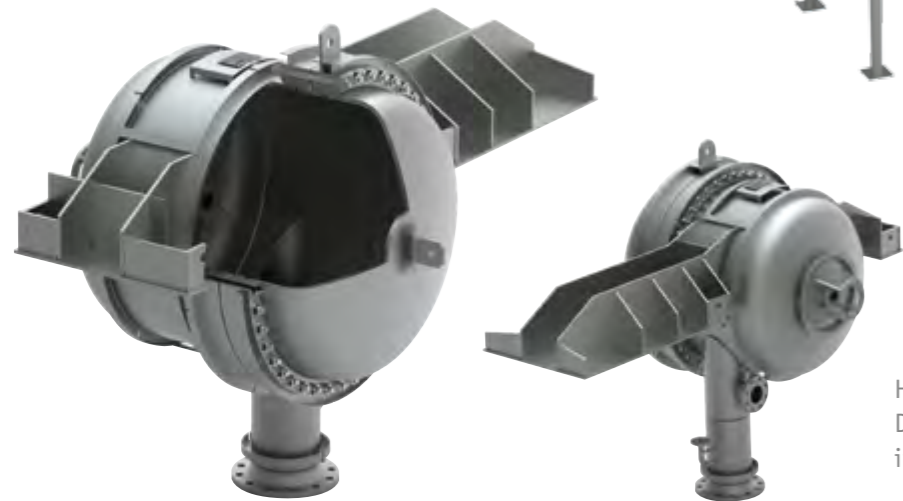


# I Tanks, Vessels and Apparatuses

- Agitator vessels
- Heat exchanger
- Storage tanks
- Reactor vessels
- Special apparatus for pharmaceutical, food, and chemical applications
- Heating and cooling piping
- Modifications and functional expansions



Round silo with spiral chute

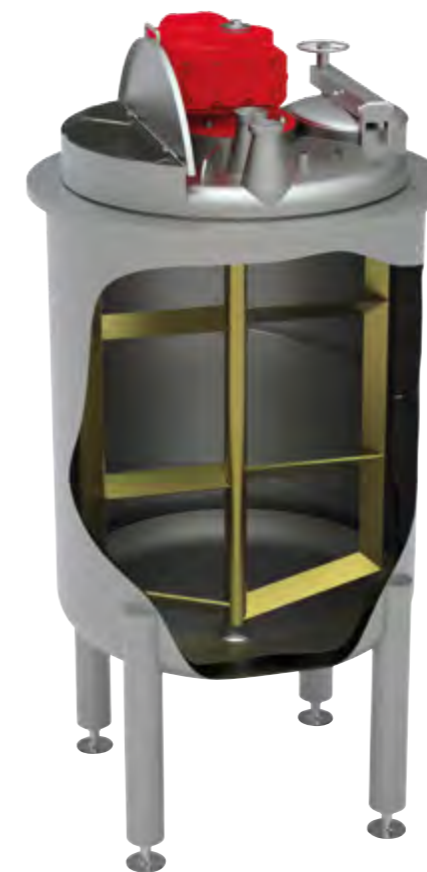
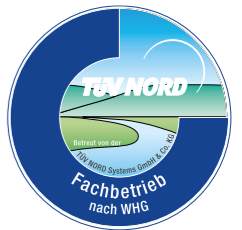


Hose reel vessel  
Designed for 50 bar g  
in accordance with ASME-Code

# I Tanks, Vessels and Apparatuses



Storage tanks



Agitator tanks with heating jacket and stirrer



Pressure equipment directive  
97/23/EG, AD 2000-Merkblatt HPO



Manufacturing qualification  
DIN 18800-7 C (DIN EN 1090-2 EXC2)



Specialized company  
according to WHG



Certified welding specialist  
DIN EN ISO 3834-3

## Application Example Food Industry:

### Triple level tank

For a food producer, SEGLER produced a 17 mtr tall agitator vessel. In this unit liquid foodstuffs reliably can be tempered and are kept in continuous motion until their further processing.

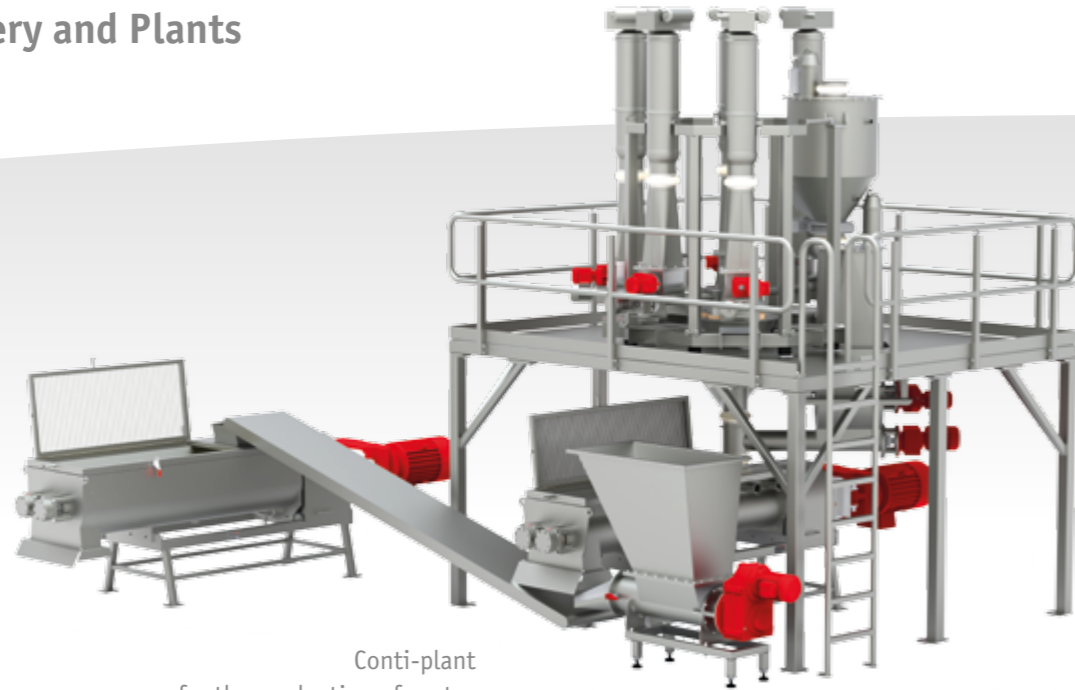


### Implementation:

- Storage tank with 3x 30,000 litres volume
- 3 agitators
- With heating and cooling function
- Stainless steel throughout
- Completely insulated
- Food-grade, suitable for CIP cleaning

## I Special Machinery and Plants

- Scrubbers
- Cooling systems
- Roll crushers
- Screw presses
- Bunker facilities
- Separation and sink/float systems
- And much more



Conti-plant  
for the production of pastes



Dewatering screw press

### Application Example Chemical Industry:

#### Tubular rotary cooler

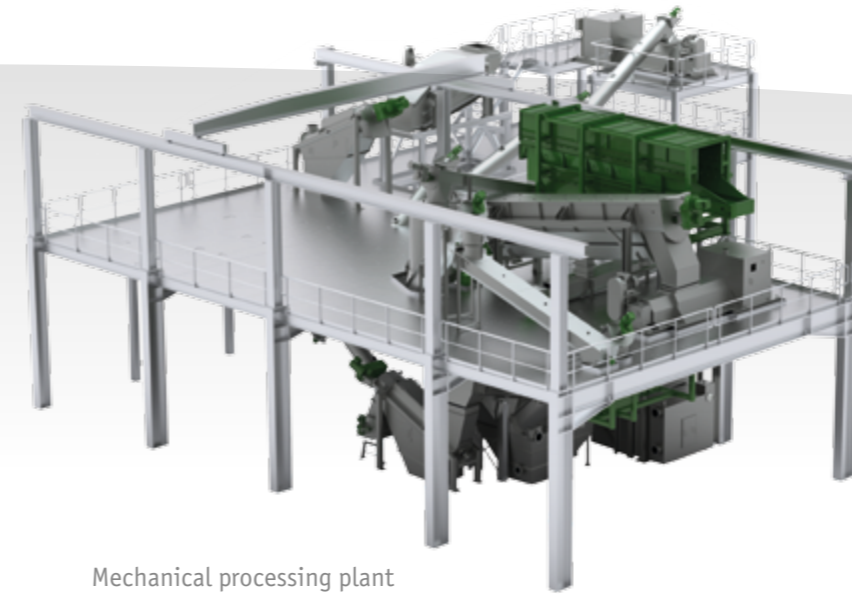
The project was to replace an existing facility for the cooling of mineral pigments with a new rotary cooler. The cooler realised by SEGLER allowed for more cooling performance (from 950°C down to 80°C) with concomitant flow increase.

#### Implementation:

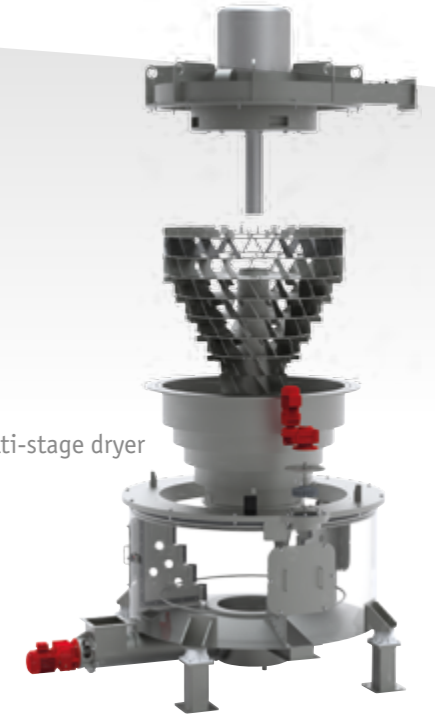
- 7 cooling pipes concentrically arranged move the product
- Counter current cooling air is guided past the pipes and is returned via a central insulated pipe
- Cooling efficiency: 722 kW, flow rate: 4.2 Mg/h
- 4 inspection ports



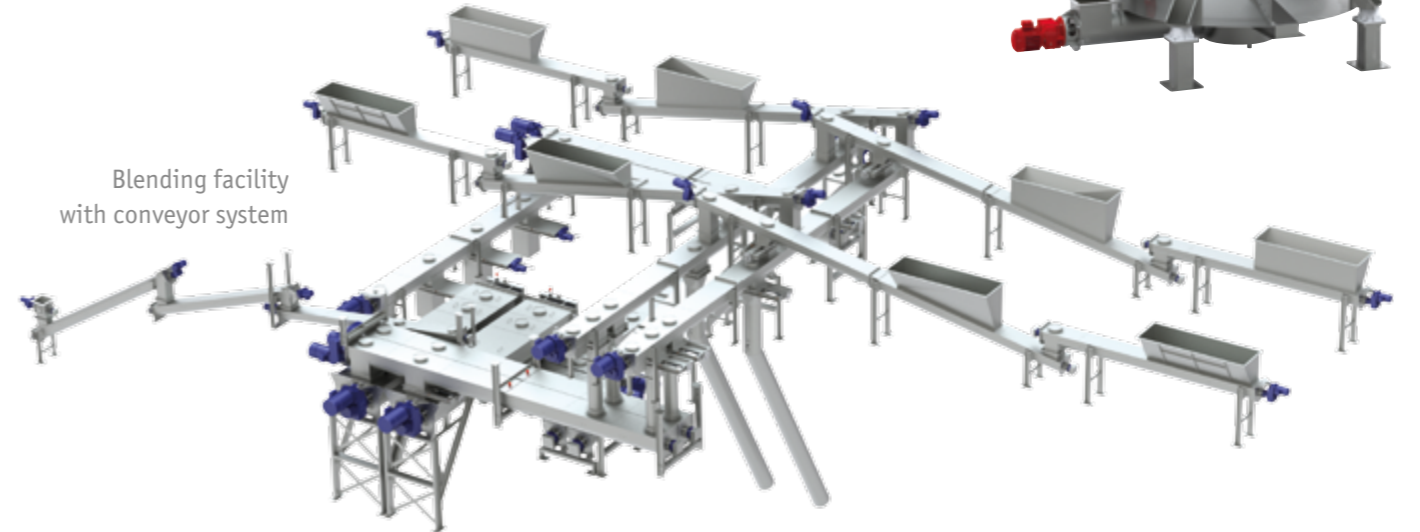
## I Special Machinery and Plants



Mechanical processing plant



Multi-stage dryer



Blending facility  
with conveyor system

### Application Example Petrochemical Industry:

#### Screw heater

In order to feed a reactor in the petrochemical industry with plastic powder, SEGLER developed and produced a horizontally heating and distribution screw.

#### Implementation:

- Sturdy single screw shaft with helix in full blade design in an Omega profile trough
- Heating jacket made of heat exchanging sheet metal with ASME licence including pressure test
- Heating jacket operating pressure 8 bar g
- Working pressure inside the trough is 2 bar g at 180°C
- ⚡ zone 20
- Dust-proof design
- Performance on average 90 to/h
- Reversible working direction



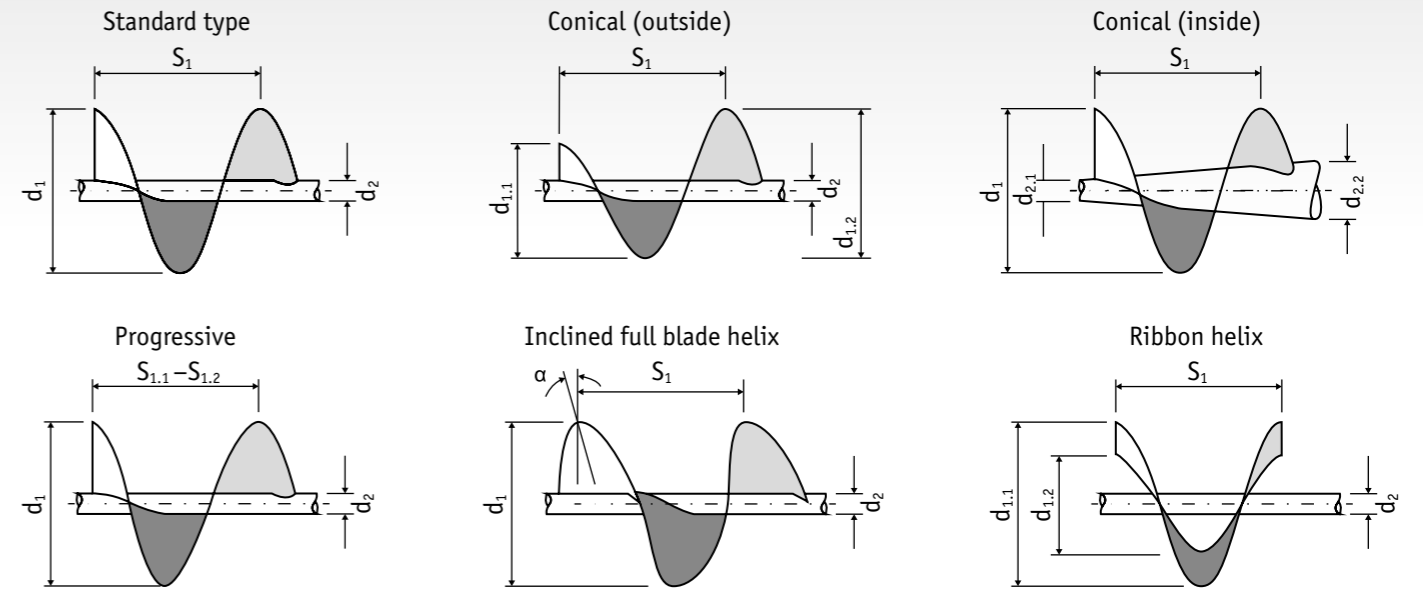
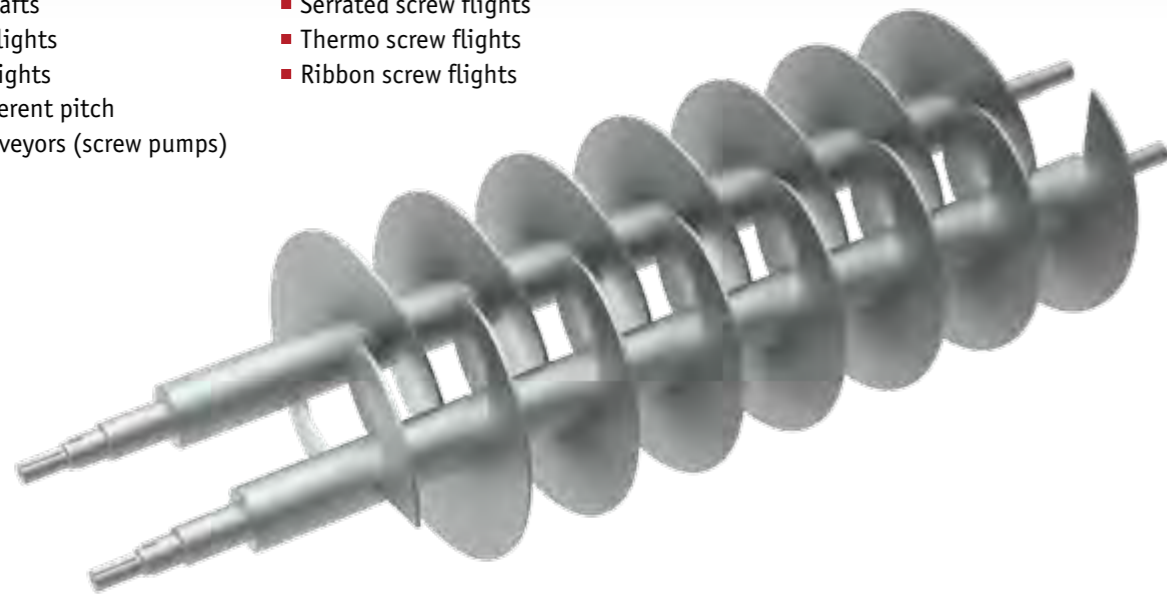


**Screw shafts**  
**SPIREX**

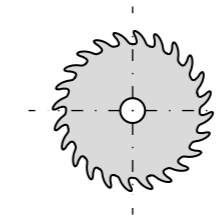
- Full screw shafts
- Paddle screw shafts
- Ribbon screw shafts
- Multiple screw flights
- Tapered screw flights
- Screws with different pitch
- Water screw conveyors (screw pumps)
- Special screws

**Screw flights**  
**SPIX**

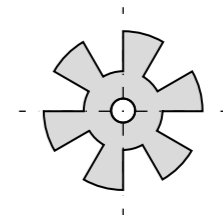
- Mixing paddles
- Screw flights (full blade design)
- Serrated screw flights
- Thermo screw flights
- Ribbon screw flights



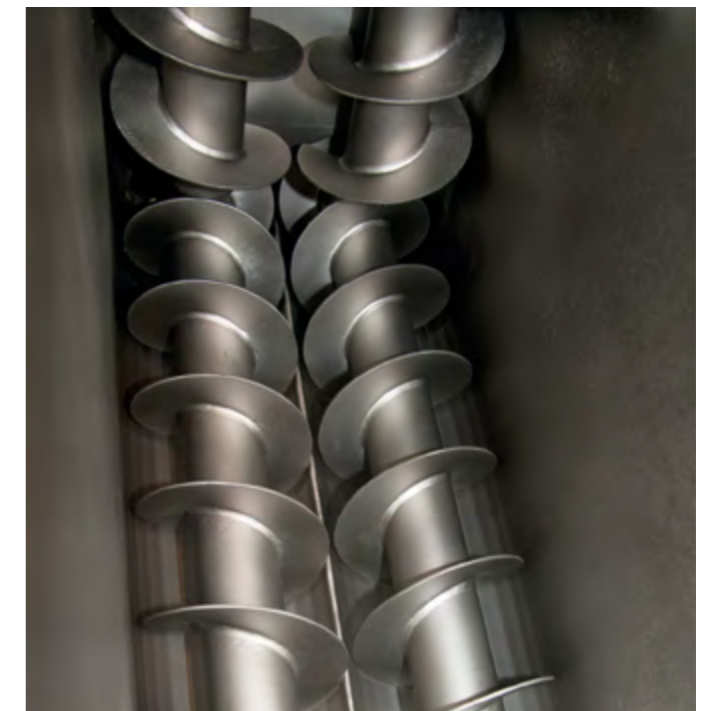
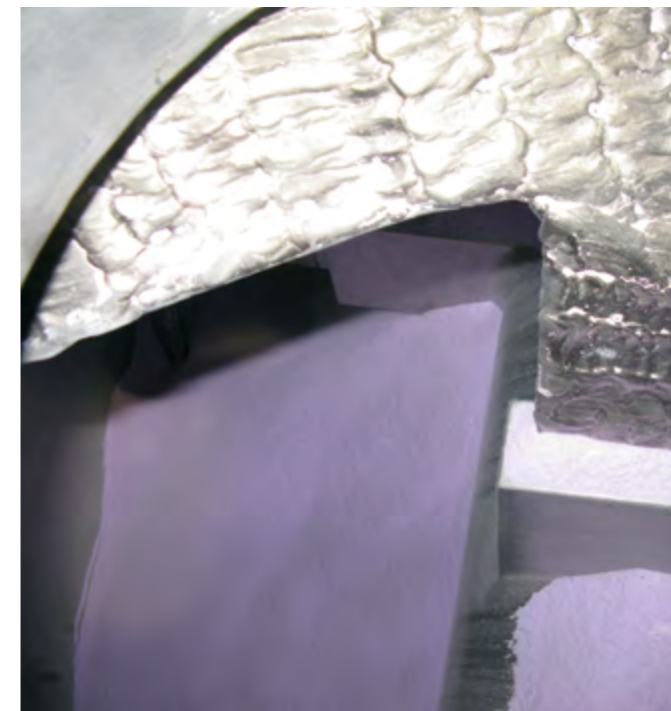
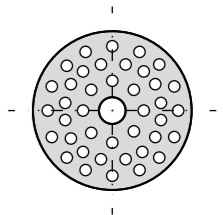
Special screw flights, serrated



Special screw flights with paddle segments



Special screw flights, perforated



SEGLER offers a 360°- Service. All services come from one source, allowing you to concentrate on your core business.

- Process consultation and design as well as inventory of local conditions
- 3D CAD Engineering inclusive detail work
- Built-up welding and hardfacing
- Laser machining, pickling, abrasive blasting, coating process
- Erection and commissioning
- Guidance for official acceptance and certifications
- Documentation
- Training
- Servicing, maintenance, and repair
- Spare part service
- Test-size scales incl. product analysis
- Research and development, also in cooperation with the German Institute of Food Technologies (DIL)

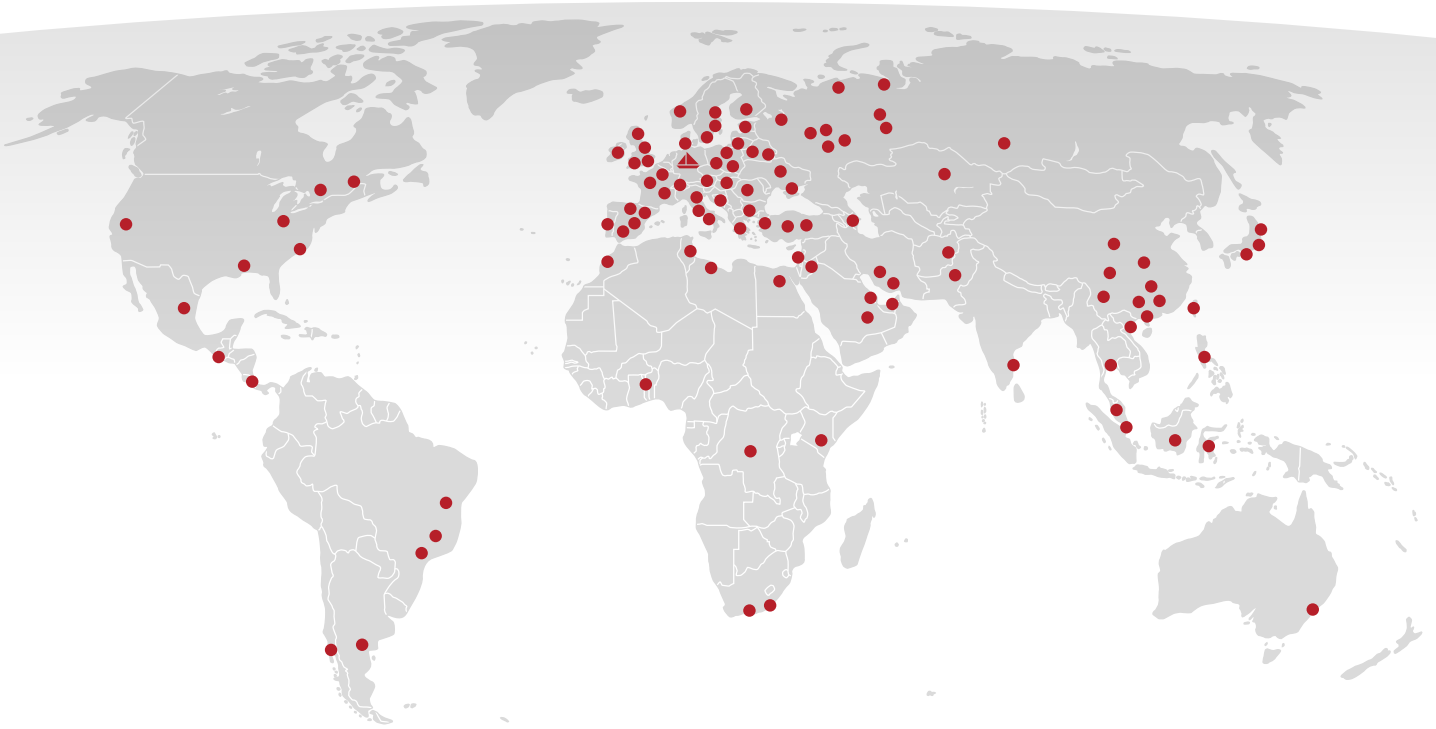


#### Capacities and Facilities:

#### Precision in Development and Production

We are continuously expanding our production facilities and our procedure portfolio. In order to manufacture systems of the highest quality and to guarantee optimum service we utilise the following technologies:

- 3D-CAD construction software ProEngineer
- CNC machining center
  - Flat bed lathes up to a diameter of 1000 mm, length 6000 mm
  - Tilt bed lathe with driven tools
- Cutting facilities
  - Laser cutting equipment up to 12 mm stainless steel
  - Plasma cutting equipment for up to 60 mm stainless steel and rotator for pipe and torispherical head work
- CNC bevelling centre with 210 to pressure
- Various screw flight presses, rollers, saws, and presses
- Welding
  - WIG, MIG/MAG, PTA
  - Welding robot with weld search function
  - Hardfacing with a variety of flux cored wires (also pipe hardfacing, internally and externally)
- Surface treatment technologies
  - Drying hall for coatings and paintings (also customized)
  - Pickling and neutralization facility for stainless steel
  - Abrasive blasting equipments separately for stainless and mild steel



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