schenck process

Durable, robust and extremely reliable under the toughest of conditions.

Schenck Process Group – competence in mining industries

we make processes work

Schenck Process Group – your partner worldwide

Acting locally to support your needs, the Schenck Process Group is working where you are.
With a global network of Locations and alliance partners, the name Schenck Process is synonymous throughout the world with process solution expertise and proven engineered technology for weighing, feeding, screening, handling and automation.

Our key skills include process system design, feeding and transfer of bulk materials, controlling flows of material, recording flows of goods, weighing goods and automating transport processes.

Members of the Schenck Process Group are:

schenckprocess
stock
schenckprocess group
fairfield
schenckprocess group
clydeprocess
schenckprocess group
pentec
schenckprocess group
schenckAccuRate
redler
schenckprocess group
screenex
schenckprocess group
macprocess
schenckprocess group

Process
Advanced
Service
System
PASS

Complete solutions for your requirements

Looking for after-sales solutions? Our extensive Process Advanced Service System (PASS) provides you with after-sales services – customised to your specific requirements.

The framework of our PASS program is designed with you in mind. With the guidance of our experienced after-sales team, you can create PASS packages comprising original spare and wear parts, various services and high quality components to meet your needs.

PASS is based on a modular principle – you can pick and choose any individual PASS product or a combination of products. Four categories help to easily find appropriate PASS products.

We will happily provide you with individual consultation, either as part of a PASS contract or on individual enquiry.

Whatever Full Service means to you – let's create it together!

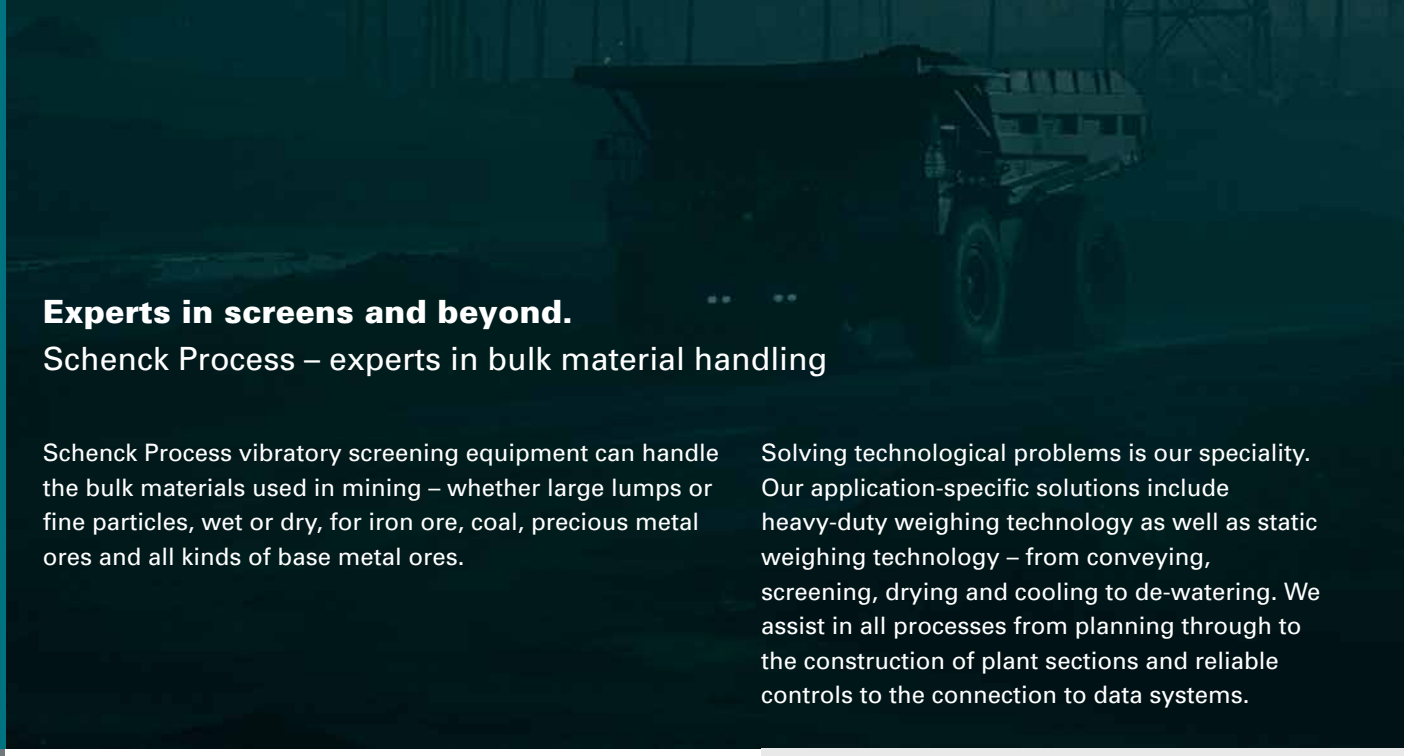
Our PASS service categories

PASS Repair

PASS Inspection

PASS Management

PASS Support



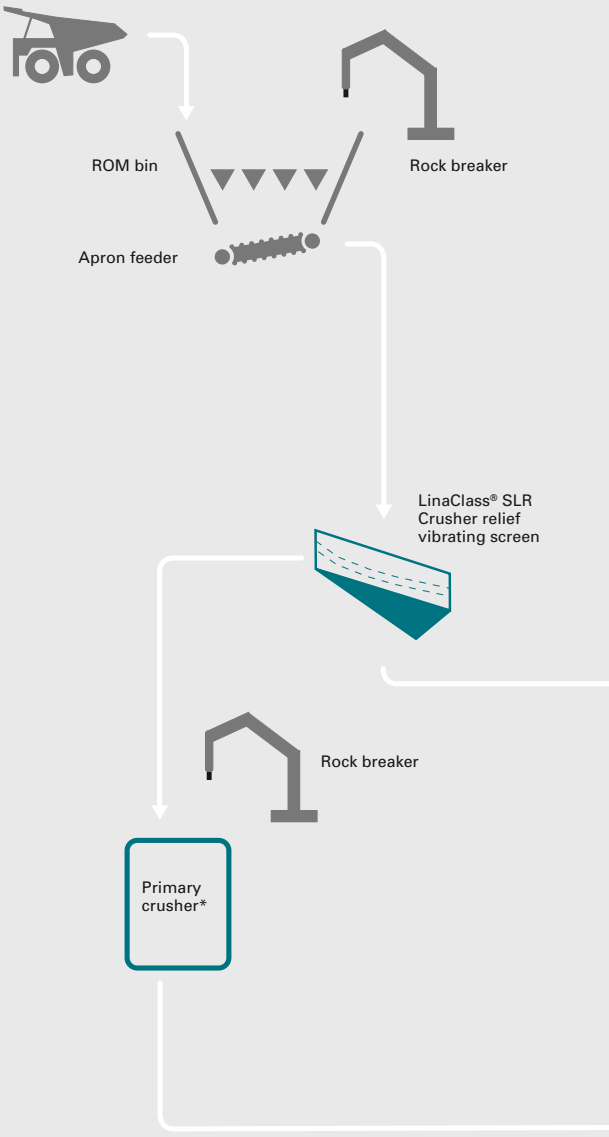
Experts in screens and beyond.
Schenck Process – experts in bulk material handling

Schenck Process vibratory screening equipment can handle the bulk materials used in mining – whether large lumps or fine particles, wet or dry, for iron ore, coal, precious metal ores and all kinds of base metal ores.

Solving technological problems is our speciality. Our application-specific solutions include heavy-duty weighing technology as well as static weighing technology – from conveying, screening, drying and cooling to de-watering. We assist in all processes from planning through to the construction of plant sections and reliable controls to the connection to data systems.

Application example:

Iron ore site



Legend:

Process step covered by the Schenck Process Group

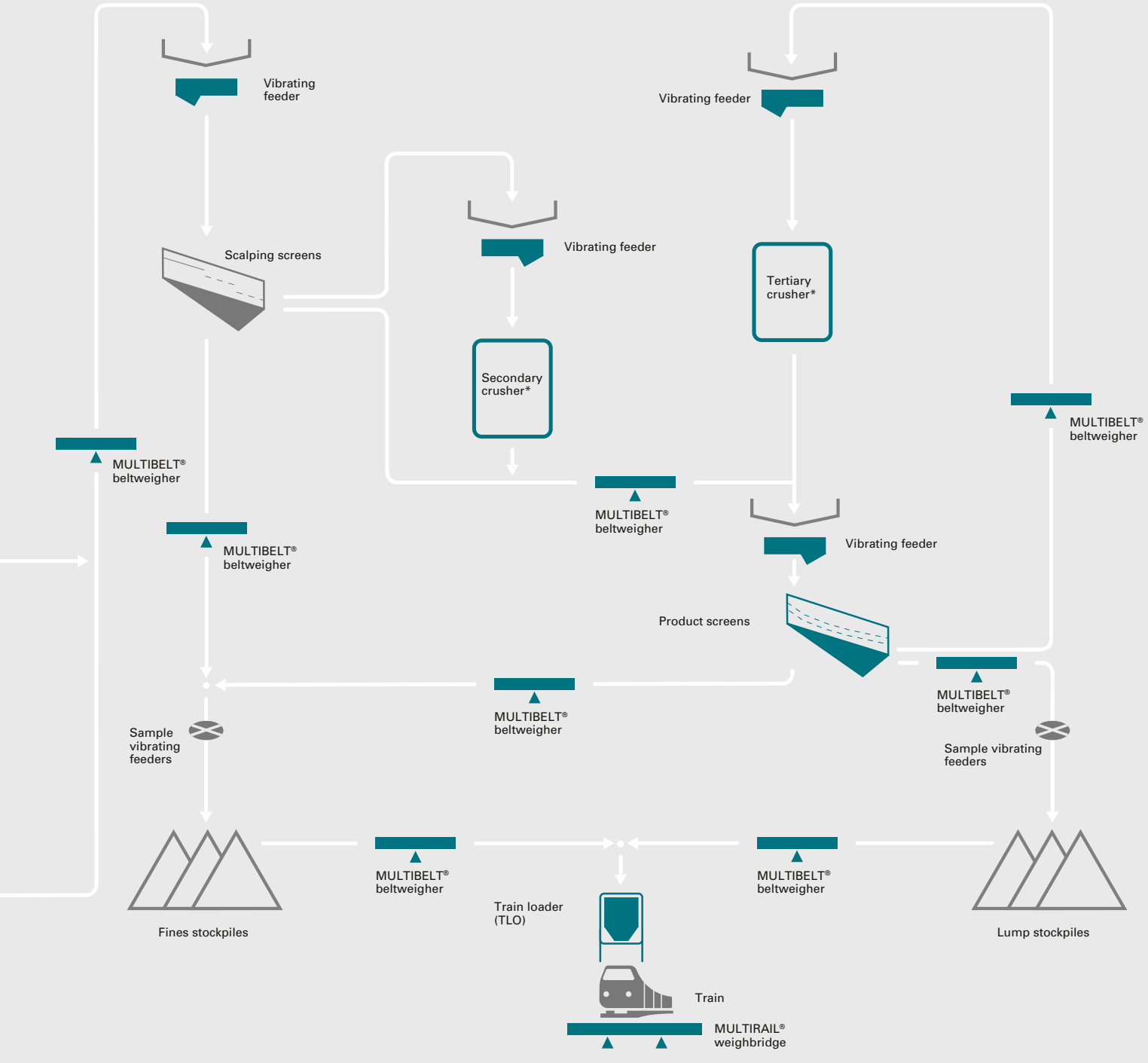
* Schenck Process in cooperation with Sandvik

Every year our coal preparation plants help to free around 10 million tonnes of raw coal from impurities – our contribution to environmentally-friendly energy production.

Exploration and preparatory work in mines requires outstanding technology and materials.
Schenck Process solutions are used where others fail.

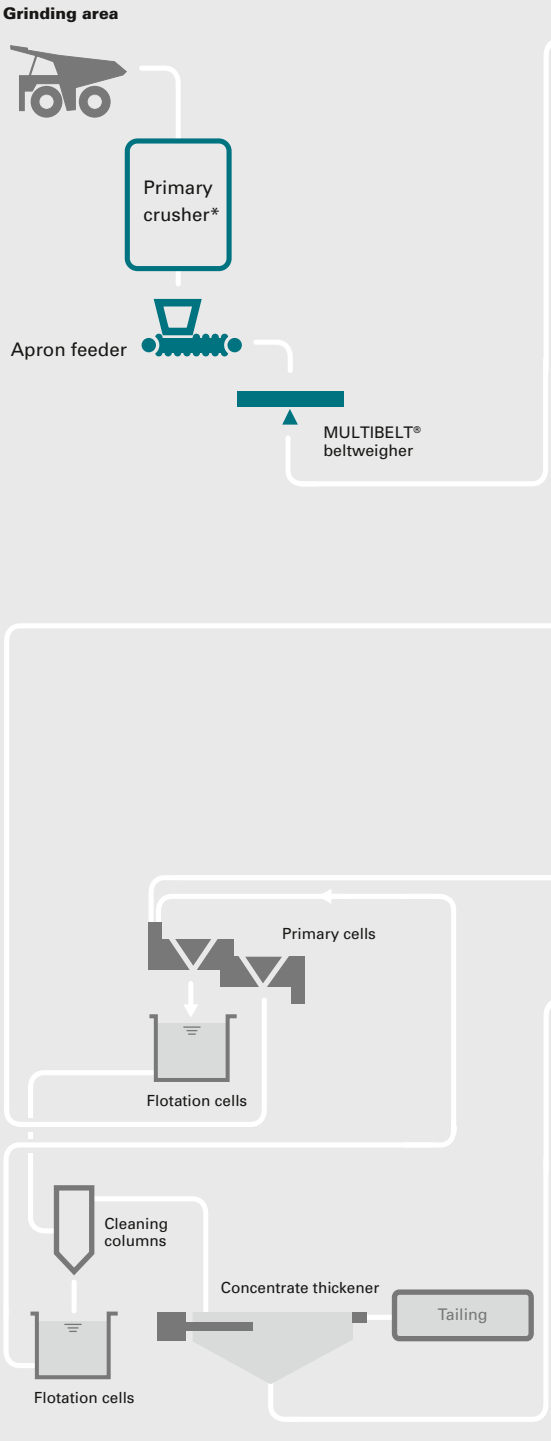
Schenck Process offers applications and solutions including

- modular coal preparation plants
- screening and separating systems
- filter and train loading systems
- scales and exploration systems for the coal, iron ore and precious & base metals industries



Application example:

Base metal plant with high pressure grinding rolls (HPGR)



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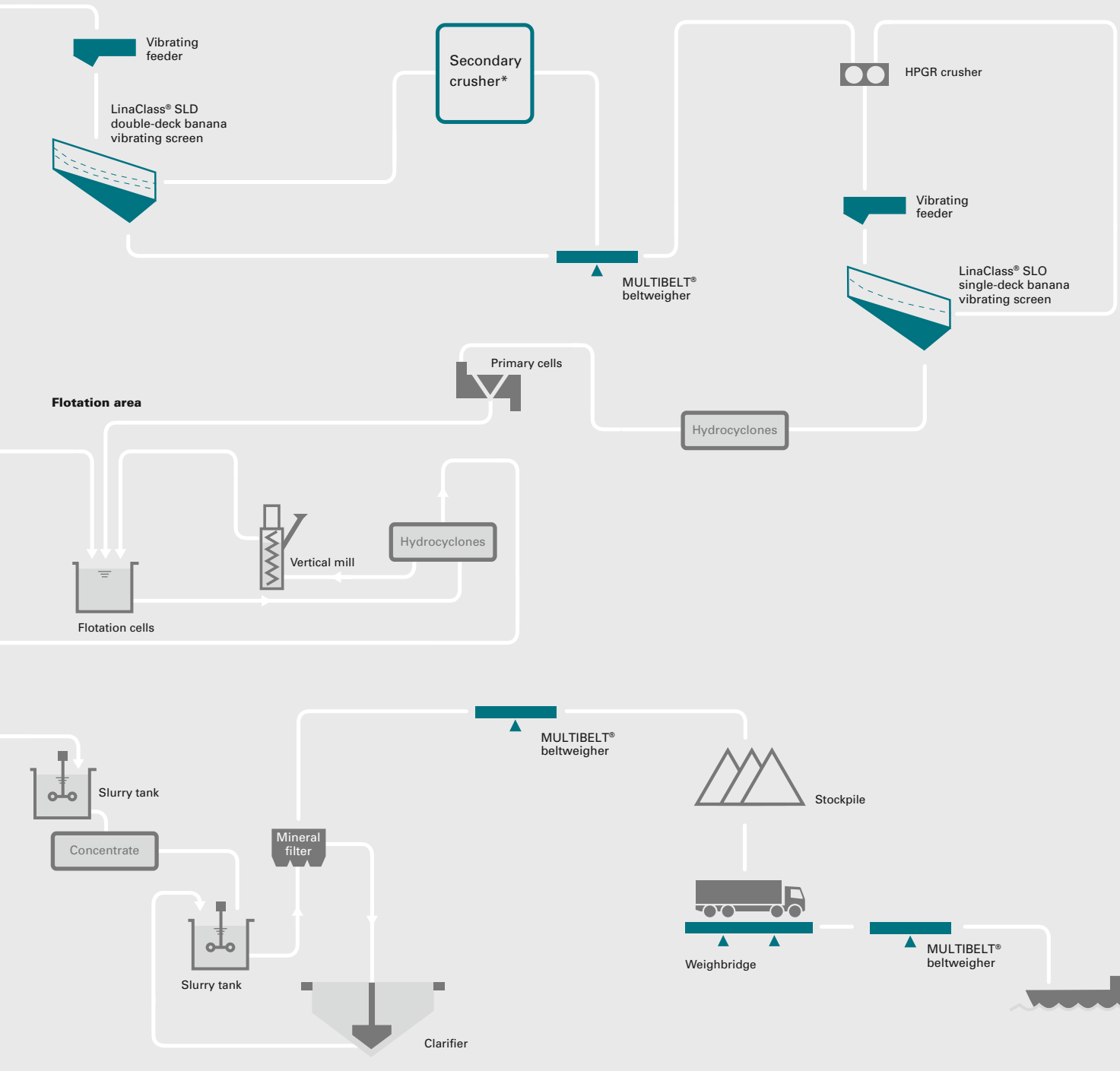
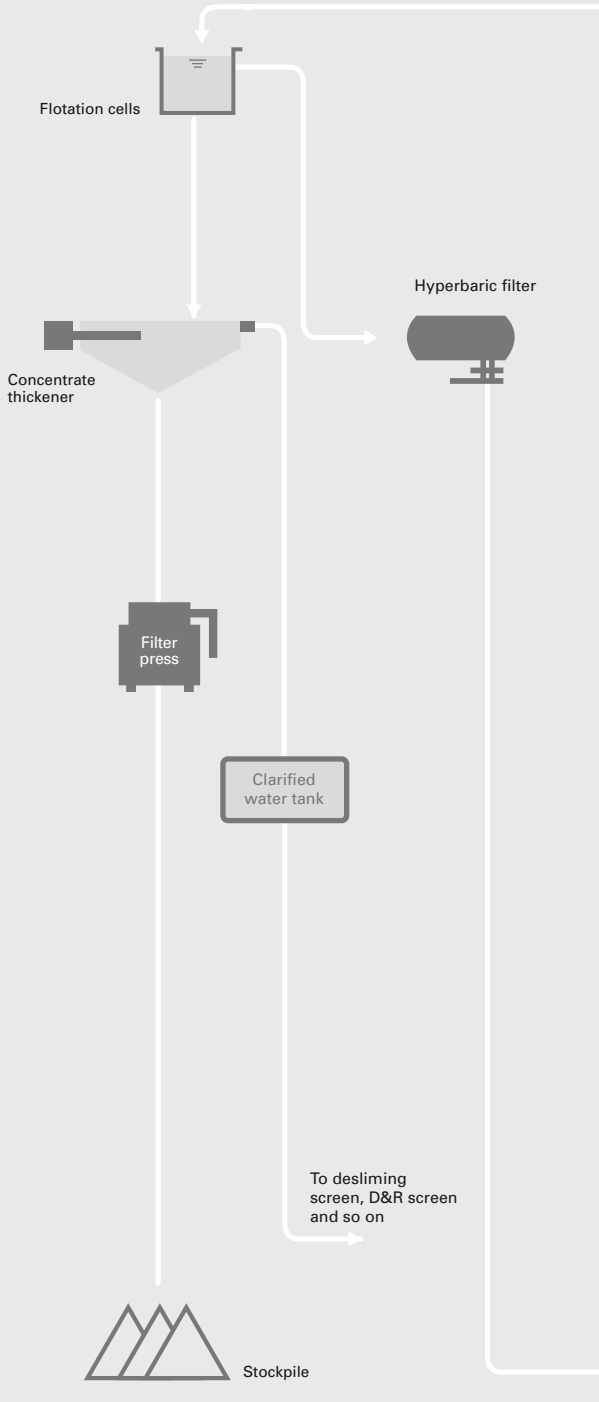

Vibrating feeder
LinaClass® SLD double-deck banana vibrating screen
Secondary crusher*
MULTIBELT® beltweigher
HPGR crusher
Vibrating feeder
LinaClass® SLO single-deck banana vibrating screen
Primary cells
Hydrocyclones
Flotation area
Vertical mill
Hydrocyclones
Flotation cells
MULTIBELT® beltweigher
Stockpile
Slurry tank
Concentrate
Mineral filter
Slurry tank
Clarifier
Weighbridge
MULTIBELT® beltweigher

Application example:

Coal preparation plant



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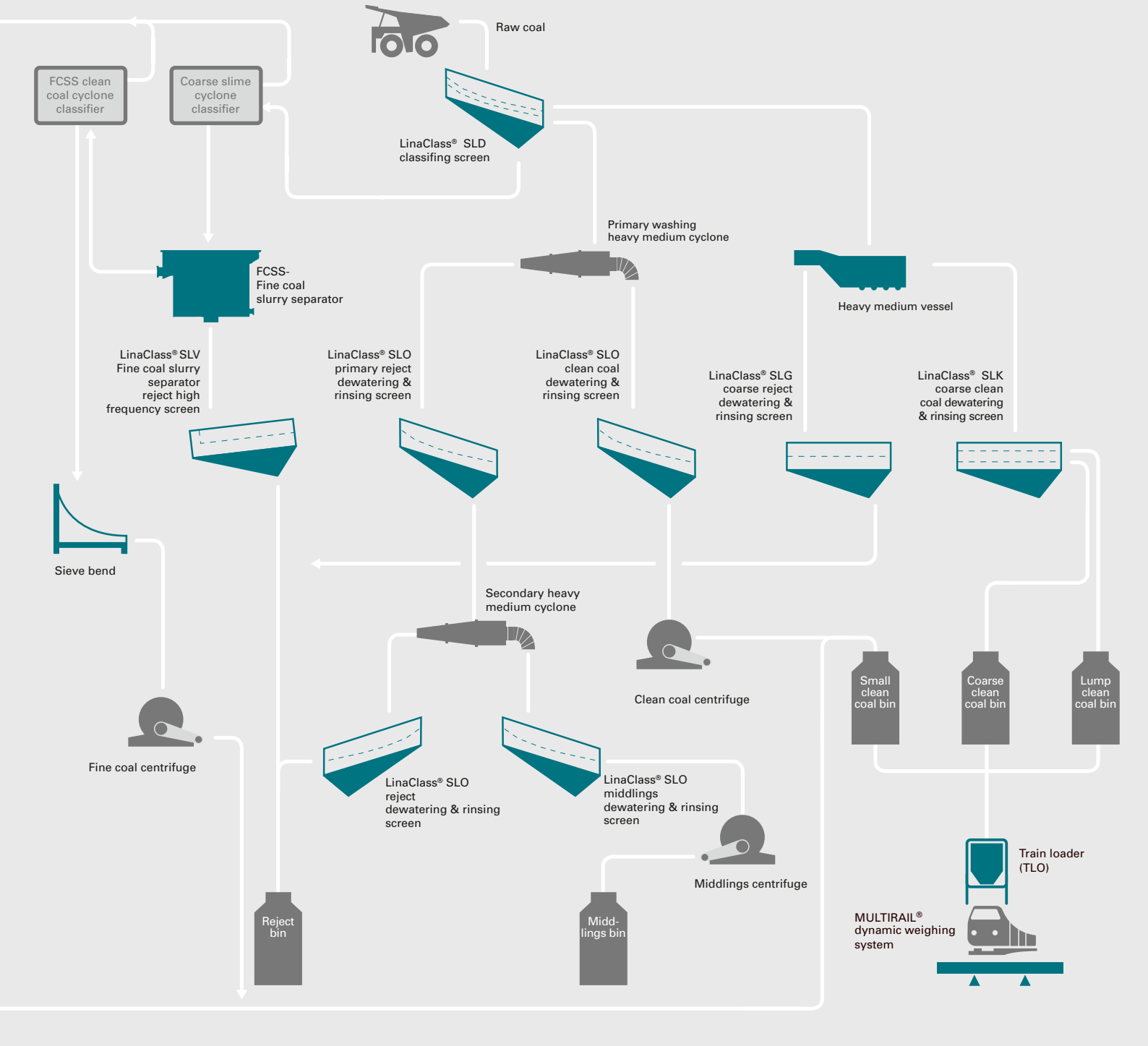

Raw coal
FCSS clean coal cyclone classifier
Coarse slime cyclone classifier
LinaClass® SLD classifing screen
Primary washing heavy medium cyclone
Heavy medium vessel
FCSS- Fine coal slurry separator
LinaClass® SLV Fine coal slurry separator reject high frequency screen
LinaClass® SLO primary reject dewatering & rinsing screen
LinaClass® SLO clean coal dewatering & rinsing screen
LinaClass® SLG coarse reject dewatering & rinsing screen
LinaClass® SLK coarse clean coal dewatering & rinsing screen
Sieve bend
Secondary heavy medium cyclone
Clean coal centrifuge
Small clean coal bin
Coarse clean coal bin
Lump clean coal bin
Fine coal centrifuge
LinaClass® SLO reject dewatering & rinsing screen
LinaClass® SLO middlings dewatering & rinsing screen
Middlings centrifuge
Train loader (TLO)
MULTIRAIL® dynamic weighing system
Reject bin
Midd- lings bin

LinaClass® linear vibrating screens – universal application, high performance

Accurate classification of different materials:
Do you need to classify ore, coal, coke, base metals or rock reliably in large quantities? Then you need solutions which can be specially adapted in order to achieve the high quality required.

Our solutions:
Schenck Process linear vibrating screens fulfil all these requirements perfectly. They can handle the largest quantities of materials and classify them to a high level of accuracy. Driven by robust DF force exciters, they are specially adapted to the widest range of requirements.

Flat-deck screen machine:
The classic version for the classification of all bulk solids suitable for screening. All common screen panels can be used. Available as a single or double deck machine.

Banana-type screen machine:
This machine takes its name from the banana-like arrangement of the screen panels. This enables the screening of larger quantities of material with a high content of fine particles. The advantage in comparison to the conventional screening machine: a much larger feed quantity with the same screen area. Available as a single or double deck screen machine.

Scalping screens/product screens:
For the automatic loading and unloading of crushers.

Drainage screen machine:
A variant of the single and double deck linear vibrating screen machine for the washing, drainage, cleaning, preliminary classification, wet screening or screening out of foreign bodies.

Further benefits:
Ease of maintenance, long working life, maximum availability, reliable and consistent quality.

Integrated feed box
Schenck Process machines feature an integrated feed box eliminating the extra cost of a high wear bolt-on unit.

Performance tested and checked in the Schenck Process workshop
Longevity and performance assured. Each and every screen is test run in the workshop and tuned using Schenck Process vibration analysis technology and proprietary testing procedures to confirm that it has been built properly and performs to specification.

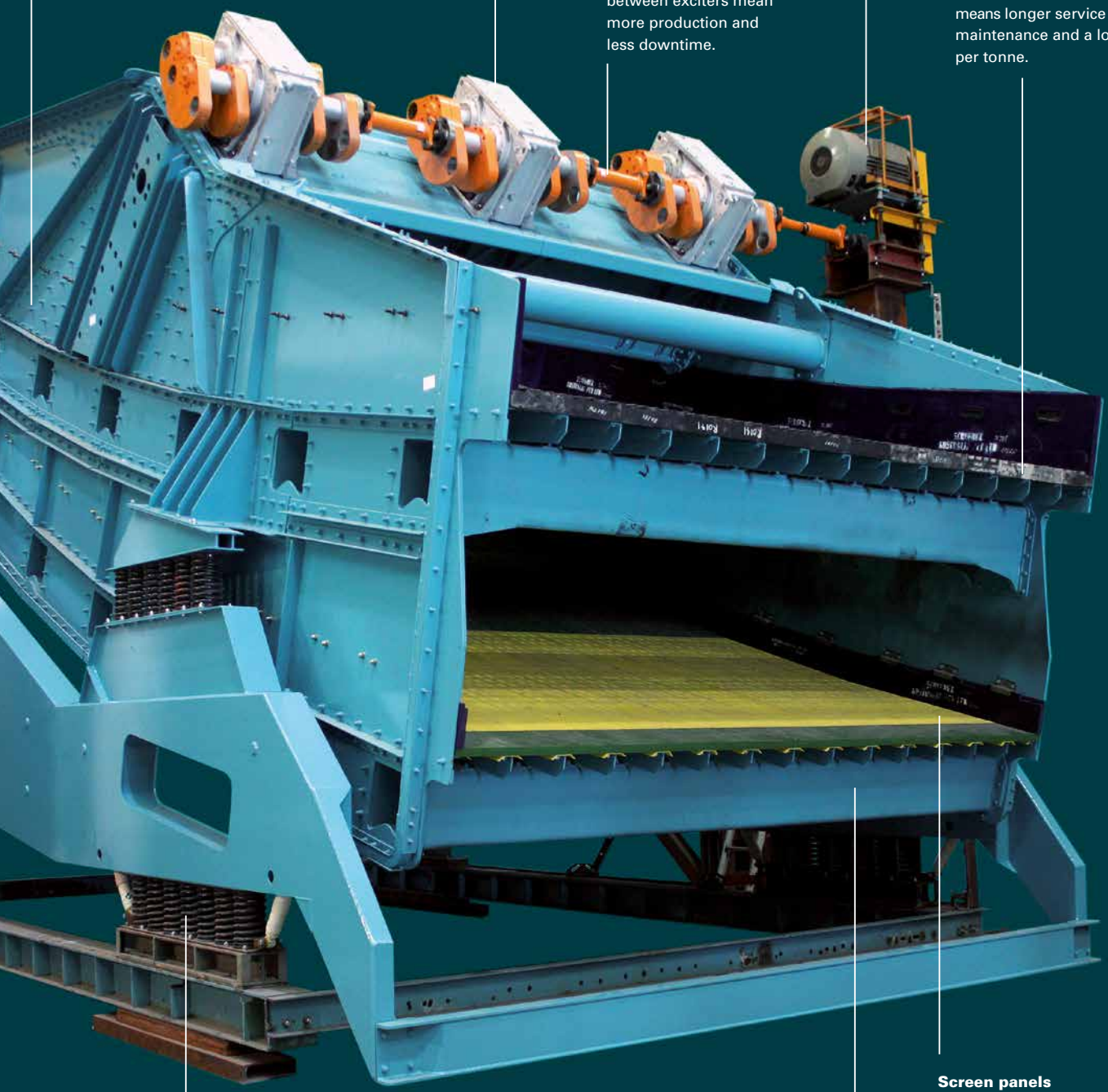
HuckBolted construction
Over 1000 HuckBolts® in the sideplates but no welds, the sideplate has no residual welding stress and no material discontinuities to compromise the fatigue strength of the machine. This important feature contributes to the exceptionally long service life typical of Schenck Process machines.

Economical, smooth running
The Directional Force Exciter ranges from Schenck Process make the ideal drivers for linear motion vibrating screens. Oil lubrication and optimised roller bearing and gear pairing ensure smooth running, longer exciter working life, resulting in outstanding economy.

Tuned for optimum productivity
Schenck Process drive systems are designed to allow us to tune the run speed of your machine for optimum performance.

Maintenance-free
Maintenance-free shafts between exciters mean more production and less downtime.

Thicker deck rails
Schenck Process machines are designed to carry the weight of ultra heavy duty deck media with extra high sideliners. This means longer service life, less maintenance and a lower production cost per tonne.



Vibration isolation technology second to none
A countermass isolation frame ensures the maximum level of vibration isolation from the vibrating screen. This makes the plant structure a more people friendly environment and reduces the dynamic loads produced by the screen resulting in less material needed in the support structure, a lower-cost plant and fewer greenhouse gases for the plant construction.

Increase production with larger, not more machines
Using fewer yet larger machines reduces upfront plant build cost, lower greenhouse gas emmissions and shorter leadtime resulting in lower power consumption, less maintenance and fewer wear parts.
3 m, 3.6 m 4.3 m or even 5 m wide machines are the basis of the Schenck Process range of widebody vibrating screening machines that can be supplied with matched vibrating feeders to optimise material withdrawal from bins and feed presentation onto the screen.

Screen panels
In order to perfectly adapt screening machines to individual challenges, Schenck Process has developed the screen panels, making it a one-stop shop for quality and safety.

Individual solutions for the most extreme conditions

Preparation in coal mining, the processing of non-ferrous metals, and applications in mining require technology and materials capable of withstanding the most extreme conditions.

Schenck Process solutions prevail where others give up. Our products are durable, indestructible and extremely reliable under the most difficult conditions.

→ SCREENING

LinaClass® SLG/SLK/SLS
Linear vibrating screens
- Widths up to 4,500 mm
- Lengths up to 11,500 mm
- DF exciters
- Single, double and triple deck designs

→ SCREENING

LinaClass® SLO
Banana screens
- Multi-slope designs for the highest fines recovery
- Widths up to 4,500 mm
- Lengths up to 10,800 mm
- Reliable DF exciters
- Single and double deck designs

→ SCREENING

LinaClass®
De-watering screen
- Reverse incline or reverse banana style
- DF exciters or vibrator motor driven
- Widths up to 3.0m (10 ft)
- Lengths up to 8.0m (26 ft)
- High capacities for a wide range of materials

→ SCREENING

DF exciters

- Economic and powerful exciter for high performance
- Long service life and extremely calm operation
- Minimum maintenance require-ments
- Optimum, application-orientated graduation of exciters
- Low operation noise level
- 98% availability
- Ideal for use in continuous operation

→ SCREENING

Screen panels

- Panels made from highly wear-resistant polyurethane, system panels and steel panels
- Maximum dimensional accuracy through mechanical rework
- Shore hardnesses of 55 to 90 Shore A

→ FEEDING

Vibrating feeder

- Straight or diverging pan
- Directed-force exciters
- Reliable and proven designs
- Several liner material available

→ FEEDING

Vibrating feeder

- Straight or diverging pan
- Directed-force exciters, unbalance motors or magnetic exciters
- Reliable and proven designs
- Several liner material available

→ CONDITION MONITORING

CONiQ®

Condition monitoring

- Maximize machine life
- Prevent breakdowns
- Immediate detection in case of failure
- Optimize machine operation (inspection)
- Measure mechanical vibration and temperature of exciters
- Measure 6D motion of screen or feeder
- Generate characteristic values
- Configurable alarming
- Suitable for local environmental conditions
- Minimized cabling

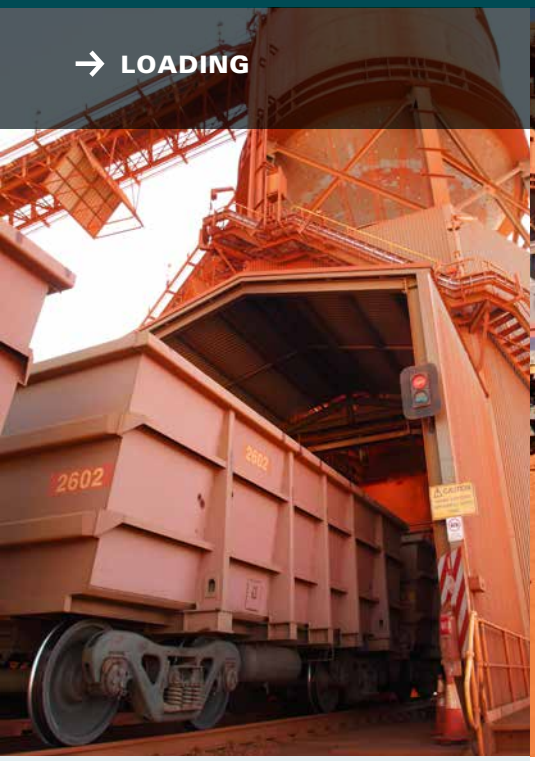
→ WEIGHING

MULTIBELT®

Belt weighing

- Precise mass flow measurement
- Standard and tailor-made design
- Accuracy up to ±0.25 %
- Optional legal-for-trade execution

→ LOADING



Train loader (TLO)
Train loading system
- Feed rate up to 6,000 t/h for coal and up to 12,000 t/h for iron ore
- Suitable also for other bulk materials
- Turn-key supply
- High process safety, availability and operational reliability

→ WEIGHING

MULTIRAIL® TrainLoadOut
Dynamic weighing of rail vehicles
- Increased average wagon load
- Optimised loading performance – no overload
- Improved rail logistics efficiency
- Management of roll back and data transmission
- Train loader (TLO) interface
- Calculating the front/rear and right/left load distribution in the wagon

→ CONVEYING

Mechanical conveying and MoveMaster®
Bulk conveying
- Tube belt conveyor
- U belt conveyor
- Corrugated belt conveyor
- Smooth material handling
- Horizontal transport and elevating
- Maintenance optimised design
- En-masse chain conveying

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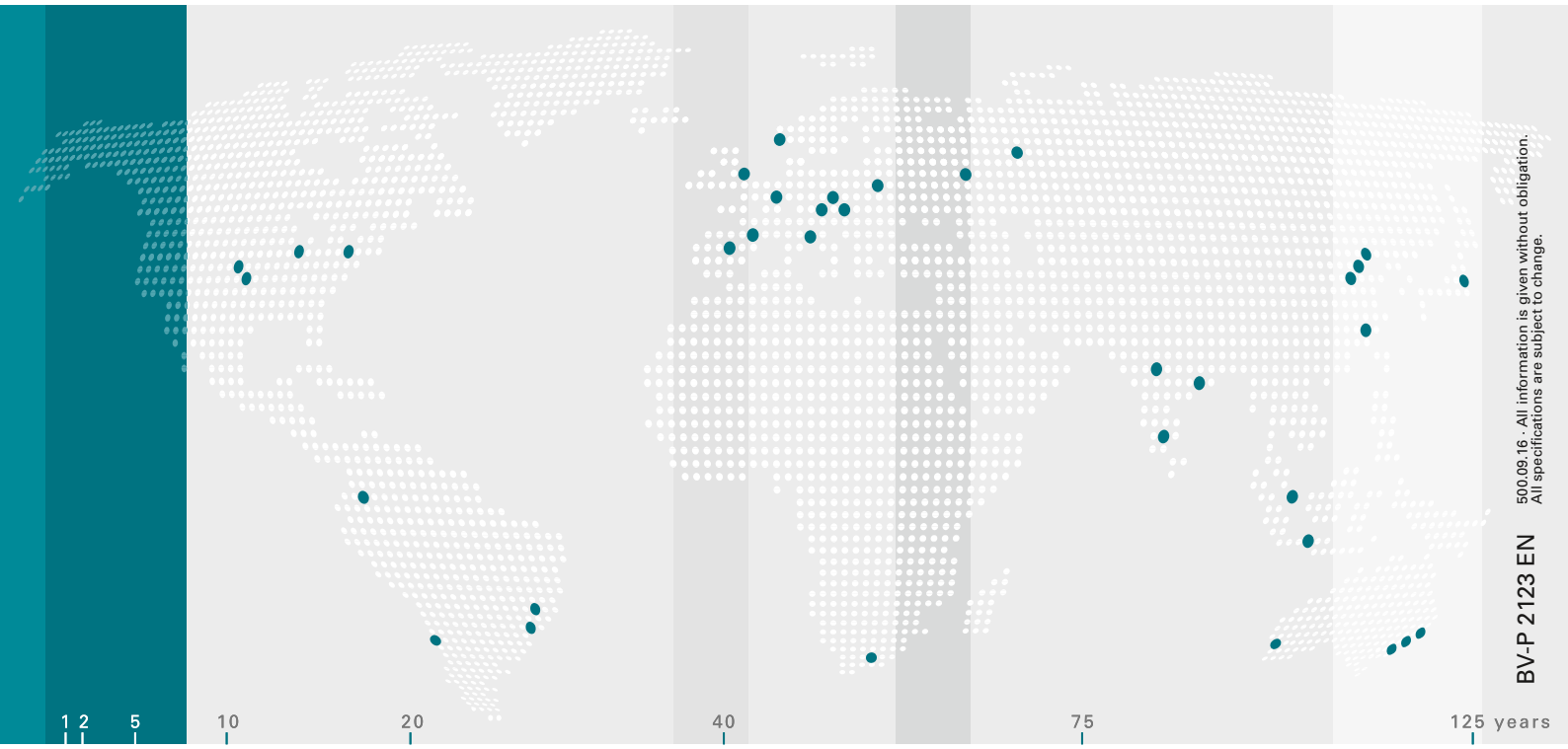

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500.09.16 · All information is given without obligation.
All specifications are subject to change.

The Schenck Process Group is a global market leader in
industrial weighing and feeding technology /// screening and separation systems for bulk materials /// dust collection and air filtration technology /// pneumatic and mechanical conveying solutions /// automation and diagnostic technology

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we make processes work