

Batch-Type Slurry Mixing Plant Type SCA-15-K

Containerized, Fully Automatic Mixing Plant

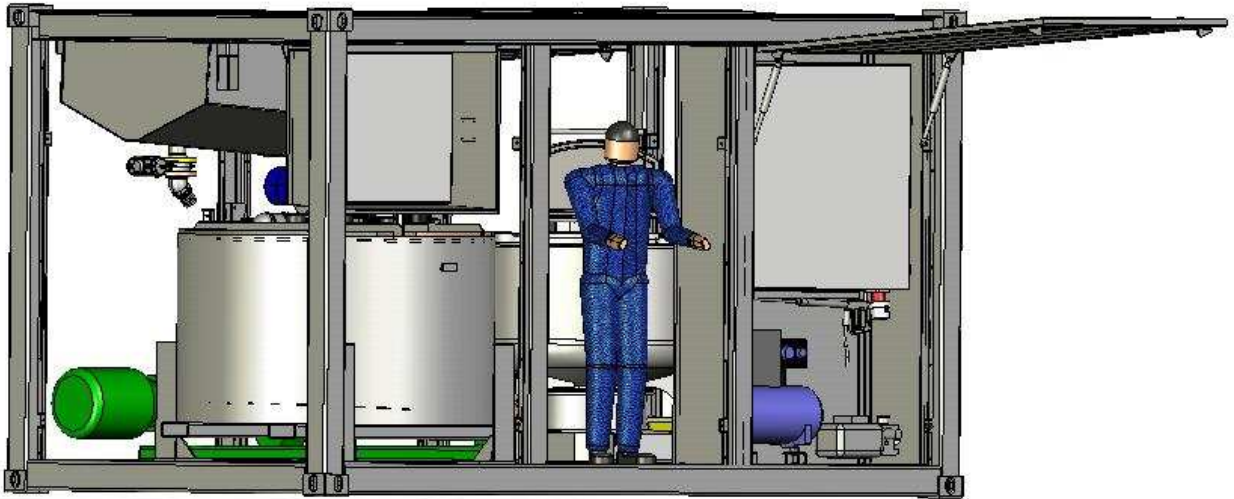


Image similar

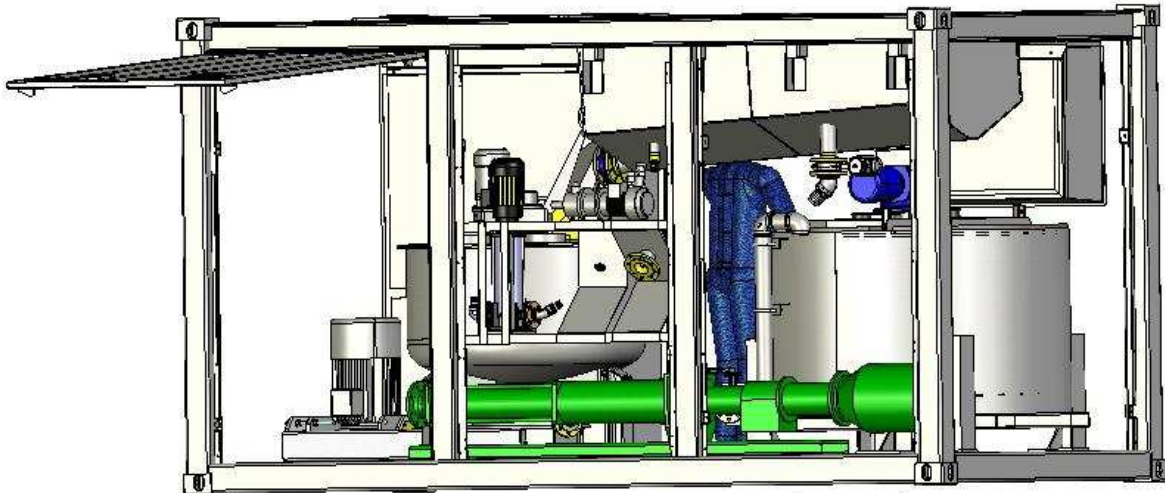


Image similar

We reserve the right to make technical modifications without prior notice and without assuming any obligation with respect to equipment previously supplied. The equipment shown may include optional special features. Technical data does not take into account operational efficiency. Error and misprints reserved.

MAT Mischanlagentechnik GmbH
Illerstrasse 6
D-87509 Immenstadt, Germany

Phone +49 (0) 8323 / 9641-0
Fax +49 (0) 8323 / 9641-650
Email mat@mat-oa.de
http// www.mat-oa.de

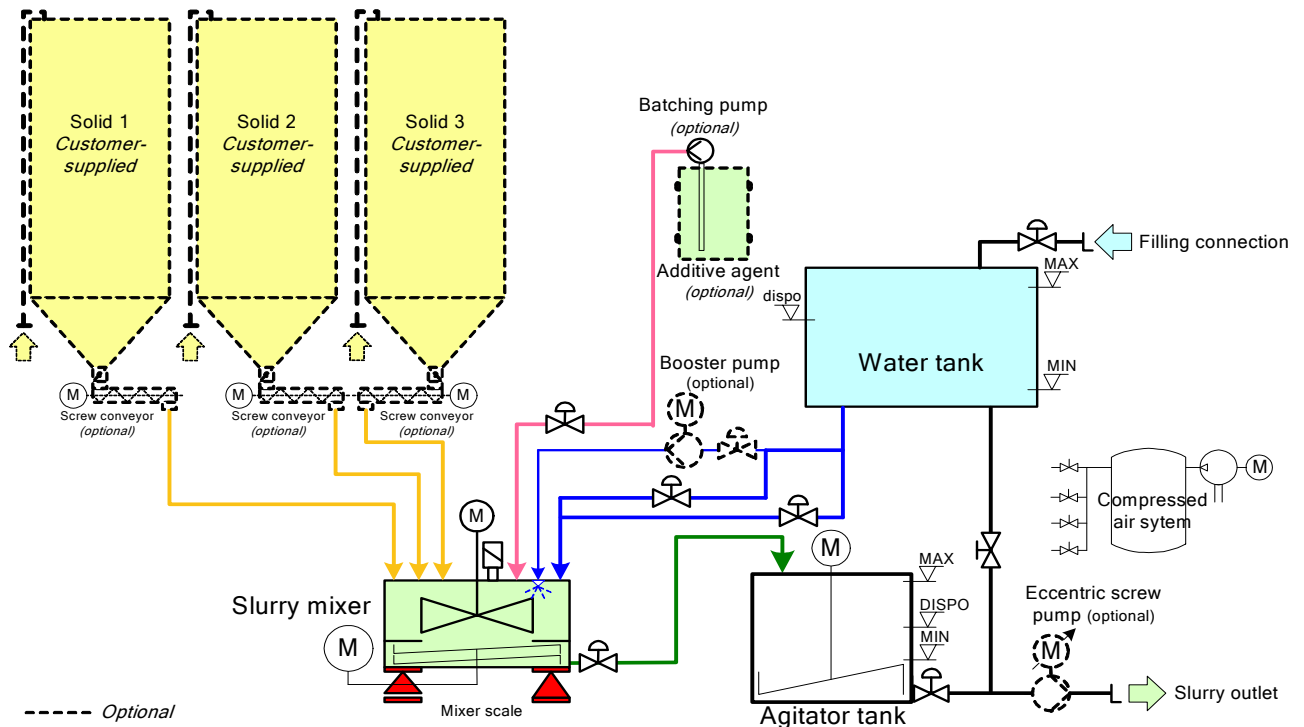
SCA-15-K SC-0000391_2011-10-17 (EN).doc

© 2009 by MAT GmbH

Page 1 of 6



Batch-Type Slurry Mixing Plant Type SCA-15-K



FIELDS OF APPLICATION

Preparation and delivery of flowable, colloiddally mixed slurries for anchors, soil mixing, invert grouting, jet grouting, cavity grouting, drilling muds, etc.

- Processable liquids: Clear water, waste water, etc.
- Processable solids (powdery): Cement, bentonite, Dämm®r®, rock meal, etc.
- Maximum processable solids particle size: 4.0 mm (*3)
- Maximum processable slurry density: 1.9 kg/dm³ (*1)
- Maximum processable Marsh viscosity: 100 sec/dm³ (4 mm nozzle)
- Maximum mixing capacity: 15 m³/h (*2)

(*1) = depending on the chemical and physical properties of the slurry and its ingredients.

(*2) = depending on the mix recipe, the mixing time and the batching time for the solid components.

(*3) = depending on the processable solids.

The Decisive Advantages:

- ✓ Optimum slurry quality
- ✓ Versatility of use
- ✓ Ease of operation and maintenance
- ✓ High economic efficiency
- ✓ Low wear

We reserve the right to make technical modifications without prior notice and without assuming any obligation with respect to equipment previously supplied. The equipment shown may include optional special features. Technical data does not take into account operational efficiency. Error and misprints reserved.

MAT Mischanlagentechnik GmbH
Illerstrasse 6
D-87509 Immenstadt, Germany

Phone +49 (0) 8323 / 9641-0
Fax +49 (0) 8323 / 9641-650
Email mat@mat-oa.de
http:// www.mat-oa.de

SCA-15-K SC-0000391_2011-10-17 (EN).doc

© 2009 by MAT GmbH

Page 2 of 6



Batch-Type Slurry Mixing Plant Type SCA-15-K

2. Description of Plant

The plant consists of the following main component assemblies:

1. 1 Container-type Base and Protective Frame

for accommodating and mounting the plant components described below and for conveniently installing the plant on paved underground,
complete with:

Container corners; container floor with grating, and container roof
Interior lighting

Container roof with the necessary lead-through openings for the powdery solids and the venting pipe with mountable filter

2. 1 Batch-Type Slurry Mixer

for homogeneous colloidal mixing of flowable slurry,
complete with:

- 1 mixer vessel with cover and all required feed line connections
- 1 venting filter
- 1 mixer rotor with bolted-on mixing tools, complete with drive
- 1 stirrer with stirring tool.
- 1 discharge line to the agitator tank with electro-pneumatically actuated valve.

3. 1 Fully Electronic Mixer Scale - not calibratable -

for gravimetric, additive batching of water and binder into the mixer vessel,
complete with:

- 3 strain gauge load receivers with evaluation electronics

4. 1 Water Batching Assembly

for gravimetric batching of the mixing water into the mixer,
complete with:

- 1 water buffer tank with cleanout, made of sheet steel, welded airtight, zinc plated.
- 1 water buffer tank filling system, complete with fill level probe, electro-pneumatically actuated valve, and filling line.
- 1 water feed line for coarse batching, complete with electro-pneumatically actuated shut-off valve.
- 1 water feed line for fine batching without booster pump, complete with electro-pneumatically actuated shut-off valve

5. 1 Agitator Tank

for temporary storage of mixed slurry,
complete with:

- 1 filling line from mixer
- 1 cylindrical steel sheet tank with inclined bottom and grating cover
- 1 agitator with adjustable bottom scrapers
- 1 electric gear motor with agitator shaft supported on the tank edge
- 1 MIN / MAX fill level probes
- 1 discharge valve with screen box, electro-pneumatically actuated, to pump suction line
- 1 discharge valve manually operated for complete emptying and cleaning

6. 1 Compressed Air Supply System

for actuating all pneumatic drives of the mixing plant,
complete with:

- 1 compressor with pressure tank, water drain valve, pressure switch, etc.
- 1 set of electro-magnetic pilot valves.
- 1 set of connection cables incl. maintenance unit.

We reserve the right to make technical modifications without prior notice and without assuming any obligation with respect to equipment previously supplied. The equipment shown may include optional special features. Technical data does not take into account operational efficiency. Error and misprints reserved.

MAT Mischanlagentechnik GmbH Illerstrasse 6 D-87509 Immenstadt, Germany	Phone +49 (0) 8323 / 9641-0 Fax +49 (0) 8323 / 9641-650 Email mat@mat-oa.de http// www.mat-oa.de	SCA-15-K_SC-0000391_2011-10-17 (EN).doc
		© 2009 by MAT GmbH
		Page 3 of 6



**Batch-Type Slurry Mixing Plant
Type SCA-15-K**

7. 1 Electrical Function and Power Control System with Hinged Cover

for manual and fully automatic operation of the entire mixing plant..

The control system is installed in fully operational condition in a steel-sheet control cabinet, wired, and function-tested in accordance with the regulations of the Association of German Electrical Engineers (VDE).

All control and indicator elements required for operating and monitoring the plant are functionally arranged in the front door of the control cabinet.

Main Functions of Mixing Plant Control System:

- Main Switch
- EMERGENCY STOP
- Batch tracking record, volumes tracking record
- Recipe management (5 recipes max.)
- MANUAL / SINGLE BATCH / CONTINUOUS MODE selector switch
- BATCH PREPARATION illuminated pushbutton
- INTERIM STOP illuminated pushbutton
- ACKNOWLEDGE TROUBLE illuminated pushbutton

Main Functions of Mixing Plant Control Touch-Panel:

- Mixer ON/OFF
- Mixer discharge valve OPEN / CLOSED
- Water buffer filling OPEN / CLOSED
- Water batching valve (coarse) OPEN /CLOSED
- Water batching valve (fine) OPEN / CLOSED
- Booster pump ON / OFF (optional)
- 3 x Solids batching ON / OFF "
- 1 x Additive batching ON /OFF (optional)
- Mixer scale display
- MIN / MAX agitator tank fill level display
- MIN / MAX / REPLENISH water tank fill level display
- Agitator tank drain valve OPEN / CLOSED
- TROUBLE alarming

3. Technical Specifications:

Overall Plant:

Maximum overall plant power input	40	kW
Mains AC supply voltage	400	VAC (+/- 5%); 50 Hz
Transport dimensions L x W x H	4,600 x 2,440 x 2,600	mm
Approximate transport weight (empty)	6,000	kg

Batch-Type Slurry Mixer:

Maximum mixer effective volume	750	dm ³
Mixer motor power	22	kW
Agitator tank motor power	1.1	kW

Mixer scale:

Mixer scale maximum load	2,000	kg
Mixer scale numerical increment	2.0	kg

Water Buffer Tank

Effective volume	1,000	dm ³
------------------	-------	-----------------

Agitator tank

Effective volume	2,000	dm ³
Motor power	2.2	kW

We reserve the right to make technical modifications without prior notice and without assuming any obligation with respect to equipment previously supplied. The equipment shown may include optional special features. Technical data does not take into account operational efficiency. Error and misprints reserved.



**Batch-Type Slurry Mixing Plant
Type SCA-15-K**

Compressed Air Supply System:

Compressor delivery capacity	100	NI/min
Delivery pressure	8	bar
Pressure tank volume	50	dm ³
Compressor motor power	2.2	kW

Eccentric Screw Pump:

Maximum delivery pressure:	12	bar
Maximum delivery rate:	100 - 400	l/min
Eccentric screw pump motor power:	18,5	kW

4. Interface Specifications:

1. Mains AC Power Supply	Terminal bar
2. Water Supply	Flange DN80 PN16 (according to DIN 2501)
3. Solids Feed	3 inlet nozzles D _a 219 mm
For screw conveyor	3 CEE standard socket outlet (*) 16 A; 5-pole; P _{max} 5.5 kW
For Silo vibrator	3 CEE standard socket outlet (*) 16 A; 5-pole; P _{max} 0.5 kW
4. Slurry Outlet	Flange DN80 PN16 (according to DIN 2501)
5. Customer supplied pump	External pump START/STOP Potential-free contact; 6-pole
6. Remote Control for eccentric screw pump	Industry quality socket outlet
7. Aeration System	Quick-act. pneumatic coupling
8. Eccentric Screw Pump	1 CEE standard inlet plug (*) 63 A; 400 VAC; 50 Hz; 5-pole

(*) according to IEC 60309, DIN EN 60309

Corrosion prevention:

- base color for plant and container, inside and outside:
- Mixer and mixer part:
- standard part, engine, pump etc.:

RAL 1007 Yellow daffodils
RAL 1007 Yellow daffodils
Original manufacturer colour

Engine labeling / Technical documentation:

The engine labeling and the technical documentation will be completed in German language.

**Batch-Type Slurry Mixing Plant
Type SCA-15-K**

Accessories:

1. 07015415:

Eccentric Screw Pump + Electrical Control with hinged cover, complete with:

- Bearing support, casing, rotor and stator
- Joints with screwed protective sleeve
- Helical geared motor with PTC thermistor

Eccentric Screw Pump Electrical Control main functions


- Main and EMERGENCY STOP switch
- Pump ON / OFF pushbutton
- ON SITE control / Remote control selector switch
- Potentiometer and frequency converter for speed adjustment
- Temperature monitoring
- TROUBLE alarming
- Industrial quality socket outlet for connection of radio remote control / cable remote control

2. 07015430:

Radio Remote Control for Eccentric Screw Pump

- Pump ON / OFF, trouble indicator, rotary speed adjustment, EMERGENCY STOP switch

We reserve the right to make technical modifications without prior notice and without assuming any obligation with respect to equipment previously supplied. The equipment shown may include optional special features. Technical data does not take into account operational efficiency. Error and misprints reserved.

MAT Mischanlagentechnik GmbH Illerstrasse 6 D-87509 Immenstadt, Germany	Phone +49 (0) 8323 / 9641-0 Fax +49 (0) 8323 / 9641-650 Email mat@mat-oa.de http// www.mat-oa.de	SCA-15-K_SC-0000391_2011-10-17 (EN).doc	
		© 2009 by MAT GmbH	