

Grouting unit AVS 110-E /W



Application: grouting of anchors and micropiles incl. post grouting, flushing pump atdrill works
Full automatic operation, cement dosing by weighing plus proportioning auger



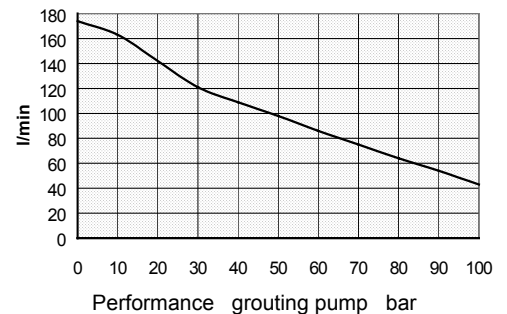
Proportioning auger:
Type FS 160-2.6

Technical data:

Drive		: Electro-hydraulic
		: 22,0 kW
Total required power		: 26,0 kW (incl. 4 kW for proportioning auger)
Connections	- Electro input	: CEE 63 A / 400 V, 50 Hz
	- Outlet silo vibrator, controlled	: CEE 16 A / 400 V
	- Outlet proportioning auger, controlled	: CEE 16 A / 400 V
	- outlet free	: Schuco 16 A / 220 V
	- Water input	: C-coupling R 2"
	- Grouting pump pressure side	: G 1"
	- Grouting pump circulation	: G 1"
Dimensions (L, W, H)	- Grouting unit	: 2150 x 1650 x 2100 (mm)
Weight	- Grouting unit	: approx. 2100 kg

Performance

Mixer		
with silo cement		: max. 5.7 m ³ /h
with bag cement		: max. 4,2 m ³ /h
Grouting pump	Pressure:	: max. 100 bar ¹⁾ (1422 psi) ¹⁾
	Quantity:	: max. 170 l/ min ¹⁾ (4.50 gal/h) ¹⁾



¹⁾ infinitely variable
typical pump performance, stated with water
1 bar = 1 x 10⁵ N/ m²

AVS 110-E/W Assembly group / machine technology

Frame:

- skid mounted steel frame
- completely encased
- 3 sides can be reached by fork lift
- central lifting eye
- fixing points for transport tension belt and transport protection

Mixer:

- tank of stainless steel, working capacity. 220 l (58.2 gal)
- top cover completely removable
- feed hopper with bag ripper
- two high speed mixing implements on an elastic vertical drive shaft without sealing
- dry running of the mixer without problems
- mixing rotation speed infinitely variable
- pneumatically operated valves for mixing and pumping off function

Storage tank:

- tank of stainless steel, working capacity approx. 550 l (145.5 gal)
- tank cover completely removable
- inlet sieve basket of stainless steel
- manhole for cleaning the storage tank
- quick drain at the bottom of the storage tank
- agitator with variable rotation speed – low speed -
- level indication observation

Grouting and flushing pump:

- upright double plunger pump, \varnothing 100 mm
- pump valves with easy handling for maintenance
- all important pump parts are surface treated and can be simply cleaned without damage
- Option: – **SA 14-50**:
 - Flushing connection to grouting pump manually operated, for selection of fluid: grout (from storage tank) or water (from 2" water hose)
- Option: – **BAV 50/50**:
 - two-way valve in suction line – pneumatically operated for choice of conveying medium: suspension (from holding tank) or water (from 2" water connection)
 - the valve is fixed as drain and flushing valve at the bottom of the holding tank
- Option: – **SC 14/25/2**:
 - circulation valves in pump pressure line, manually operated. Valve 1 = close/open in the line to grouting point. valve 2 = close/open of circulation line to storage tank
- Option: – **UV 25/100**:
 - alternate valve in pressure line – pneumatically operated as option: pumps to grouting site or pumps in rotation back to holding tank
 - the valve is fixed as rotation valve above the holding tank

Operation and indication elements:

- digital indication of grouting pressure ¹⁾
- adjustment of grouting pressure: max. hydraulic pressure
- Option **SD 30** (Watch-module):
 - indication of flow rate in l/min ²⁾
 - volume preselection in l total, with remainder indication in l ²⁾
 - total volume indication with and without reset
 - hour meter
 - recording and indication of the grouting quantity in l of the last 20 anchor/grouting points

¹⁾ pressure measurement either directly at grouting unit or by separate pressure sensor type MAP at grouting point

²⁾ measurement of flow rate by stroke counting at grouting pump

³⁾ If alternate valve BAV 50/50 induction line is l position "flush" the quantity will not be counted

Hydraulic:

- oil tank working capacity: approx. 140 l (37.03 gal)
- oil tank of stainless steel, suitable for bio-oil
- option: **B 10**:
 - Bio-oil

Electric:

- electric motor for drive of the hydraulic pump 22.0 kW, 400 V, 50 Hz, IP 54
- automatic phase correction
- control voltage for valves and remote control 24 V DC
- neutral wire in CEE 63 A conductor is necessary

Water / solid agent dosage:

- Water dosage / solid agent dosage / automatic control
- full automatic water input, according to adjustment of water dosage tank
- water dosage tank = 180 l (47.6 gal), stainless steel
- solid agent dosage volumetric, by weighing of the mixer
- automatic mixing process, with adjustment of mixing time
- manual operation without automatic is possible

Compressor unit:

- integrated in frame of drive unit
- 1-cylinder-compressor – with hydraulic drive
- 115 l/min. 8 bar / tank capacity 24 l (30.4 gal/min) (113.8 psi) (6.5 gal)

High pressure washer: (Option: - HDR)

- inbuilt and covered
- 3 plunger pump – 3 kW / 13 l/min (3.5 gal) / 120 bar (1706 psi)

Special equipment:

- **SD9**: remote control connection
- **SD 99**: 2-way remote control connection
- **SD20**: adjustment of the pump speed electro proportional illumination of the machine
- **Li-VS**: data printing for mixing and grout data
- **Print-VS**: full automatic mixing for 2 storage tanks with different mixtures
- **VAM/2**: selection switch for grouting and flushing pump: Suspension 1, suspension 2, water
- **Freq-60**: machine for power supply with 60 Hz

Accessories:

- special tools for operation and maintenance, operation manual and list of spare parts

Optional extras:

- remote control:
 - cable remote control RC-2
 - radio remote control RC-4 WL
 - remote control RC 110-10 (2-ways)
 - radio module WL 110-10 (2-ways) for RC 110-10
- Proportioning auger
 - FS-DK 160-2.6
 - FS-DKB 160-2.6
- top cover for mixer
 - with connector for proportioning auger