

Grouting unit AVS 110-D/W



Application: grouting of anchors and micropiles incl. post-grouting, flushing pump at drill works, pump with ball valves
Full automatic unit, cement dosing by proportional auger



Charging auger

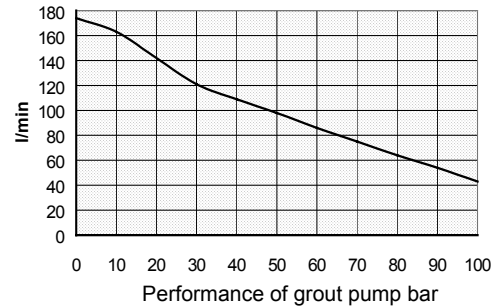
Type FS 160-2.6

Specification

Drive		: Diesel-hydraulic
Total required power:		: 29,0 kW / 2.900 rpm
		: 26,0 kW (incl. 4 kW for proportioning Auger)
Connections	- Water feed	: R 2"
	- Conveying pump pressure	: G 1"
	- Conveying pump circulation	: G 1"
	- Hydraulic drive to the proportioning auger	: 2 x hydraulic-quick coupling
Dimensions (L, W, H)	- grouting unit	: 2150 x 1650 x 2100 (mm)
Weight	- grouting unit	: approx. 2200 kg

Performance

Mixer with auger ²⁾ max.	: 5.7 m ³ /h (1.254 gal/h)
with cement bags max.	: 4.2 m ³ /h (924 gal/h)
Grouting pump	
Pressure max.	: 100 bar ¹⁾ (1.422 psi)
Quantity max.	: 170 l/ min ¹⁾ (44.97 gal/h)



¹⁾ infinitely variable
typical pump performance, stated with water
²⁾ proportioning auger optional
1 bar = 1 x 10⁵ N/ m²

AVS 110-D/W Assembly groups /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 ram protection

Mixer:

- tank of stainless steel, working capacity approx. 220 l (58.2 gal)
- tank cover can be removed completely
- hopper with bag ripper
- 2 mixing tools:
 - wings on the shaft
 - mixing pump at a vertical shaft with elastic fastening on the top
- mixing pump without any sealing no problem running without fluid
- rpm infinitely variable
- pneumatic valves for mixing and pump off function

Holding tank:

- stainless steel, working capacity approx. 550 l (145.5 gal)
- tank cover can be removed completely
- inlet sieve basket of stainless steel
- low speed rotation tool with infinitely variable rotation speed
- level indication observation

Grouting and flushing pump:

- pump with ball valves
- upright double plunger pump Ø 100 mm
- good availability of the pump valves easy handling for cleaning and maintenance of pump valves pump parts and all parts in contact of grout under pressure with tempered surface
- pump parts are surface treated and can be simply cleaned
- 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**:
 - changing 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:

- grouting indication as digital value ¹⁾
- grouting pressure frequency selection:
 - rotary head for adjusting of max. hydraulic pressure
- Option **SD 30** (Watch-module):
 - grouting pressure fine adjustment by adjustment of the max. grouting pressure ¹⁾
 - push button for short exceeding of the adjusted pressure up to max. adjusted hydraulic pressure
 - grouting/flushing indication in l/min. ²⁾
 - specified quantity preselection in l total, with remainder indication in l ²⁾³⁾
 - complete quantity indication in l, with zero position ²⁾³⁾
 - complete quantity indication in l, without zero position ²⁾³⁾
 - hour meter
 - recording and indicating (on call) of grouting quantity in l of the last 20 anchor/grouting points

Hydraulic:

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

Electrics:

- Motor electric 12 V DC
- power supply 12 / 24 CV DC for circuit control and remote control with transformer

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, 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) (113.8 psi) (6.5 gal)

High pressure washer: (Option: - HDRH)

- integrated in frame of drive unit
- 3-Plunger pump –13 l/min. (3.5 gal) / 120 bar (1706 psi), with hydraulic drive

Diesel drive:

- 4-cylinder Turbo-Diesel motor, cooled by liquid material satisfies exhaust emission standard: Europe = tier II and USA: tier 2 the motor is certificated for usage in USA
- sound absorption
- fuel tank capacity 30 l (7.93 gal)
- starter battery 12 V, 70 Ah

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

Accessories:

- Special tools for operation and maintenance, operation manual and spare parts list

Optional extras:

- **remote control**:
 - cable remote control **RC-2**
 - radio remote control **RC-4 WL**
- Proportioning auger
 - FS-DK 160-2.6 H
 - FS-DKB 160-2.6 H
- Top cover for mixer with connector for proportioning auger
 - option SAR 220 for bag cement

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

²⁾ quantity 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