

Powercreter® 10 & 20

High Pressure Swing Tube Pumps



A **Putzmeister** COMPANY

- Refractory
- Underground
- Civil



- Versatile wet-process pump
- Proven swing tube design
- Rugged reliability and durability
- Smooth hydraulics for easy handling

POWERCRETER®
10 & 20

ALLENTOWN SHOTCRETE TECHNOLOGY, INC.

Offers a powerful family of wet-process shotcreting machines, including the Powercreter® 10 and 20 models. Designed to offer versatile functionality for **Refractory**, **Underground** and **Civil** applications, Powercreters are available with a wide range of standard features and options.

POWERCRETER® 10

Rated for up to 10 cubic yards per hour, the Powercreter 10 fills the void between small-line mechanical ball valve pumps and 5" to 6" cylinder diameter concrete pumps. Compared to ball valve type pumps, the swing tube design gives operators the benefits of reversing for relieving pressure due to plugs, pumping difficult low slump or fiber mixes and lower maintenance costs.

With 3" material cylinders and variable, smooth hydraulics, the Powercreter 10 allows extremely controlled low output for specialized applications. When reducing to smaller diameter conveying lines, this model maintains much of its output pressure – something larger cylinder concrete pumps cannot do.



POWERCRETER® 20

Allentown's answer for mid-range pumping requirements, the versatile Powercreter 20 can be fed by a ready mix truck, on-site mixer, optional integrated batch mixer or continuous mixer. A rugged, high pressure pumping system, the Deutz air-cooled diesel engine and variable flow hydraulic pump combined with our simple, well-proven cycling system give you the power needed for controllable low to medium volume.

Rated for up to 20 cubic yards per hour, this pump features 4.5" material cylinders and is chosen for a broader range of pumping applications than any other model. When shotcreting, the fast switch-over of the swing tube reduces pulsing at the nozzle. For the most critical geotechnical and compaction grouting applications, this machine offers superb control. It easily handles harsh mixes, including low-cement, low moisture, refractory pumping castables.





State-of-the-art electronic and hydraulic circuitry is conveniently located within the sealed control box.

Main oil is supplied by a high pressure variable-flow axial piston pump. A tandem gear pump provides separate circuits for the swing tube and remixer. An optional mixer is available for added on-site versatility.



A variety of options to suit the needs of any shotcrete project, including skid and forklift frame mounting.



An optional 10 cubic foot detachable mixer that hydraulically tilts and discharges into the pump hopper is available.



STANDARD EQUIPMENT

- High performance diesel engine (trailer- and forklift-mounted versions)
- Engine temp gauge integrated into control panel
- Protective engine cover
- Electric engine start/stop
- Variable displacement axial piston pump
- Long lasting polyurethane piston cups
- Variable volume output control
- Dedicated hydraulic circuit with accumulator
- Proximity sensors inside of water box
- Hydraulic oil level and temperature sight gauge
- Hydraulic oil cooler
- Proven reliable S-Valve
- Lincoln Quickclub System
- Hard-chromed material cylinders
- Rugged valve box assembly
- Hydraulic remixer/agitator
- Hopper grate with safety cut-off switch
- Accessible heavy-duty hinged clean out door
- Emergency stop button
- Manual stroke change switch
- Hour meter/tachometer (with diesel)
- Highway-rated trailer, electric brakes, durable fenders and running lights
- Remote on/off/reverse/e-stop pendant with 100' (30m) cable
- Pintle eye
- Heavy-duty manual rear outriggers
- Heavy-duty manual front outriggers (standard on specified MRs)
- Front jack stand
- High quality paint finish - Allentown blue and adobe standard
- 2-point lifting eyes

OPTIONS

- CE certification
- Electric version 460 Volt, 60Hz, 3-phase
- Forklift frame or skid frame mounting
- A-10 Peristaltic Chemical/Accelerant Dosing Pump (0-23 gph)
- A-20 Peristaltic Chemical/Accelerant Dosing Pump (0-60 gph)
- A-20 Peristaltic Chemical/Accelerant Dosing Pump (0-120 gph)
- Electronic synchronization for dosing pump
- Fiber grate w/air or electric powered vibrator
- Output pressure adjustment for grouting
- Rear hydraulic outriggers
- Radio remote on/off/reverse/E-stop/flow control
- 15 cu ft hopper with blending paddles
- 10 cu ft detachable mixer
- 45-gallon water tank for cleanup
- High pressure washer for easy cleanup
- Custom paint scheme

Powercreter® 10 & 20

Specifications

	Trailer-Mounted Models		Forklift-Mounted Models		Skid-Mounted Models	
Performance	Powercreter 10T	Powercreter 20T	Powercreter 10F	Powercreter 20F	Powercreter 10S	Powercreter 20S
Max volume output	7 yd ³ /hr (4.6m ³ /hr)	17 yd ³ /hr (13m ³ /hr)	7 yd ³ /hr (4.6m ³ /hr)	17 yd ³ /hr (13m ³ /hr)	7 yd ³ /hr (4.6m ³ /hr)	17 yd ³ /hr (13m ³ /hr)
Max concrete pressure	2085 psi (144 bar)	2085 psi (144 bar)	2085 psi (144 bar)	2085 psi (144 bar)	2085 psi (144 bar)	2085 psi (144 bar)
Max aggregate size	.75" (19mm)	1" (25mm)	.75" (19mm)	1" (25mm)	.75" (19mm)	1" (25mm)
Horizontal pumping distance*	500' (150m)	700' (210m)	500' (150m)	700' (210m)	500' (150m)	700' (210m)
Vertical pumping distance*	300' (90m)	400' (120m)	300' (90m)	400' (120m)	300' (90m)	400' (120m)

Technical Information						
Material cylinders	3.0" (76mm)	4.5" (114mm)	3.0" (76mm)	4.5" (114mm)	3.0" (76mm)	4.5" (114mm)
Max strokes/min	28	28	28	28	28	28
Variable volume control	Yes	Yes	Yes	Yes	Yes	Yes
S-Valve (cast)	3" x 3" (76mm x 76mm)	4.5" x 4" (114mm x 101mm)	3" x 3" (76mm x 76mm)	4.5" x 4" (114mm x 101mm)	3" x 3" (76mm x 76mm)	4.5" x 4" (114mm x 101mm)
Number of shift cylinders	1	1	1	1	1	1
Hydraulic tank capacity	37 gal (140L)	37 gal (140L)	37 gal (140L)	37 gal (140L)	37 gal (140L)	37 gal (140L)
Hopper height	48" (122cm)	48" (122cm)	48" (122cm)	48" (122cm)	39.5" (100cm)	39.5" (100cm)
Hopper capacity	8 cu ft (227L) 15 cu ft (425L) Optional	8 cu ft (227L) 15 cu ft (425L) Optional	8 cu ft (227L) 15 cu ft (425L) Optional	8 cu ft (227L) 15 cu ft (425L) Optional	8 cu ft (227L)	5 cu ft (142L)
Outlet diameter	3" (76mm)	4" (101mm)	3" (76mm)	4" (101mm)	3" (76mm)	4" (101mm)

Power						
Manufacturer's model	Deutz BF4M2011F Diesel Engine	Duetz BF4L2011 Diesel Engine	Deutz BF4M2011F Diesel Engine	Duetz BF4L2011 Diesel Engine	TEFC Electric Motor 3/60/460	TEFC Electric Motor 3/60/460
Horsepower	61 hp (45kW)	74 hp (55kW)	61 hp (45kW)	74 hp (55kW)	40 hp (29kW)	50 hp (37kW)
Fuel tank capacity	15 gal (56L)	15 gal (56L)	15 gal (56L)	15 gal (56L)	15 gal (56L)	15 gal (56L)

Mounting						
Style	Single axle trailer	Single axle trailer	Forklift	Forklift	Skid	Skid
Axle capacity	5200 lbs (2358kg)	5200 lbs (2358kg)	-	-	-	-
Tires	225-75-15	225-75-15	-	-	-	-
Load range	2540 lbs (1152kg)	2540 lbs (1152kg)	-	-	-	-
Brakes	Electric	Electric	-	-	-	-
Outriggers	Manual w/ Optional Hydraulic	Manual w/ Optional Hydraulic	-	-	-	-

Dimensions						
Length	148" (375cm)	148" (375cm)	120" (305cm)	120" (305cm)	129" (328cm)	129" (328cm)
Width	64" (162cm)	64" (162cm)	54" (137cm)	54" (137cm)	44" (112cm)	50" (127cm)
Height	62" (157cm)	62" (157cm)	60" (152cm)	60" (152cm)	57" (145cm)	57" (145cm)
Weight (approx)	4000 lbs (1814kg)	4800 lbs (2177kg)	4000 lbs (1814kg)	4800 lbs (2177kg)	4400 lbs (1950kg)	5100 lbs (2313kg)

Maximum theoretical values listed. **Pumping distances shown were calculated at the maximum volume output. They are to be used as a guide only and can be exceeded on specific projects. Maximum attainable distances depend on concrete mix design, pipeline diameter and specific job site conditions. Note: Maximum output and pressure cannot be achieved simultaneously. Specs subject to change without prior notice. Weights vary with options selected. Photos for illustrative purposes only. Refer to Allentown operational manual for safe and proper equipment operation.

For available options, please contact the factory.



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