Schwing Concrete Pump

Flat Gate Valve Version

BP 350 / SP 1800 / SP 2800

SCHWING Stetter

BP 350 / SP 1800 / SP 2800

Drive

The motor (diesel or electric) drives the axial piston pump via a flexible coupling. Due to automatic output adjustment optimum utilization of the motor power, results in low energy consumption at different pumping conditions. Additionally the concrete flow can be manually adjusted and the pump operates in a proven open circuit.

The pump is renowned for it's low fuel consumption. Automatic adjustment by the governor helps to maintain a constant output depending on the power available from the installed drive motor.

Design

The portable concrete pumps are assembled in the unit construction system.
The main assembly groups are: Frame, Power Unit, Concrete pump kit, Control block, Hydraulic tank and Hopper with agitator.

The Frame & Axle

The frame, in compact execution, is constructed from standard vehicle profiles. The pump is mounted on heavy duty single axle chassis with draw bars and pneumatic tyres for travelling on construction sites at upto 25 km/hr.

Control System

The fully hydraulic control system is integrated within the drive. The compact control block and minimal hydraulic lines makes the equipment reliable and durable. The differential cylinder has trouble free piston rings and automatic constant stroke maintenance. Both gate valves change independently so that even when full change over is prevented by foreign materials or similar obstructions in the concrete, the pump continues to operate without any problems. All components are specially developed and manufactured to withstand the rough conditions on construction sites.

Hopper and Agitator

Good suction power is possible due to large apertures at the hopper bottom section. According to the conditions on the construction site the hopper equipped with a grill and rubber border standard can be provided with an appropriate extension as an option. The agitator is driven by separate hydraulic pump. The reversible agitator motor drives the agitator shaft via an oil bath gear box.

Pumping cylinders

The two pumping cylinders are hardened by a special process and designed for an extremely long working life. The replaceable hard rubber arms are easily changed due to quickly detachable connections.

Maintenance free hydraulic cylinder

Remote Control

Control Housing

Ideal flow conditions in the control housing results in superior placing properties, even in the case of concrete low on sand and fines, stiff consistence or crushed aggregates. Simple tilting of the output pipes enables easy control and cleaning of the concrete conveying path and the gate valve parts.

Flat Gate Valve

The two flat gate valves working independently have been specially developed for pumping concrete. Their working system with automatic adjustment permits trouble free pumping even with badly worn parts.

Integrated Control Block

The hydraulic control system is integrated within the drive. The compact control block & minimal hydraulic lines makes the equipment reliable &

Pumping Material

Pumpable concrete, within any consistency range down to a water cement ratio of 0.4. Even concrete with aggregate grading up to 40mm can be pumped by with the concrete pump through a 125mm diameter pipe line.

TECHNICAL DATA

Description	Unit	BP 350 DXT / E	SP 1800 D / E	SP 2800 D / E	
Engine / Motor Capacity	kw	48.6 / 45	81 / 75	132 / 132	
Nominal Speed	rpm	2100 / 1450	2100	2200	
Pumping Cylinder Ø x Stroke	mm	180 x 1200	200 x 1600	200 x 1600	
Differential cylinder drive		Rod Side	Rod Side	Piston Side	Rod Side
Max. No. of Strokes	min	24 / 19	24	19/19	33/33
Max theor.concrete output	m^3/hr	45 / 35	73	58/58	101/101
Max concrete pressure	bar	60	62	119	66
Capacity of Charging Hopper	liter	600	600	600	
Dead Weight incl.oil and Fuel	kg	3100 / 2900	5200	5300	
Delivery line Ø up to	mm	150	150	150	