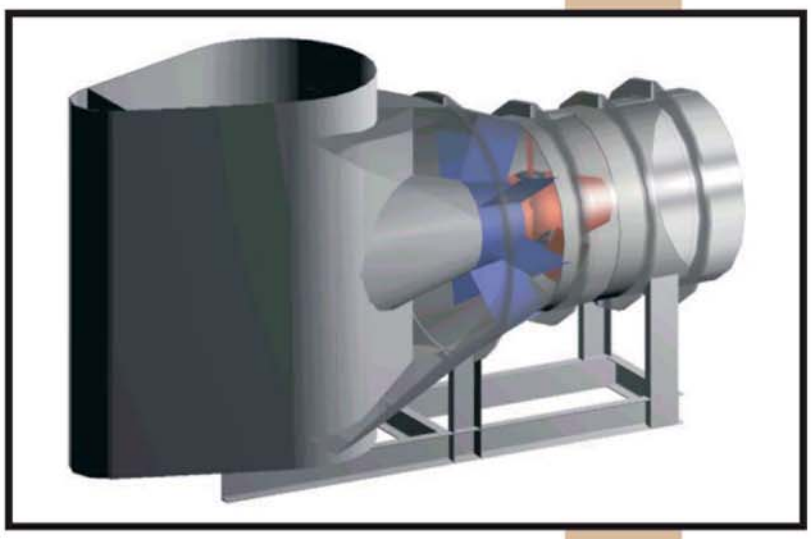
P&S®
akciová společnost

DIRECT-FLOW TURBINES

SERIES VC 1220 - FOR LOCALITIES WITH GRADIENTS 1,7 - 3,5 m

The VC 1220 turbine is a direct current axial-flow turbine for locations with a 1.7 - 3.5 m gradient. The turbines main advantages are its simplicity, excellent efficiency (up to 86 %) and very simple assembly. The turbine is designed as a compact block which is fitted as a whole into a simple concrete channel. This is then fitted with formwork and concrete is poured on. The turbine has fixed guide blades and runner blades which are adjustable whilst the turbine is in operation. Runner blades are regulated by a hydraulic system located in a shaft.
The adjustment range is ±10°, the angular speed of rotation is 1° every 2 seconds. Power is transmitted from the turbine shaft to the generator using a belt drive located in the shaft. Owing to reducing the depth of the MVE machine room foundation it is possible to tilt the angle of the rotor by 7° from the horizontal place and the turbine suction pipe by a further 5°.



P&S akciová společnost — Exclusive supplier of turbines VC 1220

Seating the turbine at a building place

Small hydro - electric power plant
Vadagiai - 2005
LITVA

These turbines work in Germany, Norway, Lithuania and in the Czech Republic.

Nominal parameters

nominal parameters / gradient	H = 1,7 m	H = 3 m	H = 3,5 m
speed n (min^{-1})	222	295	318,4
rate of flow Q_{opt} (m^3/sec)	2,88	3,83	4,13
rate of flow Q_{max} (m^3/sec)	4,13	5,48	5,92
power P_{Topt} (kW)	41,3	96,8	121,9
power P_{Tmax} (kW)	51	119	150

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