WPJ-100

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NOMINAL OPERATION PARAMETERS AT PURE WATER PUMPING
(for the maximum rotation speed and the largest rotor)

Capacity	Q_n	130	m^3/h
Head	H	42	m
Rotational speed	n	1470*	rpm
Impeller diameter	D_z	370*	mm
Shaft power	P_n	20,7	kW
Weight	m	420	kg
Max. permissible size of solids		14	mm
Smallest flow cross-section		20	mm

*Pump construction enables decreasing the operational parameters by reducing the rotation speed and/or reducing the rotor's diameter, adapting the pump to the system without choking the pump.

TYPICAL APPLICATIONS

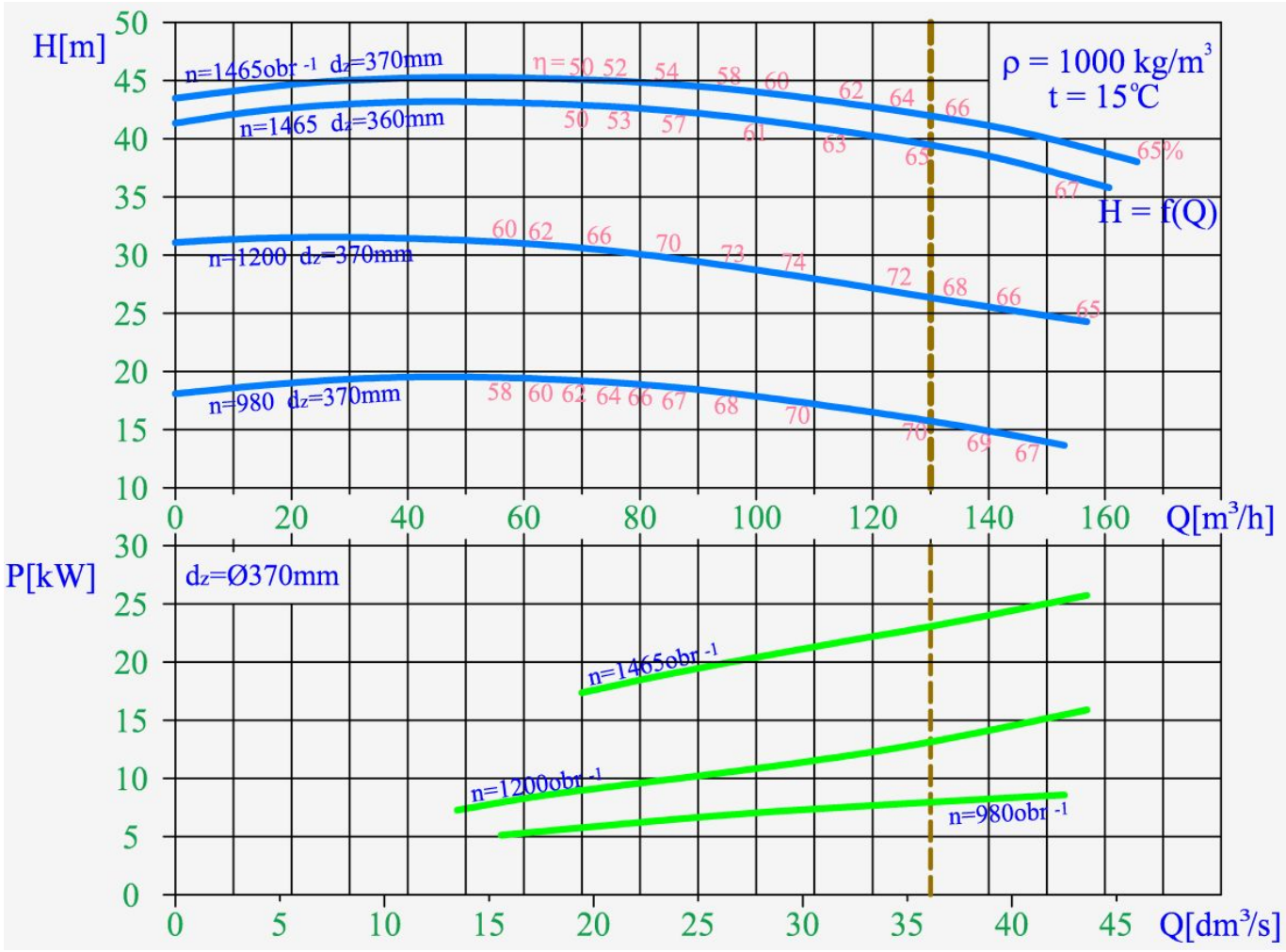
- pumping mixtures of water and solids, with large grains and higly abrasive properties,
- pumping mixtures od water and quartz sand, ores, coal, slag, ash,
- mining – WPJ pumps intended to replace hydrotransport drainage pumps used so far,
- water supply systems,
- pressure boosting,
- technological processes,
- industrial systems,
- filtration systems.

KEY ADVANTAGES

- long life ensured by the use of state-of-the-art corrosion and erosion resistant materials,
- possibility of operation with a frequency converter,
- possibility of serial operation,

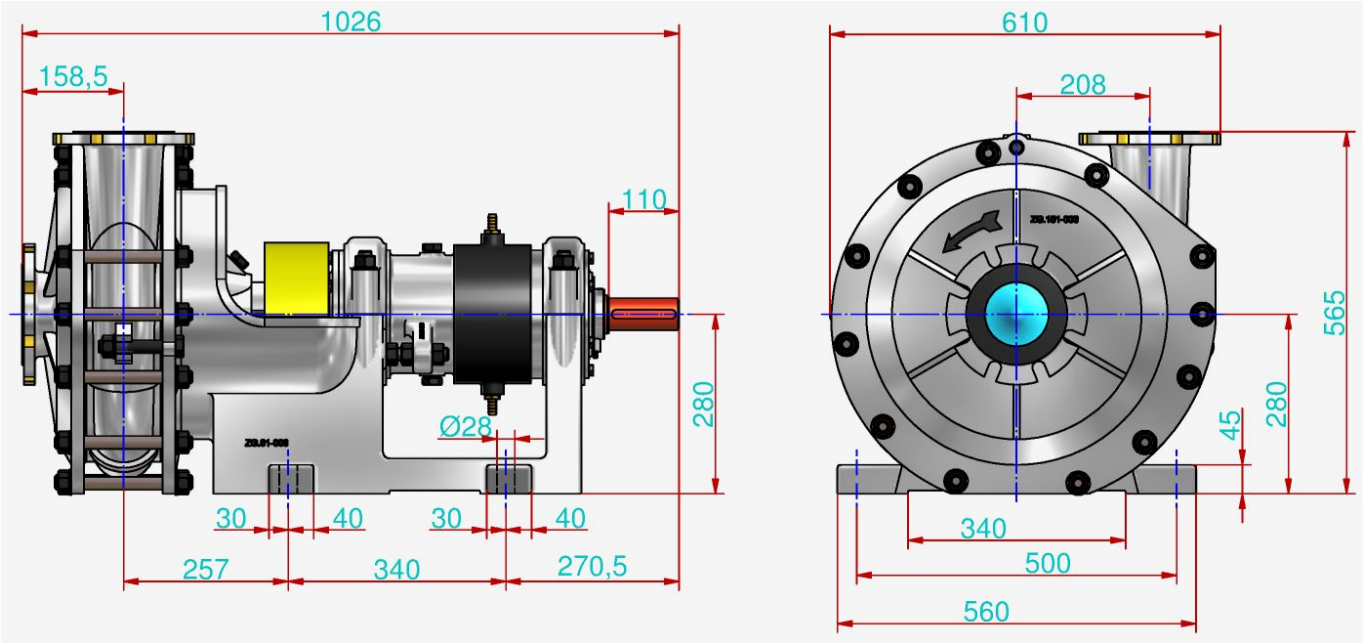
- the pumped mixture density can reach ρ_{max} = 1700kg/m^3 while pumping mixtures with a 50% content of solids in water,
- silent and smooth operation,
- connection dimensions in compliance with hydrotransport pumps,
- inflow and suction operation,
- approved for operation in explosion-hazard zones – ATEX Ex I M2.

PUMP PERFORMANCE CURVE

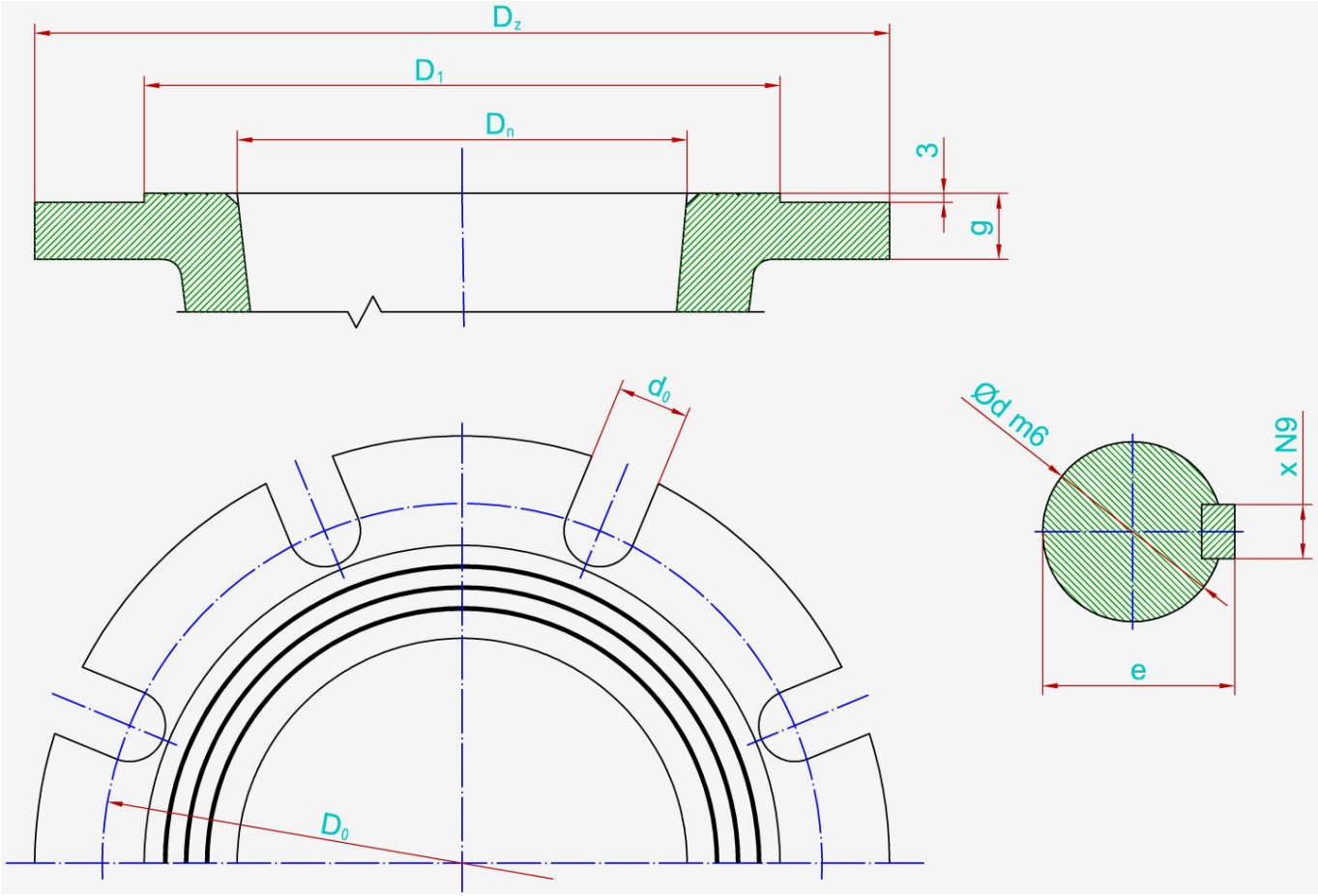


- H = f(Q) – lift head acc. to rate flow,
- P = f(Q) – power input acc. to rate flow,
- η = f(Q) – efficiency acc. to rate of flow,
- d_z – impeller diameter,
- n – rotational speed.

MAIN DIMENSIONS OF PUMP



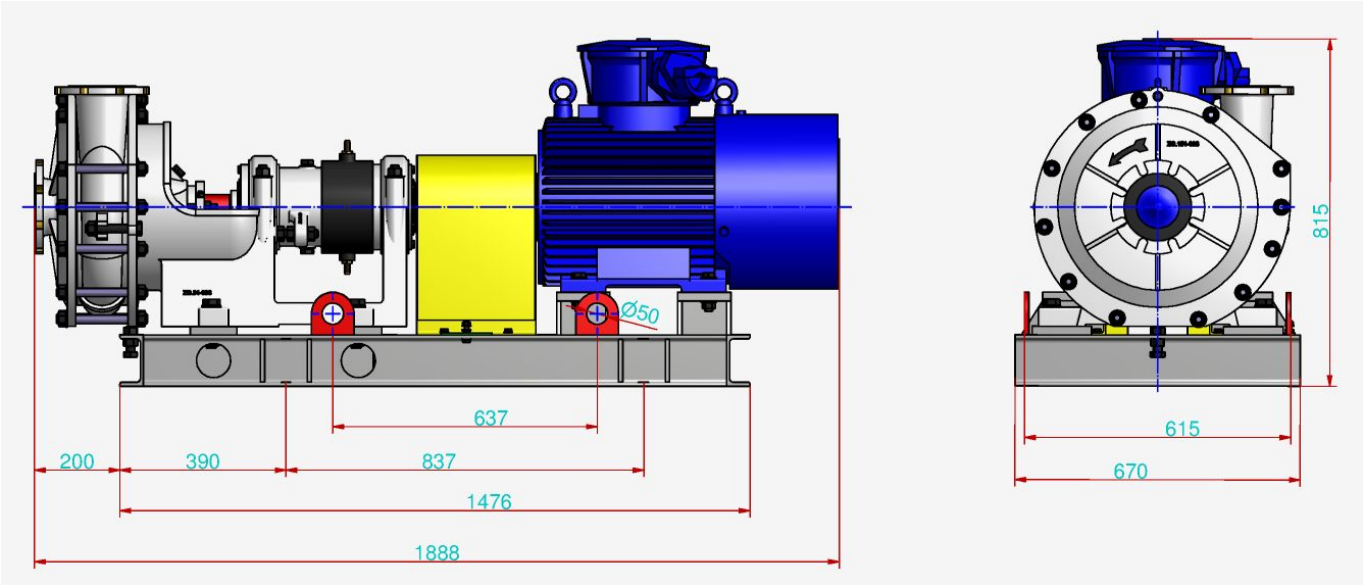
CONNECTION SIZES OF PUMP



	Pn	Dn	i	Dz	d0	g	D0	D1	d	e	x
Suction connector **Discharge connector**	16	100	8	220	19	20	180	158	-	-	-
Shaft / coupling	-	-	-	-	-	-	-	-	50	53,5	14
	bar	mm	-	mm	mm	mm	mm	mm	mm	mm	mm

The flanges are normally made in accordance with the standard PN-EN 1092-1 or PN-EN 1092-2.

MAIN DIMENSIONS OF PUMP UNIT



Motor type	Celma dSg200L4	-
Coupling type	V130	-
Weight	852	kg

It is possible to produce pumps with parameters different than those presented in the tables and on the graphs per agreement with the manufacturer.