

TAIKO pump reverse running pump turbines and power generation system

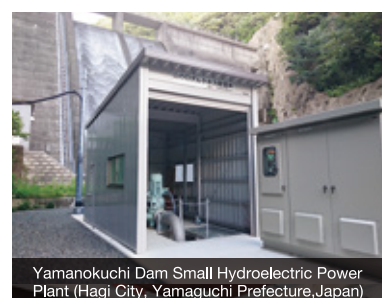


Nukumi Dam Small Hydroelectric Power Plant
(Kudamatsu City, Yamaguchi Prefecture, Japan)

Amid the clamor for the spread of renewable energy, hydroelectric power generation, which can stably supply a certain amount of power regardless of season, weather, day or night, is regarded as an important baseload power supply. TAIKO pump reverse running pump turbines and power generation system can efficiently convert the potential energy of water into electricity at low cost, and it operates at our power stations at three locations in Yamaguchi Prefecture Japan, as well as dams and water supply facilities nationwide. We continue to supply clean energy.

Characteristic

- High quality and high durability because Ship marine pump (corrosion resistance of seawater specification, service life of 20 years or more) is diverted.
- Since the standard pump is used as a water turbine, the installation cost is low.
- Since it is a vertical type, it has half the installation space compared to a horizontal turbine.
- Short delivery time (4-6 months after receiving the order)
- Replacement parts are always in stock (parts, materials, etc.)
- Simple structure, easy maintenance and less trouble
- The runner has large voids, making it difficult for dust and foreign matter to clog



Yamanokuchi Dam Small Hydroelectric Power Plant
(Hagi City, Yamaguchi Prefecture, Japan)



Utsui Dam Small Hydroelectric Power Plant
(Shimonoseki City, Yamaguchi Prefecture, Japan)

TAIKO pump reverse running pump turbines /Small hydroelectric power generation system

TAIKO pump reverse running pump turbines

Flow rate	up to 1.5 m3/s
Effective head	up to standard 50m (Special specifications are available for 50 m or more)
Power generation output	1~300kW
Material	Casing: Copper alloy (CAC402), Runner: Stainless steel (SCS13) ※1



ex). Two pumps installed in parallel

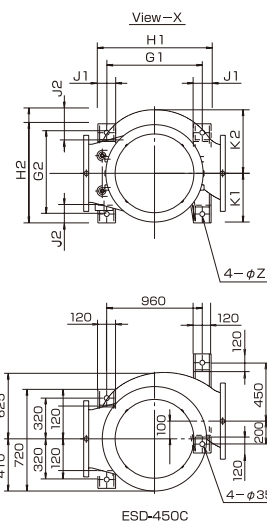
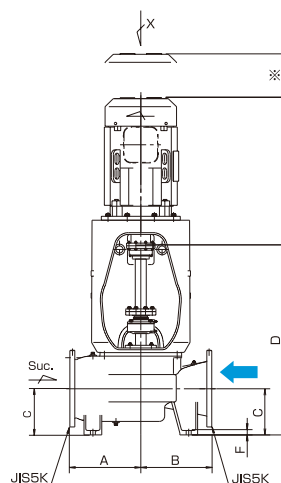
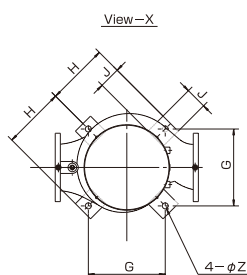
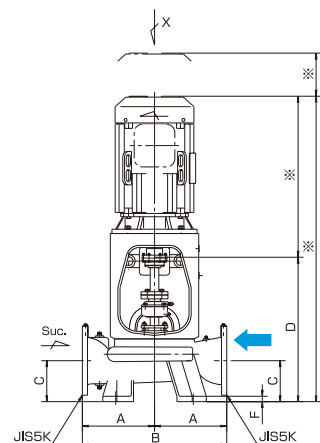
Small hydroelectric power generation system

Generator	Permanent magnet synchronous generator (up to 55kW) ^{*2}
Power generation control panel	Controls the generator to generate power efficiently considering the characteristics of the turbine.
Flow rate control	Controls the flow rate generated by the electromagnetic flow meter and motorized valve
Remote monitoring	Power station can be monitored and controlled remotely (PC or smartphone)

※1: Casing cast iron + paint, runner can also correspond to the specification of copper alloy

※2: Generators and control panels of 75kW or more can also be handled by special specifications

Turbine reference dimensions (Some types have a low height)



Turbine model	Turbine output (30m)	Diameter		Size (mm)								
		Inlet	Outlet	A	B	C	D	F	G	H	J	Z
ESC-100C	<5kW	100	100	280	560	150	612	25	290	240	100	28
ESC-125C	<8kW	125	125	300	600	160	622	25	290	240	100	28
ESC-150C	<11kW	150	150	315	630	160	645	25	360	290	100	28
ESC-200C	<18kW	200	200	335	670	190	670	25	360	290	100	28
ESC-250C	<28kW	250	250	400	800	220	790	25	410	325	100	28
ESC-260C	<40kW	250	250	400	800	220	820	25	410	325	100	28

*The dimensions depend on the generator dimensions.

Turbine model	Turbine output (30m)	Diameter		Size (mm)															
		Inlet	Outlet	A	B	C	D	E	F	G1	G2	H1	H2	J1	J2	K1	K2	Z	
ESD-300C	<53kW	300	300	400	400	260	1070	25	540	460	640	540	100	100	275	365	28		
ESD-350C	<70kW	350	350	500	520	290	1325	30	600	600	720	680	120	120	330	380	35		
ESD-400C	<91kW	400	400	550	550	300	1290	30	640	640	780	720	120	120	400	490	35		
ESD-450C	<160kW	450	450	650	650	400	1580	30	-	-	-	-	-	-	-	-	-		
ESD-500C	<206kW	500	500	750	750	420	1650	35	960	800	1120	920	160	120	430	610	48		

Please feel free to contact us for models exceeding 500A.

*The dimensions depend on the generator dimensions.

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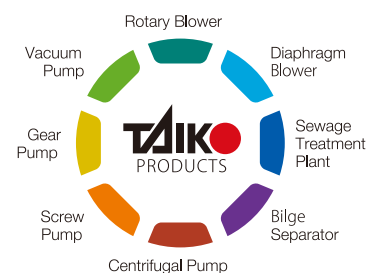
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•The sizes and specifications of the products in this catalog are subject to improvement.