

Dam's name:

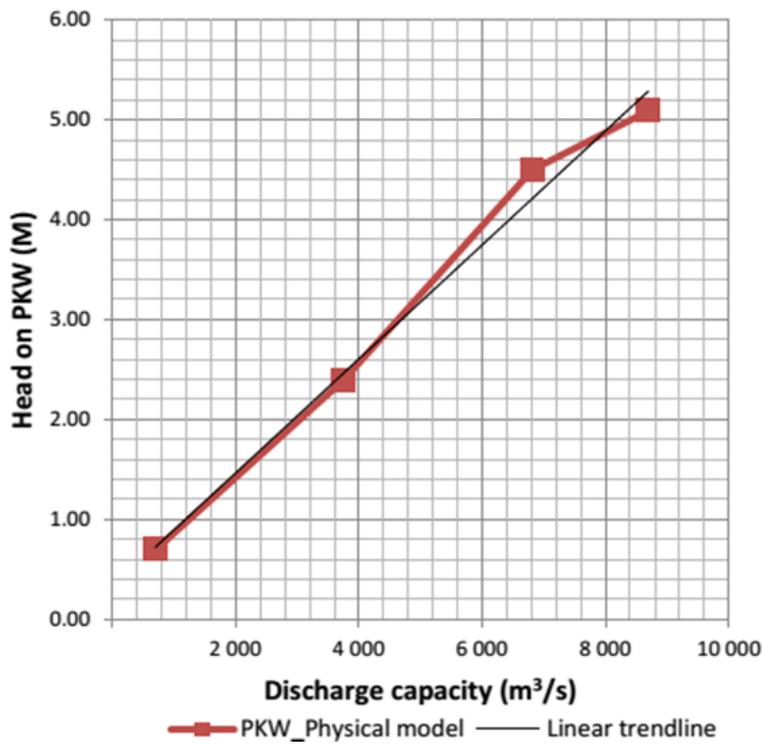
VAN PHONG

PKW's year of construction:

2010

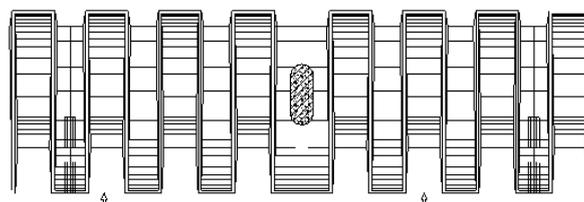
13° 56' 20"

108° 52' 30"

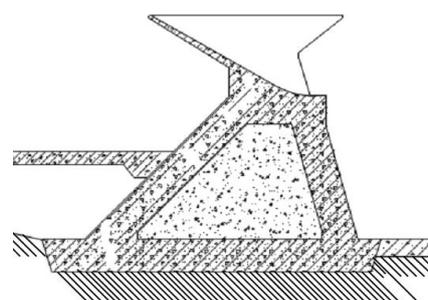


Country: Vietnam

<i>Progress of work :</i>	Built
<i>Dam's owner:</i>	VIETNAM MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT (MARD)
<i>Consultant:</i>	HEC (studies) SIWRR (physical model)
<i>Contractor:</i>	Construction Joint Stock Company 47
<i>PKW location:</i>	On each side of the gated spillway
<i>Downstream energy dissipation type:</i>	Reinforced concrete slab at the toe of the PKW
<i>PKW purpose:</i>	Replace an alternative with a total gated spillway
<i>PKW discharge capacity at MWL (m3/s):</i>	8700
<i>Dam design flow (m3/s):</i>	14 400
<i>Monitoring devices (Presence and type):</i>	No
<i>Aeration (type and diameter of the pipe):</i>	No
<i>Overflowing Frequency:</i>	-
<i>Number of overflow known:</i>	1
<i>Maximum head on PKW experienced (m) and date:</i>	0.70m (16/12/2016)
<i>Type and number of other spillway:</i>	One 172-meter gated weir in the central part
<i>Material of the PKW:</i>	Reinforced concrete
<i>B (m):</i>	12.00
<i>P (m):</i>	5
<i>W (m):</i>	301.75
<i>L (m):</i>	1704
<i>Number of inlet:</i>	60
<i>W_i (m):</i>	2.4
<i>Number of outlet:</i>	60
<i>W_o (m):</i>	2.0
<i>T_s (m):</i>	0.20
<i>PKW cost (k€)</i>	8400
<i>Total project cost (k€)</i>	17 000



Plan view of the PKW



Cross-section view of the PKW

Comments

- PKW type A
- P= 5 m is the height of the inlet entrance (normally noted Pi).
- The Van Phong barrage includes sofar the longest built PKW with the highest capacity in the world.
- The cost of the PKW is only 50% of the total cost of the scheme.
- The cost of the alternative with PKW is 30% lower than the cost of the alternative with 28 gates.