



Propeller & Wing

Propellers propellant

capture enegy turbines

Software turbine propellers wings

Index

## advancement propeller advance J

### Propeller advance:

The parameter of advancement, (propeller advance), is a dimensionless coefficient enabling comparison between the propellers of different sizes.



The parameter of advancement, (propeller advance),  $J = \frac{\text{fluid velocity upstream}}{(\text{propeller diameter} \times \text{propeller rotations per seconde})}$

| project parameters                                                                                                                                             |              |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| delta pressure upstream downstream pascals                                                                                                                     | 380,017151   |
| DHP_d Display the parameters of the project                                                                                                                    | 0.06182466   |
| efficiency eta similitude                                                                                                                                      | 0.9400169    |
| Element number generating less torque                                                                                                                          | 1            |
| Element number generating max torque                                                                                                                           | 4            |
| Element number thrust min                                                                                                                                      | 1            |
| factor activity blade                                                                                                                                          | 173.087921   |
| factor activity propeller                                                                                                                                      | 346.175842   |
| fluid passage m                                                                                                                                                | 0            |
| Kq                                                                                                                                                             | 0.08249261   |
| Kt                                                                                                                                                             | 0.2866036    |
| mass flow upstream ring Kgs                                                                                                                                    | 205.0278     |
| Max thrust element number                                                                                                                                      | 4            |
| No translate eta_o                                                                                                                                             | 0.938579857  |
| P_similitude                                                                                                                                                   | 82.90822     |
| percentage loss tip blade (no induction)                                                                                                                       | 28.2680244   |
| percentage loss tip blade (with induction)                                                                                                                     | 29.14218     |
| Performance Workforce Expansion Kinetics Power shaft                                                                                                           | 0.9394617    |
| Propeller shaft Power KW                                                                                                                                       | 0.08290822   |
| Propeller thrust N                                                                                                                                             | -45,8441925  |
| Propeller torque Nm                                                                                                                                            | -5.27810144  |
| selected element Index                                                                                                                                         | 4            |
| sigma                                                                                                                                                          | 1018.77271   |
| <b>similitude advancement parameter gamma</b>                                                                                                                  | <b>1.7</b>   |
| similitude figure of merit                                                                                                                                     | 0.236193329  |
| similitude power coefficient Kti                                                                                                                               | 0.5183163    |
| THP_thrust_horse_power                                                                                                                                         | 0.0580273829 |
| Thrust coefficient (tau or tau) similitude Kt                                                                                                                  | 0.2866036    |
| total blade lift number                                                                                                                                        | 38.85785     |
| Workforce Expansion sum power ring kinetic energy W                                                                                                            | 77.88911     |
| Analysis Off design and reverse engineering                                                                                                                    |              |
| Analysis Wing                                                                                                                                                  |              |
| Blade Generator                                                                                                                                                |              |
| similitude advancement parameter gamma                                                                                                                         |              |
| similitude advancement parameter gamma (gamma) (Anglo-Saxon: J) (used for ship propellers) = Upstream velocity ms / (rotation per second * diameter propeller) |              |

The **propeller advance** can also be seen in the parameters of the propeller advance.

Modeling aerial propeller in heliciel



Modeling boat marine propeller ineliciel



Modelisation helice ventilation dans heliciel



Modeling propeller ventilation in heliciel



tidal turbine modeling in heliciel



Kaplan propeller modeling in heliciel



[websites Mecaflux & Heliciel](#)

[Tutorials](#)

[Softwares](#)

[Client Area](#)

[Contact](#)

[Cart](#)



[Products](#) | [Store](#) | [My Mecaflux](#) | [My Licences](#) | [Key generator](#) | [My cart](#) | [Contact](#)

Copyright © 2015 Mecaflux. All rights reserved.  
[Terms of sale](#) | [Privacy and cookies](#)