

Reynolds: RNI=0.100 f=0.950 RNI=1.000 f=1.000

Mass Flow

17.03100000 0.00000000 0.034482758 0.068965517 0.103448279
0.137931034 0.172413796 0.206896558 0.241379306 0.275862068
0.310344815 0.344827592 0.379310340 0.413793117 0.448275864
0.482758611 0.517241359 0.551724136 0.586206913 0.620689631
0.655172408 0.689655185 0.724137902 0.758620679 0.793103456
0.827586234 0.862068951 0.896551728 0.931034505 0.965517223
1.000000000
0.010000000 0.016271057 0.016099541 0.015879786 0.015558193
0.015263400 0.014802450 0.014448699 0.014064319 0.013696784
0.013366004 0.013062787 0.012741194 0.012382848 0.012006125
0.011565085 0.011142420 0.010692189 0.010278714 0.009889740
0.009479326 0.009081163 0.008624809 0.008272588 0.007724349
0.007292496 0.006860643 0.006437979 0.006015314 0.005601838
0.005169985
0.050000001 0.081347629 0.080367535 0.079019912 0.077672280
0.076049007 0.074272588 0.072251149 0.070413478 0.068637058
0.067044407 0.065145485 0.063430324 0.061500765 0.059632465
0.057580397 0.055497702 0.053506892 0.051485453 0.049402755
0.047258805 0.044961717 0.042848393 0.040520675 0.038376722
0.036232773 0.034088820 0.032067381 0.029984687 0.027932618
0.025819296
0.100000001 0.163973972 0.160451755 0.157848388 0.154946402
0.151822358 0.148030624 0.144364476 0.140781015 0.137390509
0.133807048 0.129954055 0.126370594 0.123246558 0.117917307
0.115130171 0.111071974 0.106799386 0.102664627 0.098713629
0.094211332 0.089984685 0.085758038 0.081531391 0.077212863
0.072802447 0.069035225 0.064333841 0.060245022 0.055972435
0.051669218
0.200000003 0.320099086 0.316227436 0.311789632 0.306792170
0.301266313 0.295261025 0.288836628 0.282059282 0.274995983
0.267710537 0.260260224 0.252693176 0.245046392 0.237344742
0.229600504 0.221813783 0.213973522 0.206059456 0.198044643
0.189898789 0.181592390 0.173101515 0.164413348 0.155532598
0.146488488 0.137825415 0.129249617 0.120459415 0.111669220
0.103307813
0.300000012 0.476546049 0.469279438 0.462021440 0.454557508
0.446629792 0.438285440 0.429381847 0.420035183 0.410147101
0.399784744 0.389174700 0.378142178 0.366857737 0.355420530
0.343883127 0.332227379 0.320331037 0.308231384 0.296056151
0.283843607 0.271568626 0.259203941 0.246754676 0.234258965
0.221699625 0.208995849 0.196052626 0.182764560 0.169494644
0.156508416

0.400000006 0.550903499 0.546860635 0.541470110 0.534731984
0.527748823 0.519908130 0.510851204 0.500763416 0.490255505
0.479470491 0.468366623 0.457072377 0.445654124 0.434136808
0.422475755 0.410615563 0.398613304 0.386560589 0.374501139
0.362431258 0.350335538 0.338214308 0.326091290 0.313993424
0.301905811 0.289769948 0.277506530 0.265047640 0.252698630
0.240612954
0.500000000 0.630934179 0.626799405 0.621374249 0.616036415
0.609671056 0.602330804 0.594092131 0.585048139 0.575302303
0.564962626 0.554136574 0.542927146 0.531429112 0.519726574
0.507890880 0.495979398 0.484035015 0.472086638 0.460150003
0.448229581 0.436321169 0.424415082 0.412500143 0.400568724
0.388622046 0.376676530 0.364770919 0.352974027 0.341393203
0.330183744
0.600000024 0.696845353 0.694915771 0.692251146 0.689494669
0.686232746 0.681362927 0.675222039 0.668238878 0.660783172
0.651664376 0.642077088 0.631679535 0.620821536 0.609710991
0.598464131 0.587056994 0.575259507 0.563162863 0.551042140
0.538997352 0.527006686 0.515050828 0.503184497 0.491541624
0.480165094 0.469001085 0.458017915 0.447255403 0.436763495
0.426461846
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0.772819996 0.770228684 0.766586661 0.761859715 0.756133676
0.749426842 0.741969168 0.733728528 0.724471748 0.714264572
0.703239560 0.691529393 0.679412365 0.667115092 0.654804409
0.642531455 0.630272508 0.618066192 0.605938673 0.593856633
0.581855059 0.570000768 0.558330059 0.546904266 0.535758853
0.524816275
0.800000012 0.867912769 0.867856741 0.867800713 0.867617488
0.867391527 0.866877556 0.866020441 0.864350498 0.861916363
0.858636558 0.854236305 0.848765969 0.842013419 0.833956301
0.824450433 0.813623250 0.801853240 0.789582610 0.776987612
0.764063537 0.750830472 0.737549543 0.724438369 0.711476505
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0.883262932 0.874392629 0.864274740 0.853045583 0.841069460
0.828427970 0.815228999 0.801755428 0.788244545 0.774783194
0.761468709 0.748309255 0.735362947 0.722808182 0.710464835
0.697958291
0.899999976 0.943229973 0.943229973 0.943229973 0.943229973
0.943229973 0.943230152 0.943229556 0.943223655 0.943175912
0.943032622 0.942756176 0.942289710 0.941440344 0.939736724

0.936750829 0.932094574 0.925645590 0.917621076 0.907806039
0.896500111 0.884485722 0.872118890 0.859411001 0.845993996
0.831990778 0.817777634 0.803563237 0.789409459 0.775313377
0.761269152
0.949999988 0.971390009 0.971390009 0.971390009 0.971390009
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0.835721076
1.000000000 0.997250021 0.997250021 0.997250021 0.997250021
0.997250021 0.997250021 0.997250021 0.997250021 0.997250021
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1.021199942 1.021199942 1.021199942 1.021199942 1.021199942
1.021199942 1.021199942 1.021199942 1.021199942 1.021199942
1.021199942 1.021199942 1.021199942 1.021196246 1.021174073
1.021102786 1.020914912 1.020499706 1.019809008 1.018826246
1.017413497 1.015084982 1.011553526 1.006770611 1.000971675
0.994765282
1.100000024 1.036599994 1.036599994 1.036599994 1.036599994
1.036599994 1.036599994 1.036599994 1.036599994 1.036599994
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1.036599994 1.036599994 1.036599994 1.036599994 1.036599994
1.036599994

Efficiency

17.03100000 0.000000000 0.034482758 0.068965517 0.103448279
0.137931034 0.172413796 0.206896558 0.241379306 0.275862068
0.310344815 0.344827592 0.379310340 0.413793117 0.448275864
0.482758611 0.517241359 0.551724136 0.586206913 0.620689631
0.655172408 0.689655185 0.724137902 0.758620679 0.793103456
0.827586234 0.862068951 0.896551728 0.931034505 0.965517223
1.000000000
0.010000000 75.23484039 -136.0523071 -22.63844872 -8.365002632
-4.290678024 -1.961407661 -0.978478134 -0.343353391 0.059235044
0.332417428 0.540318847 0.692488253 0.793771803 0.858403146
0.883012772 0.899075270 0.891883194 0.889181912 0.880245328

0.877103925 0.858023047 0.834476590 0.809979260 0.770760596
0.744579136 0.715406477 0.690772891 0.666949987 0.645595372
0.620214701
0.050000001 77.57603455 -87.89733124 -17.27991104 -7.921703815
-3.927160978 -2.008524895 -0.939662814 -0.314559162 0.072534658
0.354438305 0.547014832 0.687455118 0.782624364 0.839679122
0.872534513 0.888025284 0.898569822 0.899438798 0.888589442
0.872986495 0.842682421 0.819981456 0.784063697 0.758883476
0.732687056 0.705614388 0.685775280 0.663695753 0.640828967
0.618980706
0.100000001 23.52146530 389.5066223 -24.77175522 -9.06644630
-4.349654675 -2.096832037 -0.986054301 -0.339569479 0.082970887
0.359126568 0.552274585 0.680644453 0.788990974 0.858508348
0.883612037 0.899370015 0.898967743 0.891904771 0.882608712
0.864273489 0.846509993 0.822711051 0.797634363 0.770637989
0.739671886 0.719015896 0.688473821 0.666640639 0.641926050
0.618982136
0.200000003 446.5746155 -40.35416794 -14.78741264 -7.273744106
-3.893728495 -2.078467607 -1.011985302 -0.346290946 0.082137741
0.364761710 0.556316674 0.684663832 0.771412671 0.829681098
0.867636979 0.890292764 0.900548041 0.901262403 0.894645929
0.881803453 0.863352239 0.839839160 0.811926186 0.780375659
0.746104121 0.716760457 0.689435124 0.660204947 0.632312357
0.610057414
0.300000012 4.542375565 5.133445740 6.576964855 10.46562862
128.3009644 -6.659301281 -1.840866566 -0.496216625 0.105417520
0.432239830 0.625417531 0.761913657 0.831526220 0.875134230
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0.879062712 0.862320721 0.842368305 0.820007741 0.796224475
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0.625075936
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0.013811039 0.346972317 0.545749068 0.661693633 0.747468829
0.811371267 0.856521726 0.881605327 0.897658885 0.903678954
0.902675569 0.900668919 0.896655500 0.890635431 0.881605327
0.868561864 0.855518401 0.840377867 0.822494209 0.803941905
0.784795940 0.764826834 0.743717492 0.721281171 0.699556291
0.679401636
0.500000000 -0.765070856 -0.153375670 0.203570291 0.432378650
0.583059669 0.707247734 0.787326872 0.835519314 0.873157740
0.893017173 0.904806554 0.909166217 0.909680426 0.908944011
0.906373739 0.902573884 0.897551000 0.889717877 0.880270660
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0.723860085

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0.774661899 0.838745475 0.871877789 0.893496931 0.907307029
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0.776297331
0.699999988 0.349437922 0.501119673 0.637048721 0.747187972
0.823811948 0.882141471 0.911779404 0.921806216 0.927103937
0.929995775 0.931706786 0.931999922 0.930028677 0.927148283
0.923594117 0.919753134 0.914582491 0.908187568 0.900467753
0.891807437 0.882228136 0.872008741 0.861347914 0.850185156
0.838730574 0.827295482 0.816048145 0.805232108 0.794977307
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0.762463212 0.826279104 0.874544680 0.900934994 0.919058383
0.929688931 0.935513914 0.938560665 0.938109100 0.935781658
0.932515979 0.928029954 0.922703505 0.917226374 0.910848379
0.902534425 0.892273545 0.881149232 0.870001912 0.858799815
0.847363174 0.835835636 0.824529827 0.813520253 0.802601933
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0.850000024 0.373614281 0.458699852 0.541853368 0.620954394
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0.916873515 0.925144315 0.929839492 0.933254957 0.935389638
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0.913632870 0.904506087 0.893791556 0.882385433 0.870636642
0.858895540 0.847213566 0.835785031 0.825135350 0.814732015
0.803535223
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0.629480720 0.693262994 0.750800550 0.798662603 0.836714864
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0.928340435 0.930613220 0.930165052 0.927647829 0.923800707
0.918339670 0.910641909 0.901079655 0.892303824 0.882115662
0.869758308 0.856465101 0.842889130 0.829236031 0.815523803
0.801761150
0.949999988 0.329919606 0.392153770 0.453363389 0.513480127
0.572113633 0.628235161 0.680107117 0.725888312 0.764136672
0.796509445 0.823438168 0.846620440 0.865701199 0.880855143
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0.519101918 0.568622828 0.615959108 0.659905732 0.699993014
0.735098362 0.765113056 0.792199194 0.816108584 0.837274909

0.855037391 0.869273961 0.879917681 0.886431098 0.890411854
0.893259346 0.895635009 0.897318482 0.896344125 0.894965529
0.892355740 0.889564455 0.883224487 0.874180734 0.863538206
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0.475584596 0.520040870 0.563212872 0.604570925 0.642377675
0.676780820 0.708948314 0.738288164 0.765660644 0.789692700
0.809753358 0.826203167 0.839423895 0.849871814 0.858222604
0.863943160 0.868370235 0.872166455 0.875470757 0.878082871
0.879900932 0.880462646 0.879234672 0.877985001 0.876137733
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0.430316567 0.469653845 0.507208824 0.543016553 0.575800359
0.605551004 0.632916033 0.658592761 0.682794094 0.705336988
0.726069689 0.744754553 0.761408865 0.776428580 0.790621459
0.803818822 0.814829767 0.824738860 0.833752275 0.841245890
0.847870648 0.853381574 0.858273983 0.860843956 0.862479568
0.864548743

Pressure Ratio

17.03100000 0.000000000 0.034482758 0.068965517 0.103448279
0.137931034 0.172413796 0.206896558 0.241379306 0.275862068
0.310344815 0.344827592 0.379310340 0.413793117 0.448275864
0.482758611 0.517241359 0.551724136 0.586206913 0.620689631
0.655172408 0.689655185 0.724137902 0.758620679 0.793103456
0.827586234 0.862068951 0.896551728 0.931034505 0.965517223
1.000000000
0.010000000 0.999917686 0.999929309 0.999941528 0.999953210
0.999964237 0.999975324 0.999984622 0.999993622 1.000001788
1.000009179 1.000016212 1.000022769 1.000028729 1.000034094
1.000038743 1.000043035 1.000046492 1.000049829 1.000052571
1.000055790 1.000057817 1.000059843 1.000060797 1.000061870
1.000062823 1.000063300 1.000063896 1.000064373 1.000064850
1.000064850
0.050000001 0.997956336 0.998235822 0.998550236 0.998829722
0.999117911 0.999379933 0.999620080 0.999845684 1.000042200
1.000231385 1.000406146 1.000566244 1.000716209 1.000842810
1.000960708 1.001065493 1.001163006 1.001250386 1.001323104
1.001388669 1.001432300 1.001475930 1.001497865 1.001526952
1.001548767 1.001563311 1.001585126 1.001599669 1.001606941
1.001614213
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0.996462882 0.997528374 0.998489082 0.999362469 1.000183463
1.000917077 1.001615763 1.002227068 1.002838373 1.003510952
1.003825307 1.004273653 1.004643321 1.004963636 1.005283833

1.005516768 1.005749583 1.005924344 1.006069899 1.006186366
1.006253242 1.006340623 1.006384254 1.006445408 1.006471634
1.006497860
0.200000003 0.968251646 0.972816825 0.977376878 0.981838048
0.986103535 0.990155041 0.993939936 0.997468412 1.000714421
1.003691554 1.006442547 1.008945584 1.011237741 1.013342857
1.015275240 1.017038822 1.018625498 1.020045161 1.021310449
1.022419333 1.023362279 1.024129391 1.024714708 1.025116086
1.025337696 1.025560379 1.025746703 1.025793314 1.025793314
1.025886416
0.300000012 0.929634094 0.940136194 0.950323284 0.960129440
0.969457984 0.978307247 0.986607611 0.994385839 1.001589179
1.008232355 1.014405727 1.020032287 1.025187135 1.029920816
1.034265995 1.038223624 1.041743279 1.044851661 1.047622800
1.050088406 1.052249074 1.054103851 1.055668831 1.056977391
1.058034897 1.058814406 1.059282660 1.059403062 1.059403181
1.059403181
0.400000006 0.951877713 0.964978158 0.977554560 0.989082992
1.000349402 1.010829687 1.020531416 1.029296875 1.037436724
1.045011997 1.051999450 1.058464408 1.0644446568 1.069967031
1.075009465 1.079550028 1.083628774 1.087309003 1.090628505
1.093598604 1.096222758 1.098514318 1.100500941 1.102212667
1.103654146 1.104802012 1.105619907 1.106078386 1.106382966
1.106643677
0.500000000 0.979505122 0.994585156 1.009128809 1.023245692
1.036589503 1.049116135 1.060803413 1.071649790 1.081671000
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Surge Line

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