|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  | | --- | --- | --- | | l\_finger (m) | l\_stator (m) | Objective | | 2.00 | 1.00 | 1.2869 | |  | 1.00 | 1.3063 | | 2.00 | 1.02 | 1.2370 | | 1.96 | 1.00 | 1.3250 | | 2.00 | 9.80 | 1.3389 | | 2.00 | 1.20 | 8.5970 | |

|  |  |
| --- | --- |
| frequency (Hz) | Displacement (m) |
| 2000 | 4.31710 |
| 2500 | 4.37730 |
| 3000 | 4.45330 |
| 3500 | 4.54670 |
| 4000 | 4.65930 |
| 4500 | 4.79390 |
| 5000 | 4.95390 |

|  |  |
| --- | --- |
| frequency (Hz) | Displacement (m) |
| 2000 | 4.30950 |
| 2250 | 4.33500 |
| 2500 | 4.36380 |
| 2750 | 4.39610 |
| 3000 | 4.43210 |
| 3250 | 4.47180 |
| 3500 | 4.51560 |
| 3750 | 4.56350 |
| 4000 | 4.61590 |
| 4250 | 4.67300 |
| 4500 | 4.73510 |
| 4750 | 4.80270 |
| 5000 | 4.87590 |

|  |  |
| --- | --- |
| frequency (Hz) | Displacement (m) |
| 2000 | 4.31710 |
| 2250 | 4.34530 |
| 2500 | 4.37730 |
| 2750 | 4.41330 |
| 3000 | 4.45330 |
| 3250 | 4.49770 |
| 3500 | 4.54670 |
| 3750 | 4.60040 |
| 4000 | 4.65930 |
| 4250 | 4.72370 |
| 4500 | 4.79390 |
| 4750 | 4.87050 |
| 5000 | 4.95390 |

|  |  |
| --- | --- |
| l\_overlap (m) | Capacitance (F) |
| 3.50 | 3.4764050453 |
| 3.60 | 3.4336383254 |
| 3.70 | 3.3915770407 |
| 3.80 | 3.3568051645 |
| 3.90 | 3.3091417674 |
| 4.00 | 3.2581028057 |
| 4.10 | 3.2145315198 |
| 4.20 | 3.1543404109 |
| 4.30 | 3.1395417877 |
| 4.40 | 3.0842491403 |
| 4.50 | 3.0399931709 |

PD

|  |  |
| --- | --- |
| Applied Force | Displacement field PD |
| 0 | 0 |
| 1.00E+00 | 0.04216233 |
| 2.00E+00 | 0.08432466 |
| 3.00E+00 | 0.12648699 |
| 4.00E+00 | 0.16864932 |
| 5.00E+00 | 0.21081165 |
| 6.00E+00 | 0.25297398 |
| 7.00E+00 | 0.29513631 |
| 8.00E+00 | 0.33729864 |
| 9.00E+00 | 0.37946097 |
| 1.00E+01 | 0.4216233 |

OD

F\_app Displacement field, X component (m), Domain Probe 1

0 0

1 0.042133753108594886

2 0.08426750621719054

3 0.1264012593257842

4 0.16853501243438107

5 0.21066876554297506

6 0.2528025186515684

7 0.29493627176016435

8 0.3370700248687621

9 0.3792037779773551

10 0.4213375310859501

|  |  |  |  |
| --- | --- | --- | --- |
| Applied Force | Displacement field PD | Displacement field OD | difference |
| 0 | 0 | 0 | 0 |
| 1.00E+00 | 0.04216233 | 0.042133753 | 0.000028576903061496 |
| 2.00E+00 | 0.08432466 | 0.084267506 | 0.000057153806121507 |
| 3.00E+00 | 0.12648699 | 0.126401259 | 0.000085730709185994 |
| 4.00E+00 | 0.16864932 | 0.168535012 | 0.000114307612243014 |
| 5.00E+00 | 0.21081165 | 0.210668766 | 0.000142884515307001 |
| 6.00E+00 | 0.25297398 | 0.252802519 | 0.000171461418372987 |
| 7.00E+00 | 0.29513631 | 0.294936272 | 0.000200038321432006 |
| 8.00E+00 | 0.33729864 | 0.337070025 | 0.000228615224486028 |
| 9.00E+00 | 0.37946097 | 0.379203778 | 0.000257192127547989 |
| 1.00E+01 | 0.4216233 | 0.421337531 | 0.000285769030615002 |

|  |  |  |
| --- | --- | --- |
| Frequency (Hz) | PD Displacement (m) | OD Displacement (m) |
| 2000 | 4.3095 | 4.3171 |
| 2250 | 4.3350 | 4.3453 |
| 2500 | 4.3638 | 4.3773 |
| 2750 | 4.3961 | 4.4133 |
| 3000 | 4.4321 | 4.4533 |
| 3250 | 4.4718 | 4.4977 |
| 3500 | 4.5156 | 4.5467 |
| 3750 | 4.5635 | 4.6004 |
| 4000 | 4.6159 | 4.6593 |
| 4250 | 4.6730 | 4.7237 |
| 4500 | 4.7351 | 4.7939 |
| 4750 | 4.8027 | 4.8705 |
| 5000 | 4.8759 | 4.9539 |

|  |  |  |  |
| --- | --- | --- | --- |
| Applied Force | Displacement field PD | Displacement field OD | Difference |
| 0 | 0 | 0 | 0 |
| 1.00 | 0.04216233 | 0.042133753 | 2.85769E-05 |
| 2.00 | 0.08432466 | 0.084267506 | 5.71538E-05 |
| 3.00 | 0.12648699 | 0.126401259 | 8.57307E-05 |
| 4.00 | 0.16864932 | 0.168535012 | 0.000114308 |
| 5.00 | 0.21081165 | 0.210668766 | 0.000142885 |
| 6.00 | 0.25297398 | 0.252802519 | 0.000171461 |
| 7.00 | 0.29513631 | 0.294936272 | 0.000200038 |
| 8.00 | 0.33729864 | 0.337070025 | 0.000228615 |
| 9.00 | 0.37946097 | 0.379203778 | 0.000257192 |
| 1.00 | 0.42162330 | 0.421337531 | 0.000285769 |