

id	machine_id	machine_name	timestamp	shift	spindle_rpm	spindle_pulse	shaft_rpm	shaft_pulse	tpm	set_length	actual_length
1	MC001	Lathe A	2025-07-09 20:21:15	B	1499.15	48	1534.28	27	3.96	120	112.59
2	MC001	Lathe A	2025-07-09 20:21:16	B	1476.82	34	1411.33	46	3.48	120	117.32
3	MC001	Lathe A	2025-07-09 20:21:16	B	1524.91	29	1458.35	22	5.35	120	118.66
4	MC001	Lathe A	2025-07-09 20:21:17	B	1562.07	14	1393.69	21	5.93	120	103.29
5	MC001	Lathe A	2025-07-09 20:21:18	B	1539.47	10	1401.82	42	5.92	120	117.17
6	MC001	Lathe A	2025-07-09 20:21:18	B	1400.24	23	1535.2	14	5.54	120	111.32
7	MC001	Lathe A	2025-07-09 20:21:20	B	1495.71	13	1350.92	23	6.1	120	105.37
8	MC001	Lathe A	2025-07-09 20:21:20	B	1445.91	20	1544.21	35	3.3	120	111.87
9	MC001	Lathe A	2025-07-09 20:21:20	B	1556.53	28	1371.27	17	3.89	120	109.93
10	MC001	Lathe A	2025-07-09 20:21:22	B	1576.72	49	1446.62	18	5.26	120	115.63
11	MC001	Lathe A	2025-07-09 20:21:23	B	1555.01	20	1384.56	15	3.98	120	118.9
12	MC001	Lathe A	2025-07-09 20:21:23	B	1474.11	34	1430.08	18	5.18	120	115.26
13	MC001	Lathe A	2025-07-09 20:21:25	B	1493.13	14	1441.51	31	3.07	120	115.26
14	MC001	Lathe A	2025-07-09 20:21:25	B	1431.89	35	1356.52	36	5.43	120	111.93
15	MC001	Lathe A	2025-07-09 20:21:26	B	1507.81	43	1431.16	29	6.38	120	118.39
16	MC001	Lathe A	2025-07-09 20:21:28	B	1495.37	46	1394.77	46	3.22	120	113.35
17	MC001	Lathe A	2025-07-09 20:21:28	B	1582.54	27	1476.89	10	4.16	120	113.93
18	MC001	Lathe A	2025-07-09 20:21:29	B	1435.65	15	1364.65	50	4.06	120	109.67
19	MC001	Lathe A	2025-07-09 20:21:31	B	1594.34	35	1396.76	48	5.59	120	102.71
20	MC001	Lathe A	2025-07-09 20:21:32	B	1556.39	14	1507.51	19	3.85	120	118.27
21	MC001	Lathe A	2025-07-09 20:21:32	B	1441.85	13	1532.1	49	3.15	120	100.49
22	MC001	Lathe A	2025-07-09 20:21:34	B	1522.13	16	1505.87	16	5.58	120	103.56
23	MC001	Lathe A	2025-07-09 20:21:35	B	1501.2	21	1436.73	28	5.1	120	104.11
24	MC001	Lathe A	2025-07-09 20:21:35	B	1550.12	34	1385.03	27	3.24	120	104.28
25	MC001	Lathe A	2025-07-09 20:21:37	B	1486.65	35	1543.38	38	3.08	120	111.41
26	MC001	Lathe A	2025-07-09 20:21:38	B	1480.36	42	1541.74	20	5.98	120	105.4
27	MC001	Lathe A	2025-07-09 20:21:39	B	1416.9	15	1533.66	30	3.14	120	102.51
28	MC001	Lathe A	2025-07-09 20:21:40	B	1569.7	24	1379.59	24	5.36	120	119.33
29	MC001	Lathe A	2025-07-09 20:21:41	B	1531.29	47	1427.65	42	5.38	120	117.81
30	MC001	Lathe A	2025-07-09 20:21:42	B	1469.03	49	1531.05	35	5.8	120	103.55
31	MC001	Lathe A	2025-07-09 20:21:43	B	1538.61	49	1409.6	44	5.23	120	107.35
32	MC001	Lathe A	2025-07-09 20:21:44	B	1452.62	15	1513.74	35	5.36	120	115.61
33	MC001	Lathe A	2025-07-09 20:21:45	B	1425.08	18	1494.12	43	5.41	120	106.53
34	MC001	Lathe A	2025-07-09 20:21:47	B	1434.32	26	1350.76	13	5.01	120	100.67
35	MC001	Lathe A	2025-07-09 20:21:47	B	1425.91	31	1536.97	45	4.77	120	112.39
36	MC001	Lathe A	2025-07-09 20:21:48	B	1487.01	42	1535.14	23	5.48	120	111.44
37	MC001	Lathe A	2025-07-09 20:21:50	B	1530.12	17	1410.73	22	5.74	120	117.65
38	MC001	Lathe A	2025-07-09 20:21:51	B	1524.57	42	1459.97	27	5.48	120	114.7
39	MC001	Lathe A	2025-07-09 20:21:51	B	1490.95	32	1440	21	5.74	120	112.34
40	MC001	Lathe A	2025-07-09 20:21:53	B	1567.91	27	1507.77	23	3.84	120	116.92
41	MC001	Lathe A	2025-07-09 20:21:54	B	1518.21	40	1535.76	45	5.06	120	113.77
42	MC001	Lathe A	2025-07-09 20:21:55	B	1594.01	14	1456.28	18	6.28	120	104.98
43	MC001	Lathe A	2025-07-09 20:21:56	B	1557.24	44	1475.58	45	5.36	120	119
44	MC001	Lathe A	2025-07-09 20:21:57	B	1586.05	32	1497.14	33	5.49	120	115.32
45	MC001	Lathe A	2025-07-09 20:21:58	B	1450.69	22	1433.61	22	4.29	120	108.28
46	MC001	Lathe A	2025-07-09 20:22:00	B	1584.05	11	1539.96	31	6.5	120	100.51
47	MC001	Lathe A	2025-07-09 20:22:00	B	1439.48	14	1369.62	15	4.8	120	111.13
48	MC001	Lathe A	2025-07-09 20:22:01	B	1599.82	17	1371.05	41	4.9	120	107.17
49	MC001	Lathe A	2025-07-09 20:22:03	B	1586.33	29	1468.22	46	4.16	120	118.11
50	MC001	Lathe A	2025-07-09 20:22:03	B	1420.1	29	1449.58	30	3.83	120	103.85
51	MC001	Lathe A	2025-07-09 20:22:04	B	1449.44	50	1455.77	16	5.09	120	116.05
52	MC001	Lathe A	2025-07-09 20:22:06	B	1576.33	44	1373.18	39	5.1	120	107.8
53	MC001	Lathe A	2025-07-09 20:22:07	B	1582.22	50	1374.44	46	6.34	120	119.63
54	MC001	Lathe A	2025-07-09 20:22:08	B	1417.99	49	1473.47	50	6.27	120	101.5
55	MC001	Lathe A	2025-07-09 20:22:10	B	1497.04	48	1404.83	28	3.6	120	116.23
56	MC001	Lathe A	2025-07-09 20:22:10	B	1442.53	26	1355.02	30	4.29	120	113.86
57	MC001	Lathe A	2025-07-09 20:22:11	B	1557.68	29	1417.48	43	4.25	120	116.57
58	MC001	Lathe A	2025-07-09 20:22:13	B	1410.85	28	1464.52	31	5.54	120	115.66
59	MC001	Lathe A	2025-07-09 20:22:13	B	1555.56	50	1436.5	37	3.78	120	116.08
60	MC001	Lathe A	2025-07-09 20:22:14	B	1401.72	28	1486	47	6.06	120	110.76
61	MC001	Lathe A	2025-07-09 20:22:16	B	1595.19	15	1376.97	30	5.74	120	107.84
62	MC001	Lathe A	2025-07-09 20:22:16	B	1579.81	48	1427.82	38	4.23	120	117.7
63	MC001	Lathe A	2025-07-09 20:22:17	B	1572.96	38	1359.55	29	5.1	120	113.59
64	MC001	Lathe A	2025-07-09 20:22:19	B	1556.05	34	1391.2	18	5.98	120	104.46
65	MC001	Lathe A	2025-07-09 20:22:20	B	1494.35	22	1423.11	40	5.05	120	109.01
66	MC001	Lathe A	2025-07-09 20:22:20	B	1554.59	23	1373.91	39	3.86	120	104.65
67	MC001	Lathe A	2025-07-09 20:22:22	B	1568.64	39	1478.5	34	4.8	120	103.74
68	MC001	Lathe A	2025-07-09 20:22:23	B	1421.13	42	1474.38	37	4.22	120	110.42
69	MC001	Lathe A	2025-07-09 20:22:23	B	1541.73	22	1517.56	18	4.94	120	107.36
70	MC001	Lathe A	2025-07-09 20:22:25	B	1431.65	11	1417.35	32	5.53	120	119.13

id	machine_id	machine_name	timestamp	shift	spindle_rpm	spindle_pulse	shaft_rpm	shaft_pulse	tpm	set_length	actual_length
71	MC001	Lathe A	2025-07-09 20:22:26	B	1418.94	46	1395.99	11	5.51	120	106.48
72	MC001	Lathe A	2025-07-09 20:22:27	B	1589.97	41	1373.98	40	3.08	120	104.46
73	MC001	Lathe A	2025-07-09 20:22:28	B	1598.3	22	1454.61	36	3.84	120	102.83
74	MC001	Lathe A	2025-07-09 20:22:29	B	1535.54	49	1421.54	11	4.7	120	103.59
75	MC001	Lathe A	2025-07-09 20:22:30	B	1490.27	23	1525.19	19	4.09	120	109.43
76	MC001	Lathe A	2025-07-09 20:22:32	B	1413.56	36	1486.39	33	5.11	120	115.13
77	MC001	Lathe A	2025-07-09 20:22:32	B	1463.03	44	1509.66	43	6.29	120	110.15
78	MC001	Lathe A	2025-07-09 20:22:33	B	1473.07	20	1395.85	17	5.19	120	100.78
79	MC001	Lathe A	2025-07-09 20:22:35	B	1504.11	33	1449.68	46	3.57	120	102.05
80	MC001	Lathe A	2025-07-09 20:22:36	B	1584.93	46	1351.87	29	4.41	120	112.37
81	MC001	Lathe A	2025-07-09 20:22:36	B	1520.67	17	1531.45	29	4.01	120	110.29
82	MC001	Lathe A	2025-07-09 20:22:38	B	1507.77	34	1546.56	22	6.11	120	108.88
83	MC001	Lathe A	2025-07-09 20:22:39	B	1528	36	1434.6	12	6.21	120	113.71
84	MC001	Lathe A	2025-07-09 20:22:39	B	1542.49	15	1538.23	34	5.27	120	114.14
85	MC001	Lathe A	2025-07-09 20:22:41	B	1576.78	27	1398.25	18	5.92	120	106.06
86	MC001	Lathe A	2025-07-09 20:22:42	B	1508.04	48	1505.18	16	6.21	120	111.73
87	MC001	Lathe A	2025-07-09 20:22:43	B	1570.03	43	1502.45	24	5.51	120	112.62
88	MC001	Lathe A	2025-07-09 20:22:44	B	1558.1	14	1370.29	15	5.65	120	114.28
89	MC001	Lathe A	2025-07-09 20:22:45	B	1554.72	40	1496.87	32	3.12	120	108.28
90	MC001	Lathe A	2025-07-09 20:22:46	B	1507.99	37	1445.26	13	6.32	120	117.01
91	MC001	Lathe A	2025-07-09 20:22:48	B	1433.95	23	1362.06	10	3.56	120	101.32
92	MC001	Lathe A	2025-07-09 20:22:48	B	1477.28	28	1385.76	47	5.2	120	112.32
93	MC001	Lathe A	2025-07-09 20:22:49	B	1450.46	11	1533.08	33	3.91	120	101.61
94	MC001	Lathe A	2025-07-09 20:22:51	B	1471.73	33	1526.4	43	6.42	120	106.33
95	MC001	Lathe A	2025-07-09 20:22:52	B	1426.7	31	1514.1	15	6.48	120	106.01
96	MC001	Lathe A	2025-07-09 20:22:52	B	1491.45	21	1390.94	24	3.59	120	111.77
97	MC001	Lathe A	2025-07-09 20:22:54	B	1486.46	27	1401.98	11	4.24	120	110.68
98	MC001	Lathe A	2025-07-09 20:22:55	B	1482.51	32	1356.75	42	3.32	120	106.67
99	MC001	Lathe A	2025-07-09 20:22:56	B	1568.1	23	1368.72	20	3.37	120	105.73
100	MC001	Lathe A	2025-07-09 20:22:57	B	1419.34	42	1363.2	45	3.88	120	118.09
101	MC001	Lathe A	2025-07-09 20:22:58	B	1509.46	13	1429.1	26	4.71	120	116.22
102	MC001	Lathe A	2025-07-09 20:22:59	B	1523.19	50	1432.42	24	3.85	120	103.04
103	MC001	Lathe A	2025-07-09 20:23:01	B	1557.88	40	1450.26	30	4.84	120	110.19
104	MC001	Lathe A	2025-07-09 20:23:01	B	1499.11	45	1399.34	38	6.13	120	103.58
105	MC001	Lathe A	2025-07-09 20:23:02	B	1526.57	44	1482.38	23	4.53	120	101.04
106	MC001	Lathe A	2025-07-09 20:23:04	B	1544.92	47	1421.43	18	5.27	120	102.59
107	MC001	Lathe A	2025-07-09 20:23:04	B	1590.25	11	1519.13	44	6.34	120	110.03
108	MC001	Lathe A	2025-07-09 20:23:05	B	1514.71	15	1378.9	45	6.2	120	102.65
109	MC001	Lathe A	2025-07-09 20:23:07	B	1424.6	11	1446.41	33	6.28	120	104.26
110	MC001	Lathe A	2025-07-09 20:23:08	B	1454.76	49	1474.37	15	3.08	120	116.15
111	MC001	Lathe A	2025-07-09 20:23:09	B	1594.99	30	1491.16	49	3.65	120	112.88
112	MC001	Lathe A	2025-07-09 20:23:11	B	1516.81	16	1527.68	30	4.08	120	118.88
113	MC001	Lathe A	2025-07-09 20:23:12	B	1475.14	20	1537.19	14	3.78	120	103.58
114	MC001	Lathe A	2025-07-09 20:23:12	B	1495.97	47	1537.94	19	6.1	120	117.84
115	MC001	Lathe A	2025-07-09 20:23:14	B	1511.47	21	1485.91	23	3.24	120	104.95
116	MC001	Lathe A	2025-07-09 20:23:14	B	1472.75	47	1486.75	22	3.77	120	116.7
117	MC001	Lathe A	2025-07-09 20:23:15	B	1594.59	41	1458.6	15	3.05	120	117.7
118	MC001	Lathe A	2025-07-09 20:23:16	B	1584.69	18	1514.64	42	5.39	120	107.63
119	MC001	Lathe A	2025-07-09 20:23:16	B	1558.69	31	1511.38	46	5.09	120	110.18
120	MC001	Lathe A	2025-07-09 20:23:17	B	1451.18	14	1484.71	47	3.85	120	105.45
121	MC001	Lathe A	2025-07-09 20:23:18	B	1481.32	17	1544.38	37	3.17	120	110.67
122	MC001	Lathe A	2025-07-09 20:23:19	B	1555.79	34	1535.77	39	6.05	120	117.66
123	MC001	Lathe A	2025-07-09 20:23:19	B	1504.28	22	1517.34	10	3.38	120	109.27
124	MC001	Lathe A	2025-07-09 20:23:21	B	1404.08	50	1447.38	13	5.22	120	108.89
125	MC001	Lathe A	2025-07-09 20:23:21	B	1467.22	22	1479.54	20	3.1	120	101.75
126	MC001	Lathe A	2025-07-09 20:23:21	B	1527.55	47	1428.14	22	6.12	120	119.72
127	MC001	Lathe A	2025-07-09 20:23:23	B	1572.27	17	1432.73	35	4.81	120	114.77
128	MC001	Lathe A	2025-07-09 20:23:23	B	1415.41	28	1386.58	25	3.53	120	110.88
129	MC001	Lathe A	2025-07-09 20:23:24	B	1474.75	13	1429.76	24	4.44	120	103.68
130	MC001	Lathe A	2025-07-09 20:23:25	B	1513.83	21	1439.25	30	5.28	120	106.74
131	MC001	Lathe A	2025-07-09 20:23:25	B	1474.24	39	1395.99	46	3.3	120	115.31
132	MC001	Lathe A	2025-07-09 20:23:26	B	1484.63	10	1424.78	23	4.22	120	107.94
133	MC001	Lathe A	2025-07-09 20:23:27	B	1507.78	47	1404.92	45	3.09	120	107.47
134	MC001	Lathe A	2025-07-09 20:23:27	B	1451.77	25	1357.26	11	4.71	120	114.16
135	MC001	Lathe A	2025-07-09 20:23:28	B	1454.26	41	1384.79	38	5.4	120	112.54
136	MC001	Lathe A	2025-07-09 20:23:29	B	1449.93	40	1389.15	29	4.16	120	117.71
137	MC001	Lathe A	2025-07-09 20:23:29	B	1452.41	31	1366.56	16	3.63	120	105.21
138	MC001	Lathe A	2025-07-09 20:23:30	B	1492.65	42	1436.96	14	4.85	120	107.78
139	MC001	Lathe A	2025-07-09 20:23:31	B	1508.93	15	1382.76	16	6.04	120	109.55
140	MC001	Lathe A	2025-07-09 20:23:32	B	1417.33	14	1394.6	14	3.37	120	115.46

id	machine_id	machine_name	timestamp	shift	spindle_rpm	spindle_pulse	shaft_rpm	shaft_pulse	tpm	set_length	actual_length
141	MC001	Lathe A	2025-07-09 20:23:32	B	1591.12	23	1443.07	22	4.65	120	116.32
142	MC001	Lathe A	2025-07-09 20:23:33	B	1435.84	24	1465.78	47	4.85	120	107.03
143	MC001	Lathe A	2025-07-09 20:23:34	B	1408.74	20	1509.33	35	4.48	120	110.72
144	MC001	Lathe A	2025-07-09 20:23:34	B	1546.33	24	1540.19	13	4.26	120	108.65
145	MC001	Lathe A	2025-07-09 20:23:36	B	1484.78	44	1498.98	43	6.42	120	113.88
146	MC001	Lathe A	2025-07-09 20:23:36	B	1409.07	14	1445.88	48	6.18	120	110.17
147	MC001	Lathe A	2025-07-09 20:23:36	B	1488.83	13	1502.94	12	3.58	120	115.25
148	MC001	Lathe A	2025-07-09 20:23:38	B	1581.03	18	1430.52	21	4.44	120	118.21
149	MC001	Lathe A	2025-07-09 20:23:38	B	1544.86	26	1480.74	27	3.35	120	102.83
150	MC001	Lathe A	2025-07-09 20:23:39	B	1593.41	29	1479.41	40	4.4	120	117.34
151	MC001	Lathe A	2025-07-09 20:23:40	B	1584.65	36	1453.92	22	3.01	120	101.15
152	MC001	Lathe A	2025-07-09 20:23:40	B	1493.32	49	1440.63	42	5.99	120	110.73
153	MC001	Lathe A	2025-07-09 20:23:41	B	1441.01	28	1369.85	25	5.74	120	112.45
154	MC001	Lathe A	2025-07-09 20:23:42	B	1535.21	33	1486.37	27	3.07	120	106.9
155	MC001	Lathe A	2025-07-09 20:23:42	B	1435.15	38	1422.88	45	6.27	120	100.46
156	MC001	Lathe A	2025-07-09 20:23:43	B	1477.78	24	1539.15	50	6.32	120	115.37
157	MC001	Lathe A	2025-07-09 20:23:45	B	1596.37	25	1408.43	19	3.38	120	105.64
158	MC001	Lathe A	2025-07-09 20:23:45	B	1470.68	34	1521.39	17	3.95	120	105.7
159	MC001	Lathe A	2025-07-09 20:23:45	B	1541.85	26	1488.15	17	3.45	120	104.5
160	MC001	Lathe A	2025-07-09 20:23:47	B	1555.51	15	1408.19	35	3.54	120	102.29
161	MC001	Lathe A	2025-07-09 20:23:48	B	1559.51	38	1485.75	20	4.11	120	118.93
162	MC001	Lathe A	2025-07-09 20:23:48	B	1451.62	17	1373.83	28	6	120	115.73
163	MC001	Lathe A	2025-07-09 20:23:51	B	1472.04	17	1389.54	22	4.68	120	117.91
164	MC001	Lathe A	2025-07-09 20:23:51	B	1537.4	18	1451.22	28	5.67	120	115.55
165	MC001	Lathe A	2025-07-09 20:23:52	B	1435.34	20	1484.56	31	4.28	120	111.98
166	MC001	Lathe A	2025-07-09 20:23:54	B	1498.14	35	1490.04	38	3.58	120	117.17
167	MC001	Lathe A	2025-07-09 20:23:55	B	1500.6	11	1397.24	23	5.05	120	100.76
168	MC001	Lathe A	2025-07-09 20:23:56	B	1560.69	47	1463.66	48	3.28	120	117.18
169	MC001	Lathe A	2025-07-09 20:23:58	B	1573.61	37	1525.68	47	3.31	120	108.89
170	MC001	Lathe A	2025-07-09 20:23:59	B	1510.97	35	1394.21	44	6.35	120	112.59
171	MC001	Lathe A	2025-07-09 20:24:00	B	1434.13	12	1448.68	42	4.75	120	116.24
172	MC001	Lathe A	2025-07-09 20:24:01	B	1495.02	22	1509.17	11	4.75	120	114.98
173	MC001	Lathe A	2025-07-09 20:24:02	B	1445.41	47	1414.88	50	5.18	120	105
174	MC001	Lathe A	2025-07-09 20:24:03	B	1415.36	12	1492.27	13	3.66	120	116.48
175	MC001	Lathe A	2025-07-09 20:24:05	B	1596.56	26	1449.77	10	5.83	120	112.15
176	MC001	Lathe A	2025-07-09 20:24:06	B	1415.14	44	1543.93	41	4.54	120	109.26
177	MC001	Lathe A	2025-07-09 20:24:06	B	1572.46	49	1381.75	50	4.08	120	109.11
178	MC001	Lathe A	2025-07-09 20:24:08	B	1526.58	49	1534.71	47	4.59	120	103.39
179	MC001	Lathe A	2025-07-09 20:24:09	B	1564.35	11	1526.85	37	4.9	120	115.59
180	MC001	Lathe A	2025-07-09 20:24:10	B	1525.91	50	1503.57	23	4.89	120	107.35
181	MC001	Lathe A	2025-07-09 20:24:12	B	1584.76	17	1380.58	25	3.27	120	112.13
182	MC001	Lathe A	2025-07-09 20:24:13	B	1517.28	10	1469.79	24	5.54	120	109.43
183	MC001	Lathe A	2025-07-09 20:24:14	B	1448.27	21	1441.51	12	5.44	120	115.55
184	MC001	Lathe A	2025-07-09 20:24:15	B	1525.92	42	1461.79	14	3.75	120	117.41
185	MC001	Lathe A	2025-07-09 20:24:16	B	1491.42	36	1472.57	22	3.1	120	117.09
186	MC001	Lathe A	2025-07-09 20:24:17	B	1534.42	19	1525.15	31	4.92	120	109.6
187	MC001	Lathe A	2025-07-09 20:24:19	B	1488.74	49	1374.55	50	6.48	120	115.69
188	MC001	Lathe A	2025-07-09 20:24:20	B	1513.18	38	1403.93	37	5.24	120	118.4
189	MC001	Lathe A	2025-07-09 20:24:21	B	1527.63	40	1375.42	23	3.72	120	119.02
190	MC001	Lathe A	2025-07-09 20:24:23	B	1573.38	23	1514.1	32	3.2	120	115.55
191	MC001	Lathe A	2025-07-09 20:24:24	B	1501.35	41	1455.94	42	5.48	120	113.95
192	MC001	Lathe A	2025-07-09 20:24:25	B	1564.88	30	1395.38	12	4.47	120	108.35
193	MC001	Lathe A	2025-07-09 20:24:27	B	1572.72	32	1379.92	23	5.15	120	106.26
194	MC001	Lathe A	2025-07-09 20:24:27	B	1479.15	47	1500.84	25	3.14	120	111.44
195	MC001	Lathe A	2025-07-09 20:24:28	B	1471.84	33	1509.58	11	5.33	120	111.76
196	MC001	Lathe A	2025-07-09 20:24:30	B	1466.72	30	1439.25	48	5.89	120	114.74
197	MC001	Lathe A	2025-07-09 20:24:31	B	1416.11	31	1350.23	25	6.16	120	102.15
198	MC001	Lathe A	2025-07-09 20:24:32	B	1448.53	30	1462.1	49	5.06	120	110.23
199	MC001	Lathe A	2025-07-09 20:24:33	B	1531.27	24	1359.8	40	4.46	120	117.22
200	MC001	Lathe A	2025-07-09 20:24:35	B	1510.12	47	1543.22	18	5.24	120	109.97
201	MC001	Lathe A	2025-07-09 20:24:35	B	1474.42	45	1464.69	26	6.16	120	118.94
202	MC001	Lathe A	2025-07-09 20:24:37	B	1401.58	41	1431.6	29	5.26	120	116.88
203	MC001	Lathe A	2025-07-09 20:24:38	B	1568.24	32	1394.95	13	5.69	120	107.25
204	MC001	Lathe A	2025-07-09 20:24:39	B	1576.27	34	1501.59	40	3.23	120	104.48
205	MC001	Lathe A	2025-07-09 20:24:41	B	1459.9	11	1390.71	38	4.85	120	105.88
206	MC001	Lathe A	2025-07-09 20:24:42	B	1498.65	46	1463.57	29	3.32	120	110.51
207	MC001	Lathe A	2025-07-09 20:24:43	B	1559.22	39	1548.52	12	3.32	120	111.23
208	MC001	Lathe A	2025-07-09 20:24:44	B	1476.07	21	1509.19	23	4.5	120	117.55
209	MC001	Lathe A	2025-07-09 20:24:45	B	1458.58	40	1412.78	22	4.69	120	105.07
210	MC001	Lathe A	2025-07-09 20:24:46	B	1492.42	46	1351.72	34	4.11	120	101.55

id	machine_id	machine_name	timestamp	shift	spindle_rpm	spindle_pulse	shaft_rpm	shaft_pulse	tpm	set_length	actual_length
211	MC001	Lathe A	2025-07-09 20:24:48	B	1421.2	46	1518.74	30	5.95	120	116.42
212	MC001	Lathe A	2025-07-09 20:24:49	B	1441.17	33	1399.13	48	4.44	120	113.25
213	MC001	Lathe A	2025-07-09 20:24:50	B	1427.01	11	1548.33	30	3.83	120	108.65
214	MC001	Lathe A	2025-07-09 20:24:52	B	1465.23	30	1511.01	14	5.33	120	102.34
215	MC001	Lathe A	2025-07-09 20:24:53	B	1450.03	21	1512.68	48	5.7	120	115.44
216	MC001	Lathe A	2025-07-09 20:24:54	B	1424.62	13	1483.71	20	6	120	111.52
217	MC001	Lathe A	2025-07-09 20:24:55	B	1401.96	28	1399.25	45	6.01	120	103.72
218	MC001	Lathe A	2025-07-09 20:24:56	B	1481.19	30	1429.63	35	5.31	120	104.78
219	MC001	Lathe A	2025-07-09 20:24:57	B	1529.32	30	1402.05	18	3.82	120	110.44
220	MC001	Lathe A	2025-07-09 20:24:59	B	1569.96	10	1459.75	47	4.23	120	103.87
221	MC001	Lathe A	2025-07-09 20:25:00	B	1585.84	12	1413.98	32	3.75	120	106.64
222	MC001	Lathe A	2025-07-09 20:25:01	B	1582.92	17	1473.56	26	4.26	120	118.37
223	MC001	Lathe A	2025-07-09 20:25:03	B	1514.04	11	1506.31	34	4.3	120	116.95
224	MC001	Lathe A	2025-07-09 20:25:04	B	1554.38	47	1515.9	37	6.15	120	119.39
225	MC001	Lathe A	2025-07-09 20:25:04	B	1574.87	15	1423.78	25	6.07	120	108.67
226	MC001	Lathe A	2025-07-09 20:25:06	B	1445.69	38	1490.92	43	4.36	120	112.34
227	MC001	Lathe A	2025-07-09 20:25:07	B	1494.13	19	1503.85	12	3.07	120	112.73
228	MC001	Lathe A	2025-07-09 20:25:08	B	1592.95	37	1526.8	38	3.89	120	109.55
229	MC001	Lathe A	2025-07-09 20:25:09	B	1436.9	42	1413.3	16	4.81	120	113.22
230	MC001	Lathe A	2025-07-09 20:25:10	B	1537.44	16	1401.05	29	6.27	120	115.55
231	MC001	Lathe A	2025-07-09 20:25:11	B	1468.77	47	1481.32	26	5.26	120	108.22
232	MC001	Lathe A	2025-07-09 20:25:13	B	1467.59	46	1501.63	21	6.41	120	115.39
233	MC001	Lathe A	2025-07-09 20:25:14	B	1599.4	16	1543.79	11	4.31	120	104.59
234	MC001	Lathe A	2025-07-09 20:25:15	B	1400.46	46	1506.43	34	3.68	120	117.67
235	MC001	Lathe A	2025-07-09 20:25:17	B	1592.3	40	1526.09	49	3.47	120	101.94
236	MC001	Lathe A	2025-07-09 20:25:18	B	1547.31	16	1454.15	43	4.74	120	109.68
237	MC001	Lathe A	2025-07-09 20:25:18	B	1584.12	38	1422.43	11	6.01	120	102.63
238	MC001	Lathe A	2025-07-09 20:25:20	B	1418.41	12	1370.74	30	4.32	120	103.95
239	MC001	Lathe A	2025-07-09 20:25:21	B	1423.71	39	1419.66	18	5.35	120	101.5
240	MC001	Lathe A	2025-07-09 20:25:22	B	1414.44	18	1549.97	21	6.21	120	105.94
241	MC001	Lathe A	2025-07-09 20:25:24	B	1517.23	44	1355.66	19	6.17	120	115.57
242	MC001	Lathe A	2025-07-09 20:25:25	B	1430.53	16	1460.35	19	4.17	120	113.15
243	MC001	Lathe A	2025-07-09 20:25:26	B	1548.45	35	1377.81	29	4.68	120	109.03
244	MC001	Lathe A	2025-07-09 20:25:28	B	1564.85	39	1517.88	45	4.48	120	105.79
245	MC001	Lathe A	2025-07-09 20:25:28	B	1468.93	15	1397.1	24	3.74	120	114.13
246	MC001	Lathe A	2025-07-09 20:25:29	B	1489.65	10	1390.19	45	4.85	120	105.01
247	MC001	Lathe A	2025-07-09 20:25:31	B	1553.51	23	1450.82	11	5.6	120	102.24
248	MC001	Lathe A	2025-07-09 20:25:32	B	1581.41	27	1467.23	43	5.05	120	118.67
249	MC001	Lathe A	2025-07-09 20:25:32	B	1543.89	47	1449.51	41	3.88	120	103.41
250	MC001	Lathe A	2025-07-09 20:25:34	B	1583.04	43	1410.24	20	5.81	120	119.85
251	MC001	Lathe A	2025-07-09 20:25:35	B	1586.98	43	1375.95	42	4.94	120	110.21
252	MC001	Lathe A	2025-07-09 20:25:36	B	1595.58	50	1355.19	24	3.71	120	116
253	MC001	Lathe A	2025-07-09 20:25:38	B	1543.79	25	1525.74	44	6.12	120	114.23
254	MC001	Lathe A	2025-07-09 20:25:39	B	1498.67	33	1542.98	32	5.11	120	119.47
255	MC001	Lathe A	2025-07-09 20:25:40	B	1510.67	21	1388.13	38	4.34	120	109.53
256	MC001	Lathe A	2025-07-09 20:25:41	B	1521.24	33	1431.06	44	5.51	120	101.27
257	MC001	Lathe A	2025-07-09 20:25:42	B	1550.16	39	1491.61	44	5.57	120	110.38
258	MC001	Lathe A	2025-07-09 20:25:42	B	1524.07	22	1395.34	24	4.15	120	102.31
259	MC001	Lathe A	2025-07-09 20:25:44	B	1555.43	43	1391.23	38	6.47	120	110.35
260	MC001	Lathe A	2025-07-09 20:25:44	B	1587.55	13	1385.46	15	5.77	120	110.58
261	MC001	Lathe A	2025-07-09 20:25:45	B	1599.46	11	1504.13	25	6.18	120	112.89
262	MC001	Lathe A	2025-07-09 20:25:46	B	1594.22	48	1413.96	12	6.2	120	114.81
263	MC001	Lathe A	2025-07-09 20:25:47	B	1496.34	23	1440.55	44	4.17	120	102.12
264	MC001	Lathe A	2025-07-09 20:25:48	B	1409.82	33	1462.71	45	6.11	120	110.39
265	MC001	Lathe A	2025-07-09 20:25:50	B	1559.69	47	1416.06	20	3.07	120	114.79
266	MC001	Lathe A	2025-07-09 20:25:50	B	1457.38	13	1510.38	15	3.56	120	111.6
267	MC001	Lathe A	2025-07-09 20:25:51	B	1437.17	35	1503.19	17	5.87	120	119.6
268	MC001	Lathe A	2025-07-09 20:25:53	B	1405.52	32	1370.76	15	4.61	120	102.89
269	MC001	Lathe A	2025-07-09 20:25:53	B	1443.82	49	1517.88	36	4.74	120	114.81
270	MC001	Lathe A	2025-07-09 20:25:54	B	1539.47	13	1459.59	43	3.23	120	116.71
271	MC001	Lathe A	2025-07-09 20:25:55	B	1564.96	19	1466.88	38	3.98	120	104.57
272	MC001	Lathe A	2025-07-09 20:25:56	B	1519.34	28	1474.49	37	6.17	120	106.5
273	MC001	Lathe A	2025-07-09 20:25:56	B	1520.95	44	1467.49	42	3.48	120	106.85
274	MC001	Lathe A	2025-07-09 20:25:58	B	1527	43	1493.98	46	6.06	120	106.05
275	MC001	Lathe A	2025-07-09 20:25:58	B	1420.53	25	1449.13	11	4.22	120	102.18
276	MC001	Lathe A	2025-07-09 20:25:59	B	1516.09	41	1440.53	46	5.7	120	119.77
277	MC001	Lathe A	2025-07-09 20:26:01	B	1484.7	40	1544.37	17	5.55	120	109.1
278	MC001	Lathe A	2025-07-09 20:26:02	B	1545.99	30	1431.1	43	4.73	120	113.79
279	MC001	Lathe A	2025-07-09 20:26:02	B	1465.26	33	1520.49	19	5.04	120	113.15
280	MC001	Lathe A	2025-07-09 20:26:04	B	1569.28	47	1422.22	34	3.07	120	102.77

id	machine_id	machine_name	timestamp	shift	spindle_rpm	spindle_pulse	shaft_rpm	shaft_pulse	tpm	set_length	actual_length
281	MC001	Lathe A	2025-07-09 20:26:06	B	1593.66	22	1482.92	21	3.98	120	102.18
282	MC001	Lathe A	2025-07-09 20:26:06	B	1494	39	1513.01	34	3.03	120	118
283	MC001	Lathe A	2025-07-09 20:26:08	B	1596.56	36	1373.98	31	3.9	120	100.66
284	MC001	Lathe A	2025-07-09 20:26:09	B	1469.27	42	1501.16	49	4.46	120	101.46
285	MC001	Lathe A	2025-07-09 20:26:09	B	1424.72	15	1352.93	47	3.95	120	107.34
286	MC001	Lathe A	2025-07-09 20:26:11	B	1555.9	40	1414.55	46	3.08	120	110.13
287	MC001	Lathe A	2025-07-09 20:26:12	B	1564.81	38	1406.93	19	3.09	120	103.74
288	MC001	Lathe A	2025-07-09 20:26:12	B	1449.88	21	1367.61	30	3.4	120	100.83
289	MC001	Lathe A	2025-07-09 20:26:14	B	1504.09	49	1531.62	15	5.48	120	109.55
290	MC001	Lathe A	2025-07-09 20:26:14	B	1543.6	27	1537.4	44	3.39	120	101.19
291	MC001	Lathe A	2025-07-09 20:26:15	B	1485.98	49	1485.9	30	3.3	120	115.29
292	MC001	Lathe A	2025-07-09 20:26:17	B	1464.57	24	1403.23	20	6.32	120	106.8
293	MC001	Lathe A	2025-07-09 20:26:18	B	1573.54	44	1468.21	47	4.74	120	114.47
294	MC001	Lathe A	2025-07-09 20:26:19	B	1402.99	32	1406.92	18	3.69	120	101.55
295	MC001	Lathe A	2025-07-09 20:26:21	B	1594.45	20	1387.62	43	6.45	120	100.26
296	MC001	Lathe A	2025-07-09 20:26:21	B	1526.4	24	1442.67	20	6.15	120	101.12
297	MC001	Lathe A	2025-07-09 20:26:22	B	1442.41	30	1394.63	25	5.05	120	111.62
298	MC001	Lathe A	2025-07-09 20:26:24	B	1432.67	39	1411.76	34	6.43	120	109.54
299	MC001	Lathe A	2025-07-09 20:26:25	B	1502.45	47	1382.52	14	5.06	120	101.78
300	MC001	Lathe A	2025-07-09 20:26:26	B	1568.93	24	1412.4	43	4.74	120	114.85
301	MC001	Lathe A	2025-07-09 20:26:28	B	1555.87	18	1475.87	13	6.14	120	119.44
302	MC001	Lathe A	2025-07-09 20:26:29	B	1574.95	31	1511.25	48	4.28	120	109.65
303	MC001	Lathe A	2025-07-09 20:26:30	B	1581.9	41	1536.4	33	3.19	120	117.99
304	MC001	Lathe A	2025-07-09 20:26:32	B	1469.85	26	1541.87	28	4.58	120	104.16
305	MC001	Lathe A	2025-07-09 20:26:33	B	1498.35	44	1428.3	48	5.03	120	100.41
306	MC001	Lathe A	2025-07-09 20:26:34	B	1492.38	16	1385.03	28	4.43	120	108.23
307	MC001	Lathe A	2025-07-09 20:26:36	B	1462.88	25	1478.23	13	3.77	120	104.06
308	MC001	Lathe A	2025-07-09 20:26:37	B	1445.92	21	1415.22	17	6.17	120	100.26
309	MC001	Lathe A	2025-07-09 20:26:38	B	1577.25	23	1522.5	48	4.12	120	119.65
310	MC001	Lathe A	2025-07-09 20:26:40	B	1516.63	29	1387.57	40	3.25	120	111.42
311	MC001	Lathe A	2025-07-09 20:26:41	B	1550.45	33	1447.55	17	3.78	120	110.4
312	MC001	Lathe A	2025-07-09 20:26:41	B	1454.17	36	1378.16	44	5.36	120	116.98
313	MC001	Lathe A	2025-07-09 20:26:43	B	1411.76	48	1476.81	32	5.58	120	111.93
314	MC001	Lathe A	2025-07-09 20:26:44	B	1580.98	36	1479.79	15	6.15	120	108.22
315	MC001	Lathe A	2025-07-09 20:26:45	B	1502.05	48	1510.99	41	5.71	120	113.64
316	MC001	Lathe A	2025-07-09 20:26:47	B	1495.46	15	1459.69	12	4.63	120	102.18
317	MC001	Lathe A	2025-07-09 20:26:47	B	1511.93	37	1362.18	34	3.08	120	102.24
318	MC001	Lathe A	2025-07-09 20:26:48	B	1407.24	17	1546.6	32	3.88	120	103.54
319	MC001	Lathe A	2025-07-09 20:26:50	B	1581.14	45	1533.28	20	3.91	120	111.77
320	MC001	Lathe A	2025-07-09 20:26:51	B	1513.7	47	1536.67	22	3.75	120	105.14
321	MC001	Lathe A	2025-07-09 20:26:52	B	1599.48	38	1538.83	28	4.37	120	113.14
322	MC001	Lathe A	2025-07-09 20:26:54	B	1560.23	25	1437.76	38	6.38	120	104.26
323	MC001	Lathe A	2025-07-09 20:26:55	B	1576.96	28	1470.11	15	6.05	120	116.94
324	MC001	Lathe A	2025-07-09 20:26:56	B	1553.17	17	1466.09	42	4.94	120	101.27
325	MC001	Lathe A	2025-07-09 20:26:57	B	1582.84	38	1453.07	45	3.71	120	110.79
326	MC001	Lathe A	2025-07-09 20:26:58	B	1431.46	11	1477.65	26	4.2	120	112.45
327	MC001	Lathe A	2025-07-09 20:26:59	B	1558.28	24	1499.8	48	5.39	120	107.56
328	MC001	Lathe A	2025-07-09 20:27:00	B	1403.47	15	1367.79	11	4.46	120	107.9
329	MC001	Lathe A	2025-07-09 20:27:01	B	1578.16	33	1395.87	14	5.88	120	118.11
330	MC001	Lathe A	2025-07-09 20:27:02	B	1411.96	37	1415.15	48	3.16	120	106.38
331	MC001	Lathe A	2025-07-09 20:27:04	B	1477.07	48	1479.14	16	3.96	120	110.61
332	MC001	Lathe A	2025-07-09 20:27:05	B	1520.39	13	1541.88	48	5.94	120	113.04
333	MC001	Lathe A	2025-07-09 20:27:05	B	1469.42	22	1532.56	29	4.17	120	119.2
334	MC001	Lathe A	2025-07-09 20:27:07	B	1594.54	23	1409.15	37	5.28	120	102.03
335	MC001	Lathe A	2025-07-09 20:27:08	B	1400.54	41	1492.37	12	5.56	120	105.21
336	MC001	Lathe A	2025-07-09 20:27:09	B	1594.4	48	1420.93	27	4.9	120	106.34
337	MC001	Lathe A	2025-07-09 20:27:11	B	1440.65	49	1364.31	34	3.1	120	104.14
338	MC001	Lathe A	2025-07-09 20:27:11	B	1547.25	22	1505.08	47	5.08	120	118.02
339	MC001	Lathe A	2025-07-09 20:27:12	B	1548.06	21	1382.22	36	4.8	120	106.51
340	MC001	Lathe A	2025-07-09 20:27:13	B	1411.26	38	1434.16	24	4.81	120	117.99
341	MC001	Lathe A	2025-07-09 20:27:14	B	1573.7	37	1545.82	33	3.67	120	115.12
342	MC001	Lathe A	2025-07-09 20:27:15	B	1538.05	14	1444.93	50	5.74	120	108.19
343	MC001	Lathe A	2025-07-09 20:27:16	B	1585.34	44	1503.95	50	4.54	120	101.25
344	MC001	Lathe A	2025-07-09 20:27:17	B	1438.19	19	1417.55	46	3.78	120	103.92
345	MC001	Lathe A	2025-07-09 20:27:18	B	1429.75	48	1381.94	14	5.34	120	102.13
346	MC001	Lathe A	2025-07-09 20:27:20	B	1583.91	18	1437.94	43	5.8	120	106.75
347	MC001	Lathe A	2025-07-09 20:27:20	B	1544.85	43	1390.45	25	4.21	120	114.2
348	MC001	Lathe A	2025-07-09 20:27:21	B	1540.86	49	1351.58	27	3.01	120	114.68
349	MC001	Lathe A	2025-07-09 20:27:22	B	1588.22	14	1400.5	13	3.13	120	115.38
350	MC001	Lathe A	2025-07-09 20:27:23	B	1408.87	36	1375.44	12	6.29	120	103.71

id	machine_id	machine_name	timestamp	shift	spindle_rpm	spindle_pulse	shaft_rpm	shaft_pulse	tpm	set_length	actual_length
351	MC001	Lathe A	2025-07-09 20:27:23	B	1489.73	18	1452.6	44	3.61	120	115
352	MC001	Lathe A	2025-07-09 20:27:25	B	1522.06	37	1471.63	27	3.44	120	102.2
353	MC001	Lathe A	2025-07-09 20:27:25	B	1430.94	16	1500.33	50	6.47	120	115.04
354	MC001	Lathe A	2025-07-09 20:27:26	B	1413.04	34	1464.59	45	6.37	120	109.48
355	MC001	Lathe A	2025-07-09 20:27:27	B	1414.85	28	1539.04	48	3.93	120	110.72
356	MC001	Lathe A	2025-07-09 20:27:28	B	1408.25	10	1490.68	15	3.04	120	101.42
357	MC001	Lathe A	2025-07-09 20:27:29	B	1518.12	37	1372.82	36	5.14	120	108.53
358	MC001	Lathe A	2025-07-09 20:27:30	B	1481.35	36	1472.77	35	5.14	120	112.79
359	MC001	Lathe A	2025-07-09 20:27:31	B	1536.16	27	1487.4	24	3.29	120	111.81
360	MC001	Lathe A	2025-07-09 20:27:31	B	1453.21	31	1446.64	12	4.97	120	115.4
361	MC001	Lathe A	2025-07-09 20:27:33	B	1445.71	38	1402.77	43	6.49	120	103.35
362	MC001	Lathe A	2025-07-09 20:27:33	B	1459.17	37	1364.84	20	5.85	120	103.97
363	MC001	Lathe A	2025-07-09 20:27:34	B	1538.42	50	1382.36	33	3	120	103.44
364	MC001	Lathe A	2025-07-09 20:27:35	B	1503.23	48	1413.23	24	6.05	120	117.03
365	MC001	Lathe A	2025-07-09 20:27:36	B	1543.64	33	1396.78	44	3.48	120	100.11
366	MC001	Lathe A	2025-07-09 20:27:36	B	1532.17	48	1455.14	34	6.31	120	116.27
367	MC001	Lathe A	2025-07-09 20:27:38	B	1532.17	43	1421.11	36	4.25	120	112.89
368	MC001	Lathe A	2025-07-09 20:27:39	B	1478.19	13	1442.49	28	4.18	120	104.03
369	MC001	Lathe A	2025-07-09 20:27:39	B	1488.41	34	1488.23	44	6.32	120	119.36
370	MC001	Lathe A	2025-07-09 20:27:41	B	1508.4	26	1443.13	49	4.68	120	107.97
371	MC001	Lathe A	2025-07-09 20:27:42	B	1597.67	14	1475.16	27	6.14	120	114.49
372	MC001	Lathe A	2025-07-09 20:27:43	B	1523.36	23	1525.21	34	4.68	120	113.18
373	MC001	Lathe A	2025-07-09 20:27:45	B	1455.04	50	1491.21	33	4.22	120	100.92
374	MC001	Lathe A	2025-07-09 20:27:46	B	1440.73	17	1479.98	12	3.54	120	103.45
375	MC001	Lathe A	2025-07-09 20:27:47	B	1437.83	50	1384.5	42	3.33	120	102.62
376	MC001	Lathe A	2025-07-09 20:27:49	B	1440.8	44	1527.55	47	4.84	120	104.34
377	MC001	Lathe A	2025-07-09 20:27:49	B	1545.39	48	1426.48	32	3.28	120	116.66
378	MC001	Lathe A	2025-07-09 20:27:50	B	1467.23	40	1449.48	47	6.28	120	109.01
379	MC001	Lathe A	2025-07-09 20:27:52	B	1497.19	12	1382.03	23	3.4	120	118.14
380	MC001	Lathe A	2025-07-09 20:27:53	B	1528.42	18	1444.93	38	3.81	120	112.6
381	MC001	Lathe A	2025-07-09 20:27:54	B	1486.81	32	1489.51	25	3.46	120	100.3
382	MC001	Lathe A	2025-07-09 20:27:55	B	1421.52	18	1376.04	25	5.66	120	113.46
383	MC001	Lathe A	2025-07-09 20:27:56	B	1417.34	41	1385.52	24	5.75	120	109.83
384	MC001	Lathe A	2025-07-09 20:27:56	B	1442.25	44	1474.79	39	4.35	120	104.26
385	MC001	Lathe A	2025-07-09 20:27:58	B	1476.03	14	1410	11	4.46	120	112.73
386	MC001	Lathe A	2025-07-09 20:27:58	B	1596.75	24	1481.98	14	5.46	120	113.7
387	MC001	Lathe A	2025-07-09 20:27:59	B	1516.67	10	1412.19	36	5.98	120	113.52
388	MC001	Lathe A	2025-07-09 20:28:00	B	1493.4	34	1493.28	42	6.01	120	118.29
389	MC001	Lathe A	2025-07-09 20:28:00	B	1408.59	22	1447.18	29	4.05	120	104.27
390	MC001	Lathe A	2025-07-09 20:28:01	B	1424.53	45	1513.72	24	4.9	120	108.91
391	MC001	Lathe A	2025-07-09 20:28:02	B	1438.78	13	1500.4	16	3.24	120	119.86
392	MC001	Lathe A	2025-07-09 20:28:03	B	1481.96	50	1465.36	11	5.82	120	107.51
393	MC001	Lathe A	2025-07-09 20:28:03	B	1439.38	30	1505.36	48	3.5	120	110.09
394	MC001	Lathe A	2025-07-09 20:28:05	B	1562.92	22	1527.18	34	6.39	120	113.79
395	MC001	Lathe A	2025-07-09 20:28:05	B	1456.37	18	1398.93	18	3.43	120	106.64
396	MC001	Lathe A	2025-07-09 20:28:05	B	1429.26	26	1375.98	15	5.98	120	119.25
397	MC001	Lathe A	2025-07-09 20:28:07	B	1532.41	36	1359.87	45	6.39	120	105.7
398	MC001	Lathe A	2025-07-09 20:28:07	B	1431.28	41	1384.45	22	4.21	120	116.32
399	MC001	Lathe A	2025-07-09 20:28:08	B	1432.6	45	1453.57	47	3.57	120	107.45
400	MC001	Lathe A	2025-07-09 20:28:09	B	1555.03	45	1385.92	47	6.19	120	118.83
401	MC001	Lathe A	2025-07-09 20:28:10	B	1490.95	35	1500.46	31	4.81	120	113.27
402	MC001	Lathe A	2025-07-09 20:28:11	B	1475.38	16	1533.9	22	3.79	120	104.24
403	MC001	Lathe A	2025-07-09 20:28:12	B	1484.98	21	1487.46	40	3.1	120	104.38
404	MC001	Lathe A	2025-07-09 20:28:13	B	1514.11	42	1376.58	24	3.39	120	115.79
405	MC001	Lathe A	2025-07-09 20:28:13	B	1549.52	19	1396.26	22	5.81	120	111.16
406	MC001	Lathe A	2025-07-09 20:28:15	B	1567.97	44	1352.41	23	6.37	120	108.83
407	MC001	Lathe A	2025-07-09 20:28:16	B	1519.98	34	1509.45	18	5.4	120	101.62
408	MC001	Lathe A	2025-07-09 20:28:17	B	1592.82	20	1385.57	21	6.46	120	113.27
409	MC001	Lathe A	2025-07-09 20:28:19	B	1561.79	10	1363.55	27	4.43	120	106.56
410	MC001	Lathe A	2025-07-09 20:28:19	B	1465.72	31	1420.95	10	5.34	120	111.02
411	MC001	Lathe A	2025-07-09 20:28:20	B	1547.28	44	1424.73	31	4.48	120	119.73
412	MC001	Lathe A	2025-07-09 20:28:22	B	1438.04	30	1381.89	13	5.17	120	113.74
413	MC001	Lathe A	2025-07-09 20:28:23	B	1555.37	32	1351.93	38	6.15	120	109.12
414	MC001	Lathe A	2025-07-09 20:28:24	B	1558.46	33	1474.68	46	3.54	120	119.24
415	MC001	Lathe A	2025-07-09 20:28:25	B	1563.5	33	1444.91	34	5.34	120	119.4
416	MC001	Lathe A	2025-07-09 20:28:26	B	1526.54	48	1526.72	31	3.52	120	104.79
417	MC001	Lathe A	2025-07-09 20:28:28	B	1491	35	1462.77	35	6.41	120	107.44
418	MC001	Lathe A	2025-07-09 20:28:30	B	1407.33	15	1429.48	24	4.9	120	111.41
419	MC001	Lathe A	2025-07-09 20:28:31	B	1566.32	31	1484.19	41	6.16	120	109.28
420	MC001	Lathe A	2025-07-09 20:28:32	B	1598.66	16	1395.18	47	5.11	120	100.07

id	machine_id	machine_name	timestamp	shift	spindle_rpm	spindle_pulse	shaft_rpm	shaft_pulse	tpm	set_length	actual_length
421	MC001	Lathe A	2025-07-09 20:28:34	B	1514.65	32	1538.03	26	4.5	120	117.71
422	MC001	Lathe A	2025-07-09 20:28:34	B	1528.73	32	1545.96	45	5.03	120	111.91
423	MC001	Lathe A	2025-07-09 20:28:35	B	1434.75	17	1484.01	32	5.19	120	112.34
424	MC001	Lathe A	2025-07-09 20:28:37	B	1413.61	35	1481.14	19	5.71	120	105.91
425	MC001	Lathe A	2025-07-09 20:28:38	B	1415.51	21	1419.44	49	6.33	120	119.64
426	MC001	Lathe A	2025-07-09 20:28:39	B	1489.03	30	1359.26	16	3.78	120	100.35
427	MC001	Lathe A	2025-07-09 20:28:41	B	1428.7	23	1549.93	27	3.79	120	107.96
428	MC001	Lathe A	2025-07-09 20:28:42	B	1575.2	29	1374.51	17	4.86	120	104.04
429	MC001	Lathe A	2025-07-09 20:28:43	B	1587.1	12	1531.54	17	4.56	120	107.96
430	MC001	Lathe A	2025-07-09 20:28:44	B	1428.49	17	1399.49	11	3.07	120	118.36
431	MC001	Lathe A	2025-07-09 20:28:45	B	1460.22	24	1454.61	13	4.13	120	100.6
432	MC001	Lathe A	2025-07-09 20:28:45	B	1458.04	44	1452.34	20	5.99	120	119.12
433	MC001	Lathe A	2025-07-09 20:28:47	B	1550.58	34	1421.48	40	3.89	120	113.41
434	MC001	Lathe A	2025-07-09 20:28:48	B	1591.01	20	1490.99	34	5.28	120	110.01
435	MC001	Lathe A	2025-07-09 20:28:49	B	1542.27	25	1450.61	43	5.83	120	117.68
436	MC001	Lathe A	2025-07-09 20:28:51	B	1581.65	44	1397.09	27	5.37	120	112.93
437	MC001	Lathe A	2025-07-09 20:28:52	B	1538.26	13	1458.57	45	5.18	120	110.37
438	MC001	Lathe A	2025-07-09 20:28:53	B	1474.21	43	1525.71	16	4.52	120	114.44
439	MC001	Lathe A	2025-07-09 20:28:55	B	1512.93	46	1475.1	42	4.69	120	118.33
440	MC001	Lathe A	2025-07-09 20:28:56	B	1406.43	50	1438.23	36	4.09	120	106.74
441	MC001	Lathe A	2025-07-09 20:28:57	B	1595.77	35	1399.44	26	5.87	120	110.68
442	MC001	Lathe A	2025-07-09 20:28:58	B	1517.5	43	1489.93	27	5.63	120	106.96
443	MC001	Lathe A	2025-07-09 20:28:59	B	1404.29	42	1459.4	19	5.08	120	100.14
444	MC001	Lathe A	2025-07-09 20:29:00	B	1590.82	24	1449.5	48	5.13	120	118.09
445	MC001	Lathe A	2025-07-09 20:29:02	B	1494.83	30	1440.99	12	5.21	120	110.98
446	MC001	Lathe A	2025-07-09 20:29:03	B	1423.24	16	1408.11	47	5.25	120	114.95
447	MC001	Lathe A	2025-07-09 20:29:04	B	1563.09	13	1389.9	35	4.03	120	113.73
448	MC001	Lathe A	2025-07-09 20:29:05	B	1495.92	47	1538.66	10	4.05	120	108.67
449	MC001	Lathe A	2025-07-09 20:29:06	B	1415.76	36	1432.28	26	3.04	120	101.22
450	MC001	Lathe A	2025-07-09 20:29:07	B	1546.21	50	1409.4	25	3	120	103.74
451	MC001	Lathe A	2025-07-09 20:29:09	B	1432.22	20	1504.99	22	5.95	120	111.96
452	MC001	Lathe A	2025-07-09 20:29:10	B	1450.57	21	1383.03	36	4.59	120	118.62
453	MC001	Lathe A	2025-07-09 20:29:11	B	1498.8	18	1357.28	43	5.47	120	117.62
454	MC001	Lathe A	2025-07-09 20:29:13	B	1433.96	31	1532.38	36	6.28	120	111.14
455	MC001	Lathe A	2025-07-09 20:29:14	B	1420.49	32	1394.2	17	6.12	120	116.24
456	MC001	Lathe A	2025-07-09 20:29:15	B	1416.14	20	1451.04	42	4.62	120	108.78
457	MC001	Lathe A	2025-07-09 20:29:17	B	1509.12	17	1497.4	27	3.66	120	115.61
458	MC001	Lathe A	2025-07-09 20:29:18	B	1582.31	17	1464.37	24	4.01	120	118.79
459	MC001	Lathe A	2025-07-09 20:29:19	B	1461.53	32	1465.17	46	3.3	120	117.3
460	MC001	Lathe A	2025-07-09 20:29:21	B	1565.25	20	1525.8	23	4.85	120	112.64
461	MC001	Lathe A	2025-07-09 20:29:21	B	1516.5	33	1480.59	47	3.41	120	107.62
462	MC001	Lathe A	2025-07-09 20:29:22	B	1423.57	39	1485.6	32	3.6	120	113.78
463	MC001	Lathe A	2025-07-09 20:29:24	B	1498.7	21	1396.36	15	5.4	120	108.54
464	MC001	Lathe A	2025-07-09 20:29:25	B	1463.78	31	1458.64	20	4.76	120	109.47
465	MC001	Lathe A	2025-07-09 20:29:26	B	1449.87	30	1417.77	30	6.26	120	101.52
466	MC001	Lathe A	2025-07-09 20:29:28	B	1424.93	49	1452.65	42	3.55	120	115.44
467	MC001	Lathe A	2025-07-09 20:29:29	B	1521.05	45	1374.61	25	6.22	120	119.24
468	MC001	Lathe A	2025-07-09 20:29:30	B	1423.49	47	1543.74	13	4.28	120	106.11
469	MC001	Lathe A	2025-07-09 20:29:31	B	1498.6	10	1369.56	23	6.12	120	109.93
470	MC001	Lathe A	2025-07-09 20:29:32	B	1567.14	24	1455.73	19	4.51	120	103.05
471	MC001	Lathe A	2025-07-09 20:29:32	B	1521.36	11	1494.82	30	5.47	120	106.1
472	MC001	Lathe A	2025-07-09 20:29:34	B	1532.6	17	1383.21	22	3.84	120	116.2
473	MC001	Lathe A	2025-07-09 20:29:34	B	1481.52	41	1466.2	11	3.58	120	111.48
474	MC001	Lathe A	2025-07-09 20:29:34	B	1515.29	18	1438.21	13	4.95	120	100.65
475	MC001	Lathe A	2025-07-09 20:29:36	B	1419.98	25	1520.92	27	6.36	120	106.63
476	MC001	Lathe A	2025-07-09 20:29:36	B	1484.96	27	1480.78	11	5.24	120	105.64
477	MC001	Lathe A	2025-07-09 20:29:36	B	1453.18	30	1487.59	23	6.27	120	104.25
478	MC001	Lathe A	2025-07-09 20:29:38	B	1464.73	22	1546.77	22	3.38	120	104.1
479	MC001	Lathe A	2025-07-09 20:29:39	B	1440.06	38	1400.57	21	4.02	120	104.12
480	MC001	Lathe A	2025-07-09 20:29:39	B	1474.08	19	1494.11	28	4.69	120	103.33
481	MC001	Lathe A	2025-07-09 20:29:41	B	1587.76	37	1356.71	21	3.78	120	115.03
482	MC001	Lathe A	2025-07-09 20:29:41	B	1451.27	23	1377.69	40	5.07	120	112.61
483	MC001	Lathe A	2025-07-09 20:29:41	B	1452.42	16	1492.84	44	3.12	120	109.06
484	MC001	Lathe A	2025-07-09 20:29:43	B	1400.39	25	1374.26	17	3.68	120	119.52
485	MC001	Lathe A	2025-07-09 20:29:44	B	1400.1	15	1420.8	15	6.08	120	102.37
486	MC001	Lathe A	2025-07-09 20:29:45	B	1526.02	47	1363.36	37	5.73	120	111.55
487	MC001	Lathe A	2025-07-09 20:29:47	B	1483.54	31	1527.2	19	5.21	120	102.17
488	MC001	Lathe A	2025-07-09 20:29:47	B	1417.14	45	1527.38	36	5.45	120	114.68
489	MC001	Lathe A	2025-07-09 20:29:48	B	1401.77	32	1440.1	45	5.93	120	103.04
490	MC001	Lathe A	2025-07-09 20:29:50	B	1410.62	39	1536.1	19	5.57	120	112.1

id	machine_id	machine_name	timestamp	shift	spindle_rpm	spindle_pulse	shaft_rpm	shaft_pulse	tpm	set_length	actual_length
491	MC001	Lathe A	2025-07-09 20:29:51	B	1512.97	23	1525.63	50	5.78	120	100.63
492	MC001	Lathe A	2025-07-09 20:29:53	B	1527.44	28	1484.44	32	3.55	120	107.42
493	MC001	Lathe A	2025-07-09 20:29:55	B	1472.51	17	1549.32	34	6.38	120	112.05
494	MC001	Lathe A	2025-07-09 20:29:55	B	1439.2	42	1481.31	37	6.47	120	101.06
495	MC001	Lathe A	2025-07-09 20:29:56	B	1586.61	12	1476.27	29	3.15	120	105.83
496	MC001	Lathe A	2025-07-09 20:29:58	B	1503.88	28	1503	30	4.81	120	107.59
497	MC001	Lathe A	2025-07-09 20:29:59	B	1424.65	41	1531.72	29	5.81	120	100.32
498	MC001	Lathe A	2025-07-09 20:29:59	B	1492.76	48	1473.92	46	3.93	120	108.65
499	MC001	Lathe A	2025-07-09 20:30:00	B	1496.03	26	1419.85	16	5.55	120	100.65
500	MC001	Lathe A	2025-07-09 20:30:01	B	1438.73	43	1509.28	19	4.35	120	111.64
501	MC001	Lathe A	2025-07-09 20:30:02	B	1408.9	18	1508.3	42	6.16	120	108.36
502	MC001	Lathe A	2025-07-09 20:30:03	B	1464.51	35	1514.88	43	5.67	120	109.51
503	MC001	Lathe A	2025-07-09 20:30:04	B	1571.74	22	1521.38	50	6.01	120	105.79
504	MC001	Lathe A	2025-07-09 20:30:04	B	1447.16	41	1491.03	19	3.96	120	100.74
505	MC001	Lathe A	2025-07-09 20:30:06	B	1510.62	38	1530.34	47	3.37	120	112.02
506	MC001	Lathe A	2025-07-09 20:30:07	B	1550.46	40	1458.04	23	6.44	120	113.11
507	MC001	Lathe A	2025-07-09 20:30:08	B	1562.48	28	1468.07	18	4.71	120	114.75
508	MC001	Lathe A	2025-07-09 20:30:10	B	1469.49	40	1382.24	39	4.49	120	108.05
509	MC001	Lathe A	2025-07-09 20:30:11	B	1535.09	42	1539.34	46	3.79	120	119.38
510	MC001	Lathe A	2025-07-09 20:30:12	B	1452.53	24	1423	40	3.82	120	103.89
511	MC001	Lathe A	2025-07-09 20:30:14	B	1582.56	19	1368.54	34	3.06	120	119.84
512	MC001	Lathe A	2025-07-09 20:30:15	B	1592.29	50	1392.49	25	4.97	120	104.33
513	MC001	Lathe A	2025-07-09 20:30:16	B	1508.77	26	1437.01	35	6.19	120	112.14
514	MC001	Lathe A	2025-07-09 20:30:17	B	1484.78	29	1506.7	47	5.87	120	102.61
515	MC001	Lathe A	2025-07-09 20:30:18	B	1540.44	34	1540.08	39	4.58	120	105.7
516	MC001	Lathe A	2025-07-09 20:30:19	B	1594.95	37	1409	50	5.05	120	101.99
517	MC001	Lathe A	2025-07-09 20:30:21	B	1594.25	13	1465.91	38	4.93	120	118
518	MC001	Lathe A	2025-07-09 20:30:22	B	1533.29	20	1351.89	24	6.13	120	112.33
519	MC001	Lathe A	2025-07-09 20:30:23	B	1496.29	30	1497.52	37	5.77	120	110.5
520	MC001	Lathe A	2025-07-09 20:30:25	B	1555.04	23	1456.06	24	4.16	120	108.77
521	MC001	Lathe A	2025-07-09 20:30:26	B	1431.54	22	1430.62	48	3.35	120	108.1
522	MC001	Lathe A	2025-07-09 20:30:27	B	1542.62	33	1440.57	41	3.43	120	101.22
523	MC001	Lathe A	2025-07-09 20:30:28	B	1449.67	28	1430.21	46	4.34	120	114.63
524	MC001	Lathe A	2025-07-09 20:30:29	B	1457.69	28	1512.46	46	5.39	120	110.95
525	MC001	Lathe A	2025-07-09 20:30:29	B	1462.05	26	1475.55	41	5.57	120	110.4
526	MC001	Lathe A	2025-07-09 20:30:31	B	1488.95	33	1495.21	21	4.09	120	117.17
527	MC001	Lathe A	2025-07-09 20:30:31	B	1567.84	43	1434.52	41	3.87	120	114.5
528	MC001	Lathe A	2025-07-09 20:30:32	B	1415.44	33	1426.49	37	6.39	120	109.36
529	MC001	Lathe A	2025-07-09 20:30:33	B	1572.65	11	1477.95	28	6.2	120	117.06
530	MC001	Lathe A	2025-07-09 20:30:34	B	1449.62	31	1473.57	43	4.75	120	109.84
531	MC001	Lathe A	2025-07-09 20:30:34	B	1420.84	42	1445.71	31	4.18	120	103.69
532	MC001	Lathe A	2025-07-09 20:30:35	B	1401.41	31	1523.56	28	4.91	120	110.4
533	MC001	Lathe A	2025-07-09 20:30:36	B	1480.04	17	1475.47	47	5.36	120	100.6
534	MC001	Lathe A	2025-07-09 20:30:36	B	1522.64	46	1378.96	11	6.15	120	106.54
535	MC001	Lathe A	2025-07-09 20:30:37	B	1586.69	25	1493.07	26	3.46	120	113.55
536	MC001	Lathe A	2025-07-09 20:30:38	B	1507.91	15	1388.84	50	5.02	120	101.42
537	MC001	Lathe A	2025-07-09 20:30:38	B	1403.74	29	1461.49	38	3.82	120	108.33
538	MC001	Lathe A	2025-07-09 20:30:39	B	1583.8	38	1539.7	12	4.77	120	103.63
539	MC001	Lathe A	2025-07-09 20:30:40	B	1434.69	21	1454.39	17	4.15	120	110.67
540	MC001	Lathe A	2025-07-09 20:30:40	B	1414.92	23	1513.96	15	4.27	120	114.81
541	MC001	Lathe A	2025-07-09 20:30:42	B	1431.36	25	1496.56	13	5.66	120	115.79
542	MC001	Lathe A	2025-07-09 20:30:42	B	1561.49	31	1503.2	23	3.26	120	112.54
543	MC001	Lathe A	2025-07-09 20:30:43	B	1518.47	12	1464.11	31	6.26	120	113.41
544	MC001	Lathe A	2025-07-09 20:30:44	B	1414.13	25	1480.74	30	6.48	120	113.16
545	MC001	Lathe A	2025-07-09 20:30:45	B	1401.13	46	1527.18	14	6.19	120	100.54
546	MC001	Lathe A	2025-07-09 20:30:45	B	1434.14	33	1411.43	12	5.04	120	104.73
547	MC001	Lathe A	2025-07-09 20:30:46	B	1433.76	48	1473.21	18	6.45	120	114.99
548	MC001	Lathe A	2025-07-09 20:30:47	B	1584.47	37	1431.81	40	4.88	120	100.03
549	MC001	Lathe A	2025-07-09 20:30:47	B	1587.75	40	1410.06	49	5.45	120	114.39
550	MC001	Lathe A	2025-07-09 20:30:49	B	1578.6	38	1352.92	11	3.39	120	108.69
551	MC001	Lathe A	2025-07-09 20:30:49	B	1577.43	37	1393.13	16	4.18	120	119.51
552	MC001	Lathe A	2025-07-09 20:30:49	B	1411.59	20	1454.2	45	5.62	120	118.29
553	MC001	Lathe A	2025-07-09 20:30:51	B	1403.23	12	1542	42	4.14	120	116.63
554	MC001	Lathe A	2025-07-09 20:30:51	B	1477.17	28	1473.18	27	3.39	120	114.96
555	MC001	Lathe A	2025-07-09 20:30:52	B	1465.91	17	1433.38	46	3.28	120	108.34
556	MC001	Lathe A	2025-07-09 20:30:53	B	1478.11	44	1540.69	34	6.3	120	112.69
557	MC001	Lathe A	2025-07-09 20:30:53	B	1498.99	26	1483.96	31	4.7	120	102
558	MC001	Lathe A	2025-07-09 20:30:54	B	1534.56	10	1398.66	15	3.81	120	115.65
559	MC001	Lathe A	2025-07-09 20:30:56	B	1483.2	15	1453.93	16	4.4	120	118.45
560	MC001	Lathe A	2025-07-09 20:30:57	B	1404.57	42	1442.83	24	6.37	120	101.56

id	machine_id	machine_name	timestamp	shift	spindle_rpm	spindle_pulse	shaft_rpm	shaft_pulse	tpm	set_length	actual_length
561	MC001	Lathe A	2025-07-09 20:30:57	B	1507.19	49	1432.45	29	4.51	120	103.32
562	MC001	Lathe A	2025-07-09 20:30:59	B	1474.62	23	1535.62	17	6.45	120	102.68
563	MC001	Lathe A	2025-07-09 20:31:00	B	1591.6	18	1400.29	46	6	120	107.39
564	MC001	Lathe A	2025-07-09 20:31:01	B	1535.52	50	1534.82	28	3.96	120	113.56
565	MC001	Lathe A	2025-07-09 20:31:03	B	1550.94	12	1549.14	18	4.98	120	107.08
566	MC001	Lathe A	2025-07-09 20:31:03	B	1409.06	19	1488.91	23	6.05	120	112.71
567	MC001	Lathe A	2025-07-09 20:31:04	B	1554.18	39	1538.14	45	4.99	120	116.51
568	MC001	Lathe A	2025-07-09 20:31:06	B	1420.59	33	1352.3	49	4.45	120	109.34
569	MC001	Lathe A	2025-07-09 20:31:07	B	1423.22	48	1486.46	49	4.92	120	107.15
570	MC001	Lathe A	2025-07-09 20:31:08	B	1478.4	38	1430.27	24	3.32	120	101.22
571	MC001	Lathe A	2025-07-09 20:31:10	B	1439.11	41	1477.07	35	4.45	120	107.25
572	MC001	Lathe A	2025-07-09 20:31:11	B	1588.6	15	1412.12	44	5.91	120	116.91
573	MC001	Lathe A	2025-07-09 20:31:12	B	1456.38	48	1396.62	17	4.05	120	106.72
574	MC001	Lathe A	2025-07-09 20:31:14	B	1493.77	13	1475.48	22	3.23	120	114.82
575	MC001	Lathe A	2025-07-09 20:31:14	B	1423.8	38	1373.09	19	4.09	120	119.4
576	MC001	Lathe A	2025-07-09 20:31:15	B	1580.97	40	1471.41	14	3.52	120	119.7
577	MC001	Lathe A	2025-07-09 20:31:17	B	1509.79	15	1462.81	40	5.01	120	111.78
578	MC001	Lathe A	2025-07-09 20:31:18	B	1461.05	33	1467.85	38	6.44	120	110.84
579	MC001	Lathe A	2025-07-09 20:31:19	B	1596.57	49	1379.91	15	5.68	120	112.3
580	MC001	Lathe A	2025-07-09 20:31:21	B	1443.98	40	1534.55	18	3.7	120	119.92
581	MC001	Lathe A	2025-07-09 20:31:22	B	1424.05	49	1450.63	49	3.97	120	111.79
582	MC001	Lathe A	2025-07-09 20:31:23	B	1549.52	28	1487.35	35	3.11	120	110.4

id	ip_address	machine_id	machine_name
1	127.0.0.1	MC001	Lathe A
2	127.0.0.2	MC002	Lathe B
3	127.0.0.3	MC003	Lathe C

id	date	shift	machine_id	machine_name	avg_spindle_rpm	avg_shaft_rpm	avg_tpm	run_hours	run_minutes	motor_efficiency	last_updated
1	2025-07-09	B	MC001	Lathe A	1501.24	1452.69	4.77455	0	10	96.7662	2025-07-09 20:31:21

id	machine_name	ip_address	status	date_added
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id	date	time	machine_id	machine_name	shift	length
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