Appendix 26 Uniformity and adequacy test gluing bottom implementation

Num.	Workers	Assessor 1	Assessor 2	Assessor 3	Mean (X-bar)	Range I	X-bar Uniformity	R-chart Uniformity
1	Workers 01	94,20	94,60	96,50	95,10	2,30	Uniform	Uniform
2	Workers 02	86,90	97,20	98,20	94,10	11,30	Uniform	Uniform
3	Workers 03	88,40	95,60	98,60	94,20	10,20	Uniform	Uniform
4	Workers 04	92,20	93,80	98,10	94,70	5,90	Uniform	Uniform
5	Workers 05	102,90	102,70	103,40	103,00	0,70	Uniform	Uniform
6	Workers 06	86,20	93,80	98,60	92,87	12,40	Uniform	Uniform
7	Workers 07	90,10	94,30	98,30	94,23	8,20	Uniform	Uniform
8	Workers 08	90,40	98,10	98,20	95,57	7,80	Uniform	Uniform
9	Workers 09	87,80	95,80	99,30	94,30	11,50	Uniform	Uniform
10	Workers 10	92,90	92,40	97,90	94,40	5,50	Uniform	Uniform
11	Workers 11	87,70	96,80	98,20	94,23	10,50	Uniform	Uniform

Appendix 27 Uniformity and adequacy test folding neck implementation

Num.	Workers	Assessor 1	Assessor 2	Assessor 3	Mean (X-bar)	Range I	X-bar Uniformity	R-chart Uniformity
1	Workers 01	103,40	102,50	103,75	103,22	1,25	Uniform	Uniform
2	Workers 02	97,50	85,40	95,60	92,83	12,10	Uniform	Uniform
3	Workers 03	96,00	83,80	100,80	93,53	17,00	Uniform	Uniform
4	Workers 04	87,30	95,90	96,40	93,20	9,10	Uniform	Uniform
5	Workers 05	95,60	88,80	94,40	92,93	6,80	Uniform	Uniform
6	Workers 06	92,80	88,30	96,40	92,50	8,10	Uniform	Uniform
7	Workers 07	99,10	96,10	85,80	93,67	13,30	Uniform	Uniform
8	Workers 08	96,10	83,90	96,00	92,00	12,20	Uniform	Uniform
9	Workers 09	89,00	95,00	96,60	93,53	7,60	Uniform	Uniform
10	Workers 10	95,40	89,00	95,00	93,13	6,40	Uniform	Uniform
11	Workers 11	95,50	88,00	96,89	93,46	8,89	Uniform	Uniform

Appendix 28 Uniformity and adequacy test gluing handle implementation

Num.	Workers	Assessor 1	Assessor 2	Assessor 3	Mean (X-bar)	Range I	X-bar Uniformity	R-chart Uniformity
1	Workers 01	94,40	97,60	101,00	97,67	6,60	Uniform	Uniform
2	Workers 02	94,40	96,40	98,50	96,43	4,10	Uniform	Uniform
3	Workers 03	93,30	85,70	100,90	93,30	15,20	Uniform	Uniform
4	Workers 04	102,50	104,80	102,80	103,37	2,30	Uniform	Uniform
5	Workers 05	94,10	93,80	91,00	92,97	3,10	Uniform	Uniform
6	Workers 06	93,70	95,50	101,20	96,80	7,50	Uniform	Uniform
7	Workers 07	84,60	96,40	95,90	92,30	11,80	Uniform	Uniform
8	Workers 08	93,60	94,30	97,50	95,13	3,90	Uniform	Uniform
9	Workers 09	88,00	95,10	98,20	93,77	10,20	Uniform	Uniform
10	Workers 10	81,80	95,80	97,00	91,53	15,20	Uniform	Uniform
11	Workers 11	90,80	93,70	98,50	94,33	7,70	Uniform	Uniform

Appendix 29 Uniformity and adequacy test subassy-handle implementation

Num.	Workers	Assessor 1	Assessor 2	Assessor 3	Mean (X-bar)	Range I	X-bar Uniformity	R-chart Uniformity
1	Workers 01	96	99	100	98,17	4,10	Uniform	Uniform
2	Workers 02	103	105	103	103,93	2,20	Uniform	Uniform
3	Workers 03	95	93	100	96,00	7,50	Uniform	Uniform
4	Workers 04	85	97	99	93,87	14,60	Uniform	Uniform
5	Workers 05	92	96	100	95,60	8,30	Uniform	Uniform
6	Workers 06	98	95	98	97,07	2,90	Uniform	Uniform
7	Workers 07	93	97	100	96,93	6,90	Uniform	Uniform
8	Workers 08	96	94	100	96,50	6,00	Uniform	Uniform
9	Workers 09	90	99	100	96,63	9,90	Uniform	Uniform
10	Workers 10	82	98	98	92,30	16,40	Uniform	Uniform
11	Workers 11	95	95	99	96,37	4,70	Uniform	Uniform

Appendix 30 Uniformity and adequacy test inspection implementation

Num.	Workers	Assessor 1	Assessor 2	Assessor 3	Mean (X-bar)	Range I	X-bar Uniformity	R-chart Uniformity
1	Workers 01	91	99	97	95,67	8,50	Uniform	Uniform
2	Workers 02	90	95	98	94,20	7,50	Uniform	Uniform
3	Workers 03	91	95	97	94,40	6,40	Uniform	Uniform
4	Workers 04	92	100	98	96,70	7,20	Uniform	Uniform
5	Workers 05	92	93	101	95,30	8,60	Uniform	Uniform
6	Workers 06	103	103	103	102,67	0,30	Uniform	Uniform
7	Workers 07	91	96	98	94,80	6,10	Uniform	Uniform
8	Workers 08	90	98	98	95,47	7,90	Uniform	Uniform
9	Workers 09	92	97	98	95,53	6,00	Uniform	Uniform
10	Workers 10	88	96	98	94,03	10,00	Uniform	Uniform
11	Workers 11	91	95	98	94,77	6,40	Uniform	Uniform

Appendix 31 Uniformity and adequacy test gluing rear face implementation

Num.	Workers	Assessor 1	Assessor 2	Assessor 3	Mean (X-bar)	Range I	X-bar Uniformity	R-chart Uniformity
1	Workers 01	93	98	100	96,73	6,50	Uniform	Uniform
2	Workers 02	94	97	101	97,13	6,90	Uniform	Uniform
3	Workers 03	91	98	100	96,07	8,80	Uniform	Uniform
4	Workers 04	93	97	101	97,17	7,40	Uniform	Uniform
5	Workers 05	91	96	101	96,13	10,20	Uniform	Uniform
6	Workers 06	93	95	100	95,87	7,00	Uniform	Uniform
7	Workers 07	94	96	101	97,00	6,70	Uniform	Uniform
8	Workers 08	89	97	100	95,43	10,80	Uniform	Uniform
9	Workers 09	93	95	100	96,03	6,70	Uniform	Uniform
10	Workers 10	103	103	103	102,80	0,60	Uniform	Uniform
11	Workers 11	91	96	101	95,90	9,70	Uniform	Uniform

Appendix 32 Uniformity and adequacy test subassy panda rear implementation

Num.	Workers	Assessor 1	Assessor 2	Assessor 3	Mean (X-bar)	Range I	X-bar Uniformity	R-chart Uniformity
1	Workers 01	88	97	101	95,43	12,20	Uniform	Uniform
2	Workers 02	96	96	101	97,67	4,60	Uniform	Uniform
3	Workers 03	88	97	98	94,33	10,60	Uniform	Uniform
4	Workers 04	99	96	98	97,33	2,80	Uniform	Uniform
5	Workers 05	85	97	98	93,27	13,30	Uniform	Uniform
6	Workers 06	98	98	89	94,80	9,20	Uniform	Uniform
7	Workers 07	96	98	98	97,57	2,40	Uniform	Uniform
8	Workers 08	98	95	99	97,17	3,50	Uniform	Uniform
9	Workers 09	99	99	93	96,80	6,80	Uniform	Uniform
10	Workers 10	98	95	97	96,57	3,30	Uniform	Uniform
11	Workers 11	103	103	104	103,25	1,54	Uniform	Uniform

Appendix 33 Uniformity and adequacy test gluing-front face implementation

Num.	Workers	Assessor 1	Assessor 2	Assessor 3	Mean (X-bar)	Range I	X-bar Uniformity	R-chart Uniformity
1	Workers 01	89	97	97	94,13	8,60	Uniform	Uniform
2	Workers 02	91	95	97	94,57	6,50	Uniform	Uniform
3	Workers 03	92	97	100	96,13	7,50	Uniform	Uniform
4	Workers 04	90	93	98	93,73	7,50	Uniform	Uniform
5	Workers 05	91	96	98	95,13	7,50	Uniform	Uniform
6	Workers 06	89	95	100	94,37	11,10	Uniform	Uniform
7	Workers 07	84	96	97	92,07	13,00	Uniform	Uniform
8	Workers 08	87	93	100	93,23	13,30	Uniform	Uniform
9	Workers 09	103	105	104	103,93	1,58	Uniform	Uniform
10	Workers 10	88	94	100	94,00	12,10	Uniform	Uniform
11	Workers 11	85	95	95	91,90	9,90	Uniform	Uniform

Appendix 34 Uniformity and adequacy test subassypanda front implementation

Num.	Workers	Assessor 1	Assessor 2	Assessor 3	Mean (X-bar)	Range I	X-bar Uniformity	R-chart Uniformity
1	Workers 01	96	95	96	95,83	1,10	Uniform	Uniform
2	Workers 02	93	95	101	96,20	8,20	Uniform	Uniform
3	Workers 03	88	97	100	95,07	11,90	Uniform	Uniform
4	Workers 04	89	96	99	94,60	10,40	Uniform	Uniform
5	Workers 05	94	95	101	96,80	6,60	Uniform	Uniform
6	Workers 06	90	95	98	94,43	8,30	Uniform	Uniform
7	Workers 07	88	95	99	94,07	10,70	Uniform	Uniform
8	Workers 08	103	106	103	103,97	2,50	Uniform	Uniform
9	Workers 09	91	97	99	95,27	7,90	Uniform	Uniform
10	Workers 10	86	96	97	93,00	10,50	Uniform	Uniform
11	Workers 11	89	96	99	94,80	10,20	Uniform	Uniform

Appendix 35 Uniformity and adequacy test polimer implementation

Num.	Workers	Assessor 1	Assessor 2	Assessor 3	Mean (X-bar)	Range I	X-bar Uniformity	R-chart Uniformity
1	Workers 01	94	98	97	96,40	3,70	Uniform	Uniform
2	Workers 02	91	101	97	96,60	10,30	Uniform	Uniform
3	Workers 03	88	98	102	95,77	13,50	Uniform	Uniform
4	Workers 04	96	97	99	96,97	2,60	Uniform	Uniform
5	Workers 05	93	97	95	94,97	3,10	Uniform	Uniform
6	Workers 06	92	94	102	96,10	9,90	Uniform	Uniform
7	Workers 07	103	104	105	103,93	1,30	Uniform	Uniform
8	Workers 08	93	95	98	95,53	4,40	Uniform	Uniform
9	Workers 09	89	97	101	95,73	11,50	Uniform	Uniform
10	Workers 10	93	97	101	96,93	8,50	Uniform	Uniform
11	Workers 11	90	99	99	95,70	8,80	Uniform	Uniform

Appendix 36 Output calculations folding bottom implementation

Workers	Observed time	NT	ST	Available time	Output/shift calculation
Worker 1	9,0	9,3	9,9	25200,0	2534,7
Worker 2	12,3	12,4	13,2	25200,0	1902,5
Worker 3	12,9	12,9	13,9	25200,0	1819,1
Worker 4	14,7	14,5	15,6	25200,0	1619,2
Worker 5	13,5	13,2	14,1	25200,0	1783,1
Worker 6	12,7	12,4	13,3	25200,0	1896,4
Worker 7	13,5	13,3	14,2	25200,0	1773,8
Worker 8	14,7	14,5	15,6	25200,0	1620,5
Worker 9	13,9	13,6	14,5	25200,0	1732,2
Worker 10	12,7	12,3	13,2	25200,0	1913,3
Worker 11	12,9	12,6	13,5	25200,0	1869,1

Appendix 37 Output calculations gluing bottom implementation

Workers	Observed time	NT	ST	Available time	Output/shift calculation
Worker 1	14,3	14,2	15,2	25200,0	1661,3
Worker 2	13,2	13,1	14,1	25200,0	1791,2
Worker 3	14,1	14,0	15,0	25200,0	1677,2
Worker 4	13,0	13,3	14,2	25200,0	1772,5
Worker 5	9,8	9,8	10,5	25200,0	2409,1
Worker 6	12,3	12,2	13,1	25200,0	1927,4
Worker 7	12,6	12,5	13,4	25200,0	1883,1
Worker 8	12,8	12,8	13,7	25200,0	1845,8
Worker 9	13,1	12,9	13,8	25200,0	1824,9
Worker 10	13,0	12,8	13,7	25200,0	1836,4
Worker 11	15,0	14,9	16,0	25200,0	1576,4

Appendix 38 Output calculations folding neck implementation

Workers	Observed time	NT	ST	Available time	Output/shift calculation
Worker 1	14,7	14,4	15,4	25200,0	1632,2
Worker 2	14,3	14,0	15,0	25200,0	1685,5
Worker 3	13,6	13,5	14,4	25200,0	1750,4
Worker 4	13,4	13,4	14,3	25200,0	1764,1
Worker 5	13,5	13,4	14,3	25200,0	1760,4
Worker 6	14,2	13,9	14,8	25200,0	1699,9
Worker 7	14,3	14,4	15,4	25200,0	1631,5
Worker 8	12,6	12,6	13,5	25200,0	1870,5
Worker 9	9,5	9,8	10,5	25200,0	2406,1
Worker 10	14,0	13,9	14,8	25200,0	1699,1
Worker 11	12,5	12,4	13,2	25200,0	1905,9

Appendix 39 Output calculations gluing-handle implementation

Workers	Observed time	NT	ST	Available time	Output/shift calculation
Worker 1	12,5	12,4	13,3	25200,0	1892,7
Worker 2	12,2	11,6	12,4	25200,0	2030,4
Worker 3	13,2	12,9	13,8	25200,0	1828,5
Worker 4	14,9	14,6	15,6	25200,0	1613,3
Worker 5	13,1	12,9	13,8	25200,0	1819,7
Worker 6	13,3	13,0	13,9	25200,0	1811,0
Worker 7	14,2	13,8	14,8	25200,0	1705,9
Worker 8	13,3	13,1	14,0	25200,0	1795,4
Worker 9	12,6	12,3	13,1	25200,0	1920,0
Worker 10	9,8	10,1	10,8	25200,0	2331,7
Worker 11	12,4	12,7	13,6	25200,0	1857,7

Appendix 40 Output calculations subassy-handle implementation

Workers	Observed time	NT	ST	Available time	Output/shift calculation
Worker 1	12,2	11,8	12,6	25200,0	2004,3
Worker 2	14,3	14,1	15,0	25200,0	1675,0
Worker 3	12,6	12,2	13,1	25200,0	1930,2
Worker 4	12,4	12,3	13,1	25200,0	1920,6
Worker 5	13,1	12,6	13,5	25200,0	1869,7
Worker 6	8,2	8,4	9,0	25200,0	2788,0
Worker 7	14,3	13,8	14,7	25200,0	1709,9
Worker 8	12,2	11,8	12,6	25200,0	2001,2
Worker 9	12,2	12,0	12,8	25200,0	1969,3
Worker 10	14,9	14,5	15,5	25200,0	1622,2
Worker 11	12,7	12,6	13,5	25200,0	1873,2

Appendix 41 Output calculations inspection implementation

Workers	Observed time	NT	ST	Available time	Output/shift calculation
Worker 1	13,8	13,8	14,8	25200,0	1707,8
Worker 2	9,0	9,3	9,9	25200,0	2536,1
Worker 3	13,6	13,4	14,4	25200,0	1751,5
Worker 4	14,8	14,9	16,0	25200,0	1577,4
Worker 5	12,8	12,7	13,6	25200,0	1855,8
Worker 6	12,6	12,5	13,4	25200,0	1885,7
Worker 7	13,9	13,8	14,7	25200,0	1710,8
Worker 8	13,8	13,7	14,6	25200,0	1720,8
Worker 9	15,0	14,7	15,8	25200,0	1598,6
Worker 10	14,9	15,0	16,0	25200,0	1575,3
Worker 11	15,0	14,9	16,0	25200,0	1576,9

Appendix 42 Output calculations gluing-rear face implementation

Workers	Observed time	NT	ST	Available time	Output/shift calculation
Worker 1	13,4	13,5	14,4	25200,0	1745,1
Worker 2	12,1	12,1	13,0	25200,0	1941,2
Worker 3	13,2	13,4	14,3	25200,0	1763,5
Worker 4	8,5	8,8	9,4	25200,0	2670,9
Worker 5	13,1	12,9	13,8	25200,0	1823,8
Worker 6	14,1	14,0	15,0	25200,0	1676,9
Worker 7	13,0	13,1	14,0	25200,0	1797,4
Worker 8	13,2	13,0	13,9	25200,0	1808,1
Worker 9	14,3	14,1	15,1	25200,0	1668,2
Worker 10	12,3	12,5	13,4	25200,0	1886,9
Worker 11	12,5	12,6	13,4	25200,0	1874,7

Appendix 43 Output calculations subassy-panda rear implementation

Workers	Observed time	NT	ST	Available time	Output/shift calculation
Worker 1	12,1	12,1	12,9	25200,0	1952,3
Worker 2	12,5	12,6	13,5	25200,0	1867,3
Worker 3	9,3	9,5	10,2	25200,0	2466,3
Worker 4	13,7	13,4	14,3	25200,0	1761,9
Worker 5	13,9	13,7	14,7	25200,0	1717,4
Worker 6	13,4	13,4	14,3	25200,0	1757,1
Worker 7	12,4	12,3	13,1	25200,0	1919,1
Worker 8	13,2	13,2	14,1	25200,0	1783,7
Worker 9	14,2	14,2	15,2	25200,0	1660,5
Worker 10	12,7	12,6	13,4	25200,0	1874,7
Worker 11	12,3	12,0	12,9	25200,0	1956,0

Appendix 44 Output calculations gluing front face implementation

Workers	Observed time	NT	ST	Available time	Output/shift calculation
Worker 1	13,9	14,0	14,9	25200,0	1686,3
Worker 2	12,3	12,5	13,4	25200,0	1884,0
Worker 3	15,0	14,9	16,0	25200,0	1577,8
Worker 4	14,6	14,6	15,6	25200,0	1614,4
Worker 5	12,5	12,6	13,5	25200,0	1867,0
Worker 6	14,1	14,0	15,0	25200,0	1683,6
Worker 7	12,5	12,4	13,3	25200,0	1896,1
Worker 8	8,2	8,4	9,0	25200,0	2797,0
Worker 9	14,1	13,9	14,9	25200,0	1690,4
Worker 10	13,6	13,8	14,7	25200,0	1711,1
Worker 11	13,9	13,7	14,7	25200,0	1718,7

Appendix 45 Output calculations gluing front face implementation

Workers	Observed time	NT	ST	Available time	Output/shift calculation
Worker 1	14,9	14,6	15,6	25200,0	1610,8
Worker 2	14,6	14,7	15,7	25200,0	1604,8
Worker 3	12,3	12,3	13,2	25200,0	1915,6
Worker 4	12,2	12,2	13,1	25200,0	1922,7
Worker 5	14,6	14,3	15,4	25200,0	1641,4
Worker 6	13,9	13,6	14,6	25200,0	1727,9
Worker 7	12,1	12,1	13,0	25200,0	1944,2
Worker 8	14,3	14,2	15,2	25200,0	1656,5
Worker 9	14,7	14,5	15,5	25200,0	1624,4
Worker 10	13,0	13,2	14,1	25200,0	1787,6
Worker 11	9,0	9,2	9,9	25200,0	2548,7

Appendix 46 Output calculations subassy-panda front implementation

Workers	Observed time	NT	ST	Available time	Output/shift calculation
Worker 1	14,9	14,6	15,6	25200,0	1610,8
Worker 2	14,6	14,7	15,7	25200,0	1604,8
Worker 3	12,3	12,3	13,2	25200,0	1915,6
Worker 4	12,2	12,2	13,1	25200,0	1922,7
Worker 5	14,6	14,3	15,4	25200,0	1641,4
Worker 6	13,9	13,6	14,6	25200,0	1727,9
Worker 7	12,1	12,1	13,0	25200,0	1944,2
Worker 8	14,3	14,2	15,2	25200,0	1656,5
Worker 9	14,7	14,5	15,5	25200,0	1624,4
Worker 10	13,0	13,2	14,1	25200,0	1787,6
Worker 11	9,0	9,2	9,9	25200,0	2548,7

Appendix 47 Output calculations polimer implementation

Workers	Observed time	NT	ST	Available time	Output/shift calculation
Worker 1	12,8	12,4	13,2	25200,0	1902,1
Worker 2	13,7	13,5	14,5	25200,0	1742,0
Worker 3	13,3	13,3	14,2	25200,0	1775,0
Worker 4	14,6	14,5	15,5	25200,0	1627,9
Worker 5	14,5	14,5	15,5	25200,0	1622,4
Worker 6	12,6	12,5	13,4	25200,0	1879,6
Worker 7	8,7	8,9	9,5	25200,0	2659,4
Worker 8	13,8	13,7	14,7	25200,0	1713,0
Worker 9	12,6	12,4	13,3	25200,0	1896,7
Worker 10	12,9	12,9	13,8	25200,0	1826,4
Worker 11	14,7	14,8	15,9	25200,0	1587,5