

1 Instances 1111

Table 1: Results for noWaitHFS (CPO) (20 Instances)

Name	Nr Jobs	Nr Machines	Status	Time	Makespan	Bound	Gap Percent
instance 1 J10 S2.txt	10	6	Optimal	1.81	312	312.00	0.00
instance 2 J10 S3.txt	10	9	Optimal	61.87	361	361.00	0.00
instance 3 J10 S5.txt	10	20	Solution	600.07	490	396.00	19.18
instance 4 J10 S10.txt	10	40	Solution	600.08	866	784.00	9.47
instance 5 J20 S2.txt	20	4	Solution	600.03	782	356.00	54.48
instance 6 J20 S3.txt	20	12	Solution	600.03	488	246.00	49.59
instance 7 J20 S5.txt	20	15	Solution	600.04	802	431.00	46.26
instance 8 J20 S10.txt	20	20	Solution	600.06	1464	805.00	45.01
instance 9 J30 S2.txt	30	6	Solution	600.05	809	240.00	70.33
instance 10 J30 S3.txt	30	6	Solution	600.03	1258	349.00	72.26
instance 11 J30 S5.txt	30	10	Solution	600.04	1462	529.00	63.82
instance 12 J30 S10.txt	30	40	Solution	600.11	1312	785.00	40.17
instance 13 J50 S2.txt	50	8	Solution	600.04	971	189.00	80.54
instance 14 J50 S3.txt	50	9	Solution	600.06	1417	255.00	82.00
instance 15 J50 S5.txt	50	20	Solution	600.11	1251	396.00	68.35
instance 16 J50 S10.txt	50	30	Solution	600.22	2081	794.00	61.85
instance 17 J100 S2.txt	100	4	Solution	600.11	3620	457.00	87.38
instance 18 J100 S3.txt	100	9	Solution	600.16	2652	267.00	89.93
instance 19 J100 S5.txt	100	15	Solution	600.27	2944	435.00	85.22
instance 20 J100 S10.txt	100	20	Solution	600.22	5173	795.00	84.63

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Table 2: Results for noWaitHFS (CPO) (20 Instances)

Name	Nr Jobs	Nr Machines	Status	Time	Makespan	Bound	Gap Percent
instance 1 J10 S2.txt	10	6	Optimal	0.98	412	412.00	0.00
instance 2 J10 S3.txt	10	10	Optimal	1.23	450	450.00	0.00
instance 3 J10 S5.txt	10	18	Optimal	4.64	510	510.00	0.00
instance 4 J10 S10.txt	10	38	Solution	600.08	932	847.00	9.12
instance 5 J20 S2.txt	20	6	Optimal	38.98	765	765.00	0.00
instance 6 J20 S3.txt	20	10	Solution	600.04	830	414.00	50.12
instance 7 J20 S5.txt	20	18	Solution	600.06	914	559.00	38.84
instance 8 J20 S10.txt	20	38	Solution	600.08	1273	809.00	36.45
instance 9 J30 S2.txt	30	6	Solution	600.05	1086	362.00	66.67
instance 10 J30 S3.txt	30	10	Solution	600.03	1161	365.00	68.56
instance 11 J30 S5.txt	30	18	Solution	600.05	1358	568.00	58.17
instance 12 J30 S10.txt	30	38	Solution	600.10	1620	895.00	44.75
instance 13 J50 S2.txt	50	6	Solution	600.05	1843	391.00	78.78

Table 2: Results for noWaitHFS (CPO) (20 Instances)

Name	Nr Jobs	Nr Machines	Status	Time	Makespan	Bound	Gap Percent
instance 14 J50 S3.txt	50	10	Solution	600.04	1907	484.00	74.62
instance 15 J50 S5.txt	50	18	Solution	600.07	1995	464.00	76.74
instance 16 J50 S10.txt	50	38	Solution	600.15	2281	840.00	63.17
instance 17 J100 S2.txt	100	6	Solution	600.07	3523	313.00	91.12
instance 18 J100 S3.txt	100	10	Solution	600.10	3580	330.00	90.78
instance 19 J100 S5.txt	100	18	Solution	600.22	3828	596.00	84.43
instance 20 J100 S10.txt	100	38	Solution	600.29	4075	792.00	80.56

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Table 3: Results for noWaitHFS (CPO) (20 Instances)

Name	Nr Jobs	Nr Machines	Status	Time	Makespan	Bound	Gap Percent
instance 1 J10 S2.txt	10	5	Optimal	0.02	773	773.00	0.00
instance 2 J10 S3.txt	10	6	Optimal	0.03	856	856.00	0.00
instance 3 J10 S5.txt	10	13	Optimal	0.07	956	956.00	0.00
instance 4 J10 S10.txt	10	24	Optimal	2.33	1313	1313.00	0.00
instance 5 J20 S2.txt	20	5	Optimal	0.03	1664	1664.00	0.00
instance 6 J20 S3.txt	20	5	Optimal	81.02	1616	1616.00	0.00
instance 7 J20 S5.txt	20	13	Solution	600.03	1010	504.00	50.10
instance 8 J20 S10.txt	20	30	Solution	600.07	1328	834.00	37.20
instance 9 J30 S2.txt	30	5	Optimal	0.03	2242	2242.00	0.00
instance 10 J30 S3.txt	30	5	Solution	600.02	2355	2341.00	0.59
instance 11 J30 S5.txt	30	10	Solution	600.03	2598	2501.00	3.73
instance 12 J30 S10.txt	30	22	Optimal	25.74	2802	2802.00	0.00
instance 13 J50 S2.txt	50	2	Solution	600.03	3915	3912.00	0.08
instance 14 J50 S3.txt	50	5	Optimal	130.25	3803	3803.00	0.00
instance 15 J50 S5.txt	50	11	Solution	600.05	4157	4102.00	1.32
instance 16 J50 S10.txt	50	30	Optimal	6.32	4363	4363.00	0.00
instance 17 J100 S2.txt	100	8	Solution	600.07	1902	188.00	90.12
instance 18 J100 S3.txt	100	8	Solution	600.10	3620	449.00	87.60
instance 19 J100 S5.txt	100	8	Solution	600.15	7775	7600.00	2.25
instance 20 J100 S10.txt	100	31	Solution	600.16	8198	8197.00	0.01

4 Instances Large

Table 4: Results for noWaitHFS (CPO) (8 Instances)

Name	Nr Jobs	Nr Machines	Status	Time	Makespan	Bound	Gap Percent
instance 21 J200 S2.txt	200	8	Solution	600.38	346	17.00	95.09
instance 22 J200 S3.txt	200	9	Solution	600.36	484	25.00	94.83
instance 23 J200 S5.txt	200	10	Solution	600.21	754	39.00	94.83
instance 24 J200 S10.txt	200	40	Solution	600.59	491	73.00	85.13
instance 25 J400 S2.txt	400	6	Solution	600.14	906	17.00	98.12
instance 26 J400 S3.txt	400	12	Solution	600.32	724	25.00	96.55
instance 27 J400 S5.txt	400	20	Solution	600.59	792	39.00	95.08
instance 28 J400 S10.txt	400	30	Solution	601.50	1187	75.00	93.68