

5 MECHANICAL SPECIFICATIONS

Specifications for Process K-14M

The Processor achieves Standby Mode in 30 to 45 minutes from Sleep Mode. It takes approximately 2 minutes to reach Processing Mode after being in Standby Mode. The transport speed is 6.6 ft/min (2.0 m/minute) \pm 2 percent. There is a 400-ft take-up reel at the exit end of the Processor.

Mechanical Specifications for Process K-14M

Solution/Step	Time (min:sec)	Temperature		Wash Rates (L/min)
		(F)	(C)	
Rem-Jet Removal	0:10	Ambient		
Rinse	0:15	85 \pm 2	29 \pm 1	1.4
First Developer	2:00	99.0 \pm 0.05*	37.2 \pm 0.03	
Wash	1:00	85 \pm 2	29 \pm 1	1.4
Red Reexposure Printer				
Cyan Developer	2:00	100 \pm 0.1	37.8 \pm 0.06	
Wash	2:00	100 \pm 2	38 \pm 1	1.4
Blue Reexposure Printer				
Yellow Developer	3:00	100 \pm 0.1	37.8 \pm 0.06	
Wash	2:00	100 \pm 2	38 \pm 1	1.4
Magenta Developer	4:00	100 \pm 0.1	37.8 \pm 0.06	
Wash	2:00	100 \pm 2	38 \pm 1	1.4
Conditioner	1:00	Ambient		
Bleach	5:00	100 \pm 1	38 \pm 0.6	
Fixer	3:00	100 \pm 1	38 \pm 0.6	
Wash	2:00	100 \pm 2	38 \pm 1	1.4
Final Rinse	1:00	Ambient		
Dryer	6:00	105 \pm 5	41 \pm 3	

* Arbitrary changes in the specified solution temperatures are not recommended. As a general rule, only minor adjustments in the temperature of the First Developer are needed to achieve and maintain the desired density or speed.

Utilization

Process K-14M requires a minimum of one tank turnover every 2 weeks to maintain a stable process. To achieve this utilization level, a K-LAB Processor must process an average of 40 rolls of 135-36 or 58 rolls of 135-24 KODACHROME Film per day. The roll count may be averaged over several days, but must consistently meet these minimums for any 2-week period.

Basic Replenishment Rates

The replenishment rates for Process K-14M in a K-LAB Processor are:

Solution	mL/ft ²	mL/min	mL/m ²
Rem-Jet	46.5	32.9	4.32
First Developer, Part A	38.7	27.4	3.60
First Developer, Part B	58.0	41.0	5.39
First Developer, Part C			
K-64	3.72	2.63	0.35
K-200	4.98	3.52	0.46
Cyan Developer	92.1	65.2	8.56
Yellow Developer, Part A	44.3	31.3	4.12
Yellow Developer, Part B	44.3	31.3	4.12
Magenta Developer	86.5	61.2	8.04
Conditioner			
Concentrate	20.0	14.2	1.86
Water	80.0	56.6	7.43
Bleach	28.2	20.0	2.63
Fixer			
Concentrate	11.1	7.9	1.03
Water	88.9	62.9	8.26
Final Rinse	100.0	70.8	9.29

Chemical Consumption

The following table summarizes the number of chemical units (10-litre BIBs, bottles of concentrate, or Yellow Developer, Part B boxes) that are consumed as film is being processed.

Solution	Replenishment Rate (mL/ft ²)	Volume (Litres)	Volume of Replenishment Used @ 4 hr intervals (BIBs or mixes)						
			4	8	12	16	20	24	
Rem Jet	46.5	20	0.39	0.79	1.18	1.58	1.97	2.37	
First Dev. Part A	38.7	10	0.66	1.32	1.97	2.63	3.29	3.95	
First Dev. Part B	58.0	10	0.98	1.97	2.95	3.94	4.92	5.90	
First Dev. Part C	3.72	10	0.06	0.13	0.19	0.25	0.32	0.38	
Cyan Developer	92.1	10	1.56	3.13	4.69	6.26	7.82	9.39	
Yellow Dev. Part A	44.3	10	0.75	1.50	2.25	3.00	3.76	4.51	
Yellow Dev. Part B	44.3	10	0.75	1.50	2.25	3.00	3.76	4.51	
Magenta Developer	86.5	10	1.47	2.94	4.41	5.88	7.34	8.81	
Conditioner	100*	10	0.34	0.68	1.02	1.36	1.70	2.04	
Bleach	28.2	10	0.48	0.96	1.44	1.92	2.40	2.88	
Fixer	100*	10	0.19	0.38	0.57	0.76	0.95	1.14	
Final Rinse	100	20	0.85	1.70	2.55	3.40	4.25	5.10	
									TOTALS
	Total BIBs changed		2	6	7	7	6	7	35
	10 L mixes made			1	1	1	0	1	4
	20 L mixes made			1	2	1	1	2	7

* Concentrate plus water.

Assumption: Film processed continuously

Definition: 4 hrs = 315 36-exposure rolls