Tank and Drum Capacities

Introduction

This information is the most current as of its posting. Please use this information, if there is a conflict with previously published materials.

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Important

There are many things to consider when determining the volume requirements for processing.

The 'Minimum Volume' stated in the charts below is just the amount of solution that is required to physically cover the film or paper with a level of solution. Never run a process with less than this volume of solutions. Partially unprocessed film or prints will result when using too low a volume.

These volumes are for rotary processing only.

If these tanks or drums are used in any other fashion, such as inversion (hand) techniques, or any procedure that does not have constant agitation, more volume will be required.

These minimums require accuracy.

Accurately measure your volumes. The tank or drum has to be completely level. If the tank or drum end facing away from the magnet or lift coupling is floating above the rollers, the higher end will not be sufficiently covered in solutions. Adjust the level of the water bath until the end no longer floats.

Place a level on the tank or drum. Adjust the leveling of the processor, if necessary.

The 'Minimum Volume' is not necessarily the volume you need to use for processing.

Consider the requirements of your specific chemicals, in combination with the specific film or paper being processed. Note extended dilution (if used). Be sure that the volume required for the square footage (or meters) is sufficient to properly process the amount of film or paper in your tank or drum.

If you are unsure of these requirements, check with the chemical or film manufacturer for their specifications. In all cases, if this volume required for the amount of film or paper is higher than the 'Minimum Volume', use the chemical manufacturer's requirements as your "minimum".

Always compare these two figures and use the higher one as your "minimum."

When in doubt, use a higher volume of solutions.

The 'Minimum Volume' is just that, a minimum. Using more than a minimum amount will not harm virtually any process. Extra volume of chemicals will not "over develop" your film or paper. (Note, however, the precautions in the next section regarding processor limits.)

If your film or paper is coming out "underdeveloped" it could be caused from too little volume of chemicals. If this is the case, extending the development time will not completely cure the "underdevelopment." Increase the volume of chemicals used. An excess volume of chemicals will not "over develop" your film or paper.

Never use a tank or drum loading that exceeds the processor's specifications.

Do not use any combination of chemicals, tanks, reels, drum, and amount of film or paper, that is going to require more volume of solutions than the maximum recommended volume stated for your processor. Doing so will shorten the life of the processor's rotation motor and other components.

When using extended dilutions of the developer, you may need to limit the number of films put in some of the larger tanks or Expert Drums. This prevents the resultant volume of solution from being more than the recommended maximum safe capacity of the processor.

See the 'Footnotes' for specific warnings about over capacity.

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Film Tanks and Reels

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1500 Series Tanks with 1501 Reels

Film Tanks	35mm	120	220	Center Core	Minimum Volume	Notes
1510 Tank	1	na	na	04043	140 ml (4 3/4 oz)	35mm only, 4
1520 Tank	2	2	1	04044	240 ml (8 oz)	4
1530 Module	3	4	2	04045	330 ml (11 1/4 oz)	6
1540 Tank (1510 + 1530)	4	4	2	04043+04045	470 ml (16 oz)	4
1526 Tank (1520 + 1530)	5	6	3	04044+04045	570 ml (19 1/4 oz)	4
1510 Tank + (2x)1530	7	8	4	04043 + (2x)04045	800 ml (27 oz)	1, 4, 5
1520 Tank + (2x)1530	8	10	5	04044 + (2x)04045	900 ml (30 1/2 oz)	1, 4, 5

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1500 Series Tanks with Stainless Steel Reels

Film Tanks	35mm (1555)	120 (1557)	220 (1559)	Center Core	Minimum Volume	Notes
1520 Tank	1	1	1	1561	300 ml (10 1/4 oz)	4
1540 Tank (1510 + 1530)	4	2	2	1562	500 ml (17 oz)	4
1526 Tank (1520 + 1530)	5	3	3	1563	600 ml (20 1/4 oz)	4
1520 Tank + (2x)1530	8	5	5	1564	950 ml (32 oz)	1, 4, 5

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2500 Series Tanks with 2502 Reels (with any film loaded inside of the red clip)

Film Tanks	35mm	120	220	Center Core	Minimum Volume	Notes
2513 Tank	1	na	na	04043	170 ml (5 3/4 oz)	35mm only
2521 or 2523 Tank	2	2	1	04044	270 ml (9 1/4 oz)	2521 magnet, 2523 cog
2551 or 2553 Tank	5	6	3	04044 + 04045	640 ml (21 3/4 oz)	2521 magnet, 2523 cog, 1
2560 Module	6	6	3	(2x) 04045	850 ml (28 3/4 oz)	1 6
2563 Tank	6	6	3	04044 + 04045 + 04073	850 ml (28 3/4 oz)	1
2583 Tank (2523 + 2560)	8	10	5	04044 + (2x) 04045	1250 ml (42 1/4 oz)	1 2
2593 Tank (2553 + 2560)	12	14	7	04044 + (3x) 04045	1500 ml (50 3/4 oz)	1 2 5

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2500 Series Tanks with 2502 Reels (120 only, none loaded inside the red clip, 1 roll per reel)

Film Tanks	120	Center Core	Minimum Volume	Notes
2521 or 2523 Tank	1	04044	170 ml (5 3/4 oz)	2521 magnet, 2523 cog
2551 or 2553 Tank	3	04044 + 04045	330 ml (11 3/4 oz)	2551 magnet, 2553 cog
2560 Module	4	(2x) 04045	400 ml (13 1/2 oz)	6
2563 Tank	4	04044 + 04045 + 04073	400 ml (13 1/2 oz)	
2583 Tank (2523 + 2560)	5	04044 + (2x) 04045	620 ml (21 oz)	1
2593 Tank (2553 + 2560)	7	04044 + (3x) 04045	800 ml (21 oz)	1, 5

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2500 Series Tanks with 2509N Reels

Film Tanks	4x5"	Center Core	Minimum Volume	Notes
2521 or 2523 Tank	6	04044	270 ml (9 1/4 oz)	2521 magnet, 2523 cog
2551 or 2553 Tank	12	04044 + 04045	560 ml (19 oz)	2551 magnet, 2553 cog
2560 Module	12	(2x) 04045	730 ml (24 1/4 oz)	1, 6
2563 Tank	12	04044 + 04045 + 04073	730 ml (24 1/4 oz)	1
2583 Tank (2523 + 2560)	18	04044 + (2x) 04045	1000 ml (33 1/4 oz)	1
2593 Tank (2553 + 2560)	24	04044 + (3x) 04045	1250 ml (42 1/2 oz)	1, 2, 5

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Print Drums

Print Drums	4x5"	5x7"	8x10"	11x14"	16x20"	20x24"	Minimum Volume	Notes
2820 Test Drum	2	na	na	na	na	na	40 ml (1 1/4 oz)	4
1526 Combo	na	1	1	na	na	na	50 (1 3/4 oz)	4
2830 Drum	na	4	2	na	na	na	100 ml (3 1/2 oz)	4
2840 Drum (2820 + 2870)	na	4	2	1	na	na	120 ml (4 oz)	4
2850 Drum (2830 + 2870)	na	8	4	2	1	na	200 ml (7 oz)	4, 5
2870 Module	na	4	2	na	na	na	100 ml (3 1/2 oz)	6
3062 Drum	na	9	3	2	na	na	210 ml (7 1/4 oz)	5
3063 Drum	na	12	6	2	1	1	300 ml (10 1/4 oz)	5

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Expert Drums

Expert Drums	4x5"	5x7"	8x10"	8.5x12"	Minimum Volume	Maximum Volume	Notes
3004 Expert	na	4	4	4	270 ml (9 1/4 oz)	1500 ml (50 3/4 oz)	2, 5
3005 Expert	na	5	5	na	270 ml (9 1/4 oz)	1500 ml (50 3/4 oz)	2, 5
3006 Expert	6	6	na	na	210 ml (7 1/4 oz)	1000 ml (33 1/4 oz)	5
3010 Expert	10	na	na	na	210 ml (7 1/4 oz)	1000 ml (33 1/4 oz)	5

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Footnotes

1. The CPE-2 and CPE-2 Plus should not be used with more than 600 ml of solution. Excess volumes will limit the useful life of the rotation motor.
2. The CPA-2 and CPP-2 processors should not be used with more than 1000 ml of solution. Excess volumes will limit the useful life of the rotation motor. The ATL's 1, 2, 2 Plus and 2000 cannot be used with more than 1000 ml of solution.
3. The ATL's 3 and 3000 cannot be used with more than 1500 ml of solution.
4. This tank or drum requires a Cog #1505 to be installed before using it on a JOBO Lift or an ATL processor, or a Magnet #1504 for use with a magnet drive processor.
5. This tank or drum is too large to fit the CPE-2 or CPE-2 Plus processors.
6. All Modules must be used with a tank or drum. They cannot be used alone.