

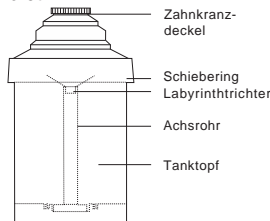


Rotations-Tanksystem 2500

D

Das Tanksystem 2500 wurde für professionelle Bedürfnisse entwickelt. Es ermöglicht die Entwicklung von allen Filmen ab 35 mm bis zum Planfilm 4x5".

Es handelt sich um ein System, bei dem die Tankgröße der Menge der zu verarbeitenden Filme angepaßt werden kann, wodurch sich eine optimale Ausnutzung der Chemikalien erreichen läßt.

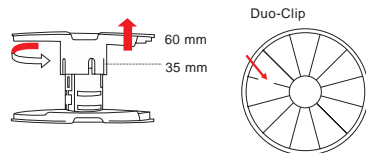


Eine Verschlussmechanik ermöglicht einfaches und sicheres Ent- und Verriegeln der Tanks. Die Tanks gestatten das Einfüllen der Chemie während der Rotation.

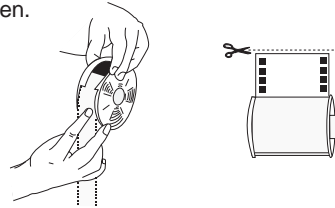
Für die Bestückung der Tanks stehen verschiedene Spiraltypen für die Entwicklung von 35 mm, 60 mm und Planfilmen bis 4x5" zur Verfügung.

Duo-Set 2502

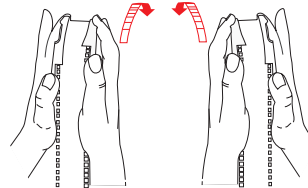
Verstellbare Spirale für 35 mm KB und 60 mm Rollfilme bis 220er Länge. Das Set kann ohne zusätzliche Ladehilfe beschickt werden und nimmt mittels des Duo-Clips auch zwei Rollfilme 120 auf.



Den Film abschneiden, bei Rollfilmen Schutzpapier entfernen und den Film in den ersten Spiralgang einschieben. Zuvor den Duo-Clip öffnen.

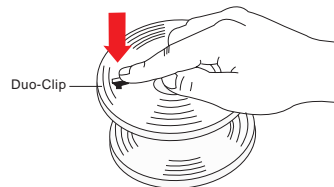


Rechten Zeigefinger auf Filmkante in der Griffmulde legen. Spulenteil bis zum Anschlag im Uhrzeigersinn drehen. Rechten Zeigefinger abheben und den selben Vorgang mit linker Spiralhälfte wiederholen.



Durch abwechselndes Rechts-Links-Drehen den Film in den Spiralgang ziehen. (Bei KB-Filmen am Ende die Patrone abtrennen).

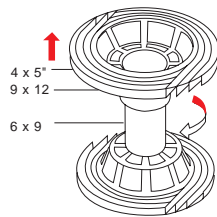
Beim Einspulen von zwei Rollfilmen 120, ersten bis zum Anschlag einspulen. Clip herunterdrücken und nächsten Film einspulen. Der Stift auf der Innenseite der Spirale verhindert das Durchbiegen des Filmanfangs bei Rollfilmen.



Planfilm-Set

Die Planfilmspirale 2509n ermöglicht die gleichzeitige Verarbeitung von 6 Filmen in einer Spirale. Zum Bestücken der Planfilmspirale benötigen Sie den Lader 2508.

Planfilmspirale 2509n

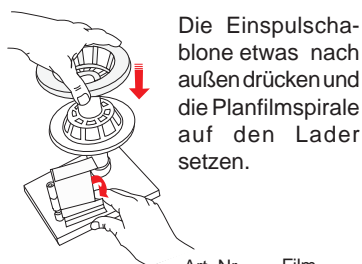


Die Spirale lässt sich durch Linksdrehen und Hochziehen der oberen Spiralhälfte auf die gewünschte Filmbreite einstellen. Durch anschließendes Rechtsdrehen der oberen Spiralhälfte bis zum Anschlag wird diese wieder arretiert.

Planfilmlader 2508

Planfilmset auf das verwendete Filmformat einstellen und die entsprechende Schablone auf den Lader 2508 aufsetzen.

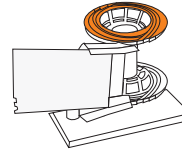
(Bild A)



Die Einspulschablone etwas nach außen drücken und die Planfilmspirale auf den Lader setzen.

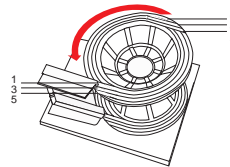
	Art. Nr.	Film
Schablone	2510	6 x 9
	2511	9 x 12
	2512	4 x 5"

(Bild B)



Wie in Bild B gezeigt, mit dem inneren Gang beginnend, die Filme mit der Emulsion zur Achse hineinschieben.

(Bild C)

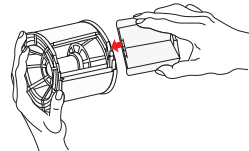


Nachdem ein Film eingeschoben ist, die Spirale eine halbe Umdrehung bis zur nächsten Raste weiterdrehen.

Einsetzen der Halter

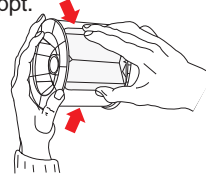
Die Halter werden nur für die Formate 9x12 und 4x5" benötigt. Für das Format 6x9 liegen keine Halter bei. Setzen Sie die Halter immer ein, auch wenn nur ein oder zwei Filme entwickelt werden sollen. Der Halter schützt die Filme gegen Herausfallen und optimiert die Entwicklungsqualität.

(Bild D)



Nachdem die Spirale bestückt ist, werden die Halter in die Aufnahme eingeschnappt.

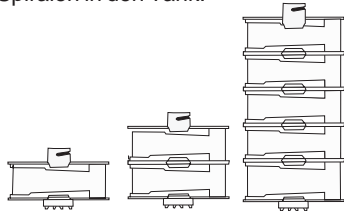
(Bild E)



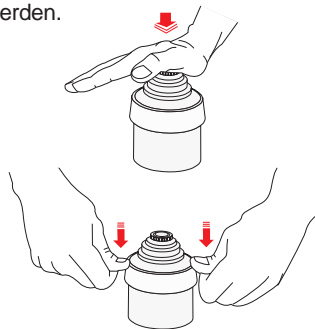
Vergewissern Sie sich, ob die Filme richtig hinter dem eingesetzten Halter liegen (s. Pfeile).

Bestücken der Tanks

Um den nötigen Lichtschutz zu erreichen und die Spiralen so zu arretieren, daß sie sich bei der Rotation mitdrehen, ist es unbedingt erforderlich, daß die Spiralen auf das richtige Achsrohr aufgesteckt werden. Setzen Sie danach das Achsrohr mit den Spiralen in den Tank.

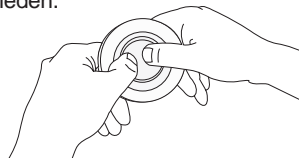


Nachdem Sie den Tankdeckel aufgesetzt und durch Herunterdrücken des Schieberings verschlossen haben, kann das Raumlicht eingeschaltet werden.



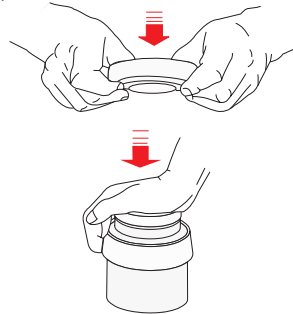
Nur für Tanks 2521/2551/2561

Durch eine in der Stülpkappe enthaltene Druckausgleichsmembran wird das Abspringen der Stülpkappe vermieden.



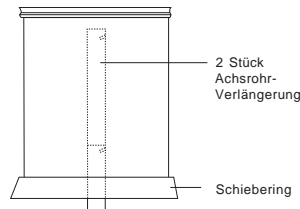
Druckausgleichsmembran in Stülpkappe nach innen eindrücken und Stülpkappe aufsetzen.

(Bei Nichtgebrauch Stülpkappe separat lagern, Spannkraft bleibt so erhalten).

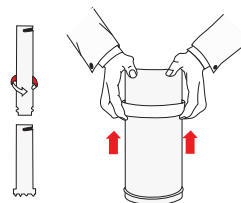


Modul 2560

Mit dem Tank-Modul können die Tanks auf die von Ihnen gewünschte Kapazität erweitert werden. (Siehe Tabelle)



Dazu wird das Modulteil auf den Tanktopf fest aufgedrückt und mit dem zuvor hochgezogenen Schiebering verriegelt. Das Achsrohr wird auf das vorhandene Achsrohr aufgesteckt und durch leichtes Drehen verriegelt.

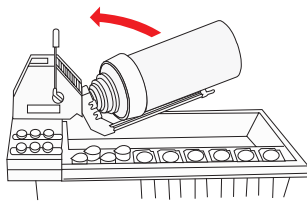


Die Verarbeitung

a) Liftprozessoren, Tanks 25X3

Tank an den Colorprocessor mit JOBO-Lift ankuppeln. Chemikalien während der Rotation einfüllen.

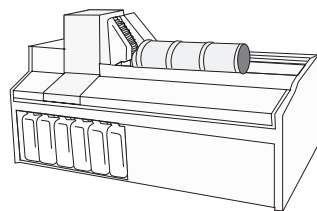
Geschwindigkeit: U/min 75
CPE Stufe 2
CPA/P Stufe P
mit Drehrichtungsumkehr



Nach Ablauf der Verarbeitungszeit Hebel umlegen und Chemikalien auslaufen lassen. Je nach Prozeß nächsten Verarbeitungsschritt ausführen. Nach Prozeßende Film in einem separaten Gefäß ins Stabibad legen (nicht in Processor, Tank und Spiralen, um Verschleppung zu vermeiden). Tank und Spiralen nach der Verarbeitung reinigen und trocknen.

b) Autolabs, Tanks 25X3

Tank ankuppeln, Start-Taste drücken, Prozeß läuft vollautomatisch ab.

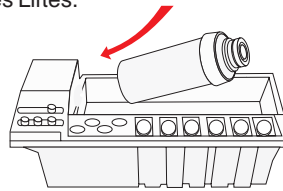


c) Processoren ohne Lift, Tanks 25X1

Achtung: Chemikalien mit Hilfe eines Trichters zügig einfüllen, Stülpkappe aufsetzen und Tank sofort auf den rotierenden Processor legen.



Für die Verarbeitung von Roll- und Planfilmen empfehlen wir die Verwendung eines Liftes.



Verarbeitungshinweise

































Die besonderen Eigenschaften der JOBO-Rotationstanks ermöglichen es, mit Standard-Chemikalien zu arbeiten. Es ist nicht erforderlich, spezielle Rotationschemikalien einzusetzen.

Rotationsgeschwindigkeit bei allen Processoren mit U/min - Angaben auf 75, CPA-2/PPP-2 auf "P" und bei CPE-2 auf Stufe 2 stellen.

Bei S/W - Filmen 5 min. vorwässern. So können Sie Ihre ersten Tests mit der Zeit machen, die die Chemikalienhersteller für den 1 Minuten-Kipprhythmus angeben.

Generell gelten die vom Chemikalienhersteller vorgegebenen Verarbeitungszeiten, Temperaturen und Bäderkapazitäten. Entwicklungszeiten sollten zur Erzielung gleichmäßiger Ergebnisse bei S/W über 5 min. liegen. Die von JOBO angegebenen Füllmengen reichen aus, die Filme gleichmäßig zu benetzen. In der Regel reichen die angegebenen Mengen zur Entwicklung in den Prozessen C-41, E-6 und kompatiblen aus.

Fertigen Sie immer, wenn Sie eine neue Kombination von Tank, Chemie und Filmen benutzen, eine Probeentwicklung an und überprüfen Sie die Ergebnisse.

Tank Type	Spiralen				Chemie-Filmkapazität	
	35 mm	60 mm	6 x 9	9 x 12 4 x 5"	Duo-Set 2502	2509n
 2513	 1				170 ml 1-135-36	
 2523/21	 2	 1	 1	 1	270 ml 2-135-36 2-120 1-220 170 ml 1-120	270 ml 6-6x 9 6-9x12 6-4x 5"
 2553/51	 5	 3	 3	 2	640 ml 5-135-36 6-120 3-220 330 ml 3-120	560 ml 18-6x 9 12-9x12 12-4x 5"
 2563/61	 6	 4	 3	 2	850 ml 6-135-36 8-120 4-220 400 ml 4-120	730 ml 18-6x 9 12-9x12 12-4x 5"
 2583	 8	 5	 5	 3	1250 ml 8-135-36 10-120 5-220	1000 ml 30-6x 9 18-9x12 18-4x 5"
 2593	 12	 7	 7	 5 *	1500 ml 12-135-36 14-120 7-220	1250 ml 42-6x 9 30-9x12 24-4x 5"
 2560	 6	 4	 3	 2	850 ml 6-135-36 8-120 4-220 400 ml 4-120	730 ml 18-6x 9 12-9x12 12-4x 5"

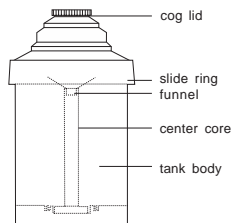
Die Werte im Rahmen geben die benötigte Füllmenge an, wenn die Spirale 2502 nur mit einem 120er bis zum Clip eingespült wurde.

* Bei 4x5" nur 4 Stück

JOBRO Rotational tank system 2500

The 2500 system tanks were developed to meet the needs of professional photographers. They are compatible with all standard films from 35 mm to 4x5"

It is a system in which the tank size can be adapted to match the quantity of film to be processed, thus enabling optimum use of chemicals.

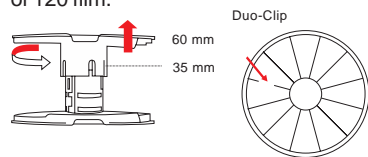


A slide ring mechanism permits easy and safe locking and unlocking of the tanks and their lids. Solutions can be poured in during rotation.

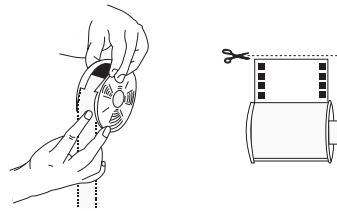
Various reel types are available for processing 35 mm, 60 mm and sheet films up to 4x5".

Duo-Set 2502

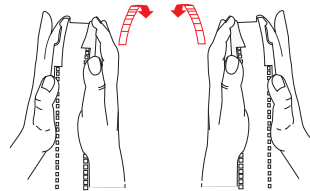
This reel is adjustable for 35 mm, 46 mm and 120/220 films. No loader is needed; the film is "walked" into the reel. Using the Duo-Clip enables it to hold two rolls of 120 film.



To load 35 mm film, cut the end square, and trim the corners on the lead end of the film. For 120/220 films, remove the paper backing and fold over the tape to make the film end more rigid. Again, trim the corners on the lead end of the film.

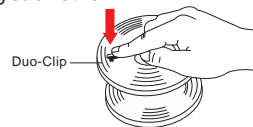


Open the Duo-Clip and then push the film into the opening on the outer layer of the reel. Press your right index finger on the film edge protruding through the recessed section of the reel. Turn the right half of the reel forward (clockwise) until it stops to advance the film. Lift your right index finger and repeat the same procedure with the left half of the reel.



By advancing the film alternately with the right and left halves of the reel, load the full length of the film into the reel. (Remove any cartridges or spools attached to the end of the film.)

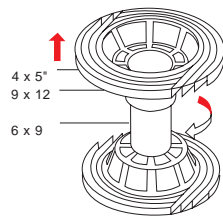
When loading two 120 rolls into the reel, advance the first to the stop at the center of the reel. Press down the Duo-Clip to prevent the film from moving and then load the second roll, in the same manner as the first, until the trailing edge of the film has gotten just into the outer layer of the reel. The pin on the inside of the reel prevents the inner layers of film from touching each other.



Sheet Film Set

The 2509n film reel, holds 6 sheets of up to 4x5" film. To load film, the loader base 2508 is recommended, along with the appropriate loader guide, shown below.

Sheet Film Reel 2509n

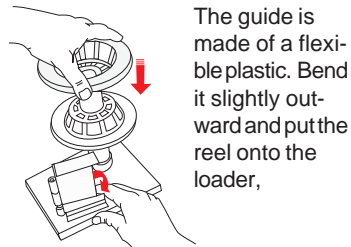


By turning the top half of the reel clockwise past a detent, and pulling it up the reel can be adjusted to the required film width. Lock it in place by turning the top half counter-clockwise past the detent again.

Sheet Film Loader Base 2508

Adjust the sheet film reel to the appropriate film size and put the corresponding loader guide onto the longer pin on the loader base.

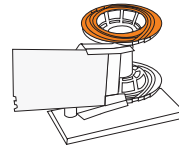
(Fig. A)



The guide is made of a flexible plastic. Bend it slightly outward and put the reel onto the loader.

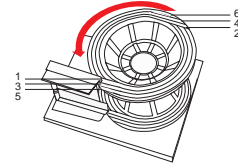
	Item No.	Film
Loader guides	2510	6 x 9
	2511	9 x 12
	2512	4 x 5"

(Fig. B)



As shown in Fig. B, slide the film into the reel with the emulsion side facing the center. Start with the inner-most slot. (The third click as you turn the reel counter-clockwise on the loader.) When one sheet has been loaded, rotate the reel by a half turn, and load the inner-most slot on that side. Continue loading on one side and then the other, working from the inner slot to the outer slot.

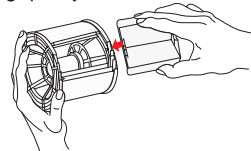
((Fig. C)



Inserting the Holders

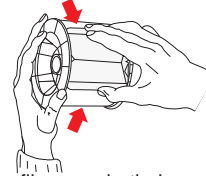
The black plastic holders are only needed for the 9x12 cm and 4x5" sizes. No holders are necessary for 6x9 cm. Always insert the holders, even if only one or two sheets are being processed. The holders are positioned among the three pins on each half of the reel. They prevent the film from falling out and optimize the processing quality.

(Fig. D)



After the reel has been loaded, the holders click into place when fully seated.

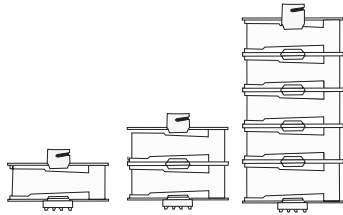
(Fig. E)



Make sure the films are in their correct position behind the inserted holders (see arrows).

Loading the tanks

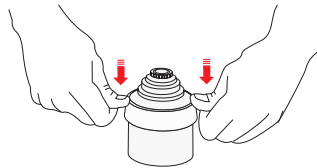
The center cores are an essential part of the light trap on 2500 series tanks. Be certain to push the reels fully onto the appropriate center core for the tank in use. Then put the center core with the reels into the tank and seat it in the receptacle in the bottom of the tank. This will also assure that the reels and center core will rotate with the tank body.



Make certain the funnel light trap is installed in the lid correctly with the tip of the funnel pointing down toward the film. (The funnel can be removed by twisting counter-clockwise and installed by twisting clockwise.)

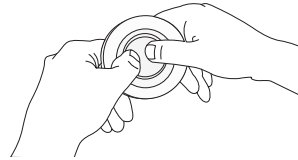


Put the lid on the tank (with the lock-ring raised), push down firmly on the lid and snap down the lock-ring. Try to twist the lid. If properly installed it will be hard to turn. Now you can turn on the lights.

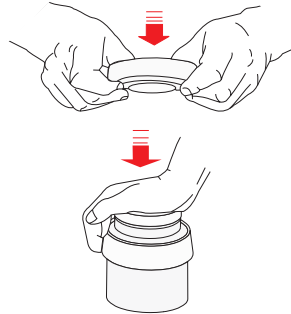


Only for tanks 2521/2551/2561

A pressure compensating diaphragm in the push-on cap, keeps the cap from being pushed off by any build-up of air pressure inside the tank.

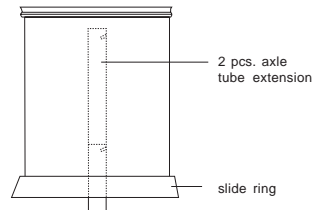


Depress the pressure-compensating diaphragm first and then push the cap onto the lid of the tank. (When not in use, store the cap separately in order to maintain its elasticity.)

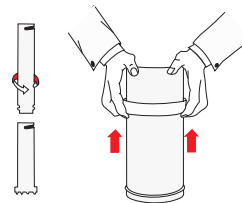


Modul 2560

With the module, tanks can be expanded to your required capacity.



Push the module firmly onto the tank body and lock the slide-ring. (Try twisting to see if the tank and module are properly connected.) Insert the center core extensions of the module into the center core of the base tank, and twist slightly to lock them together.



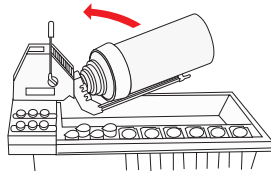
Processing

a) Processors with a JOBO-Lift, tanks 25x3

Couple the tank to the processor with the JOBO-Lift. Pour the solutions into the top of the lift during rotation.

Speed: rpm 75
CPE Setting 2
CPE/P Setting P

When draining chemicals from the tank, raise and lower the lift as the processor changes rotation direction.

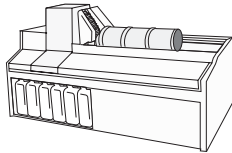


When the processing time is completed, gently but firmly raise the lift lever until it touches the stop pin and let the solutions flow out. (Do not try to lock the lift lever past the stop pin). After the solutions have stopped flowing out the drain hose, lower the lift and pour in the next process step. Repeat until all process steps are completed.

After the process, remove the film from the reels and immerse it in a stabilizer bath (or wetting agent for black and white processes). Avoid getting these solutions on the reel or in the tanks. Clean and dry the tanks, lids, light traps and reels before using again.

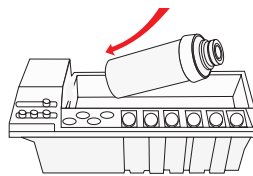
b) Autolabs, tanks 25x3

Couple the tank to the lift arm, press the start button, and the process runs automatically.



c) Processors without JOBO-Lift, tanks 25x1

Attention: pour the chemicals quickly, using a funnel, put on push-on cap, and couple the tank immediately to magnet drive on the processor.



It is recommended to use a lift, when processing roll and sheet films.

Information on processing

































The special characteristics of JOBO rotary tanks permit the use of standard chemical solutions. No special formulas for rotary processing are needed.

Set the rotation speed for all processors with rpm indication to 75. For CPA-2 and CPP-2 to "P", and for CPE-2 to speed 2.

For B/W films, pre-rinse in water for 5 minutes, then follow the chemical instructions for hand inversion times.

Generally, the processing times, temperature and solution capacities given by the chemical manufacturers apply. To achieve uniform results, processing times for B/W should be longer than 5 minutes. The filling quantities specified by JOBO are sufficient for E-6 and C-41 processing. B/W chemicals may require higher volumes since many developers are diluted for 1-shot use.

Always test for correct processing when using a new combination of tank, film, chemicals and film stock, before committing "final" images to the process.

Tank Type	Reels				Chemistry-film capacity	
	35 mm	60 mm	6 x 9	9 x 12 4 x 5"	Duo-Set 2502	2509n
 2513	 1				170 ml 1-135-36	
 2523/21	 2	 1	 1	 1	270 ml 2-135-36 2-120 1-220 170 ml 1-120	270 ml 6-6x 9 6-9x12 6-4x 5"
 2553/51	 5	 3	 3	 2	640 ml 5-135-36 6-120 3-220 330 ml 3-120	560 ml 18-6x 9 12-9x12 12-4x 5"
 2563/61	 6	 4	 3	 2	850 ml 6-135-36 8-120 4-220 400 ml 4-120	730 ml 18-6x 9 12-9x12 12-4x 5"
 2583	 8	 5	 5	 3	1250 ml 8-135-36 10-120 5-220	1000 ml 30-6x 9 18-9x12 18-4x 5"
 2593	 12	 7	 7	 5 *	1500 ml 12-135-36 14-120 7-220	1250 ml 42-6x 9 30-9x12 24-4x 5"
 2560	 6	 4	 3	 2	850 ml 6-135-36 8-120 4-220 400 ml 4-120	730 ml 18-6x 9 12-9x12 12-4x 5"

The figures in the frame show the required filling quantity if the reel 2502 is only with one 120 film to the clip.

* For 4x5" only 4.

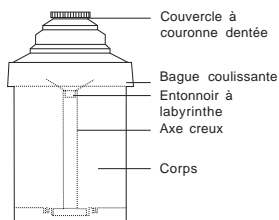


Systeme de cuve de rotation 2500

F

Le système de cuve 2500 a été mis au point pour les besoins professionnels. Il permet de développer tous types de films à partir du format 35 mm jusqu'au format de planfilms 4x5".

Ce système permet d'adapter la grandeur de la cuve à la quantité de films à traiter, ce qui garantit une utilisation optimale de la chimie.

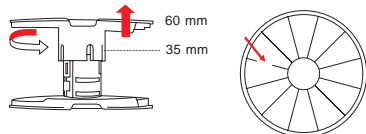


Grâce à un mécanisme de fermeture, la cuve peut être déverrouillée et reverrouillée facilement et sûrement. La chimie peut être versée dans la cuve pendant la rotation.

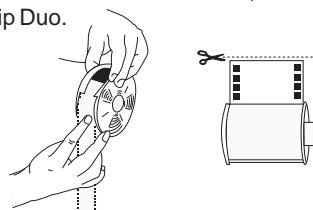
Différents types de spires sont disponibles pour le développement de films 35 mm, 60 mm ou de planfilms jusqu'au format 4x5".

Duo-Set 2502

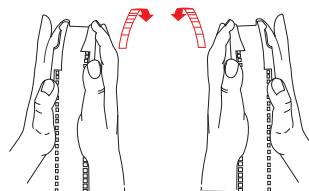
Spire réglable pour films 35 mm (24x36) et roll-films 60 mm (films 120 et 220). La spire peut être chargée sans chargeur; avec un clip Duo, il est même possible d'enrouler deux roll-films (120) sur une même spire.



Couper l'extrémité du film, ôter le papier de protection, s'il s'agit d'un roll-film, et glisser le film dans la première rainure. Avant cela, ouvrir le Clip Duo.

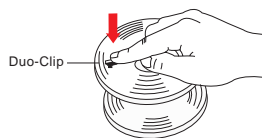


Poser l'index de la main droite sur le bord du film, dans l'échancrure. Tourner la moitié droite de la spire jusqu'à butée dans le sens des aiguilles d'une montre. Oter l'index et recommencer le même processus avec la moitié gauche de la spire.



Enrouler tout le film en faisant tourner alternativement la moitié droite puis la moitié gauche de la spire. (Pour les films 24x36, séparer la cartouche lorsque le film est totalement enroulé).

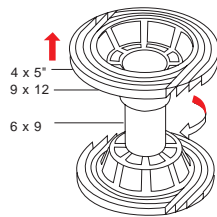
Pour enrouler deux roll-films 120, enrouler d'abord le premier film jusqu'à butée. Ensuite, enfoncer le clip, puis enrouler le deuxième film. Le téton sur la face intérieure de la moitié supérieure de la spire évite que l'extrémité des roll-films ne se ceintre.



Set pour plan-films

La spire 2509n pour plan-films permet d'en traiter 6 simultanément. Pour charger cette spire, il est nécessaire d'avoir un chargeur 2508.

Spire 2509n pour plan films

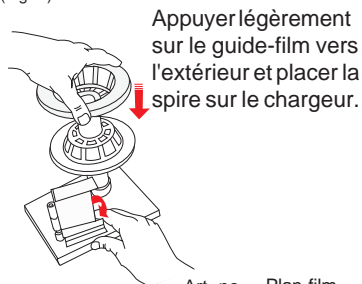


Pour régler la spire sur la largeur de film voulue, il faut tourner la moitié supérieure de la spire vers la gauche, puis la tirer vers le haut. Pour reverrouiller la spire, il faut tourner la moitié supérieure vers la droite jusqu'à butée.

Chargeur 2508 pour plan films

Régler la spire sur le format voulu, puis poser le guide-film correspondant sur le chargeur 2508.

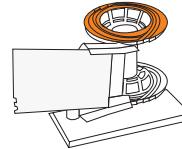
(Fig. A)



Appuyer légèrement sur le guide-film vers l'extérieur et placer la spire sur le chargeur.

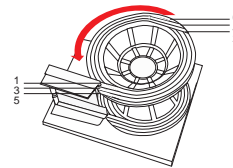
	Art.-no.	Plan-film
Guide-film	2510	6 x 9
	2511	9 x 12
	2512	4 x 5"

(Fig. B)



De la manière indiquée à la fig. B, commencer par la rainure intérieure en veillant à ce que le côté émulsion des plan-films soit orienté vers l'axe.

(Fig. C)

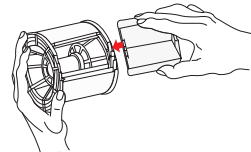


Une fois que le plan-film a été glissé, faire avancer la spire d'un demi-tour jusqu'au cran suivant.

Mise en place des supports

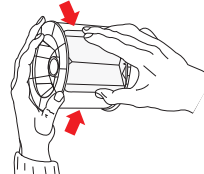
Les supports sont nécessaires uniquement pour les formats 9x12 cm et 4x5". Il n'y en a pas pour le format 6x9 cm. Utilisez toujours les supports, même si vous n'avez qu'un ou deux plan-films à développer. Ces supports empêchent les films de tomber et optimisent la qualité du développement.

(Fig. D)



Une fois que la spire est chargée, verrouiller les supports dans l'appui.

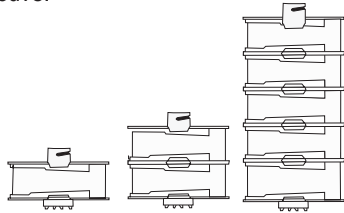
(Bild E)



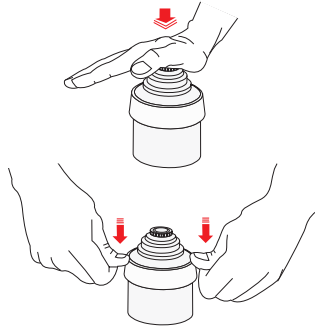
Vérifier si les plan-films reposent bien derrière les supports (voir les flèches).

Chargement des cuves

Pour avoir une protection suffisante contre la lumière et pour bloquer les spires afin qu'elles puissent tourner pendant la rotation de la cuve, il faut absolument que les spires soient enfilées sur un axe creux adéquat. Ensuite, mettre l'ensemble dans la cuve.

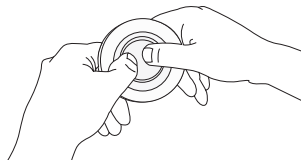


Poser le couvercle et baisser la bague coulissante. Après cela, l'éclairage peut être rallumé.

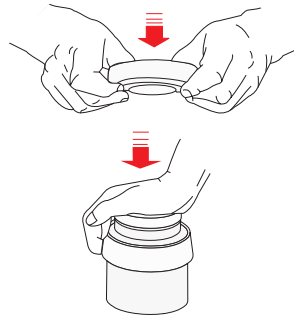


Seulement pour les cuves 2521/2551/2561

La membrane de compensation de la pression, dans le capuchon, évite que celui-ci ne saute.

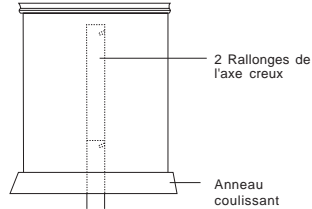


Enfoncer la membrane de compensation de la pression dans le capuchon. (Quand il n'est pas utilisé, garder le capuchon séparément afin que sa force de tension ne diminue pas.)

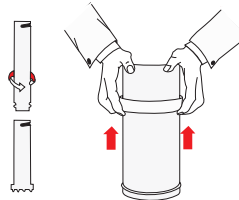


Modul 2560

Le module 2560 permet d'augmenter à volonté la capacité des cuves.



Pour cela, le module doit être enfoncé fermement sur le corps de la cuve et verrouillé avec l'anneau coulissant. Après l'avoir introduite dans l'extrémité du premier axe creux, il faut tourner légèrement la rallonge pour la verrouiller.

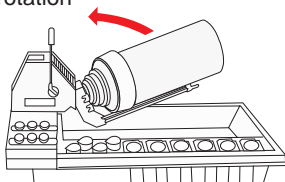


Traitement

a) Développeuses avec lift, les cuves 25X3

Coupler la cuve sur la machine avec JOBO-Lift. Introduire la chimie dans la cuve pendant la rotation.

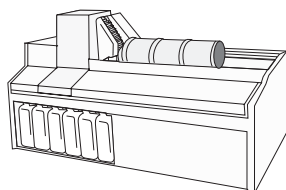
Vitesse de rotation: t/min 75
CPE position 2
CPA/P position P
avec changement alternatif du sens de rotation



Une fois que la durée de traitement est écoulée, relever le bras et évacuer la chimie. Selon le procédé, effectuer successivement les opérations suivantes. A la fin du traitement, soumettre chaque film à un bain de stabilisation dans un récipient séparé (ni dans la machine, ni dans la cuve, ni sur les spires, afin d'éviter toute souillure). Après le traitement, nettoyer et sécher la cuve et les spires.

b) Avec un Autolab, les cuves 25X3

Coupler la cuve et appuyer sur la touche de mise en marche. Le traitement se déroule automatiquement.

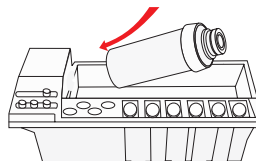


c) Développeuses sans lift, les cuves 25X1

Attention: Verser la chimie rapidement à l'aide d'un entonnoir, poser le capuchon et coupler la cuve immédiatement au développeuse tournante.



Pour le traitement de plan-films et roll-films il est recommandé d'utiliser un lift.



Indications pour le traitement

































Grâce aux caractéristiques particulières des cuves JOBO pour le développement par rotation, il est possible de travailler avec de la chimie standard. Il n'est pas nécessaire d'avoir des produits spéciaux pour le développement par rotation.

Vitesse de rotation: 75 t/min pour toutes les machines avec indication de régime en t/min, position "P" pour les machines CPA-2 et CPP-2, position 2 pour les machines CPE-2.

Les films N/B doivent être soumis à un prélavage de 5 min. Ensuite, les tirages d'essai peuvent être développés selon la durée indiquée par le fabricant de la chimie utilisée, avec un rythme de basculement de 1 minute.

De manière générale, les durées de traitement, les températures et les volumes de bains valables sont ceux indiqués par le fabricant de la chimie utilisée. Pour le N/B, les durées de développement doivent être supérieures à 5 min pour obtenir des résultats réguliers. Les volumes de bains indiqués par JOBO suffisent pour mouiller régulièrement les films. En règle générale, les volumes indiqués suffisent pour développer selon les traitements C-41, E-6 ou compatibles.

Avant d'utiliser une nouvelle combinaison de cuve, de chimie et de films, il faut toujours commencer par effectuer un développement d'essai et par vérifier les résultats.

Type de cuve	Spires				Capacité chimie / films	
	35 mm	60 mm	6 x 9	9 x 12 4 x 5"	Duo-Set 2502	Set PF 2509n
 2513	 1				170 ml 1-135-36	
 2523/21	 2	 1	 1	 1	270 ml 2-135-36 2-120 1-220 170 ml 1-120	270 ml 6-6x 9 6-9x12 6-4x 5"
 2553/51	 5	 3	 3	 2	640 ml 5-135-36 6-120 3-220 330 ml 3-120	560 ml 18-6x 9 12-9x12 12-4x 5"
 2563/61	 6	 4	 3	 2	850 ml 6-135-36 8-120 4-220 400 ml 4-120	730 ml 18-6x 9 12-9x12 12-4x 5"
 2583	 8	 5	 5	 3	1250 ml 8-135-36 10-120 5-220	1000 ml 30-6x 9 18-9x12 18-4x 5"
 2593	 12	 7	 7	 5 *	1500 ml 12-135-36 14-120 7-220	1250 ml 42-6x 9 30-9x12 24-4x 5"
 2560	 6	 4	 3	 2	850 ml 6-135-36 8-120 4-220 400 ml 4-120	730 ml 18-6x 9 12-9x12 12-4x 5"

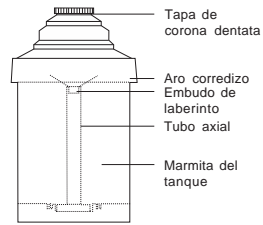
Les volumes encadrés en gras sont valables lorsqu'une spirale 2502 n'est chargée qu'avec un roll-film 120 enroulé jusqu'au clip.

* Format 4x5": seulement 4.

JOBO Sistema de tanques de rotacion 2500

El sistema de tanques 2500 ha sido desarrollado para las necesidades del profesional. Hace posible el revelado de todos tipos de filmes a partir de 35 mm hasta planfilme de 4x5".

Se trata de un sistema en el que el tamaño del tanque se puede adaptar a la cantidad de filmes a elaborar, gracias a lo cual se consigue un aprovechamiento óptimo de los productos químicos.

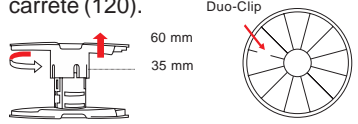


Un sistema mecánico de cierra hace posible un desbloqueo y bloqueo seguros del tanque. Los tanques permiten repostar la química durante la rotación.

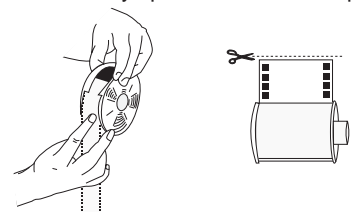
Para la equipación de los tanques se tienen a disposición diversos tipos de espirales para revelar filmes de 35 mm, 60 mm y planfilmes de hasta 4x5".

Duo-Set 2502

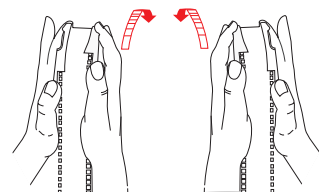
Espirales variables para filmes de tamaño pequeño de 35 mm y filmes de carrete de 60 mm de hasta 200 de largo. El Set puede cargarse sin ayuda de carga auxiliar y mediante el Duo-Clip recoge también dos filmes de carrete (120).



Cortar el filme, en los filmes de carrete se quita el papel protector y se mete el filme en la primera rosca espiral. Primero hay que abrir el Duo-Clip.

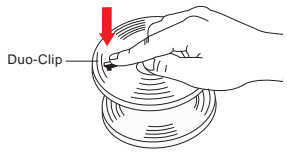


Ponga el índice derecho sobre el borde del filme en la concavidad de agarre. Gire hasta el tope en el sentido de las manecillas del reloj la parte de la bobina. Levante el dedo derecho y repita esta misma operación con la mitad de la espiral izquierda.



Meta en la rosca espiral el filme girando alternativamente a la derecha e izquierda. (En los filmes de tamaño pequeño, los cartuchos se separan al final).

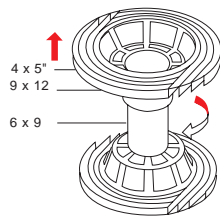
Al enroskar dos filmes de carretes 120, se enrosca el primero hasta el tope. Se presiona hacia abajo el clip y se enrosca el filme siguiente. La espiga que se halla en el interior de la espiral evita que se doble el comienzo del filme en las películas de carrete.



Planfilm-Set

La espiral para planfilme 2509n hace posible la elaboración simultánea de 6 filmes en una espiral. Para cargar la espiral para planfilme necesita el cargador 2508.

Espiral para planfilme 2509n

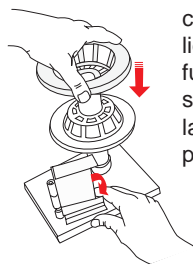


Girando a la izquierda y levantando la mitad superior de la espiral, puede ajustarse la espiral al ancho del filme deseado. Girando a continuación a la derecha la mitad superior de la espiral hasta el tope se la vuelve a retener.

Cargador de planfilmes 2508

Ajuste el Planfilm-Set al tamaño del filme a usar y ponga sobre el cargador 2508 la plantilla correspondiente.

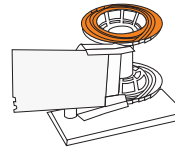
(Figura A)



La plantilla enroscable se comprime ligeramente hacia fuera y se pone sobre el cargador la espiral para planfilmes.

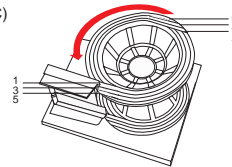
	Art°.- N°.	Filme
Plantilla	2510	6 x 9
	2511	9 x 12
	2512	4 x 5"

(Figura B)



Como se ve en la fig. B, comenzando con la rosca interior se mete el filme con la emulsión hacia el eje.

(Figura C)

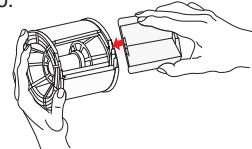


Después de haberse metido un filme, se sigue girando la espiral en una media vuelta hasta el encastre siguiente.

Como incorporar el sujetador

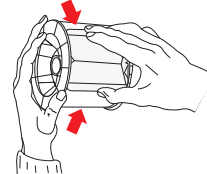
Los sujetadores se requieren sólo para los tamaños 9x12 y 4x5". Para el tamaño 6x9 no se adjunta ningún sujetador. Incorpore siempre el sujetador, también cuando se quieran revelar sólo uno o dos filmes. El sujetador protege los filmes contra las caídas y optimiza la calidad de revelado.

(Figura D)



Después de haberse cargado la espiral, los sujetadores encajan por fuerza elástica en el soporte.

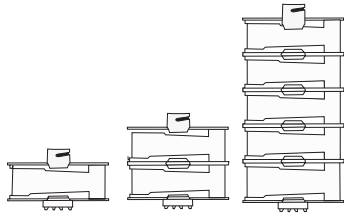
(Bild E)



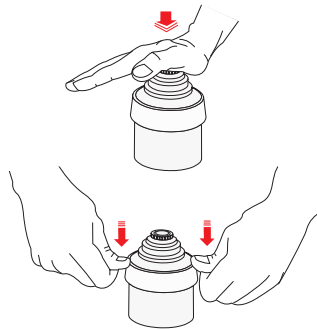
Asegúrese de que los filmes se encuentran correctamente detrás de los sujetadores incorporados (véanse las flechas).

Como equipar los tanques

Para conseguir la protección requerida contra la luz y para retener las espirales de modo que sean arrastradas durante la rotación, se requiere imprescindiblemente que las espirales se enchufen en el tubo axial correcto. Después, meta el tubo axial con las espirales en el tanque.

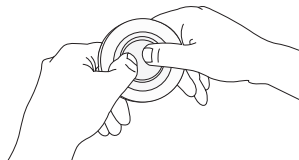


Puesta la tapa del tanque y habiéndolo cerrado bajando el aro corredizo, se puede encender la luz del cuarto.

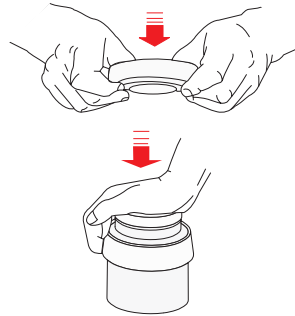


Sólo para las cubas 2521/2551/2561

Gracias a la membrana compensadora de la presión contenida en la caperuza, se evita que ésta salte.

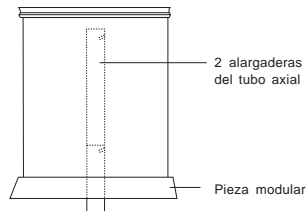


Meter en la caperuza la membrana compensadora de la presión y colocat la caperuza. (Al no usarse, conservar la caperuza por separado, de este modo se mantiene la fuerza tensora).

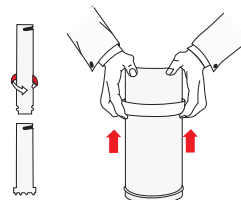


Modul 2560

Con el módulo, las cubas se pueden ampliar a la capacidad que Vd. desee.



Para este fin, la pieza modular se sobrepone fijamente sobre la marmita y se bloquea con el anillo móvil que se subió hacia arriba antes. El tubo axial se mete en el tubo axial que ya se tenía y se bloquea girando un poco.



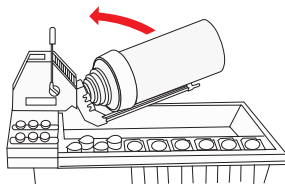
Como elaborar

a) Procesadores con lift, las cubas 25X3

Acople el tanque al Colorprocessor con el JOBO-Lift. Eche los productos químicos durante la rotación.

Velocidad: rpm 75
CPE escalón 2
CPA/P escalón P

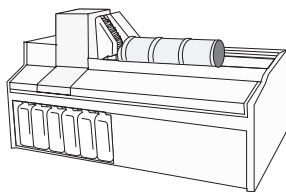
con inversión de la dirección de giro.



Pasado el tiempo de elaboración, se tumba la palanca y se deja purgar los productos químicos. Según el proceso, se da el siguiente paso de elaboración. Finalizado el proceso, el filme se mete en un recipiente separado en el baño de estabilización (no en el procesador, tanque ni espiral, a fin de evitar arrastres). Después de la elaboración se limpian y secan el tanque y las espirales.

b) Autolabs, las cubas 25X3

Acople el tanque, pulse la tecla de arranque, el proceso se lleva a cabo de forma automática.

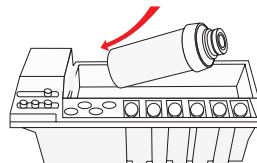


c) Procesadores sin lift, las cubas , 25X1

Atención: Eche los productos químicos rápidamente con ayuda de un embudo, pon la caperuza y acople la cuba al procesador girando.



Para la elaboración de filmes de carrete y planfilme es recomendable emplear un lift.



Advertencias para la elaboración

































Las propiedades particulares del tanque de rotación de JOBO, hacen posible el trabajar con productos químicos estandarizados. No hace falta echar productos químicos especiales para rotación.

Velocidad de rotación para todos los procesadores con rpm - poner las especificaciones en 75, CPA-2/ CPP-2 en "P" y con CPE-2 en el escalón 2.

Tratándose de filmes en blanco y negro, se da un baño previo de 5 minutos. De este modo puede hacer su primer test con el tiempo que indican los fabricantes de productos químicos para el ritmo basculante de 1 minuto.

Por regla general, valen los tiempos de elaboración, temperaturas y capacidades del baño prescritos por los fabricantes de los productos químicos. Para conseguir resultados homogéneos, para b/n los tiempos de revelado deben ser de más de 5 minutos. Las cantidades de llenado indicadas por JOBO, son suficientes para bañar los filmes uniformemente. Generalmente, para revelar en los procesos C-41 y E-6 y compatibles, son suficientes las cantidades indicadas.

Si usa una nueva combinación de tanque, química y filme, haga siempre un revelado de prueba y revise los resultados obtenidos.

Tipo de tanque	Espirales				Cantidad de química-de filmes	
	35 mm	60 mm	6 x 9	9 x 12 4 x 5"	Duo-Set 2502	Planfilm-Set2509n
 2513	 1				170 ml 1-135-36	
 2523/21	 2	 1	 1	 1	270 ml 2-135-36 2-120 1-220 170 ml 1-120	270 ml 6-6x 9 6-9x12 6-4x 5"
 2553/51	 5	 3	 3	 2	640 ml 5-135-36 6-120 3-220 330 ml 3-120	560 ml 18-6x 9 12-9x12 12-4x 5"
 2563/61	 6	 4	 3	 2	850 ml 6-135-36 8-120 4-220 400 ml 4-120	730 ml 18-6x 9 12-9x12 12-4x 5"
 2583	 8	 5	 5	 3	1250 ml 8-135-36 10-120 5-220	1000 ml 30-6x 9 18-9x12 18-4x 5"
 2593	 12	 7	 7	 5 *	1500 ml 12-135-36 14-120 7-220	1250 ml 42-6x 9 30-9x12 24-4x 5"
 2560	 6	 4	 3	 2	850 ml 6-135-36 8-120 4-220 400 ml 4-120	730 ml 18-6x 9 12-9x12 12-4x 5"

Los valores en los marcos indican la cantidad de llenado requerida, cuando la espiral 2502 se enroscó sólo con un 120 hasta el clip.

* Con 4x5" sólo 4 piezas.

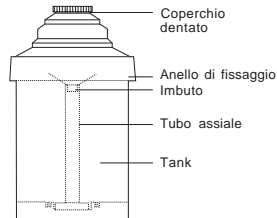


Sistema di sviluppatrici a rotazione 2500

I

Il sistema di Tank 2500 è stato sviluppato per le esigenze professionali. Rende possibile lo sviluppo di tutte le pellicole, dalla 35 mm fino alla pellicola piana 4 x 5".

Si tratta di un sistema dove le dimensioni della sviluppatrice si possono adattare al numero di pellicole da sviluppare, sfruttando con il miglior rendimento le soluzioni chimiche.

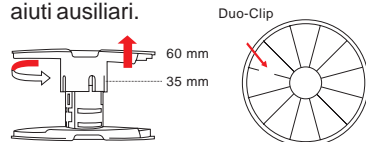


L'apposito meccanismo rende possibile una semplice chiusura e riapertura della sviluppatrice. Le sviluppatrici possono essere rifornite di soluzione chimica durante la rotazione.

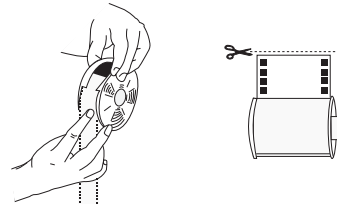
Per l'equipaggiamento delle sviluppatrici sono disponibili diversi tipi di spirali per lo sviluppo di pellicole a partire dai formati 35 e 60 mm fino a pellicole piane formato 4x5".

Duo-Set 2502

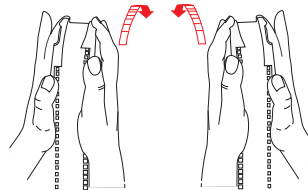
Si tratta di una spirale per pellicole 35 mm KB e per pellicole in rotolo da 60 mm (formato massimo: 220). Se volete sviluppare due pellicole in rotolo formato 120 e utilizzate la fibbia, la spirale può essere utilizzata senza aiuti ausiliari.



Aprite la fibbia. Tagliate la pellicola e, se sviluppate pellicole in rotolo, allontanate la carta protettiva; successivamente, inserite la pellicola nella prima spira della spirale.

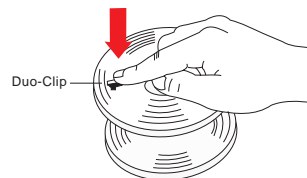


Mettete l'indice destro sul bordo della pellicola nella guida. Girate la metà destra della spirale fino all'arresto. Togliete il dito e ripetete l'operazione con la metà sinistra della spirale.



Far scorrere la pellicola nella spirale con movimento avanti-indietro alternato. Togliete poi la cartuccia alla fine se sviluppate pellicole KB.

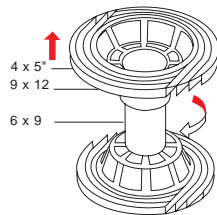
Se avvolgete due pellicole in rotolo formato 120, avvolgete la prima pellicola fino all'arresto. Premete giù la fibbia ed inserite la seconda pellicola. Il perno all'interno della spirale evita pieghe all'inizio di pellicole in rotolo.



Set per pellicole piane

La spirale per pellicole piane 2509n rende possibile lo sviluppo contemporaneo di sei pellicole in una spirale. Per equipaggiare questa spirale dovete utilizzare il caricatore 2508.

Spirale 2509n per pellicole piane

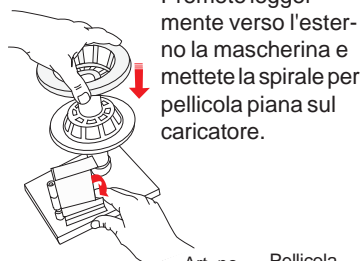


La spirale si può regolare sulla larghezza della pellicola girando a sinistra e tirando sù la metà superiore della spirale. Girare successivamente a destra fino all'arresto la metà superiore della spirale per arretrarla.

Caricatore 2508 per pellicole piane

Regolate la spirale sul formato della pellicola e mettete la relativa mascherina sul caricatore 2508.

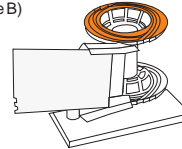
(Illustrazione A)



Premete leggermente verso l'esterno la mascherina e mettete la spirale per pellicola piana sul caricatore.

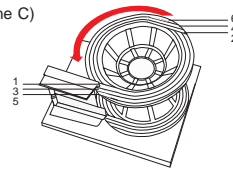
	Art. no.	Pellicola
Mascherina	2510	6 x 9
	2511	9 x 12
	2512	4 x 5"

(Illustrazione B)



Inserire le pellicole con l'emulsione nella spirale cominciando con la spira interna come mostra l'illustrazione B.

(Illustrazione C)

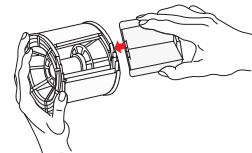


Dopo l'inserimento di una pellicola, ruotate la spirale di mezzo giro fino alla successiva intaccatura.

Inserimento dei fermagli

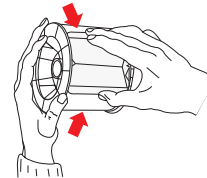
I fermagli sono necessari solo per i formati 9x12 e 4x5". Per il formato 6x9 non sono forniti fermagli. Utilizzate i fermagli anche se volete sviluppare solo una o due pellicole. Il fermaglio evita la caduta delle pellicole e migliora la qualità degli sviluppi.

(Illustrazione D)



Dopo aver caricato la spirale, incastrate i fermagli nella guida.

(Illustrazione E)



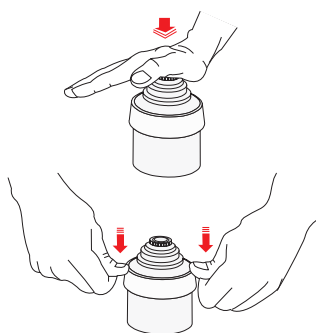
Assicuratevi del giusto posizionamento delle pellicole dietro al fermaglio inserito (vedi frecce).

Inserimento nei tank

Per ottenere la necessaria oscurità e per arretrare le spirali in modo da farle ruotare è necessario mettere le spirali sul giusto tubo assiale. Appena fatto questo, mettete il tubo assiale con le spirali nel tank.

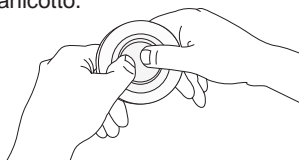


Dopo che avete messo e bloccato, premendo giù l'anello di fissaggio, la chiusura del tank, potete riaccendere l'illuminazione della stanza.

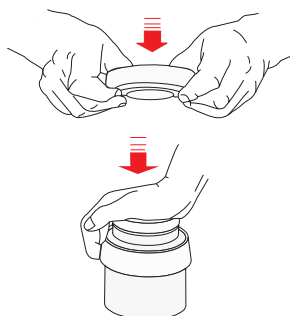


Solo per i Tanks 2521/2551/2561

Tramite una membrana per il compenso di pressione contenuta nel manicotto si evita il distacco del manicotto.

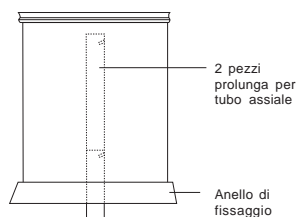


Premere la membrana per il compenso di pressione nell'interno del manicotto e applica e il manicotto. (Quando non si usa il manicotto, depositarlo separatamente per mantenere l'elasticità.

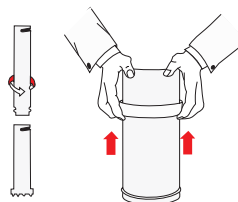


Modulo 2560

Con il modulo per Tank, i Tank possono venire ampliati alla capacità da voi desiderata. (Vedi tabella)



Per fare ciò, il modulo va premuto bene sulla parte inferiore del Tank e va bloccato con l'anello di fissaggio precedentemente tirato su. Il tubo assiale va montato sul tubo assiale presente e va bloccato girandolo leggermente.

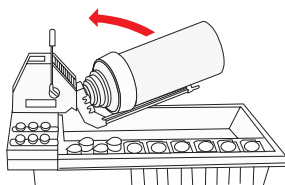


La lavorazione

a) Processori con Lift, i Tanks 25X3

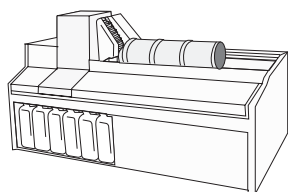
Congiungere il tank al colorprocessor con il lift JOBO. Aggiungete le soluzioni chimiche durante la rotazione.

Velocità: Giri/min. 75
 CPE posizione 2
 CPA/P posizione P
con inversione di rotazione



Alla fine del processo tirate su la leva e fate fuoriuscire le soluzioni chimiche. Secondo il tipo di sviluppo, passate al successivo passo della lavorazione. Alla fine del processo, mettete la pellicola in un bagno stabilizzatore separato (non nel processor o nel tank per evitare il trascinamento di residui). Pulite ed asciugate il tank e la spirale dopo l'uso.

b) Per gli autolabs, i Tanks 25X3: accoppiate il tank e premete il pulsante per l'avvio; il processo é completamente automatico.



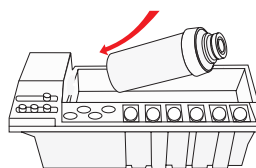
c) Processori senza Lift, i Tanks 25X1

Attenzione: con l'aiuto di un imbuto, versare rapidamente i prodotti chimici, mettere la cappa e posare immediatamente il Tank sul processore rot-

ante.



Per la lavorazione di rullini e pellicole piane consigliamo l'impiego di un Lift.



Avvisi per la lavorazione

































Le caratteristiche delle sviluppatrici a rotazione JOBO rendono possibile il lavoro con soluzioni chimiche standard. Non é necessario impiegare soluzioni chimiche particolari.

Regolate la velocità di rotazione di tutti i processor con l'indicazione giri/min su 75, dei CPA-2/CP-2 su "P" e dei CPE-2 su 2.

Per lo sviluppo B/N: pre-lavate le pellicole per 5 minuti. Potrete così fare le vostre prove con il tempo che i produttori di prodotti chimici danno per il ritmo di ribaltamento di un minuto.

In genere valgono i tempi di lavorazione, le temperature e le capacità dei bagni date dai fabbricanti di prodotti chimici. Per ottenere risultati omogenei nello sviluppo in B/N, i tempi di sviluppo dovrebbero essere superiori ai cinque minuti. Le quantità indicate dalla JOBO sono sufficienti a spalmare equamente la pellicola. Normalmente, le quantità indicate bastano per lo sviluppo di processi C-41, E-6 e processi analoghi.

Quando utilizzate una nuova combinazione di tank, soluzione chimica e pellicola, fate sempre uno sviluppo di prova e controllate i risultati.

Tank Tipo	Spirali				Quantità di sol. chimica Capacità di pellicole	
	35 mm	60 mm	6 x 9	9 x 12 4 x 5"	Duo-Set 2502	Set 2509n per pellicole plane
 2513	 1				170 ml 1-135-36	
 2523/21	 2	 1	 1	 1	270 ml 2-135-36 2-120 1-220 170 ml 1-120	270 ml 6-6x 9 6-9x12 6-4x 5"
 2553/51	 5	 3	 3	 2	640 ml 5-135-36 6-120 3-220 330 ml 3-120	560 ml 18-6x 9 12-9x12 12-4x 5"
 2563/61	 6	 4	 3	 2	850 ml 6-135-36 8-120 4-220 400 ml 4-120	730 ml 18-6x 9 12-9x12 12-4x 5"
 2583	 8	 5	 5	 3	1250 ml 8-135-36 10-120 5-220	1000 ml 30-6x 9 18-9x12 18-4x 5"
 2593	 12	 7	 7	 5 *	1500 ml 12-135-36 14-120 7-220	1250 ml 42-6x 9 30-9x12 24-4x 5"
 2560	 6	 4	 3	 2	850 ml 6-135-36 8-120 4-220 400 ml 4-120	730 ml 18-6x 9 12-9x12 12-4x 5"

I valori indicati nella tabella indicano il dosaggio necessario per la spirale con dentro avvolta una sola pellicola formato 120 inserita fino alla fibbia.

* Con 4x5" solo 4 spirali



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Technische Änderungen vorbehalten.
Made in Germany 04095 (86 042)