PROCESS YOUR OWN CINE FILM

GREAT NEWS ! !

for 16 mm, 9.5 mm and 8mm CINE ENTHUSIASTS

Every Cine Camera user knows the high cost of film and processing.

By using Non-Process paid or Surplus Film, and processing at home, the cost can be brought from pounds to shillings, and the great advantage of being able to take pictures during the day, process the film, and screen those scenes during the evening. Quite an exciting achievement.

This can be attained economically with the help of this latest processing tank and combined drying rack as illustrated.

Soundly constructed from Perspex throughout. Will last a lifetime with a little care.
Complete with drain plugs.
Once the film has been wound on this does not have to be removed during the whole process until it is dry, therefore an additional drying rack is not required.

Exhaustive tests have been carried out by many Cine Amateurs to their entire satisfaction.

No extras to buy.
Simple to operate.
No mess.
Nothing to go wrong.

These tanks are extremely easy to load, and full processing instructions are included with each tank, giving easy to follow step by step method. Quantities of chemicals are measured in ounces, not confusing grammes.

Chemicals are easily obtained from your chemist.

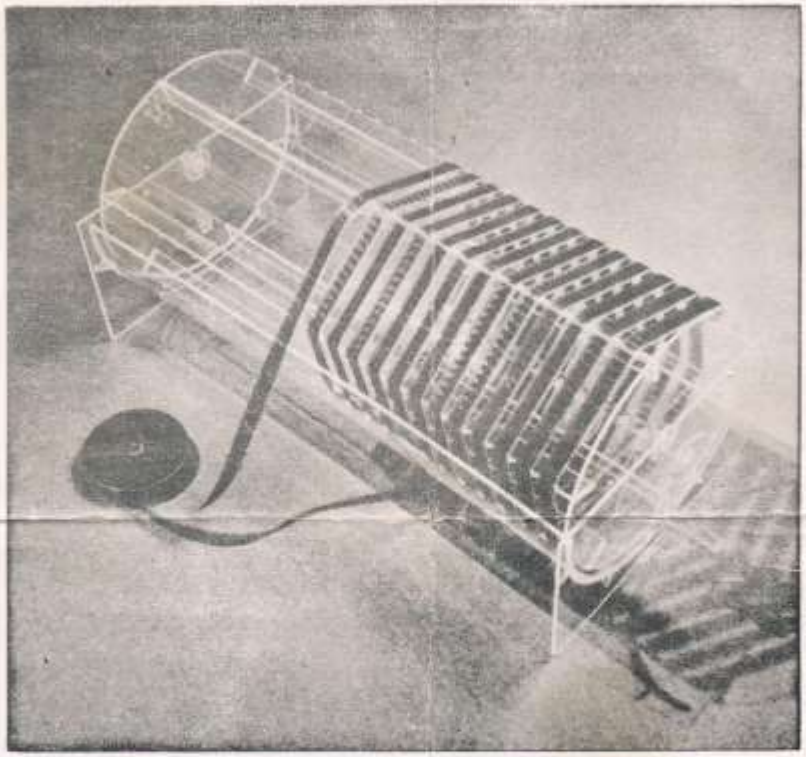
PRICES

Tank to take 25 ft. of double run 8 mm. film	- £7. 7. 0d.
Tank to take 50 ft. of double run 8 mm. film	- £9. 9. 0d.
Tank to take 50 ft. of 16 mm. film	- £9. 9. 0d.
Tank to take 100ft. of 16 mm. film	- £25. 0. 0d.
8 mm. Film Splitter	- £1. 4. 0d.

All tanks sent carriage free by passenger train. So that your tank shall arive safely, kindly include 30/- deposit on safety transit case, deposit will be returned in full when empty case is returned to us.

The Sixteen

For 16mm. film



Holds 53ft. of film

May also be used for 9·5 mm.

PRICE - - £9 9. 0.

S. W. PEARSE

Manufacturer and Distributor

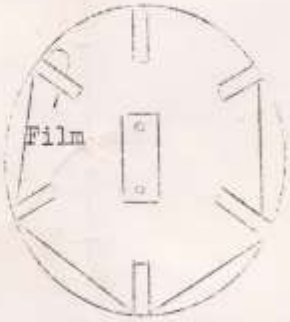
MIDTAPHOUSE WORKS, LISKEARD, CORNWALL

FIRST DEVELOPING TIMES.	MINUTES
FILM	
Fast Pan Neg.	16
Recording Film Neg.	11
Plus "X" Reversal	14
Pan Direct Positive	14

OPERATION	Time in Minutes
1. Load Tank	---
2. First Wash	2
3. First Development	See Notes (above)
4. Wash	1
5. Bleach. Turn light on after 3 mins and leave on for rest of process. Bleach until all developed silver is dissolved, or 5 mins. which ever is longer. Film will appear yellow emulsion with cleared Base showing at high lights, skys etc.	
6. Wash	5
7. Clear	2
Film emulsion will change from yellow to greyish colour	
8. Wash	5
9. Second Exposure. 100 Watt lamp at 3 feet	1
10. Second Development	5
11. Wash	5
12. Fix and Harden	5
13. Wash (Plain water)	18
14. Final Wash. (Wetting Agent and water)	2

All Chemicals may be used over and over again up to ten times, except the DEVELOPER which MUST be made up fresh for each film.

To LOAD FILM ON TO DRUM



Set up the tank with handle on the right hand side. Take end of film and insert two inches through the slit provided, (see sketch). Turn handle clockwise when film will easily follow on to the spacing slots. Secure final end with P.V.C. tape.

IMPORTANT: Use only P.V.C. tape, not Sellotape.

INSTRUCTIONS FOR PROCESSING CINE FILM. 16 MM. x 50ft.

CHEMICALS REQUIRED	SUGGESTED PURCHASED QUANTITY
Johnsons Contrast Developer	500cc Bottle
Fixadon	500 Grams Tin
Potassium Bichromate	4 ozs.
Sulphuric Acid Concentrated	4 ozs.
Sodium Sulphite (Anhydrous)	1 lb.
Wetting Agent	100cc Bottle

Danger : ADD ACID TO WATER. NEVER WATER TO ACID.

MIX FOR	FIRST DEVELOPER	WORKING SOLUTION
(1)	Contrast Dev.	3 ozs. (Liquid)
	Wetting Agent	5 Drops "
	Water	30 ozs "
	Hypo	1/8 ozs. (Weight)

BLEACH STOCK (Dilute 4 Parts Water to 1 Part Stock)

(2)	Potassium Bichromate	1/3rd oz. (weight)
	Sulphuric Acid (Concentrated)	1/3rd oz. (liquid)
	Water	20 ozs. (liquid)

CLEARING STOCK (Dilute 2 Parts Water to 1 Part Stock)

(3)	Sodium Sulphite (Anhydrous)	4 ozs. (weight)
	Water	20 ozs. (liquid)

SECOND DEVELOPMENT

(4) Re/use first Dev. or make same less Hypo.

FIXING

(5)	Fixadon	4 ozs. (weight)
	Water	30 ozs. (liquid)

FIRST AND FINAL WASH

(6)	Water	30 ozs. (liquid)
	Wetting Agent	5 drops "

NOTE:

1. All solutions at 65°F.
2. Tank rotation 15 revs. per min.
3. Filter all solutions before use.
4. Tank requires not less than 30 ozs. solution (not more than 35 ozs.) 8mm 25ft Tank approx. half quantities.
5. If backed films are processed, remaining backing can be wiped clear with sponge or sqeegee such as AICO, during washing.

PROCESSING SUB-STANDARD

CINE FILM

TO ALL CINE CAMERA USERS

The Processing of Cine film is not at all difficult, and can be carried out in the home at very little expense, with results quite as good as anything produced by the Labs.

The great advantage of processing one's own film is that it is possible to take shots during the day, and project them same evening.

No packing and posting, and above all no endless and anxious time waiting while the film is away being processed.

Surplus film can now be purchased very cheaply, and the cost of chemicals is extremely low.

In fact 25ft. of 8mm double run of film can be processed at home for the cost of postage to the lab.

Cost of Chemicals to process.
25ft. of 8mm double run of film approx. 7d.
50ft. of 16mm film approx. 1/1d.
100 ft. of 16mm film approx 1/8d.

Quantities of Chemicals are measured in ounces, not confusing grammes.

Full processing instructions are included with each tank, and are set out in an easy to follow step by step method.

Success is guaranteed providing the instructions are followed with reasonable care.

Instructions are intended for processing the following film.
Fast Pan Neg. Recording Film Neg.
Plus X Reversal. Pan Direct Positive.

The tanks offered are extremely easy to load, and all processing can be carried out in the light except for the first 14 mins., which of course has to be done in the dark.

Full processing instructions, will gladly be sent free to interested enthusiasts, this will give some idea just how simple film processing can be.

S.W. Pearse, Manufacturer,

Midtaphouse Works,

Liskeard,

Cornwall.

Mr. J.B. Huish, Professional Cinema Engineer, Tavistock, Devon, says:

I have processed over a 1,000 ft. of 16 mm Surplus film with your tank during the past few months to my entire satisfaction.

INSTRUCTION LEAFLET FOR TECHNOPAN.

TECHNOPAN is a medium-fast movie film intended for reversal development to give a black and white positive image ready for immediate projection. The film is available as a 2 x 8mm stock in 25 ft. reels, which give 50 ft. of film after splitting when processed. It is suitable for all 8mm. cine cameras and projectors.

TECHNOPAN is a panchromatic material with a balanced colour sensitivity to the visible spectrum, and the appropriate filter factors should be used when these are employed.

TECHNOPAN has fine grain and excellent sharpness, combined with a rich tonal scale which makes it ideal for all general purpose movie filming. It is also fast enough to be used with cine lights - Photofloods, Sealed Beam lamps and Quarz-Iodine Lamps - indoors, or in available light with wide-aperture lenses. At the same time, it is not over fast for bright sunlight conditions, although an N.D. a filter x2 or x4 (as provided with the Quarz cine camera) may be found useful on occasions of exceptional brilliance.

LOADING

The film spool is loaded into the camera in the usual manner, taking care not to expose the spool unnecessarily to bright light. The film may be loaded in bright sun with complete safety, if the camera is held in the user's own shadow close to the body. After

checking correct running, the camera should be closed, and the film run through up to the 'Start' mark on the footage indicator. After the film has been once run through the camera, make sure before opening the camera, that it has run off onto the take-up spool completely, then turn the spool over and re-load as before, to expose the second side. When the film has been run through the camera the second time and is back on to the original spool, remove it. Tighten the last few turns of the film, before securing it with an elastic band to prevent the film loosening on the spool. Replace the exposed film in its carton until required for processing.

N.B. To avoid any fogging down the sides of a cine film, or jamming in the camera, always make sure the take-up spool is not bent in any way before use.

EXPOSURE

TECHNOPAN will be correctly exposed, if exposure is calculated with the meter or automatic camera control set at 50 ASA, 18 DIN. (Weston Meters up to Model 2, - 40 Weston). Exposures under individual conditions should be noted and the results inspected after processing. In this way, the user will find the correct rating for his own preference and techniques. Incident light methods are recommended, but any normal reflected light meter will give excellent results. When using the normal exposure meter point towards the brighter part of the subject you wish to record: i.e. the flash tones, or a white short or dress, for example.

If no exposure meter is available the following table used with care will give very accurate guidance:

MAY TO AUGUST 2 hrs. after dawn until 2 hrs. before sunset	16 – 18 FRAMES PER SECOND			
	BRIGHT SUN	HAZY SUN	CLOUDY BRIGHT	OVERCAST
Mountain, snow, or beach scenes.	f/32*	f/22**	f/16	f/11
Scenic Views over open country.	f/22**	f/16	f/11	f/8
Scenery with people, street scenes and all average subjects.	f/16	f/11	f/8	f/5,6
Close-up and portrait distances in shade	f/8–11	f/5.6–8	f/4–5.6	f/2.8–4

*Use 4X filter.

**Use 2X filter with lenses stopping down only as far as f/16.

SEPT–APRIL: In Winter or outside the hours indicated open up 1 Stop. When the sun is behind the subject, throwing the face into deep shade, open 1–2 Stops.

SLOW & QUICK MOTION: At 24 frames per second, open up lens ½ stop over above Table, at 32 frames per second, open up lens 1 stop, at 48 frames per second open up 1½ stops, at 64 frames per second open up 2 stops. At 12 frames per second, shut down ½ stop over the above table, and at 8 frames per second shut down 1 stop.

PROCESSING

TECHNOPAN is designed for home development and for this purpose we recommend the Johnson Reversal Processing Kit used together with the T.O.E. 8mm developing tank, both available through your usual supplier. Alternatively reference may be made to Reversal Processing Technique currently described in the British Journal of Photography Annual.

Users of Johnson's Kit will note that a solution volume of 600 cc is described. This will prove sufficient for use in the T.O.E. Cinequick Tank, providing that the tank is kept level. Following normal technique we suggest that the film should receive a short preliminary soak in water. Hypo does not require to be added to the developer for the processing of this film.

A factory processing service is also available for Technopan at a cost of 6/6d per film (post paid). It should be sent with the necessary remittance by the user, and by post direct to :

Technical & Optical Equipment (London) Ltd.,
FILM PROCESSING DEPT.,
99, St. Martins Lane, London, W.C.2.

After processing and drying (See Reversal Kit Instructions), the film is run through the splitter provided with the T.O.E. tank to give 2 - 25 ft. lengths, which are spliced together. The film is now ready for projection, and editing in the normal manner. Cine film should be stored in proper containers against dust, and occasionally cleaned by any of the proprietary film cleaners.

SOUND-ON

TECHNOPAN may be striped for magnetic sound by the standard processes. T.O.E. Liability is limited to replacement of the film length in case of proven faults in manufacture or packing.

INSTRUCTIONS
for using and processing „Isopan" black-and-white reversal film

The reversal film is used for amateur shooting and gives a direct positive image.

It contains a colloid-silver antihalo subbing layer and, therefore, cannot be used for taking negative images.

Data of the film speed are on the package. According to its spectral sensitivity the film is isopanchromatic, and can be used both for daylight and artificial light.

The 2x8 mm film is available with the 7,5 m useful length of a roll on a daylight loading spool. The actual roll length is 10 m including two leader stocks of 1,3 m both.

Laboratory processing

Treatment	Time (min)	Temperature (°C)
First development	12	18—20
Rinsing	5	13—20
Bleaching	6	18—20
Rinsing	8	13—20
Clearing	7	18—20
Rinsing	6	13—20
Second exposure	7	—
Second development	7	18—20
Rinsing	1	13—20
Fixing	5	15—20
Rinsing	20	13—20
Drying	usual conditions	

Rinsing in all phases of processing is to be conducted in circulating water.

The first development and bleaching are to be carried out in darkness.

Before the second exposure it is advisable to remove drops of water from the film surface with a wad of cotton. It should be made with care not to damage the emulsion layer.

Then the film is re-exposed evenly with a 75 w electrical lamp at the distance of 1—2 m from the film.

PROCESSING FORMULAS
Composition of First Developer

Metol	2g
Hydroquinone	14g
Sodium sulfite (anhydrous)	25g

Potassium bromide	2g
Potassium carbonate	40g
Sodium sulfate (anhydrous)	10g
Sodium hydroxide	2g
Potassium rhodanate	2,5g
Water, to make	1 l

Composition of Bleaching Solution

Potassium dichromate	5g
Sulphuric acid (sp. gr. 1,84)	5ml
Water, to make	1 l

Composition of Clearing Solution

Sodium sulfite (anhydrous)	50g
Water, to make	1 l

Composition of Second Developer

Metol	5g
Hydroquinone	6g
Sodium sulfite (anhydrous)	40g
Potassium carbonate	40g
Potassium bromide	2g
Water, to make	1 l

Composition of Fixing Solution

Sodium hyposulfite (crist.)	200g
Potassium metabisulfite	40g
Water, to make	1 l

STORAGE

The film should be kept in a cool, dry place, away from heating arrangements and direct sunlight. It should be borne in mind that the effect of active gases (ammonia, acetylene, hydrogen sulfide, mercurial vapours etc.) on the film makes it fogged and unusable.

CLAIMS

In case of finding defects and raising a claim (within the guarantee period indicated on the package) we would ask you to mark the emulsion number, return the faulty film and the same unexposed film in its original package, if possible.

If manufacturing defects of the film or the package are confirmed, the material will be replaced with the same quantity of a good one.

Manufactured by: SHOSTKA CHEMICAL PLANT
USSR, Shostka, Sumskaja dist.