

The perfect systems for any purpose

Film Processing Devices

XR 24 NDT • XR 35 NDT • XR 45 NDT

Technical Data	XR 24 NDT	XR 35 NDT (mobile)	XR 45 NDT
Film format	min. 2 x 2 cm / 0.8" x 0.8" max. width 24 cm / 10"	min. 10 x 10 cm / 4" x 4" max. width 35 cm / 14"	min. 10 x 10 cm / 4" x 4" max. width 45 cm / 18"
Film processing time	5:30 - 10:00 min	1:30 - 10:00 min	2:00 - 10:00 min
Film output / hour (development time = 8 min.)			
- 24 x 30 cm / 10" x 12"	11	30	35
- 10 x 48 cm / 4" x 19"	16	43	79
- 35 x 43 cm / 14" x 17"	-	20	28
Water flow rate	2 l / min 0.52 gal / min	1.9 l / min 0.50 gal / min	1.9 l / min 0.50 gal / min
Tank volumes			
- Developer	5 l / 1.32 gal	5 l / 1.32 gal	12.5 l / 3.30 gal
- Fixer	5 l / 1.32 gal	5 l / 1.32 gal	12 l / 3.17 gal
- Water	-	5 l / 1.32 gal	13 l / 3.43 gal
Developer temperature	26 - 40°C 79 - 104°F	26 - 37°C 79 - 99°F	28 - 40°C 82 - 104°F
Film detection	1 microsensor	2 microsensors	4 infrared sensors
Dimensions (H / W / D)	44 / 42 / 51 cm 17" / 16" / 20"	42 / 59 / 77 cm 16" / 23" / 30"	68 / 97 / 127 cm 27" / 38" / 50"
Weight	25 kg / 55 lbs -	35 kg / 77 lbs table-top mobile approx. 65 kg / 143 lbs	77 kg / 169 lbs table-top 91 kg / 200 lbs stand-alone
Electrical connection	230 V, 4.0 A -	220 - 240 V, 8.8 A 110 - 120 V, 15 A	208 - 240 V, 10-14 A -
With external transformer	110 V	-	110 V
Frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz

Accessories

XR 24 NDT

- Daylight loader DL 26
- Regeneration unit RU 24
- Film feeding system

XR 35 NDT (mobile)

- Film feed darkroom
- Film ejection daylight
- Roll film adapter XR 35 NDT

XR 45 NDT

- Film feed darkroom
- Film ejection daylight
- Roll film adapter XR 45 NDT

From mobile use to fixed installation



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hand made in Germany



Analogue film development

DÜRR NDT • Experience from more than 250,000 machines

DÜRR NDT can look back on 75 years of history. The success story of the group began with the foundation of the parent company in 1941, and in 1968 the first development equipment was produced.

Experience from more than 250,000 machines

Since the start of production of developing devices, several generations of machines have been created within the group. With more than 250,000 installed machines worldwide, the DÜRR Group is one of the world's leading manufacturers of analogue film development machines. Even in times of increasing digitalisation, DÜRR NDT continues to invest in the optimisation of analogue film development equipment and focuses increasingly on mobility.

Mobility

The growing mobility of our society also affects analogue film development. That's why DÜRR NDT even offers two systems which meet the demand for mechanical and therefore reliable development, wherever you are. With the **XR 24 NDT**, a machine is available which, when equipped with a daylight loader, can even be loaded with films under normal light conditions, making a darkroom

superfluous. The larger **XR 35 NDT mobile** is even specifically designed for mobile use and, with its intelligent pump system, enables automatic filling with chemicals after the vehicle has changed location.

Perfect results thanks to 'green' chemicals

Within the framework of ongoing research, DÜRR NDT has succeeded in developing processing chemicals, which manage without the carcinogens hydroquinone and aldehyde, replacing them with a formulation based on vitamin C.

Of course, DÜRR NDT's 'green chemicals' can also be used in all other film developers.

▶ 250,000 + machines

▶ Perfected for mobile operation

▶ Green developing chemicals

XR 24 NDT • Portable automatic developing system with daylight option

The ultra-portable **XR 24 NDT** is recommended as a system for the automatic development process of smaller amounts of film during mobile operation, whose film format does not exceed the maximum width of 24 cm / 10".

Thanks to the microprocessor control unit, perfect development results are a matter of course.

The optional daylight loader makes it possible to operate the system in daylight, rendering a darkroom obsolete.

The complete system is thus particularly recommended for short periods of use on location, where the benefits of

processor-controlled development are to be combined with maximum mobility, without the need for a darkroom.

▶ No darkroom needed

▶ Ultra-portable

▶ Microprocessor controlled

XR 24 NDT

Small and portable

Ultra-portable thanks to minimum dimensions

Microprocessor

Perfect development results thanks to microprocessor-control



Recommended accessories



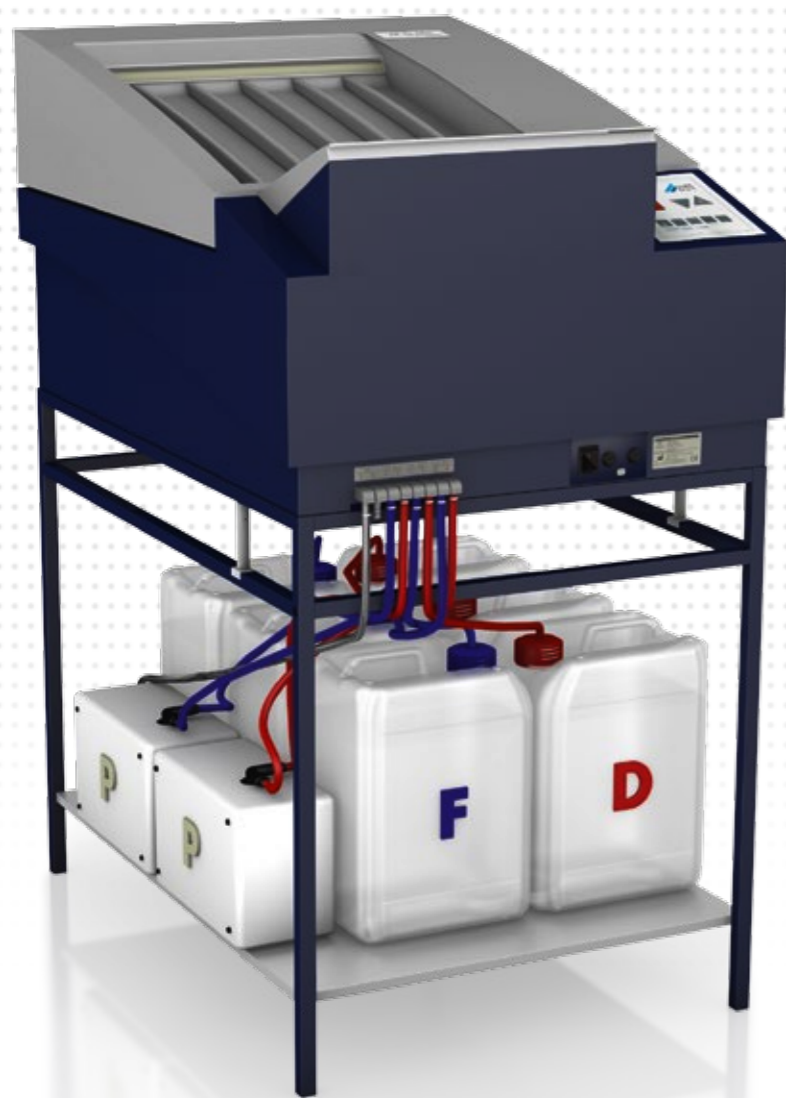
Daylight loader DL 26

With the optional daylight loader, safe development is also guaranteed without a darkroom, especially in mobile use.

The daylight loader is provided with an aperture via which the film envelope can be opened in the inside and the film thus safely fed in from outside without being exposed to light.

The sleeves of the aperture can be mounted at the front and on the sides.

XR 35 NDT *mobile*



Daylight ejection

With optional daylight ejection on the rear. Direct access to the finished film on the daylight side

Microprocessor

Perfect results achieved safely thanks to microprocessor control

Logical

Clearly understandable arrangement of all connections ensures intuitive operation

Perfect for mobile operation

Space is provided for all containers and pumps below the device

XR 35 NDT mobile • This is how mobile operation works

At the start of the shift:

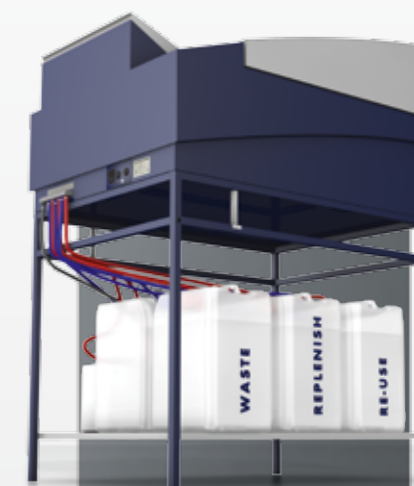
Within 2 minutes, the developer tank and the fixer tank are filled with the chemicals from the re-use containers using the special filling pumps.

The operator ensures that the replenisher containers and the water container are sufficiently filled.



During the shift:

The integrated regeneration unit continuously supplies the XR 35 NDT mobile with fresh chemicals from the replenisher. The overflow from this tank flows into the waste containers. By means of the circulation pump, the water circulation system ensures a constant flow of water into and out of the watering tank, thus guaranteeing optimal conditions without an external water connection.



After the shift:

The chemicals used are drained from the developer and fixer tanks into the re-use containers. The water tank is emptied into the container of the water circulation system. The film processing system is now ready for transport to the next location where it is to be used.

XR 35 NDT mobile • Perfect design for mobile operation

The XR 35 NDT mobile is specifically designed for mobile use when changing locations.

By using the integrated spirit level and the adjustability of the sub-frame, the machine can be set up and leveled where it is needed in no time at all and automatically filled using the pumps specially designed for this device.

The containers for regeneration chemicals and used chemicals are installed below the device. This area also houses the canisters used to temporarily store the active chemicals during a change of location.

A water container with integrated pump is available for the rinsing of films. During operation, the

microprocessor control unit is not only responsible for the perfect development process, but also regulates the discharge and pumping in of the respective chemicals.

▶ Perfect for mobile operation

▶ Robust construction

▶ Intuitive operation

XR 35 NDT • Wall film ejection

With the optional film ejector on the rear of the machine, it is possible to eject the fully developed film on the daylight side.



Please note: This option cannot be upgraded in the field, and must be specified in the purchase order!

XR 45 NDT



Film ejection

Optional reverse film output

Feeder 45 cm / 18" wide

All common film types and formats used in industrial radiography can be developed simultaneously

Microprocessor

Safe film processing thanks to microprocessor control

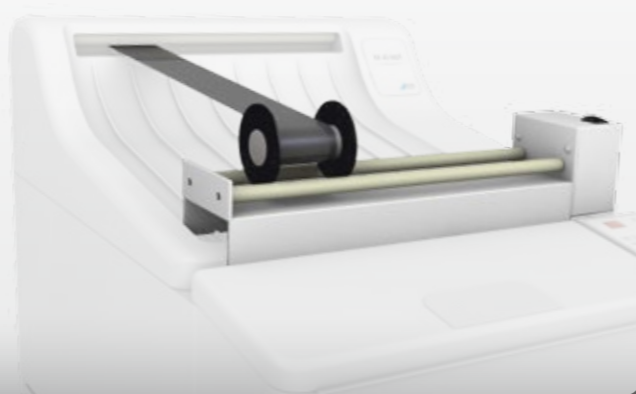
Base unit

Optional base unit provides space for regeneration containers and used chemicals

XR 45 NDT • Perfect for stationary operation

With a maximum input feeder width of 45 cm / 18" and optional reverse film ejection, the XR 45 NDT is recommended for stationary use.

The 45 cm / 18" input width means more films can be processed simultaneously than in the case of machines with a narrower feeder. With the optional roll film holder, the simultaneous development of one or more roll films is safety guaranteed at all times.



Special 'Green' X-ray chemistry

1-part concentrate

No starter chemicals or additives needed. Simply mix concentrate with water and you're ready

Almost odour-neutral

More pleasant, almost neutral developer odour

Shelf life

At least 24 months storage stability

Efficient

When regeneration is used, considerably lower regeneration rates are possible than with conventional chemicals

Freezing and thawing

Even when frozen and thawed multiple times (e.g. during transport), usability is firmly guaranteed

70% less cleaning

The formulation with vitamin C means that cleaning cycles can be carried out far less frequently



Health

Forgoing carcinogens (aldehyde + hydroquinone) means that there is no risk to health

Not a hazardous good

The chemicals do not include any hazardous substances, making low-cost and fast transport to any location possible

Certified

BAM-certified for mixed systems consisting of DÜRR NDT's own and other companies' devices and films