FUJIFILM

PROCESSING MANUAL Ref. No. AF3-0219E2

FUJICOLOR NEGATIVE PROCESS

CN-16Q
CN-16FA
CN-16L
CN-16S

CN-16Q/16FA/16L/16S

INTRODUCTION

This manual provides comprehensive information about paper processing using Process CN-16Q, CN-16FA, CN-16L, and CN-16S for FUJIFILM minilabs, including information on processing steps, chemical mixing procedures, processing control, changes in photographic characteristics due to processing factors, and other related matters.

Please refer to this manual carefully and regularly in your daily work and for troubleshooting to achieve the best FUJICOLOR print quality possible.

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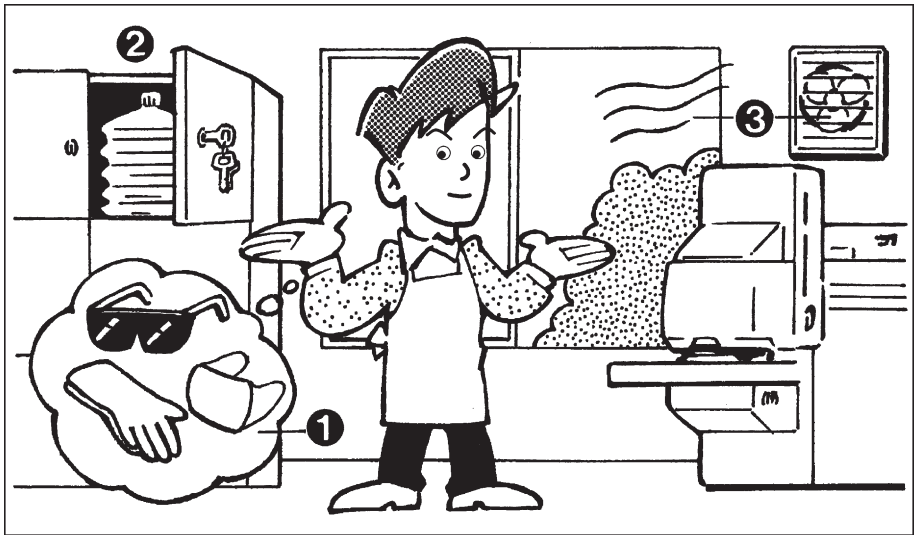
1 SAFE HANDLING OF PROCESSING CHEMICAL

<Handling Chemicals>

- When handling chemicals, always wear protective gloves and goggles. For further safety, it is recommended that you wear protective mask and apron also. (❶)
- After handling chemicals, wash your hands thoroughly.
- Wipe up chemicals immediately if spilled.
- The greatest caution should be taken to avoid the following chemical or solution mixtures as they may result in the generation of noxious gases.
  1) **FUJI Super Conditioner (FSC) Tablets**
     You must never mix FUJI Super Conditioner Tablets with acidic compounds or solutions (bleach) as this will result in the generation of noxious chlorine gas.
  2) **Fixer**
     You must never mix the fixer with alkaline compounds or solutions (color developer) as this will result in the generation of noxious ammonia gas.

<Storing Chemicals>

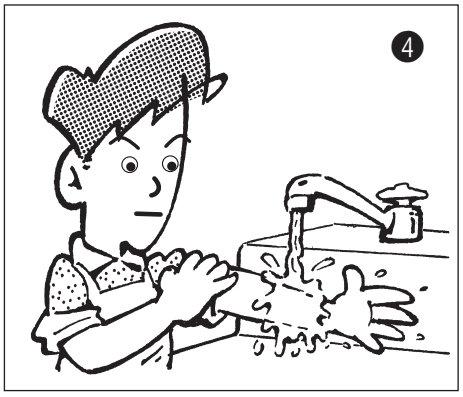
- Keep chemicals completely out of the reach of children. (❷)

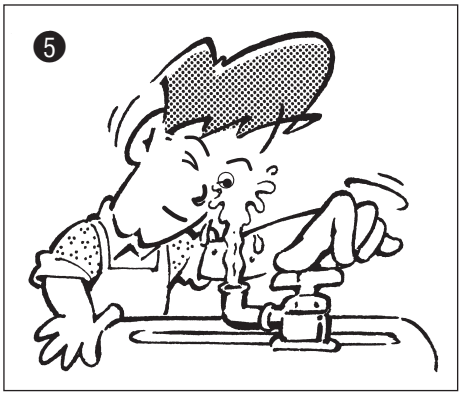


<Work Environment>

■ While working with chemicals, you should always open a window or turn on a ventilation fan to provide adequate ventilation. (❸)

<Emergency Procedures>





■ If you should get any chemical substances on your skin or in your eyes, flush the affected areas with large amounts of running water. (❹, ❺)

■ If you should ingest chemical substances or get some in your eyes, take the label of the offending substance and seek medical attention immediately.

2 CN-16Q

2-1) Packaging of Processing Chemical Components

Processing Chemicals	Code	Packaging Units To Make:	Components
Color Developer Replenisher	NQ1-R SC	5 L × 4	(A, B, C) × 4
	NQ1-R	10 L × 2	(A, B, C) × 2
Color Developer Starter	NQ1-S	12 L	Single Bottle × 1
Bleach Replenisher	NQ2-R SC	4 L × 4	(A and B) × 4
	NQ2-R	8 L × 2	(A and B x 2) × 2
Fix Replenisher	NQ3-R SC	4 L × 4	Single Bottle × 4
	NQ3-R	8 L × 2	(Single Bottle × 2) × 2
Fuji Super Conditioner	FSC	5 L × 100	100 Tablets
Stabilizer Replenisher	NQ4-R SC	4 L × 4	Single Bottle × 4
	NQ4-R	8 L × 10	Single Bottle × 10

2-2) Processing Procedures

<Standard Processing Steps>

Step	Color Developer	Bleach	Bleach -fixer	Super Rinse	Super Rinse	Stabilizer	Drying
			*1	*2			
Code	NQ1	NQ2	NQ3	NQS-1	NQS-2	NQ4	DRY
Temperature (°C)	38.0 *3	38	38	35	35	38	60 *4
Control Limits (°C)	± 0.2	35 – 41	35 – 41	35 – 41	35 – 41	35 – 41	
Time	3 min 15 sec	1 min	3 min 15 sec	40 sec	1 min	40 sec	1 min 15 sec

*1 The NQ2 overflow enters NQ3.
*2 The NQS-2 overflow enters NQS-1.
*3 Temperature is 37.5 °C ± 0.2 °C for FP230B.
*4 Confirm the best drying conditions, centered around 60 °C, and adjust the drying temperature accordingly.

<Replenishment Volume Settings>

Solution	Replenishment Volume (ml/135-24Exp)
NQ1-R	45
NQ2-R	20
NQ3-R	30
NQS-R	30
NQ4-R	20

2-3) Mixing Instructions for Processing Solutions

The solution temperature should be 15 °C to 40 °C at the time of mixing.

<Replenisher>

Solution	Amount	Mixing Instructions
NQ1-R	10 L	① Using a 5-liter measuring cup, add 8 L of water into the replenisher tank. ② Add 1 bottle of NQ1-R A chemical (for 10 L) and stir for 1 to 2 minutes. ③ Add 1 bottle of NQ1-R B chemical (for 10 L) and stir for 1 to 2 minutes. ④ Add 1 bottle of NQ1-R C chemical (for 10 L) and stir for 1 to 2 minutes.
NQ2-R	8 L	① Using a 5-liter measuring cup, add 4 L of water into the replenisher tank. ② Add 1 bottle of NQ2-R A chemical (for 8 L) and stir for 1 to 2 minutes. ③ Add 2 bottles of NQ2-R B chemical (for 8 L) and stir for 1 to 2 minutes.
NQ3-R	8 L	① Using a 5-liter measuring cup, add 4 L of water into the replenisher tank. ② Add 2 bottles of NQ3-R chemical (for 8 L) and stir for 1 to 2 minutes.
NQS-R	8 L	① Using a 5-liter measuring cup, add 8 L of deionized water into the replenisher tank. ② Pulverize 2 FSC tablets in a crusher, add them to the replenisher tank, and stir for 1 to 2 minutes.
NQ4-R	8 L	① Using a 5-liter measuring cup, add 8 L of water into the replenisher tank. ② Add 1 bottle of NQ4-R chemical (for 8 L) and stir for 1 to 2 minutes.

<Replenisher> SC chemical

Solution	Amount	Mixing Instructions
NQ1-R	5 L	① Using a 5-liter measuring cup, add 4 L of water into the replenisher tank. ② Add 1 bottle of NQ1-R SC A chemical (for 5 L) and stir for 1 to 2 minutes. ③ Add 1 bottle of NQ1-R SC B chemical (for 5 L) and stir for 1 to 2 minutes. ④ Add 1 bottle of NQ1-R SC C chemical (for 5 L) and stir for 1 to 2 minutes.
NQ2-R	4 L	① Using a 5-liter measuring cup, add 2 L of water into the replenisher tank. ② Add 1 bottle of NQ2-R SC A chemical (for 4 L) and stir for 1 to 2 minutes. ③ Add 1 bottle of NQ2-R SC B chemical (for 4 L) and stir for 1 to 2 minutes.
NQ3-R	4 L	① Using a 5-liter measuring cup, add 2 L of water into the replenisher tank. ② Add 1 bottle of NQ3-R SC chemical (for 4 L) and stir for 1 to 2 minutes.
NQS-R	5 L	① Using a 5-liter measuring cup, add 5 L of deionized water into the replenisher tank. ② Pulverize 1 FSC tablet in a crusher, add it to the replenisher tank, and stir for 1 to 2 minutes.
NQ4-R	4 L	① Using a 5-liter measuring cup, add 4 L of water into the replenisher tank. ② Add 1 bottle of NQ4-R SC chemical (for 4 L) and stir for 1 to 2 minutes.

<Tank Solution>

Solution	Amount	Mixing Instructions
NQ1	12 L	① Using a 5-liter measuring cup, add 8 L of water into the mixing tank. ② Add 1 bottle of NQ1-R A chemical (for 10 L) and stir for 1 to 2 minutes. ③ Add 1 bottle of NQ1-R B chemical (for 10 L) and stir for 1 to 2 minutes. ④ Add 1 bottle of NQ1-R C chemical (for 10 L) and stir for 1 to 2 minutes. ⑤ Add 1 bottle of NQ1-S chemical (for 12 L) to water (2 L in total), add it into the mixing tank, and stir for 1 to 2 minutes. ⑥ Pour the solution into the NQ1 processing tank.
NQ2	4 L	① Using a 5-liter measuring cup, add 4 L of water into the mixing tank. ② Add 1 bottle of NQ2-R A chemical (for 8 L) and stir for 1 to 2 minutes. ③ Add 2 bottles of NQ2-R B chemical (for 8 L) and stir for 1 to 2 minutes. ④ Take 4 L of the solution and pour it into the NQ2 processing tank. (Pour the remainder into the NQ2-R replenisher tank.)
NQ3	10 L	① Using a 5-liter measuring cup, add 4 L of water into the mixing tank. ② Add 2 bottles of NQ3-R chemical (for 8 L) and stir for 1 to 2 minutes. ③ Take 6 L of NQ3-R replenisher mixed in Steps ① and ②, and pour it into another mixing tank*. (Pour the remainder into the NQ3-R replenisher tank.) ④ Using a 5-liter measuring cup, add 4 L of water into the mixing tank. ⑤ Add 1 bottle of NQ2-R A chemical (for 8 L) and stir for 1 to 2 minutes. ⑥ Add 2 bottles of NQ2-R B chemical (for 8 L) and stir for 1 to 2 minutes. ⑦ Take 4 L of the solution mixed in Steps ④ through ⑥, pour it into the mixing tank* in Step ③, and stir for 1 to 2 minutes. (Pour the remainder into the NQ2-R replenisher tank.) ⑧ Pour the solution in the mixing tank* into the NQ3 processing tank.
NQS	8 L	① Using a 5-liter measuring cup, add 8 L of deionized water into the mixing tank. ② Pulverize 2 FSC tablets in a crusher, add them to the mixing tank, and stir for 1 to 2 minutes. ③ Pour the solution into the NQS processing tank.
NQ4	4.5 L	① Using a 5-liter measuring cup, add 8 L of water into the mixing tank. ② Add 1 bottle of NQ4-R chemical (for 8 L) and stir for 1 to 2 minutes. ③ Take 4.5 L of the solution and pour it into the NQ4 processing tank. (Pour the remainder into the NQ4-R replenisher tank.)

2-4) Management of Processing Solutions

<pH and Specific Gravity>

If the pH and Specific gravity of prepared processing solutions are not within the limits indicated below, the solutions cannot be used. If no mistakes have been made in the proper dilutions and chemical components, then the pH and specific gravity values of the solutions should be within the following limits.

Tank Solution

Solution	New Solution		Running Solution	
	pH	Specific Gravity	pH	Specific Gravity
NQ1	10.05 ± 0.05	1.038 ± 0.003	10.05 ± 0.05	1.040 ± 0.003
NQ2	6.30 ± 0.20	1.114 ± 0.005	6.35 ± 0.25	1.110 – 1.140
NQ3	7.10 ± 0.20	1.137± 0.005	7.10 ± 0.30	1.130 – 1.170

Replenisher

Solution	pH	Specific Gravity
NQ1-R	10.10 ± 0.05	1.039 ± 0.003
NQ2-R	6.30 ± 0.20	1.114 ± 0.005
NQ3-R	8.00 ± 0.20	1.151 ± 0.005

<Maximum Storage Duration>

Unit: Weeks

Tank Solution*1		Replenisher	
NQ1	2	NQ1-R	4 *2
NQ2	2	NQ2-R	5
NQ3	2	NQ3-R	4 *2
NQS	2	NQS-R	4
NQ4	2	NQ4-R	5

NOTES

*1 Storage durations for unused solutions stored in tanks.

*2 Duration for solution stored with aerial oxidation-prevention floating balls. This duration is shorter if floating balls are not used.

<Solubility and Precipitates>

When the tank or replenisher solution falls below 15 °C, the dissolved chemicals become less soluble and begin to precipitate out. Excessive precipitation may cause abrasions in the sensitized materials and/or equipment malfunction. It is therefore important to avoid an excessive drop in the storage temperature during the winter.

3 CN-16FA

3-1) Packaging of Processing Chemical Components

Processing Chemicals	Code	Packaging Units To Make:	Components	Remarks
Color Developer Replenisher	N1-R	5 L × 2	(A and B) × 2	Use CN-16L N1-R*.
Color Developer Starter	N1-S	10 L	Single Bottle × 1	Use CN-16L N1-S*.
Bleach Replenisher	N2-R	2 L × 4	Single Bottle × 4	
Fix Replenisher	N3-R	2 L × 4	Single Bottle × 4	
Fuji Super Conditioner	FSC	5 L × 100	100 Tablets	
Stabilizer Replenisher	N4-R	8 L × 10	Single Bottle × 10	

NOTE

* For CN-16FA, use color developer replenisher N1-R and color developer starter N1-S for CN-16L.

3-2) Processing Procedures

<Standard Processing Steps>

Step	Color Developer	Bleach	Bleach -fixer	fixer	Super Rinse	Stabilizer	Stabilizer	Drying
			*1 *1	*2		*3		
Code	N1	N2	N3-1	N3-2	NS	N4-1	N4-2	DRY
Temperature (°C)	38.0	38	38	38	38	38	38	50 *4
Control Limits (°C)	± 0.2	35 – 41	35 – 41	35 – 41	35 – 41	35 – 41	35 – 41	
Time	3 min 5 sec	50 sec (With Aeration)	50 sec	50 sec	30 sec	20 sec	20 sec	

*1 The N2 and N3-2 overflows enter N3-1.

*2 The NS overflow enters N3-2.

*3 The N4-2 overflow enters N4-1.

*4 The standard drying temperature is 50 °C for 135-size film. Confirm the best drying conditions, centered around 50 °C, and adjust the drying temperature accordingly. The standard drying temperature is 60 °C for 120-size film. Confirm the best drying conditions, centered around 60 °C, and adjust the drying temperature accordingly.

<Replenishment Volume Settings>

Solution	Replenishment Volume (ml/135-24Exp)
N1-R	23
N2-R	5
N3-R	16
NS-R	34
N4-R	20

3-3) Mixing Instructions for Processing Solutions

The solution temperature should be 15 °C to 40 °C at the time of mixing.

<Replenisher>

Solution	Amount	Mixing Instructions
N1-R*1	10 L	① Add 2 bottles of N1-R A chemical (for 5 L × 2) into the replenisher tank. ② Add 2 bottles of N1-R B chemical (for 5 L × 2) into the replenisher tank. (Stirring is not required *2*3)
N2-R	4 L	Add 2 bottles of N2-R chemical (for 2 L × 2) into the replenisher tank.
N3-R	4 L	Add 2 bottles of N3-R chemical (for 2 L × 2) into the replenisher tank.
NS-R	10 L	① Using a 5-liter measuring cup, add 10 L of water into the replenisher tank. ② Pulverize 2 FSC tablets in a crusher, add them into the replenisher tank, and then stir for 1 to 2 minutes.
N4-R	8 L	① Using a 5-liter measuring cup, add 8 L of water into the replenisher tank. ② Add 1 bottle of N4-R chemical (for 8 L) and stir for 1 to 2 minutes.

NOTES

*1 Use color developer replenisher N1-R for CN-16L.

*2 If A and B chemicals are added in reverse order, stirring is required.

*3 When mixing the chemicals in a replenisher tank without the built-in processor, stirring is required.

<Tank Solution>

Solution	Amount	Mixing Instructions
N1*1	10 L	① Using a 5-liter measuring cup, add 7.5 L of mixed N1-R chemical into the mixing tank. ② Add 1 bottle of N1S chemical (for 10 L) and stir for 1 to 2 minutes. ③ Add 2 L of water and stir for 1 to 2 minutes.
N2	5 L	① Using a 5-liter measuring cup, add 2 L of water into the mixing tank. ② Add 2 bottles of N2-R chemical (for 2 L × 2) and stir for 1 to 2 minutes. ③ Take 5 L of the solution and pour it into the N2 processing tank. (Pour the remainder into the W2 waste collection tank.)
N3-1	5 L	① Using a 5-liter measuring cup, add 3 L of water into the mixing tank. ② Add 1 bottle of N3-R chemical (for 2 L) and stir for 1 to 2 minutes. ③ Add 400 ml of N2-R chemical and stir for 1 to 2 minutes. ④ Take 5 L of the solution and pour it into the N3-1 processing tank. (Pour the remainder into the W2 waste collection tank.)
N3-2	5 L	① Using a 5-liter measuring cup, add 4 L of water into the mixing tank. ② Add 1 bottle of N3-R chemical (for 2 L) and stir for 1 to 2 minutes. ③ Take 5 L of the solution and pour it into the N3-1 processing tank. (Pour the remainder into the W2 waste collection tank.)
NS	3 L	① Using a 5-liter measuring cup, add 5 L of water into the mixing tank. ② Pulverize 1 FSC tablet in a crusher, add it to the mixing tank, and stir for 1 to 2 minutes. ③ Take 3 L of the solution and pour it into the NS processing tank. (Pour the remainder into the NS-R replenisher tank.)
N4 N4-1 N4-2	 3 L 3 L	① Using a 5-liter measuring cup, add 8 L of water into the mixing tank. ② Add 1 bottle of N4R chemical (for 8 L) and stir for 1 to 2 minutes. ③ Take 3 L of the solution and pour it into the N4-1 processing tank. ④ Take 3 L of the solution and pour it into the N4-2 processing tank. (Pour the remainder into the N4-R replenisher tank.)

NOTE

*1 Use color developer replenisher N1-R and color developer starter N1-S for CN-16L.

3-4) Management of Processing Solutions

<pH and Specific Gravity>

If the pH and Specific gravity of prepared processing solutions are not within the limits indicated below, the solutions cannot be used. If no mistakes have been made in the proper dilutions and chemical components, then the pH and specific gravity values of the solutions should be within the following limits.

Tank Solution

Solution	New Solution		Running Solution	
	pH	Specific Gravity	pH	Specific Gravity
N1	10.05 ± 0.05	1.038 ± 0.003	10.05 ± 0.05	1.044 ± 0.003
N2	3.8 ± 0.2	1.095 ± 0.015	4.4 ± 0.3	1.105 ± 0.020
N3-1	7.0± 0.2	1.140 ± 0.020	6.9 ± 0.2	1.120 ± 0.020
N3-2	7.4 ± 0.2	1.110 ± 0.020	7.3 ± 0.2	1.120 ± 0.020

Replenisher

Solution	pH	Specific Gravity
N1-R	10.18 ± 0.05	1.043 ± 0.003
N2-R	3.8 ± 0.1	1.141 ± 0.010
N3-R	7.45 ± 0.05	1.290 ± 0.010

<Maximum Storage Duration>

Unit: Weeks

Tank Solution*1		Replenisher	
N1	2	N1-R	4 *2
N2	2	N2-R	5
N3-1	2	N3-R	4 *2
N3-2	2		
NS	2	PS-R	4
N4	2	N4-R	5

NOTES

*1 Storage durations for unused solutions stored in tanks.

*2 Duration for solution stored with aerial oxidation-prevention floating balls. This duration is shorter if floating balls are not used.

<Solubility and Precipitates>

When the tank or replenisher solution falls below 15 °C, the dissolved chemicals become less soluble and begin to precipitate out. Excessive precipitation may cause abrasions in the sensitized materials and/or equipment malfunction. It is therefore important to avoid an excessive drop in the storage temperature during the winter.

4 CN-16L

4-1) Package of Processing Chemical Components

Processing Chemicals	Code	Packaging Units To Make:	Components
Color Developer Replenisher	N1-CR	10 L × 2	(A, B, C) × 2
		5 L × 4	(A, B, C) × 4
Color Developer Starter	N1-S	10 L	Single Bottle
Bleach Replenisher	N2-R	2 L × 4	Single Bottle × 4
Fixer Replenisher	N3-R	2 L × 4	Single Bottle × 4
Fuji Super Conditioner	FSC	5 L × 100	100 Tablets
Stabilizer Replenisher	N4-R	8 L × 10	Single Bottle × 10

4-2) Processing Procedures

<Standard Processing Steps>

Step	Color Developer	Bleach	Fixer	Fixer	Super Rinse	Stabilizer	Stabilizer	Drying
				*1 *2		*3		
Code	N1	N2	N3-1	N3-2	NS	N4-1	N4-2	DRY
Temperature (°C)	38.0	38	38	38	38	38	38	50
Control Limits (°C)	± 0.2	35 – 41	35 – 41	35 – 41	35 – 41	35 – 41	35 – 41	
Time	3 min 5 sec	50 sec (With Aeration)	50 sec	50 sec	30 sec	20 sec	20 sec	

*1 The N3-2 overflow enters the N3-1 processing tank.
*2 The NS overflow enters the N3-2 processing tank.
*3 The N4-2 overflow enters the N4-1 processing tank.
*4 The standard drying temperature is 50 °C for 135-size film. Confirm the best drying conditions, centered around 50 °C, and adjust the drying temperature accordingly. The standard drying temperature is 60 °C for 120-size film. Confirm the best drying conditions, centered around 60°C, and adjust the drying temperature accordingly.

<Replenishment Volume Settings>

Solution	Replenishment Volume (ml/135-24 Exp)	
	Other than FP232B	FP232B
N1-R	21	21
N2-R	5	5
N3-R	8	10
NS-R	17	34
N4-R	15	20

4-3) Mixing Instructions for Processing Solution

The solution temperature should be 15 °C to 40 °C at the time of mixing

<Replenisher>

Solution	Amount	Mixing Instructions
N1-R	10 L	① Using a 5-liter measuring cup, add 8 L of water into the replenisher tank. ② Add 1 bottle of N1-CR A chemical (for 10 L) and stir for 1 to 2 minutes. ③ Add 1 bottle of N1-CR B chemical (for 10 L) and stir for 1 to 2 minutes. ④ Add 1 bottle of N1-CR C chemical (for 10 L) and stir for 1 to 2 minutes.
N2-R	4 L	Add 2 bottles of N2-R chemical (for 2 L × 2) into the replenisher tank. *1
N3-R	4 L	Add 2 bottles of N3-R chemical (for 2 L × 2) into the replenisher tank. *1
NS-R	10 L	① Using a 5-liter measuring cup, add 10 L of water into the replenisher tank. ② Pulverize 2 FSC tablets in a crusher, add them into the replenisher tank, and then stir for 1 to 2 minutes.
N4-R	8 L	① Using a 5-liter measuring cup, add 8 L of water into the replenisher tank. ② Add 1 bottle of N4-R chemical (for 8 L) and stir for 1 to 2 minutes.

NOTE

*1 Use about 50 ml of water to wash away residual solution from the replenisher tank hole. If residual solution remains around the supply port, it may crystallize. Adding about 50 ml of water to N2-R or N3-R solution does not affect photographic characteristics.

<Tank Solution>

Solution	Amount	Mixing Instructions
N1	18 L	① Using a 5-liter measuring cup, add 16 L of water into the mixing tank. ② Add 2 bottles of N1-CR A chemical (for 10 L × 2) and stir for 1 to 2 minutes. ③ Add 2 bottles of N1-CR B chemical (for 10 L × 2) and stir for 1 to 2 minutes. ④ Add 2 bottles of N1-CR C chemical (for 10 L × 2) and stir for 1 to 2 minutes. ⑤ Add 6.4 L of water into the N1-R mixing tank. ⑥ Add 2 bottles of N1S chemical (for 10 L × 2) and 3.6 L of water, and then stir for 1 to 2 minutes. ⑦ Add 18 L of the solution into the N1 mixing tank.
N2	5 L	① Using a 5-liter measuring cup, add 2 L of water into the mixing tank. ② Add 2 bottles of N2-R chemical (for 2 L × 2) and stir for 1 to 2 minutes.
N3-1	5 L	① Using a 5-liter measuring cup, add 3 L of water into the mixing tank. ② Add 1 bottle of N3-R chemical (for 2 L) and stir for 1 to 2 minutes.
N3-2	5 L	① Using a 5-liter measuring cup, add 4 L of water into the mixing tank. ② Add 1 bottle of N3-R chemical (for 2 L) and stir for 1 to 2 minutes.
NS	10 L	① Using a 5-liter measuring cup, add 10 L of water into the mixing tank. ② Pulverize 2 FSC tablets in a crusher, add them into the mixing tank, and then stir for 1 to 2 minutes.
N4	8 L	① Using a 5-liter measuring cup, add 8 L of water into the mixing tank. ② Add 1 bottle of N4-R chemical (for 8 L) and stir for 1 to 2 minutes.

4-4) Management of Processing Solutions

<pH and Specific Gravity>

If the pH and Specific gravity of prepared processing solutions are not within the limits indicated below, the solutions cannot be used. If no mistakes have been made in the proper dilutions and chemical components, then the pH and specific gravity values of the solutions should be within the following limits.

Tank Solution

Solution	New Solution		Running Solution	
	pH	Specific Gravity	pH	Specific Gravity
N1	10.05 ± 0.05	1.038 ± 0.003	10.05 ± 0.05	1.044 ± 0.003
N2	3.8 ± 0.2	1.095 ± 0.015	4.4 ± 0.3	1.105 ± 0.020
N3-1	6.8 ± 0.2	1.130 ± 0.020	6.5 ± 0.2	1.100 ± 0.020
N3-2	7.1 ± 0.2	1.100 ± 0.020	6.9 ± 0.2	1.100 ± 0.020

Replenisher

Solution	pH	Specific Gravity
N1-R	10.18 ± 0.05	1.043 ± 0.003
N2-R	3.8 ± 0.1	1.141 ± 0.010
N3-R	7.05 ± 0.10	1.270 ± 0.010

<Maximum Storage Duration>

Unit: Weeks

Tank Solution*1		Replenisher	
N1	2	N1-R	4 *2
N2	2	N2-R	5
N3-1	2	N3-R	4 *2
N3-2	2		
NS	2	NS-R	4
N4	2	N4-R	5

NOTES

*1 Storage durations for unused solutions stored in tanks.

*2 Duration for solution stored with aerial oxidation-prevention floating balls. This duration is shorter if floating balls are not used.

<Solubility and Precipitates>

When the tank or replenisher solution falls below 15 °C, the dissolved chemicals become less soluble and begin to precipitate out. Excessive precipitation may cause abrasions in the sensitized materials and/or equipment malfunction. It is therefore important to avoid an excessive drop in the storage temperature during the winter.

5 CN-16S

5-1) Package of Processing Chemical Components

CN-16S is a chemical dedicated for FP363SC and FP563SC. Two types of replenisher cartridges are available. NC1 is designed for loading N1-RA, N2-R and N3-R replenisher chemicals in a single operation, while NC2 is for N1-RB and N4-R. Start-up chemicals are also separately supplied for the initial installation of tank solutions.

Processing Chemical		Code	Packaging UnitsTo Make:	Components	Processing capacity
Replenisher Cartridge		NC1	2 Cartridges	N1-RA, N2-R, N3-R	135-24EXP: 200 films per cartridge
		NC2	2 Cartridges	N1-RB, N4-R	135-24EXP: 1000 films per cartridge
Start-up Chemicals	Color Developer	N1	5.2 L	(A, B, C) × 1	
	Bleach	N2	3.6 L	Single Bottle	
	Fixer	N3	3.6 L	Single Bottle	
	Stabilizer	N4	1.9 L	Single Bottle	
Fuji Super Conditioner		FSC	5 L × 100	100 tablets	

5-2) Processing Procedures

<Standard Processing Steps>

Step	Color Developer	Bleach	Fixer	Fixer	Stabilizer	Stabilizer	Stabilizer	Drying
			*1	*2	*3	*4		
Code	N1	N2	N3-1	N3-2	N4-1	N4-2	N4-3	DRY
Temperature (°C)	38.0	38	38	38	38	38	38	50 *5
Control Limits (°C)	± 0.2	35 – 41	35 – 41	35 – 41	35 – 41	35 – 41	35 – 41	
Time	3 min 15 sec	50 sec (With Aeration)	50 sec	50 sec	30 sec	20 sec	20 sec	

*1 The N3-2 overflow enters the N3-1 processing tank.
*2 The N4-2 tank solution is pumped into N3-2 processing tank.
*3 The N4-2 overflow enters the N4-1 processing tank.
*4 The N4-3 overflow enters the N4-2 processing tank.
*5 The standard drying temperature is 50 °C for 135-size film. Confirm the best drying conditions, centered around 50 °C, and adjust the drying temperature accordingly. The standard drying temperature is 60 °C for 120-size film. Confirm the best drying conditions, centered around 60 °C, and adjust the drying temperature accordingly.

<Replenishment Volume Settings>

Solution	Replenishment Volume (ml/135-24 Exp)
N1-R	15.0
N2-R	5.0
N3-R	7.5
N4-R	30.0

5-3) Mixing Instructions for Processing Solutions

The solution temperature should be 15 °C to 40 °C at the time of mixing.

<Replenisher>

Replenishment is done by loading the replenisher cartridge and replenishing the water.

Solution	Mixing Instructions
[NC-1] N1-RA N2-R N3-R [NC-2] N1-RB N4-R	① Open the replenisher supply port cover and remove the empty replenisher cartridge. Note: After gently detaching the cartridge, rotate it immediately so that the caps face upward and remove it from the compartment. If the caps face downward, some of the residual solution may leak out. (This liquid is completely safe.) ② Load a new NC replenisher cartridge into the port. Note: Hold the cartridge with the caps facing downward, the arrow on the bottom of the cartridge pointing towards the machine, and the arrow on the front of the cartridge aligned with the "▲" indication on the replenisher supply port. ③ Close the replenisher supply port cover. (The machine then mixes the replenisher solution automatically.)
[Water]*	① Open the water supply port cover. ② Remove the cap to the FSC supply port and insert one FSC tablet. ③ Using a 5-liter measuring cup, add water into the water supply port. • Add 4 L of water during normal operations. • Add water up to the rim of the water supply port at the time of machine installation. (Approximately 10 L can be added. Adding one FSC tablet to this amount of water is sufficient.) ④ Put the cap back to the FSC supply port, then close the water supply port cover.

NOTE

* Water is used for preparing replenisher (as well as bottle washing and dilution) and for compensating for water evaporation.

<Tank Solution>

FP363SC

Solution	Amount	Mixing Instructions
N1	10.3 L	① Add about 2 L of water and 2 bottles of N1 A chemical (for 5.2 L × 2) into a 5-liter measuring cup, and then pour the solution into the processing tank. ② Add about 2 L of water and 2 bottles of N1 B chemical (for 5.2 L × 2) into a 5-liter measuring cup, and then pour the solution into the processing tank. ③ Add about 2 L of water and 2 bottles of N1 C chemical (for 5.2 L × 2) into a 5-liter measuring cup, and then pour the solution into the processing tank. ④ Set the level gauge onto the shaft of rack N1, then add water up to the N1 line. (Approx. 2.3 L)
N-2	3.6 L	① Add about 1 L of water and 1 bottle of N2 chemical (for 3.6 L) into a 5-liter measuring cup, and then pour the solution into the processing tank. ② Set the level gauge onto the shaft of rack N2, then add water up to the N2 line. (Approx. 0.6 L) Note: After the solution undergoes aeration at the time of machine installation, the message "Add 200 ml of water to the tank N2" may appear. Add 200 ml of water at this time.
N3-2	3.6 L	① Add about 1 L of water and 1 bottle of N3 chemical (for 3.6 L) into a 5-liter measuring cup, and then pour the solution into the processing tank. ② Set the level gauge onto the shaft of rack N3-2, then add water up to the N3-2 line. (Approx. 1.5 L)
N3-1	3.6 L	① Add about 1 L of water and 1 bottle of N3 chemical (for 3.6 L) into a 5-liter measuring cup, and then pour the solution into the processing tank. ② Set the level gauge onto the shaft of rack N3-1, then add water up to the N3-1 line. (Approx. 1.5 L)
N4-3	1.9 L	① Add about 1 L of water and 1 bottle of N4 chemical (for 1.9 L) into a 5-liter measuring cup, and then pour the solution into the processing tank. ② Set the level gauge onto the shaft of rack N4-3, then add water up to the N4-3 line. (Approx. 0.9 L)
N4-2	1.9 L	① Add about 1 L of water and 1 bottle of N4 chemical (for 1.9 L) into a 5-liter measuring cup, and then pour the solution into the processing tank. ② Set the level gauge onto the shaft of rack N4-2, then add water up to the N4-2 line. (Approx. 0.9 L)
N4-1	1.9 L	① Add about 1 L of water and 1 bottle of N4 chemical (for 1.9 L) into a 5-liter measuring cup, and then pour the solution into the processing tank. ② Set the level gauge onto the shaft of rack N4-1, then add water up to the N4-1 line. (Approx. 0.9 L)

FP563SC

Solution	Amount	Mixing Instructions
N1	15.8 L	① Using a 5-liter measuring cup, add about 4 L of water into the processing tank. ② Add about 2 L of water and 3 bottles of N1 A chemical (for 5.2 L × 3) into a 5-liter measuring cup, and then pour the solution into the processing tank. ③ Add about 2 L of water and 3 bottles of N1 B chemical (for 5.2 L × 3) into a 5-liter measuring cup, and then pour the solution into the processing tank. ④ Add about 2 L of water and 3 bottles of N1 C chemical (for 5.2 L × 3) into a 5-liter measuring cup, and then pour the solution into the processing tank. ⑤ Set the level gauge onto the shaft of rack N1, then add water up to the N1 line. (Approx. 2.4 L)
N2	3.9 L	① Add about 1 L of water and 1 bottle of N2 chemical (for 3.6 L) into a 5-liter measuring cup, and then pour the solution into the processing tank. ② Set the level gauge onto the shaft of rack N2, then add water up to the N2 line. (Approx. 0.9 L) Note: After the solution undergoes aeration at the time of machine installation, the message “Add 200 ml of water to the tank N2” may appear. Add 200 ml of water at this time.
N3-2	3.6 L	① Add about 1 L of water and 1 bottle of N3 chemical (for 3.6 L) into a 5-liter measuring cup, and then pour the solution into the processing tank. ② Set the level gauge onto the shaft of rack N3-2, then add water up to the N3-2 line. (Approx. 1.5 L)
N3-1	3.6 L	① Add about 1 L of water and 1 bottle of N3 chemical (for 3.6 L) into a 5-liter measuring cup, and then pour the solution into the processing tank. ② Set the level gauge onto the shaft of rack N3-1, then add water up to the N3-1 line. (Approx. 1.5 L)
N4-3	1.9 L	① Add about 1 L of water and 1 bottle of N4 chemical (for 1.9 L) into a 5-liter measuring cup, and then pour the solution into the processing tank. ② Set the level gauge onto the shaft of rack N4-3, then add water up to the N4-3 line. (Approx. 0.9 L)
N4-2	1.9 L	① Add about 1 L of water and 1 bottle of N4 chemical (for 1.9 L) into a 5-liter measuring cup, and then pour the solution into the processing tank. ② Set the level gauge onto the shaft of rack N4-2, then add water up to the N4-2 line. (Approx. 0.9 L)
N4-1	1.9 L	① Add about 1 L of water and 1 bottle of N4 chemical (for 1.9 L) into a 5-liter measuring cup, and then pour the solution into the processing tank. ② Set the level gauge onto the shaft of rack N4-1, then add water up to the N4-1 line. (Approx. 0.9 L)

5-4) Management of Processing Solutions

<pH and Specific Gravity>

If the pH and Specific gravity of prepared processing solutions are not within the limits indicated below, the solutions cannot be used. If no mistakes have been made in the proper dilutions and chemical components, then the pH and specific gravity values of the solutions should be within the following limits.

Tank Solution

Solution	New Solution		Running Solution	
	pH	Specific Gravity	pH	Specific Gravity
N1	10.05 ± 0.05	1.039 ± 0.003	10.07 ± 0.05	1.044 ± 0.003
N2	3.8 ± 0.2	1.095 ± 0.015	4.4 ± 0.3	1.105± 0.020
N3-1	7.0 ± 0.2	1.09 ± 0.02	6.6 ± 0.2	1.11 ± 0.02
N3-2	7.0 ± 0.2	1.09 ± 0.02	6.6 ± 0.2	1.11 ± 0.02

Replenisher

Solution	pH	Specific Gravity
N1-RA	10.51 ± 0.05	1.055 ± 0.003
N1-RB	4.2± 0.2	1.006 ± 0.005
N2-R	3.8 ± 0.1	1.141 ± 0.010
N3-R	7.0 ± 0.1	1.271 ± 0.010

<Maximum Storage Duration>

Unit: Weeks

Tank Solution*		Replenisher	
N1	2	N1-RA	4
N2	2	N1-RB	17
N3-1	2	N2-R	4
N3-2	2	N3-R	4
N4-1	2	N4-R	17
N4-2	2		
N4-3	2		

NOTE

* Storage durations for unused solutions stored in tanks.

<Solubility and Precipitates>

When the tank or replenisher solution falls below 15 °C, the dissolved chemicals become less soluble and begin to precipitate out. Excessive precipitation may cause abrasions in the sensitized materials and/or equipment malfunction. It is therefore important to avoid an excessive drop in the storage temperature during the winter.

6 CONTROL OF PROCESSING PERFORMANCE

The quality of color prints depends on the film processing performance, the printer conditions, and the paper processing performance. The final print quality is largely dependent on these factors, especially the film processing performance, which is the key factor. To maintain good print quality, it is essential that the processing performance be managed. Variations in processing conditions or processing solution characteristics will cause the film processing performance to vary, and therefore the control of the processing conditions and processing solution characteristics is vital for maintaining stable processing performance and preventing variations.

6-1) Managing Processing Conditions

The management of processing conditions is explained in detail in the processor instruction manual. This section explains the factors that have the greatest effect on processing performance.

1) Processing Temperature

The processing temperature has a great effect on photographic characteristics. The temperature of the color developer (N1) is especially important. To maintain the correct processing temperature, observe the following precautions.

A Solution Temperature Settings
Make sure the solution temperature is properly set at the temperature indicated in the manual.

B Temperature Calibration
A discrepancy sometimes arises between the temperature indicated by the thermostat, which monitors the solution temperature, and the actual solution temperature. When this occurs, the temperature indication on the thermostat should be calibrated.

2) Agitation/Circulation Volume

When the agitation or circulation volume is inadequate, the temperature of the processing solution in the tank will become unevenly distributed. Since this reduces the development acceleration effect and affects photographic characteristics, the following precautions should be taken:

A Circulation Filter
When this filter becomes clogged, the circulation volume is reduced. For this reason, the filter should be replaced once a month.

B Circulation Pump
Since it is conceivable that circulation may stop due to a pump malfunction or an electrical short in the circulation pump circuit, it is important to visually confirm that the solution is circulating.

C Gaseous Burst Conditions
In systems that use gas to agitate processing solutions, it is necessary to carry out periodic checks of the gaseous-burst pressure and burst rate.

3) Replenishment Rate

The replenishment of processing solutions restores chemical substances that have been exhausted during processing. The replenishment rate is set as a proportional amount (prescribed volume) that is added to the respective processing solution. If the actual volume of replenisher added does not meet the prescribed volume, the processing performance will be altered and the finished print quality will be affected. To prevent this, particular care should be paid to the following points.

A Replenishment Rate Settings

Make sure the replenishment rate is correctly set to the value indicated in the manual.

B Replenisher Filter

If this filter becomes clogged, the flow volume of the replenisher is reduced. To prevent this, replace the filter once a month.

C Replenishment Volume Checks

Since the replenishment volume varies according to the pump performance, replenisher flow rates should be checked once a month.

4) Equipment Cleaning/Checks

Cleaning of the crossover racks and bearings prevents the buildup of crystals that may cause film abrasions and processing unevenness. These parts should be cleaned every day after the completion of processing. An irregularity in the various rollers and piping systems may also affect the processing solution characteristics and should be checked periodically.

6-2) Managing Processing Solution Characteristics

To prevent changes in the processing solution characteristics, processing solution preparation and use must be managed.

6-2-1 Control of Solution Preparation

Prepare the tank solution and replenisher correctly in accordance with the method explained in the instruction manual. Since the photographic characteristics are adversely affected by contamination of the color developer with even the smallest amount of another solution, great care should be taken to prevent such contamination when preparing solutions.

6-2-2 Control during Processing Solution Use

This section outlines the contents of and precautions for each processing step.

1) Color Developer (N1)

Photographically exposed silver halide crystals in film are reduced to metallic silver by the developing agent in the color developer. The oxidized color developing agent combines with dye-forming couplers in the emulsion to form color dye images.

The amount of color dye formed is dependent on the level of activity of the developer, and thus the factors that affect this level, such as temperature, developing time, agitation, replenishment rate, and replenisher concentration, must be controlled. The color developing agent is highly susceptible to oxidation, and therefore steps must be taken to prevent oxidation (for example, by the use of a floating lid or floating balls in the replenisher tank).

Since contamination of the color developer with even the smallest amount of bleach (N2) or fixer (N3) solution has a great effect on the photographic characteristics, great care is vital when preparing solutions or cleaning racks and tanks to prevent such contamination.

2) Bleach (N2)

The action of the bleaching agent oxidizes the metallic silver produced by the color developer again to silver halides and stops the action of the developing agent. If the bleaching time or replenishment rate is insufficient, the oxidizing strength of the bleach may drop and metallic silver may not be completely converted to silver halide, resulting in residual silver in the film. To prevent this, it is necessary to control the temperature, bleaching time, agitation, replenishment rate, N1 solution squeegee condition and aeration.

Since contamination of the color developer with even the smallest amount of N2 solution has a great effect on the photographic properties, great care is vital when preparing solutions or cleaning racks and tanks to prevent such contamination.

3) Fixer (N3)

The fixer converts all unexposed silver halide and silver halide recovered by the bleaching step into soluble complex silver salts, causing them to precipitate out from the emulsion. If the processing time, replenishment rate or agitation is insufficient, insoluble silver salts or silver halide will remain in the emulsion, causing the loss of clarity in the entire film. Since these residues cannot be eliminated by rinse, they will adversely affect the color image stability.

The control of temperature, fixing time, agitation, replenishment rate, and replenisher concentration is important. Furthermore, the fixer solution is highly susceptible to oxidation, and therefore measures must be taken to prevent this (for example, by the use of a floating lid or balls in the replenisher tank).

Since contamination of the color developer with even the smallest amount of fixer solution has a great effect on the photographic properties, great care is vital when preparing solutions or cleaning racks and tanks to prevent such contamination.

4) Rinse (NS)

The rinse step removes the fixer, soluble complex silver salts and other unnecessary components that remain in the film. An inadequate rinse will adversely affect the minimum density (D-min) and color image stability. It is necessary to control the temperature and replenishment rate during the rinse step.

5) Stabilizer (N4)

This step stabilizes the dye image and enhances the water draining characteristics of the film to eliminate water marks and enable uniform drying. Scum may occur when the solution concentration is too high or when the solution is exhausted, and so it is important to maintain proper replenishment. If the solution concentration is too low, unevenness becomes more likely to occur during drying. Pink color appears in the running solution; this color, however, has no effect on photographic characteristics or the processing solution.

7 PROCESSING PERFORMANCE CONTROL USING CONTROL STRIPS

The most accurate method of processing performance control is the evaluation of the photographic density of the processed film. Under normal conditions, however, it is not possible to expose film by a precise, uniform amount of light. For this reason, a "control strip" is used, consisting of an unprocessed strip of film that has been exposed with a standard pattern under precise and uniform exposure conditions. Each set of control strips includes a single properly processed film strip called a "reference strip." When a control strip has been processed, density measurements are taken from the processed strip and the reference strip at the same time. Processing performance is then evaluated based on the extent of deviation between the measured value and the reference strip value, which serves as the standard.

7-1) Evaluation Standards

Established action limits and control limits are used as standards for evaluating processing performance. The action limits are the range of target values by which good processing results are maintained. When processing performance (control values) falls within the action limits, good processing results are obtained. It is necessary to manage processing conditions so that control values always fall within the action limits. The control limits are the maximum limits within which acceptable processing results are maintained. Customers' film should not be processed when the control values fall outside of the control limits. For this reason, it is necessary to manage processing conditions to ensure that the control values always stays within the control limits.

	LD (Speed)	HD-LD (Contrast)	D-min (Minimum density)
Action Limits	± 0.07	± 0.06	± 0.03
Control Limits	± 0.09	± 0.08	± 0.05

7-2) Handling of Control Strips

Improper handling of control strips may cause a change in their performance, rendering them unusable for processing performance control purposes. To maintain consistency in control strip performance, it is essential that the proper handling of control strips be mastered and applied.

1) Package Contents

- Five patterns are produced when a control strip is processed, as shown on page 30. Of these patterns, three are used for processing control: HD, LD, and D-min.
- The control strips are available in both rolls and sheets.
- The roll type consists of a reel-wound roll of film equal to 30 separate control strips, wrapped in a moisture-resistant, lightproof paper envelope, encased in a can. The length of one control strip is 21.8 cm. The end of each control strip is indicated by a semi-circular notch on the edge of the film, which is used as a guide for cutting the film roll. The can is enclosed in a box, along with one reference strip and correction factor sheet.

- The sheet type consists of 10 control strips in individual sheets, enclosed in a moisture-resistant, lightproof paper envelope. One control strip package contains 5 envelopes of sheets along with one reference strip and correction factor sheet, all encased in a box.
- A correction factor sheet is used to correct for variations that arise in the strips due to variations in exposure and processing conditions at the time of manufacture. For this reason, it is necessary to use the correction factor sheet that was included for a given control strip set. The correction factor sheet from another control strip set cannot be used even if it bears the same code number.

2) Storage

- Store control strips in individual packages in a freezer (at -10 °C (14 °F) or below).
- Use the control strips before the expiration date indicated on the shipping box or on the film can or box.
- To prevent color fading and contamination by dust, keep the reference strip wrapped in moisture-resistant, lightproof paper envelope and place it in a cool, dark place away from high temperatures and humidity.

3) Processing Method

- Do not open a control strip package immediately after removal from the freezer as this may cause condensation to form. Instead, allow it rise to room temperature for about 30 minutes, then open the package in a darkroom. Care should be taken not to touch the emulsion side of control strips during handling.
- Return the remaining control strips back into the moisture-resistant, light-proof paper envelope, remove excess air from the envelope and return it to the can or the envelope for storage in the freezer.
- All control strips should be processed with the patterns facing the same direction.

4) Measuring Method

- After processing the control strip, measure the photographic density of the control strip and the reference strip at the same time.
- Three points should be measured: HD (high density), LD (low density) and D-min (minimum density).
- Carry out the density measurement in accordance with the instructions for the densitometer used.

7-3) Ascertaining Processing Performance

1) Reference Density Calculation

The reference density is obtained by adding the correction value from the correction factor sheet to the measured density of the reference strip.

- **Reference Strip Density + Correction Value = Reference Density**

An example of this calculation is shown below.

Table 2: Example of Reference Density Calculation

Reference Strip		Density		
		R (Cyan)	G (Magenta)	B (Yellow)
HD	Measured Density	1.42	2.10	2.40
	Correction Value	+0.01	+0.02	−0.01
	Reference Density	1.43	2.12	2.39
LD	Measured Density	0.46	1.03	1.25
	Correction Value	0.00	0.00	−0.01
	Reference Density	0.46	1.03	1.24
HD - LD (Contrast)	HD Reference Density	1.43	2.12	2.39
	LD Reference Density	0.46	1.03	1.24
	Reference Density	0.97	1.09	1.15
D-min	Measured Density	0.18	0.75	1.00
	Correction Value	+0.02	+0.03	+0.03
	Reference Density	0.20	0.78	1.03

2) Calculating Control Values for Processing Performance

Control values for processing performance are calculated by subtracting the reference density from the density measurements taken from the control strip. The difference between the two indicates the amount of deviation from the standard performance, which tells whether the processing performance is acceptable or not.

- **Measured Control Strip Density – Reference Density**
  = Deviation from standard

The acceptability of processing performance depends on whether the deviation from standard is within the target range / control limit or not.

A sample calculation of the control values for processing performance is shown below.

Table 3: Example of Measured Control Strip Density

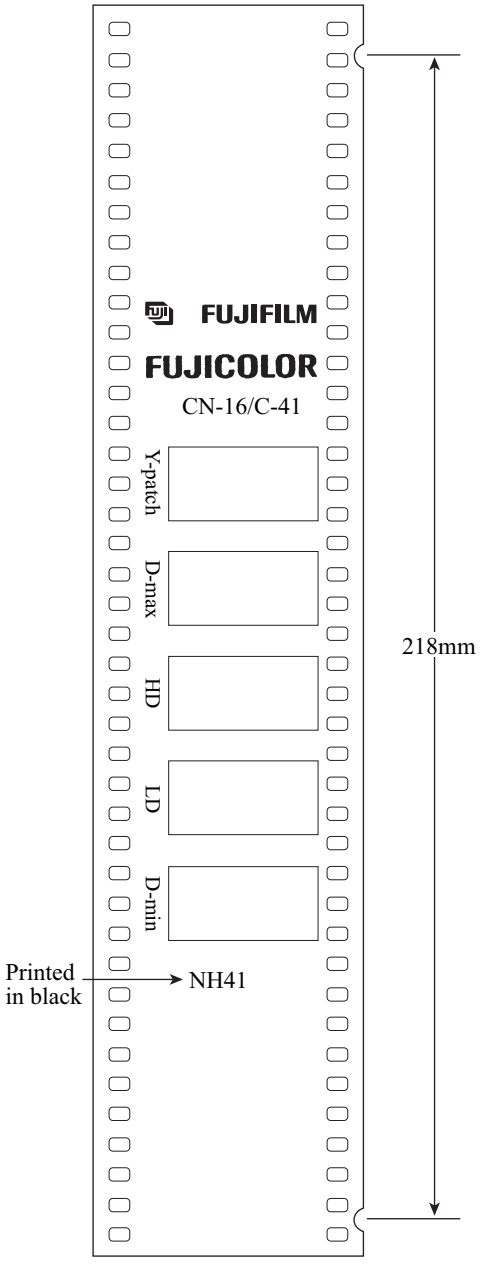
Control Strip	R	G	B
HD	1.43	2.13	2.41
LD	0.47	1.05	1.25
HD - LD (Contrast)	0.96	1.08	1.16
D-min	0.21	0.80	1.05

Table 4: Calculation Example of Control Value for Processing Performance

Control Strip	R	G	B
LD	+0.01	+0.02	+0.01
HD - LD (Contrast)	– 0.01	– 0.01	+0.01
D-min	+0.01	+0.02	+0.02

• Control Strip Specification

[Control Strip CN-16]



8 CHANGES IN PROCESSING FACTORS AND THEIR EFFECTS ON PROCESSING PERFORMANCE

As mentioned in the previous pages, variations in the processing conditions or processing solution characteristics will alter the processing performance and affect the processing results of the control strips (producing abnormal results).
The relationship between changes in these factors and processing performance is indicated in the following table and charts.
If an abnormality is detected in control strip results, compare the density measurements taken from the control strip with those in the following charts to determine the cause of the abnormality and take the appropriate countermeasures.

Table 5: Outline of the Effects of Changes in Processing Factors on Processing Performance

Solution	Processing Factor	Direction of Change	LD (Speed)	HD-LD (Contrast)	D-min (Minimum density)	Fig. No.
N1	Temperature	Low High	Decrease Increase	Decrease Increase	Decrease Increase	1
	Replenishment Rate	Deficient Excessive	Decrease Increase	Decrease Increase	Decrease Increase	2
	Concentration	Diluted Concentrated	Slight decrease Slight increase	Decrease Increase	Slight decrease Slight increase	3
	Circulation Volume	Deficient	Slight decrease	Decrease	No change	4
	Contamination with N2	High	Increase (R>B)	Increase (B>G) Decrease (R)	Increase (R>G,B)	5
	Contamination with N3	High	Increase (R,G>B)	Increase (B,G>R)	Increase (R,G)	6
	Contamination with N4	High	Increase (G,R)	Increase (B)	Increase (G,R)	7
	Erroneous Use of Starter	CP-47L	Increase	Decrease	Increase	8
		CP-40FAII	Increase	Increase (B) Decrease (G)	Increase	
N2	Concentration (*1)	Diluted Concentrated	Increase No change	Increase No change	Increase (B>G>R) No change	9
	N1 Carry-over Amount	Deficient Excessive	No change Increase (B)	No change Slight decrease	Decrease (B) Increase (B>G)	10
	Concentration* (*2)	Diluted Concentrated	Increase Slight increase	Decrease No change	Increase Slight increase	11
N3	Concentration	Diluted Concentrated	Increase (R,G) Slight increase (B,G)	Slight increase No change	Increase (R,G) Increase (B>R>G)	12

Note: Please use this concentration* for CN-16Q NQ2-R.

*1 Don't use this concentraion for CN-16Q NQ2-R.
*2 Use this concentration for CN-16Q NQ2-R only.

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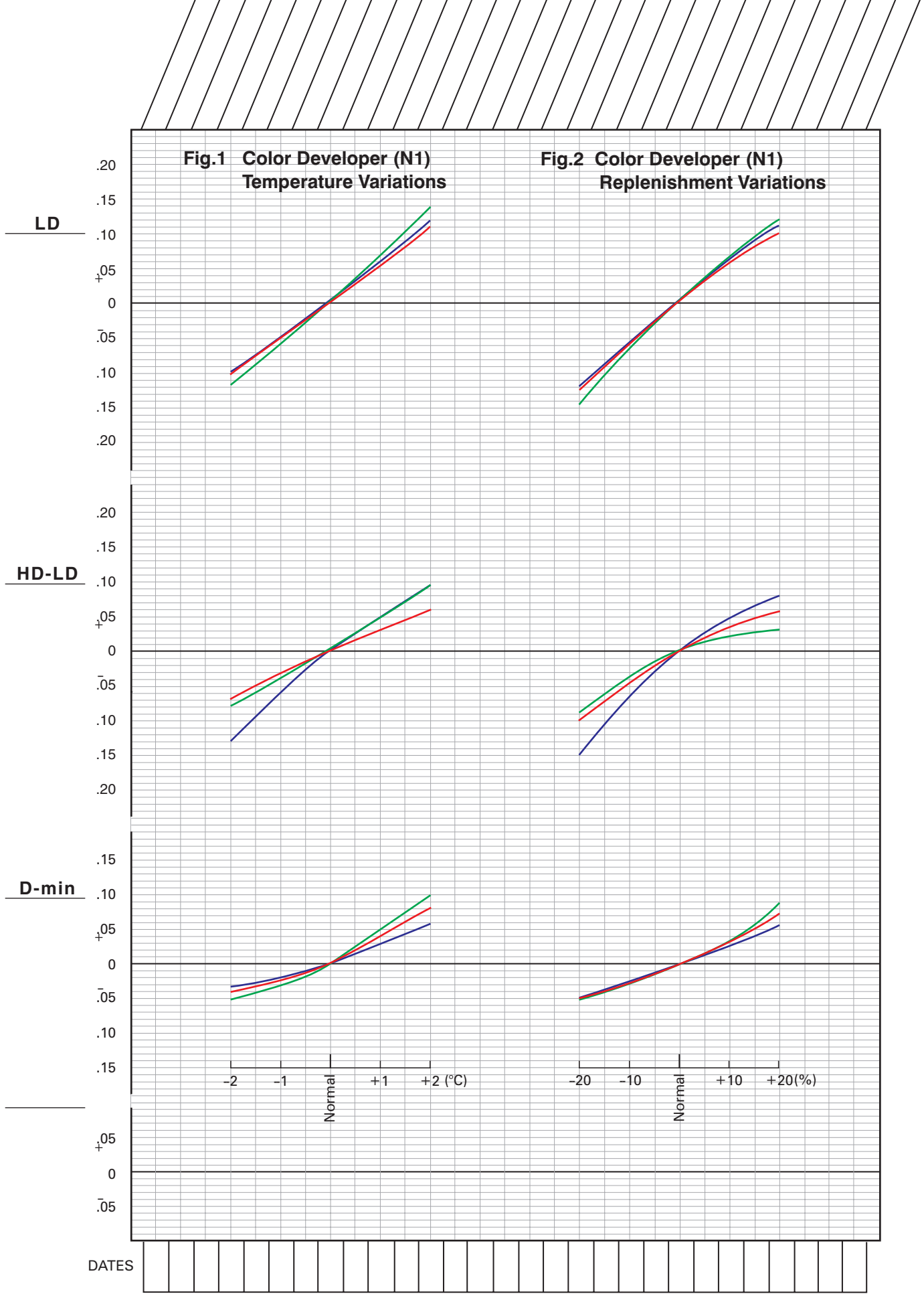
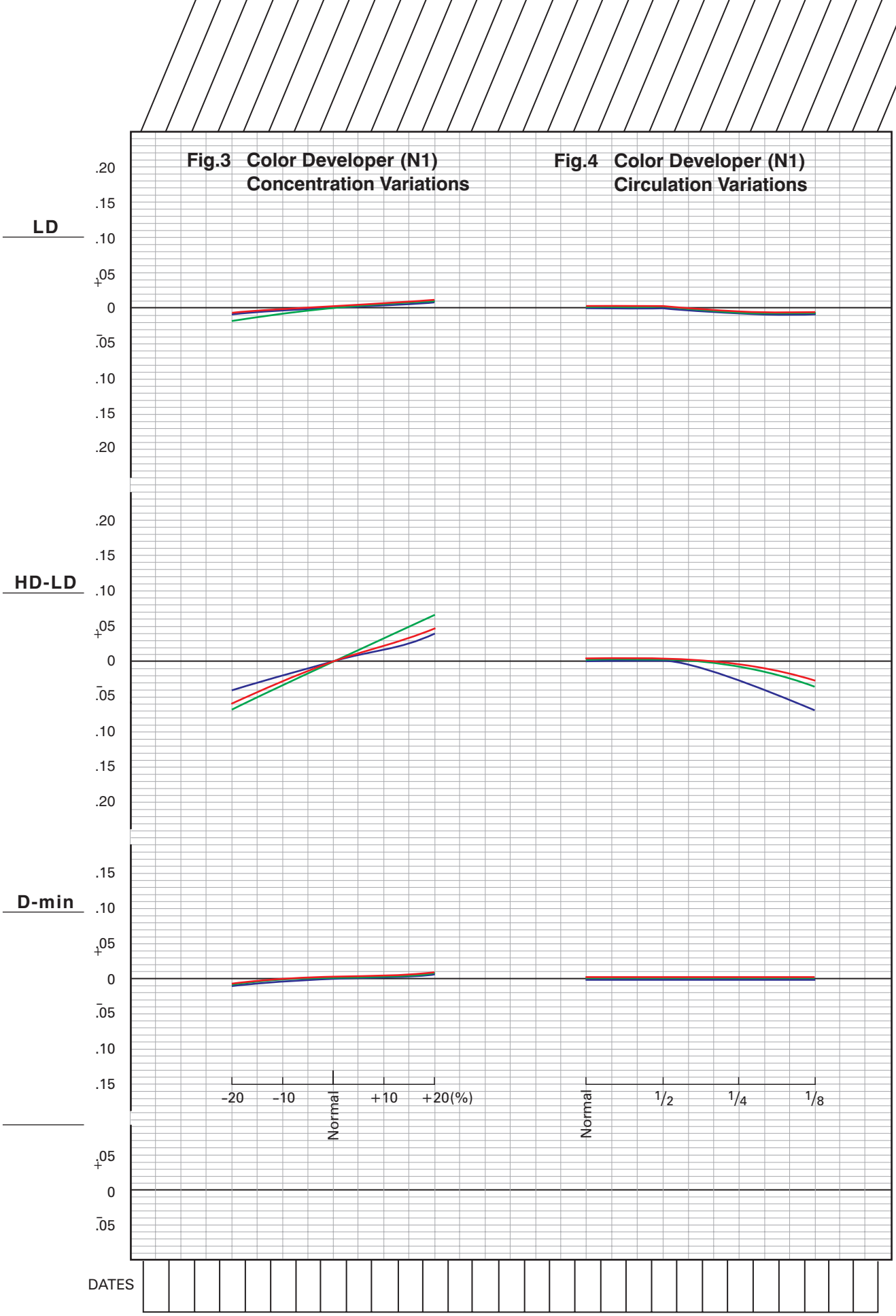


FUJI PROCESS CONTROL SHEET

YEAR _____ STRIP CODE No. _____

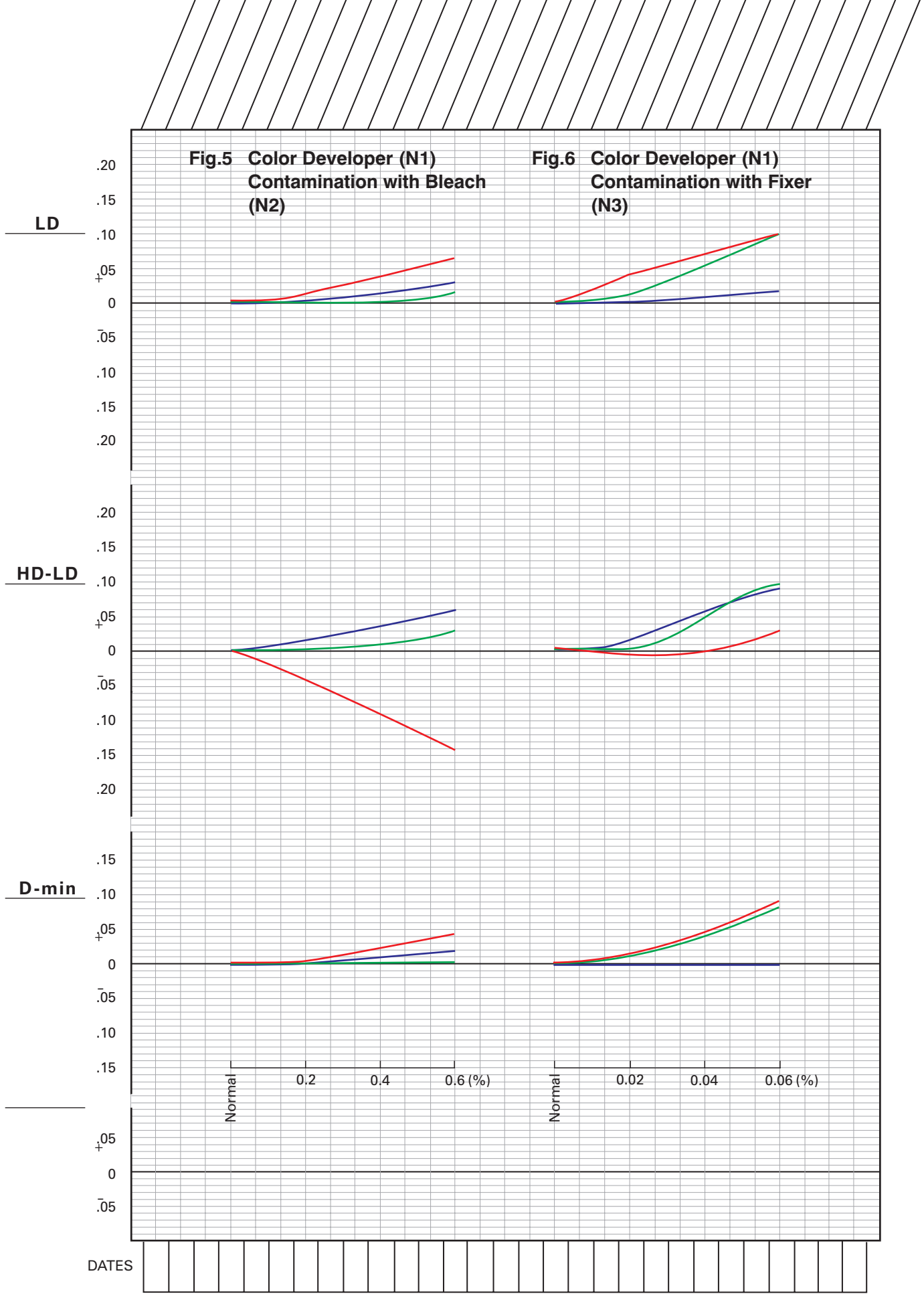
MONTH _____ MACHINE _____ PROCESS CN-16



FUJI PROCESS CONTROL SHEET

YEAR _____ STRIP CODE No. _____

MONTH _____ MACHINE _____ PROCESS CN-16



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YEAR _____ STRIP CODE No. _____

MONTH _____ MACHINE _____ PROCESS CN-16

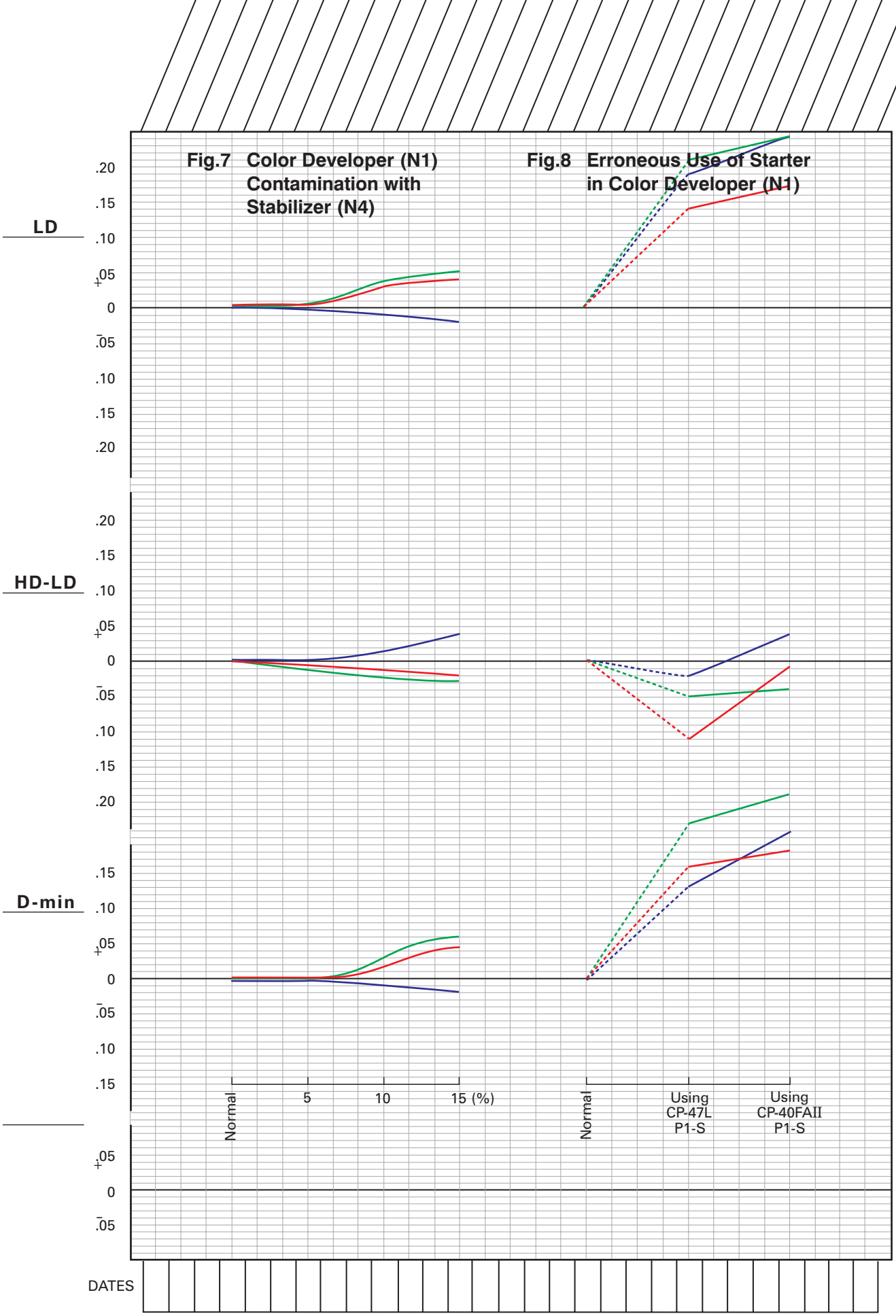

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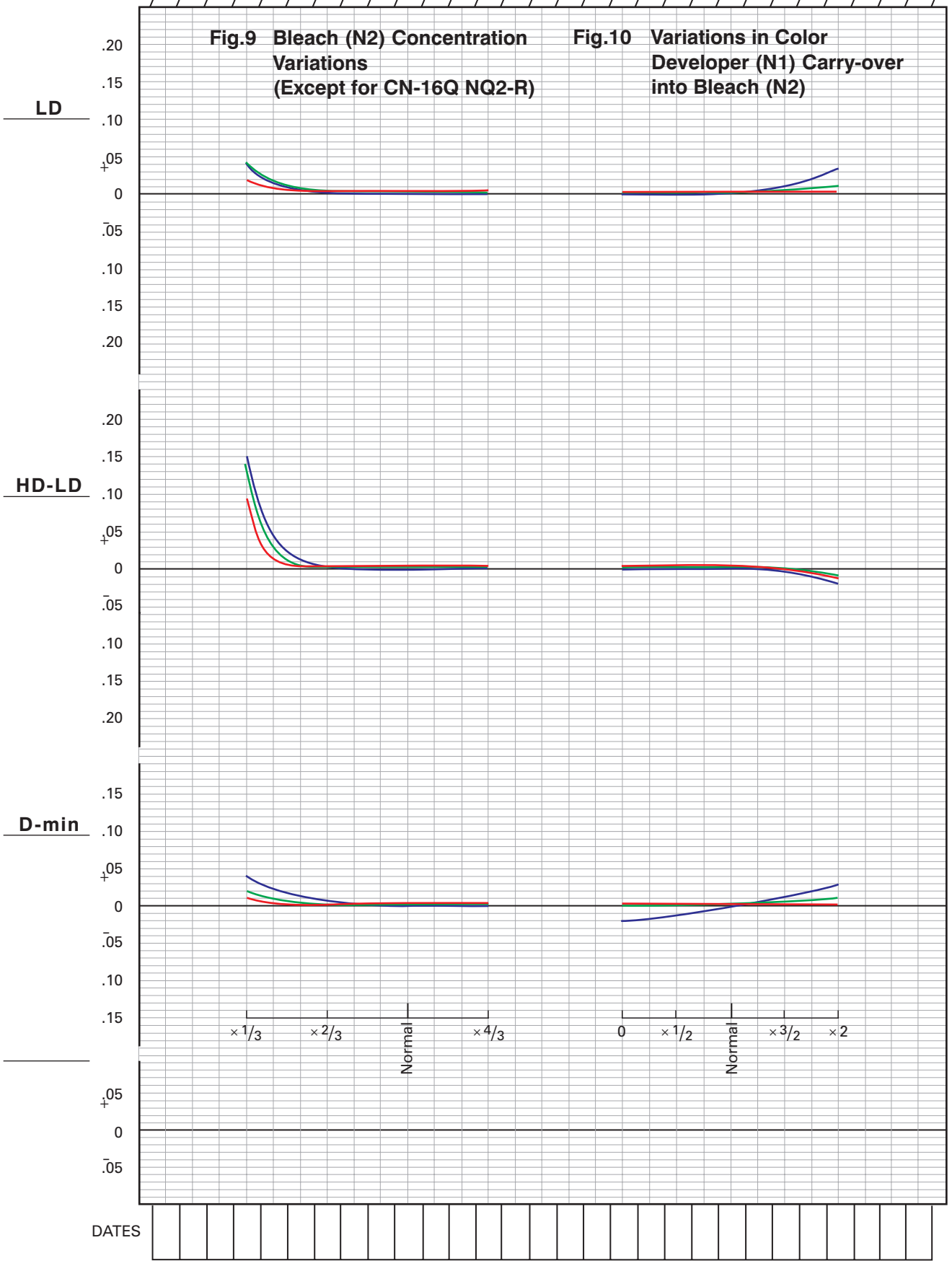
Fig.9 Bleach (N2) Concentration Variations (Except for CN-16Q NQ2-R)

Fig.10 Variations in Color Developer (N1) Carry-over into Bleach (N2)



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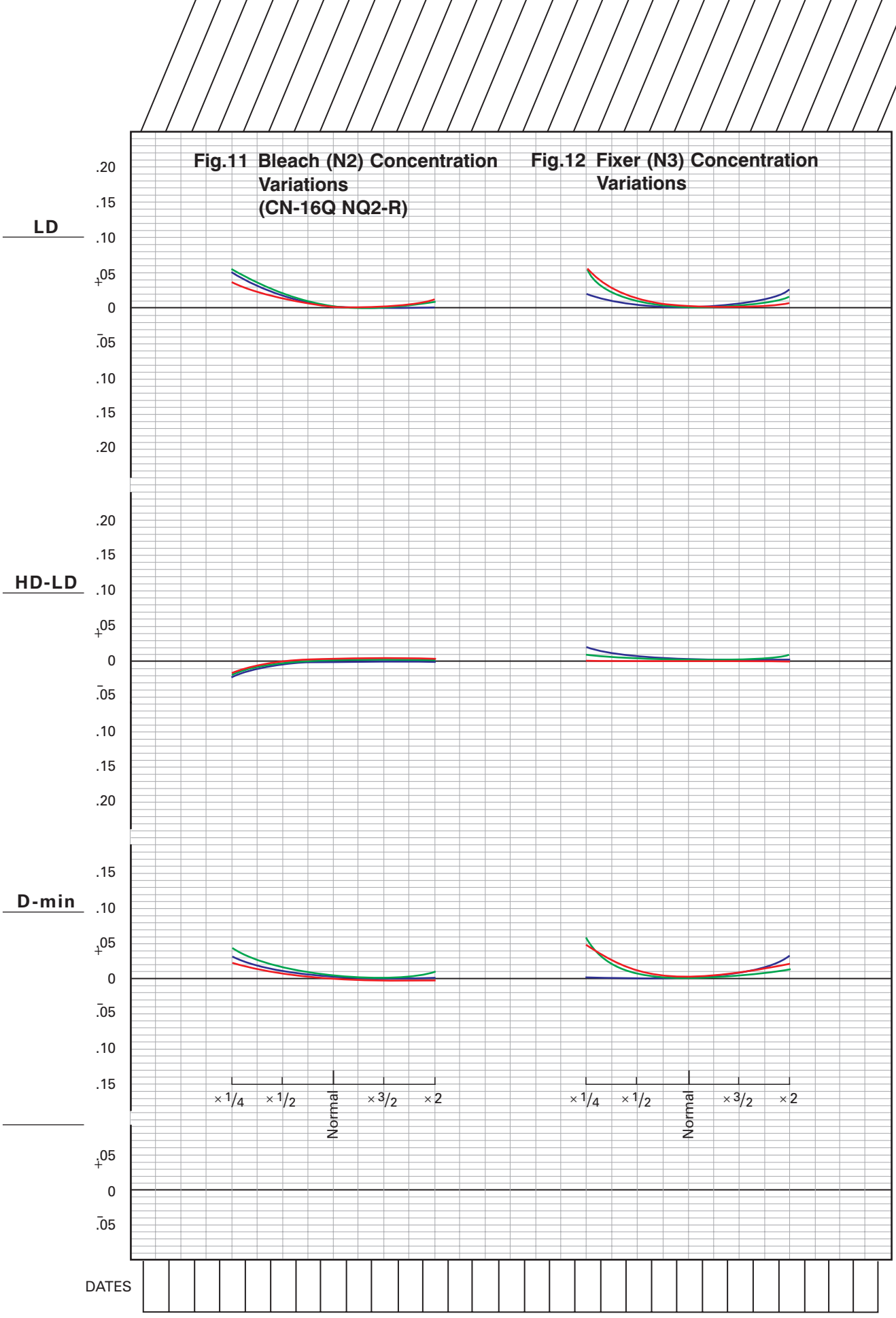

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