

粗揉機

PRIMARY TEA ROLLING DRYER WITH 'KAROPACK' DEVICE [pat.]



TERADA

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Specifications

Primary tea rolling dryer (Karo pack type)

Type	Width		Depth	Height		Weight	Power			Heavy oil consumption	Air rate	Suitable furnace	Main shaft rotation	Feeding amount (Fresh leaf)
	With motor cover	Frame		With exhaust pipe	Frame		Shaft	Fan	Burner					
	mm	mm		mm	mm		kW	kW	kW		ℓ/h	m ³ /min	rpm	kg
KS-35	1,900	1,600	1,355	-	1,600	570	0.75	0.75	0.25	3.1~6.2	14~56	-	33~43	18~35
KS-60	2,290	1,890	1,550	-	1,950	1,100	1.5	0.75	0.25	3.9~7.8	23~70	-	33~43	30~60
								1.5		4.7~9.4	28~85	-		
KS-90	2,890	2,490	1,620	-	1,950	1,270	2.2	1.5	0.25	6.1~12.2	37~110	-	33~43	45~90
								2.2		6.9~13.9	42~125	-		
KS-120	3,050	2,550	2,000	3,010	2,380	1,790	3.7	1.5	0.4	6.7~13.3	30~120	-	33~40	60~120
KS-200	4,570	4,000	2,320	3,010	2,410	3,200	5.5	3.7	0.4	8.9~17.7	40~160	-	33~40	100~200

Primary tea rolling dryer (Standard type)

Type	Width		Depth	Height		Weight	Power			Heavy oil consumption	Air rate	Suitable furnace	Main shaft rotation	Feeding amount (Fresh leaf)
	With motor cover	Frame		With exhaust pipe	Frame		Shaft	Fan	Burner					
	mm	mm		mm	mm		kW	kW	kW		ℓ/h	m ³ /min	rpm	kg
NS-120	3,050	2,550	1,940	3,010	2,380	1,320	3.7	1.5	0.4	6.7~13.3	30~120	HLS-12B	30~40	60~120
								2.2	0.4	6.9~13.7	35~140	HLS-20A		
								3.7	0.75	8.3~16.6	42~170	HLS-20B		
NS-200	4,570	4,000	1,972	3,010	2,410	2,300	5.5	2.2	0.4	6.9~13.7	35~140	HLS-20A	30~40	100~200
								3.7	0.75	8.3~16.6	42~170	HLS-20B		
NS-250	5,570	5,000	1,972	3,010	2,410	2,740	7.5	3.7	0.75	6.3~16.6	42~170	HLS-20B	30~40	125~250
								3.7	0.75	9.6~19.6	50~200	HLS-25A		

Primary tea rolling dryer (Wide type)

Type	Width		Depth	Height		Weight	Power			Heavy oil consumption	Air rate	Suitable furnace	Main shaft rotation	Feeding amount (Fresh leaf)
	With motor cover	Frame		With exhaust pipe	Frame		Shaft	Fan	Burner					
	mm	mm		mm	mm		kW	kW	kW		ℓ/h	m ³ /min	rpm	kg
NSW-120	3,550	3,050	1,940	2,910	2,230	1,500	3.7	3.7	0.75	8.3~16.6	42~170	HLS-20B	30~40	60~120
NSW-200	4,770	4,200	2,056	3,217	2,465	2,470	5.5	5.5	0.75	12.2~24.5	63~250	HLS-25B	30~40	100~200
								2.2 x 2	0.4 x 2	13.7~27.4	70~280	HLS-20Ax2		
NSW-250	5,770	5,200	2,056	3,217	2,465	2,990	7.5	3.7 x 2	0.75 x 2	16.6~33.3	85~340	HLS-20Bx2	30~40	125~250

Standard equipment & option setting

◎ is standard equipment ○ is optional settings

Type	Angle adjustable drum	Cleaning door		Clean TW plate			Clean TY plate	One-touch hook	Transparent front door	Smooth opener (Gas dumper)			Main shaft fluorine coating	Press arm leg & scattering hand leg plating	Drum stainless	Chain coupling	Expand metal ceiling
		Front	Rear	No.1~4	No.1~2	No.3~4				Front door	Cleaning door (Front)	Cleaning door (Rear)					
KS-35	-	-	-	○	○	○	○	◎	○	○	○	-	○	○	○	-	○
KS-60	○	◎	-	○	○	○	○	◎	◎	○	○	-	○	○	○	◎	○
KS-90	○	◎	-	○	○	○	○	◎	◎	○	○	-	○	○	○	◎	○
KS-120	◎	◎	-	○	○	○	○	◎	◎	○	○	-	◎	◎	○	◎	◎
NS-120	◎	◎	◎	○	○	○	○	◎	◎	○	○	○	◎	◎	○	◎	◎
KS-200	◎	◎	-	○	○	○	○	◎	◎	◎	◎	-	◎	◎	○	◎	◎
NS-200	◎	◎	◎	○	○	○	○	◎	◎	◎	◎	◎	◎	◎	○	◎	◎
NS-250	◎	◎	◎	○	○	○	○	◎	◎	◎	◎	◎	◎	◎	○	◎	◎
NSW-120	◎	◎	◎	○	○	○	-	◎	◎	○	○	○	◎	◎	○	◎	◎
NSW-200	◎	◎	◎	○	○	◎	-	◎	◎	◎	◎	◎	◎	◎	○	◎	◎
NSW-250	◎	◎	◎	○	○	◎	-	◎	◎	◎	◎	◎	◎	◎	○	◎	◎

※Part of the specifications might be changed for improvement.

TERADA 株式会社 寺田製作所
TERADA SEISAKUSHO CO.,LTD.

No.869-1 Ushio Shimada-shi Shizuoka-ken 428-8502 Japan
Phone : +81-547-45-5111 Fax : +81-547-45-5110
<https://www.web-terada.jp> E-mail:info@web-terada.jp

● Sales agent

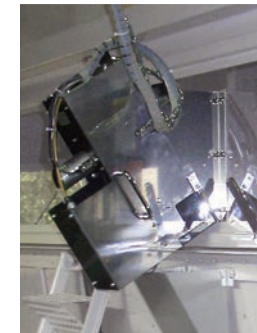


Primary tea rolling dryer (Wide type) 120,200,250K



Suitable 1st tea rolling dryer for rolling process after wide spaced scattering. Improve qualities like color & flavor by responding according to volume changing of tea leaves' weight reduction.

- Suitable after scattering by 1.2 times larger scattering dryer than primary dryer, efficient drying is processed with balanced tea spread and arm pressure and tea is made with excellent gloss, color & flavor.
- Rolls & rubs the scattered soft tea leaves with much moisture without chopping the leaves.
- By gaining the hot air blowing port below, helps the tea leaves moving from tea scattering to rolling. Structured not only to the most suitable amount of air but also the flow rate.
- Ideal drying is possible by setting scatter stopper in a higher position than conventional type and matching with specific scattering hand.



Near-infrared rays moisture measuring sampling unit

Primary tea rolling dryer (Standard/Karo-pack type) 35, 60, 90, 120, 200, 250K

Excellent in rubbing and takes out the moisture in tea leaves from core.

By rubbing keeps the evaporation time from surface and prevents increasing tea temperature which improves sencha (crude tea) original color, gloss and fragrance.

- Structured to rubbing basis and made the drum radius for suitable thickness of tea.
- Rubs the tea leaf softly to the core by turning the tea leaves with press arm in rotating drum.
- By keeping the hot air blowing port in low position, structured as to contact the leaves even with little air.
- Large scatter stopper, controls the air flow and input part of exhaust air to the drum and dries while rubbing slowly.
- Terada original Karo-pack heating furnace is suitable for high quality tea manufacturing with excellent gloss and color.
- Karo-pack type is efficient in heating and space saving.
- Tea won't be left when discharging with expanded discharging door. (Over 60K)



Electric resistance moisture measuring sampling unit



Pursued ease of use control by pulling out machine performance



Digital control panel

★ SYS-525S

- Air rate, hot air temperature, tea temperature, main shaft rotations, process time can be selected from 2~5 steps and fuzzy controlling.
- Controls air rate by measuring tea leaf moisture and discharges automatically when reaches to target moisture level.
- Views moisture level (Tea temperature) change in graph to 14 min before.
- It is easy to identify tea manufacturing state and error from far by the multi-colored lights.



★ SYS-64A

Air rate, hot air temperature and shaft rotations are 2-step controlling according to dial operation. 1st process is time setting with tea temperature controlling.



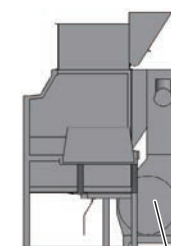
★ SYS-76M

Air rate, hot air temperature and shaft rotations are 5-step controlling according to dial operation.

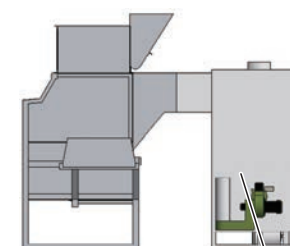
Karo-pack (KS) type, standard (NS) type side comparison

★ KS type primary tea rolling dryer

★ NS type primary tea rolling dryer



Furnace



Furnace

Quality pursued special structure

■ Press arm

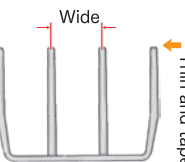
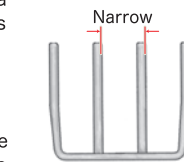
- Each scattering dryer, wide type and standard primary tea rolling dryer is structured to specific design and make rubbing most suitable for process' tea leaves.
- It is the suitable shape to rub the soft tea leaves in wide type primary tea rolling dryer.
- Primary tea rolling dryer's press arm spatula is long and curved shape, which holds tea leaves better.
- Takes out the moisture from core of tea leaves since the rubbing distance has increased by increasing spatula length.

★For tea scattering & wide type primary tea rolling

★For primary tea rolling (Rubbing type)



Shoulder shape and excellent in rubbing



Thin and tapered

■ Scattering hand

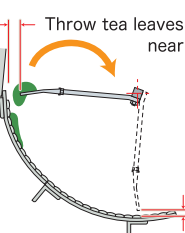
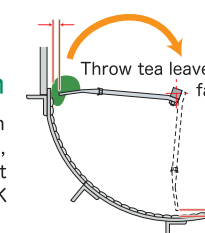
- Each of tea scattering, wide & standard type primary tea rolling dryer is structured to specific design.
- Fat, long pins with narrow gap in wide type primary tea rolling dryer is easy to scatter young bud deep-steaming.
- Thin, wide gapped and with bended pins with tapered edge is most suitable for leaf passing.

★Standard front drum door angle

★Front drum door gap+30mm

●Standard gap

●Standard+30mm



■ Angle adjustable type primary tea roller drum

By changing front door angle (Gap with scattering hand) according to tea leaf state, throwing of tea leaves can be adjusted without changing the gap in bottom of drum. (Over 120K type is standard feature)

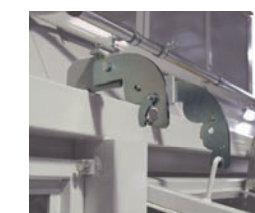
Throw tea leaves far

Throw tea leaves near

Structure pursued hygiene and safety

■ One-touch hook

Front door can be fixed and released in one-touch
※Already patented



■ Smooth opener

● The door can be opened/closed smoothly and safely with gas damper equipped to front door, front drum door and rear drum door even get heavy by tea sticking. (Below 120K is optional)



■ Easily cleanable front & rear drum door

- Since the front and rear drum door can be opened and closed largely, cleaning inside the drum and adjustment of press arm & scattering hand can be done easily and safely. (Karo-pack type is only front drum door)
- Resin plate can be used to the bottom plate as option which won't stick tea easily and the stuck tea can easily be removed.
- Drum small plate is stainless steel and all inside drum is of stainless steel over 120K.



Front cleaning drum door

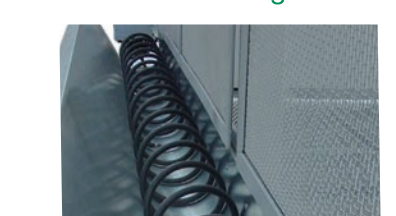


Rear cleaning drum door

■ Exhaust duct & ceiling

- Exhaust duct is made to the height to gain exhaust volume calculated by used air amount and supports reducing tea dust.
- Expand metal is used to the ceiling. (Over 120K)

■ Powder collecting device



Since powder & stalks are collected tea leaf stiffness, too much/less suction won't occur.