

Mach 630NP

DRY FILM AUTO CUTTING LAMINATOR

Parts List

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●この部品リストは、基板の搬送方向が「左→右」の標準仕様をもとに構成されています。

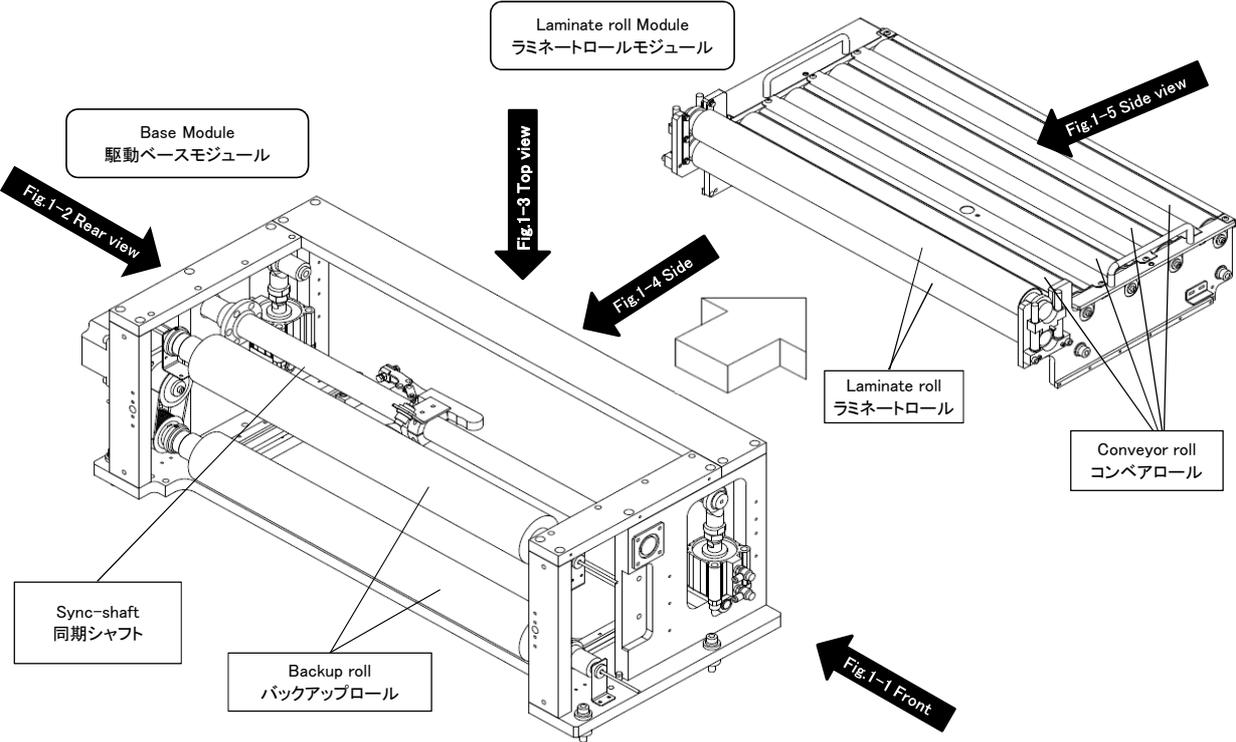
●The figures are shown based on Left to Right flow machine in this Parts List.

●この部品リストは、S/N:507以降の標準仕様に基づいています。S/N:506以前の装置については弊社または販売代理店までお問い合わせいただきますようお願いいたします。

●This parts list is described for the standard specification model which has S/N 507 and later.

Please contact Hakuto or authorized distributor for the machine S/N 506 and previous models.

[Fig. 1 Laminate Unit – Roll Module]



[Fig. 1-1 Laminate Unit – Roll Module Front view]

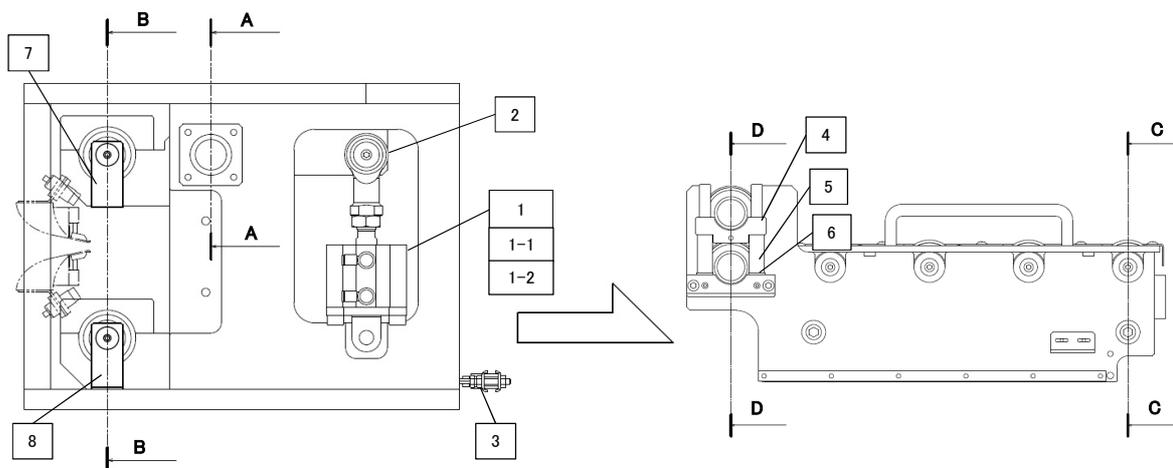


Table 1-1 Laminate Unit – Roll Module Front view

○…630up common (630up共通)

Item	Part no.of L to R	Part no.of R to L	Product description	Qty	Parts information
1	4200425A1	←	Air cylinder	1	#516~ (Rev 1.3.3)
1-1	4200229A1	←	Sensor	1	
1-2	4300551A1	←	Speed controller	2	#516~ (Rev 1.3.3)
2	0500219A1	←	Rod end bearing	2	
3	0600064A1	←	Toggle clamp	2	※Need bolt replacement
4	M1B2041B1	←	Bracket	2	#508~ (Rev 1.3)
5	2100123A1	←	Spring	4	#516~ (Rev 1.3)
6	1500982A1	←	Washer	4	#516~ (Rev 1.4)
7	M1B2021A1	←	Heater bracket	2	(Rev 1.4)
8	M1B2022A1	←	Heater bracket	2	(Rev 1.4)

[Fig. 1-2 Laminate Unit – Roll Module Rear view]

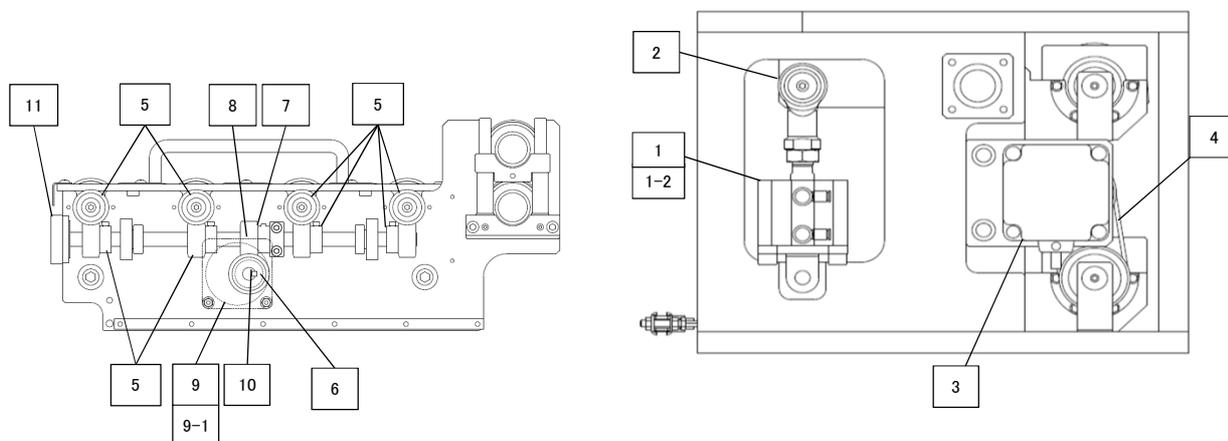


Table 1-2 Laminate Unit – Roll Module Rear view

○…630up common (630up共通)

Item	Part no.of L to R	Part no.of R to L	Product description	Qty	Parts information
1	4200425A1	←	Air cylinder	1	without sensor
1-2	4300551A1	←	Speed controller	2	#516~ (Rev 1.3.3)
2	0500219A1	←	Rod end bearing	2	
3	4700433A1	←	Motor	1	with motor controller
4	3800579A1	←	Timing belt	1	#516~ (Rev 1.3)
5	3800764A1	←	Crossed helical gear	8	
6	3800776A1	←	Crossed helical gear	1	
7	3800766A1	←	Crossed helical gear	1	
8	3200120A1	←	Key	1	
9	4700512A1	←	Motor	1	motor only (Rev 1.3.3)
9-1	4700513A1	←	Motor driver	1	driver only (Rev 1.3.3)
10	044043	←	Key	1	also included in No9
11	3800704A6	←	Magtran	1	

[Fig. 1-3 Laminate Unit – Roll Module Top view]

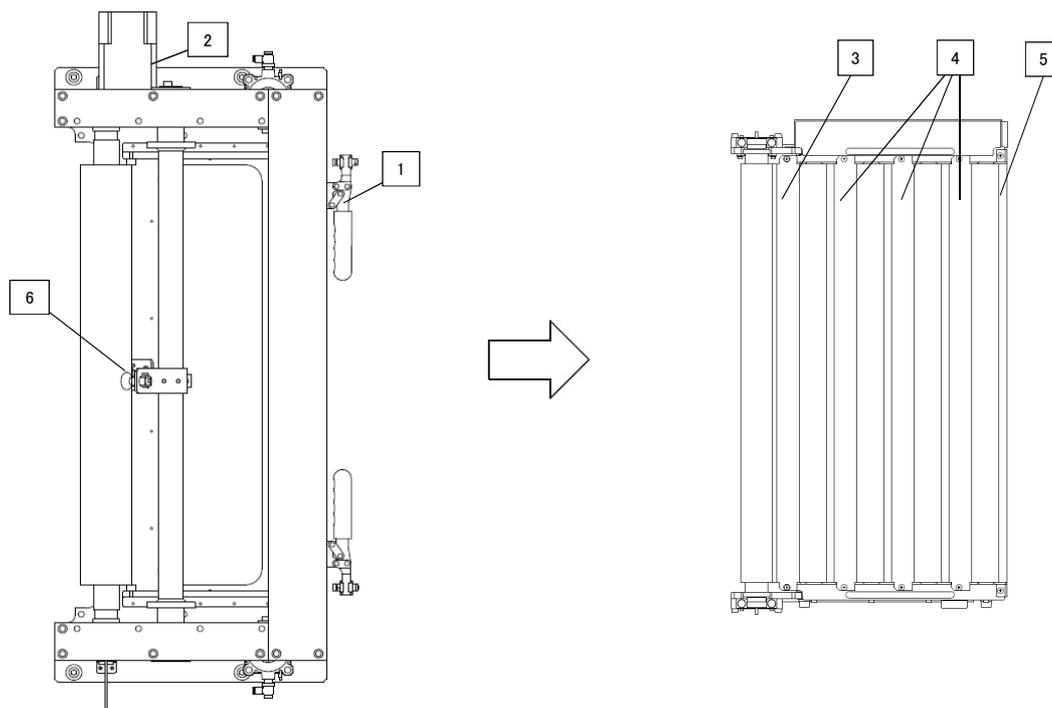


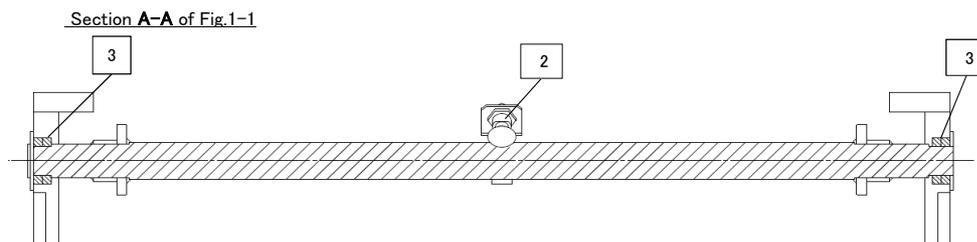
Table 1-3 Laminate Unit – Roll Module Top view

○…630up common (630up共通)

Item	Part no.of L to R	Part no.of R to L	Product description		Qty	Parts information
1	0600064A1	←	Toggle clamp	トルククランプ	2	※Need bolt replacement
2	4700433A1	←	Motor	スピードコントロールモーター	1	with motor controller
3	M1B5061A1	←	Auxiliary plate	基板落下防止板	1	option #508～ (Rev 1.3)
4	M1B1112B1	←	Auxiliary plate	基板落下防止板	3	option
5	M1B1113A1	←	Auxiliary plate	基板落下防止板	1	option
6	6800253A2	←	Temperature sensor	温度センサー	4	#508～ (Rev 1.3)

[Fig. 1-4 Laminate Unit – Base Module Side view]

① Sync-shaft (同期シャフト)



② Backup roll (バックアップロール)

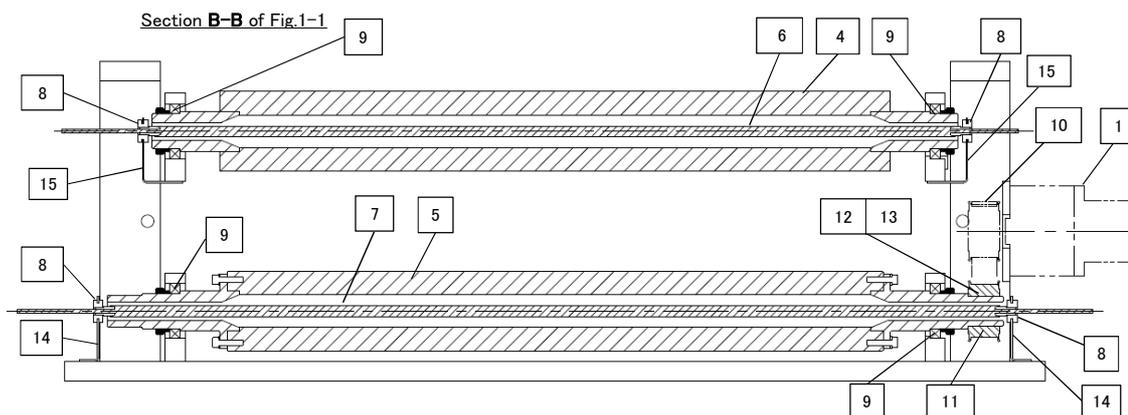


Table 1-4 Laminate Unit – Base Module Side view

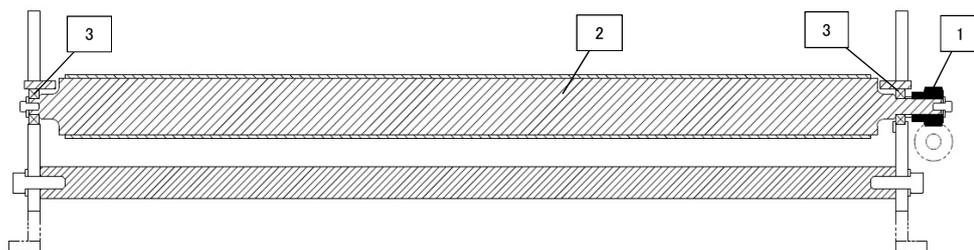
○…630up common (630up共通)

Item	Part no. of L to R	Part no. of R to L	Product description		Qty	Parts information
1	4700433A1	←	Motor	スピードコントロールモーター	1	with motor controller
2	6800253A2	←	Temperature sensor	温度センサー	4	#510~ (Rev 1.3)
3	0500134A1	←	Bearing	ベアリング	4	
4	M1B0003F2	←	Backup Roll (upper)	バックアップロール(上用)	1	(Rev 1.3)
5	M1B2002F2	←	Backup Roll (lower)	バックアップロール(下用)	1	(Rev 1.3)
6	M1B2252A2	←	Infrared heater (upper)	赤外線ヒーター(上用)	1	(Rev 1.3)
7	M1B2251A2	←	Infrared heater (lower)	赤外線ヒーター(下用)	1	(Rev 1.3)
8	3500469A1	←	Cushion	クッション	4	
9	0500322A3	←	Heat-resistant bearing	耐熱ベアリング	4	#518~ (Rev 1.2)
10	3800798A1	←	Timing pulley	ハイトルクタイミングプーリー	1	
11	3800718A1	←	Timing pulley	ハイトルクタイミングプーリー	1	
12	3600812A2	←	Setscrew	セットスクリュー	1	(Rev 1.3)
13	3200063A1	←	Key	キー	1	(Rev 1.4)
14	M1B2021A1	←	Heater bracket	ヒーターブラケット	2	(Rev 1.4)
15	M1B2022A1	←	Heater bracket	ヒーターブラケット	2	(Rev 1.4)

[Fig. 1-5 Laminate Unit - Laminate Roll Module Side view]

① Conveyor Roll (コンベアロール)

Section C-C of Fig.1-1



② Laminate roll (ラミネートロール)

Section D-D of Fig.1-1

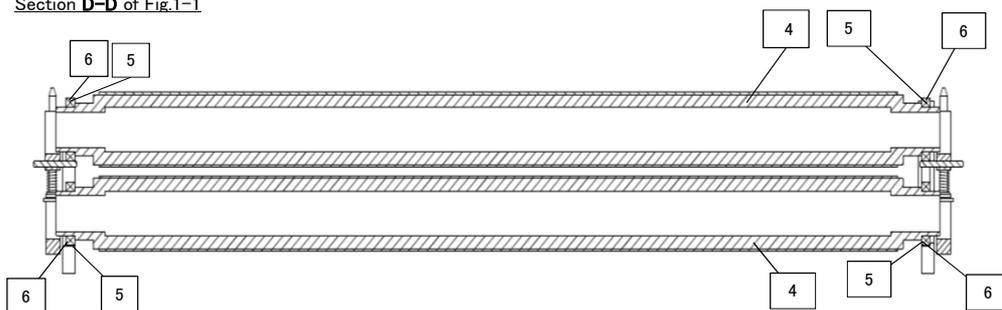
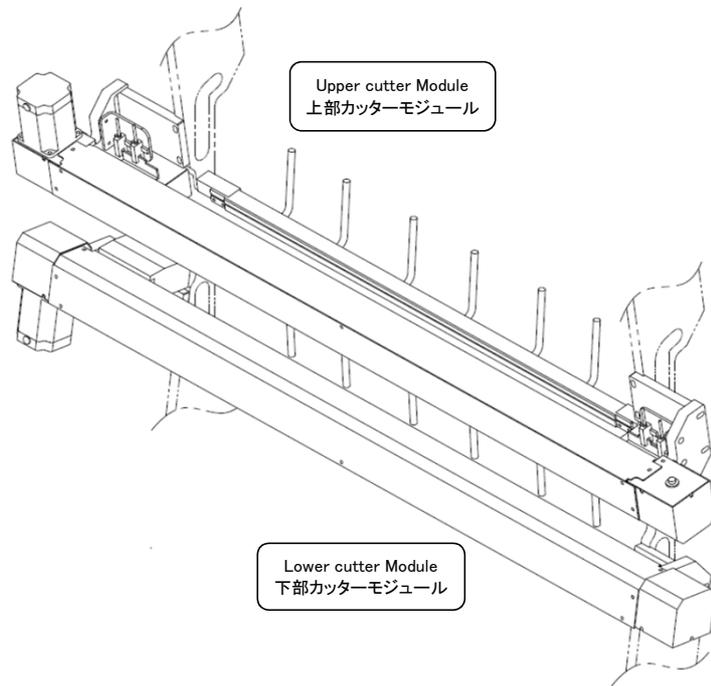


Table 1-5 Laminate Unit - Laminate Roll Module Side view

○...630up common (630up共通)

Item	Part no. of L to R	Part no. of R to L	Product description		Qty	Parts information
1	3800764A1	←	Crossed helical gear	ねじ歯車	8	
2	M1K0001C1	←	Roll	コンベアローラー	4	
3	045005	←	Bearing	ベアリング	10	
4	M1B0411A1	←	Laminate roll	ラミネートロール	2	
5	0500283A2	←	Heat-resistant bearing	耐熱ベアリング	4	
6	3200110A1	←	C Ring	転がり軸受用止め輪	4	

[Fig. 2 Laminate Unit-Cutter Module]



[Fig. 2-1 Laminate Unit-Cutter Module Cutter traveling]

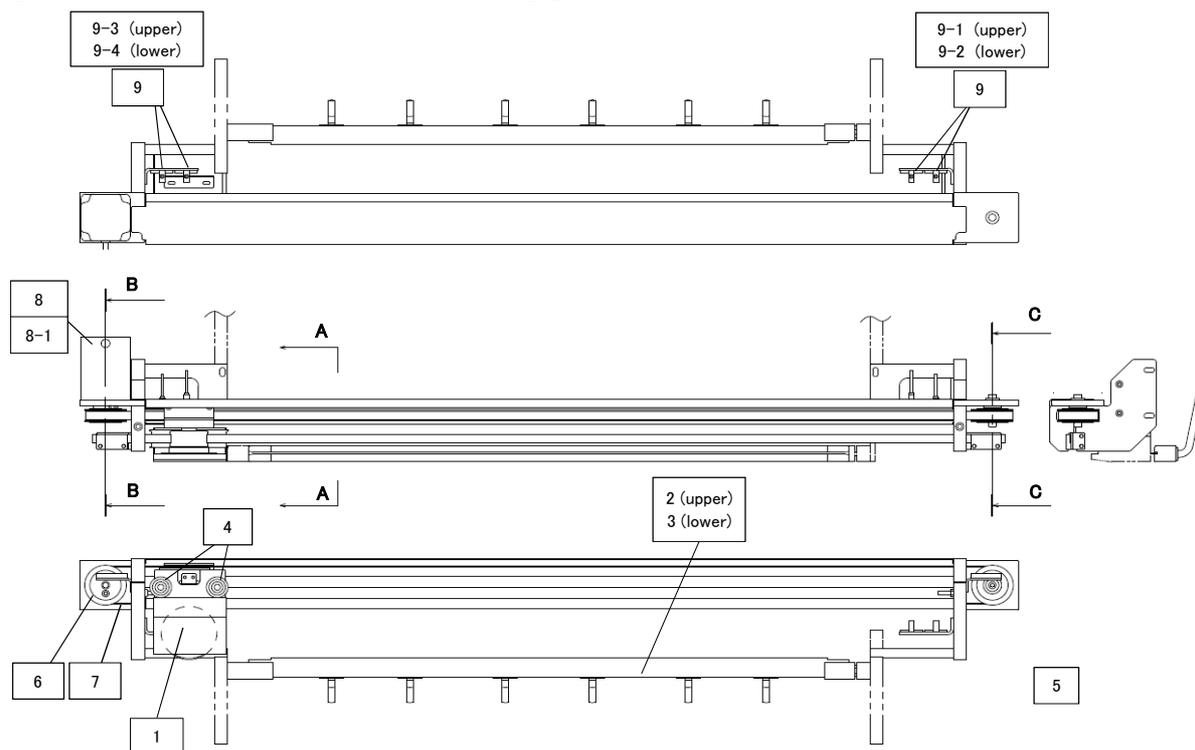


Table 2-1 Laminate Unit-Cutter Module Cutter traveling

○...630up common (630up共通)

Item	Part no.of L to R	Part no.of R to L	Product description	Qty	Parts information
○ 1	044022	←	Cutter blade	2	
2	2200761A1	2200761A2	Cutter back up Assembly	1	upper
3	2200761A2	2200761A1	Cutter back up Assembly	1	lower
○ 4	00A01415	←	Roller	4	
○ 5	00A01417	←	Timing pulley	2	
○ 6	00A01418	←	Timing pulley	2	
○ 7	018052	←	Timing belt	2	
8	4700516A1	←	Motor	2	motor only (Rev 1.3.3)
8-1	4700198A2	←	Motor driver	2	driver only (Rev 1.3.3)
9	6800258A1	←	Photo sensor	8	#514~ (Rev 1.3)
9-1	M1W5358B1	←	Sensor cable	2	Cable length = 3300mm (Rev 1.3)
9-2	M1W5358B2	←	Sensor cable	2	Cable length = 3300mm (Rev 1.3)
9-3	M1W5358B3	←	Sensor cable	2	Cable length = 3000mm (Rev 1.3)
9-4	M1W5358B4	←	Sensor cable	2	Cable length = 3000mm (Rev 1.3)

[Fig. 2-2 Laminate Unit-Cutter Module - detail drawing]

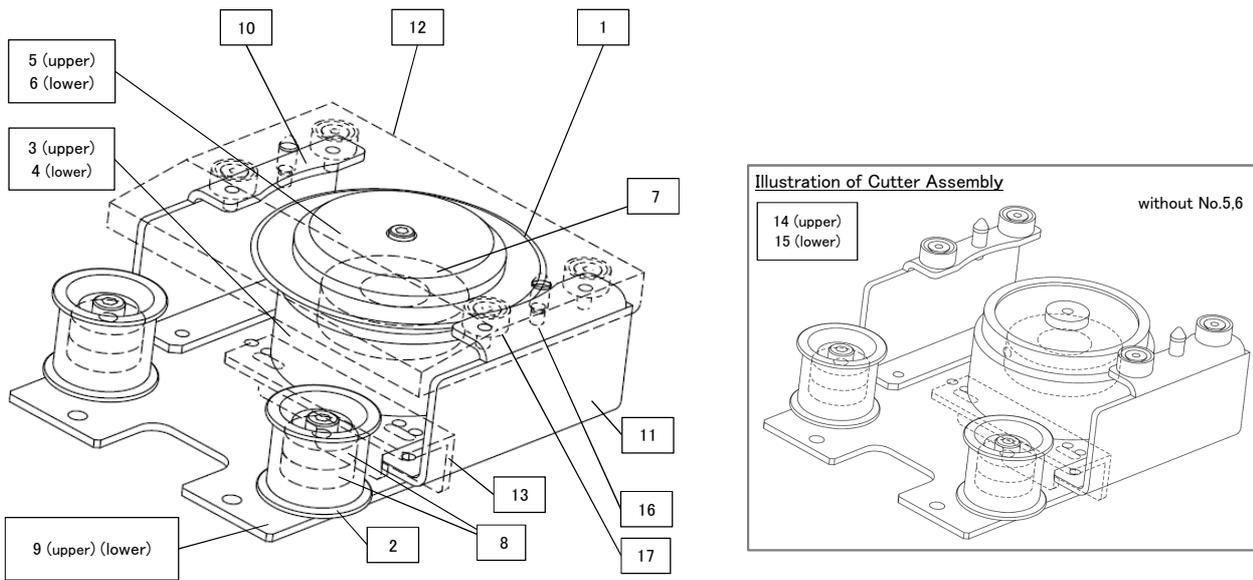


Table 2-2 Laminate Unit-Cutter Module - detail drawing

○...630up common (630up共通)

Item	Part no.of L to R	Part no.of R to L	Product description		Qty	Parts information
○	1	←	Cutter	カッター刃	2	
○	2	←	Roller	ローラー	4	
○	3	←	Holder base	ホルダーベース(上部)	1	for upper
○	4	←	Holder base	ホルダーベース(下部)	1	for lower
○	5	←	Holder	カッターホルダー(上部)	1	for upper
○	6	←	Holder	カッターホルダー(下部)	1	for lower
○	7	←	Bearing	ベアリング	2	
○	8	←	Bearing	ベアリング	8	
○	9	←	Base plate	ベースプレート(上部・下部)	2	#508~ (Rev 1.3)
	10	M1C2503A1	Bracket	ブラケット	2	#508~ (Rev 1.3)
	11	M1C2503A1	Bracket	ブラケット	2	#508~ (Rev 1.3)
	12	M1C2504A1	Cover	カバー	2	#508~ (Rev 1.3)
	13	M1C2008A1	Sensordogu	センサードグ	1	#508~ (Rev 1.3)
	14	2200280A5	Cutter assembly	カッターユニット組品(上部)	1	for upper #508~ (Rev 1.3)
	15	2200280A6	Cutter assembly	カッターユニット組品(下部)	1	for lower #508~ (Rev 1.3)
	16	1300202A1	Pin	位置決めピン	4	#508~ (Rev 1.4)
	17	0200088A1	Magnet	マグネット	8	#508~ (Rev 1.4)

[Fig. 2-3 Laminate Unit-Cutter Module Cutter traveling - detail drawing]

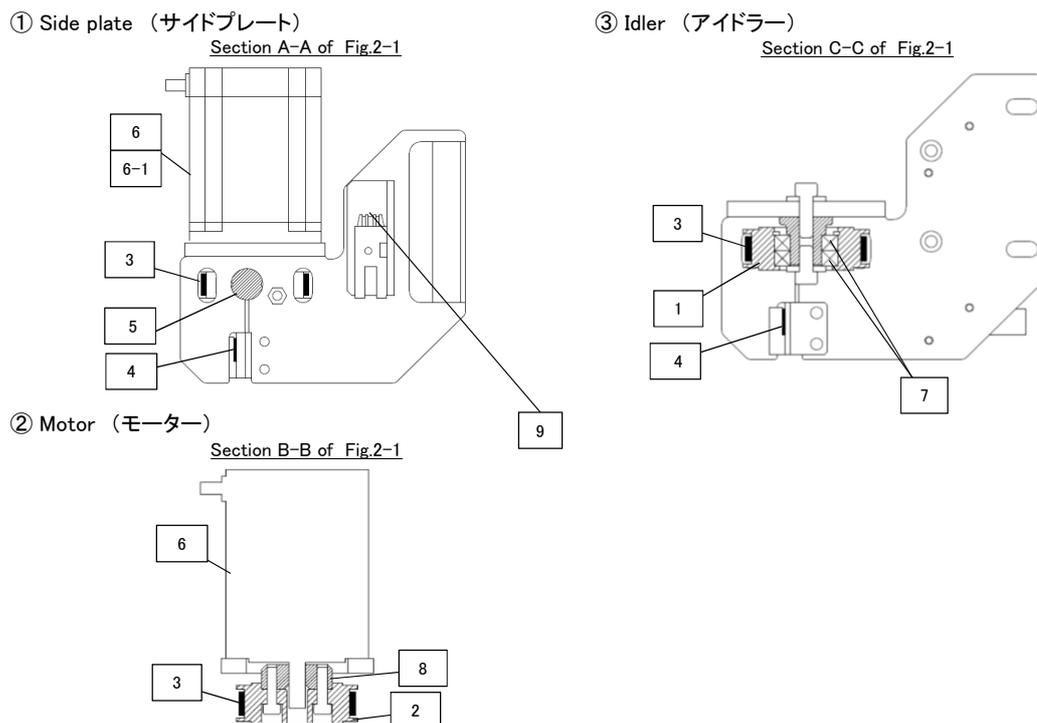
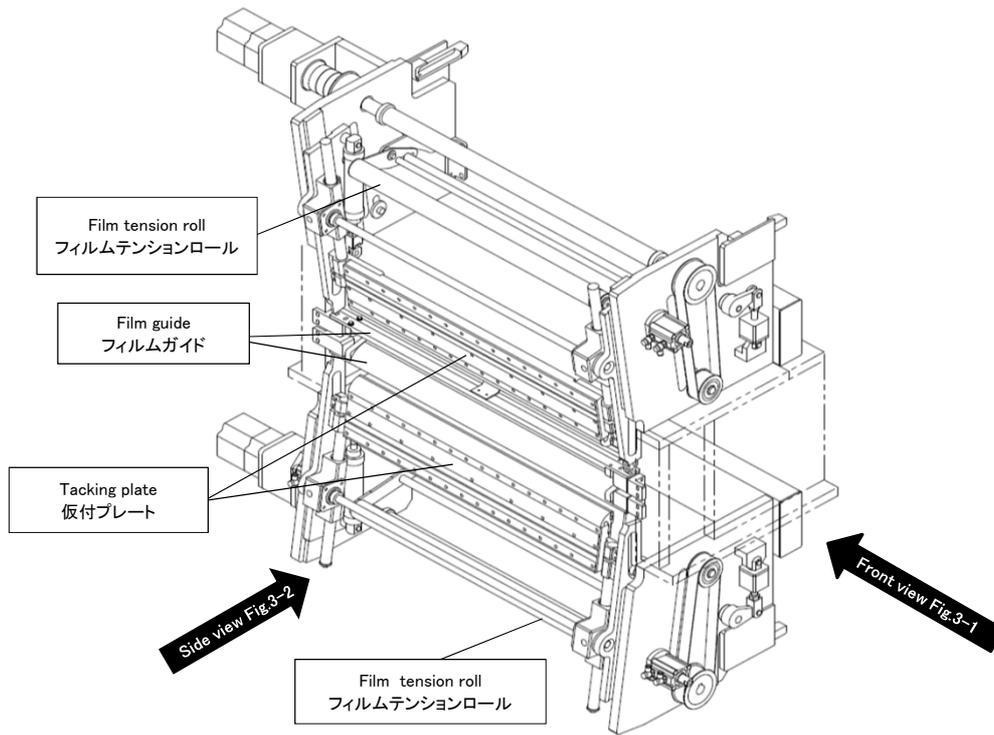


Table 2-3 Laminate Unit-Cutter Module Cutter traveling - detail drawing

○...630up common (630up共通)

Item	Part no.of L to R	Part no.of R to L	Product description		Qty	Parts information
○ 1	00A01417	←	Timing pulley	タイミングプーリー	2	
○ 2	00A01418	←	Timing pulley	タイミングプーリー	2	
○ 3	018052	←	Timing belt	タイミングベルト	2	
○ 4	018045	←	Flat belt	フラットベルト	2	#512~ (Rev 1.3.3)
5	3900732A1	←	Ball spline shaft	ボールスプラインシャフト	2	
6	4700516A1	←	Motor	ステッピングモーター	2	motor only (Rev 1.3.3)
6-1	4700198A2	←	Motor driver	ドライバー	2	driver only (Rev 1.3.3)
7	045067	←	Bearing	ベアリング	4	
○ 8	00A01419	←	Pullyboss	セットカラ	2	
○ 9	6800258A1	←	Photo sensor	マイクロフォトセンサー	8	#514~ Table2-1参照 (Rev 1.3)

[Fig. 3 Laminate Unit-Tacking Block-Film Tension Roll]



[Fig. 3-1 Laminate Unit-Tacking Block-Film Tension Roll Front view]

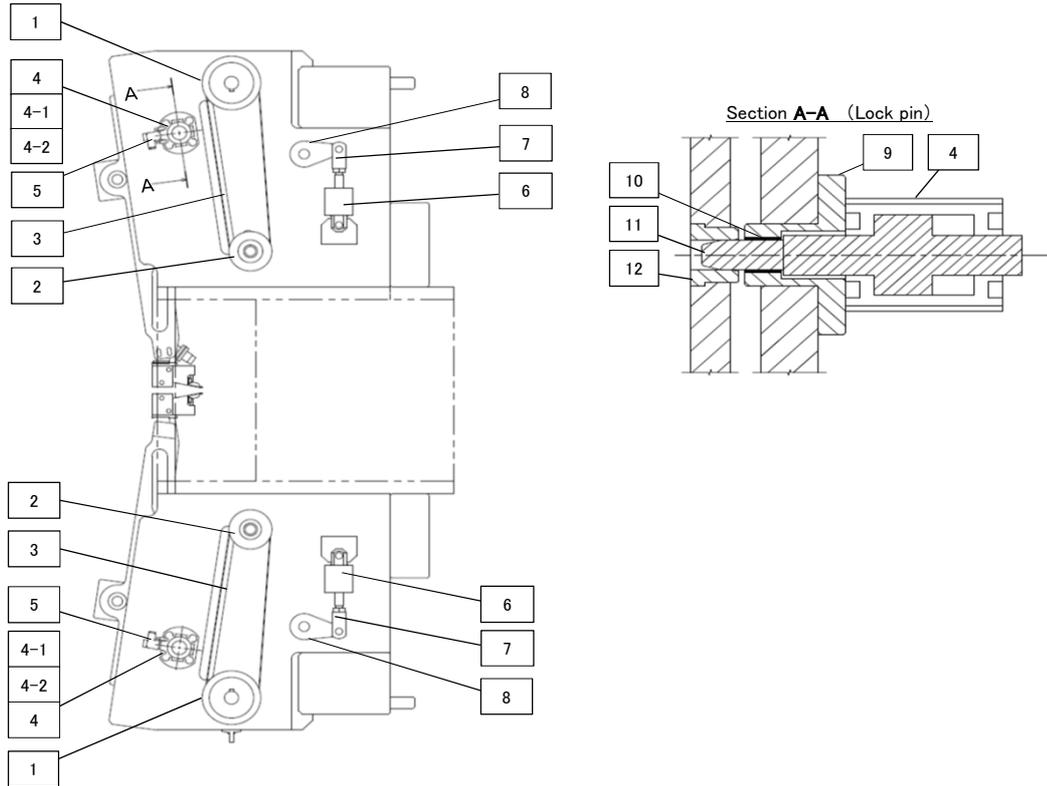


Table 3-1 Laminate Unit-Tacking Block-Film Tension Roll Front view

○...630up common (630up共通)

Item	Part no. of L to R	Part no. of R to L	Product description		Qty	Parts information
1	3800710A1	←	Timing pulley	ハイトルクタイミングプーリー	4	(Rev 1.4)
2	3800722A1	←	Idler with flange	フランジ付 歯付アイドラー	4	(Rev 1.4)
3	3800580A1	←	Timing belt	タイミングベルト	4	(Rev 1.3)
4	4200302A1	←	Air cylinder	エアシリンダー	4	with sensor (Rev 1.3.3)
4-1	4200341A1	←	Air cylinder	エアシリンダー	4	Air cylinder only of No.4 (Rev 1.3.3)
4-2	006046	←	Sensor	シリンダーオートスイッチ	4	sensor only of No.4 (Rev 1.3.3)
5	4300549A1	←	Speed controller	スピードコントローラー	8	(Rev 1.3)
6	4200475A1	←	Air cylinder	エアシリンダー	2	
7	4200120A1	←	Knuckle joint	二山ナックルジョイント	2	
○ 8	00A06021	←	Cylinder arm	シリンダーアーム	2	
9	M1D0007A1	←	Cylinder base	シリンダーベース	4	
○ 10	044057	←	Bushing	ブッシュ	4	
11	M1D0051A1	←	Pin	ピン	4	
12	1100093A1	←	Pin bushing	ピンブッシュ	4	(Rev 1.4)

[Fig. 3-2 Laminate Unit-Tacking Block-Film Tension Roll Side view]

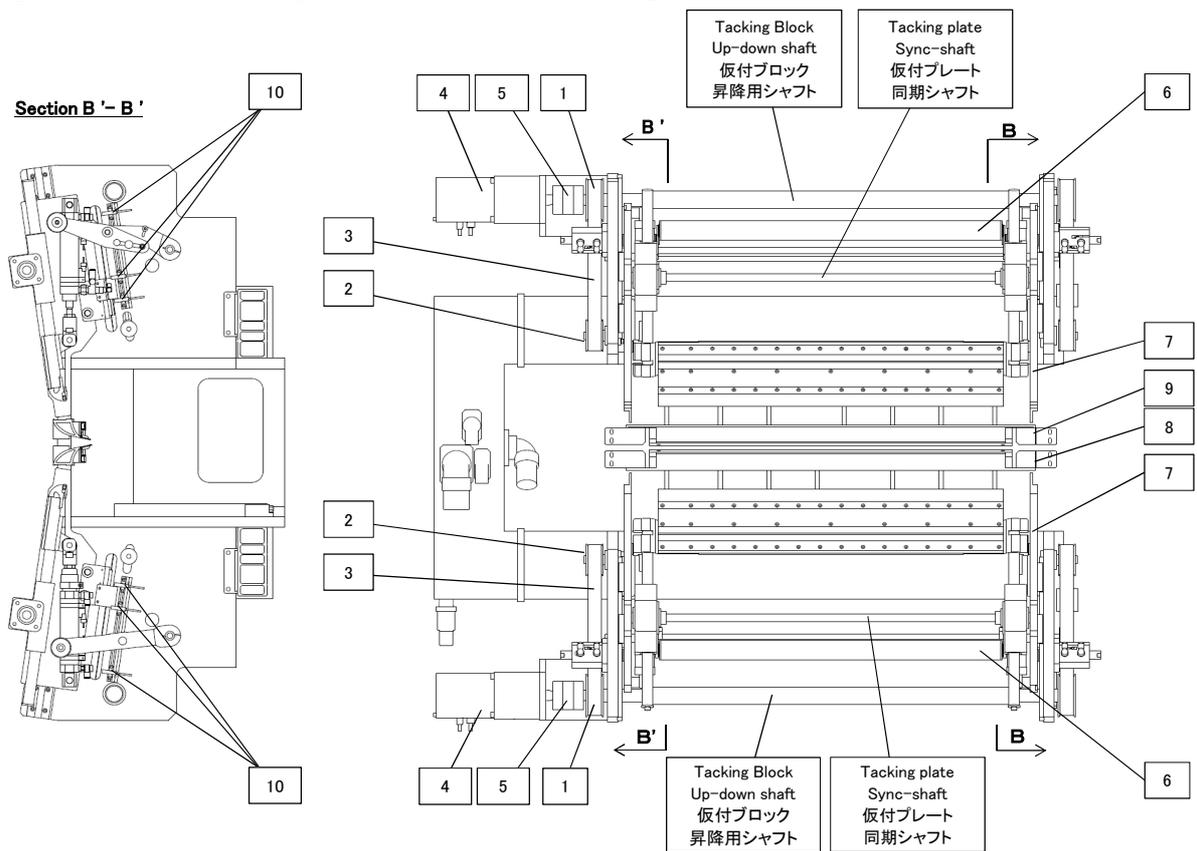


Table 3-2 Laminate Unit-Tacking Block-Film Tension Roll Side view

○...630up common (630up共通)

Item	Part no.of L to R	Part no.of R to L	Product description	Qty	Parts information
1	3800710A1	←	Timing pulley	4	(Rev 1.4)
2	3800722A1	←	Idler with flange	4	(Rev 1.4)
3	3800580A1	←	Timing belt	4	(Rev 1.3)
4	4700404A1	←	Motor	2	with motor controller
5	3300153A1	←	Coupling	2	(Rev 1.3)
○ 6	00P01201	←	Tension roll assembly	2	to see Fig3-5 (Rev 1.3)
7	2200760A1	←	Tacking plate assembly	2	to see Fig3-6 (Rev 1.3)
8	2200745A1	←	Film guide assembly (lower)	1	to see Fig3-7 (Rev 1.3)
9	2200745A5	←	Film guide assembly (upper)	1	to see Fig3-7 (Rev 1.3)
10	6800274A1	←	Photo sensor	6	(Rev 1.3.3)

[Fig. 3-3 Laminate Unit-Tacking Block-Film Tension Roll detail drawing]

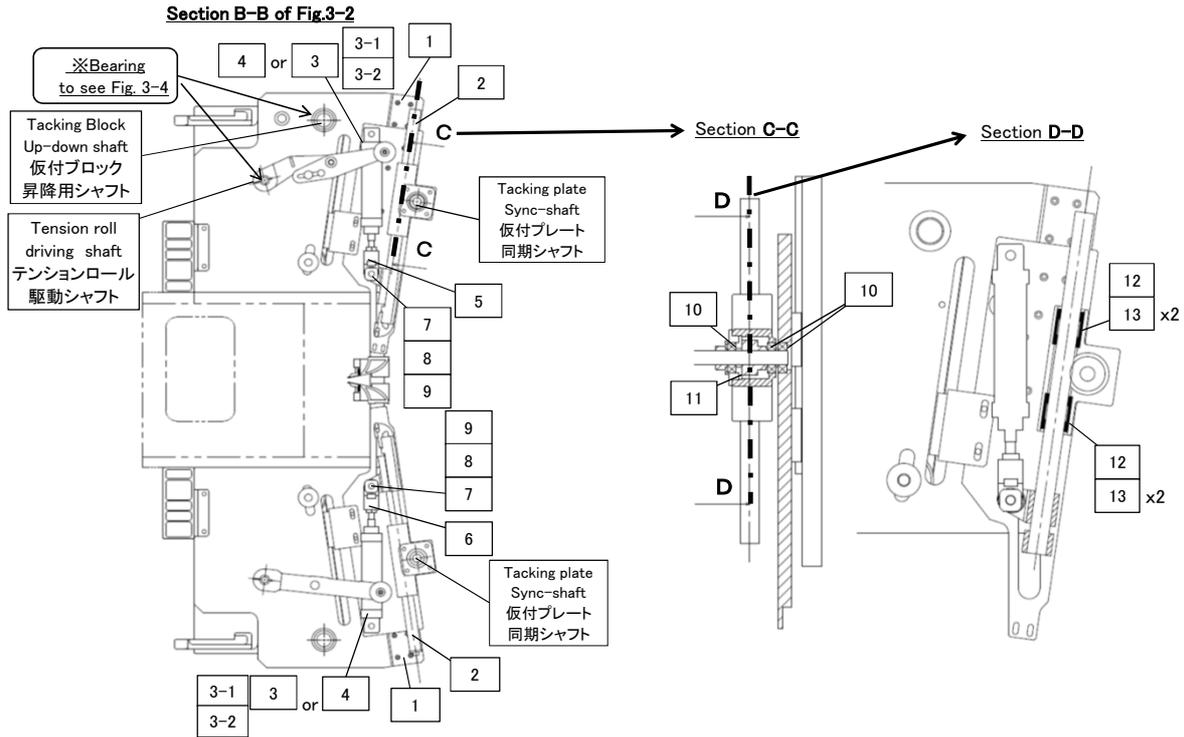


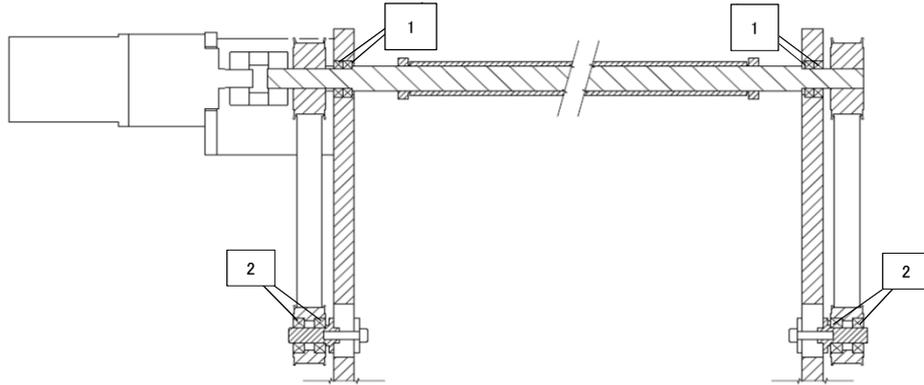
Table 3-3 Laminate Unit-Tacking Block-Film Tension Roll detail drawing

○...630up common (630up共通)

Item	Part no.of L to R	Part no.of R to L	Product description		Qty	Parts information
1	3900798A1	←	Linearway	リニアウェイ	4	
2	M1D0052A1	←	Rack shaft	ラックシャフト	4	
○ 3	021032	←	Air cylinder	エアシリンダー	2	with sensor
3-1	022026	←	Sensor	シリンダーオートスイッチ	2	
3-2	4300549A1	←	Speed controller	スピードコントローラー	4	(Rev 1.3)
○ 4	021033	←	Air cylinder	エアシリンダー	2	without sensor
○ 5	00A06039	←	Knuckle joint	ナックルジョイント	2	
○ 6	00A06040	←	Knuckle joint	ナックルジョイント	2	
○ 7	00A01353	←	Nut	ナット	4	(Rev 1.4)
○ 8	3900933A1	←	Cam follower	カムフォロア	2	#528~ (Rev 1.3)
○ 9	044008	←	Bushing	ブッシュ	4	
○ 10	045002	←	Bearing	ベアリング	12	
○ 11	M1D0053A1	←	Spur gear	平歯車	4	
12	1500819A1	←	Collar	金属カラー	8	
13	044722	←	Bushing	ブッシュ	16	

[Fig. 3-4 Laminate Unit-Tacking Block-Film Tension Roll Bearing]

① Tacking Block up-down driving shaft (仮付ブロック昇降用シャフト)



② Tension roll driving shaft (テンションロール駆動シャフト)

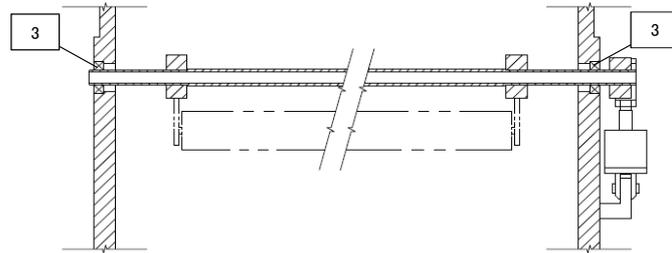


Table 3-4 Laminate Unit-Tacking Block-Film Tension Roll Bearing

○…630up common (630up共通)

Item	Part no.of L to R	Part no.of R to L	Product description		Qty	Parts information
1	045064	←	Bearing	ベアリング	8	
2	045004	←	Bearing	ベアリング	8	
3	045002	←	Bearing	ベアリング	4	

[Fig. 3-5 Laminate Unit-Tacking Block-Film Tension Roll Illustration of Tension roll assembly details]

Tension roll assembly (Upper·Lower) - テンションロール組品 (上部・下部)

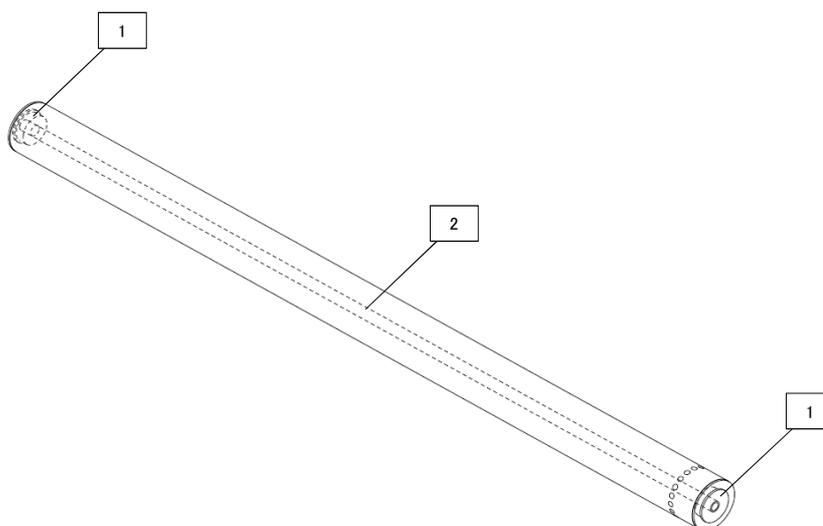


Table 3-5 Laminate Unit-Tacking Block-Film Tension Roll Illustration of Tension roll assembly details

○…630up common (630up共通)

Item	Part no.of L to R	Part no.of R to L	Product description		Qty	Parts information
1	0500306A1	←	Bearing	ベアリング	4	(Rev 1.3)
2	00A01203	←	Shaft	シャフト	2	(Rev 1.4)

[Fig. 3-6 Laminate Unit-Tacking Block-Film Tension Roll Illustration of Tacking plate assembly details]

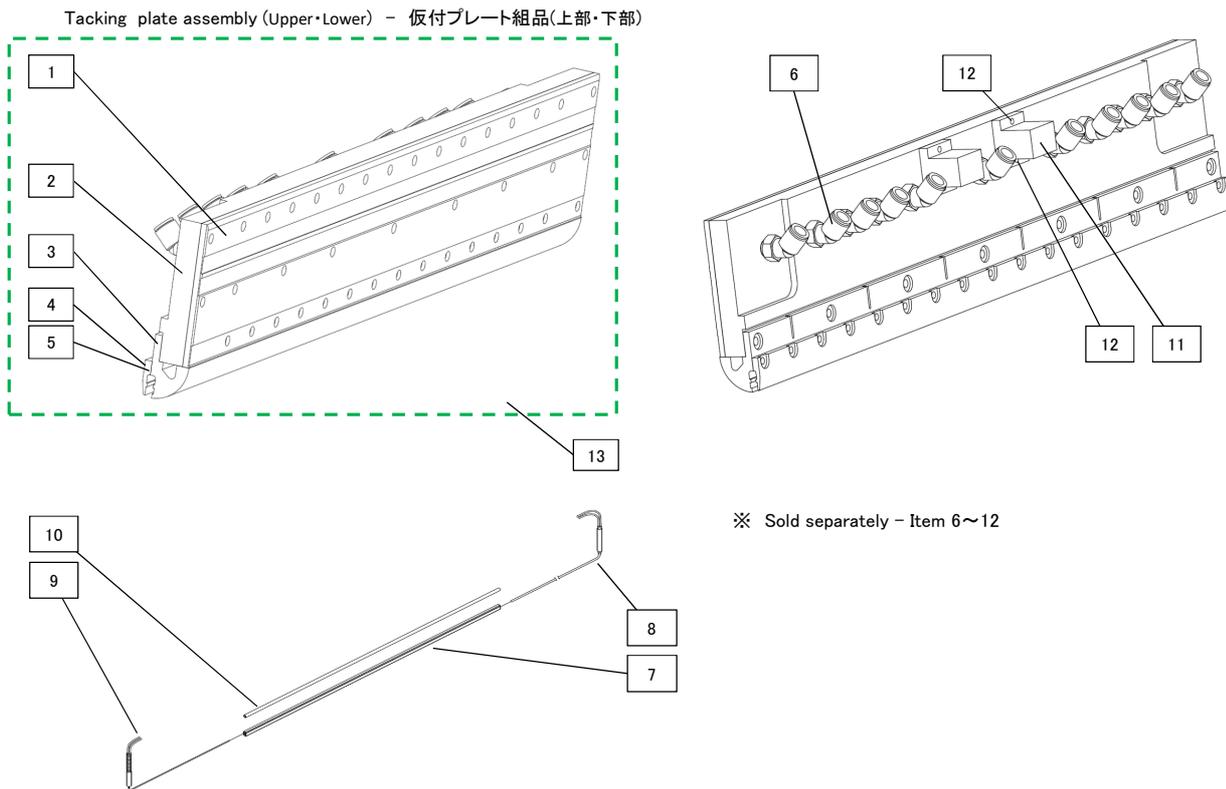


Table 3-6 Laminate Unit-Tacking Block-Film Tension Roll Illustration of Tacking plate assembly details

○...630up common (630up共通)

Item	Part no.of L to R	Part no.of R to L	Product description	Qty	Parts information
○	1	00A01301	← Vacuum plate	2	(Rev 1.4)
	2	M1D0021D1	← Vacuum base	2	(Rev 1.3)
○	3	00A01303	← Vacuum base tip	2	(Rev 1.4)
○	4	00A01304	← Heater retainer	2	(Rev 1.4)
○	5	00A01305	← Spacer	2	(Rev 1.4)
	6	4400891A1	← Coupler	22	(Rev 1.3)
○	7	11503505	← Tacking rubber	2	(Rev 1.3.1)
○	8	142004	← Tacking heater	2	(Rev 1.3.1)
○	9	106008	← Tacking temperatu sensor	2	(Rev 1.3.1)
○	10	11616401	← Silicon tube	2	(Rev 1.3.3)
	11	7400751A2	← Terminal sits	4	(Rev 1.3.3)
	12	660312	← Screw	8	(Rev 1.3.3)
	13	2200760A1	← Tacking plate assembly	2	(Rev 1.4) Assembly of No.1-5

[Fig. 3-7 Laminate Unit-Tacking Block-Film Tension Roll Illustration of Film guide assembly details]

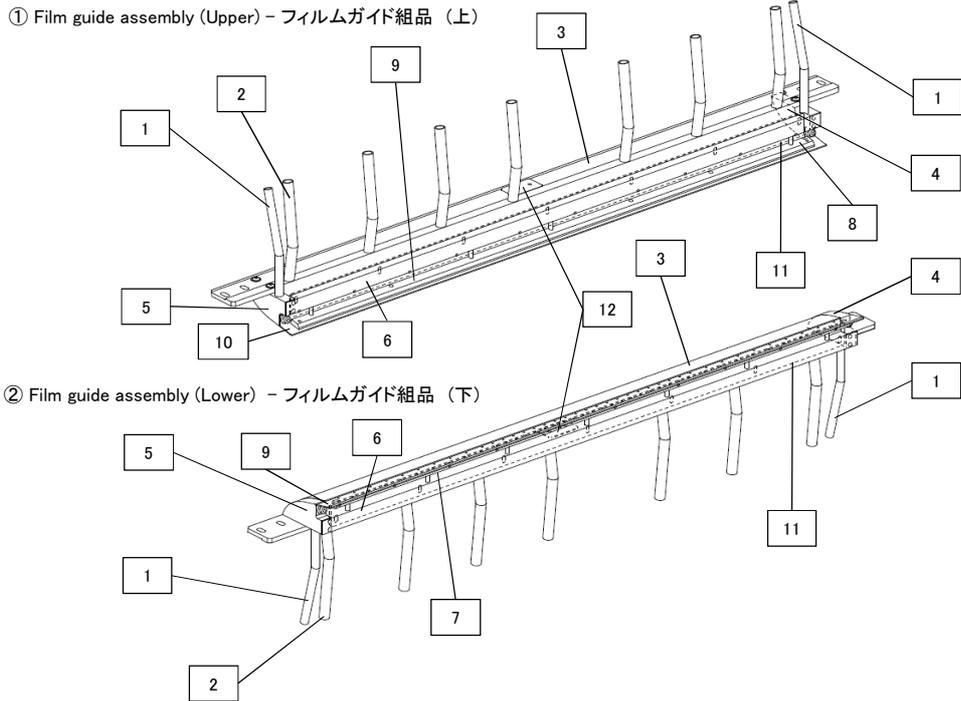
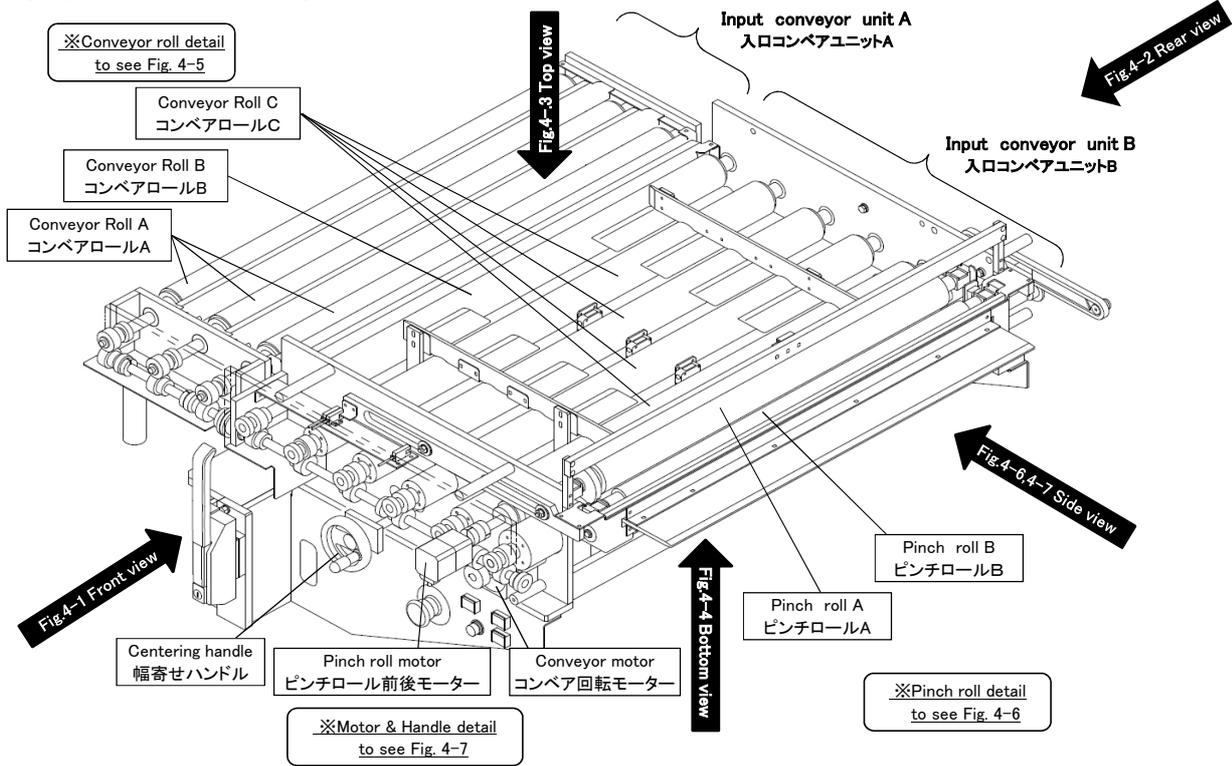


Table 3-7 Laminate Unit-Tacking Block-Film Tension Roll Illustration of Film guide assembly details

○…630up common (630up共通)

Item	Part no. of L to R	Part no. of R to L	Product description	Qty	Parts information
1	00A01557	←	Pipe	4	(Rev 1.4)
2	M1F2007A1	←	Pipe	14	(Rev 1.3)
3	M1F2001C1	←	Film guide	2	(Rev 1.3)
4	M1F2002D1	←	Block	2	(Rev 1.3)
5	M1F2003D1	←	Block	2	(Rev 1.3)
6	M1F2004B1	←	Square pipe	2	(Rev 1.3)
7	M1F2005A1	←	Header (lower)	1	(Rev 1.3)
8	M1F2041A1	←	Header (upper)	1	(Rev 1.3)
9	M1F2006D1	←	Plate (lower)	1	(Rev 1.4)
10	M1F2042C1	←	Plate (upper)	1	(Rev 1.4)
11	M1F2008B1	←	Plate	2	(Rev 1.3)
12	M1F2031B1	←	Spacer	2	(Rev 1.3)

[Fig. 4 Input Conveyor Unit]



[Fig. 4-1 Input Conveyor Unit - Front view]

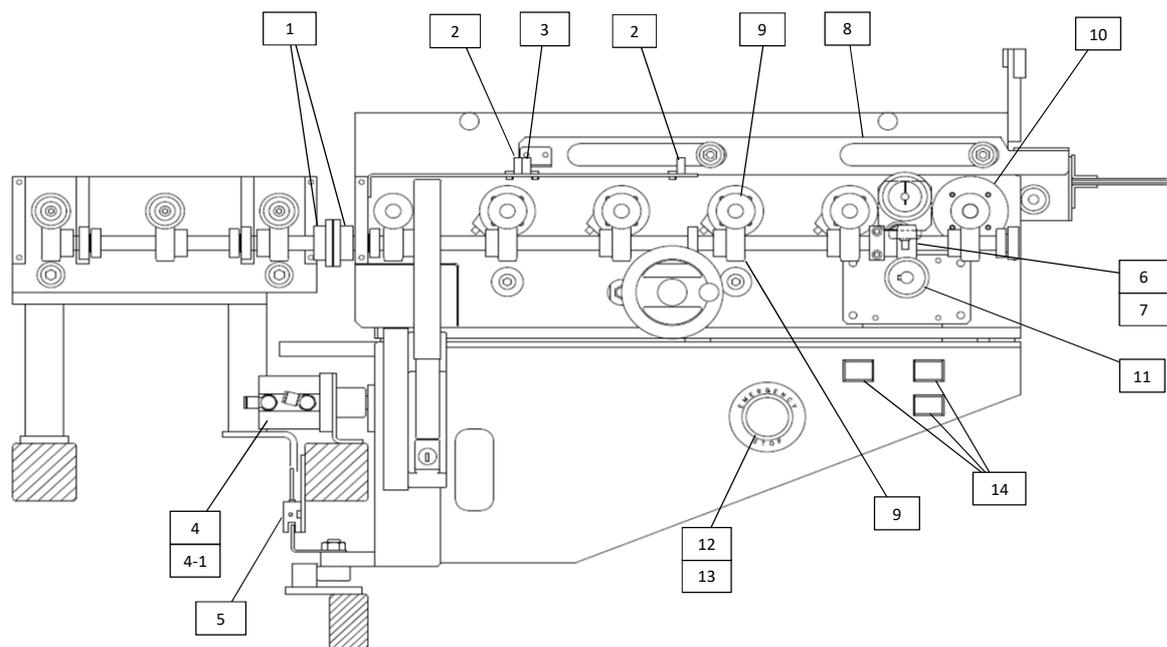


Table 4-1 Input Conveyor Unit - Front view

○...630up common (630up共通)

Item	Part no.of L to R	Part no.of R to L	Product description	Qty	Parts information
1	3800704A6	←	Magtran	2	#514~ (Rev 1.3)
2	6800285A1	←	Photo sensor	2	#514~ (Rev 1.3)
3	6800286A1	←	Photo sensor	2	#514~ (Rev 1.3)
4	4200476A1	←	Air cylinder	1	
4-1	4300549A1	←	Speed controller	2	(Rev 1.3)
5	6800274A1	←	Photo sensor	2	#514~ (Rev 1.3)
6	3800776A1	←	Crossed helical gear	1	
7	3200120A1	←	Key	1	
8	M1J2046A1	←	Slide plate	2	
9	3800764A1	←	Crossed helical gear	17	
10	3800765A1	←	Crossed helical gear	1	
11	3800766A1	←	Crossed helical gear	1	
○ 12	000433	←	Emergency stop switch	1	
○ 13	000434	←	Emergency stop name plate	1	
○ 14	000465	←	Pushbutton switch	3	(YELLOW)

[Fig. 4-2 Input Conveyor Unit - Rear view]

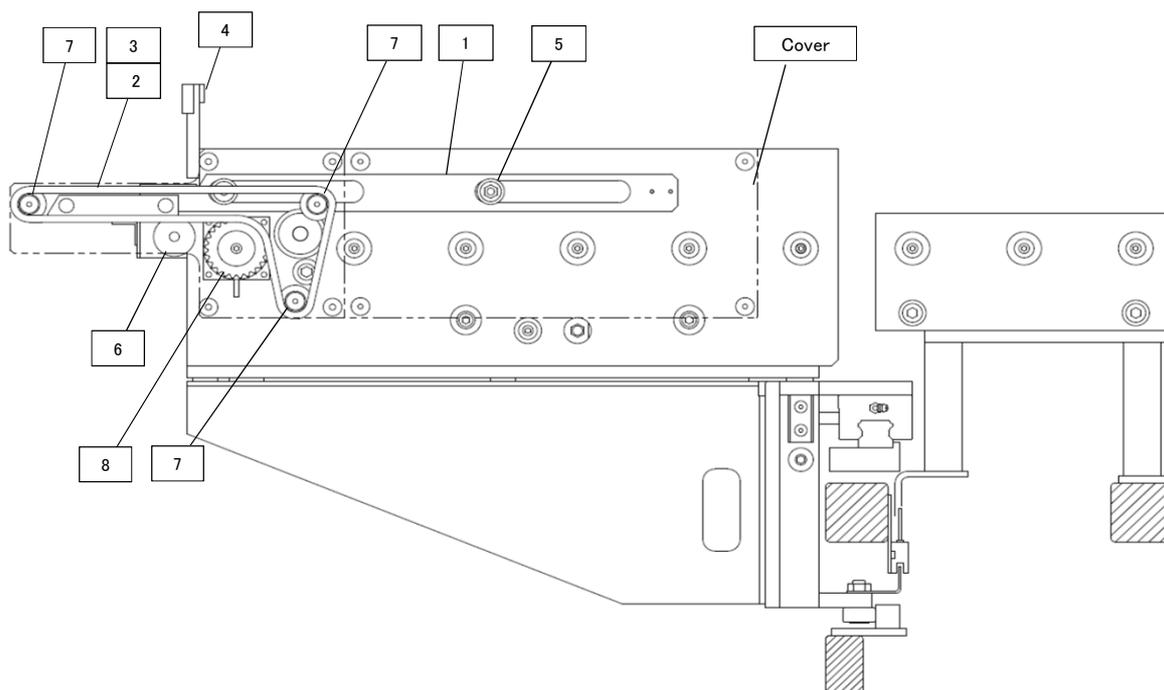


Table 4-2 Input Conveyor Unit - Rear view

○...630up common (630up共通)

Item	Part no.of L to R	Part no.of R to L	Product description		Qty	Parts information
1	M1J2046A1	←	Slide plate	スライドプレート	2	(Rev 1.3)
2	3800014A2	←	Chain	チェン	1	
3	044005	←	Joint link	ジョイントリンク	1	
○ 4	003013	←	Photo sensor	フォトセンサー	1	
○ 5	045077	←	Bearing	ベアリング	8	
6	044747	←	Sprocket	スプロケット	1	
7	M1J0058A1	←	Sprocket	スプロケット	3	
8	M1J0062A1	←	Sprocket	スプロケット	1	

[Fig. 4-3 Input Conveyor Unit - Top view]

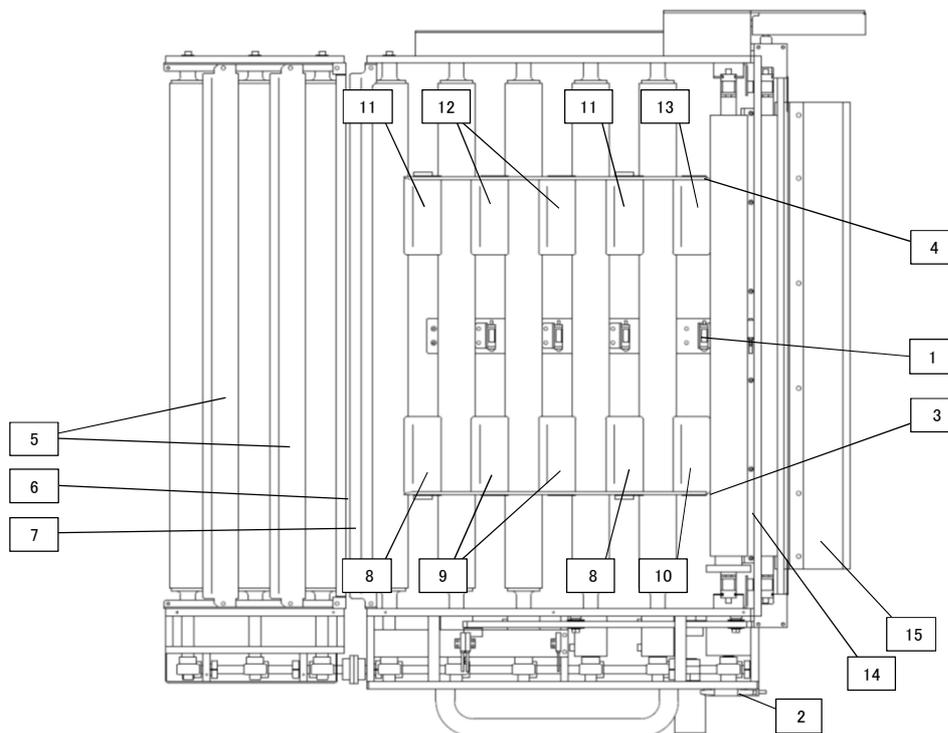


Table 4-3 Input Conveyor Unit - Top view

○...630up common (630up共通)

Item	Part no.of L to R	Part no.of R to L	Product description	Qty	Parts information
○ 1	003015	←	Photo sensor	4	
○ 2	006048	←	Photo sensor amplifier	1	
○ 3	M1J2038A1	←	Centering bar	1	
○ 4	M1J2039A1	←	Centering bar	1	
○ 5	M1J0151A1	←	Auxiliary plate	2	option
○ 6	M1J2152A1	←	Auxiliary plate	1	option
○ 7	M1J2154A1	←	Auxiliary plate	1	option
○ 8	00A02507	00A02508	Auxiliary plate	2	option (Rev 1.4)
○ 9	00A02505	00A02506	Auxiliary plate	2	option (Rev 1.4)
○ 10	00A02503	00A02504	Auxiliary plate	1	option (Rev 1.4)
○ 11	00A02508	00A02507	Auxiliary plate	2	option (Rev 1.4)
○ 12	00A02506	00A02505	Auxiliary plate	2	option (Rev 1.4)
○ 13	00A02504	00A02503	Auxiliary plate	1	option (Rev 1.4)
○ 14	00A05031	←	Auxiliary plate	1	option #508~ (Rev 1.4)
○ 15	M1J0066A1	←	Holding guide	2	

[Fig. 4-4 Input Conveyor Unit - Bottom view]

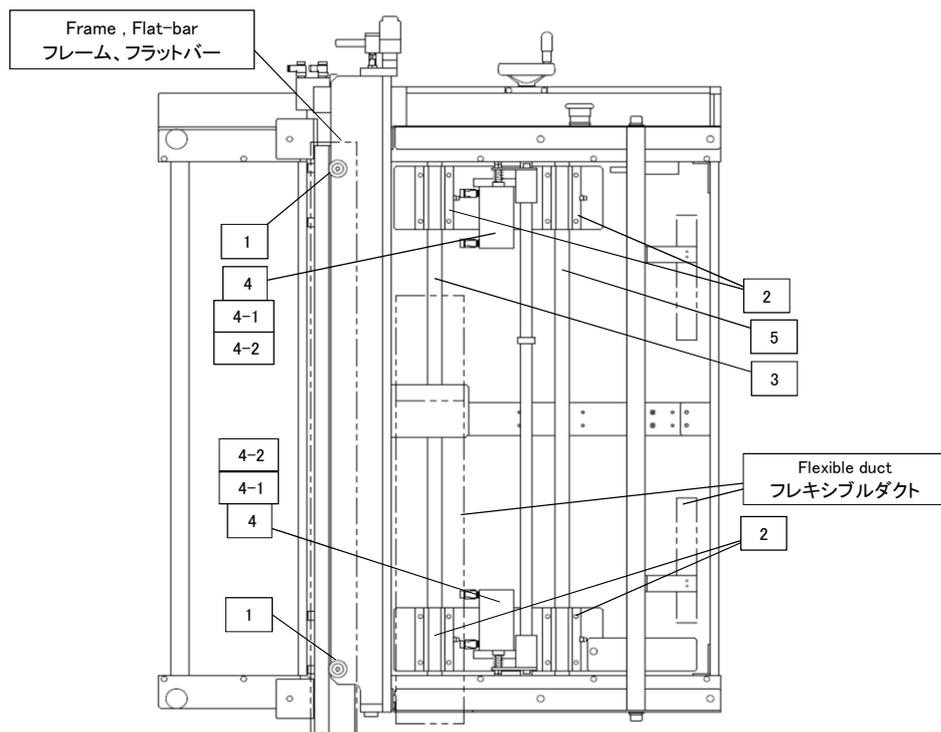


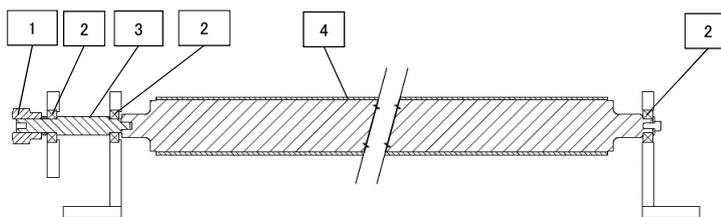
Table 4-4 Input Conveyor Unit - Bottom view

○...630up common (630up共通)

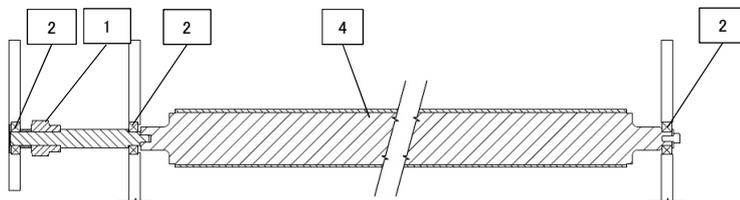
Item	Part no.of L to R	Part no.of R to L	Product description		Qty	Parts information
1	3900933A1	←	Cam follower	カムフォロア	2	#528~ (Rev 1.3)
2	3900599A1	←	Linear bush housing unit	リニアブッシュハウジングユニット	4	#522~ (Rev 1.4)
3	0300594A1	←	Shaft	シャフト	1	#508~ (Rev 1.4)
4	4200473A1	←	Air cylinder	エアシリンダー	2	with auto switch
4-1	4200229A1	←	Sensor	無接点オートスイッチ	2	
4-2	4300549A1	←	Speed controller	スピードコントローラー	4	(Rev 1.3)
5	0300561A1	←	Shaft	シャフト	1	#508~ (Rev 1.4)

[Fig. 4-5 Input Conveyor Unit - Conveyor roll detail]

① Conveyor roll A (コンベアロールA)



② Conveyor roll B (コンベアロールB)



③ Conveyor roll C (コンベアロールC)

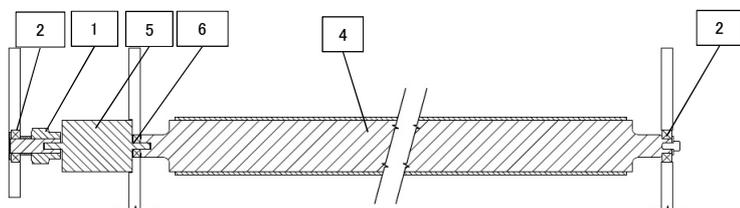


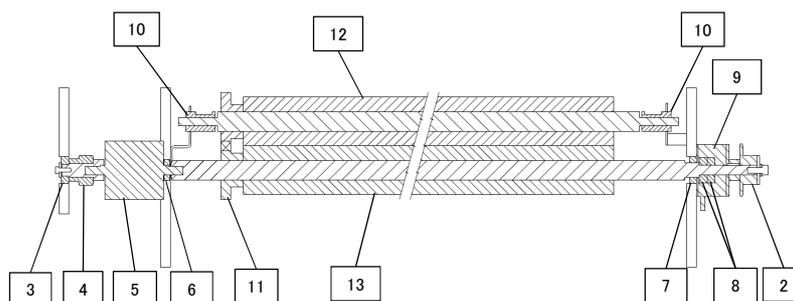
Table 4-5 Input Conveyor Unit - Conveyor roll detail

○...630up common (630up共通)

Item	Part no. of L to R	Part no. of R to L	Product description		Qty	Parts information
1	3800764A1	←	Crossed helical gear	ねじ歯車	17	
2	045005	←	Bearing	ベアリング	28	
3	M1J0049A1	←	Shaft	シャフト	3	
4	M1J0001C1	←	Roll	前コンベアロール	8	
○ 5	018015	←	Clutch&Brake	クラッチ&ブレーキ	4	
6	0500012A1	←	Bearing	ベアリング	4	

[Fig. 4-6 Input Conveyor Unit - Pinch roll detail]

① Pinch roll A (ピンチロールA)



② Pinch roll B (ピンチロールB)

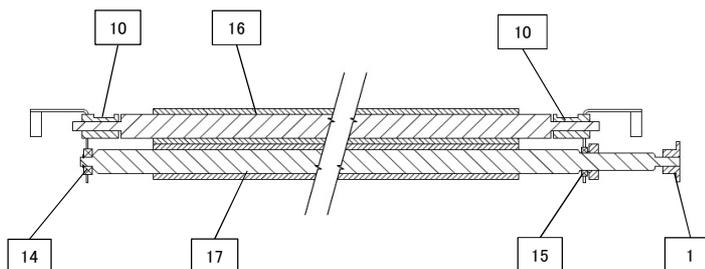


Table 4-6 Input Conveyor Unit - Pinch roll detail

○...630up common (630up共通)

Item	Part no.of L to R	Part no.of R to L	Product description	Qty	Parts information
	1 044747	←	Sprocket	1	
	2 M1J0062A1	←	Sprocket	1	
	3 045005	←	Bearing	28	
	4 3800765A1	←	Crossed helical gear	1	
○	5 018021	←	Clutch	1	
	6 045602	←	Bearing	1	
	7 045035	←	Bearing	1	
	8 045006	←	Bearing	3	
○	9 018022	←	Brake	1	
	10 00A06030	←	Slide housing	4	
○	11 00A02223	←	Spur gear	2	
	12 M1J0003B1	←	Roll	1	upper pinch roll
	13 M1J0002B1	←	Roll	1	lower pinch roll
○	14 045076	←	Bearing	1	
	15 0500296A1	←	Bearing	1	
	16 M1J0004B1	←	Roll	1	upper pinch roll
	17 M1J2005B1	←	Roll	1	lower pinch roll

[Fig. 4-7 Input Conveyor Unit – Conveyor motor – Centering handle detail]

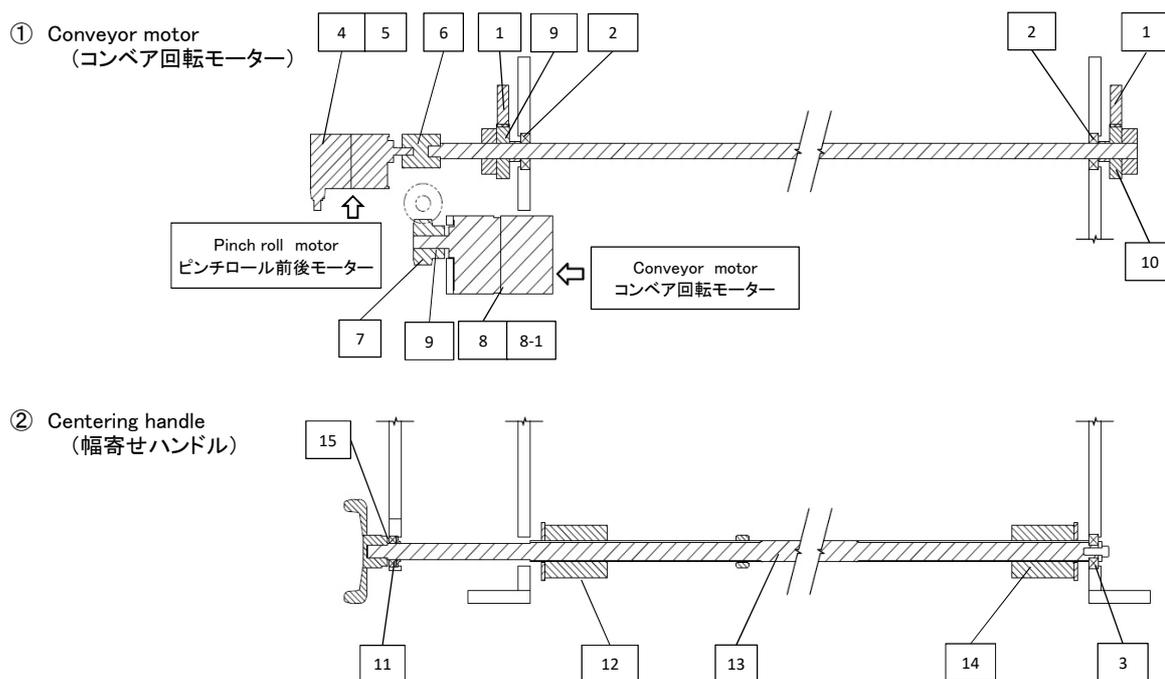
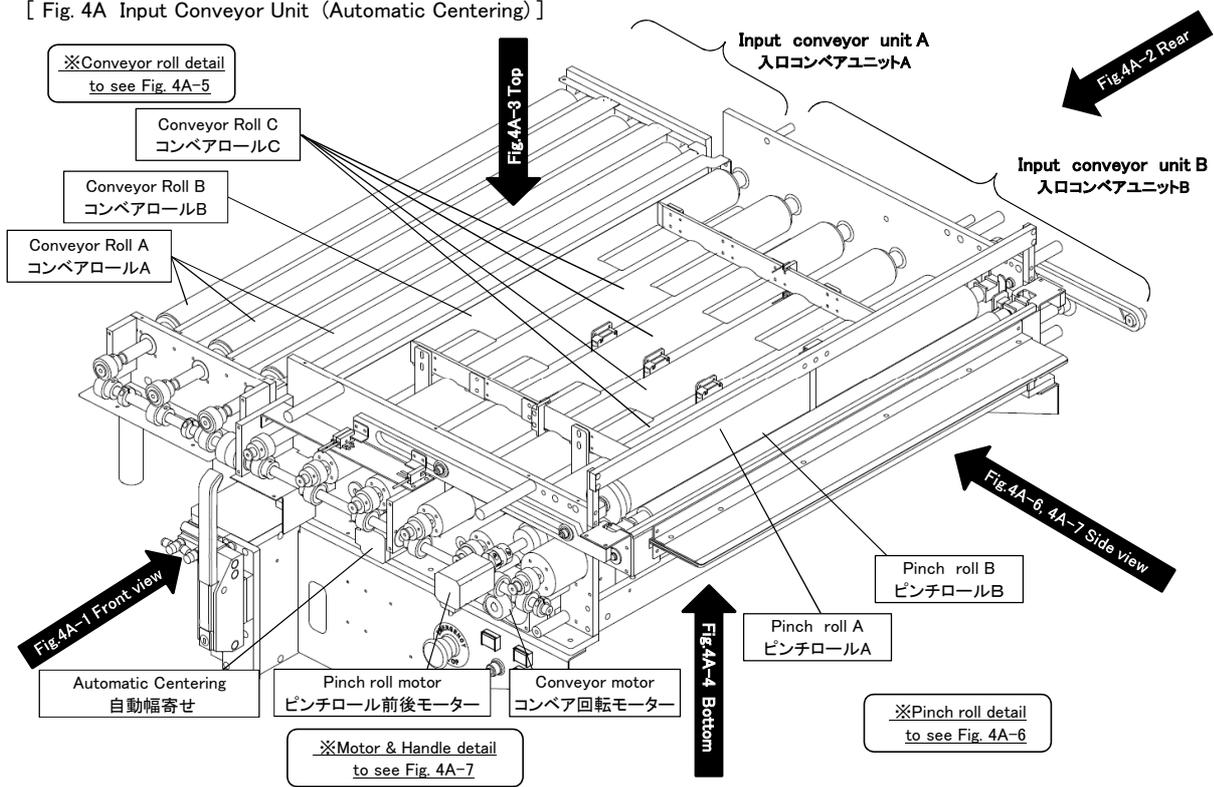


Table 4-7 Input Conveyor Unit – Conveyor motor – Centering handle detail

○…630up common (630up共通)

Item	Part no.of L to R	Part no.of R to L	Product description	Qty	Parts information
1	M1J2046A1	←	Slide plate	2	
2	045005	←	Bearing	28	
3	045006	←	Bearing	3	
4	4700410A1	←	Motor	1	
5	4700411A1	←	Motor controller	1	#503~ to see Fig.8 (Rev 1.3)
6	3300108A1	←	Coupling	1	
7	3800766A1	←	Crossed helical gear	1	
8	4700512A1	←	Motor	1	motor only (Rev 1.3.3)
8-1	4700513A1	←	Motor driver	1	driver only (Rev 1.3.3)
9	044043	←	Key	1	also included in No8
10	M1J0045A1	←	Gear	2	
11	045067	←	Bearing	1	
12	M1J0061A1	←	Nut	1	left handed screw
13	M1J2043B1	←	Adjusting screw rod	1	
14	M1J0060A1	←	Nut	1	right handed screw
15	00A02146	←	Silicon packing	1	(Rev 1.3)

[Fig. 4A Input Conveyor Unit (Automatic Centering)]



[Fig. 4A-1 Input Conveyor Unit (Automatic Centering) - Front view]

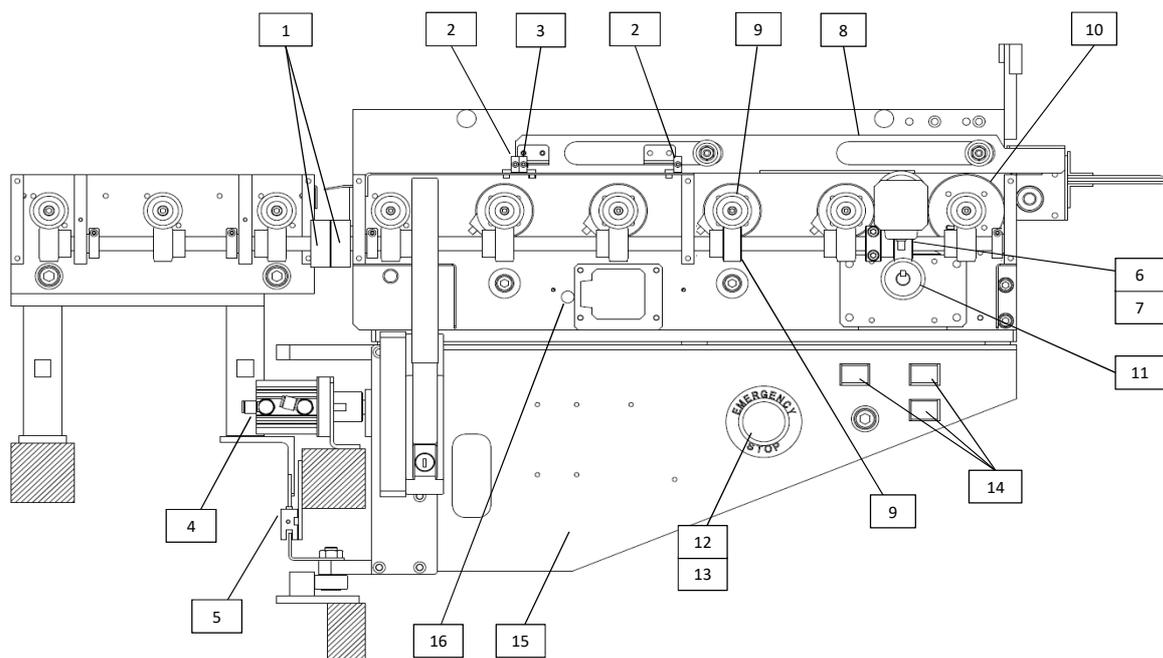


Table 4A-1 Input Conveyor Unit (Automatic Centering) - Front view

○...630up common (630up共通)

Item	Part no.of L to R	Part no.of R to L	Product description	Qty	Parts information
1	3800704A6	←	Magtran	2	#514~ (Rev 1.3)
2	6800285A1	←	Photo sensor	2	#514~ (Rev 1.3)
3	6800286A1	←	Photo sensor	2	#514~ (Rev 1.3)
4	4200476A1	←	Air cylinder	1	
5	6800274A1	←	Photo sensor	2	#514~ (Rev 1.3)
6	3800776A1	←	Crossed helical gear	1	
7	3200120A1	←	Key	1	
8	M1J2046A1	←	Slide plate	2	
9	3800764A1	←	Crossed helical gear	17	
10	3800765A1	←	Crossed helical gear	1	
11	3800766A1	←	Crossed helical gear	1	
○ 12	000433	←	Emergency stop switch	1	
○ 13	000434	←	Emergency stop name plate	1	
○ 14	000465	←	Pushbutton switch	3	(YELLOW)
15	M1J4108B1	M1J4508C1	Rib plate	1	(Rev 1.2)
16	1300183A1	←	Knock pin	2	(Rev 1.2)

[Fig. 4A-2 Input Conveyor Unit (Automatic Centering) – Rear view]

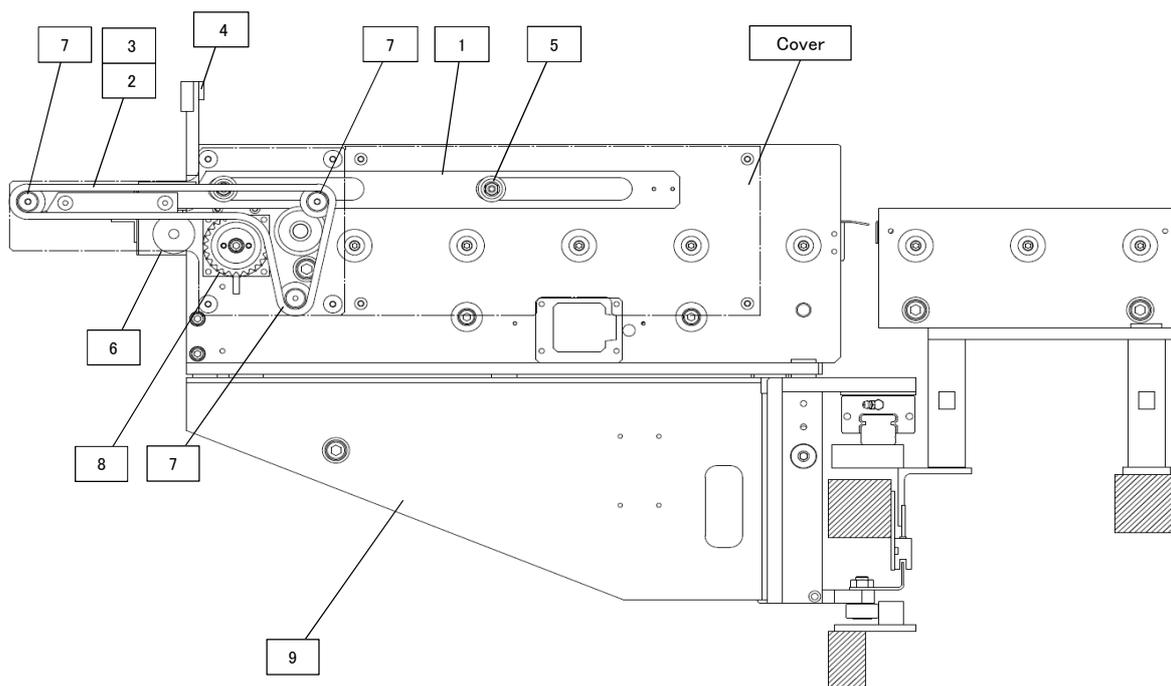


Table 4A-2 Input Conveyor Unit (Automatic Centering) – Rear view

○...630up common (630up共通)

Item	Part no.of L to R	Part no.of R to L	Product description		Qty	Parts information
1	M1J2046A1	←	Slide plate	スライドプレート	2	
2	3800014A2	←	Chain	チェーン	1	(Rev 1.3)
3	044005	←	Joint link	ジョイントリンク	1	
○ 4	003013	←	Photo sensor	フォトセンサー	1	
○ 5	045077	←	Bearing	ベアリング	8	
6	044747	←	Sprocket	スプロケット	1	
7	M1J0058A1	←	Sprocket	スプロケット	3	
8	M1J0062A1	←	Sprocket	スプロケット	1	
9	M1J4107B1	M1J4507B1	Rib plate	リブプレート	1	(Rev 1.2)

[Fig. 4A-3 Input Conveyor Unit (Automatic Centering) - Top view]

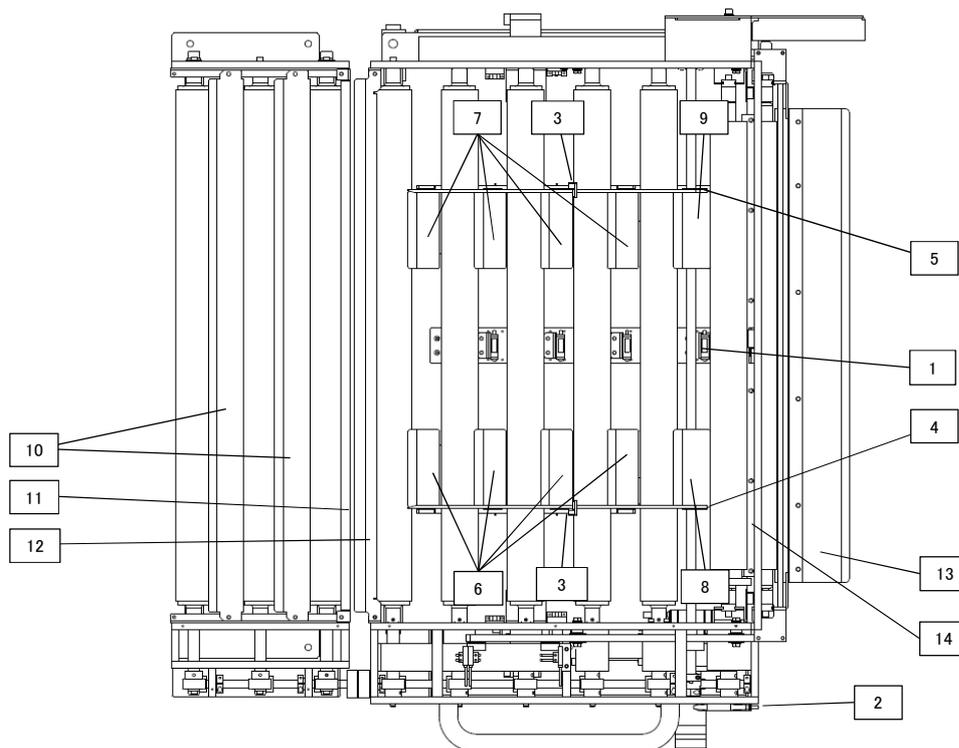


Table 4A-3 Input Conveyor Unit (Automatic Centering) - Top view

○...630up common (630up共通)

Item	Part no.of L to R	Part no.of R to L	Product description	Qty	Parts information
○ 1	003015	←	Photo sensor	4	
○ 2	6800068A1	←	Amplifier unit	1	(Rev 1.2)
○ 3	6800229A3	←	Fiber unit	1	(Rev 1.2)
○ 4	M1J4012A1	←	Centering guide	1	(Rev 1.2)
○ 5	M1J4013A1	←	Centering guide	1	(Rev 1.2)
○ 6	M1J4014A1	←	Auxiliary plate	4	option (Rev 1.2)
○ 7	M1J4015A1	←	Auxiliary plate	4	option (Rev 1.2)
○ 8	00A02503	00A02504	Auxiliary plate	1	option (Rev 1.4)
○ 9	00A02504	00A02503	Auxiliary plate	1	option (Rev 1.4)
○ 10	M1J0151A1	←	Auxiliary plate	2	option
○ 11	M1J2152A1	←	Auxiliary plate	1	option
○ 12	M1J2154A1	←	Auxiliary plate	1	option
○ 13	M1J0066A1	←	Holding guide	2	option
○ 14	M1J5031A1	←	Auxiliary plate	1	option (Rev 1.2)

[Fig. 4A-4 Input Conveyor Unit (Automatic Centering) - Bottom view]

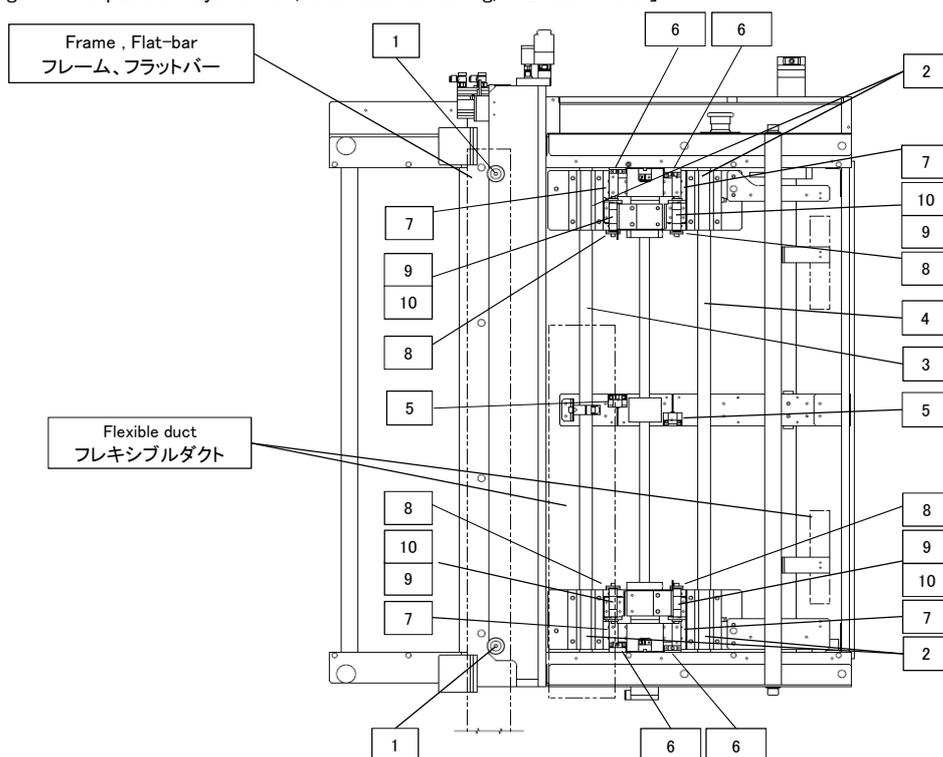


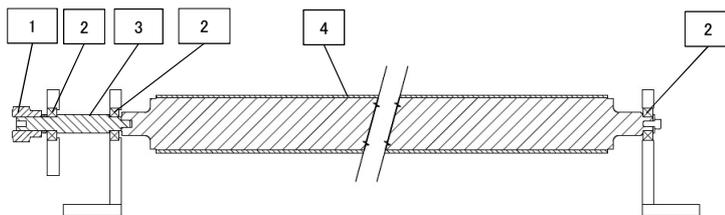
Table 4A-4 Input Conveyor Unit (Automatic Centering) - Bottom view

○...630up common (630up共通)

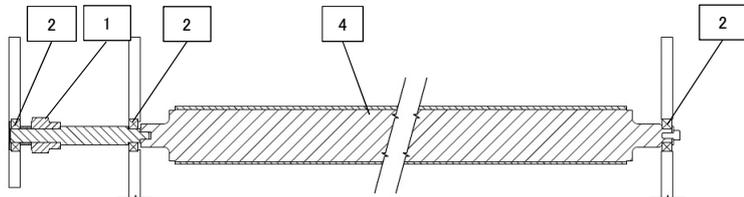
Item	Part no.of L to R	Part no.of R to L	Product description	Qty	Parts information
1	3900933A1	←	Cam follower	2	#528~ (Rev 1.3)
2	3900599A1	←	Linear bush housing unit	4	#522~ (Rev 1.4)
3	0300594A1	←	Shaft	1	#508~ (Rev 1.4)
4	0300561A1	←	Shaft	1	#508~ (Rev 1.3)
5	6800283A1	←	Photo sensor	4	(Rev 1.2)
6	6800281A1	←	Photo sensor	2	(Rev 1.2)
7	3900309A1	←	Linear guide	4	(Rev 1.2)
8	1500059A1	←	Metal Washer	4	(Rev 1.4)
9	0300109A1	←	Round Strut	4	(Rev 1.2)
10	2100312A1	←	Round Coil Spring	4	(Rev 1.4)

[Fig. 4A-5 Input Conveyor Unit (Automatic Centering) - Conveyor roll detail]

① Conveyor roll A (コンベアロールA)



② Conveyor roll B (コンベアロールB)



③ Conveyor roll C (コンベアロールC)

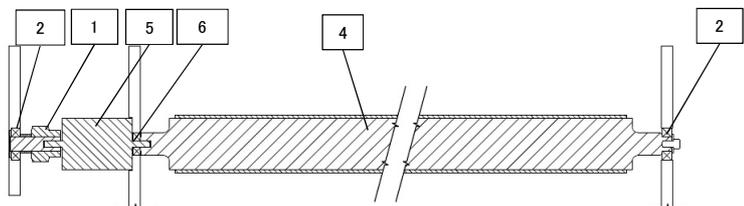


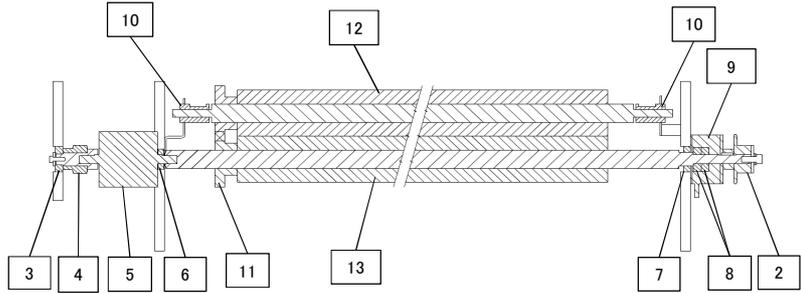
Table 4A-5 Input Conveyor Unit (Automatic Centering) - Conveyor roll detail

○...630up common (630up共通)

Item	Part no. of L to R	Part no. of R to L	Product description		Qty	Parts information
1	3800764A1	←	Crossed helical gear	ねじ歯車	17	
2	045005	←	Bearing	ベアリング	28	
3	M1J0049A1	←	Shaft	シャフト	3	
4	M1J0001C1	←	Roll	前コンベアロール	8	
○ 5	018015	←	Clutch&Brake	クラッチ&ブレーキ	4	
6	0500012A1	←	Bearing	ベアリング	4	

[Fig. 4A-6 Input Conveyor Unit (Automatic Centering) - Pinch roll detail]

① Pinch roll A (ピンチロールA)



② Pinch roll B (ピンチロールB)

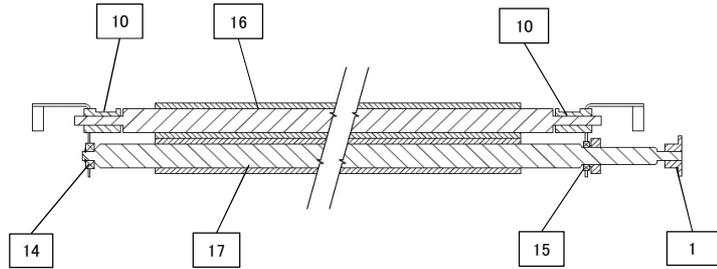


Table 4A-6 Input Conveyor Unit (Automatic Centering) - Pinch roll detail

○...630up common (630up共通)

Item	Part no.of L to R	Part no.of R to L	Product description	Qty	Parts information
1	044747	←	Sprocket	1	
2	M1J0062A1	←	Sprocket	1	
3	045005	←	Bearing	28	
4	3800765A1	←	Crossed helical gear	1	
○ 5	018021	←	Clutch	1	
6	045602	←	Bearing	1	
7	045035	←	Bearing	1	
8	045006	←	Bearing	3	
○ 9	018022	←	Brake	1	
10	00A06030	←	Slide housing	4	
○ 11	00A02223	←	Spur gear	2	
12	M1J0003B1	←	Roll	1	upper pinch roll
13	M1J0002B1	←	Roll	1	lower pinch roll
○ 14	045076	←	Bearing	1	
15	0500296A1	←	Bearing	1	
16	M1J0004B1	←	Roll	1	upper pinch roll
17	M1J2005B1	←	Roll	1	lower pinch roll

[Fig. 4A-7 Input Conveyor Unit (Automatic Centering) – Conveyor motor – Centering handle detail]

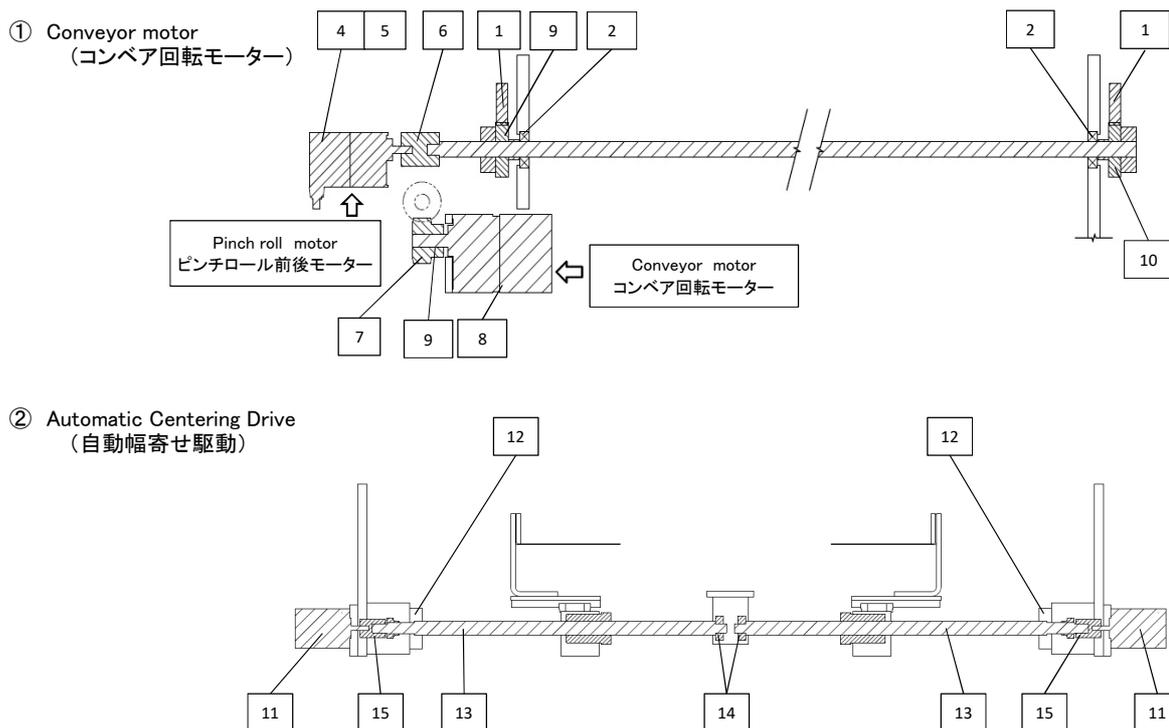
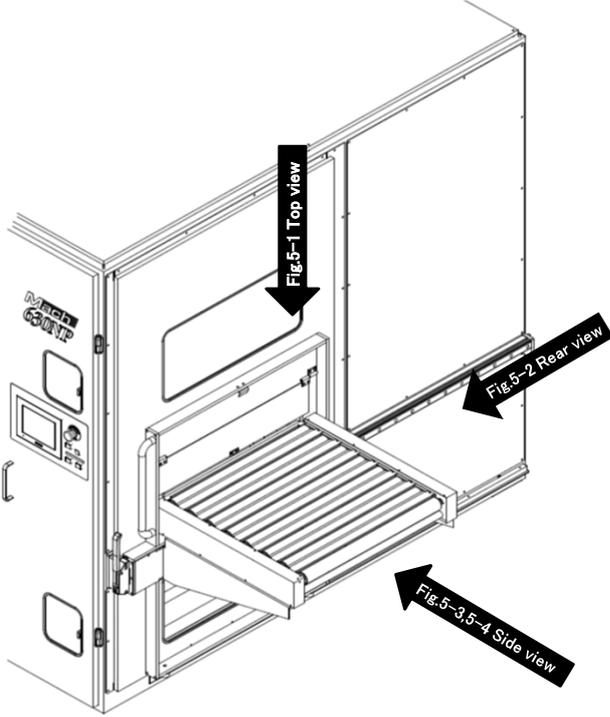


Table 4A-7 Input Conveyor Unit (Automatic Centering) – Conveyor motor – Centering handle detail

○…630up common (630up共通)

Item	Part no.of L to R	Part no.of R to L	Product description		Qty	Parts information
1	M1J2046A1	←	Slide plate	スライドプレート	2	
2	045005	←	Bearing	ベアリング	28	
3	045006	←	Bearing	ベアリング	3	
4	4700410A1	←	Motor	ステッピングモーター	1	
5	4700411A1	←	Motor controller	ドライバー	1	to see Fig.8 #503~ (Rev 1.3)
6	3300108A1	←	Coupling	フレキシブルカップリング	1	
7	3800766A1	←	Crossed helical gear	ねじ歯車	1	
8	4700512A1	←	Motor	ブラシレスモーター	1	motor only (Rev 1.3.3)
8-1	4700513A1	←	Motor driver	ドライバー	1	driver only (Rev 1.3.3)
9	044043	←	Key	キー	1	also included in No8
10	M1J0045A1	←	Gear	平歯車	2	
11	4700443A1	←	Stepping motor	ステッピングモーター	2	(Rev 1.2)
12	3900639A1	←	Support unit round type	サポートユニット丸型	2	(Rev 1.2)
13	3900826A1	←	Rolling ball screw	転造ボールねじ	2	(Rev 1.2)
14	0500010A1	←	Bearing	ベアリング	2	(Rev 1.2)
15	3300120A1	←	Flexible coupling	フレキシブルカップリング	2	(Rev 1.2)

[Fig. 5 Output Conveyor Unit]



[Fig. 5-1 Output Conveyor Unit Top view]

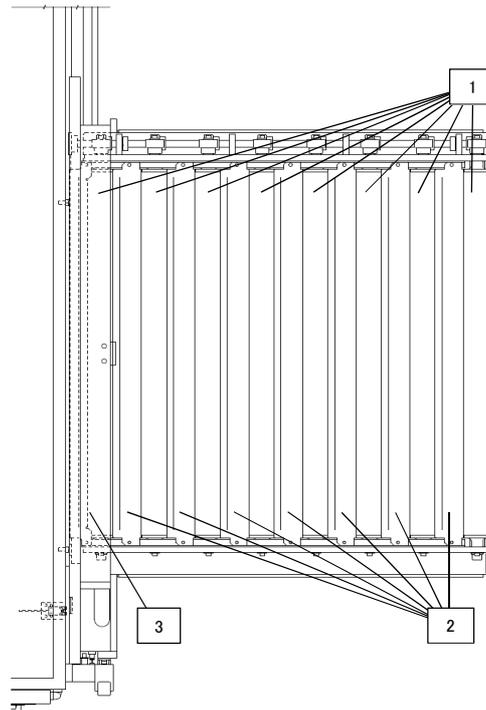


Table 5-1 Output Conveyor Unit Top view

○…630up common (630up共通)

Item	Part no.of L to R	Part no.of R to L	Product description	Qty	Parts information
1	M1K0001C1	←	Roll	8	
2	M1K0151A1	←	Auxiliary plate	7	option
3	M1K0152A1	←	Auxiliary plate	1	option

[Fig. 5-2 Output Conveyor Unit Rear view]

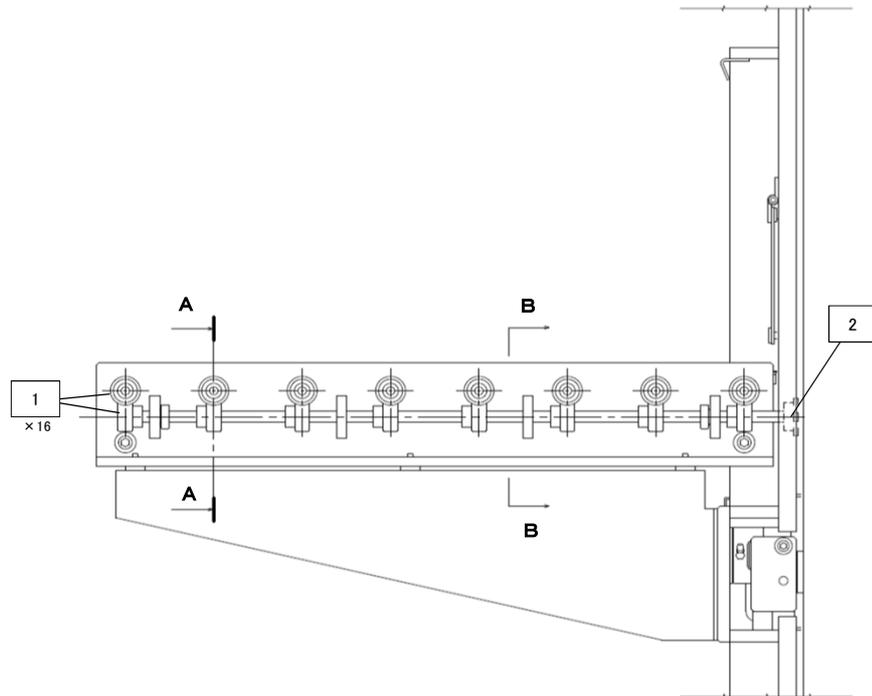


Table 5-2 Output Conveyor Unit Rear view

○…630up common (630up共通)

Item	Part no.of L to R	Part no.of R to L	Product description		Qty	Parts information
1	3800764A1	←	Crossed helical gear	ねじ歯車	16	
2	3800704A6	←	Magtran	マグトラン	1	(Rev 1.2)

[Fig. 5-3 Output Conveyor Unit Side view]

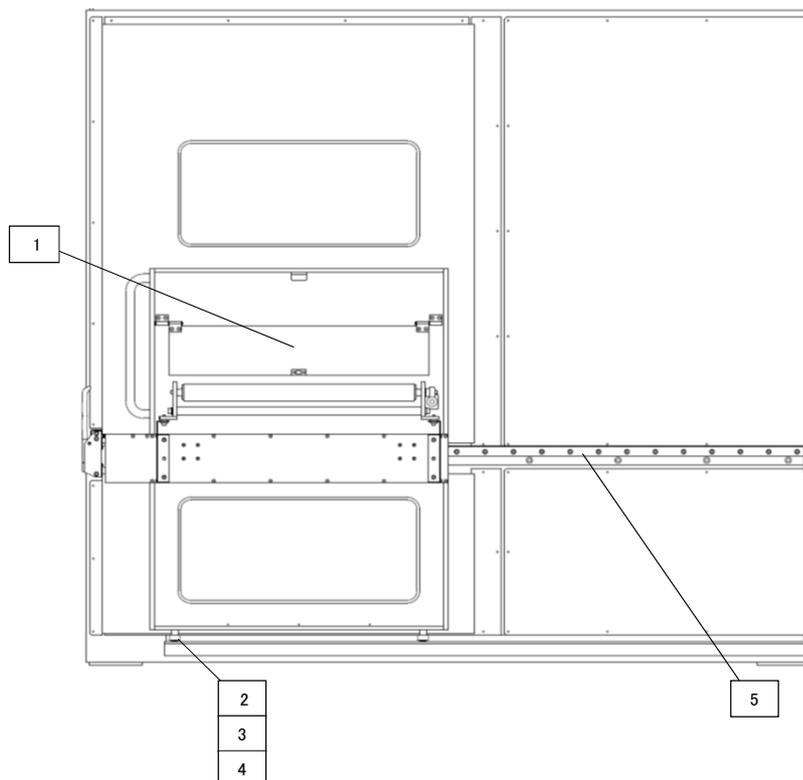


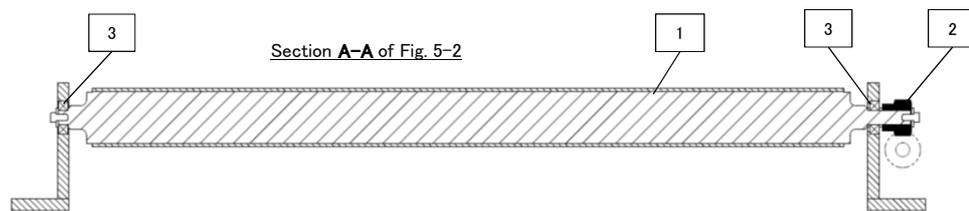
Table 5-3 Output Conveyor Unit Side view

○…630up common (630up共通)

Item	Part no.of L to R	Part no.of R to L	Product description		Qty	Parts information
1	M1P2137A1	←	Cover	アクリルカバー	1	acryl
2	3900775A1	←	Roller followers	ローラフォロワ	2	
3	1300177A1	←	Roller followers pin	ローラフォロワピン	2	(Rev 1.3.3)
4	1500388A1	←	Collar	金属カラー	2	(Rev 1.3.3)
5	3900778A1	←	Linearway	リニアウェイ	1	(Rev 1.3.3)

[Fig. 5-4 Output Conveyor Unit Conveyor Roll]

① Conveyor roll
(コンベアロール)



② Housing
(ハウジング)

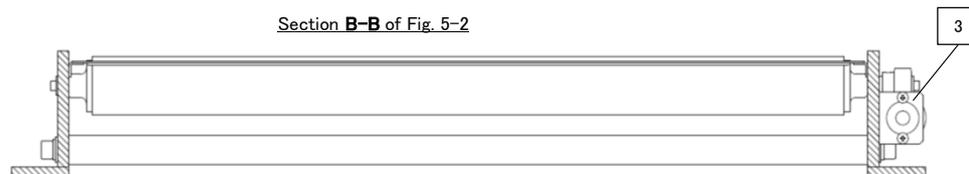
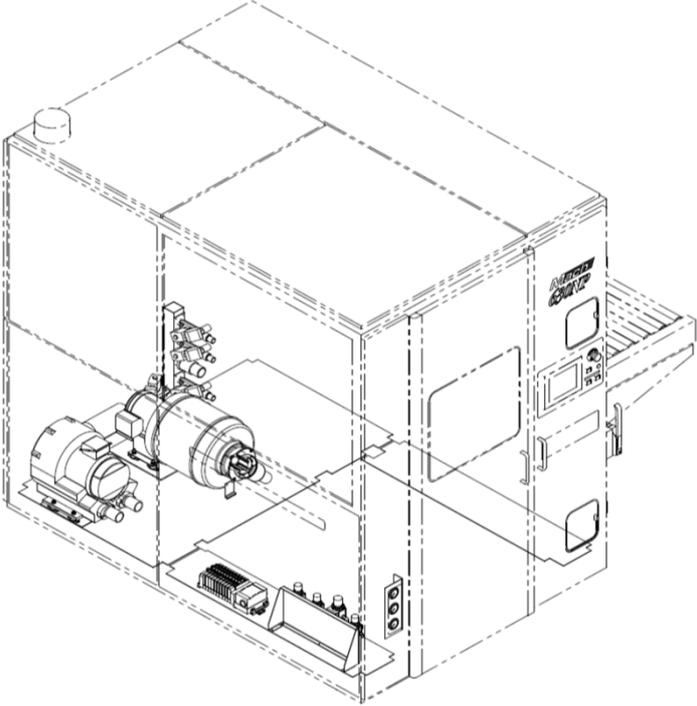


Table 5-4 Output Conveyor Unit Conveyor Roll

○…630up common (630up共通)

Item	Part no. of L to R	Part no. of R to L	Product description		Qty	Parts information
1	M1K0001C1	←	Roll	コンベアローラー	8	
2	3800764A1	←	Crossed helical gear	ねじ歯車	16	
3	045005	←	Bearing	ベアリング	20	

[Fig. 6 Blower & Pneumatic devices]



[Fig. 6-1 Blower & Pneumatic devices - Blower]

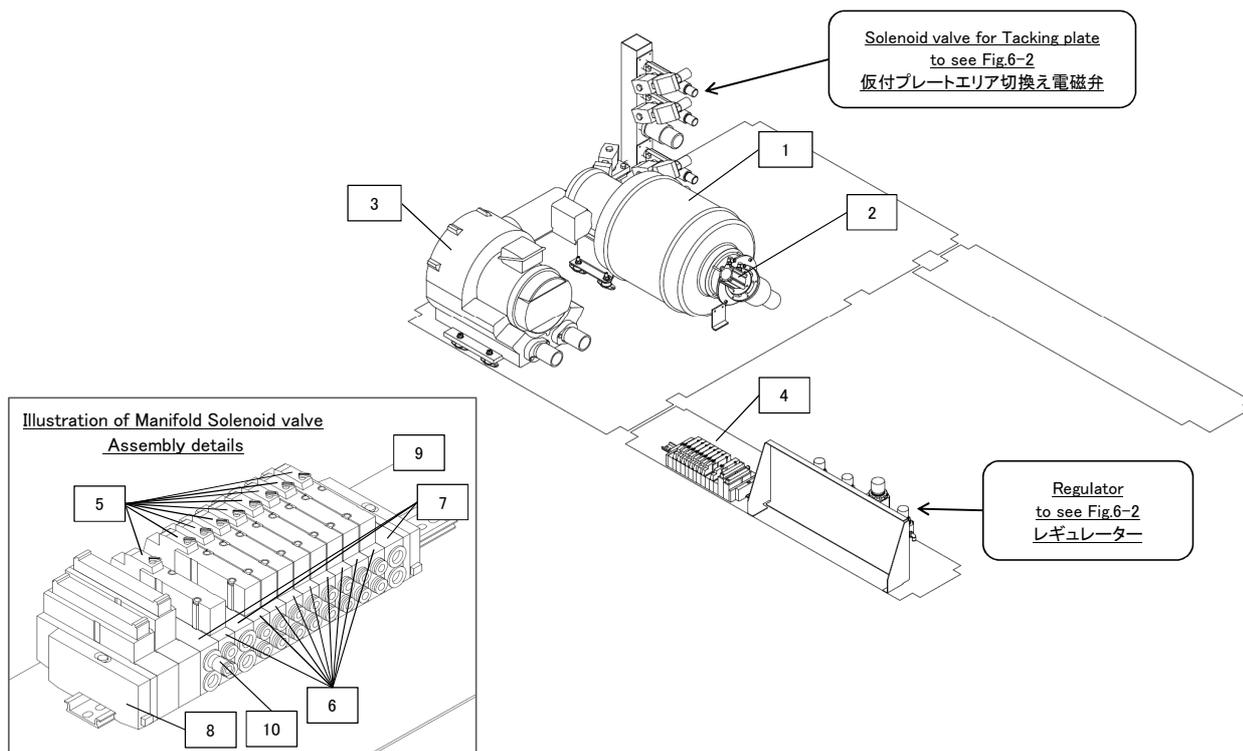


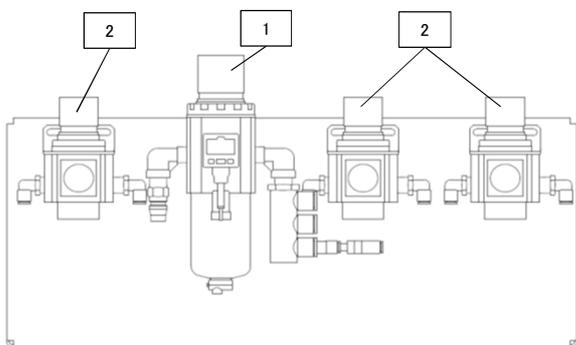
Table 6-1 Blower & Pneumatic devices - Blower

○...630up common (630up共通)

Item	Part no.of L to R	Part no.of R to L	Product description	Qty	Parts information
○ 1	4600061A4	←	Blower	1	
○ 2	4200301A1	←	Air cylinder	1	
○ 3	037004	←	Blower	1	(Rev 1.3.3)
4	4301145B1	←	Manifold Solenoid valve	1	
5	4300038A1	←	Solenoid valve	9	(Rev 1.3)
6	4400318A2	←	Manifold Block ASSY	9	(Rev 1.3)
7	4300217A1	←	SuSupply and exhaust block ASSY	3	(Rev 1.3)
8	4300568A1	←	End Block ASSY	1	(Rev 1.3)
9	4300567A1	←	End Block ASSY	1	(Rev 1.3)
10	4400140A1	←	Coupler	1	(Rev 1.3)

[Fig. 6-2 Blower & Pneumatic devices - Pneumatic devices]

① Regulator (レギュレーター)



② Solenoid valve for Tacking plate
(仮付プレートエア切換え電磁弁)

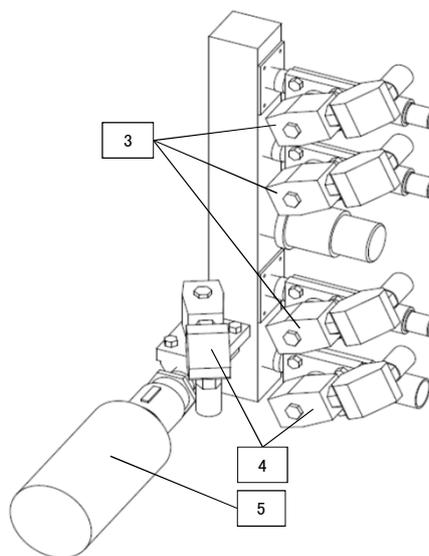


Table 6-2 Blower & Pneumatic devices - Pneumatic devices

○...630up common (630up共通)

Item	Part no.of L to R	Part no.of R to L	Product description		Qty	Parts information	
	1	4300607A1	←	F.R. Unit	フィルターレギュレーター	1	
	2	4300608A1	←	Regulator	レギュレーター	3	with non-return valve
○	3	022034	←	Solenoid valve	電磁弁	3	
○	4	022035	←	Solenoid valve	電磁弁	2	
○	5	4500013A1	←	Air filter	エアフィルター	1	(Rev 1.3)

[Fig. 7 DF Unit]

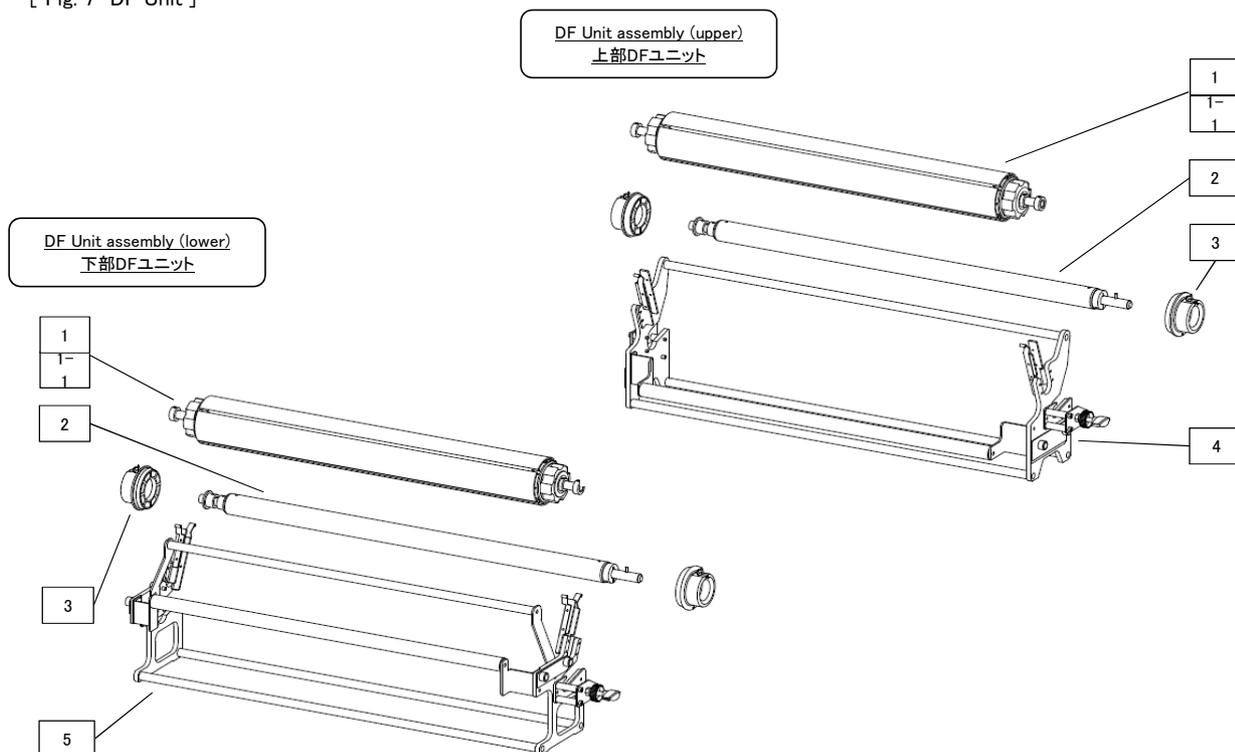


Table 7 DF Unit

○...630up common (630up共通)

Item	Part no.of L to R	Part no.of R to L	Product description		Qty	Parts information
○ 1	00A01761	←	Eco roll	エコロール	2	
○ 1-1	2200128A3	←	Eco roll	エコロール	2	#530-1~ (Rev 1.4)
○ 2	11606751	11606752	Film roll shaft	フィルムロールシャフト	2	
○ 3	11507101	←	Retainer	リテーナー	4	For 3 inches core
○ 4	00L00171	00R00171	DF Unit assembly (upper)	DFユニット組品(上部)	1	
○ 5	00L00172	00R00172	DF Unit assembly (lower)	DFユニット組品(下部)	1	

[Fig. 7A DF Unit (USA specs)]

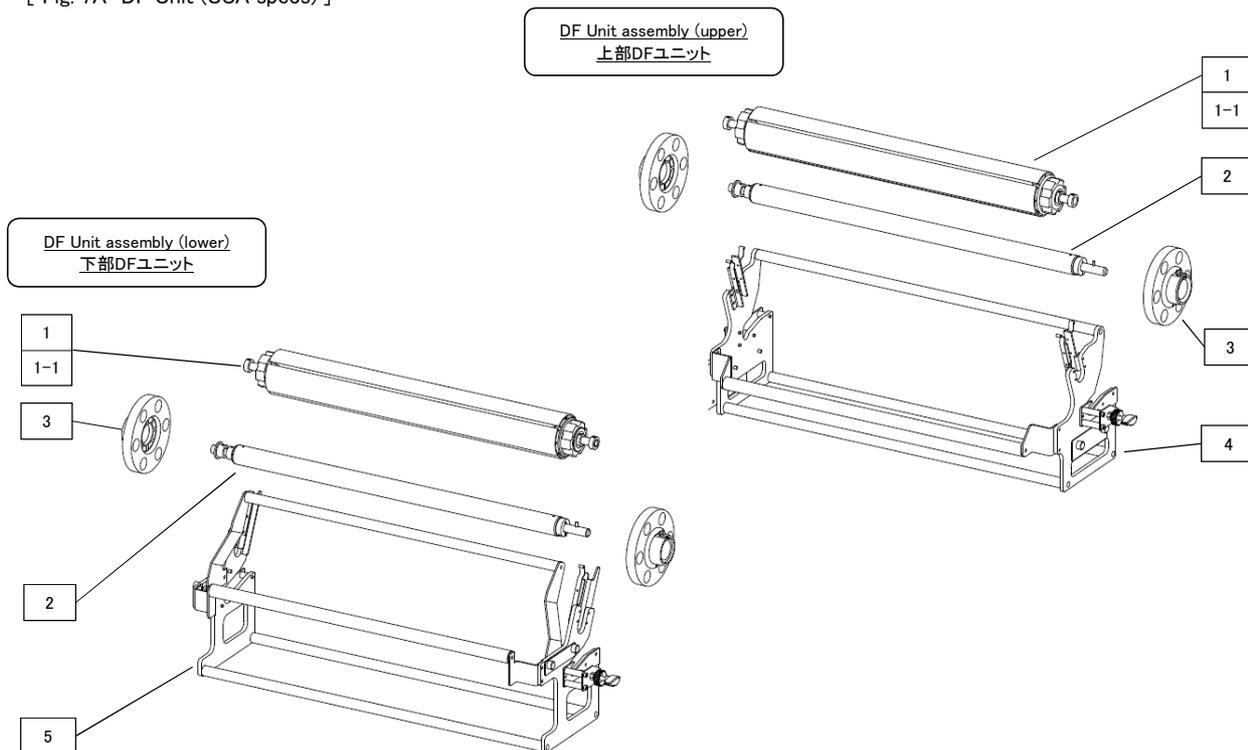
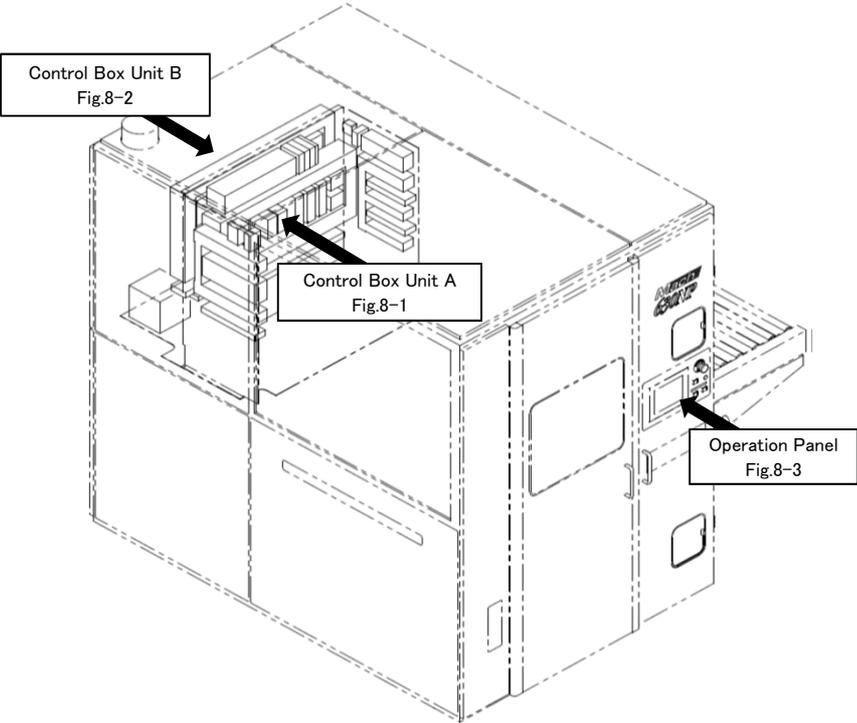


Table 7A DF Unit (USA specs)

○...630up common (630up共通)

Item	Part no.of L to R	Part no.of R to L	Product description		Qty	Parts information
○ 1	00A01761	←	Eco roll	エコロール	2	
○ 1-1	2200128A3	←	Eco roll	エコロール	2	#530-1~ (Rev 1.4)
○ 2	11606751	11606752	Film roll shaft	フィルムロールシャフト	2	
○ 3	11507102	←	Retainer	リテーナー	4	For 6 inches core (Rev 1.3)
○ 4	2200170A6	2200169A6	DF Unit assembly (upper)	DFユニット組品(上部)	1	(Rev 1.3)
○ 5	2200170A7	2200229A6	DF Unit assembly (lower)	DFユニット組品(下部)	1	(Rev 1.3)

[Fig. 8 Control Box Unit & Operation Panel]



[Fig. 8-1 Control Box Unit & Operation Panel – Control Box Unit A]

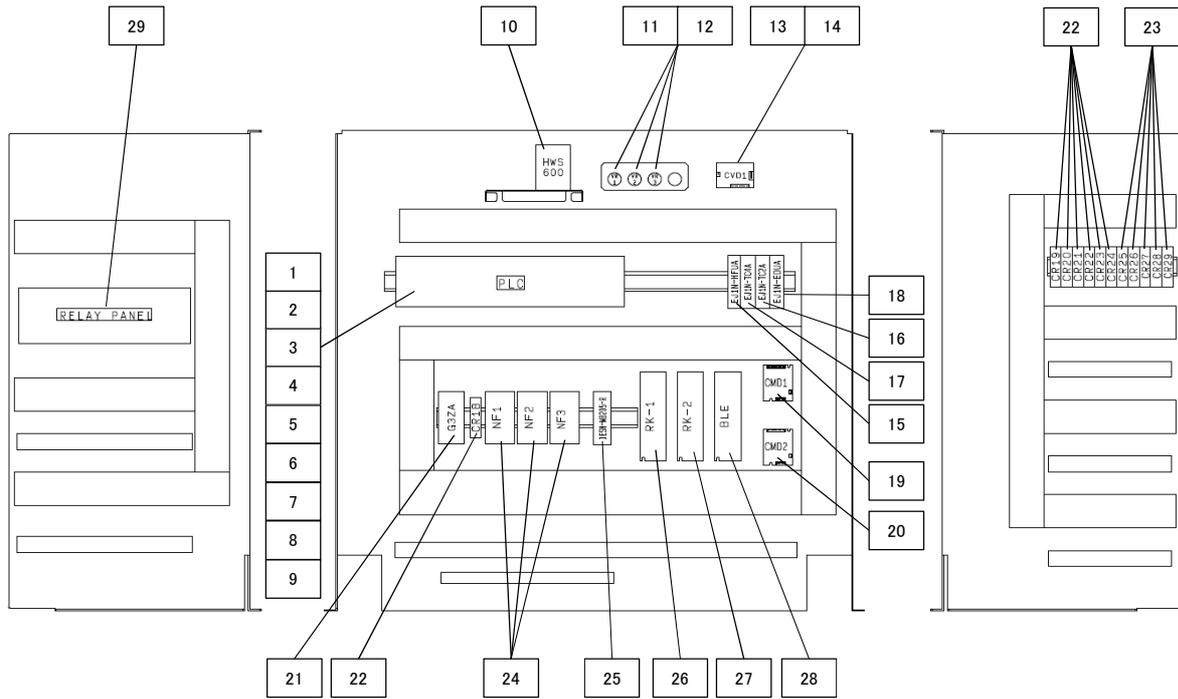


Table 8-1 Control Box Unit & Operation Panel – Control Box Unit A

○…630up common (630up共通)

Item	Part no.of L to R	Part no.of R to L	Product description	Qty	Parts information
1	5600309A1	←	Power unit	1	PLC
2	5600466A1	←	CPU unit	1	PLC
3	5600331A1	←	Analog output unit	1	PLC
4	5600312A1	←	Input unit	1	PLC
5	5600327A1	←	Output unit	1	PLC
6	5600326A1	←	Output unit	1	PLC
7	5600335A1	←	Positioning unit	1	PLC
8	5600467A1	←	Counter unit	1	PLC
9	5600310A1	←	Serial Communication unit	1	PLC
10	5500012A1	←	DC power supply	1	HWS600 #508~ (Rev 1.3)
11	6300003A3	←	Potentiometer	3	VR1,2,3
12	009009	←	Dial	3	VR1,2,3
13	4700411A1	←	Motor driver	1	CVD1
14	000458	←	Outlet plug	1	
15	5800096A1	←	Temperature Controller HFU unit	1	EJ1N-HFUA
16	5800095A1	←	Temperature Controller Basic unit	1	EJ1N-TC2A
17	5800095A2	←	Temperature Controller Basic unit	1	EJ1N-TC4A
18	5800097A1	←	Temperature Controller End unit	1	EJ1C-EDUA
19	4700513A1	←	Motor driver	1	CMD1 (with motor) (Rev 1.3.3)
20	4700513A1	←	Motor driver	1	CMD2 (with motor) (Rev 1.3.3)
21	5800098A1	←	Multi-channel Power Controller	1	G3ZA
22	001043	←	Relay	7	CR18~24
23	001041	←	Solid state relay	5	CR25~29
24	6400006A1	←	Noise filter	3	NF1~3
25	5600476A1	←	Switching hub	1	IESH
26	4700404A2	←	Motor controller	1	RK-1
27	4700404A2	←	Motor controller	1	RK-2
28	4700433A2	←	Motor controller	1	BLE
29	000770	←	Relay panel	1	RELAY Panel

[Fig. 8-2 Control Box Unit & Operation Panel – Control Box Unit B]

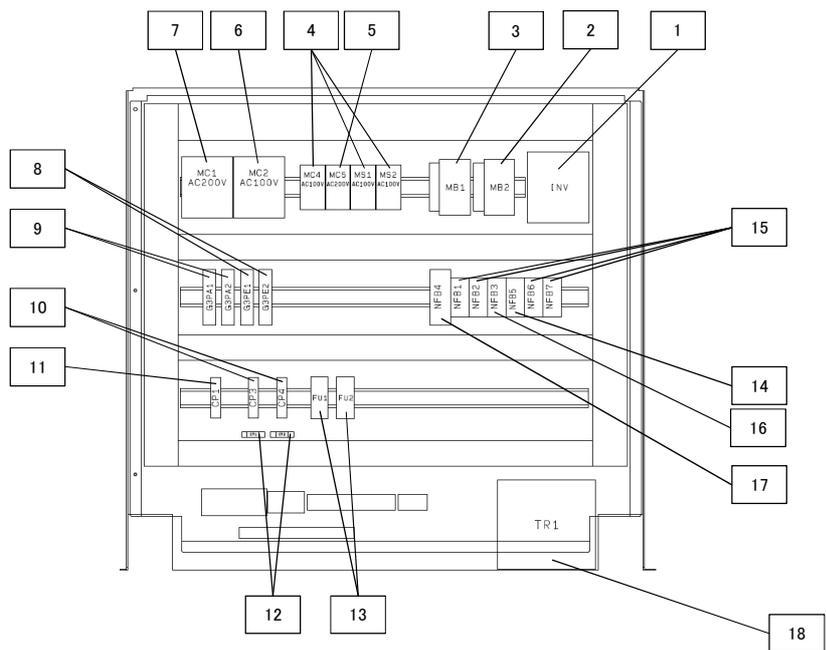


Table 8-2 Control Box Unit & Operation Panel – Control Box Unit B

○…630up common (630up共通)

Item	Part no.of L to R	Part no.of R to L	Product description		Qty	Parts information
1	6900032A1	←	Inverter	インバータ	1	INV
2	6000423A1	←	Motor breaker	サーキットブレーカ	1	MB2 #528～ (Rev 1.3)
3	6000424A1	←	Motor breaker	サーキットブレーカ	1	MB1 #528～ (Rev 1.3)
4	6100108A1	←	Magnet relay	マグネットリレー	3	MC4, MS1,2
5	6100023A1	←	Magnet relay	マグネットリレー	1	MC5
6	6100134A1	←	Magnet relay	マグネットリレー	1	MC2
7	6100020A1	←	Magnet relay	マグネットリレー	1	MC1 (Rev 1.3)
8	5800099A1	←	Solid state relay	ソリッドステートリレー	2	G3PE1.2 (Rev 1.3)
9	6100007A2	←	Solid state relay	ソリッドステートリレー	2	G3PA1.2 #512～ (Rev 1.3)
10	6000401A1	←	Circuit protector	サーキットプロテクタ	2	CP3,4 #527-4～ (Rev 1.3)
11	6000421A1	←	Circuit protector	サーキットプロテクタ	1	CP1 #528～ (Rev 1.3)
12	5800100A1	←	Current trans	カレントトランス	2	CT1～2 (Rev 1.3)
13	000438	←	Fuse	ヒューズ	2	FU1～2
14	6000020A3	←	No fuse breaker	サーキットブレーカ	1	NFB5 #528～ (Rev 1.3)
15	6000020A1	←	No fuse breaker	サーキットブレーカ	4	NFB1,2,6,7 #528～ (Rev 1.3)
16	6000020A2	←	No fuse breaker	サーキットブレーカ	1	NFB3 #528～ (Rev 1.3)
17	6000393A1	←	No fuse breaker	サーキットブレーカ	1	NFB4 #528～ (Rev 1.3)
18	000075	←	Transformer	トランス	1	TR1

[Fig. 8-3 Control Box Unit & Operation Panel – Operation Panel]

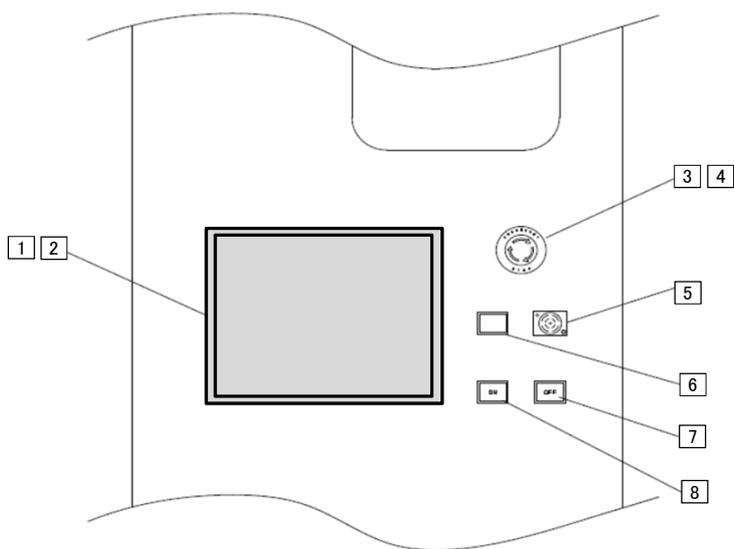


Table 8-3 Control Box Unit & Operation Panel – Operation Panel

○…630up common (630up共通)

Item	Part no.of L to R	Part no.of R to L	Product description	Qty	Parts information
1	5600431A1	←	Touch panel	1	TP1
2	7400584A1	←	LAN cable	1	TP1
3	000433	←	Emergency stop switch	1	EMG1
4	000434	←	Emergency stop name plate	1	EMG1
5	000462	←	Buzzer	1	BZ1
6	000466	←	Indicator	1	LED1
7	000464	←	Pushbutton switch	1	PB2,LED3 (RED)
8	000463	←	Pushbutton switch	1	PB1,LED2 (GREEN)

[Fig. 9 Board Exit Temperature Sensor Unit]

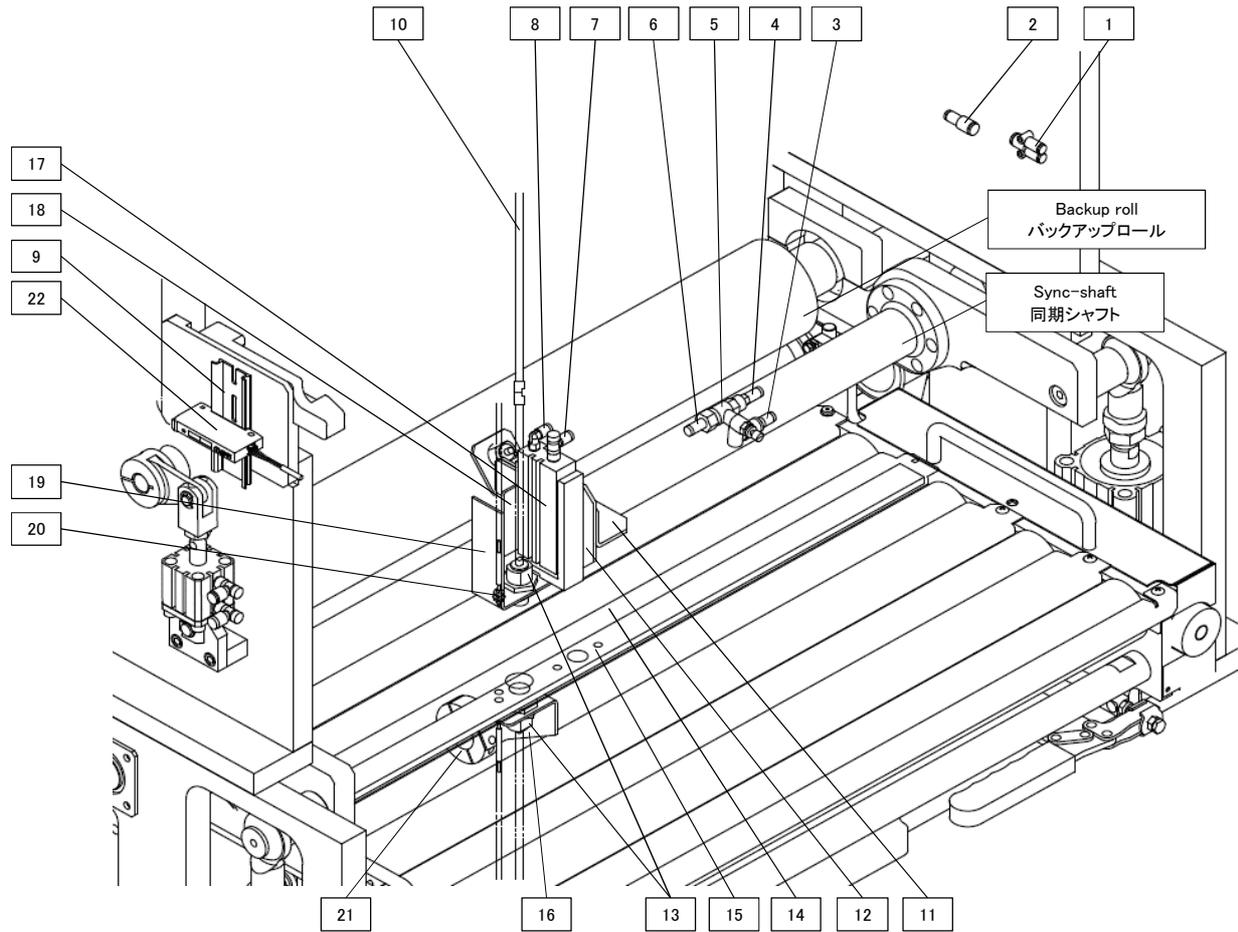


Table 9 Board Exit Temperature Sensor Unit

○...630up common (630up共通)

Item	Part no.of L to R	Part no.of R to L	Product description	Qty	Parts information
1	4400308A1	←	Coupler	1	(Rev 1.3.3)
2	4400248A1	←	Coupler	1	(Rev 1.3.3)
3	4400110A2	←	Coupler	1	(Rev 1.3.3)
4	4400832A1	←	Coupler	1	(Rev 1.3.3)
5	020023	←	Speed controller	1	(Rev 1.3.3)
6	4400989A1	←	Coupler	1	(Rev 1.3.3)
7	4300570A1	←	Speed controller	1	(Rev 1.3.3)
8	4400450A1	←	Coupler	1	(Rev 1.3.3)
9	6800121A1	←	DIN rail	1	(Rev 1.3.3)
10	7431494A2	←	Compensation conductors	1	(Rev 1.3.3)
11	M1B4054B1	←	Bracket	1	(Rev 1.3.3)
12	M1B4055A1	←	Cylinder base	1	(Rev 1.3.3)
13	6800253A2	←	Temperature sensor	2	(Rev 1.3.3)
14	M1B4052B1	←	Auxiliary plate	1	(Rev 1.3.3)
15	M1B4051B1	←	Connection board	1	(Rev 1.3.3)
16	M1B4053A1	←	Bracket	1	(Rev 1.3.3)
17	4200514A1	←	Compact slide	1	(Rev 1.3.3)
18	M1B4057A1	←	Plate	1	(Rev 1.3.3)
19	M1B4056A1	←	Bracket	1	(Rev 1.3.3)
20	6800240A1	←	Sensor	1	(Rev 1.3.3)
21	3100183A1	←	Pullyboss	1	(Rev 1.3.3)
22	6800065A1	←	Amplifier	1	(Rev 1.3.3)

Revision History (改定履歴)

2016.Nov. REVISION 1.0 First Edition Published (初版発行)

2018.Jan. REVISION 1.1
4-6-10 Revise (訂正)
4-6-11 Revise (訂正)
4-6-14 Revise (訂正)

2018.Nov. REVISION 1.2 Renewal (更新)
4-1.Input Conveyor Unit (Automatic Centering)

2019.Jun. REVISION 1.3 Renewal (更新)
7A DF Unit (USA specs)

2019.Aug. REVISION 1.3.1
3-6-7 Revise (訂正)
3-6-8 Revise (訂正)
3-6-9 Revise (訂正)

2020.Jan. REVISION 1.3.2
3-6-10 Revise (訂正)

2020.Mar. REVISION 1.3.3 Renewal (更新)
9 Board Exit Temperature Sensor Unit
1-1-1 Revise (訂正)
1-1-1-1 Delete(削除)
1-2-1-2 Revise (訂正)
1-2-9 Renewal (更新)
1-2-9-1 Append (追記)
2-1-8 Renewal (更新)
2-1-8-1 Append (追記)
2-3-4 Revise (訂正)
2-3-6 Renewal (更新)
2-3-6-1 Append (追記)
3-1-4 Revise (訂正)
3-1-4-1 Revise (訂正)
3-1-4-2 Revise (訂正)
3-2-10 Append (追記)
3-6-10 Revise (訂正)
3-6-11 Append (追記)
3-6-12 Append (追記)
4-7-8 Renewal (更新)
4-7-8-1 Append (追記)
4A-7-8 Renewal (更新)
4A-7-8-1 Append (追記)
5-3-3 Append (追記)
5-3-4 Append (追記)
5-3-5 Append (追記)
6-1-3 Revise (訂正)
8-1-19 Renewal (更新)
8-1-20 Renewal (更新)

2021.Jan. REVISION 1.4 Renewal (更新)

- 1-1-6 Revise (訂正)
- 1-1-7 Append (追記)
- 1-1-8 Append (追記)
- 1-4-13 Revise (訂正)
- 1-4-14 Append (追記)
- 1-4-15 Append (追記)
- 2-2-16 Revise (訂正)
- 2-2-17 Revise (訂正)
- 3-1-1 Revise (訂正)
- 3-1-2 Revise (訂正)
- 3-1-12 Revise (訂正)
- 3-2-1 Revise (訂正)
- 3-2-2 Revise (訂正)
- 3-3-7 Revise (訂正)
- 3-5-2 Revise (訂正)
- 3-6-1 Revise (訂正)
- 3-6-3 Revise (訂正)
- 3-6-4 Revise (訂正)
- 3-6-5 Revise (訂正)
- 3-6-13 Append (追記)
- 3-7-1 Revise (訂正)
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- 4-4-5 Revise (訂正)
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- 7-1-1 Append (追記)
- 7A-1-1 Append (追記)