



TECHINICAL DESCRIPTION

HIGH SPEED AUTOMATED TANDEM PRESS LINE

LS4-2500 (x1) + LS4-1600 (x1) +LS4-1000 (3)



SUPPLIER: JIER MACHINE-TOOL GROUP CO., LTD., CHINA

A. SPECIFICATIONS

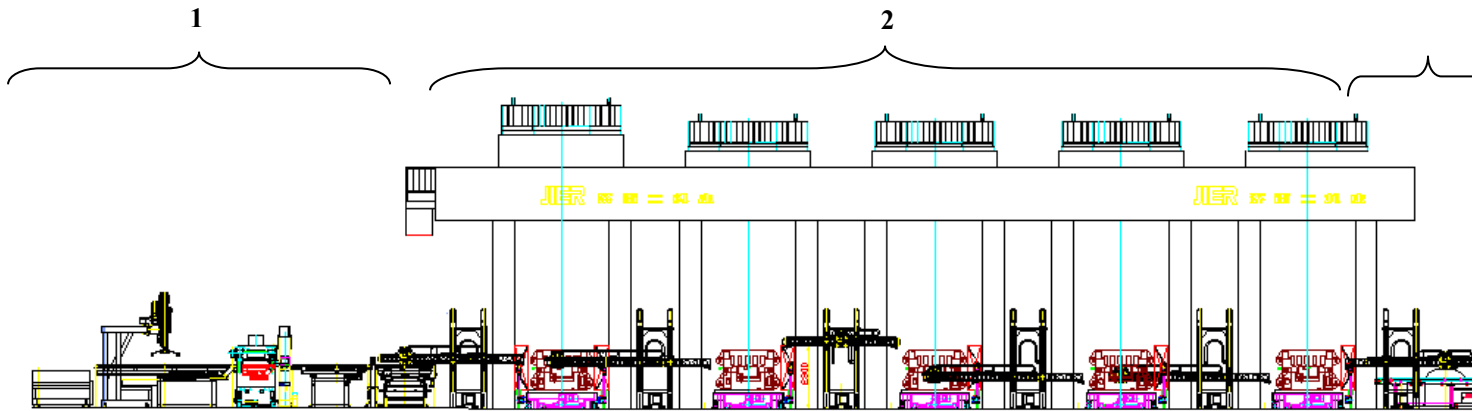
1. PRESS SPECIFICATIONS

Model		LS4-2500	LS4-1600	LS4-1000
Number of presses		1	1	3
Frame		Straight side	Straight side	Straight side
Connection points		4	4	4
Type of working		Single action	Single action	Single action
Drive system		Link-drive	Link-drive	Link-drive
Drive Gears		Herringbone gear	Herringbone gear	Herringbone gear
Press capacity at 13 mm above BDC		25,000 KN.	16,000 KN.	10,000 KN.
Stroke		1,400 mm.	1,350 mm.	1,350 mm.
Shut height (SDAU)		1,530mm.	1,530mm.	1,530mm.
Slide adjustment		530mm.	530 mm.	530 mm.
Bolster and slide area		4,600 x 2,500 mm Max Die Size: 4,600 x 2,600 mm	4,600 x 2,500 mm Max Die Size: 4,600 x 2,600 mm	4,600 x 2,500 mm Max Die Size: 4,600 x 2,600 mm
Top of bolster above floor		800 mm	800 mm	800 mm
Bolster plate thickness		400 mm (welded structure)	220mm (welded structure)	150mm (welded structure)
Number of continuous strokes		8 ~ 16 spm	8~ 16 spm	8 ~ 16 spm
Number of Micro Strokes		3~5 spm with main motor	3~5 spm with main motor	3~5 spm with main motor
Side clearance between uprights		3,050 mm	3,050 mm	3,050 mm
Free opening between upright oil tray		2,600 mm	2,600 mm	2,600 mm
Front clearance between uprights		5,800 mm	5,800 mm	5,800 mm
Bed deflection		0.125 mm/m	0.125 mm/m	0.125 mm/m
Line ADC time		180 Seconds (with pre-defined condition)		
Main motor	Model	Siemens	Siemens	Siemens
	Power	505 KW	325 KW	218 KW
Slide	Gib material	Bronze	Bronze	Bronze

	Power of the adjustment motor (KW)	37KW	30 KW	22 KW
	Adjustment accuracy	+/-0.1 mm	+/-0.1 mm	+/-0.1 mm
	Adjustment speed	50 mm/min	50 mm/min	50 mm/min
	Max weight of the die	60,000 Kg	60,000 Kg	60,000 Kg
	Maximum weight of upper die	30,000 Kg	30,000 Kg	30,000 Kg
Die cushion	Type	NC hydraulic die cushion	N/A	N/A
	Capacity (ton)	60~450	N/A	N/A
	Pad size	(1x)4220x2170mm	N/A	N/A
	Stroke	0~350 mm (Effective stroke, the pressure build up stroke is not included)	N/A	N/A
	Pre-acceleration stroke	20 mm		
	Pressure build up stroke	10 mm		
Press height		<= 12 m	<= 11.5 m	<= 11.5 m
Pit depth		6 m	6 m	6 m

The full tonnage could be available in micro inch speed, but press energy output in micro inch speed is much lower.

2. LINE OVERVIEW



- 1 Front of Line (FOL)
- 2 Beam Crossbar Automation
- 3 End of Line (EOL)

2.1. Front of Line FOL

2.1.1. Composition of FOL

- 1 Blank Carts
- 2 Fanner Magnets
- 3 Double Blank Reject Box
- 4 Gantry
- 5 Cleaner / Oiler
- 6 Magnetic Belt Conveyors
- 7 Scanner
- 8 Centering Table

2.2. Press Line Automation

2.2.1. Cross bar transfer system RBS

The cross bar transfer system is dedicated for a flexible automation of stamping presses and press lines.

All servo motions of the feeders are linked via 2, due to safety reasons parallel operating encoders, which are at any time electronically synchronized to the angles of the presses.

2.3. EOL- Shift Conveyor System

2.3.1. General Description

The specification requires the possibility to turn and shift large panels alternately to the both exit conveyor as well as shift double parts to the outer edge of the both conveyor after the last press operation.

2.3.2 Equipment

1. Part Shuttle
2. Gantry
3. Conveyor Shift Unit
4. Start Conveyor
5. Shift Conveyor
6. Speed Reduce Conveyor
7. Pickup Conveyor