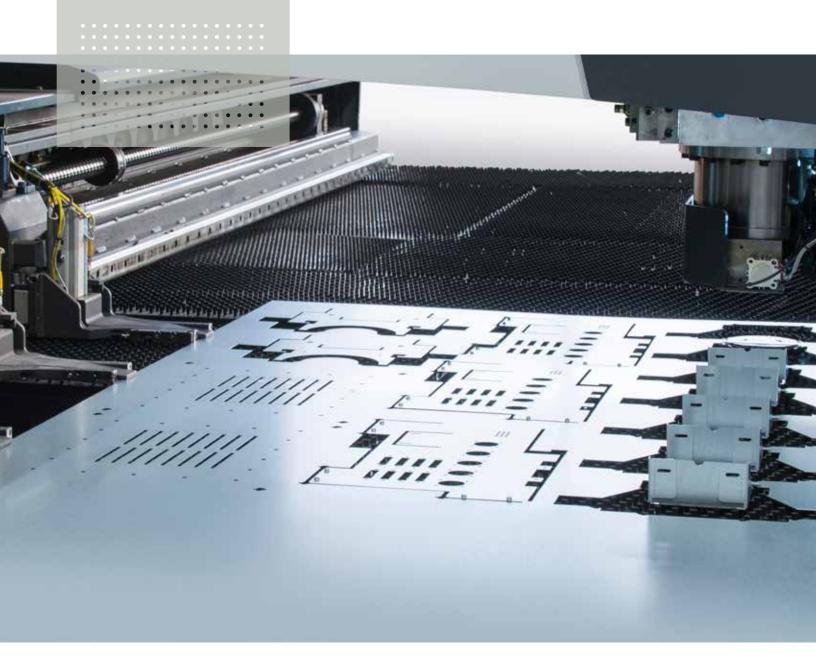
# PUNCH PRESSES

FAST AND ACCURATE PUNCHING





# WHY CHOOSE AN LVD PUNCH PRESS?

#### TURRET OR SINGLE HEAD

LVD is one of a few manufacturers to offer both turret and single head technology. This means we objectively evaluate your application to provide the best punching solution.

#### **ADVANCED FUNCTIONS**

LVD has a long history of punching innovation. Our punching equipment features the most advanced technology. The Strippit PX can punch, form, tap and bend all on one machine.





#### INTUITIVE TOUCH-P CONTROL

The 19" Touch-P control is user-friendly: an operator at any skill level can interact easily with the punch press. Machine set ups are fast and uncomplicated.

### **AUTOMATION OPTIONS**

Automation solutions offer a number of benefits to make the most of your punching productivity. Choose from a range of options, including an automated load/unload unit to a complete warehousing system.



#### **INDUSTRY 4.0-READY**

More flexible, cost-effective production is possible by optimizing production flow.

Our Industry 4.0-ready machines can help you take advantage of a digital transformation.

#### **INDEXABLE MULTI-TOOL**

We engineered the technology for auto indexable tooling stations to maximize punch press capacity. Indexable Multi-Tool provides a capacity of up to 200 tools.





#### **ADVANCED FEATURES**

- High-efficiency ram provides full tonnage throughout the complete stroke.
- Energy Reduction System (ERS) reduces the average power consumption to a stand-by of 0.9 kW, minimizing energy usage.
- Programmable, relocatable clamps with sheet pull out sensors automate clamp movement between jobs and during punching cycles.



### STRIPPIT PX

### ADVANCED PUNCHING AND FORMING

The Strippit PX offers the flexibility to punch, form, bend and tap on a single machine.

The single-head punch press provides the versatility of 20 indexable tool stations able to hold any size tool, up to a maximum tool diameter of 3.543" (90 mm). Set-up and tool change time is minimized thanks to the circular tool magazine that allows every tool to fully rotate for total flexibility.

The Strippit PX is also able to bend parts up to 3.543" (90 mm) in lengths up to 3" (75 mm) high. Knockouts, louvers and countersinks are accurately produced.

**KEY FEATURES** 

360-degree rotation of all tools

Forming and bending up to 3" (75 mm)

Up to 200 tool capacity using Indexable Multi-Tools

**Extended Tool Magazine (ETM)** 

Modular automation options



## STRIPPIT PL

### COMPLETE PART PROCESSING

The Strippit PL Punch-Laser combination machine offers high-accuracy punching and forming combined with the versatility of fiber laser to eliminate processes, reduce production time and material handling, and lower the cost per part. Workpieces of 120" x 60" (3050 x 1525 mm) can be processed without repositioning.

**KEY FEATURES** 

20- and 30-ton single-head, thin and thick turret models

Punch up to 0.25" (6.35 mm) thick material

Produce forms and bends up to 3" (75 mm)

4 kW laser source

Laser cut shapes and process materials up to 0.390" (10 mm)

Automation options available



# STRIPPIT V/VX

### UNSURPASSED PRODUCTIVITY

Strippit V/VX machines offer the most flexible turret configurations available.

**KEY FEATURES** 

A large turret capacity - 48 stations - enables the use of a standard turret load.

Flexible tool configuration

Large 3.5" (88.9 mm) auto-index stations accept indexable Multi-Tools to increase turret capacity. They provide indexing of any tool at any angle, which increases flexibility and productivity.

Expanded tool capacity using indexable Multi-Tools

The Strippit V offers 30 tons of punching capacity; the Strippit VX is a 20-ton capacity machine.

Programmable, relocatable clamps

Full sheet utilization



### STRIPPIT M

### **EFFICIENT PUNCHING**

Engineered for superior accuracy and long production life, Strippit M punch presses are built on a heavy-duty frame with advanced table positioning.

They offer a large turret capacity including three 3.5" (88.9 mm) auto-indexing stations capable of accepting a variety of indexable Multi-Tool, tapping and wheel tools.

**KEY FEATURES** 

Large, 47-station turret configuration

High flexibility

Sophisticated table guiding system

**Enhanced forming capabilities** 



### **STRIPPIT P**

### **COST-EFFECTIVE SOLUTION**

Strippit P CNC punch presses are ideal for shorter production runs, cellular manufacturing and prototypes.

The machine features a flexible 33-station turret. Three 2" (50.8 mm) autoindex stations are standard. These programmable stations allow shapes to be punched at any angle.

Strippit P Series punch presses feature an integrated Fanuc control, which gives the operator flexibility to edit, input or output programs during machine operation.

**KEY FEATURES** 

33-station turret configuration

Ideal for short production runs

Fast die change system

Wheel and tapping tool compatible



### **STRIPPITE**

### SERVO-ELECTRIC PUNCH PRESS

The Strippit E servo-electric drive punch press offers high energy efficiency and excellent repeatable accuracy for punching and forming operations. The simple, streamlined press drive design keeps operation and maintenance costs low and helps ensure reliable performance.

The machine features a large 47-station turret with three 3.5" (88.9 mm) auto-index stations for more tooling flexibility.

Strippit E machines offer the easiest tool changeover in the industry. Quick-change die holders reduce setup time.

**KEY FEATURES** 

Advanced servo-electric press drive

Large, 47-station turret configuration

Programmable, relocatable workclamps

**Energy efficient** 



# STRIPPIT ST/VT

PRODUCTIVE & FLEXIBLE

Strippit ST/VT thin turret punch presses can handle short to long production runs, punching and forming applications, and are equipped with features that add up to higher productivity.

Strippit ST offers 20 tons of punching force and a 29-station turret. Strippit VT is a 30-ton machine featuring 40 turret stations.

**KEY FEATURES** 

20 / 30-tons of punching force

29 / 40-station thin turret

Expanded tool capacity using indexable Multi-Tools

**Productivity-enhancing options** 

# **MOVIT** AUTOMATION SOLUTIONS

### LOAD / UNLOAD SYSTEM

The compact, space-saving PA automated load/unload system makes the punching operation more cost effective.



### **COMPACT TOWER**

### STORAGE AND RETRIEVAL TOWER

The Compact Tower (CT-P) is a costeffective tower for loading, unloading and storage of raw materials and finished parts. It is offered with a 6- or 10-pallet configuration.

The system handles 50" x 100" (1270 x 2540 mm) and 60" x 120" (1525 x 3050 mm) sheets with a pallet storage capacity of 6,600 pounds

(3000 kg). The CT-P unit is designed for compact set up and convenient forklift manipulation. The CT-P system creates a productive and flexible manufacturing cell that is capable of operating 24/7. Available for Strippit PX, VX, M. VT. ST and E

### **FLEXIBLE AUTOMATION**

AUTOMATED LOAD/UNLOAD SYSTEM



Flexible Automation (FA-P) offers advanced load/unload, part picking and a large area for stacking punched parts directly onto the allocated pallet.

The automation system can load a maximum sheet size of 60"  $\times$  120" (3050  $\times$  1525 mm) and unload punched parts from a minimum size of 7.8"  $\times$  3.9" (200  $\times$  100 mm).

In a stacking area of 8 m² the Touch-A control picks and sorts on pallets. The controller can start with partially filled pallets from previous jobs.

Available for Strippit PX, PX-L and V-L



### **TOWER AUTOMATION SYSTEM**

The Tower Automation System (TAS) offers a single or double tower storage system that can be integrated with up to two machines. TAS provides a continuously-ready material to keep machine output at its peak. Sixteen possible configurations.

### WAREHOUSE AUTOMATION SYSTEM

The ultimate in automatic material storage and retrieval, the Warehouse Automation System (WAS) offers a customizable number of tower storage units starting with a minimum of four towers, in a single or double row configuration. WAS allows for full lights-out production and can be connected to multiple machines.

### EXTENDED TOOL MAGAZINE

An Extended Tool Magazine (ETM) allows the punch press to load or unload tools during machine operation, maximizing uptime. The ETM can hold up to 40 additional tools housed in a wheel configuration for easy access and good visibility. Tool changes are efficiently managed by the Touch-P control. Available for PX machines, and can be combined with an FA-P or CT-P system



### **SPECIFICATIONS**

	Р	М	V	VX
	P-1212 P-1225	M-1212 M-1225	V30-1225 V30-1530	VX-1225
PUNCHING SPECIFICATIONS	P-1525	M-1525	V30-1550	VX-1530
Max. punching capacity	20 metric tons	20 metric tons	30 metric tons	20 metric tons
Max. material thickness	0.250" (6.35 mm)	0.250" (6.35 mm)	0.250" (6.35 mm)	0.250" (6.35 mm)
Punching accuracy	± .004" (0.1 mm)	± .004" (0.1 mm)	± .004" (0.1 mm)	± .004" (0.1 mm)
Repetitive accuracy	± .002" (0.05 mm)	± .002" (0.05 mm)	± .002" (0.05 mm)	± .002" (0.05 mm)
MAX. HIT RATE AT 2 MM WORKING STR	OKE (1)			
1 mm pitch	650 HPM	850 HPM	1000 HPM	920 HPM
25.4 mm pitch	300 HPM	400 HPM	440 HPM	530 HPM
Marking	-	1700 HPM	1750 HPM	1750 HPM
Feed clearance	.984" (25 mm)	.984" (25 mm)	.984" (25 mm)	.984" (25 mm)
Nominal worksheet size	49.2" x 49.2" 49.2" x 98.4" 60" x 98.4"	49.2" x 49.2" 49.2" x 98.4" 60" x 98.4"	49.2" x 98.4" 60" x 120" 60" x 200"	49.2" x 98.4" 60" x 120"
TABLE TYPE CAPACITIES				
Brush table <sup>(2)</sup>	up to 174 lbs.	up to 243 lbs.	up to 330 lbs.	up to 330 lbs.
Combo ball/brush	-	-	-	-
Work chute	-	-	17.7" x 19.7" (450 x 500 mm)	17.7" x 19.7" (450 x 500 mm)
Work clamps	2 (optional 3rd clamp)	2 (optional 3rd clamp)	3 CNC relocatable with part pull out sensor	3 CNC relocatable with part pull out sensor
TURRET - MAGAZINE				
Turret configuration	33 stations	47 stations	48 stations	48 stations
Auto-index stations	3 'C' – 2" (50.8 mm)	3 'D' - 3.5" (88.9 mm)	4 'D' - 3.5" (88.9 mm)	4 'D' - 3.5" (88.9 mm)
Max. tool capacity (3)	33	68	76	76
Wheel Tool capacity	X	Х	X	X
Tapping Tool capacity	X	X	X	X
Indexable Multi-Tool capacity	-	X	X	X
Angular positioning accuracy	± 0.05 degrees	± 0.05 degrees	± 0.05 degrees	± 0.05 degrees
Controller	Fanuc OiPF	Touch-P	Touch-P	Touch-P
Combined positioning speed X-Y	82 m/min.	104 m/min.	128 m/min.	161 m/min.
Tool change time	1 sec.	0.8 sec.	0.8 sec.	0.8 sec.
ELECTRICAL POWER CONSUMPTION				
Average power consumption	6.6 kW	6.7 kW	6.7 kW	6.7 kW
Standby operation	3.0 kW	0.9 kW	0.9 kW	0.9 kW
AUTOMATION OPTIONS - MOVIT				
Automatic load/unload (PA)	- -	X	Х	Х
Compact Tower (CT-P)	-	Х	X	X
Flexible Automation (FA-P)	-	-	-	-
Bin sort	-	-	X	x
Robot pick/sort	-	-	X	X
Tower Automation System (TAS)	-	-	X	X
Warehouse Automation System (WAS)	-	-	x	X
Extended Tool Magazine (ETM)	-	-	-	-

 $<sup>^{(1)}</sup>$  material thickness + tip recess + die penetration /  $^{(2)}$  at reduced speed /  $^{(3)}$  with Multi-Tool. Specifications subject to change without prior notice.

### **SPECIFICATIONS**

	PX	ST/VT ST-1212	Е	PL
	PX-1225 PX-1530	ST-1225 VT-1530	E-1225 E-1530	PX 1530-L V/VT 1530-L
PUNCHING SPECIFICATIONS				.,,
Max. punching capacity	20 metric tons	20 / 30 metric tons	20 metric tons	20 / 30 metric tons
Max. material thickness	0.250" (6.35 mm)	0.250" (6.35 mm)	0.250" (6.35 mm)	0.250" (6.35 mm)
Punching accuracy	± .004" (0.1 mm)	± .004" (0.1 mm)	± .004" (0.1 mm)	± .004" (0.1 mm)
Repetitive accuracy	± .002" (0.05 mm)	± .002" (0.05 mm)	± .002" (0.05 mm)	± .002" (0.05 mm)
MAX. HIT RATE AT 2 MM WORKING STR	OKE (1)			
1 mm pitch	910 HPM	900/1000 HPM	500 HPM	910 HPM
25.4 mm pitch	505 HPM	360/440 HPM	350 HPM	440 HPM
Marking	1650 HPM	1700 HPM	-	1750 HPM
Feed clearance	3.150" (80 mm)	0.827" (21 mm)	0.984" (25 mm)	0.984" (25 mm)
Nominal worksheet size	49.2" x 98.4" 60" x 120"	49.2" x 49.2" 49.2" x 98.4" 60" x 120"	49.2" x 98.4" 60" x 120"	120" x 60"
TABLE TYPE CAPACITIES				
Brush table <sup>(2)</sup>	up to 330 lbs.	up to 240 / 330 lbs.	up to 330 lbs.	up to 284 lbs.
Combo ball/brush	-	-	-	-
Work chute	19.7" x 20.7" (525 x 500 mm)	-	-	16" x 60" (400 x 1524 mm)
Work clamps	3 CNC relocatable with part pull out sensor	2 (optional 3rd clamp)/ 3 CNC relocatable with part pull out sensor	3 CNC relocatable with part pull out sensor (E-1530)	3 CNC relocatable with part pull out sensor
TURRET - MAGAZINE				
Turret configuration	20 stations - T style	29 / 40 stations - Thin	47 stations	20 stations – T style 40 stations Thin, 48 stations Thick
Auto-index stations	20 stations up to 3.54" (90 mm)	3/4 'D' - 3.5" (88.9 mm)	3 'D' - 3.5" (88.9 mm)	20 stations up to 3.54" (90 mm) 4 'D' – 3.5" (88.9 mm)
Max. tool capacity (3)	200			
Wheel Tool capacity	Х	X	Х	x
Tapping Tool capacity	X		Х	X
Indexable Multi-Tool capacity	Х	X	х	x
Angular positioning accuracy	± 0.05 degrees	± 0.05 degrees	± 0.05 degrees	± 0.05 degrees
Controller	Touch-P	Touch-P	Touch-P	Touch-P
Combined positioning speed X-Y	130 m/min.	161 / 130 m/min.	128 / 110 m/min.	130 m/min.
Tool change time	1 to 5 sec.	1.1 / 0.7 sec.	0.9 sec.	0.8 sec.
ELECTRICAL POWER CONSUMPTION				
Average power consumption	6.7 kW	6.7 kW	5.5 kW	6.7 kW
Standby operation	0.9 kW	0.9 kW	0.9 kW	0.9 kW
AUTOMATION OPTIONS - MOVIT				
Automatic load/unload (PA)	Х	Х	Х	X
Compact Tower (CT-P)	X	X	х	X
Flexible Automation (FA-P)	X	-	-	X
Bin sort	X	-	-	X
Robot pick/sort	X	-	-	X
Tower Automation System (TAS)	X	-	x	-
Warehouse Automation System (WAS)	X	-	x	-
Extended Tool Magazine (ETM)	x	-	-	-

 $<sup>^{(1)}</sup>$  material thickness + tip recess + die penetration /  $^{(2)}$  at reduced speed /  $^{(3)}$  with Multi-Tool. Specifications subject to change without prior notice.



# **SOFTWARE** INTEGRATION

LVD's database-driven CADMAN° suite software integrates sheet metalworking processes, production control, communication and management. It provides users real-time data to make informed choices, enabling optimized programming and maximized throughput in the workshop.

#### CADMAN-JOB

CADMAN-JOB connects the front office intakes and processing of orders with the shop floor operations. The software creates or imports production orders from an ERP system allowing users to generate production jobs for bending.

#### CADMAN-P

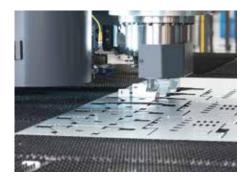
Powerful software to program all your parts from the simplest single part right up to a full batch order of complex parts. CADMAN-P offers many automated processes such as punch sequencing macros, automatic tool selection, clamp positioning and others to maximize your machine's output with ease.

#### **CADMAN-SDI**

The Smart Drawing Importer allows fast CAD file import. CADMAN-SDI converts the file to OSM and stores it in the central database. All cost drivers are displayed and can be exported for making an accurate cost estimate.

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#### Control

The 19" Touch-P control is user-friendly: operators of all skill levels can interact easily with the punch press. Machine set ups are fast and uncomplicated.

Strippit P-Series punch presses feature an integrated Fanuc control, which allows the operator to edit, input or output programs during machine operation.



#### Touch-i4

Touch-i4 industrial-grade Windows®-based tablet that provides an overview of the entire fabrication workshop. It collects real-time information from your LVD machine(s) powered by the centralized CADMAN database.



LVD North America is the trade name of the Sales & Service division of Strippit, Inc.