

KYORI

A NIDEC PRESS & AUTOMATION CO.

TVX

**HIGH SPEED PRECISION
& LAMINATION
STRAIGHTSIDE PRESSES**

2000 - 3300 kN

220 - 300 US Tons Capacity



EQUIPPED WITH **SYS** TECHNOLOGY

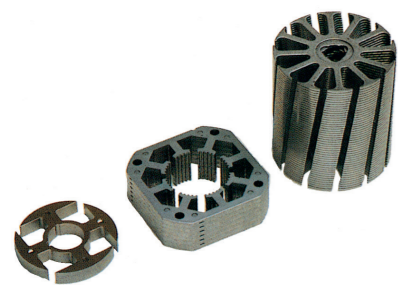
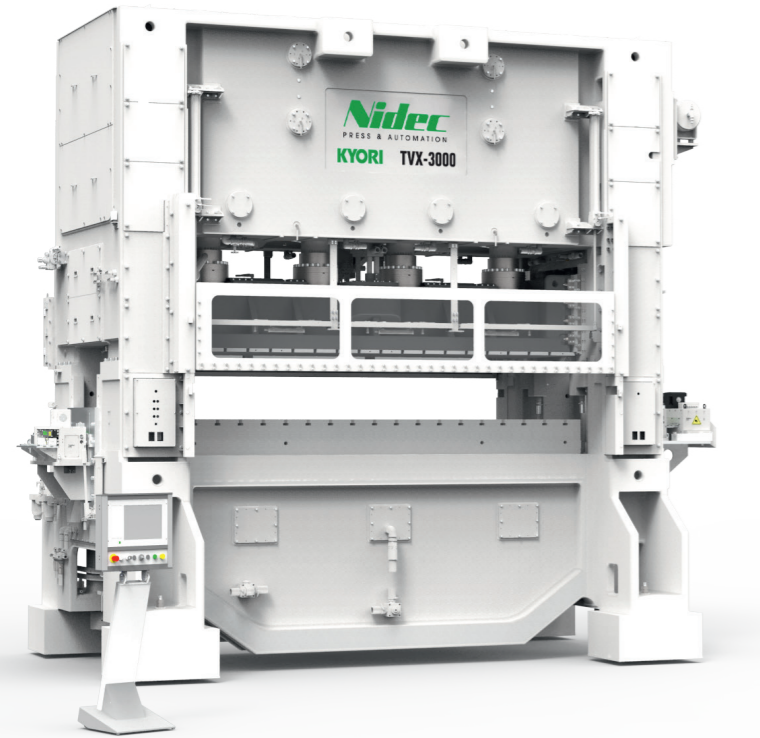
BULLETIN 200

PRODUCT OVERVIEW

The TVX Press Series from Nidec Kyori offers stampers a complete production system in combination with the modular and powerful Nidec SYS PCS100 press control, which offers considerable added value for rotor-stator production.

Kyori presses have earned a reputation for high precision, high performance and ease of operation from users all around the world, offering bed lengths of up to 4,300 mm.

- 1** Power transmission is achieved through an eccentric crankshaft
- 2** Multi-plunger design on slide of crown connection ensures even slide force and low deflection
- 3** Equipped with industry preferred control technology from Nidec SYS
- 4** Highly efficient drive technology ensuring lower Co2 footprint
- 5** Customized customer solutions with standard components
- 6** Industry 4.0 capable via OPC-UA interface



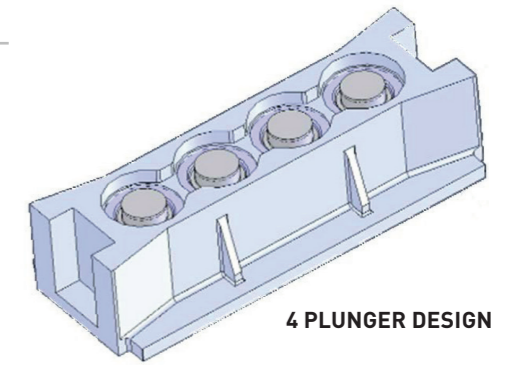
ADVANTAGES OF TVX MODELS

Robust Design

Press body made of cast iron ensures exceptional compressive strength and vibration dampening.

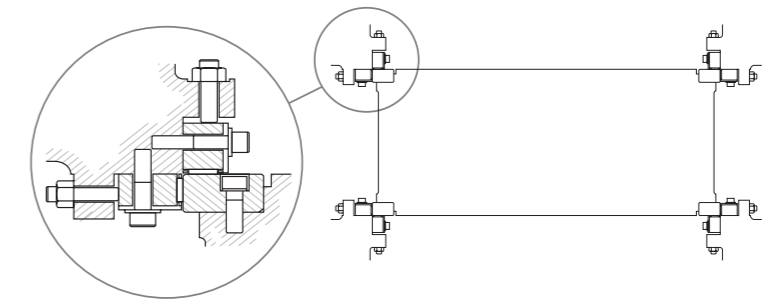
Multi-Plunger Design

- Three plungers for 2000W
- Four plungers for 3000W & 3300-330/370



8-Point Slide Guiding

8-point needle roller bearing, installed in long guideways to prevent the slide from tilting under off-center loads.



Dynamic Balancer

The dynamic balancer feature allows the press to be operated at full speed with minimal inertial effect and vibration.

Adjustable Fix Stroke

Adjustable fix stroke for flexible applications.



AUTOMATION

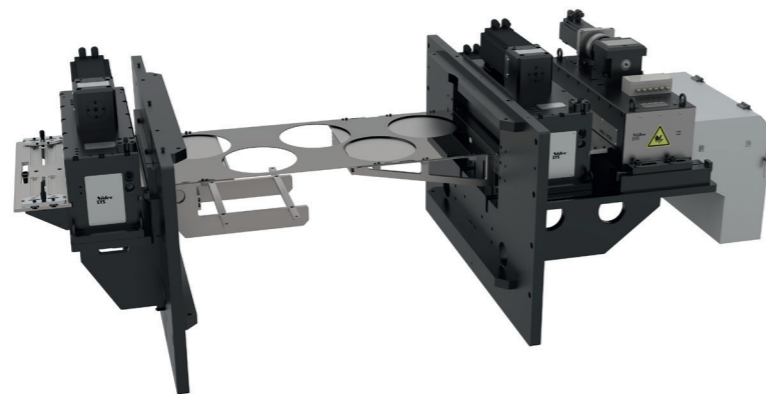
Control Features

- Up to 24 servo drives
- Engine test and diagnostic functions for fine tuning the engine control
- Up to 96 inputs and 80 outputs with free allocation for maximum flexibility
- Integrated tool protection with 32 digital inputs/24 digital outputs/16 analog inputs
- 10 configurable packet channels, each with :
 - » 100 programmable notches with up to 10 additional functions and separation function
 - » One basic programming and up to four extensions
 - » Programmable start position and end position monitoring of the sliders
 - » Correction of package heights during production
 - » Different functions for welding, bonding and tape insertion processes
 - » Ejection check/conveyor check/parcel ejector/parcel counter
 - » Packet distortion by alpha or beta angle calculation



Turnkey Production Control Solution

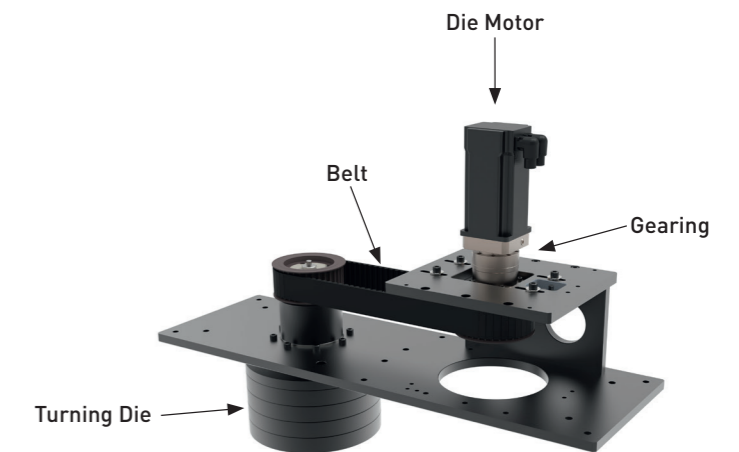
Powerful, PC-controlled production system for rotor-stator production with packaging control and AC servo drives (11.4-150 Nm), synchronous push/pull feed system and synchronous waste cutter.



AUTOMATION

Nidec SYS Die Drives

- 11.4 Nm to 150 Nm rated torque
- Standard gear ratios 3-5
- Protection of the engine through upstream planetary gear with rigid bearing
- Increased positioning accuracy due to gear ratio
- Significantly smaller dimensions and lower weight in the design of the drivetrain
- Simplified standard motor bracket can be used
- Easy installation of the AC servo on the motor console
- Adaptation of the load torque by means of transmission reduction
- Easier adjustment of control parameters
- Much lower impact of interference
- More efficient, less power loss
- Cost-effective in maintenance and replacement

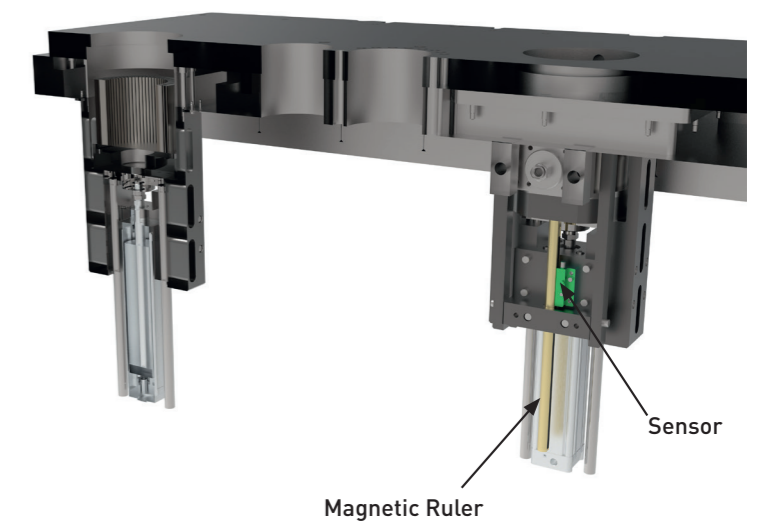


Parcel Lift Position Measuring System

- Coded magnetic distance measuring system
- Up to 6 measuring systems per system
- Attached to existing lift systems or punching tool delivery systems

Advantages

- Control of the lowering and ejection mechanism via the package positions
- Control of the package height via calculated material thickness
- Intervention in package geometry with TARGET <-> ACTUAL - comparison



HIGH PERFORMANCE FEED SYSTEMS

Push/Pull Feeds PV-700-EV / PV-600-EV



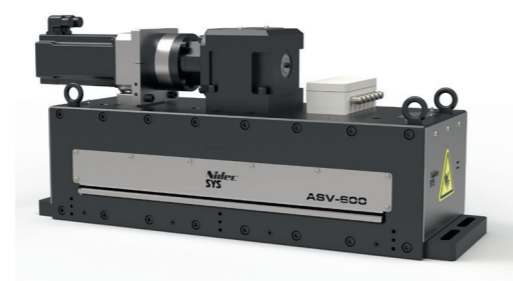
Features

- Right or left feed
- Quick change system for feed rollers
- Inlet with scale for side adjustment
- Push or pull feed
- Compact design
- Fast servo-driven intermediate ventilation

PV-600-EV (FEED)

Width (max.)	600 mm
Strip Thickness (max.)	1.0 mm
Strip Thickness (min.)	0.05 mm
Conveyor Belt Cross-Section (max.)	360 mm ²
Diameter of Rollers	65 mm
Roller Width	510 mm
Ventilation Unit	Servo motor
Drive	Servo motor

Scrap Cutter ASV-700 / ASV-600



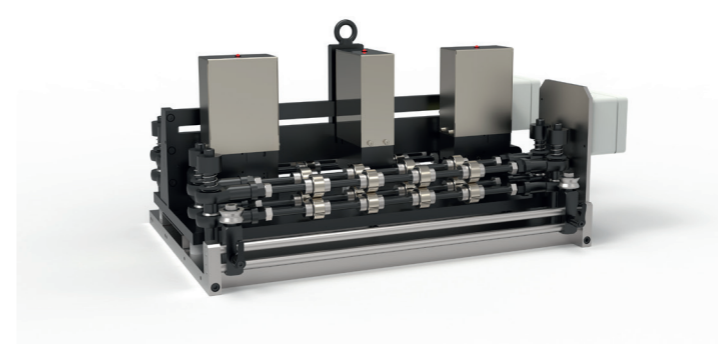
Features

- Compact design
- Fast servo motor drive
- Belt hold down
- Carbide cutting blades
- Pneumatically switchable longitudinal blades

ASV-600 (SCRAP CUTTER)

Strip Thickness (max.)	590 mm
Strip Thickness (max.)	1 mm
Conveyor Belt Cross-Section (max.)	250 mm ²
Cutting Blade Material	Carbide
Cutting Force	40 kN
Drive	Servo motor

Strip Thickness Measurement BDMS



Features

- Analog or digital contact sensors
- Up to four measuring points

BDMS

Strip Width (max.)	200-600 mm
Strip Thickness (max.)	1.5 mm
Strip Thickness (min.)	0.05 mm
Accuracy	±0.001 mm

Strip Thickness Measurement BDML



Features

- Non-contact laser differential measurement
- Up to four measuring points

BDML

Strip Thickness (max.)	200-600 mm
Strip Thickness (max.)	1.0 mm
Strip Thickness (min.)	0.05 mm
Accuracy	±0.001 mm

ALSO AVAILABLE:

PV-700-EV IN COMBINATION WITH ASV-700

SPECIFICATIONS & DIMENSIONS

		SYS	TVX-2000M -1700	SYS	TVX-2000W -2000	SYS	TVX-3000M -2300	SYS	TVX-3000W -2700	SYS	TVX-3300 -370	SYS	TVX-4000 -430
Fixed Stroke													
Press Force	kN		2,000		2,000		3,000		3,000		3,300		4,000
Number of Connecting Rods	pcs		2		3		2		4		4		5
Tool Loading Area (L-R)	mm		1,700		2,000		2,300		2,700		3,700		4,300
Adjustable Stroke	mm		25 / 30		25 / 30		25/30		25/30		30/40		30/40
Strokes Per Minute	SPM		100		100		200		100		100		100
Strokes Per Minute <i>(stroke length dependent)</i>	SPM		450/450		500/500		410/410		450/450		360/300		300/250
Main Voltage (EN60204)	V		400		400		400		400		400		400
Main Frequency	Hz		50/60		50/60		50/60		50/60		50/60		50/60
Control Voltage	VDC		24		24		24		24		24		24
Drive Power of Main Motor	kW		63		63		84		84		84		84
Slide Adjustment Range	mm		60		60		60		60		60		60
Shutheight (Standard)	mm		440		440		440		440		520-620		520-620
Bolster Area (L-R x F-B x H)	mm		1,700 x 950 x 240		2,000 x 1,000 x 240		2,300 x 1,000 x 240		2,700 x 1,000 x 240		3,700 x 1,200 x 240		4,300 x 1,200 x 300
Bolster Plate Opening (L-R, F-B)	mm		1,400 x 300		1,700 x 300		1800 x 350,		2,400 x 350		3,200 x 450		3,800 x 450
Base Plate Opening (L-R, F-B)	mm		1,400 x 350		1,700 x 350		2,000 x 400		2,400 x 400		3,200 x 500		3,800 x 500
Bridge at Bed Opening	Yes/No		No		No		No		No		No		No
Slide Area (L-R, F-B)	mm		1,700 x 650		2,000 x 800		2,300 x 800		2,700 x 1,000		3,700 x 1,000		4,300 x 1,000
Max. Upper Die Weight	kg		1200		1300		1,500		2,000		4,000		6,000
Strip Inlet Height from Bolster	mm		100-140		100-140		100-140		100-140		100-140		100-140
Max. Strip Inlet Width (Machine)	mm		510		510		510		550		700		700
DIMENSION													
Press with Kyori Feeder (L-R, F-B)	mm		3,600 x 2,400		4,150 x 2,130		4,530 x 2,540		4,700 x 2540		5,900 x 2,740		6,500 x 3,000
Height	mm		4,400		4,400		5,020		4,700		5,450		5,850
Weight	kg		48,000		50,000		65,000		75,000		140,000		180,000
Strip Inlet Unit			PV - 200-450		PV - 200-450		PV-200-450		PV-200-600		PV-200-700		PV-200-700



One Brand: A World of Resources

Nidec Press & Automation is the full service pressroom provider of choice for businesses in more than 90 countries and on six continents. Comprised of leading pressroom product brands, we ensure a complete offering of machinery, services and technology to meet your exact needs, enabling you to rely on one source.

Discover the freedom to achieve, to maximize and to drive your operation to exceed your goals. At Nidec Press & Automation, your success is the core of our focus and how we design our solutions to meet the rigid needs of the metal forming industry.

Choosing to work with us means you gain a constant resource with a global footprint, the brightest minds behind our solutions, and backed by regionally based OEM support ready to work as a natural extension of your team.

**Our promise to you is simple:
We're with you whenever and wherever
business takes you.**



MACHINERY

- Turn Key Systems
- Individual Components
- System/Tech Upgrades
- Industry 4.0 Software Upgrades
- Integrated Controls

METALFORMING PRESS APPLICATIONS

- Mechanical
- Servo
- Transfer
- High-Speed & Electrical
- Electrical Vehicle (EV)
- Lamination
- Container Cupping
- Container End-Conversion
- Container Shell
- Gap/D-Frame

AUTOMATION

- Press Tending / Robotics
- Integrated Transfers
- High Speed Servo Feeds
- High Speed Gripper Feeds
- Heavy-Duty Coil Lines

GLOBAL SERVICE NETWORK

- Field Service
- Remanufacturing
- Spare Parts
- Technical Service
- Training
- Planned Maintenance
- Inspection & Audit
- Relocation
- Upgrade Services
- Engineering Services

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