

TVX

High speed precision press
for Motor core application
Capacity 200-330 Metric Ton



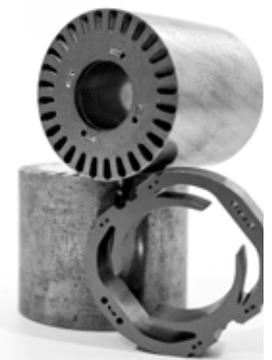
Product Overview

The TVX Press series from Kyori offers stampers consistent performance necessary for motor core and lamination applications.

As one of the early innovators for motor core and lamination stamping, Kyori presses have earned a reputation for high precision, high performance and ease of operation from users all around the world.

With the constant drive to gain efficiency, stamp thinner materials and increase production for motors and lamination parts, Kyori presses continue to develop and innovate solutions to meet the market demand.





- 1** Consistent bottom-dead-center repeatability creating the highest dynamic accuracy in its class.
- 2** Industry leading zero clearance slide-guiding enabling proper load balance and resulting in longer die life and consistent part quality.
- 3** Multi-plunger (3 pcs for TVX-2000W & 4 pcs for TVX-3000W,TVX-3300-330/370) design on slide to crown connection ensures even slide force and low deflection.
- 4** Turnkey system integration available- Ease of tool set-up and storage from integrated press & feed controls within the Vamco Quantum ACS System.

Features

Wide bolster

Wide bolster width up to 3700mm(TVX-3300-370); accommodates more complex multi-station processes.

Minimum thermal displacement

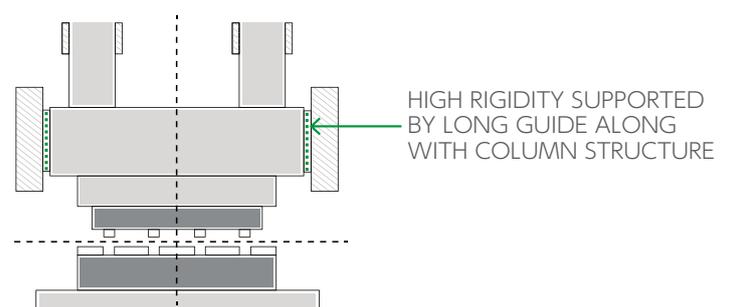
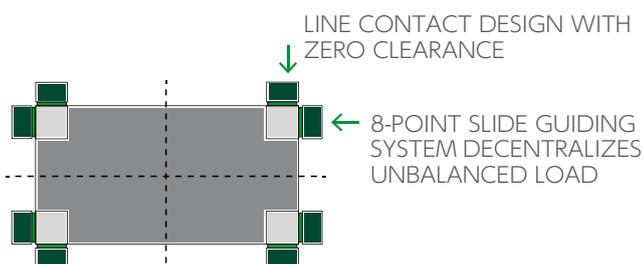
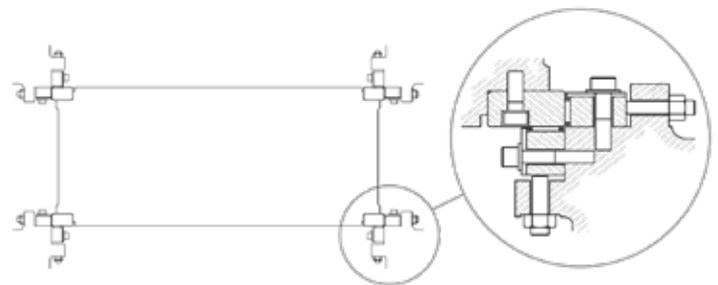
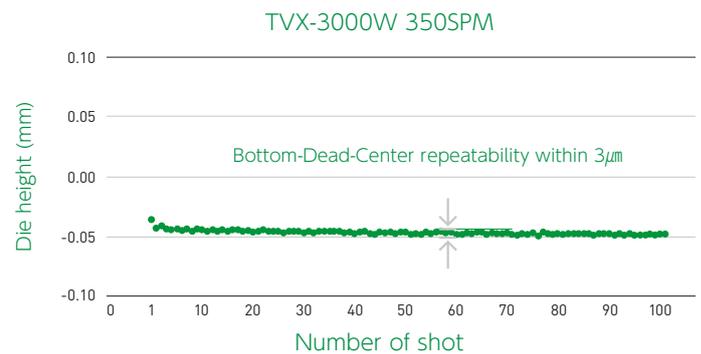
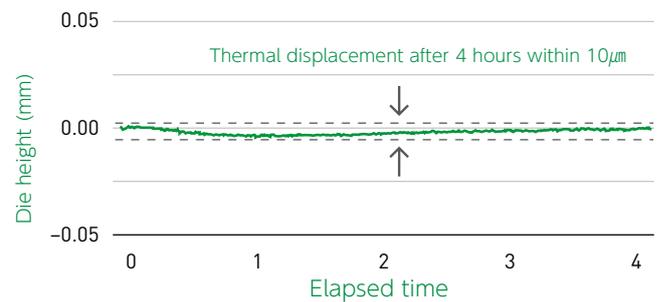
Heat control technology nurtured by small size high speed press minimize the thermal displacement resulting in better parts quality.

High Bottom-Dead-Center Repeatability

Reduces the die wear and tear resulting in better parts quality as well as reduces the overshoot and extends the die life.

Accurate 8-point Slide Guiding

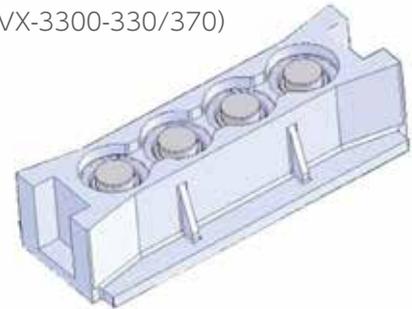
TVX presses use 8-point needle bearings for slide guiding. Needle bearings are able to withstand a much larger load and the long guide ways resist off-center loading. The positioning of the guides make them easy to maintain and accurately guides the punch into the die to increase die life for peak performance.



Multi-Connection Design

- Increased versatility and control depending on application need
- Increased off-set load rigidity

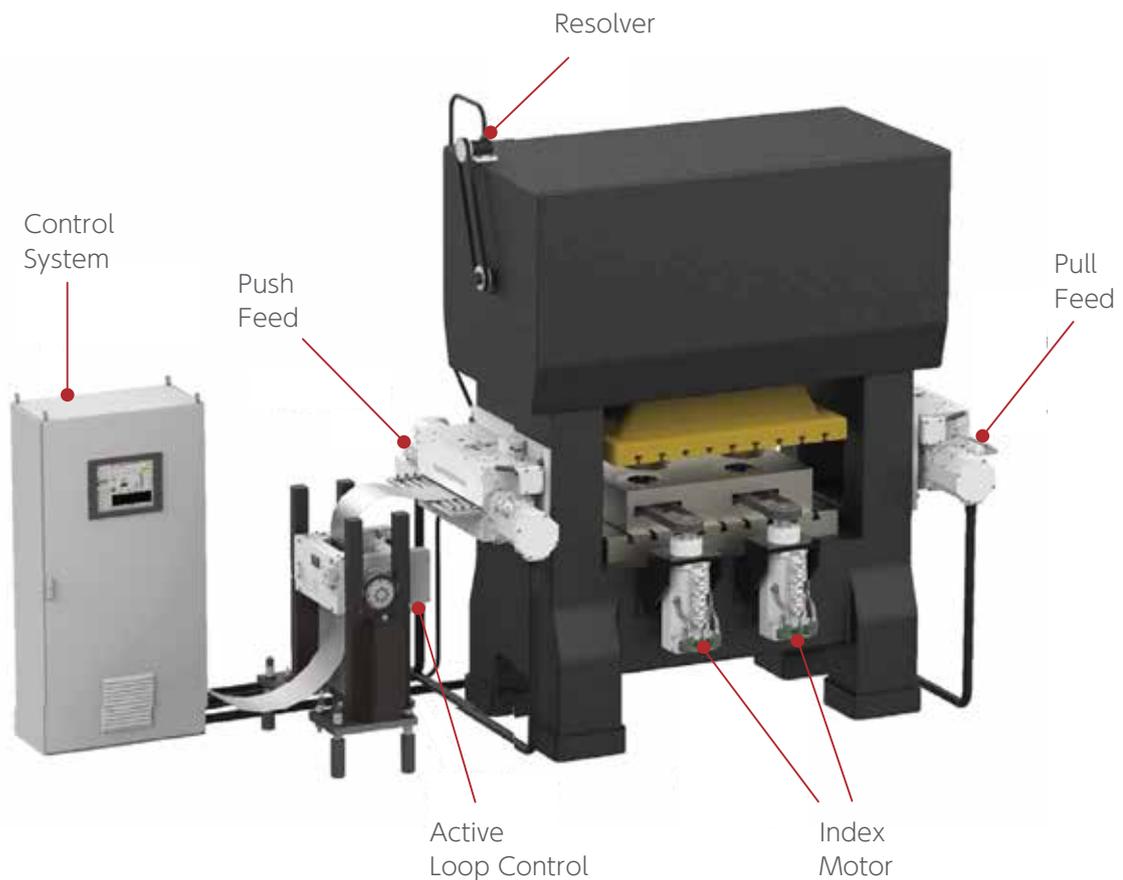
4Plungers
(TVX-3000W, TVX-3300-330/370)



Quantum ACS integrated solution (Option)

- Coordinated System Servo Control
- Higher production speeds
- Reduced set-up time
- Reduced floor space
- Reduced total system costs

Quantum ACS system provides control over the material handling, feeding, stacking, and motor core lamination process. Their control interfaces are integrated and incorporated with the press control panel.



Standard Features

High Rigidity Frame

Minimized deflection, increases die life and improves part quality

Dynamic Balancer

The dynamic balancer feature allows the press to be operated at full speed with minimal inertial effect. The balancer weight reciprocates as the slide moves downward resulting in balance vertically and horizontally with minimal vibration.

Oil Heater and Cooler

To ensure accurate bottom-dead-center repeatability, the unit can be programmed to heat and circulate the oil prior to operation. Once the press is in production mode, the cooler adjusts and maintains the oil temperature depending on the operation speed.

Continuous Press Lubrication

The TVX incorporates a pressurized oil lubrication system which supplies a continuous oil flow under pressure to all bearing surfaces ensuring reliable operation.

Die Jam Protection

- Slide lock mechanism incorporates die jam protection function.
- Operation guided on touch panel releases oil pressure lock and enables die jam protection function.

Eccentric crankshaft

- Resists deflection
- Bearings are closer to the connection where the stamping force is exerted



Combination type air friction clutch and brake

TVX presses incorporate Kyori in-house clutch and brake bringing out the maximum performance.



User-friendly operation stand

Big size LCD touch panel and easy-to-use design.

Other Standard Features

- Inverter Type Variable Speed Main Motor
- Electronic Rotary Cam Switch
- Stop Position Automatic Compensation
- Electronic Crank Angle Indicator (Operation console)
- Electric Slide Adjustment Device (Servo Motor)
- Safety Door (Front and Rear Sides Up /Down Type)
- Control Box Selfstand Type / Main Unit Operation Stand (with casters)
- Speed Meter
- Total Counter (9 digits)
- Preset Counter (9 digits for stopping)
- Hour Meter (7 digits)
- Micro Inching (Reverse Available)
- Motor Reverse Device
- Spring Shock Absorber
- Both Hands Push Buttons (On the Upper Side of the Operation Stand)
- Stock Guide
- Stock End Stop Switch
- Mis-Feed receptacle (with Changeover Switch)
- Over-tension Stop receptacle
- 1/4B Air Outlet
- 100V Outlet (5A)
- All Stop Circuit
- Working Light
- Signal Tower
- Photoelectronic Safety Device (Front Door only)
- Die Jam Protection

Optional Features

- Air Ejector DC (with solenoid valve)
- Cutting Counter (AC 100V Output)
- Slug Detector
- Stock Holding Cylinder
- Stock Oiling Roll
- Die Clamps
- 3-Phase 200V Outlet
- Uncoiler Leveler

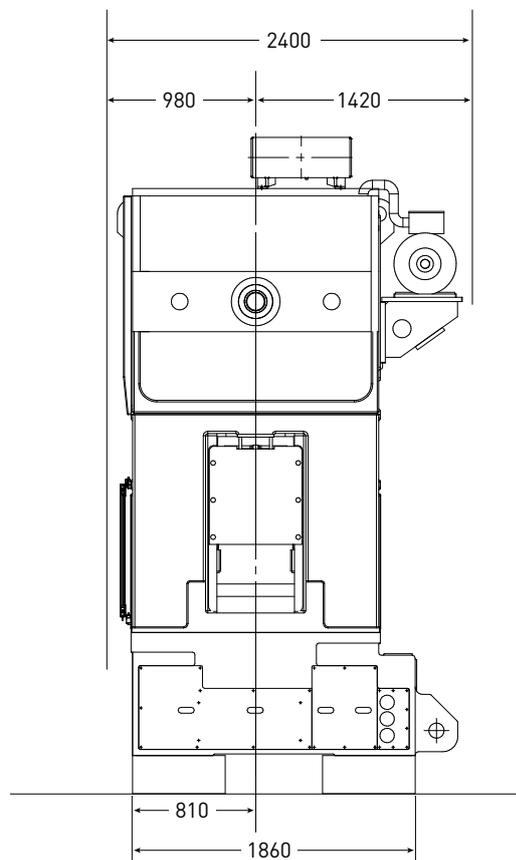
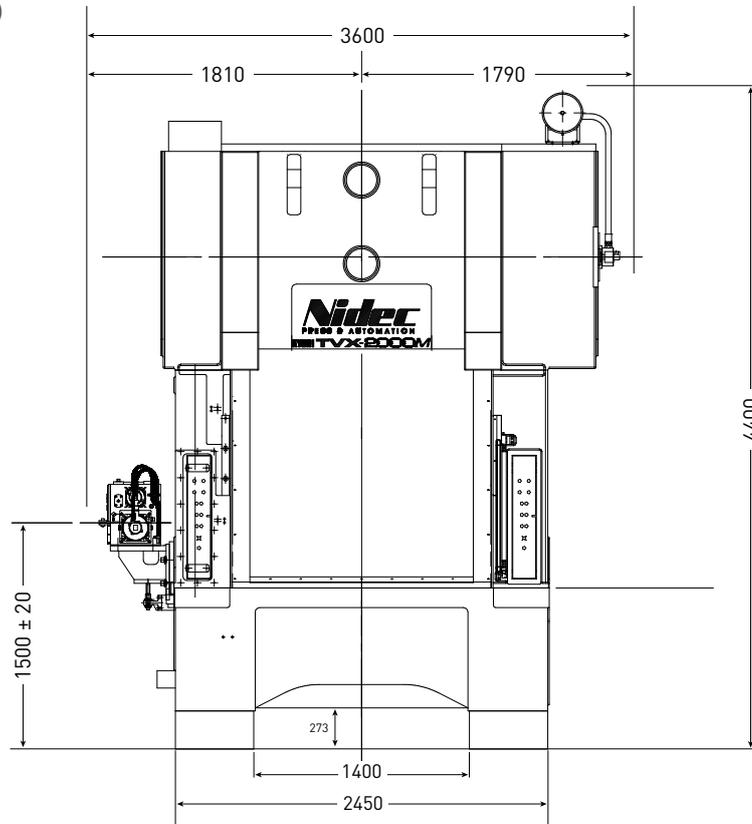
Control System

Control systems available depending on local industry standard all over the world.

- Kyori Mitsubishi Platform Press Control
- Kyori Siemens Platform Basic Press Control
- NP&A Siemens Platform European Press Control

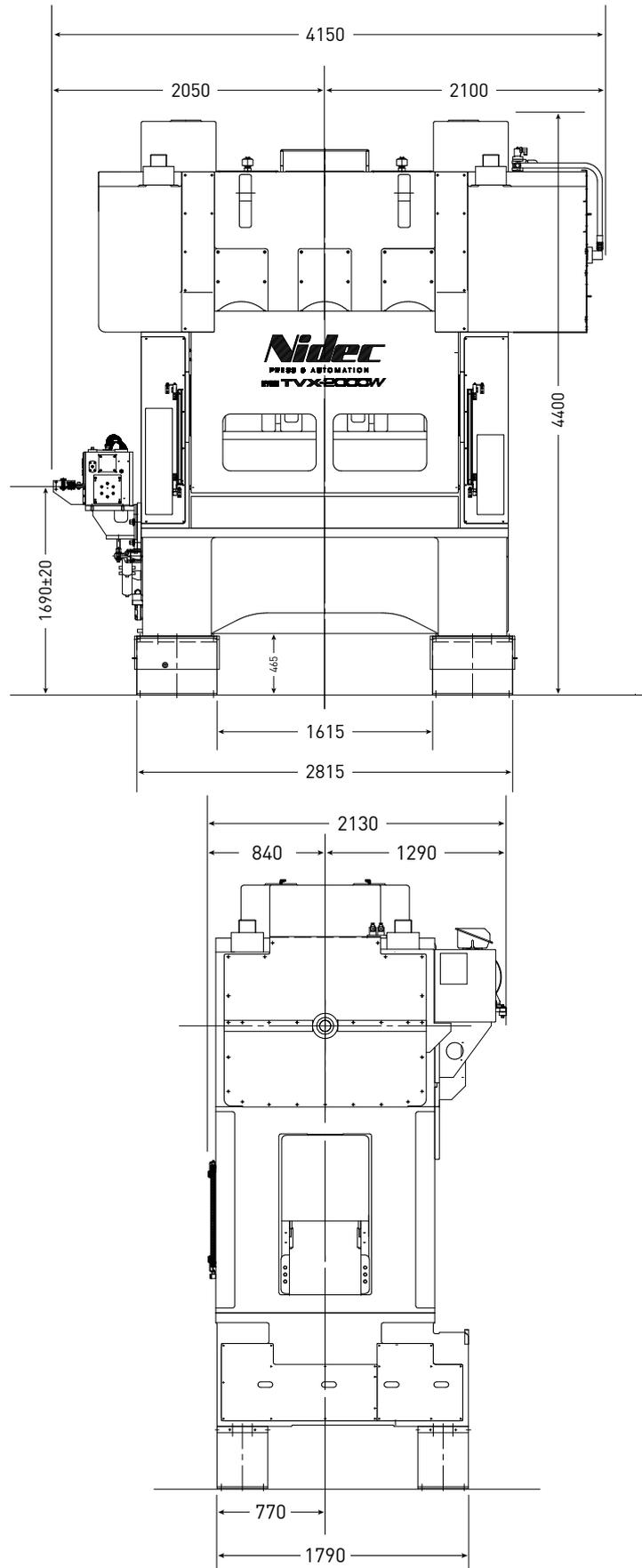
General View (mm)

TVX-2000M



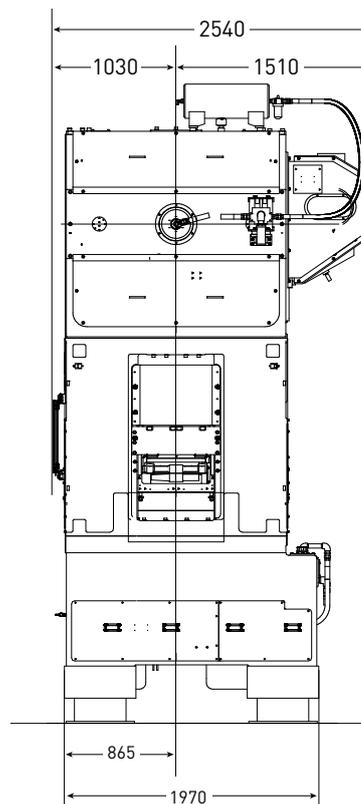
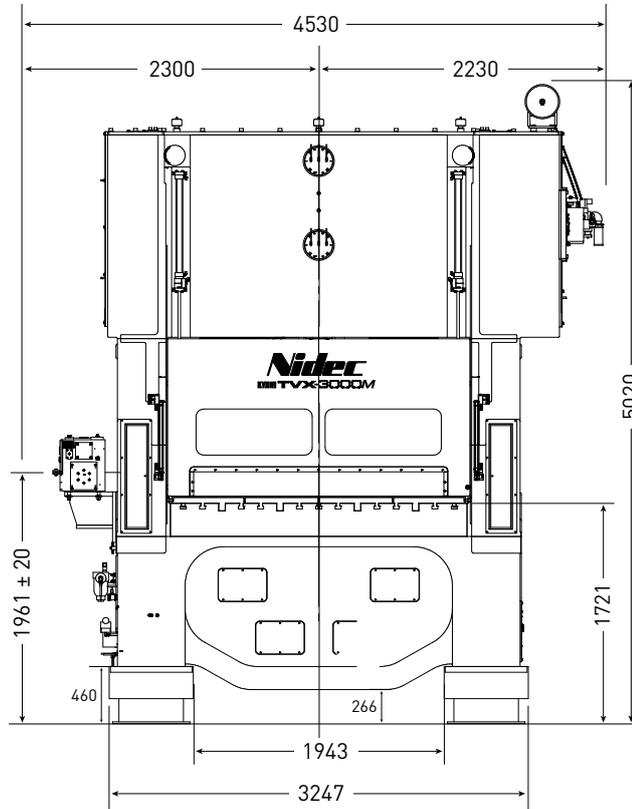
TVX-2000

TVX-2000W



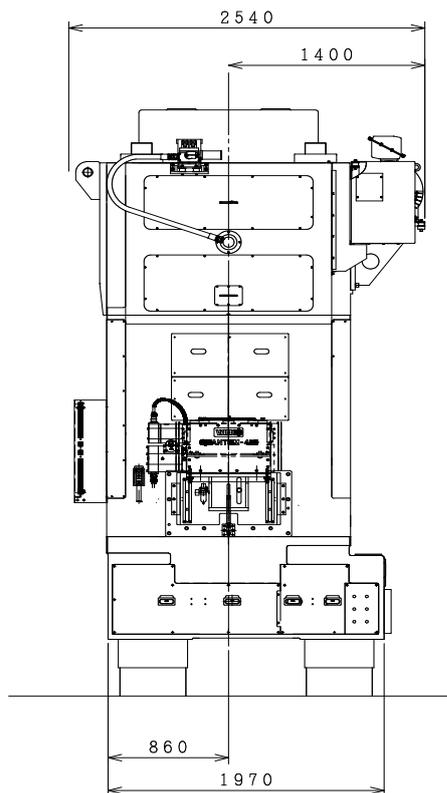
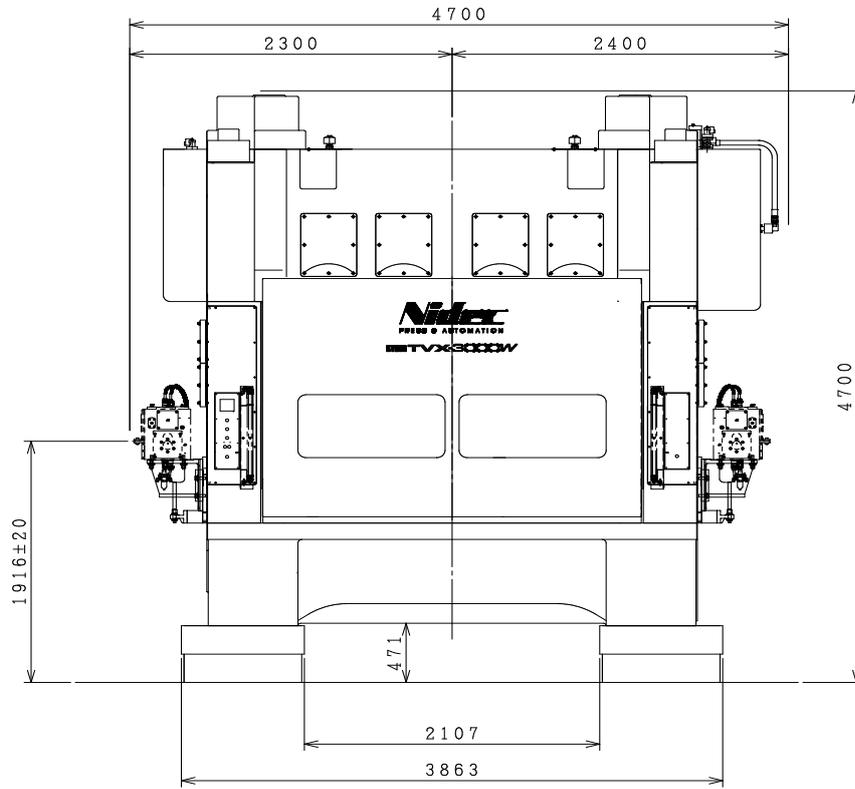
General View_(mm)

TVX-3000M



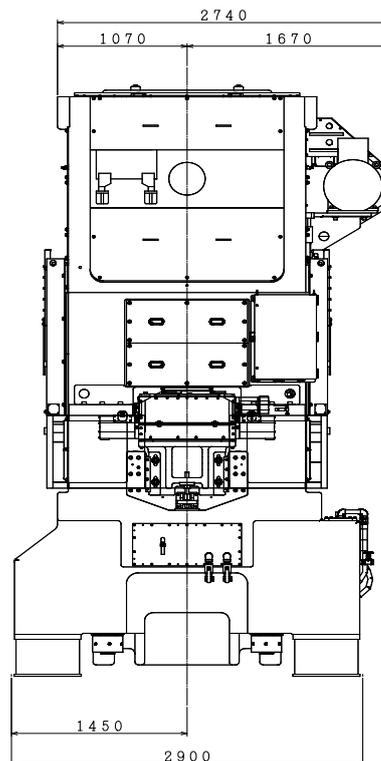
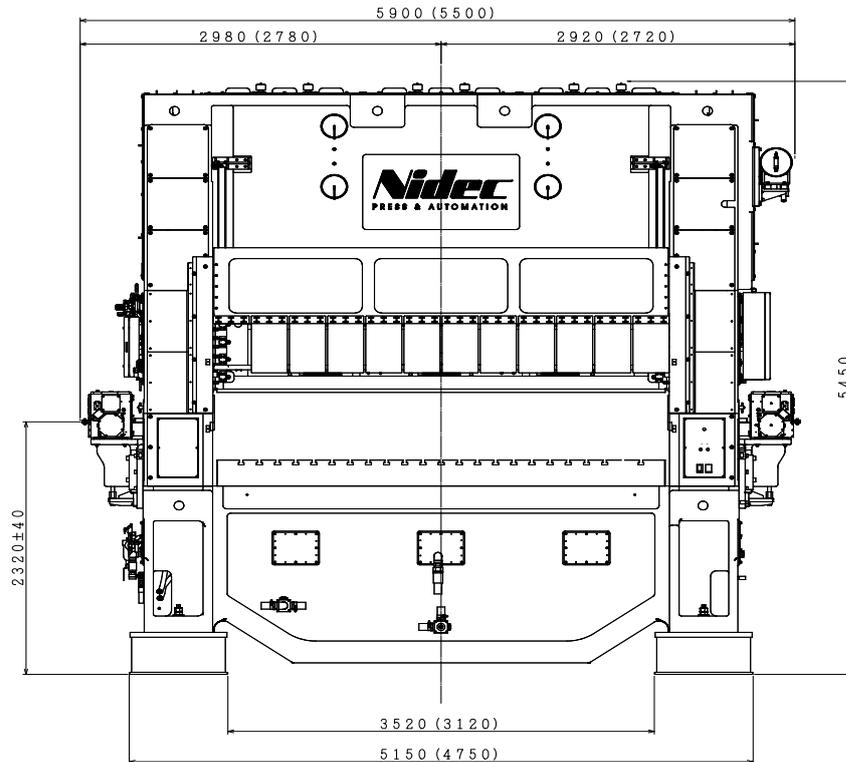
TVX-3000

TVX-3000W



General View_(mm)

TVX-3300-370 *Values in brackets () indicate TVX-3300-330 dimensions.



TVX-3300

Specifications

		TVX-2000M	TVX-2000W	TVX-3000M	TVX-3000W	TVX-3300-330	TVX-3300-370
Capacity	kN	2000	2000	3300	3000	3300	3300
Stroke Length	mm	25 / 30	25 / 30	25 / 30	25 / 30	30/40	30/40
Speed	SPM	100 - 450	100 - 500	100 - 410	100 - 450	100 - 360/300	100 - 360/250
Force Point	mm	3.2 *1	3.2 *1	3.2 *1	3.2 *1	3.2 *1	3.2 *1
Die Height	mm	440	440	480	440	520-620	520-620
Die Height Adjustment	mm	60	60	60	60	60	60
Slide	mm	1700 × 650	2000 × 800	2300 × 800	2700 × 1000	3300 × 900	3700 × 1000
Bolster	mm	1700 × 950	2000 × 1000	2300 × 1000	2700 × 1000	3300 × 1000	3700 × 1200
Bolster Thickness	mm	240	240	240	240	240	240
Bed Opening	mm	1400 × 350	1700 × 350	2000 × 400	2400 × 400	3000 × 500	3200 × 500
Bolster Opening	mm	1400 × 300	1700 × 300	2000 × 380	2400 × 350	3000 × 450	3200 × 450
Main Motor	kW	45	55	55	55	55	55
JIS Static Accuracy		Special Grade					
Upper Die Weight	kg	Max. 1200	Max. 1300	Max.1500	Max. 2000	Max. 3200	Max. 4000
Gross Weight	kg	48000	50000	75000	65000	130000	140000

*1 1.6mm above 300SPM





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