

# GS2

# Eccentric Gear Straightside Servo Presses

3150 - 8000 kN Capacity 355 - 900 US Tons Capacity



### **Product Overview**

With capacity ranging from 3150-8000 kN (355-900 US tons), the Minster Global Servo Press (GS2) Series offers proven servo technology, performance, and flexibility.

The GS2 was designed in collaboration with Nidec Press & Automation's global technology resources, which represents nearly 400 years of combined metal forming experience.

Assembled at Nidec Minster's world headquarters in Minster, Ohio, the GS2 is built with the same rugged characteristics, combined with the performance and technology that Minster customers have come to know.

With an aggressive stock program and global manufacturing synergies within Nidec Press & Automation, Nidec Minster is able to offer GS2 presses with competitive pricing and short term delivery anywhere in the world.

The GS2 Press Series is offered with NPA's full portfolio of automation and control solutions allowing for complete integrated pressroom systems from a single source.

In addition, all Minster and NPA products are backed up with the industry's most comprehensive Customer Service network with fully-stocked Service Centers located on three continents, and service personnel dispatched from more than 90 global locations.

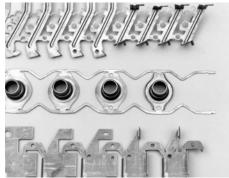




- Precision kinematics enables quicker system response and higher production rates.
- 2 Eccentric wheels with double helical gearing for smooth operation, increased power transmission and higher durability.









- Desch Planetary Gearbox reduces the drive train inertia for quicker acceleration and faster stopping times.
- Minster proven Robust Design insures years of trouble free operation and lowest overall cost of ownership.
- Siemens full energy management system provides maximum energy efficiency and lowest power cost per part.
- Zero clearance slide guiding improves die set up and operation.

## Standard Features

#### **Minster Robust Design**

- Heavy duty steel frame
- Maximum rigidity insuring consistent bottom-dead-center (BDC) repeatability
- All components are thoroughly analyzed



#### Low Inertia Drive Train

- Integrated assembly to obtain maximum performance
- Low friction bearings
- Double reduction planetary and pinion gearing
- Space saving, low inertia design (for minimum space)

#### **Eccentric Gear Transmission**

- Precision kinematic drive train
- Superior response results in higher performance
- Load is centralized directly through the most rigid part of the drive train
- Compact design insures minimal deflection and superior response



#### Desch Reduction Planetary Gearbox

- Low inertia, high performance
- Maintenance free wet brake

#### **Double Helical Gear**

- No axial force
- Smoother running, more power transmission with less noise
- Increased durability due to lower losses and friction wear
- Tighter tolerance resulting in precise kinematic drive train
- Recommended for use with high gear speed





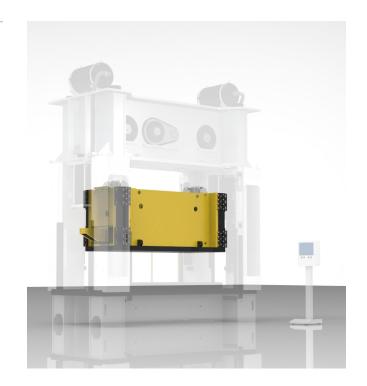
#### Siemens Servo Motor Technology

- State-of-the-art technology
- Flexible and programable profiles
- Low inertia
- Full energy management
- Low demand on the electric power grid
- Water cooled motor for higher performance

## Standard Features

#### **Slide Guiding System**

- Zero clearance slide guiding system
- Linear roller guides provide full stroke slide guiding accuracy
- Precision eight-point slide guiding
- Easy maintenance



#### **Additional Standard Features**

- Recirculating oil lubrication
- Electronic tool storage
- Hydraulic overload
- Fixed bolster
- 16 pole programmable limit switch
- Automatic counterbalance control
- Electronic shutheight control
- Powered die doors (front & rear)
- Front light curtains
- Component Temperature Monitoring
- Feed and Transfer Mounting Pads
   RH & LH end
- Maintenance platform in the crown

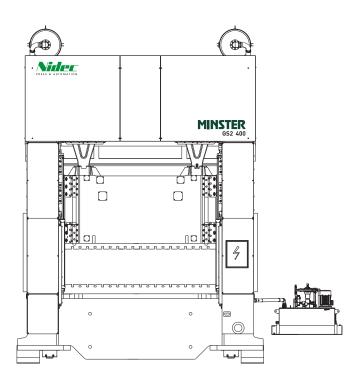
# Optional Features

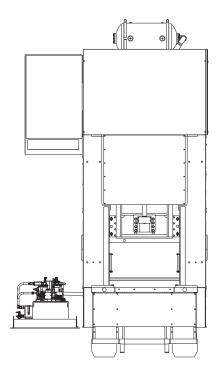
#### **Features**

- Press isolation mounts
- 4 channel tonnage monitor + HOL Adj Valve
- 16 point die protection
- Automatic shutheight adjustment
- Die area lights
- Integration with industry partners



# Specifications & Dimensions





	SERIES			
SPECIFICATIONS				
Capacity	3150 355 <b>US</b>			
FRAME SPECIFICATIONS				
Bed & Slide, R-L	2550 mm 100 in	3050 mm 120 in		
Bed & Slide, F-B	1200 47 i			
Shutheight on Bolster (SDAU)	600 - 650 - 23.6 - 25.6			
Bolster Thickness	190 mm 7.5 in			
Side Window Opening, F-B	1200 47 i			
Weight (kg / lbs)	53,000 kg 116,845 lbs	60,000 kg 132,280 lbs		
STROKE & SPEED SPECIFICATIONS				
Stroke	300 mm 11.8 in			
Speed Continuous (Max.)	71 SPM			
Speed Pendulum 150 mm (5.9 in)*	90 SI	PM		
Speed Pendulum 125 mm (4.9in)*	100 S	SPM		
Speed Pendulum 100 mm (3.9 in)*	110 S	SPM		
Speed Pendulum 80 mm (3.1 in)*	115 SPM			
Slide Adjustment	200 r 7.8			
Max Upper Die Weight	3,000 kg 6,615 lbs			
CONTROL SPECIFICATIONS				
Servo Motor and Drive Platform	Siem	Siemens		
Energy Management System	Ful	ll		
Servo Power Infeed	80 k 107			
Energy (@40 SPM)	65 k 287 ln-			

<sup>\*</sup> Stroke rate depends on profile of stroke and press mechanical properties.

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GS2-400 SERIES	)	GS2-630 SERIES			GS2-800 SERIES	0	
4000 kN 450 <b>US tons</b>		6300 <b>kN</b> 710 <b>US tons</b>		8000 kN 900 <b>US tons</b>			
3050 mm 120 in	3650 mm 143 in	3050 mm 120 in	3650 mm 143 in	4250 mm 167 in	3650 mm 143 in	4250 mm 167 in	4850 mm 191 in
1400 mm 55 in		1500 mm 59 in		1800 mm 71 in			
	0 - 750 mm 7.6 - 29.5 in	750 - 800 - 850 mm 29.5 - 31.5 - 33.5 in		800 - 850 - 900 mm 31.5 - 33.5 - 35.4 in			
	0 mm '.5 in	190 mm 7.5 in		235 mm 9.3 in			
	1400 mm 55 in		1500 mm 59 in		1800 mm 71 in		
82,000 kg 180,780 lbs	93,000 kg 204,600 lbs	106,000 kg 233,700 lbs	125,000 kg 275,578 lbs	145,000 kg 319,670 lbs	TBD	TBD	TBD
	0 mm 3.8 in	400 mm 15.7 in		450 mm 17.7 in			
53	3 SPM	55 SPM		45 SPM			
90	SPM	85 SPM		75 SPM			
95	SPM	90 SPM		80 SPM			
10	5 SPM	100 SPM		90 SPM			
110	0 SPM	105 SPM		95 SPM			
	0 mm '.8 in	300 mm 11.8 in		300 mm 11.8 in			
	000 kg 200 lbs	7,000 kg 15,430 lbs		10,000 kg 22,045 lbs			
Sie	emens	Siemens		Siemens			
	Full	Full		Full			
	20 kW 60 HP	160 kW 215 HP		235 kW 315 HP			
	20 kJ In-Tons	110 kJ 486 In-Tons		210 kJ 928 In-Tons			



#### 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 press room 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 i4.0 Software Upgrades Integrated Controls

## METAL FORMING PRESS APPLICATIONS

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













#### AUTOMATION GL

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

#### **GLOBAL SERVICE NETWORK**

Field Service
Emergency Response
Technical Service & Support
OEM Replacement Parts
Machine & Component Remanufacturing
Technical Training



## One Brand: A World of Resources

A single source solution that will help you find the efficiencies you want — all from the products, services and technology of Nidec Press & Automation.