

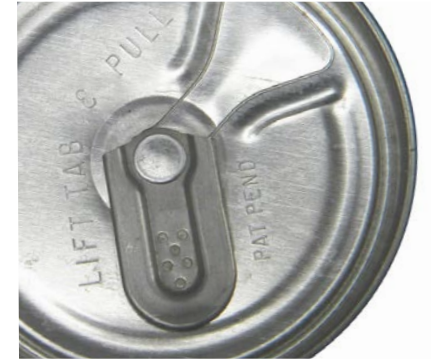
CUPPING, SHELL & CONVERSION PRESSES

600 - 3,000 kN
60 - 300 US Tons Capacity



PRODUCT OVERVIEW

Early work with the originators of the “easy-open” can end has resulted in Nidec Minster becoming the world’s foremost builder of presses for easy-open end conversions. This success is based on a design that meets the industry’s demand for high production speeds and extreme, consistent accuracy. Minster presses are currently in operation on six continents and in more than 90 countries around the world. Minster continues to develop new designs and improved manufacturing techniques for metal packaging presses. Designs have been constantly improved and refined, and today, Minster has become the unquestioned leader in presses for production of shells, easy-open ends, cups and redrawn cans.



Development of the Minster Double Action Cupping (DAC) press in the early 1970's marked Minster's entry into the D&I can making arena.

In the decades following, Minster's DAC presses have become the industry's first choice for producing cups in both D&I beer/beverage can lines and draw/redraw sanitary food can lines. The DAC's prominence grew based on its high-torque, high energy drive and the mass, rigidity and precision needed for the production of drawn cups with uniform wall thickness.

In its tradition of combining experience and innovation, Minster also produces high-output presses for producing beer/beverage and sanitary food can ends with extreme precision to handle down-gauging for material savings.

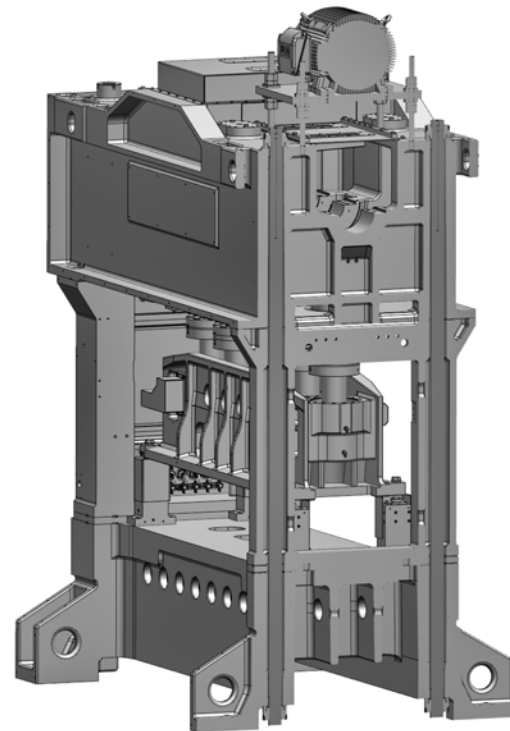
STANDARD FEATURES

High Performance

Minster's metal packaging presses operate at the highest speeds in the industry, no exceptions, providing maximum output for the customer.

Maximum Rigidity

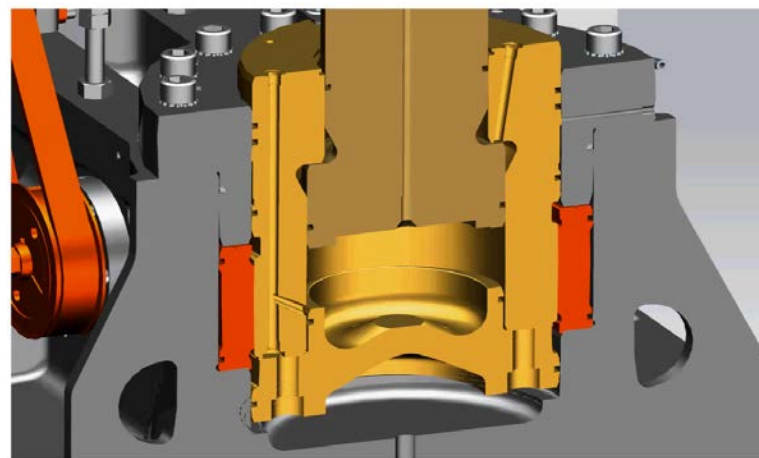
Heavy, massive crown, bed and uprights combine to provide an extremely rigid, low deflection press frame construction.



Quick Lift Feature

The quick lift slide provides for quick and easy tool access to the die area for adjustment, maintenance and misfeed troubleshooting, contributing to overall production efficiency.

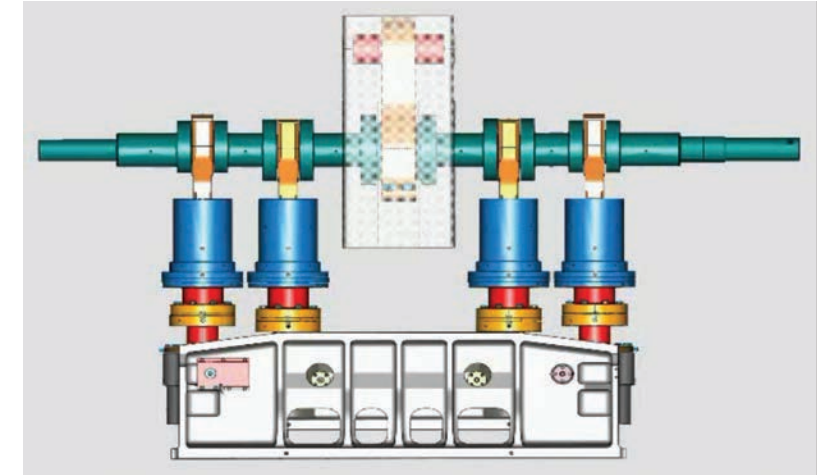
- Quick lift design raises and lowers the slide by filling or draining hydraulic chambers.
- Mechanical stops assure the slide will return to the exact same shutheight position prior to lifting.



Quick lift chamber on ECH-140.

Dynamic Balancer

The reciprocating dynamic balancer system provides almost perfect balance of all dynamic forces. This allows for higher operating speeds and helps maintain precise bottom-dead-center repeatability resulting in less die wear and greater part accuracy.

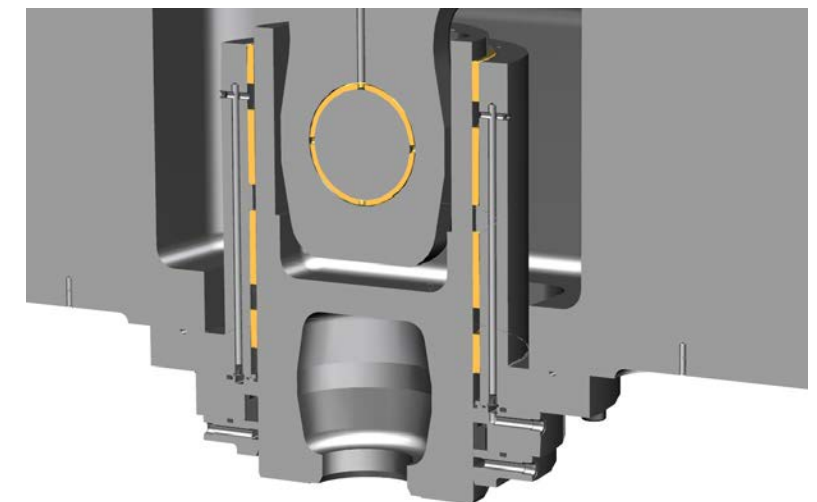


Dynamic balancing on DAC-H165 double action cupping press, a patented feature.

Piston Guide System

H-Series presses use the patented hydrostatic/hydrodynamic bearing system, providing the ultimate in precision guiding and bearing life, resulting in extended die life.

- Eight separate hydrostatic pads are utilized to resist off-center loading and keep the slide centered and accurate through each stroke.
- A patented vacuum drain system keeps this area free from oil contamination.



Hydrostatic piston housing and patented vacuum drain system from ECH-140.

STANDARD FEATURES

Patented Minster Hydraulic Clutch and Brake Unit

Minster's combination hydraulic clutch and brake produces the maximum torque possible providing for faster starting and stopping, resulting in increased production.

- No adjustment required
- High single stroking rates
- Zero backlash design for high speed
- 3-4 times better stopping time - enhances die sensing efforts



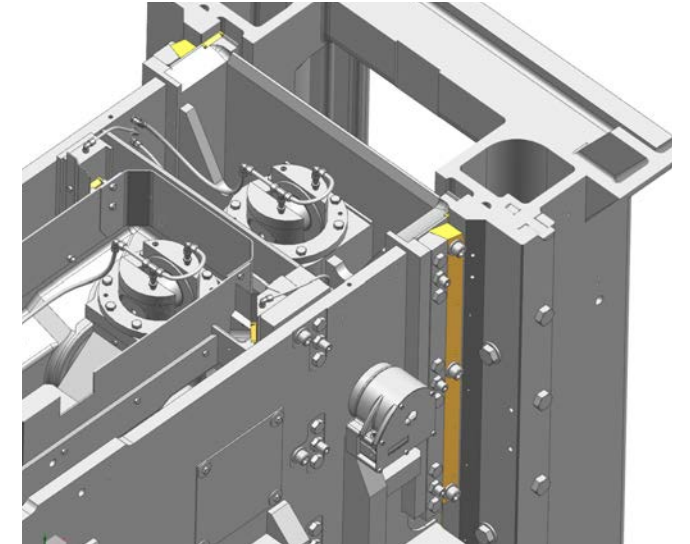
Adjustable Shutheight

Adjustment system provides solid support and makes shutheight changes easy. The adjustable shutheight contributes to longer production time and better part production.

Gib Guide System

For DAC model presses, the design and construction of the high tensile cast iron inner slide and the heavy steel outer slide produces minimum deflection. The inner slide is guided within the outer slide. Four connections, two to each slide, are screw-type and, for shutheight changes, each pair is adjustable as a set from one point through a cross-shaft. This allows the press user to maintain accuracy of slide to bed parallelism at all shutheight settings.

For DAC and EC model presses, slide-guiding accuracy and parallelism are also maintained by the exceptionally long and precise gibbing, providing guiding of the slide(s) throughout the entire stroke. On DAC model presses, the outer slide runs in eight adjustable bronze-lined gibs which are accurately squared with the press bed. The inner slide is guided by 45° adjustable front ways and 90° flat rear ways.



Minster MonitorFlow®

The patented Minster MonitorFlow recirculating lubrication system provides a continuous flow of pressurized and filtered oil to all lubrication surfaces ensuring reliable operation. It monitors flow on EC/DAC press models, and pressure to individual points on H series presses, as well as the oil level and pressure within the entire system. This assures longer bearing life and closer clearances for increased precision.

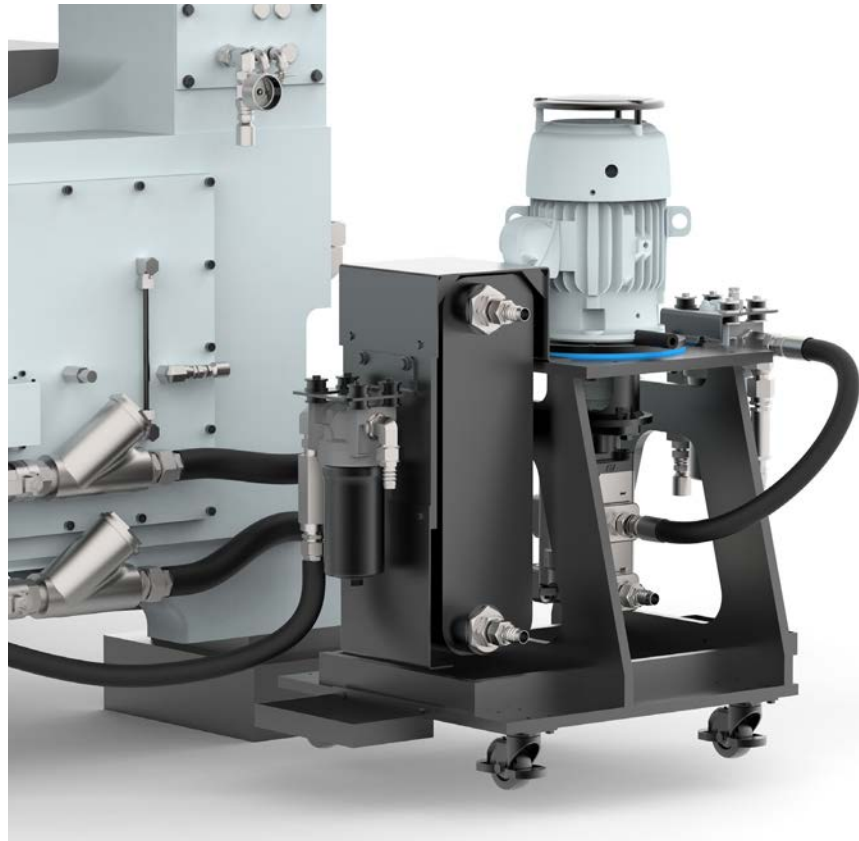


STANDARD FEATURES

Temperature Stabilized Frame

A temperature stabilized frame ensures your press is thermally stable and in a good operating condition even in cases of extreme ambient temperature variations. H series presses are provided with a combination of temperature stabilizing systems:

- For plants with colder ambient temperatures, an oil sump preheat system keeps the press in a production-ready condition.
- For high ambient temperatures, an oil/water heat exchanger system cools the lubricating oil, keeping it from getting too thin which assures proper operating pressures.



OPTIONAL FEATURES

Auxiliary Equipment

Minster can supply servo feeds and lubricators to your container making system. Minster's servo feeds provide accurate feeding for maximum material efficiency.



Production Management Control (PMC)

Incorporates all press functions including:

- Full machine diagnostics detailing all press and feed line faults.
- Multiple selectable languages.
- Open architecture which allows for greater convenience in planning and maintenance.
- PLC and color touch screen technology; all press and feed line functions can be monitored for efficient diagnosis of production line faults.

Available popular options include: die protection, load monitoring as well as automatic shutheight and counterbalance controls.

FieldHawk - Industry 4.0

FieldHawk is a cloud-based mobile application designed to communicate with your NP&A stamping press lines from your iOS or Android mobile devices. Cloud-based, secured communications allows all authorized users to check machinery status from anywhere you can get phone service and/or an internet connection, thus reducing downtime.



SPECIFICATIONS & DIMENSIONS

Double Action Cupping Presses



DAC-H60-40



DAC-150-84



DAC-H165-96

	US TONNAGE	BED WIDTH	STROKE OF SLIDE		SPEED
			Inner	Outer	
DAC-H60	60	40 in 1,015 mm	5 in 125 mm	2 in 50 mm	100-250 SPM
DAC-100	100	66 in 1,675 mm	5 in 125 mm	2 in 50 mm	100-250 SPM
DAC-150	150	84 in 2,135 mm	5 in 125 mm	2 in 50 mm	100-250 SPM
		84 in 2,135 mm	7.5 in 190 mm	4.5 in 115 mm	90-180 SPM
DAC-H165	165	96 in 2,440 mm	12.5 in 320 mm	10 in 250 mm	40-80 SPM
			5.0 in 125 mm	2.0 in 50 mm	150-350 SPM
DAC-300	300	96 in 2,440 mm	13 in 330 mm	10 in 250 mm	50-100 SPM
		132 in 3,350 mm	16 in 405 mm	10 in 2,450 mm	40-80 SPM

Shell Presses



SAS-H60-48



SAS-H100-72



C2H-100-48

	US TONNAGE	BED WIDTH	STROKE OF SLIDE	SPEED
SAS-H60	60	48 in 1,220 mm	1.75 in 45 mm	100-650 SPM
			2.50 in 65 mm	100-450 SPM
C2H-100	100	48 in 1,220 mm	2.56 in 65 mm	90-330 SPM
			3.94 in 100 mm	90-275 SPM
C2H-160	160	63 in 1,600 mm	2.95 in 75 mm	70-300 SPM
			3.94 in 100 mm	70-250 SPM
			4.92 in 125 mm	70-200 SPM
SAS-H100	100	72 in 1,830 mm	1.75 in 45 mm	100-550 SPM
			2.75 in 70 mm	100-375 SPM

NOTE: Maximum press operating speed may vary with stroke length and phase angle combination.

H- Designates Hydrostatic Piston Guiding.

Predominate specifications are listed above. Others are available — Please consult Minster for your specific requirements.

Specifications & Dimensions

End Conversion Presses



EC-100-QL



ECH-125-QL



ECH-140-QL

	US TONNAGE	BED WIDTH	STROKE OF SLIDE	SPEED
EC-100-QL	100	48 in 1,220 mm	1.75 in 45 mm	100-550 SPM
			1.62 in 41 mm	100-600 SPM
ECH-125-QL	125	54 in 1,372 mm	1.62 in 41 mm	100-700 SPM
			1.38 in 35 mm	100-750 SPM
ECH-140-QL	140	56.6 in 1,438 mm	1.25 in 32 mm	300-850 SPM

H- Designates Hydrostatic Piston Guiding.

QL- Designates Quick Lift Slide for tool access and release of jam at bottom of stroke

Predominate specifications are listed above. Others are available — Please consult Minster for your specific requirements.



Portal Press

The MP-190 model portal style press is the optimal choice for lower volume and lower cost shell and cupping production systems requiring either straight-thru or zig-zag material feeding. Ideal applications include shells/ends and shallow drawn cups/can for beverage, food, or general line cans.



MP1-90

	US TONNAGE	BED WIDTH	STROKE OF SLIDE	SPEED
MP1-90 Shell Press	100 @ .06 in off bottom	75.6 x 28 in 1,920 x 710 mm	2.95 in 75 mm	250 SPM
MP1-90 Cupper Press	100 @ .236 in off bottom	75.6 x 28 in 1,920 x 710 mm	7.09 in 180 mm	150 SPM





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
- Industry 4.0 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

- 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



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.

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