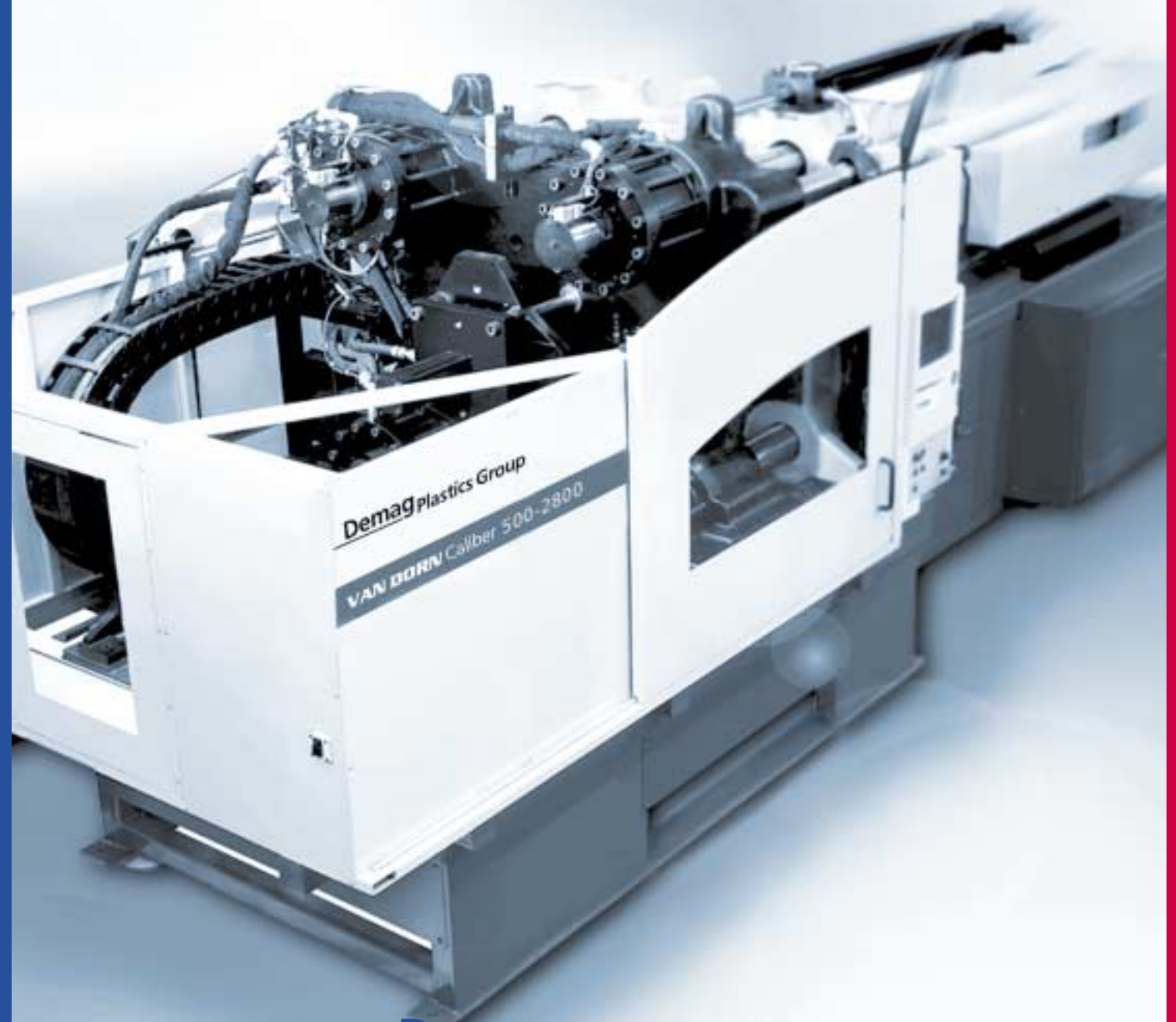


MID TONNAGE

Van Dorn Caliber



Demag Plastics Group
VAN DORN Caliber 500-3800

Demag Plastics Group
VAN DORN

V A N D O R N C A L I B E R

THE POWER OF TWO

Van Dorn and Demag Ergotech

As a united force, Van Dorn and Demag Ergotech offer you, the customer, a number of advantages that create powerful solutions to your most difficult molding challenges.

Van Dorn
+ Demag Ergotech
= Powerful customer solutions

OUR EXPERIENCE

You'll find that our combined expertise leverages technical innovation with a reputation for proven performance.

OUR PRODUCT RANGE

With a full range of machinery and molding technology to choose from, we can meet the needs of any application.

OUR SERVICE

We continue to stand behind every machine we make – for as long as you use it – with our Molder Action Network providing technical service, replacement parts, training and process solutions.



Production in Strongsville, Ohio



Van Dorn Van

MID-SIZE CALIBER

A powerful case in point



Whether you're molding casings for digital flat panel technology or a challenging, deep-draw application, the Caliber's generous specifications give you maximum flexibility in substantially reduced floor space.

Our mid-size Caliber combines the best of thinking in two-platen technology with our expertise in large part manufacturing. To design it, we examined several two-platen machines, took the best parts from each and simplified them.

The result? A machine that is easier to operate and maintain than any other two-platen machine with significant advantages achieved through:

- Precise, durable clamping unit
- Simple, but high performance locking system
- Innovative, hydraulic circuit
- Modular, flexible design

Dorn Caliber

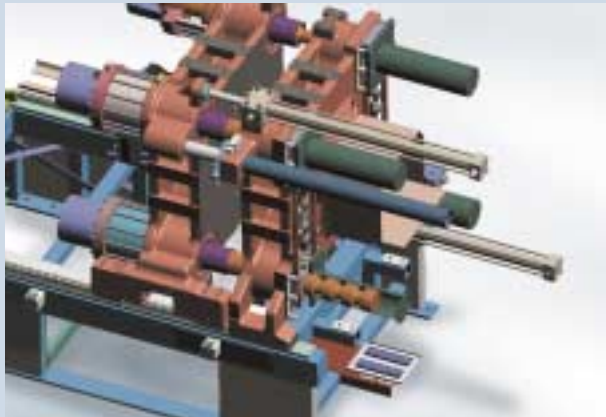
CLAMP UNIT

Precise, durable, powerful

When it comes to large machine molding, we've done our homework. And we've listened to molders like you. That's why the mid-size Caliber's clamp works differently than any other machine.

Take the tie bars. Without question, Van Dorn boasts the lowest stress level on tie bars in the industry. Unlike any other machine, our tie bars are supported with double bearings, so when engaged the rear portion of the tie bar is securely cradled and stabilized. The result is reduced seal wear.

To make it easy to load, unload and access the mold, the tie bars disengage from the stationary platen. We've also designed a very accessible ejector box.



The tie bars slide into the stationary platen and are locked in place.

In contrast to other two-platen machines, the mid-size Caliber's clamp unit has a linear rail guidance system. Not only does this reduce lubricating and maintenance requirements, the linear system also increases the speed and precision of the clamp movement.

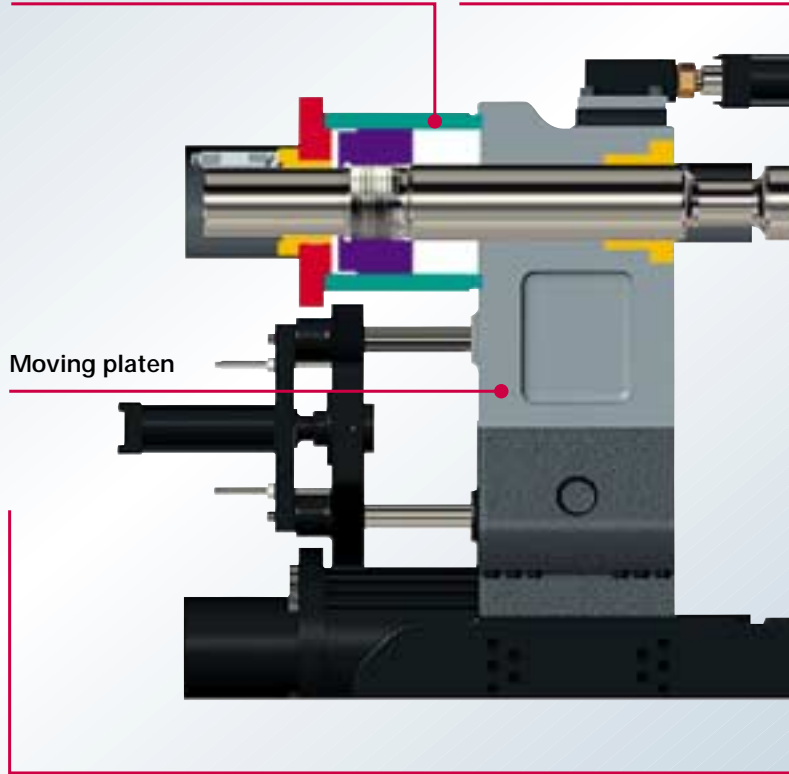
You will be pleased to learn that the clamp's ability to automatically calibrate for differences in mold heights is a standard, simple feature on the Caliber.

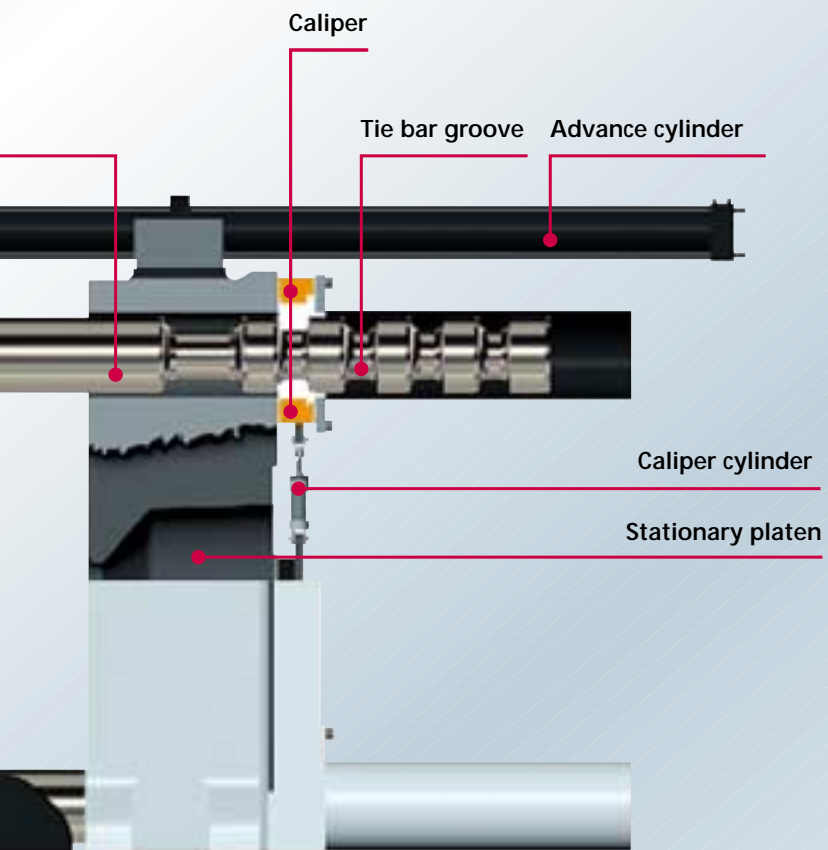
Clamp cylinder

Tie bar

Moving platen

The two-platen clamping unit





With wide open spaces like this, it's easy to mount molds, robots or any other part removal automation you need.



LOCKING SYSTEM

Straightforward and secure

Revolutionary – that’s how the Caliber’s locking system can be described. Rather than use the more common, but complicated split nut and twist lock system, which needs frequent monitoring, Van Dorn designed a simple, yet rugged split collar locking mechanism that is virtually maintenance- and worry-free.

During mold height adjustment – in set-up only

When the mold halves meet, the system automatically opens just far enough to allow the calipers to locate and lock squarely into the nearest notch in each of the four tie bars. Closing cleanly and tightly via clamp cylinders, the system secures the mold in place and tonnage is built. When clamp tonnage is dropped, the calipers unlock and the mold re-opens and the mold height adjustment is complete.

Normal clamp operation:

1. Mold is closed
2. Calipers close
3. Clamp tonnage is built
4. Injection and cooling
5. Clamp tonnage is dropped
6. Calipers open
7. Mold opens



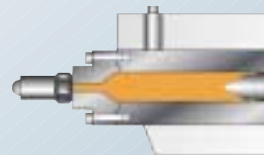
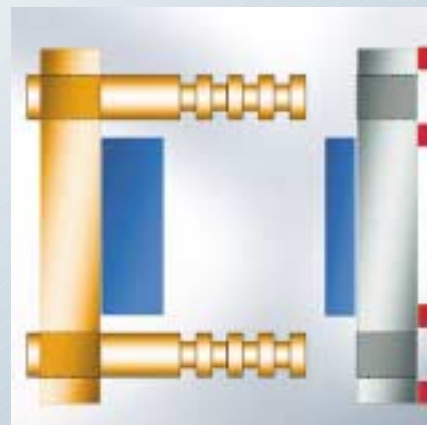
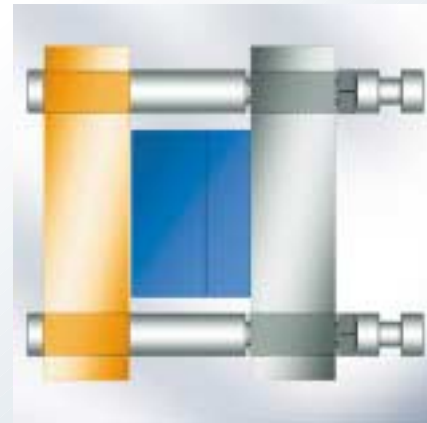
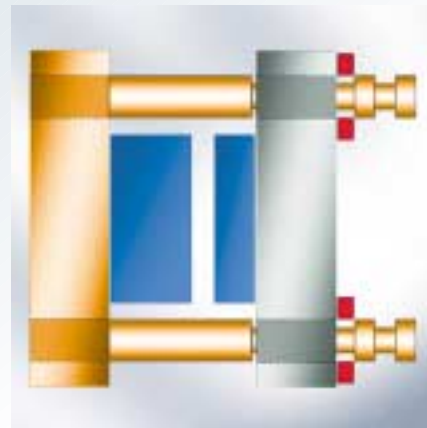
Calipers Unlocked



Calipers Locked

Through a special manufacturing process, the tie bars and calipers are hardened for long life and durability. An automatic grease lubrication system helps extend their life.

Automatic mold height adjustment for changing tools



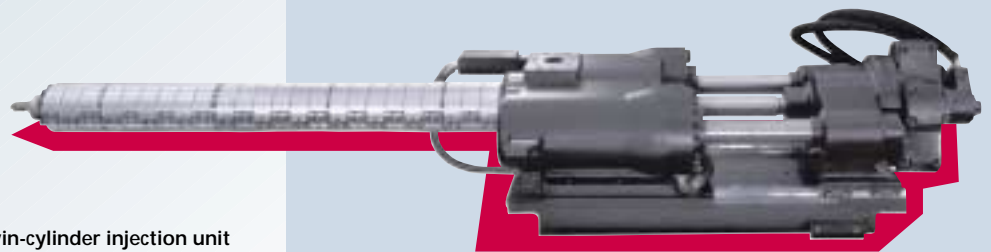
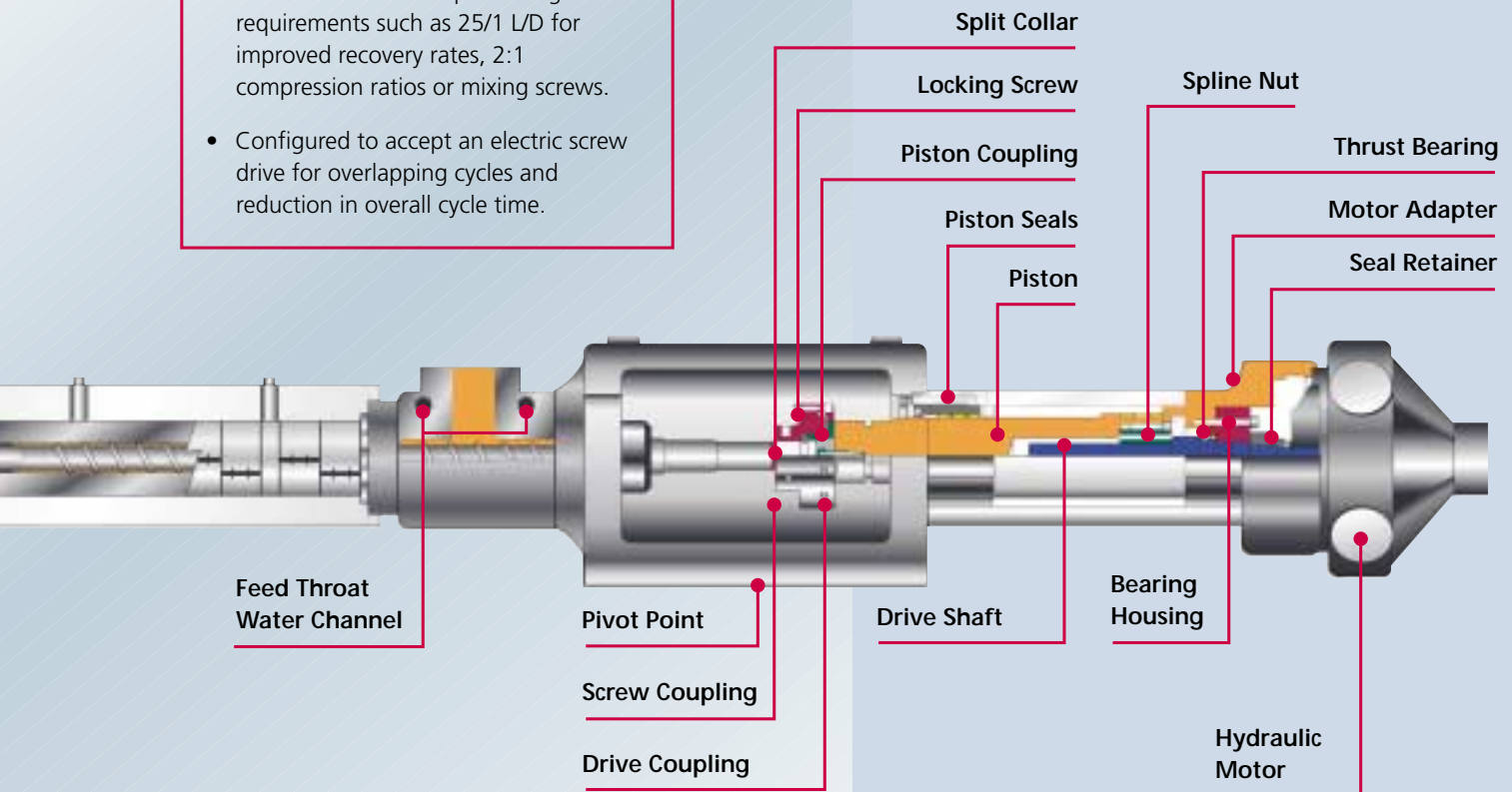
INJECTION UNIT

Choices to meet your needs

The injection unit has:

- Standard injection pressure of 23,000 psi with a second choice for smaller shot sizes or 30,000 psi high-pressure injection.
- Screws with 20/1 L/D and 3:1 compression ratio for high-quality melt.
- A wide selection of special screws and barrels to match processing requirements such as 25/1 L/D for improved recovery rates, 2:1 compression ratios or mixing screws.
- Configured to accept an electric screw drive for overlapping cycles and reduction in overall cycle time.

The mid-size Caliber is available with a rotating ram in-line or twin cylinder injection unit that offers a choice of two screw and barrel combinations. With the Caliber, you will obtain precise, repeatable injection cycles no matter how many valve gates you have, how thin the part, how tough the material or how long you own the machine.



The twin-cylinder injection unit is noted for its short profile which contributes to an overall reduction in footprint.

HYDRAULIC SYSTEM

Fewer valves for better performance

In designing the mid-size Caliber s hydraulics, we've leveraged the synergies between Van Dorn and Demag Ergotech to create a simpler, proven and reliable system that is more efficient – saving your bottom line.

Through a combination of Smart Pump technology and directional control valves, the hydraulics create just enough power when needed and output it only to the target locations that require it. That makes the mid-size Caliber energy-efficient without sacrificing performance.

With the elimination of the proportional valve between the hydraulics and the clamp, we have also created an easy-to-maintain system with fewer leak points. The Smart Pump s on-board electronics give you a faster hydraulic response time and more precise machine control.



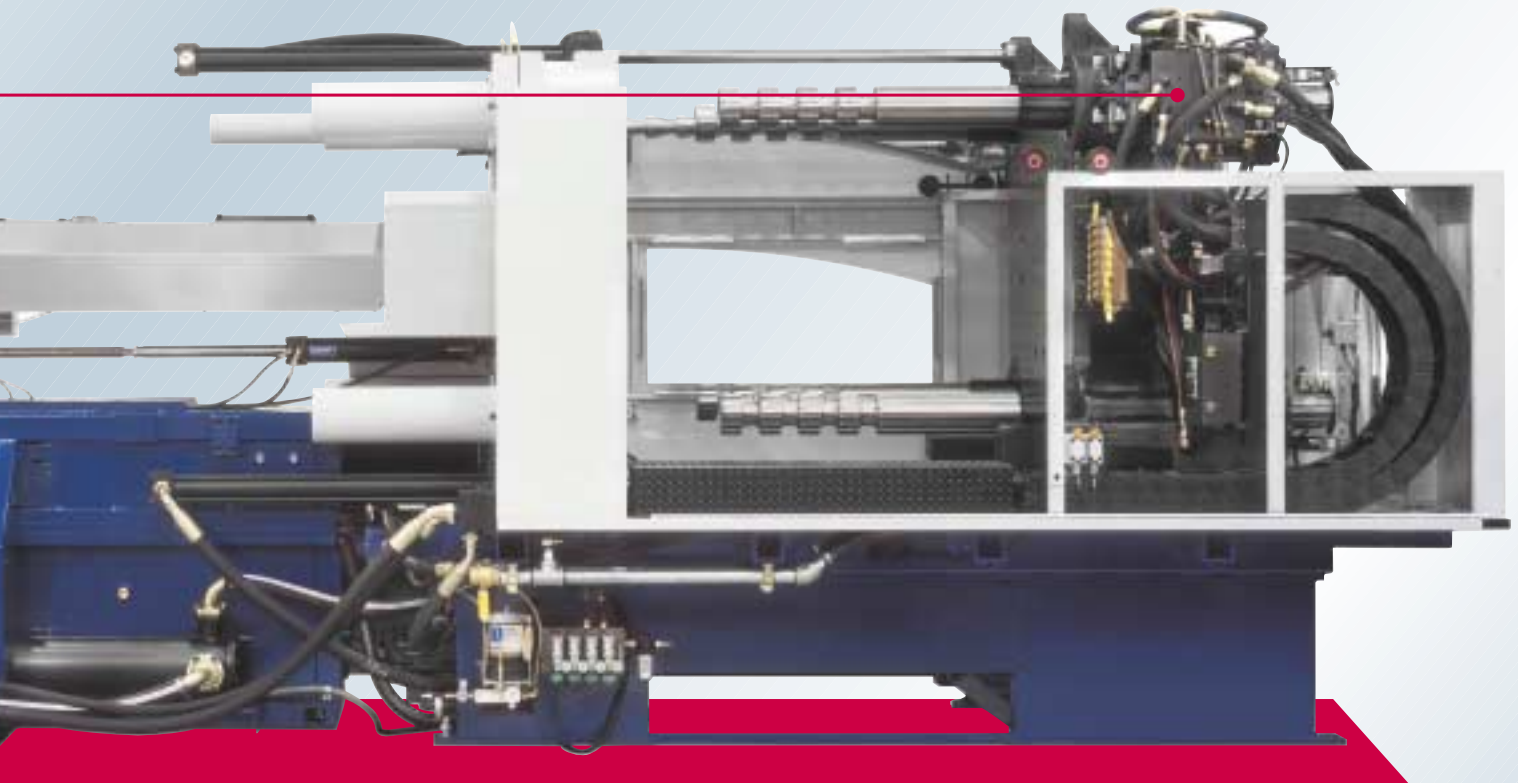
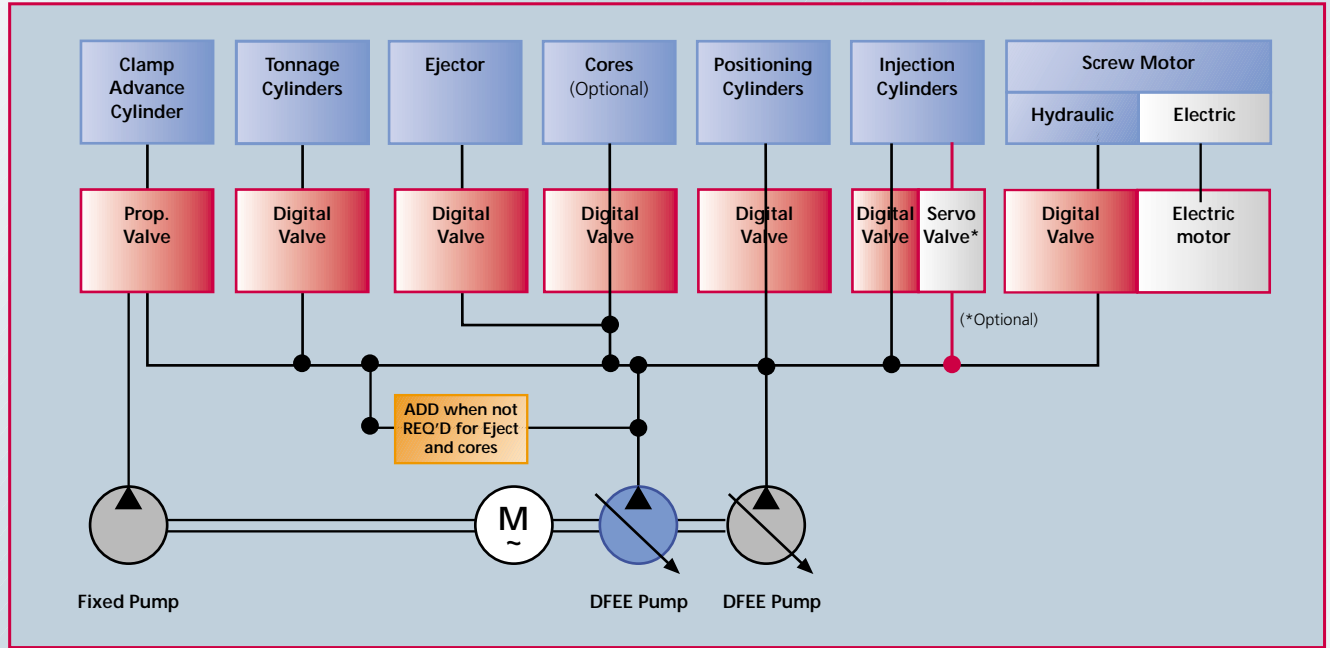
Clamp manifold



We've made sure the hydraulics are accessible for ease of maintenance. Of course, our Three Year, No Leak Guarantee applies to the mid-size Caliber Series.



Van Dorn Mid-Size Caliber



MODULAR FLEXIBILITY

Adapting to your business

With Van Dorn's unique building block system, you can customize your machine to meet your application needs today or add on to it later when those needs change.

Choose between several injection units or screw cylinders. Select the hydraulic variable delivery pump that's right for your clamping unit. It's even simple to adapt the machine bed and tie bars to produce deep-draw parts with long opening strokes. In addition, we offer a wide range of equipment and option packages that cost-effectively transform your existing machine to meet the requirements of any new application.

BUILDING BLOCK RANGE

Our answer to rising quality requirements and short product life cycles is Van Dorn's modular system. This system enables any machine configuration to be built cost-effectively thanks to finely tuned modularity of all machine components and ergonomic designs for efficient operation.

Additional pre-engineered options are available. Consult your Van Dorn Demag representative for information on these options and special application requirements.

GENERAL FEATURES

The mid-size Caliber also includes:

- Additional external filtration system
- Gate rail on the operator and non-operator sides eliminated for mold and automation access
- Sprue break – transducer driven
- Hydraulic power unit guards for quiet operation
- Platens predrilled for simple robot mounting
- Robot interface
- Vibration mounting pads
- UL and CUL-approved control cabinet
- ANSI/SPI B151.1-1997 compliant
- Standard machine is wired for 460/3/60 – alternatives are available
- Part drop area

Clamp	Injection Base	Injection Unit	Barrel/Screw
500 (36.4x36.4)	75 hp	1920	60/70 mm
		2800	70/80 mm
		4300	80/95 mm
	100 hp (High-Performance)	2800	70/80 mm
		4300	80/95 mm
		6800	95/110/120 mm
	130 hp (High-Speed)	4300	80/95 mm
		6800	95/110/120 mm
		12300	110/130 mm
	175 hp (Ultra-High-Speed)	4300	80/95 mm
		6800	95/110/120 mm
		12300	110/130 mm

Clamp	Injection Base	Injection Unit	Barrel/Screw
730 (42.3x42.3)	100 hp	2800	70/80 mm
		4300	80/95 mm
		6800	95/110/120 mm
	130 hp (High-Performance)	4300	80/95 mm
		6800	95/110/120 mm
		12300	110/130 mm
	175 hp (High-Speed)	4300	80/95 mm
		6800	95/110/120 mm
		12300	110/130 mm

Clamp	Injection Base	Injection Unit	Barrel/Screw
950 (47.2x42.3)	130 hp	4300	80/95 mm
		6800	95/110/120 mm
		12300	110/130 mm
	175 hp (High-Performance)	4300	80/95 mm
		6800	95/110/120 mm
		12300	110/130 mm

OPTIONS

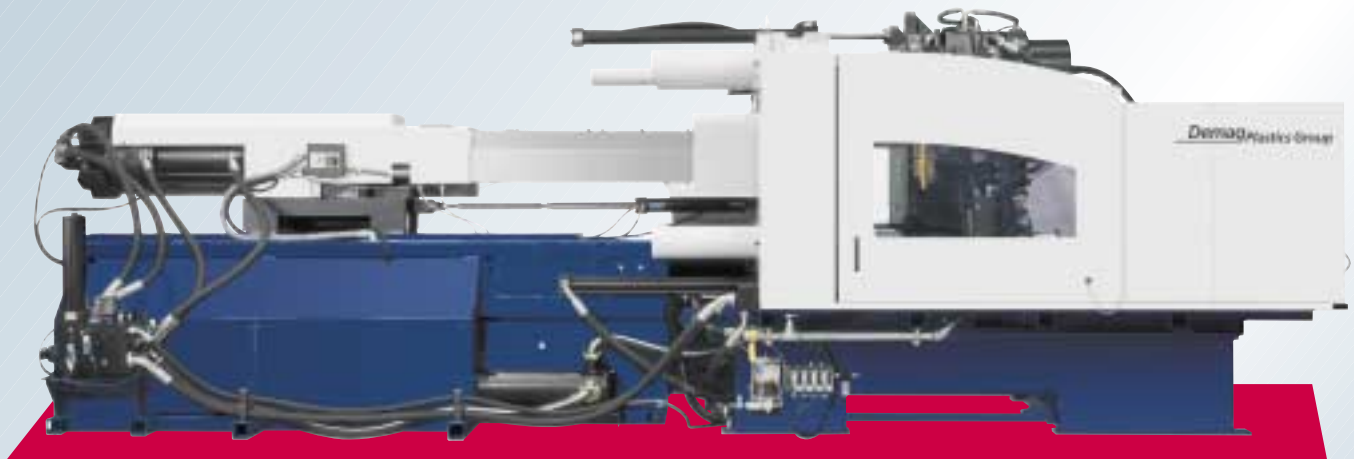
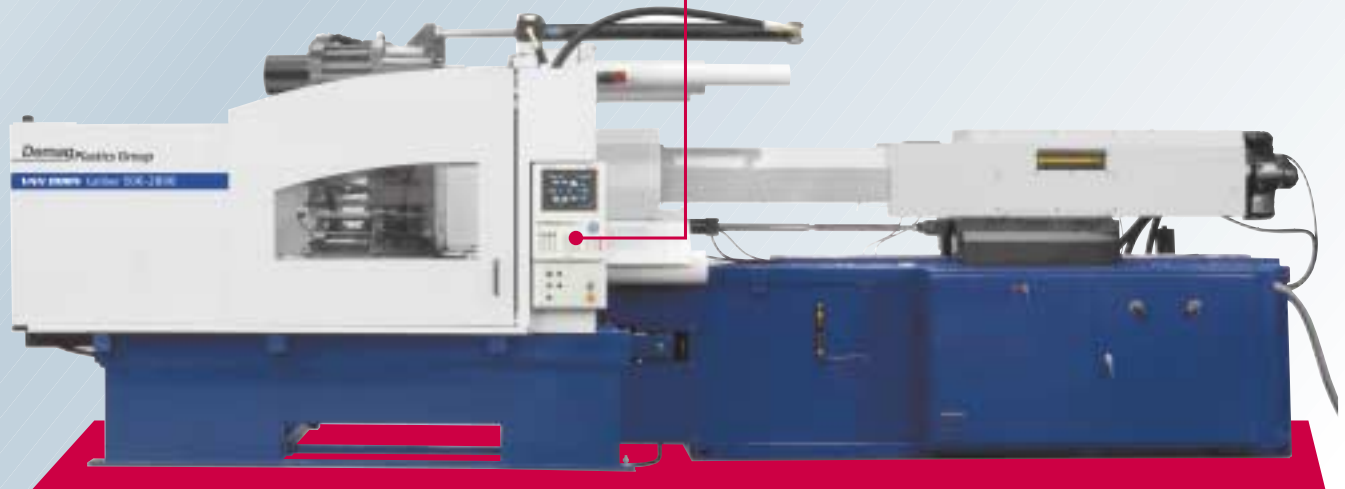
The mid-size Caliber is available with a range of options:

- Core and ejector motion key switch
- Core pull: choice of set and pull sequences
- Feed-throat temperature control
- High-performance, high-speed and ultra-high-speed models
- Power-operated front gate
- High-pressure injection
- Electric screw drive
- Co-injection
- Special application screws and barrels
- Configurable Inputs and Outputs
- Air eject
- Swing-away arm and hopper
- Relocate drop bar and advance cylinders
- Increased daylight



PATHFINDER (P6000)

The mid-size Caliber comes with controls that are easily understood, yet sophisticated enough to take the machine to the next level of performance.



MOLDER ACTION NETWORK

Our commitment to 100 percent customer satisfaction is part of the Van Dorn experience. That is why we created the Molder Action Network – total support with one call. Contact us at (866) 491-1045 or visit www.molderactionnetwork.com.



REPLACEMENT PARTS

Van Dorn maintains an extensive, computerized inventory of replacement parts to assure customers of quick delivery.



TECHNICAL SERVICE

The Molder Action Network's Technical Service Department is standing by with a wide range of services – installation and start-up, troubleshooting, field service and preventive maintenance.



TRAINING

We offer classes at three different customer training centers located in Strongsville, Ohio; Greenville, South Carolina; and Roselle, Illinois. Training, tailored to meet your needs, can also be arranged at your facility.



PROCESS SOLUTIONS CENTER

This center, available to customers before and after a sale, is a state-of-the-art lab facility for mold trials, machine run-offs prior to delivery or troubleshooting processes in the field.

ENERGY SAVINGS

Sky-rocketing energy costs have changed the economics of the injection molding business. The Molder Action Network can help you cut your power bills down to size.

ONLINE STORE

Order parts from our new online store where convenience and ease are our main priority. We can accept payment via credit cards or purchase orders.

Van Dorn Demag Corporation
11792 Alameda Drive
Strongsville, Ohio 44149 USA
tel: 440/876.8960, fax: 440/876.4383
web: www.vandorndemag.com
e-mail: susan.mann@dpg.com

Since continuous improvement is Van Dorn Demag's policy, we reserve the right to change information without prior notice or obligation.