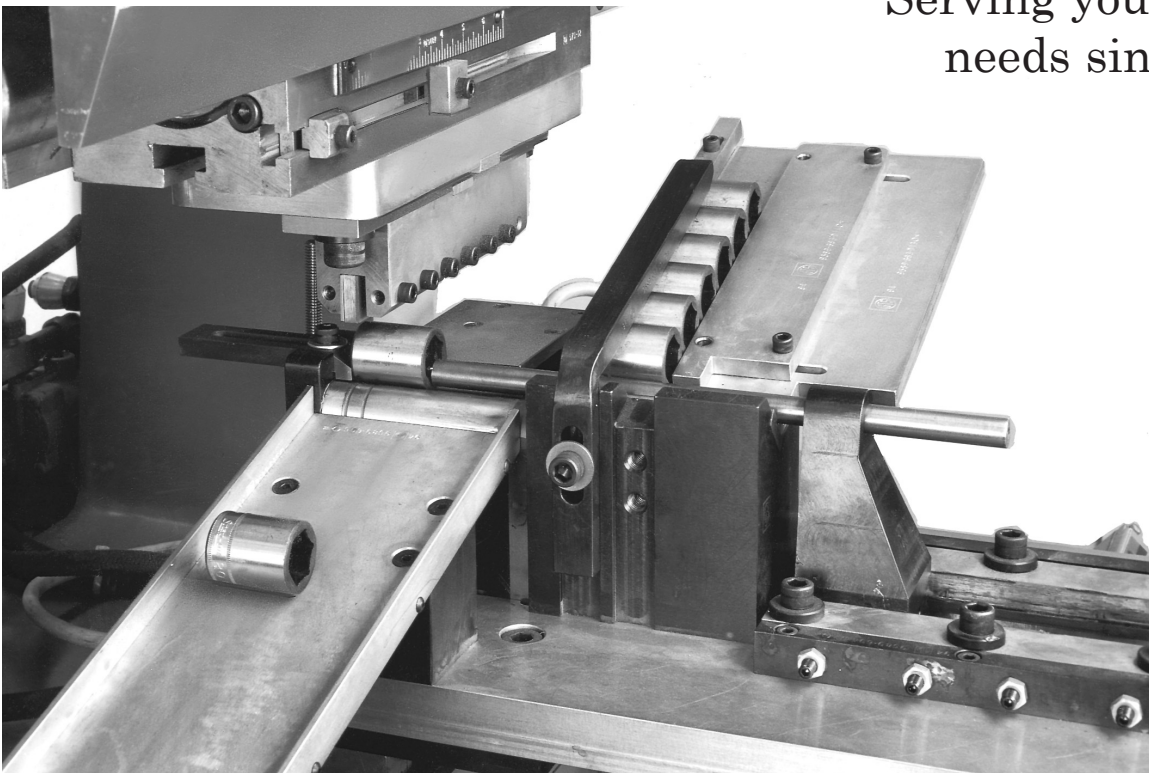


ROLL MARKING MACHINES

Serving your marking
needs since 1895



SCHMIDT
MARKING SYSTEMS

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INTRODUCTION TO ROLL MARKING

The Basics Of Roll Marking

Schmidt pioneered roll marking over 65 years ago as an alternative to press marking. The term roll marking means just what it implies, data is literally “rolled” into a part instead of “stamped” in with a press.

Roll marking is an economical solution in applications where tonnage requirements make a press too costly. And it offers a practical solution where fragile parts would be damaged by heavy stamping pressure.

Today, roll marking machines are commonly used on both flat and round parts made of metal, plastic and other materials. Applications include: date coding, automatic serial numbering, graduating, knurling and grooving.

Roll Marking Benefits

In the roll marking process, there is a single contact point between the die and the part being marked. Each character in a legend is individually marked as the die rolls over the part. As a result, roll marking machines need just enough tonnage to indent one character per line of marking and no more.

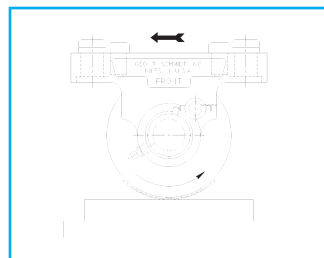
By comparison, a stamping machine requires enough pressure to indent the entire legend at one time. As a result, press marking might require 10 times more pressure to complete a 10-character legend. Schmidt roll marking equipment offers many benefits:

- Low equipment costs vs. heavy presses
- No impact damage to parts
- Dies last longer and work better
- Less operating noise than presses
- Quick tooling changes
- Flexibility to mark round or flat parts
- Versatility to press mark with same machine

Pressure Requirements for Marking

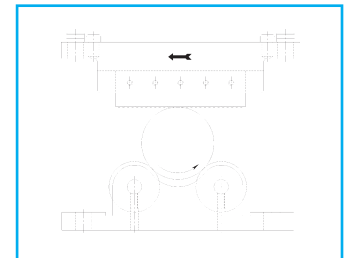
Character Size In Inches	Mild Steel	Soft Aluminum	Tool Steel	Approx. Depth In Inches
	Pressure in tons to mark one character			
1/16"	0.25	0.15	0.38	.003"
3/32"	0.50	0.30	0.75	.004"
1/8"	0.75	0.45	1.13	.006"
5/32"	1.00	0.60	1.50	.007"
3/16"	1.88	1.13	2.82	.008"
1/4"	2.10	1.26	3.15	.010"
5/16"	3.00	1.80	4.50	.013"
3/8"	4.00	2.40	6.00	.016"
7/16"	4.75	2.85	7.13	.016"
1/2"	5.70	3.42	8.55	.017"
5/8"	7.50	4.50	11.25	.020"
3/4"	9.25	5.55	13.88	.020"
7/8"	11.00	6.60	16.50	.020"
1"	13.00	7.80	19.50	.020"

How Roll Marking Works

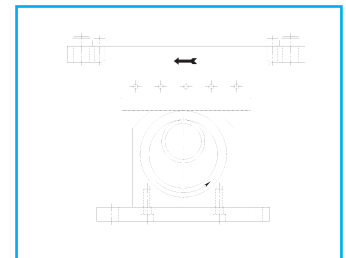


Flat part is held in position while a marking knurl rolls across the surface.

Solid round part is placed in a roller cradle and marked as a straight marking die rolls around the circumference.



Hollow round part is supported on a stud arbor table fixture while the straight die roll marks around the periphery.



Roll Marking Machines

Schmidt's pneumatic roll markers are ideal for marking flat and round parts. With a maximum of 3 tons of marking force, Schmidt pneumatic roll markers are capable of marking up to four lines of 1/8" characters into mild steel parts.

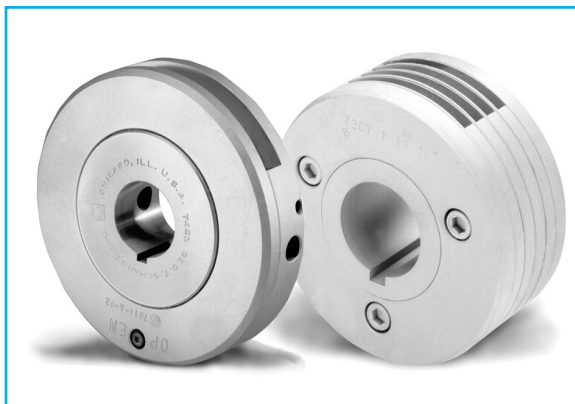
Pneumatic roll markers offer the benefits of a clean operation, flexibility, and reliable performance. A simplified pneumatic driver system quickly connects to any air source. High quality seals and connectors assure many years of maintenance-free service. Tooling changes are quick and easy, enabling a single, free-standing machine to serve in a variety of production roles. Two pneumatic roll markers are available. The Series 9 is a nimble bench-top design, while the Series 12 is a floor standing model, and they both offer a range of marking pressures, die spaces, and table sizes.

In addition to our pneumatic roll markers, Schmidt offers a complete line of hydraulic roll marking machines. While our pneumatic markers provide high quality impressions, many applications require the additional power and force of a fully hydraulic marking system. These systems provide a maximum of 14 tons of marking force and up to 30 tons in highly specialized applications. Where an automated marking system is desired, Schmidt can adapt our Model 175 or 575 floor standing machines or our Models 377/477/577 portable in-line marking heads to incorporate a variety of part feeding systems. Our Models 175/575 can easily be configured to feed and discharge a wide array of production parts. The micro-processor controls allow each machine to be programmed to your specific marking and parts handling needs.

Marking Tools and Accessories

At Schmidt, we design and manufacture a wide range of marking dies, steel type, typeholders, numbering heads, and part support fixtures for use with our pneumatic and hydraulic roll marking machines. These products are engineered to meet and satisfy your specific marking requirements. Whenever applicable, Schmidt will recommend standard marking tools and accessories to minimize costs and lead times. To view our full line of marking tools and fixtures, please request a copy of our Marking Tool Guide or visit our website at www.gtschmidt.com and click on "Tooling".

Knurl Die Holders

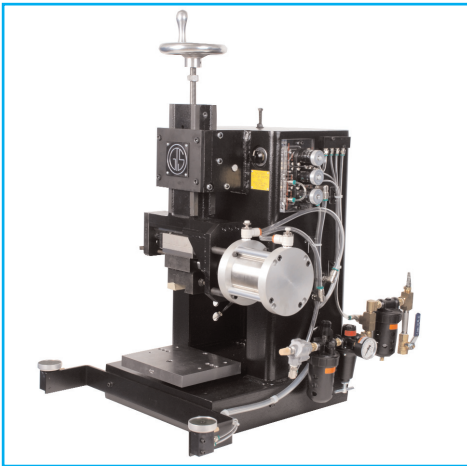


Straight Type Holder



PNEUMATIC MACHINES

SERIES 9



Series 9 Roll Marking Machine

Economical bench unit provides up to 2,800 lbs. of pressure for light marking or for marking small parts.

The Series 9 is an affordable, light-duty roll marking unit that offers clean pneumatic operation and outstanding performance with lots of operating flexibility.

Its compact, bench-mount design lets you locate the Series 9 close to the operator, where marking can be achieved as part of another operation like inspection or assembly.

The standard Series 9 is designed for manual loading and unloading of parts. With a flip of a switch, the Series 9 can also be used as a press marker.

Hundreds of these reliable, field-proven machines have been sold for light marking on electrical components, connectors, and other small parts.

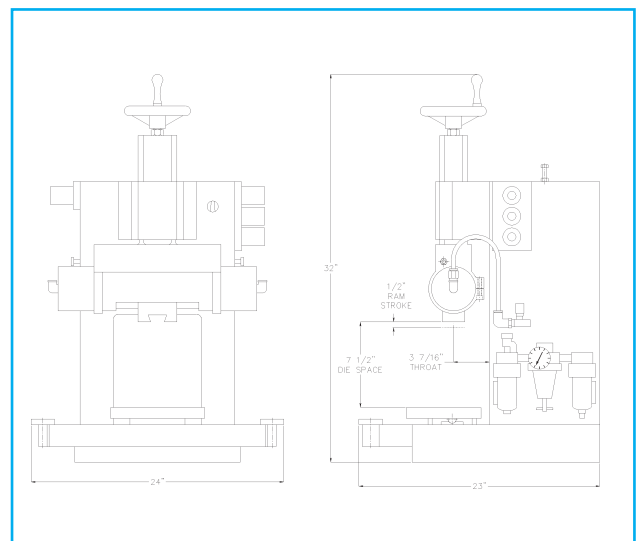
Features & Benefits

- Bench-mount design saves valuable floor space.
- “Air cushion” operation assures uniform depth of impression.
- Built-in filter/regulator and lubricator means low maintenance costs.
- Pneumatic die slide travel, with separate hand valve, provides quick set-up and a smooth rolling stroke.
- Anti-tie-down dual hand controls ensure operator safety.

Specifications

- | | |
|------------------------------|------------------------|
| • Max. Ram Pressure | 1.45 tons (2,800 lbs.) |
| • Max. Ram Stroke | 1/2" |
| • Max. Cross Slide Stroke | 3-1/2" |
| • Die Space (Height) | 7-1/2" |
| • Throat | 3-7/16" |
| • Table Size | 8-1/2"W x 6"D |
| • Weight | 200 lbs. |
| • Min./Max. Working Pressure | 20/100 PSI |

Dimensions for Series 9 Pneumatic Roll Markers



SERIES 12



Series 12 Roll Marking Machine

Combines 3 tons of marking pressure with the advantage of pneumatic power in a compact floor mounted machine.

This economical general purpose marker has the capability of roll marking your round or flat parts, as well as acting as a press marker. The benefit of roll marking is that the characters are applied one at a time. This reduces marking pressure and allows the Series 12 to apply up to 4 lines of 1/8" characters, one character per line at the same time, in a single roll marking cycle. When operated in the press mode 4 - 1/8" characters can be applied.

Tooling for either roll or press marking is available in most cases from stock at Schmidt. To roll mark flat parts a round type holder is required, and to roll mark round parts a roller bearing cradle and a straight type holder are necessary.

The pneumatic operation of the Series 12 means quiet, smooth, and trouble free performance. No electrical connections are required. Even the anti-tie-down dual palm buttons have pneumatic controls.

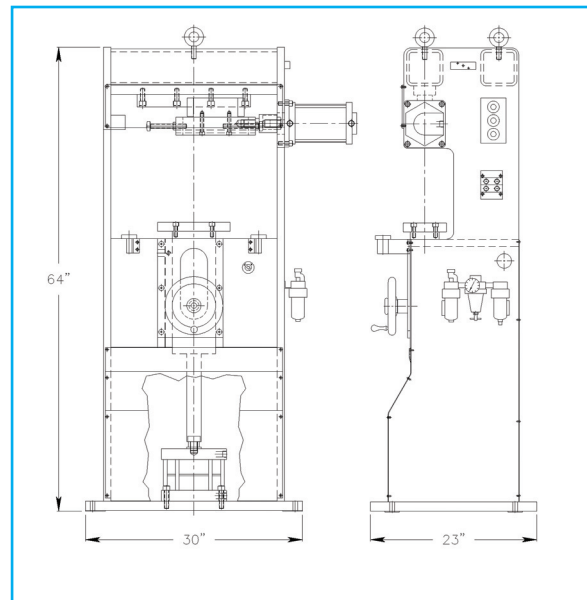
Features & Benefits

- 3 ton maximum marking pressure.
- 12" vertical die space.
- Clean pneumatic operation.
- Adjustable cross slide stroke.
- Anti-tie-down dual hand controls.
- Multimode operations.
- Accommodates standard Schmidt tooling.

Specifications

- | | |
|------------------------------|-----------------------|
| • Max. Ram Pressure | 3 tons (6,000 lbs.) |
| • Max. Ram Stroke | 1/2" |
| • Max. Cross Slide Stroke | 6" |
| • Die Space (Height) | 12" |
| • Throat | 4" at 22" Side plates |
| • Table Size | 10"W x 6"D |
| • Weight | 1200 lbs. |
| • Min./Max. Working Pressure | 20/100 PSI |

Dimensions for Series 12 Pneumatic Roll Markers



HYDRAULIC MACHINES

Models 175 & 575 MPC



Models 175-MPC & 575-MPC Hydraulic Roll Marking Machines

For over 65 years, the Schmidt 175 and 575 hydraulic roll marking machines have been the industry standard for heavy duty numbering, lettering, and knurling for applications from in-line marking of sockets, hand tools, and bearings to automated marking of shock absorbers.

For convenience and versatility, our new MPC Models have three modes of operation. They can operate as roll markers or provide press marking action. There is also a special mode just to facilitate set-up.

Now, the microprocessor controlled Schmidt 175-MPC offers a new level of precision, with up to 14,000 lbs. of marking pressure. MPC technology makes future automation of the units very affordable.

The 575 model features the same advanced design as the 175, but provides twice as much power, up to 28,000 lbs. of marking pressure.

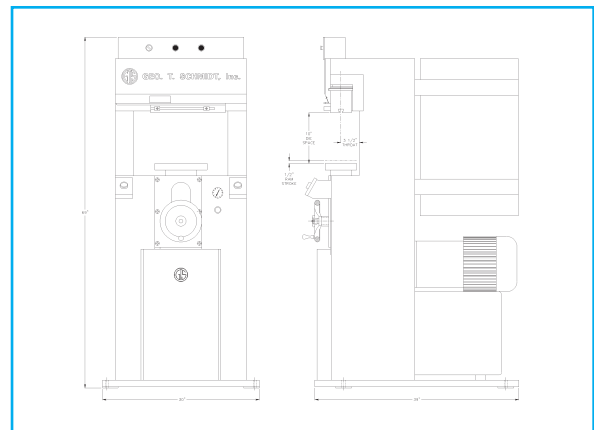
The new generation of heavy-duty roll marking equipment is a worthy successor to the previous generation. Maximum power, microprocessor technology and rugged construction make the 575-MPC ideal for the most demanding production roll marking applications.

Features & Benefits

- Microprocessor controls all machine actions.
- Anti-tie-down dual hand controls ensure operator safety.
- Plenty of die space for most parts. (Non-standard options available for up to 32" die space.)
- Adjustable pressure control.
- Hydraulic action cushions contact shock, prolongs tool life.
- Cycle valve allows repeat press marking for extra deep impressions.
- Open back for marking long parts.

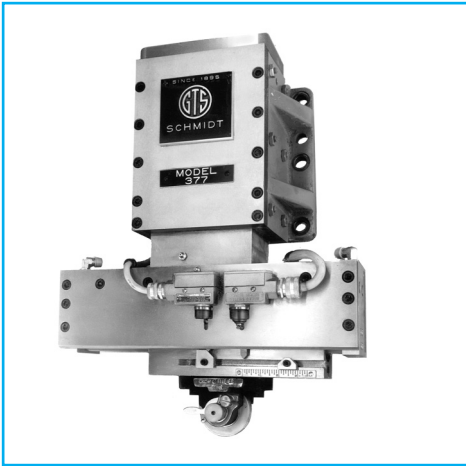
Specifications

- | | |
|---------------------------|--|
| • Max. Ram Pressure | 7 tons (14,000 lbs.) |
| • Std. Ram Stroke | 1/2" |
| • Max. Cross Slide Stroke | 7" |
| • Die Space (Height) | 10" |
| • Throat | 3-1/2" |
| • Table Size | 10"W x 6"D |
| • Weight | 2,000 lbs. |
| • Electrical | 230V/460V/208V
20.4/11.2/24 Amps
3 phase |



Dimensions for models 175-MPC and 575-MPC are the same.

Models 377, 477, & 577



Models 377, 477 & 577 Hydraulic Roll Marking Machines

8,000/12,000/24,000-lbs. marking units can be mounted in any attitude for production line operation.

These versatile heads, with respective tonnages comparable to the 175-MPC, and 575-MPC models, permit a multitude of production line benefits.

The smallest unit is the Model 377, which generates up to 8,000 lbs. of marking pressure. The standard unit has a 1" ram stroke and a maximum 3-1/2" cross stroke.

The Model 477 generates up to 12,000 lbs. of marking pressure with a standard 1" ram stroke and a maximum 7" cross stroke.

The largest unit is the Model 577, which generates up to 24,000 lbs. of marking pressure with a standard 1" ram stroke and 7" cross slide stroke.

Features & Benefits

- Can be installed individually at any in-line production, assembly or inspection station.
- Can be mounted in series on production machines, conveyors and transfer systems.
- Can be used as bench-style machines.
- Vertical, horizontal or upside down mounting.
- Can be operated by anti-tie-down dual hand controls or by optional limit switch.
- Can use standard Schmidt tooling and accessories.
- Comes with remote power packs.

Specifications

	377	477	577
• Max. Ram Pressure	4 tons	6 tons	12 tons
• Max. Ram Stroke	1"	1"	1"
• Max. Cross Slide Stroke	3-1/2"	7"	7"
• Automatic Parts/Min.	55	50	45
• Manual Parts/Min.	40	35	30
• Weight	300 lbs.	350 lbs.	400 lbs.
• Electrical	230V/460V/208V 20.4/11.2/24 Amps 3 phase	230V/460V/208V 20.4/11.2/24 Amps 3 phase	230V/460V/208V 20.4/11.2/24 Amps 3 phase



COMPANY INFORMATION

Geo. T. Schmidt, Inc. has been a worldwide leader in permanent marking technology and services since 1895. Schmidt is an ISO 9001:2000 certified and ATF licensed manufacturer of industrial marking machines and steel marking tools for direct part marking and product traceability.

Our in-house design, engineering and manufacturing departments allow us to completely control every aspect of your marking application, from concept to delivery, to installation and start-up support. Schmidt has full Unigraphics and ACAD capabilities in house and does not farm out any design services. Integration and custom capabilities include electrical, mechanical and software applications, and are available on all product lines.

Our services have extended to include a high precision contract CNC machine shop. We specialize in the machining of electronic and medical PCB enclosures, heat sinks, aluminum castings and forgings. We can provide turn-key mechanical assembly solutions for your manufacturing needs, as well as, competitive pricing and delivery for all your production runs. For more information visit www.gtschmidt.com/cnc-machining.shtml

Our customer service department is available Monday through Friday and our technical support team is available 24/7. For more information on any Schmidt product please visit our website at www.gtschmidt.com or call our customer service center at 800-323-1332.

www.gtschmidt.com

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ISO 9001:2000



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