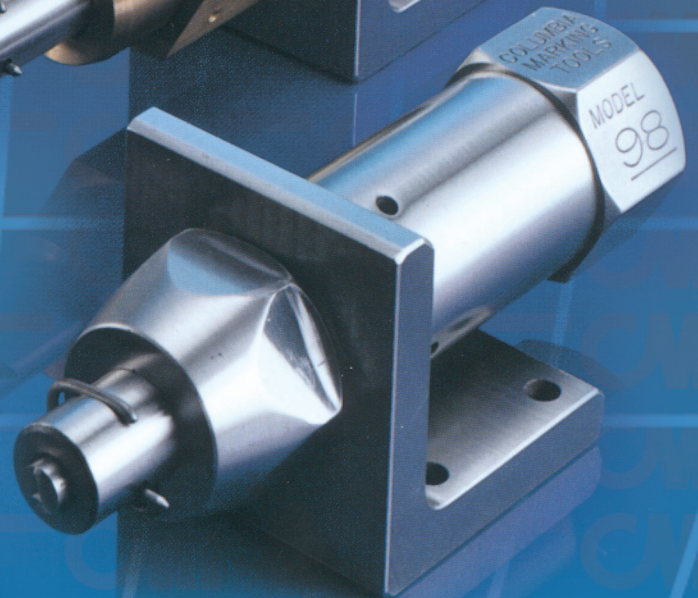
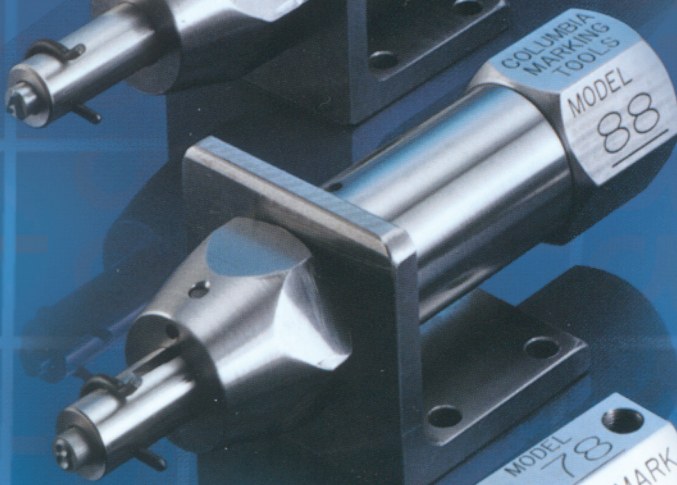
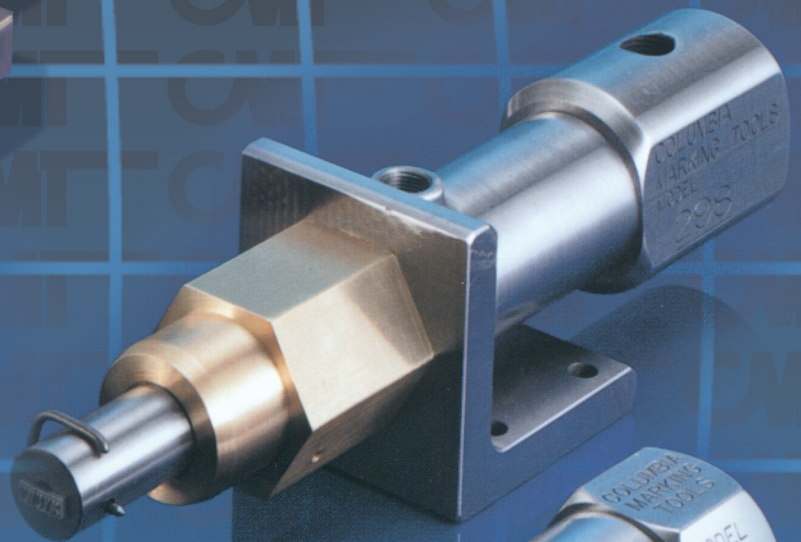
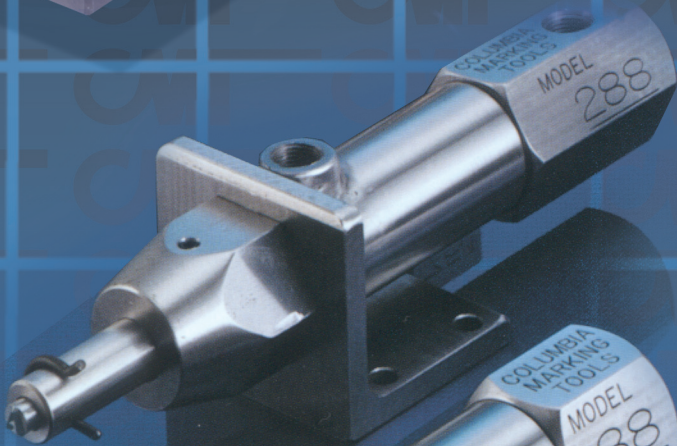
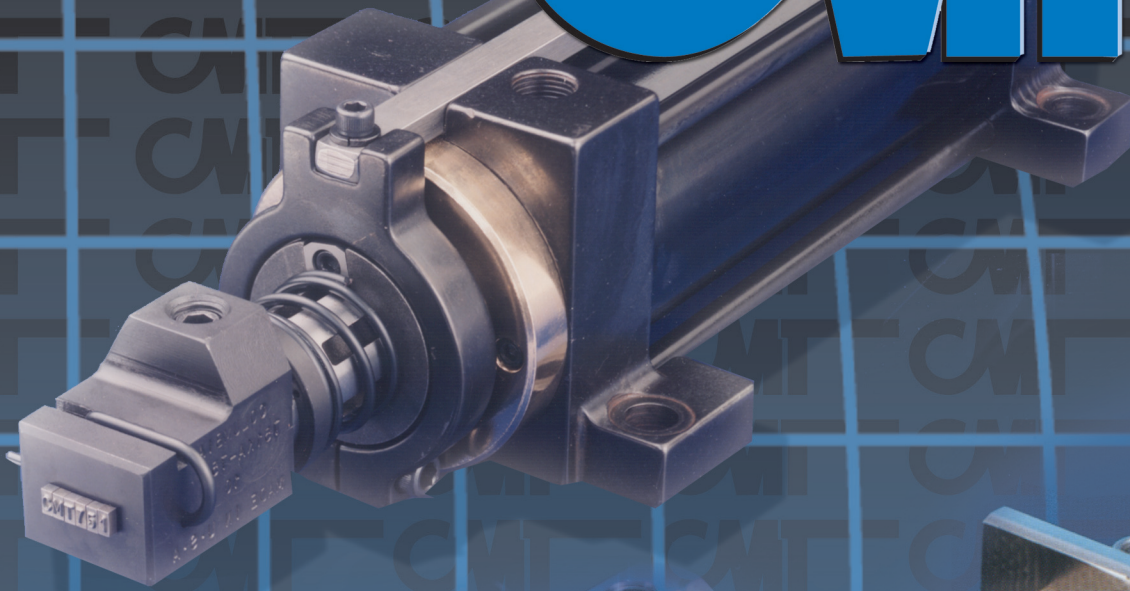


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Company

Columbia Marking Tools is a leading manufacturer of marking products. Our broad spectrum of custom developed machines and components have made a significant "impact" on marking technology. Our company has an extensive history of innovations and technological breakthroughs. We continuously improve our products, incorporating the latest techniques and components.

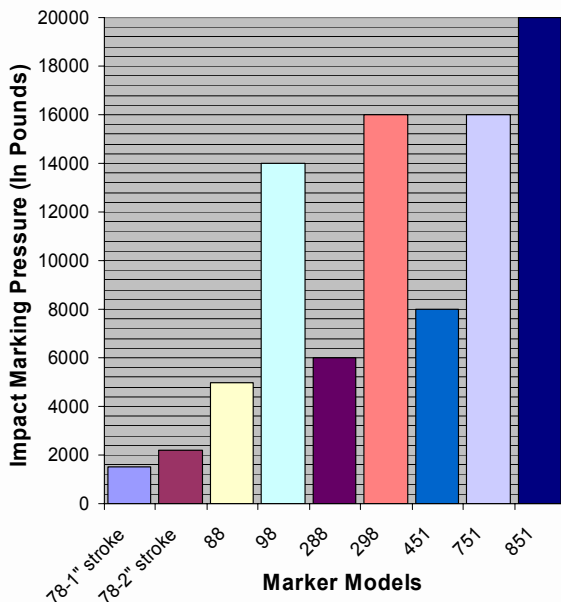


Building a better marker tomorrow isn't just something we say, we do it.

Quick Selection Guide/Marking Pressure Data

Pressures shown are approximate only and cannot be classified as being without exceptions or variations

Comparative Pressure Chart



**Marking Pressure Data
Static Stamping Pressure per character**

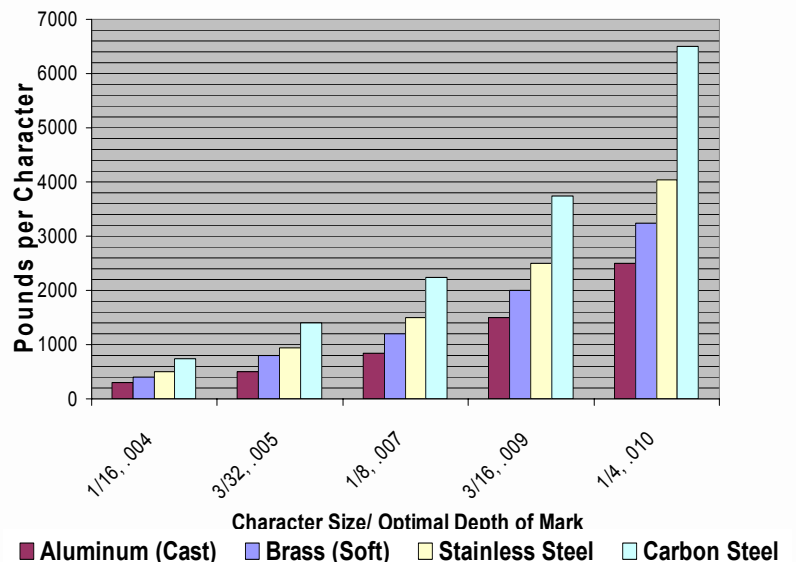


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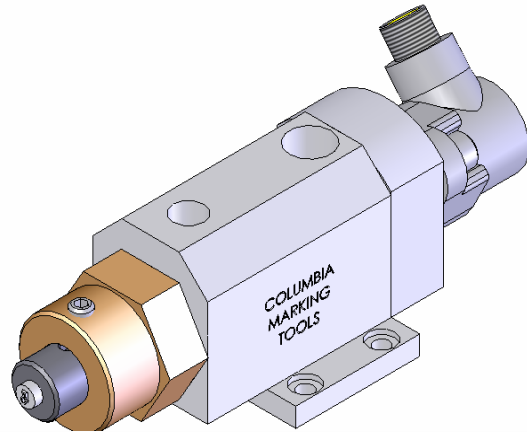


- Air Impact markers ship in 24 hours
- CMT quality air impact markers ship direct to customers world wide
- All Markers thoroughly tested before shipment
- Technical data including 2D and 3D drawing files available
- Custom mounting, rods, and holders quoted upon request
- CMT provides turn-key solutions: Have CMT build your complete marking/assembly station

Model 78: Mite-E-Mark™ Double Acting Air Impact Marker

Model 78: This air operated marking tool offers 18 times the force of an air cylinder with the same bore. Compact construction allows this marker to be installed in limited space.

- 2 basic styles include Standard or Submersible models Submersible models are specially coated in a non-corrosive material for additional protection.
- Foot or Rear mounting styles
- The Keyed rod is to maintain character orientation, and the non-keyed rod allows the characters to rotate and is a smaller unit
- 4 Different rod styles to hold the stamps offer multi-character square "A" pockets, and single character round "B" pockets, in addition to "O" style set screw retention, and "G" style pin/o-ring retention. The "G" style rod is recommended for systems susceptible to vibrations



- 2 different cylinder approach strokes: 1" and 2"
- Integrated position sensors offer the added benefit to integrators
- Standard system requires lubricated air. The NL non-lube version is required for "dry" air.

Model 78 How to Order

To Order: Select only the symbols that represent the marker feature that is needed. Place that symbol in the sequence as shown.

FEATURE	SYM.	EXAMPLE
Standard Model	78	-78FK-OA-20-E
Submersible Model	78SUB	
Foot Mount	F	_____
Rear Mount	R	
Non-Keyed Rod (rotating)	N	_____
Keyed Rod (non-rotating)	K	
Rod Style "A"	OA	_____
Rod Style "B"	OB	
Rod Style "GA"	GA	
Rod Style "GB"	GB	
Stroke Length 1"	10	_____
Stroke Length 2"	20	
24VDC Position Sensor	E	_____
110VAC Position Sensor	P	
Non-Lube* (if required)	NL	-----

*Permanently lubricated marker for low maintenance requirements

E= 24V DC, PNP sourcing Euro connector

P= 110v, Mini connector

Recommended Air Hose: 1/4" I.D. Minimum

Recommended Air Valve: CMT TP valve or 1/4" 4-way

Operating pressure: 20-80psi

Max. Marking Pressure: 1500lbs (at 80psi) for 1"

stroke and 2200 lbs (at 80psi) for 2" stroke

Stamp Capacities Rod Style "B" (1) Pc. CM7X Stamp Insert. CM7X inserts can mark up to a 3/16" character.

Stamp Capacities Rod Style "A"

(4) Pc's 1/16" Char. CMF06 Stamp Inserts

(2) Pc's 1/8" Char. CMF13 Stamp Inserts

Stamp Capacities Rod Style "GB"

(1) Pc. CM7G Stamp Insert. CM7G inserts can mark up to a 3/16" character.

Stamp Capacities Rod Style "GA"

(4) Pc's 1/16" Char. CMV06 Stamp Inserts

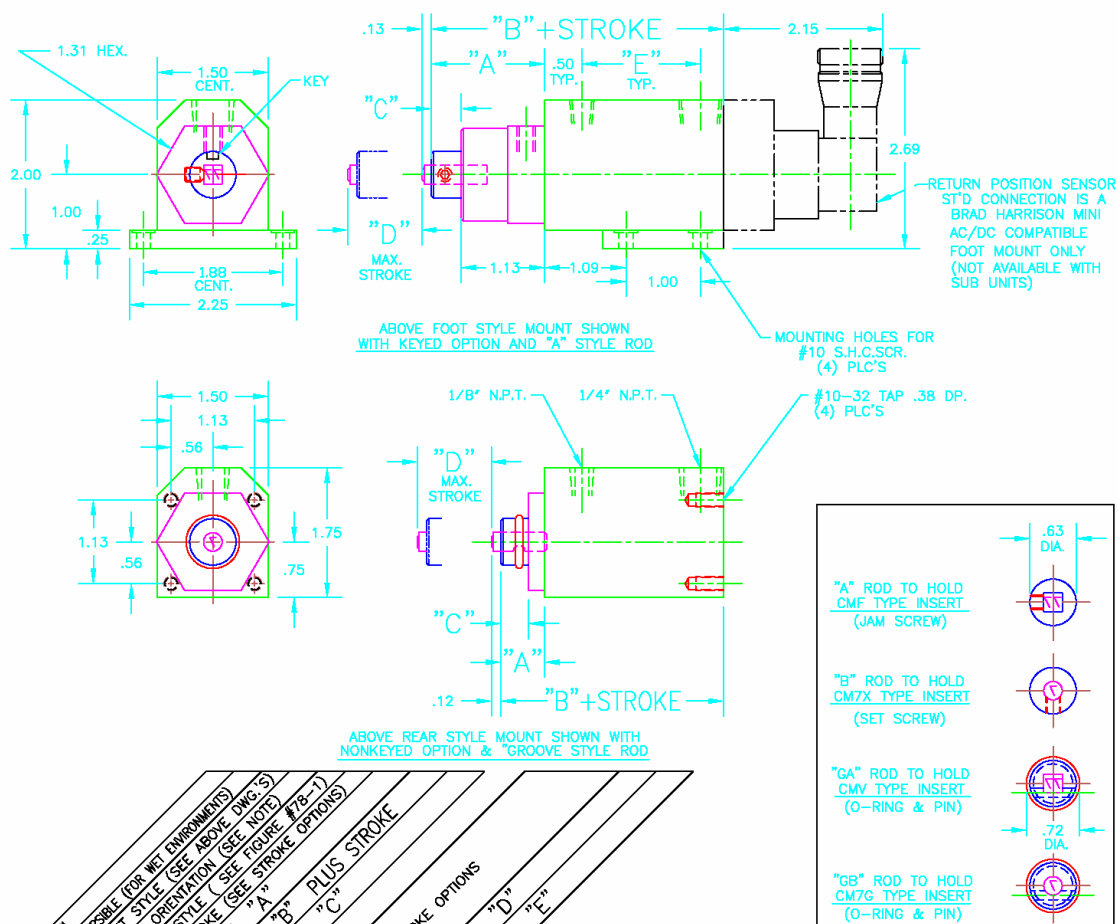
(2) Pc's 1/8" Char. CMV13 Stamp Insert



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Model 78 Dimensions



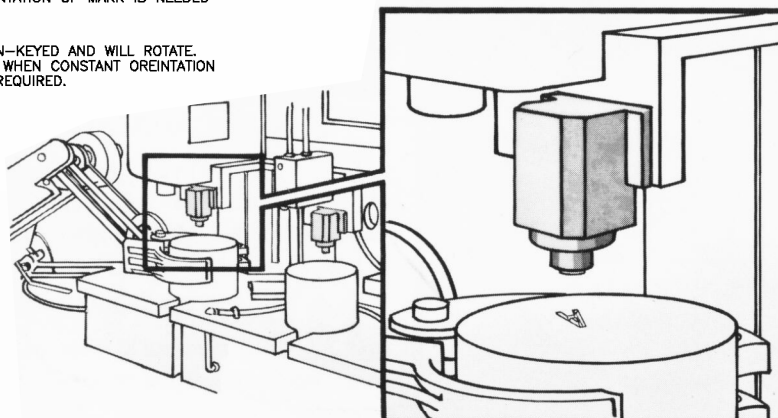
MODEL	SUBMERSIBLE (FOR WET ENVIRONMENTS)	MOUNT STYLE (SEE ABOVE DIMG'S)	*ROD ORIENTATION (SEE NOTE)	*STROKE (SEE FIGURE #78-1)	DIM. "A"	DIM. "B" PLUS STROKE	DIM. "C"	*STROKE OPTIONS	DIM. "D"	DIM. "E"
78	F N	DA	*	.59	2.00	.38		1" STROKE	.94	1.59
78	F N	DB	*	.59	2.00	.38		2" STROKE	1.94	2.59
78	F N	GA	*	.59	2.00	.38				
78	F N	GB	*	.59	2.00	.38				
78	F K	DA	*	1.53	2.94	.41				
78	F K	DB	*	1.53	2.94	.41				
78	F K	GA	*	1.53	2.94	.41				
78	F K	GB	*	1.53	2.94	.41				
78	R N	DA	*	.59	2.00	.38				
78	R N	DB	*	.59	2.00	.38				
78	R N	GA	*	.59	2.00	.38				
78	R N	GB	*	.59	2.00	.38				
78	R K	DA	*	1.53	2.94	.41				
78	R K	DB	*	1.53	2.94	.41				
78	R K	GA	*	1.53	2.94	.41				
78	R K	GB	*	1.53	2.94	.41				

*NOTE: ROD ORIENTATION

OPTION "K" IS KEYED AS SHOWN, AND WILL NOT ROTATE. FOR APPLICATIONS WHEN OTHER THAN SHOWN ORIENTATION OF MARK IS NEEDED CONSULT FACTORY.

OPTION "N" IS NON-KEYED AND WILL ROTATE. FOR APPLICATIONS WHEN CONSTANT ORIENTATION OF MARK IS NOT REQUIRED.

Typical Application for Model 78





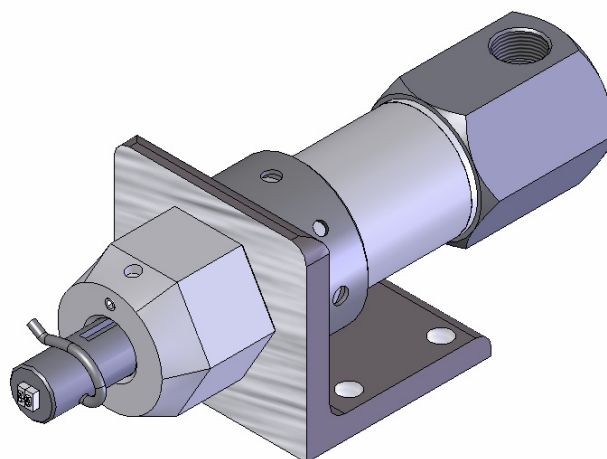
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Model 88: 3 Ton Single Acting Air Impact Marker

Model 88 3-TON: The Columbia model 88 impact marking cylinder is a rugged air cylinder with a built in stamp holder at the rod end. The 88 delivers a powerful impact blow of up to 3-tons at 80psi. The **shock absorbing patented bumpers** at both ends of the stroke to prevent damage to the marker when bottoming out on the forward stroke and reducing the shock on return stroke. The model 88 is a dependable marker at a very low investment cost. The rod has a spring return action while an efficient pressure venting system allows an instantaneous return stroke. Model 88 air impact markers have a keyed non-rotating rod and 2.5" of stroke.

- 3 Mounting styles include standard angle bracket, reverse angle bracket and straight sub-plate. Special mountings provided upon request.
- 3 Standard rod styles to hold the stamps offer multi-character OA or OAS38, and single character OB



- 2 different air port locations: standard end port or side port for restricted space installations

Model 88 How To Order

To Order: Select only the symbols that represent the marker feature that is needed. Place that symbol in the sequence as shown.

FEATURE	SYM.	EXAMPLE
88 (Angle Bracket)	88	-88-OB-EF
88R (Reverse Bracket)	88R	
88SP (Sub Plate)	88SP	
Rod Style "A"	OA	_____
Rod Style "AS38"	OAS38	
Rod Style "B"	OB	
End ported end cap	E	_____
Side ported end cap	S	
Standard Industrial Model	F	_____
Light Duty	L*	

*Light Duty Drawings provided on request only

Recommended Air Hose: 3/8" I.D. minimum

Recommended Air Valve: 3/8" 3-way or 4-way solenoid valve

Operating Pressure: 20 to 80psi

Max. Marking Pressure: 6000lbs (at 80psi)

Stamp Capacities Rod Style "B"

(1) Pc CM8X round insert can mark up to a 1/4" character.

Stamp Capacities Rod Style "A"

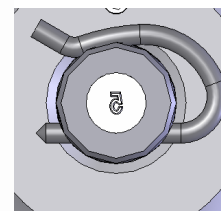
(4) Pc's 1/16" Char. CMG06 Stamp Inserts

(2) Pc's 1/8" Char. CMG13 Stamp Inserts

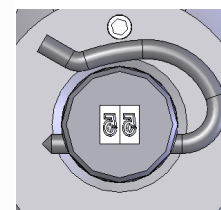
Stamp Capacities Rod Style "AS38"

(6) Pc's 1/16" Char. CMG06 Stamp Inserts

(3) Pc's 1/8" Char. CMG13 Stamp Inserts

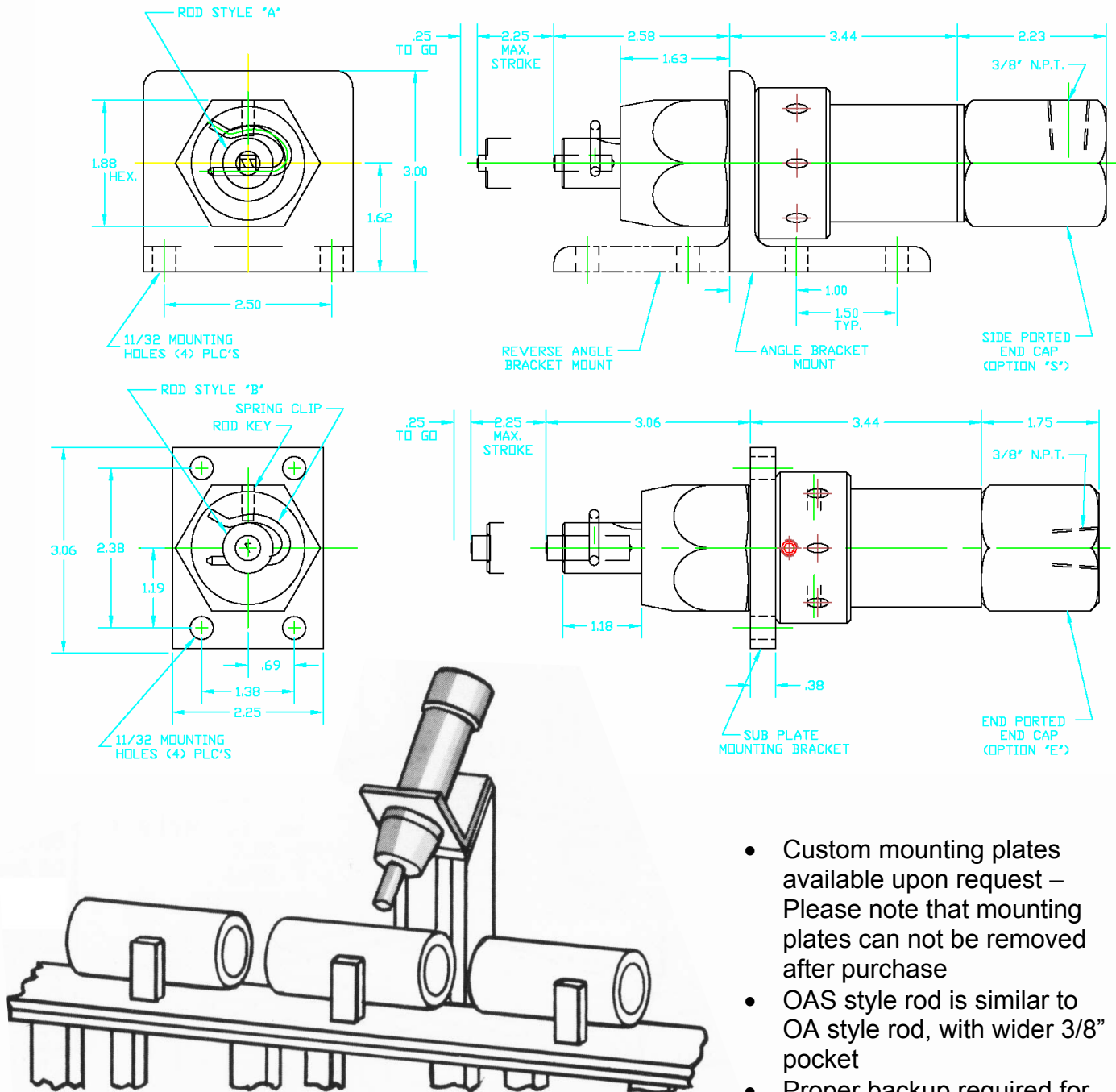


Rod Style B



Rod Style A

Model 88 Dimensions



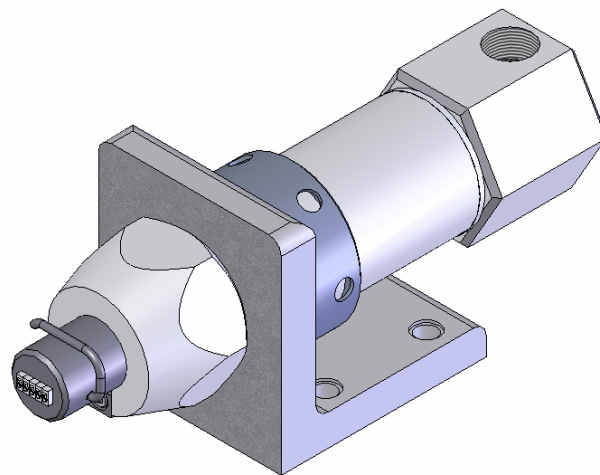
Shift & Operator Identification

- Custom mounting plates available upon request – Please note that mounting plates can not be removed after purchase
- OAS style rod is similar to OA style rod, with wider 3/8" pocket
- Proper backup required for parts being marked

Model 98: 8 Ton Single Acting Air Impact Marker

Model 98 8-TON: The Columbia model 98 heavy duty impact marking cylinder is similar to the model 88 marker. However, the 98 delivers a much greater impact force (up to 8-TONS at 80psi) the 98 also has **patented shock absorbing patented bumpers** at both ends of the stroke to prevent damage to the marker when bottoming out on the forward stroke and reducing the shock on return stroke. The rod has a spring return action while an efficient pressure venting system allows an instantaneous return stroke. Model 98 air impact markers have a keyed non-rotating rod and 2.5" of stroke.

- 3 Mounting styles include standard angle bracket, reverse angle bracket and straight sub-plate. Special mountings provided upon request.
- 3 Standard rod styles to hold the stamps offer multi-character OA or OAS75, and single character OB



- 2 different air port locations: standard end port or side port for restricted space installations

Model 98 How To Order

To Order: Select only the symbols that represent the marker feature that is needed. Place that symbol in the sequence as shown.

FEATURE	SYM.	EXAMPLE
98 (Angle Bracket)	98	- 98-OB-EF
98R (Reverse Bracket)	98R	
98SP (Sub Plate)	98SP	
Rod Style "A"	OA	_____
Rod Style "AS75"	OAS75	
Rod Style "B"	OB	
End ported end cap	E	_____
Side ported end cap	S	
Standard Industrial Model	F	
Light Duty	L*	

*Light Duty Drawings provided on request only

Recommended Air Hose: ½" I.D. Minimum

Recommended Air Valve: ½" 3-way or 4-way solenoid valve

Operating Pressure: 20-80psi

Max Marking Pressure: 16,000lbs (at 80psi)

Stamp Capacities Rod Style "B"

(1) Pc CM9X round insert 1/16" to 3/8" character. Multi-character insert available for smaller character sizes.

Stamp Capacities Rod Style "A"

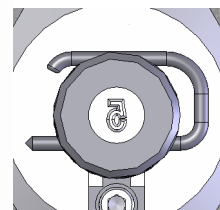
(10) Pc's 1/16" Char. CMG06 Stamp Inserts

(5) Pc's 1/8" Char. CMG13 Stamp Inserts

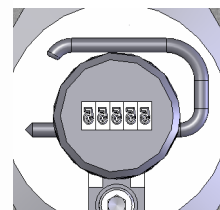
Stamp Capacities Rod Style "AS75"

(12) Pc's 1/16" Char. CMG06 Stamp Inserts

(6) Pc's 1/8" Char. CMG13 Stamp Inserts

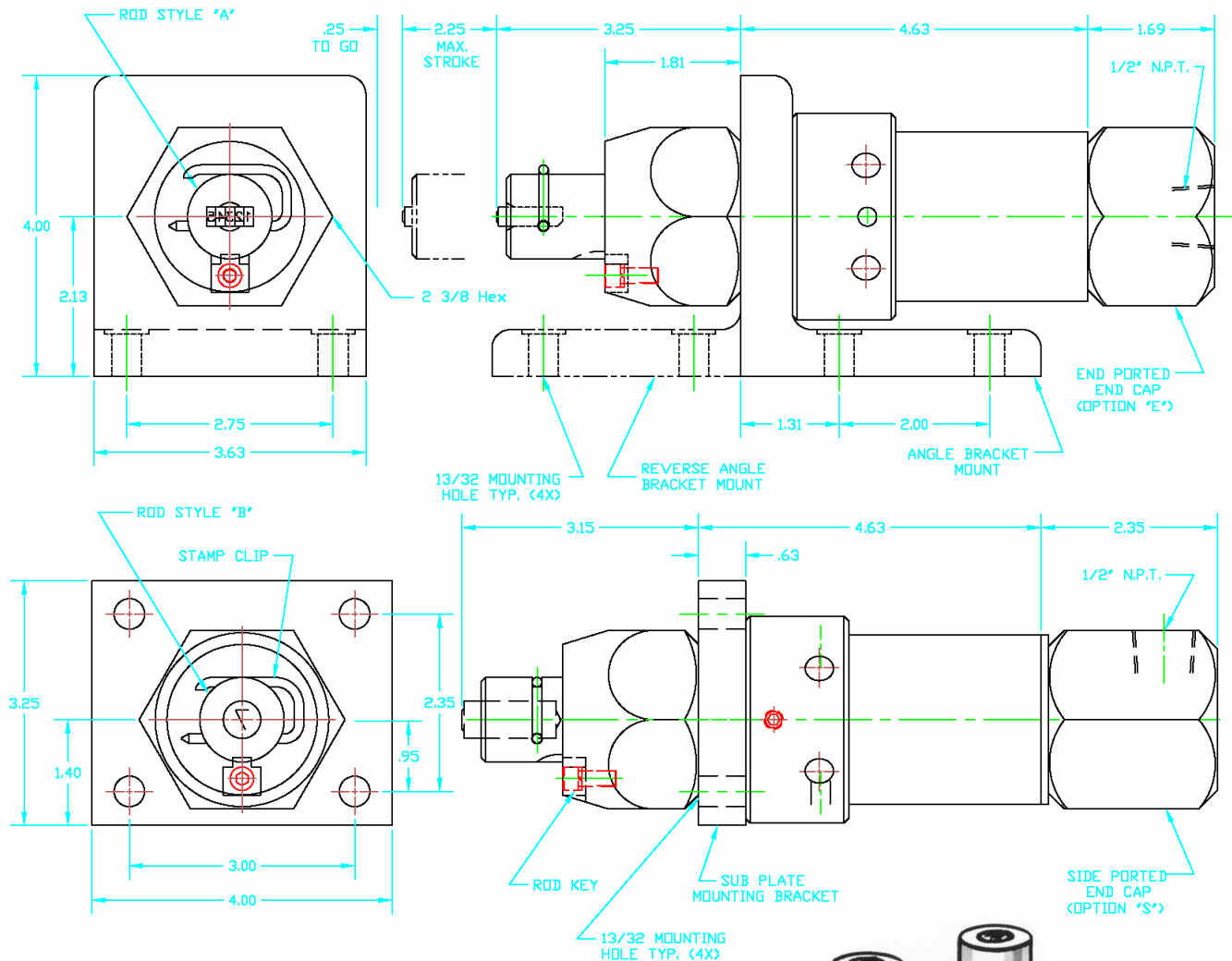


Rod Style B

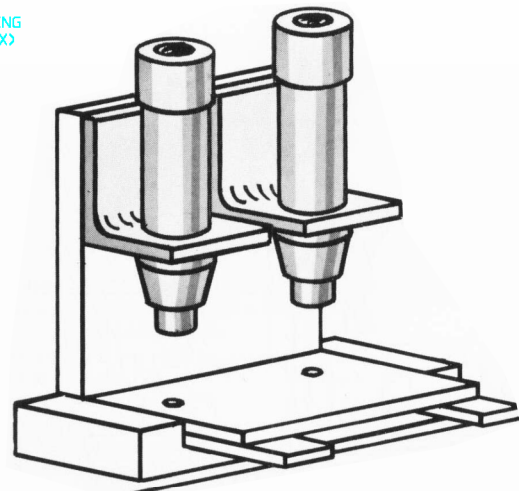


Rod Style A

Model 98 Dimensions



- Custom mounting plates available upon request – Please note that mounting plates can not be removed after purchase
- OAS style rod is similar to OA style rod, with wider 3/4" pocket
- Proper backup required for parts being marked





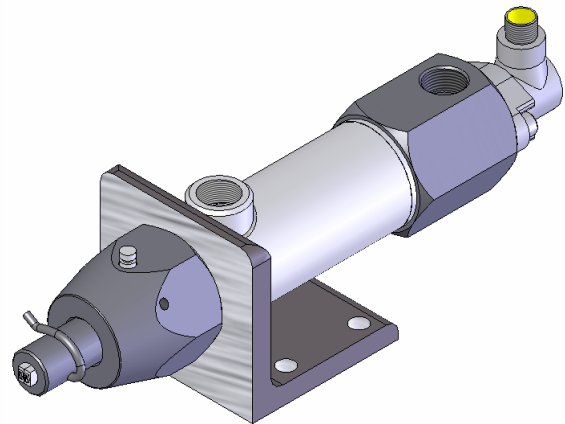
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Model 288: 3 Ton Double Acting Air Impact Marker

Model 288 3-TON: The patented design of the 288 gives a marking pressure of three tons or 6,000 lbs which results from using 2.25" stroke with 80 psi air pressure.

- 3 basic styles include Standard, Extreme Industrial, or Submersible. Standard models are great for rugged industrial marking. Extreme Industrial models are specially coated in a non-corrosive material for additional protection. Submersible units are both coated and are keyless and offer reliable marking in leak test applications.
- 3 Mounting styles include standard angle bracket, reverse angle bracket and straight sub-plate. Special mountings provided upon request.
- 3 Standard rod styles to hold the stamps offer multi-character OA or OAS38, and single character OB
- 3 different approach strokes: 2 1/2", 4" and 6"



- Integrated position sensors offer the added benefit to integrators
- Standard marker requires lubricated air. The NL non-lube version is required for "dry" air.

Model 288 How To Order

To Order: Select only the symbols that represent the marker feature that is needed. Place that symbol in the sequence as shown.

FEATURE	SYM.	EXAMPLE
288 Standard	288	288SP-OB-40-D
288R (reverse angle bracket)	288R	
288SP (sub plate)	288SP	
Standard	-	
Complete submersion	SUBU	
Dirty Environment	SUBK	
Rod Style "A"	OA	
Rod Style "AS38"	OAS38	
Rod Style "B"	OB	
Stroke 2.5"	25	
Stroke 4.0"	40	
Stroke 6.0"	60	
End ported end cap	E	
Side ported end cap	S	
24VDC Position Sensor	P	
110VAC Position Sensor	D	
Non-Lube* (if required)	NL	

*Permanently lubricated marker for low maintenance requirements

D= 24V DC, PNP sourcing Euro connector

P= 110v, Mini connector

Recommended Air Hose: 3/8" I.D. minimum

Recommended Air Valve: 3/8" 4-way solenoid valve

Operating Pressure: 20 to 80psi

Max. Marking Pressure: 6000lbs (at 80psi)

Stamp Capacities Rod Style "B"

(1) Pc CM8X round insert can mark up to a 1/4" character.

Stamp Capacities Rod Style "A"

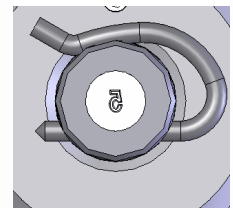
(4) Pc's 1/16" Char. CMG06 Stamp Inserts

(2) Pc's 1/8" Char. CMG13 Stamp Inserts

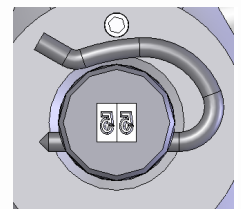
Stamp Capacities Rod Style "AS38"

(6) Pc's 1/16" Char. CMG06 Stamp Inserts

(3) Pc's 1/8" Char. CMG13 Stamp Inserts

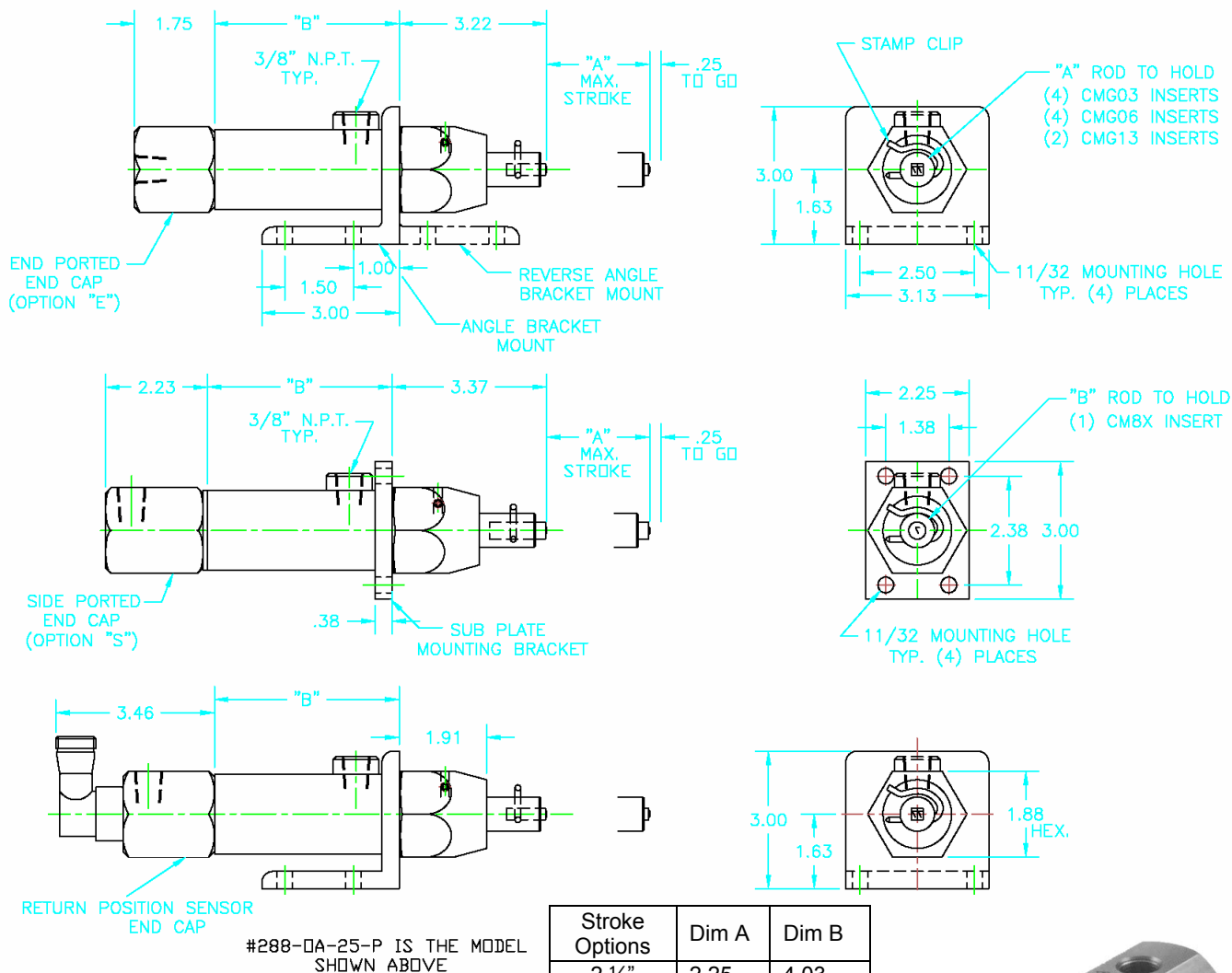


Rod Style B

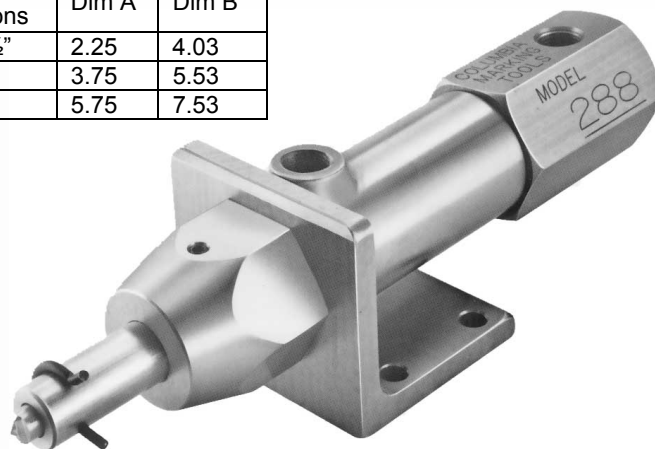


Rod Style A

Model 288 Dimensions



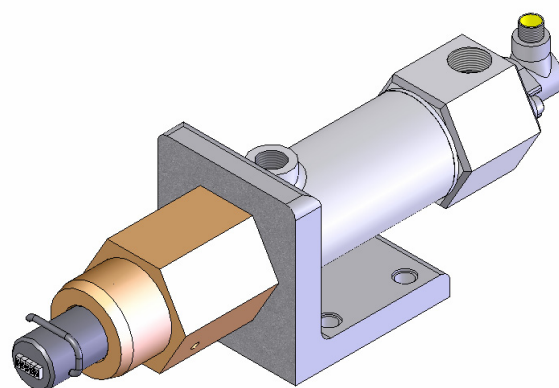
- Custom mounting plates available upon request – Please note that mounting plates can not be removed after purchase
- OAS style rod is similar to OA style rod, with wider 3/8" pocket
- Proper backup required for parts being marked



Model 298: 8 Ton Double Acting Air Impact Marker

Model 298 8-TON: The patented design of the 298 gives a marking pressure of eight tons or 16,000 lbs which results from using 2.25" stroke with 80 psi air pressure.

- 3 basic styles include Standard, Extreme Industrial, or Submersible. Standard models are great for rugged industrial marking. Extreme Industrial models are specially coated in a non-corrosive material for additional protection. Submersible units are both coated and are keyless and offer reliable marking in leak test applications.
- 3 Mounting styles include standard angle bracket, reverse angle bracket and straight sub-plate. Special mountings provided upon request.
- 3 Standard rod styles to hold the stamps offer multi-character OA or OAS75, and single character OB
- 3 different approach strokes: 2 1/2", 4" and 6"



- Integrated position sensors offer the added benefit to integrators
- Standard marker requires lubricated air. The NL non-lube version is required for "dry" air.

Model 298 How To Order

To Order: Select only the symbols that represent the marker feature that is needed. Place that symbol in the sequence as shown.

FEATURE	SYM.	EXAMPLE
298 Standard	298	298SP-OB-40-D
298R (reverse angle bracket)	298R	
298SP (sub plate)	298SP	
Standard	-	
Complete submersion	SUBU	
Dirty Environment	SUBK	
Rod Style "A"	OA	
Rod Style "AS75"	OAS75	
Rod Style "B"	OB	
Stroke 2.5"	25	
Stroke 4.0"	40	
Stroke 6.0"	60	
End ported end cap	E	
Side ported end cap	S	
24VDC Position Sensor	P	
110VAC Position Sensor	D	
Non-Lube* (if required)	NL	

*Permanently lubricated marker for low maintenance requirements

D= 24V DC, PNP sourcing Euro connector

P= 110v, Mini connector

Recommended Air Hose: 1/2" I.D. minimum

Recommended Air Valve: 1/2" 4-way solenoid valve

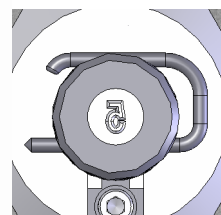
Operating Pressure: 20 to 80psi

Max. Marking Pressure:

16000lbs (at 80psi)

Stamp Capacities Rod Style "B"

(1) Pc CM9X round insert 1/16" to 3/8" character. Multi-character insert available for smaller character sizes.



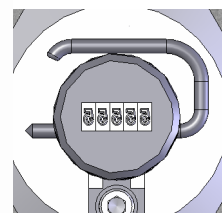
Rod Style B

Stamp Capacities Rod Style "A"

(10) Pc's 1/16" Char. CMG06

Stamp Inserts

(5) Pc's 1/8" Char. CMG13 Stamp Inserts



Rod Style A

Stamp Capacities Rod Style "AS75"

(12) Pc's 1/16" Char. CMG06

Stamp Inserts

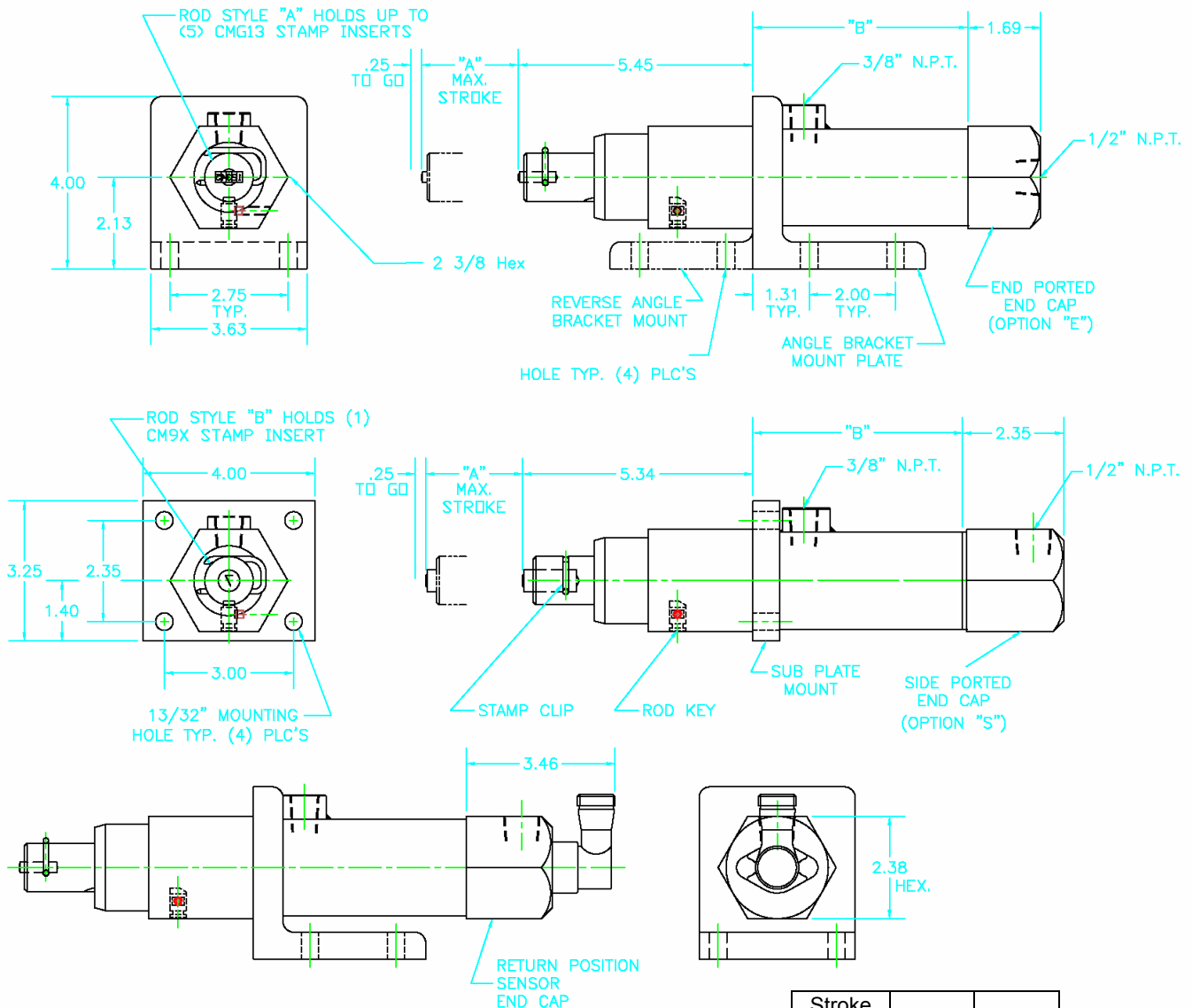
(6) Pc's 1/8" Char. CMG13 Stamp Inserts



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Model 298 Dimensions



- Custom mounting plates available upon request – Please note that mounting plates can not be removed after purchase
- OAS style rod is similar to OA style rod, but has 3/4" wide pocket
- Proper backup required for parts being marked

Stroke Options	Dim A	Dim B
2 1/2"	2.25	4.88
4"	3.75	6.38
6"	5.75	8.38





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Robotic Mounted Air Marker: Model 75S & 85S

Model 75S and 85S: Compact lightweight design, these single action air hammers are pressure activated. Mount onto robotic arm and present to part, or vice-a-versa. The force required for actuation is equivalent to the air pressure being used. .

- Two basic styles of this air hammer look identical. The internal difference offers two power ranges. The maximum marking pressure for the model 75S is 1500 at 80 psi, and the maximum marking pressure of the model 85S is 2500 at 80 psi.
- Four bolt holes are located at the back of the marker for easy installation. (4) 5/16" tap x .62 deep equally spaced on a 1.562" B.C..
- 3 Standard rod styles to hold the stamps offer multi-character OA or OAS38, and single character OB
- Each system offers a choice of air port connections. One is located on the back of the cylinder and

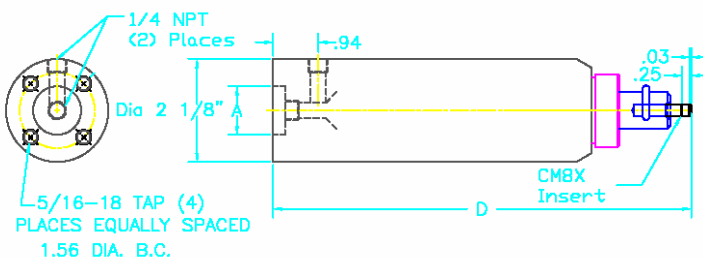


one is located on the side of the cylinder. With these 1/4 NPT connections CMT recommends the use of 3/8" airline. Use of a filter and lubricator is also recommended.

Model 75S and 85S How To Order

To Order: Select only the symbols that represent the marker feature that is needed. Place that symbol in the sequence as shown.

FEATURE	SYM.	EXAMPLE
75S Lower power	075S	- 085S-OA
85S Higher power	085S	
Rod Style "B" single character	OB	
Rod Style "A" multi-character	OA	
Rod Style "AS38" multi-character	OAS38	



A=1.001/1.002" diam x .25" DP locating pilot bore, B= .25" Max over travel, C= .03" Firing position, D=8.38" for "A" rod, and 8.50" for "B" rod Rest Position

Recommended Air Hose: 3/8" I.D. minimum

Operating Pressure: 20 to 100psi

Max. Marking Pressure: Model 75S is 1500lbs (at 80psi), Model 85S is 2500lbs (at 80 psi)

Stamp Capacities Rod Style "B"

(1) Pc CM8X round insert 1/16" to 1/4" character. Multi-character insert available for smaller character sizes.

Stamp Capacities Rod Style "A"

(4) Pc's 1/16 Char. CMG06

Stamp Inserts

(2) Pc's 1/8 Char. CMG13

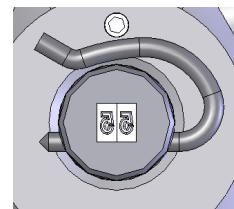
Stamp Inserts

Stamp Capacities Rod Style "AS38"

(6) Pc's 1/16 Char. CMG06

Stamp Inserts

(3) Pc's 1/8 Char. CMG13 Stamp Inserts

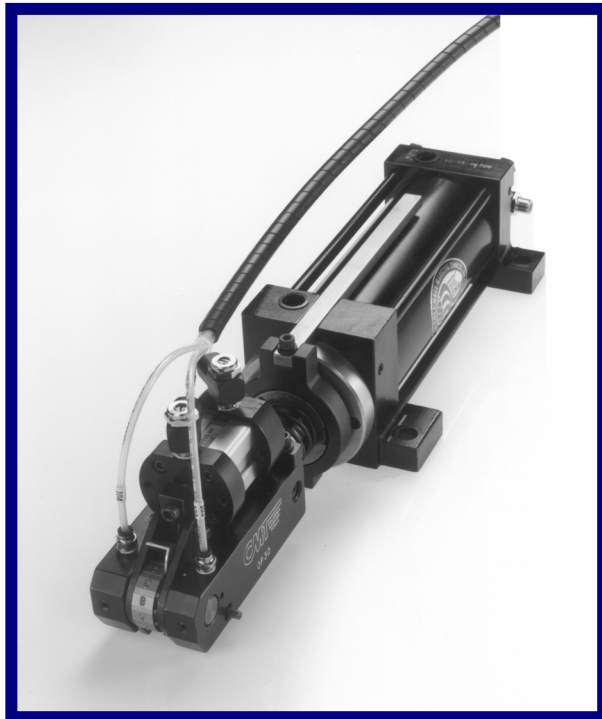


Rod Style A

Slide-A-Mark Series Double Acting Air Impact Marker Systems

SLIDE-A-MARK 6 ton to 10 ton: The Columbia SLIDE-A-MARK series heavy duty marking cylinders offer a patented soft-impact marking action and low noise level, making it ideal for mounting into existing automation. The SLIDE-A-MARK eliminates costly approach slides for reaching into parts or fixturing which contain clearance issues.

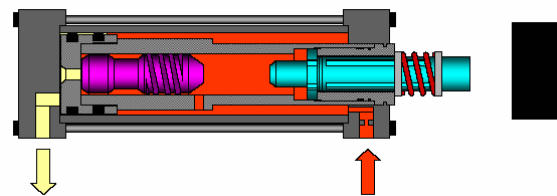
- The telescoping action of the Slide-A-Mark series makes this marker ideal for the use of stamp holders for extended marking legends, and numbering heads. CMT "Select" series of numbering heads makes random machines codes possible.



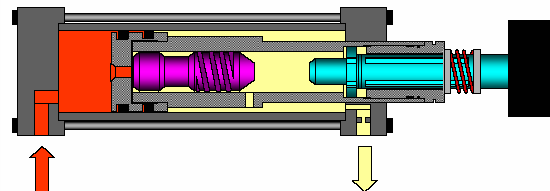
- By loosening the collar clamp the on the rod, radial rod orientation adjustment becomes infinite.

The SLIDE-A-MARK operates as follows:

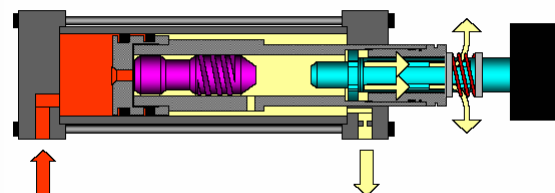
1) marker approaches work piece (part)



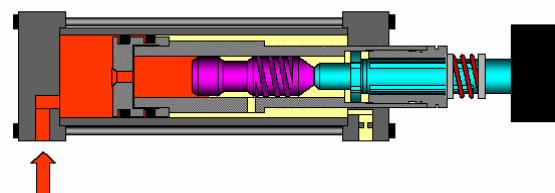
2) marker squeezes work piece



3) marker marks work piece with internal hammer action



4) marker retracts from work piece

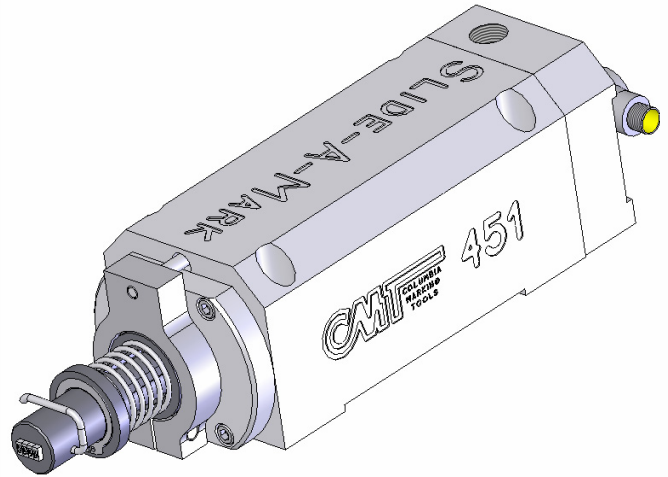


- Because the air hammer is internal, the Slide-A-Mark offers the same marking forces anywhere from 1/2" to the end of its stroke length. When marking parts of various sizes, the mark will remain similar in depth.

Slide-A-Mark™ Model 451 – Compact and Reduced Sound

Model 451 4-TON: This model is the smallest of Slide-A-Mark series. The solid cast iron construction contributes to the quiet marking capabilities of this system. The Slide-A-Mark feature acts as a self clamping device, and allows for minimal fixturing. Radial rod orientation becomes infinite by loosening the front collar clamp on the rod.

- 3 Standard rod styles to hold the stamps offer multi-character OA or OAS63, and single character OB
- 2 different approach strokes: 2 1/2" and 4 1/2"
- Integrated position sensors offer the added benefit to integrators
- This marker comes standard in the non-lube version for use with "dry" filtered air.



Model 451 How To Order

To Order: Select only the symbols that represent the marker feature that is needed. Place that symbol in the sequence as shown.

FEATURE	SYM.	EXAMPLE
451 Compact – Quiet 4	451	451-OA-45-E
Rod Style "B" single character	OB	
Rod Style "A" multi-character	OA	
Rod Style "AS63" multi-character	OAS63	
Stroke 2.5"	25	
Stroke 4.5"	45	
Standard	00	
24VDC Position Sensor	E	
110VAC Position Sensor	P	
Standard Non-Lube*		

*Permanently lubricated marker for low maintenance requirements

E= 24V DC, PNP sourcing Euro connector

P= 110v, Mini connector

The model 451 offers a "quieter" impact marking operation. The preload feature, along with the solid construction, reduces sounds.

Recommended Air Hose: 3/8" I.D. minimum

Recommended Air Valve: 3/8" 4-way solenoid valve

Operating Pressure: 20 to 80psi

Max. Marking Pressure: 8000lbs (at 80psi)

Stamp Capacities Rod Style "B"

(1) Pc CM9X round insert 1/16" to 1/4" character. Multi-character insert available for smaller character sizes.

Stamp Capacities Rod Style "A"
(8) Pc's 1/16" Char. CMG06 Stamp Inserts

(4) Pc's 1/8" Char. CMG13 Stamp Inserts

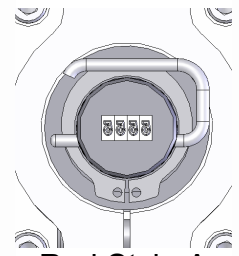
Stamp Capacities Rod Style "AS63"

(10) Pc's 1/16" Char. CMG06 Stamp Inserts

(5) Pc's 1/8" Char. CMG13 Stamp Inserts



Rod Style B



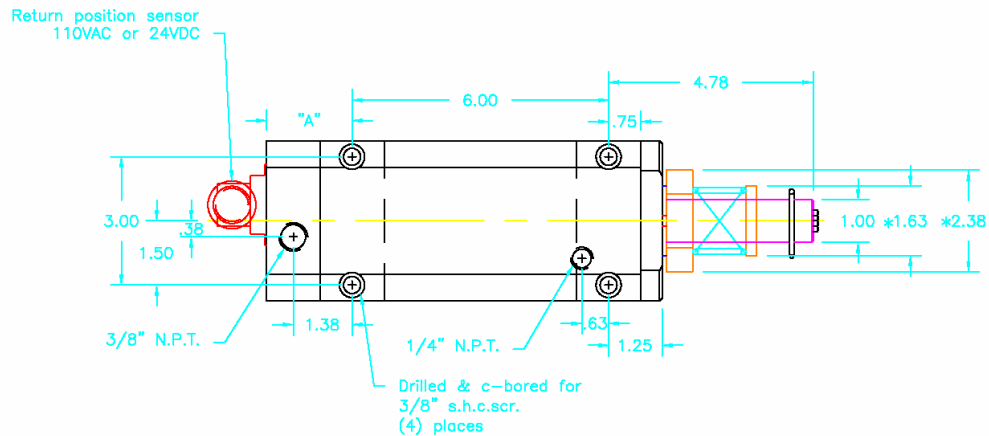
Rod Style A



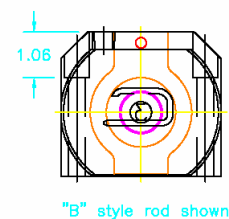
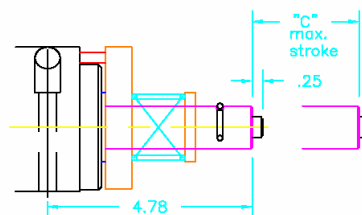
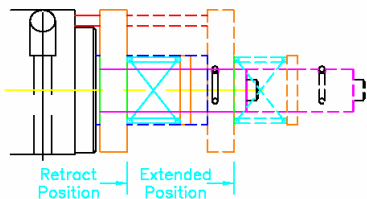
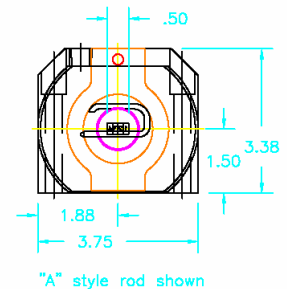
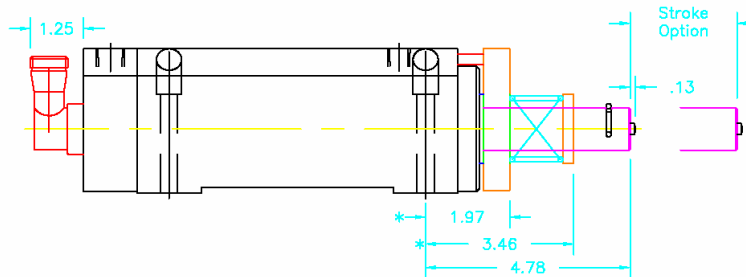
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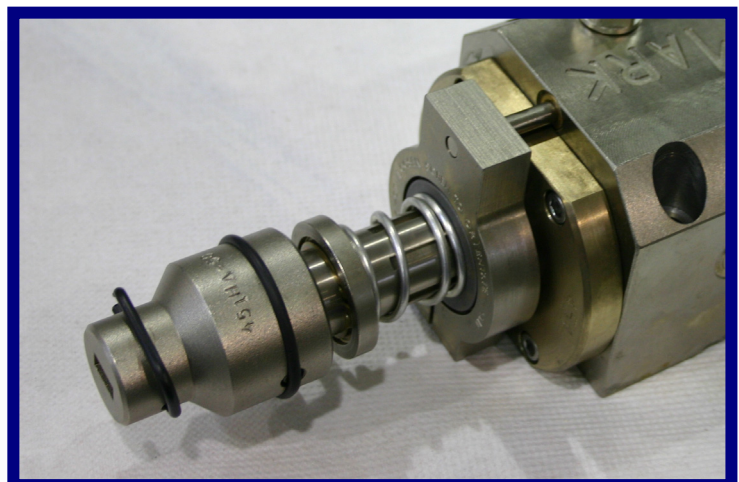
Model 451 Dimensions



Stroke Options	Dim A
2 1/2"	2.00
4 1/2"	4.00



- By loosening the collar clamp the on the rod, radial rod orientation adjustment becomes infinite.
- OAS style rod is similar to OA style rod, with wider 5/8" pocket
- Standard holders, numbering heads, and Anvils mount on rod style H



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Slide-A-Mark™ 751 and 851

Model 751 8-Ton and 851 10-Ton: These system offers the widest array of options for integration. The Slide-A-Mark feature acts as a self clamping device, and allows for minimal fixturing. Radial rod orientation becomes infinite by loosening the front collar clamp on the rod. The models 751 and 851 are also offered with a wide range of holders and numbering heads.

- 5 Standard rod styles to hold the stamps offer multi-character OA or OAS75, single character OB, standard ball lock tooling mount OK, or custom press shank mount OH.
- 4 different approach strokes: 2 ½", 4", 6", and 8". 10" and 12" stroke lengths are available upon request.
- Integrated position sensors offer the added benefit to integrators. These units offer the added feature of an optional advance and return position sensors.



- Standard marker requires lubricated air. The NL non-lube version is required for "dry" air.

Model 751 and 851 How To Order

To Order: Select only the symbols that represent the marker feature that is needed. Place that symbol in the sequence as shown.

FEATURE	SYM.	EXAMPLE
751 8-ton system	751	751-OA-40-E1
851 10-ton system	851	
Rod Style "B" single character	OB	
Rod Style "A" multi-character	OA	
Rod Style "AS75" multi-character	OAS75	
Rod Style "K" tooling mount	OK	
Rod Style "H" Press shank mount	OH	
Stroke 2.5"	25	
Stroke 4.0"	40	
Stroke 6.0"	60	
Stroke 8.0"	80	
Standard	00	
Return 24VDC Position Sensor	E1	
Advance and Return	E2	
24VDC Position Sensor		
Return 110 VAC Position Sensor	P1	
Advance and Return 110VAC	P2	
Position Sensor		
Non-Lube* (if required)	NL	-----

*Permanently lubricated marker for low maintenance requirements

E= 24V DC, PNP sourcing Euro connector

P= 110v, Mini connector

Recommended Air Hose: 3/8" I.D. minimum

Recommended Air Valve: 3/8" 4-way solenoid valve

Operating Pressure: 20 to 80psi

Max. Marking Pressure: For 751 = 16000lbs (at 80psi)

For 851 = 20000lbs (at 80 psi)

Stamp Capacities Rod Style "B"

(1) Pc CM9X round insert 1/16" to 1/4" character. Multi-character insert available for smaller character sizes.

Stamp Capacities Rod Style "A"

(10) Pc's 1/16 Char. CMG06

Stamp Inserts

(5) Pc's 1/8 Char. CMG13 Stamp Inserts

Stamp Capacities Rod Style "AS75"

(12) Pc's 1/16 Char. CMG06 Stamp Inserts

(6) Pc's 1/8 Char. CMG13 Stamp Inserts

Tooling Mount Rod Style "K"

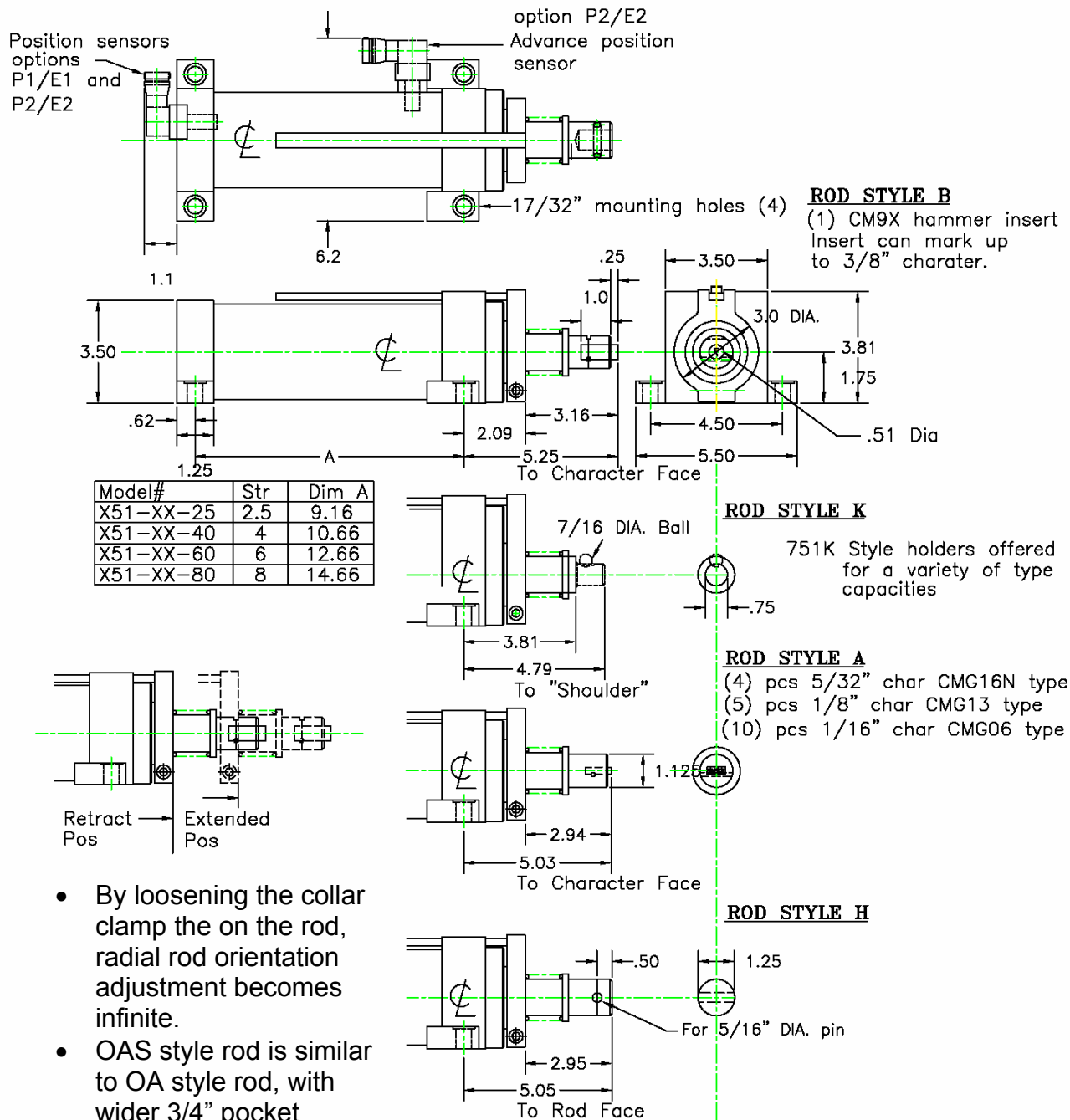
Ball lock mount for standard tooling including holders and numbering heads

Tooling mount Rod Style "H"

Press shank to mount custom tooling



Model 751 and 851 Dimensions



- By loosening the collar clamp the on the rod, radial rod orientation adjustment becomes infinite.
- OAS style rod is similar to OA style rod, with wider 3/4" pocket
- Standard holders, numbering heads, and Anvils mount on rod style K

**Non-Lube, 751, and 851
have same external
dimensions**



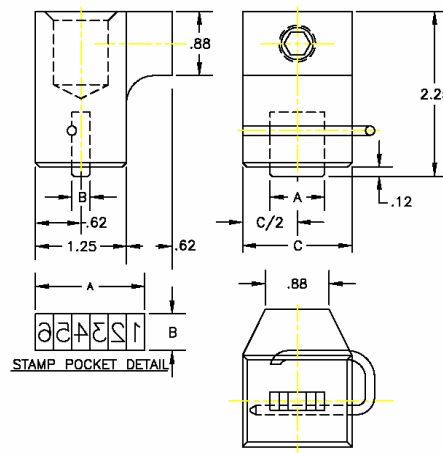
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Slide-A-Mark™ K Style Quick Change Holders



Quick change holders are used on the rod style K. These holders allow for marking of larger legends. They are quickly removed by loosening a set screw. To assure the fastest changeover time, have a spare holder preset with the new marking legend.



Item Number	"A"	"B"	"C"	1/16"	3/32"	1/8"	5/32"	3/16"	1/4"
751KA5010	0.50	0.25	1.50	8	(5)	4	-	-	-
751KA7510	0.75	0.25	1.50	12	8	6	-	-	-
751KA10010	1.00	0.25	2.25	16	(10)	8	-	-	-
751KA15010	1.50	0.25	2.25	24	16	12	-	-	-
751KA20010	2.00	0.25	3.25	32	(21)	16	-	-	-
751KA25010	2.50	0.25	3.25	40	(26)	20	-	-	-
751KB7510	0.75	0.31	1.50	-	-	-	4	4	-
751KB15010	1.50	0.31	2.25	-	-	-	8	8	-
751KB20010	1.88	0.31	3.25	-	-	-	10	10	-
751KB22510	2.50	0.31	3.25	-	-	-	12	12	-
751KC10010	1.00	0.38	2.25	-	-	-	-	-	4
751KC15010	1.50	0.38	2.25	-	-	-	-	-	6
751KC20010	2.00	0.38	3.25	-	-	-	-	-	8

*Numbers in () require additional spacer to fill pocket

Floating holder option (as shown at left) will adjust for slight variances in the marking surface. These are available on K style Holders and the CMM adapters.

Part Number	Drawings available upon request
751KXFL###10	X and ## = Character and number from table above. Floating holder will have same type capacity but dimensions will vary

Adapters are available for CMM retainers. For more information on CMM please see complete catalog. Drawings available upon request.

Part Number	Includes CMM retainer and stamps
751KFLP8210A	CMM101 retainer and CMM103 stamps
751KFLR4240A	CMMR18R1900 retainer and CMM018 stamps



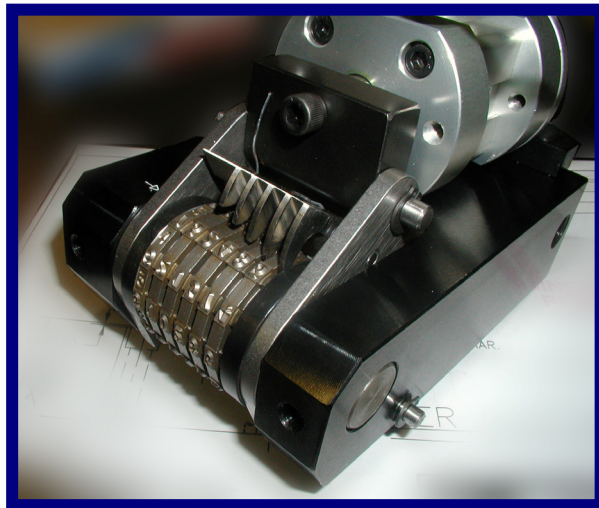
Floating Holder Adapter and Retainer

- Excellent for Sheet Metal Marking

Slide-A-Mark™ Numbering Heads

Model 130K Manual Numbering head and 123K Automatic Numbering Head: Numbering heads offer marking legend flexibility. The benefits include simplicity of design, and rugged manufacturing.

- Manually sequenced and automatically sequenced wheels. Automatic wheels require actuation device.
- Patented pawl system for easy setting and positive alignment.
- Sturdy one piece frames.
- Large diameter main shaft for bearing load.
- Standard character sizes include: 1/16", 3/32", 1/8", 5/32", 3/16", and 1/4". Metric sizes available upon request.
- Standard Wheels 10 stations reading 0 through 9
- Custom wheels include alpha and symbols readings, and 12 and 14 station wheels.



Model 123K shown with Actuator

Model 130K and 123K How To Order

To Order: Select only the symbols that represent the marker feature that is needed. Place that symbol in the sequence as shown.

FEATURE	SYM.	EXAMPLE
130K Manual Numbering Head	130K	- 123K-2M-3A-13-A
123K Automatic Numbering Head	123K	
No Manual wheels	-	
1 Manual wheel	1M	
2 Manual wheels	2M	
3 Manual wheels	3M	
4 Manual wheels	4M	
5 Manual wheels	5M	
No Automatic Wheels (for 130K)	-	
1 Automatic wheel	1A	
2 Automatic wheels	2A	
3 Automatic wheels	3A	
4 Automatic wheels	4A	
5 Automatic wheels	5A	
1/16" character size	06	
3/32" character size	09	
1/8" character size	13	
3/16" character size	19	
1/4" character size	25	
Actuator	A	
No Actuator	0	

Styles: 130K for manual changing of the numbers, and 123K for automated incremental serialization of the numbers

Number of Manual Wheels: Number of manual wheels in the numbering head

Number of Automatic Wheels: Only available on the model 123K. These automated wheels start from the right side of the marking legend (as read).

Character Size: Size of characters on the wheels, all standard wheels reading 0 to 10. Optional readings available.

Actuator: Pneumatic actuator is used to sequence the incremental numbers and requires second 4-way valve to cycle. Only available on the model 123K.

Approval: Complete approval drawings will be provided upon placement or order, and require customer approval to proceed.

Pressure Required: Numbering head configurations may require more force than provided by Slide-A-Mark. Please check pressure charts for verification.

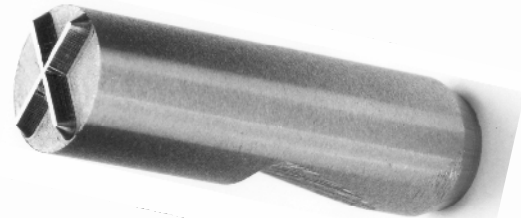


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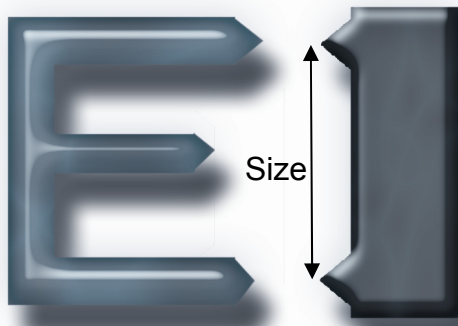
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CMT Quality Stamps

The process of engraving stamps and inserts that CMT uses assures for a longer stamp life. These stamps and inserts are made from select tool steel and carefully heat treated. They stand up best under high production marking conditions.



Measuring Letters & Figures



The character size is measured from the tallest part of the stamp die. When the stamp die indents into the metal the mark will be larger. The most common error is to overestimate the character size.

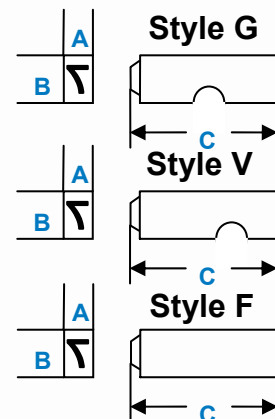
To order individual **LETTERS** and **FIGURES** add suffix of actual letter or figure to part number

To **BLANK SPACERS** add suffix of "-00" to part number

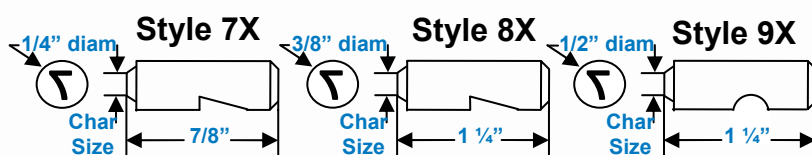
To order **PUNCTUATION** add suffix from table below to part number

CMG	09	-A
Style	Char Size	Letter or Figure
CMF	-13	-00
Style	Char Size	Blank Spacer
CM8X	25	-RR
Style	Char Size	Asterisk Suffix

Char Size	A	B	C	Style G Standard Groove Part Number	Style V Special Groove Part Number	Style F Standard Flat Part Number
1/16	1/16	1/4	7/8	CMG06-	CMV06-	CMF06-
3/32	3/32	1/4		CMG09-	CMV09-	CMF09-
1/8	1/8	1/4		CMG13-	CMV13-	CMF13-
5/32	5/32	1/4		CMG16N-		
3/16	3/16	5/16		CMG19-		
1/4	1/4	3/8		CMG25-		



Mark	Symbol	Suffix
Dash	-	-DD
Period	.	-PP
Comma	,	-CC
Diagonal	/	-SS
Ampersand	&	-AA
Number sign	#	-TT
Multiplication	X	-MM
Equals Sign	=	-EE
Colon	:	-LL
Plus Sign	+	-UU
Asterisk	*	-RR
Percent Sign	%	-QQ
Dollar Sign	\$	-BB



Char Size	Style 7X 1/4" Diam Part Number	Style 8X 3/8" Diam Part Number	Style 9X 1/2" Diam Part Number
1/16	CM7X06-	CM8X06-	CMG06-
3/32	CM7X09-	CM8X09-	CMG09-
1/8	CM7X13-	CM8X13-	CMG13-
5/32	CM7X16-	CM8X16-	CM9X16-
3/16	CM7X19-	CM8X19-	CM9X19-
1/4		CM8X25-	CM9X25-

CM7G information provided on website, www.columbiamt.com

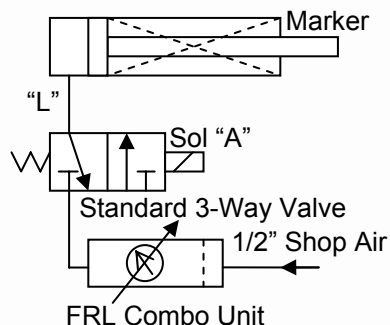


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Suggested Pneumatic Controls

Single Acting: Model 88 and 98

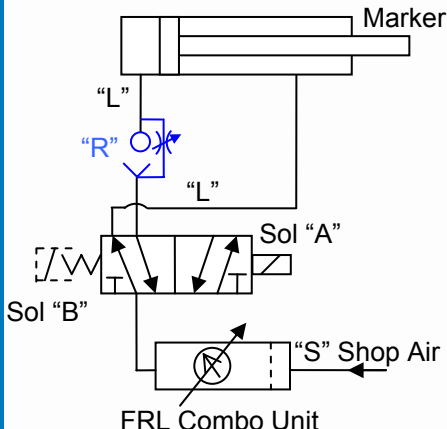


"L" Tubing sizes
Model 88 – 3/8"
Model 98 – 1/2"

Electrical sequence for spring return valve

1. To advance marker energize solenoid "A"
2. To return marker de-energize solenoid "A". Spring in marker returns ram after pressure is exhausted.

Double Acting: Model 78, 288, 298, and Slide-A-Mark



"L" Tubing Sizes
Model 78 and 288 – 3/8"
Model 298 – 1/2"
Slide-A-Mark – 1/2"

"S" Shop Air
Model 78 – 3/8"
Model 288 and 298 – 1/2"
Slide-A-Mark – 1/2"

Electrical Sequence for double solenoid valve.

1. To advance marker energize solenoid "A".
2. To return marker and reset – de-energize solenoid "A" and energize solenoid "B".

Electrical sequence for spring return valve.

1. To advance marker – energize solenoid "A".
2. To return marker and reset – de-energize solenoid "A" after part is marked.

Speed control adjustment (not for use with Slide-A-Mark)

Adjust speed control "R" to control speed of retract motion. DO NOT install speed control on forward (rod) port of marker,

*Note: For most efficient operation, electrical signal energizing solenoid "A" should be very short, approximately .06 to .10 seconds.

Retro-Fit Valve Pack – Fast and Easy Installation



Each Valve Pak Includes:

- High Air Flow Valve
- Filter, Regulator, Lubricator And Gage Unit
- Lock-Out, Air Shut-Off Valve
- Completely Assembled
- Exhaust Muffler
- Air Timed Return On Valve For Adjustable Instant response

Feature	Symbol	Example
Single Acting	RVPS	—RVPD-DC-NL
Double Acting	RVPD	
AC	-	
DC	DC	
Non-Lube	NL	

CMT

COLUMBIA MARKING TOOLS



Wide Range of Products:
Programmable Systems
Dot-Peen & Scribe
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