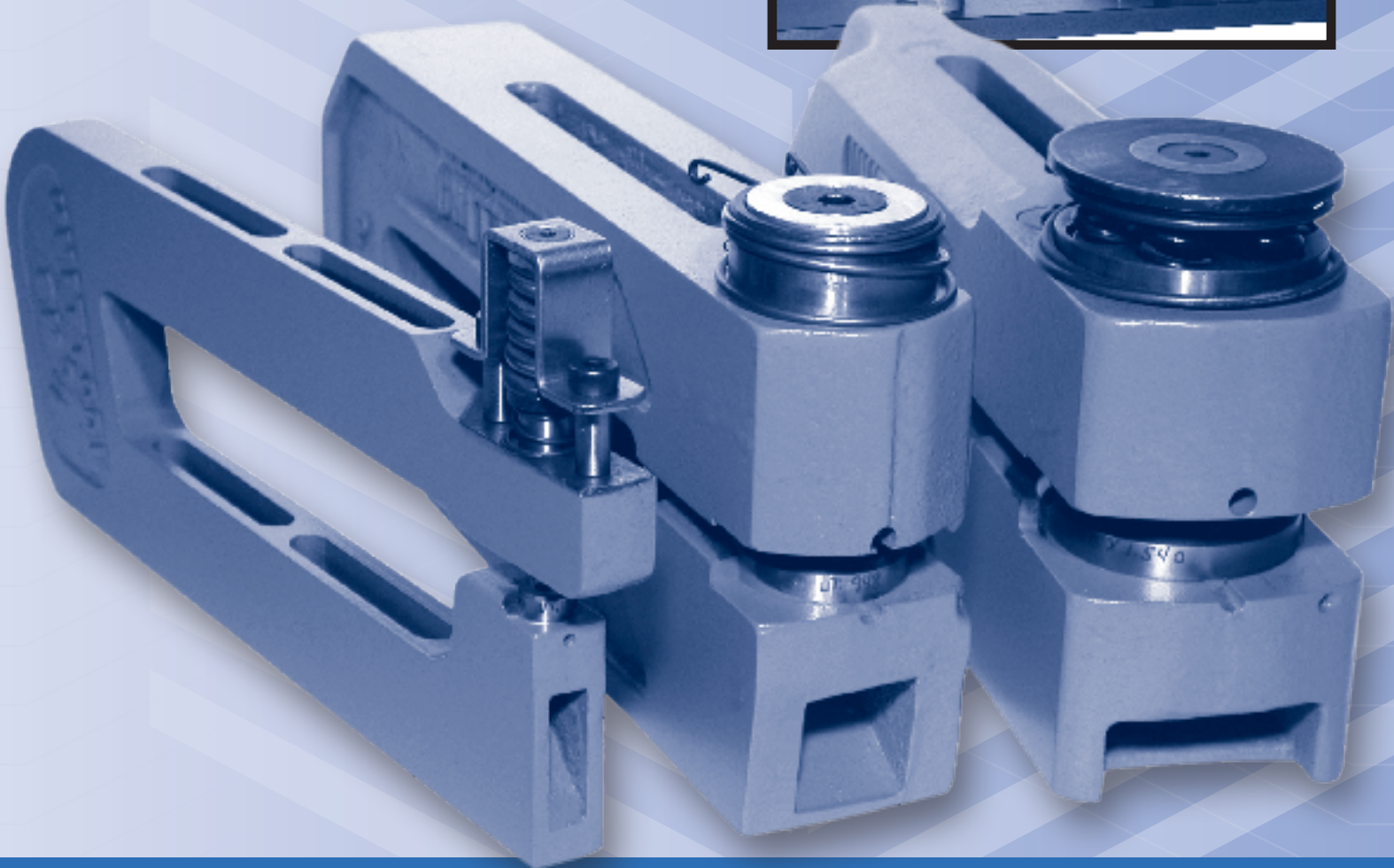
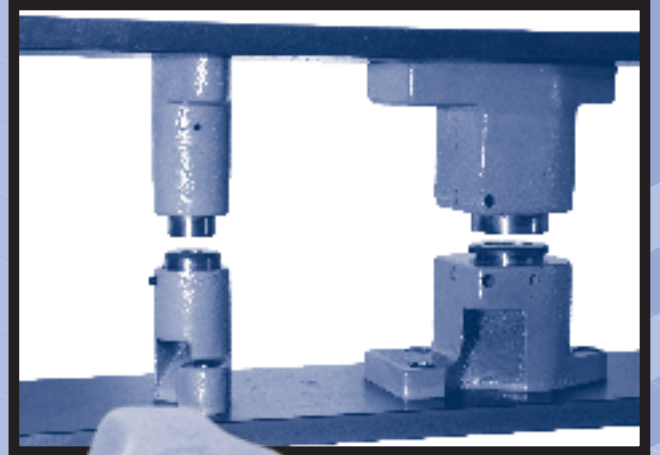


UNITTOOL

MEDIUM-DUTY PUNCHING UNITS

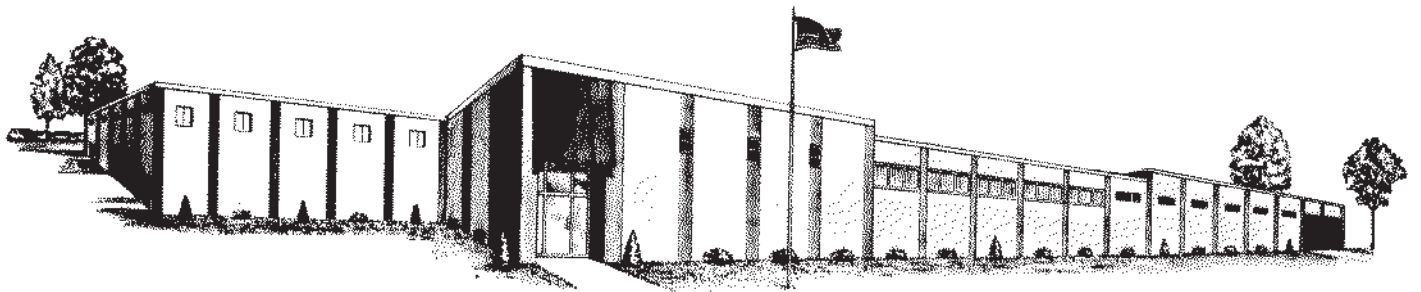
Capacity - 10 ga. Mild Steel

Feed Thru Punching Units



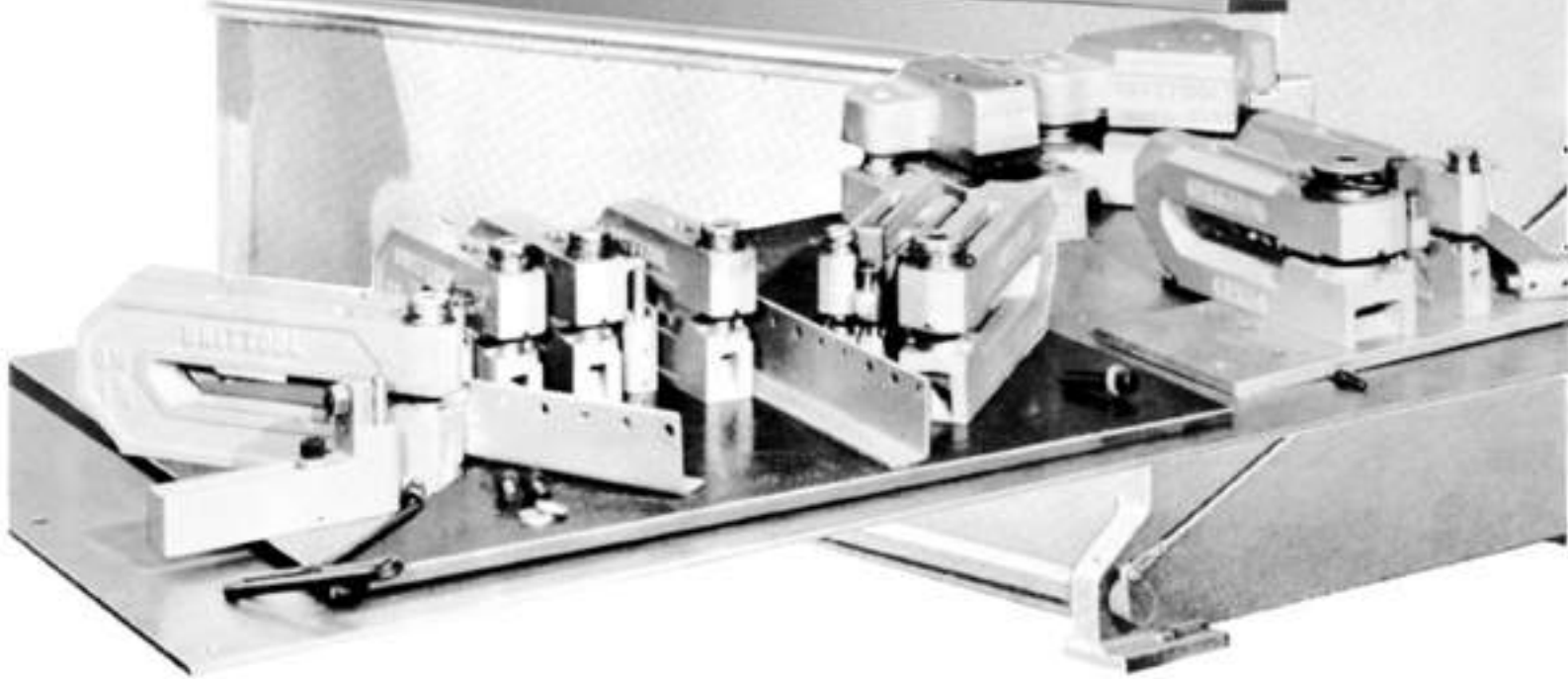
UNITTOOL PUNCH & DIE COMPANY INC.

20 Norris St. Buffalo, New York 14207 | Phone: 1-716-873-8453 | Fax: (USA Only) 1-800-25Punch (257-8624)
Email: Info@Unittool.com



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MODEL M-1 ¹ / ₄	Pg. 6	MODEL M-8.....	Pg. 13
MODEL M-1 ³ / ₄	Pg. 7	MODEL FTM-1 ¹ / ₈ & FTM-1 ³ / ₈	Pg. 14
MODEL M-2 ¹ / ₄	Pg. 8	MODEL FTM-2 ¹ / ₄ & FTM-3 ¹ / ₂	Pg. 15
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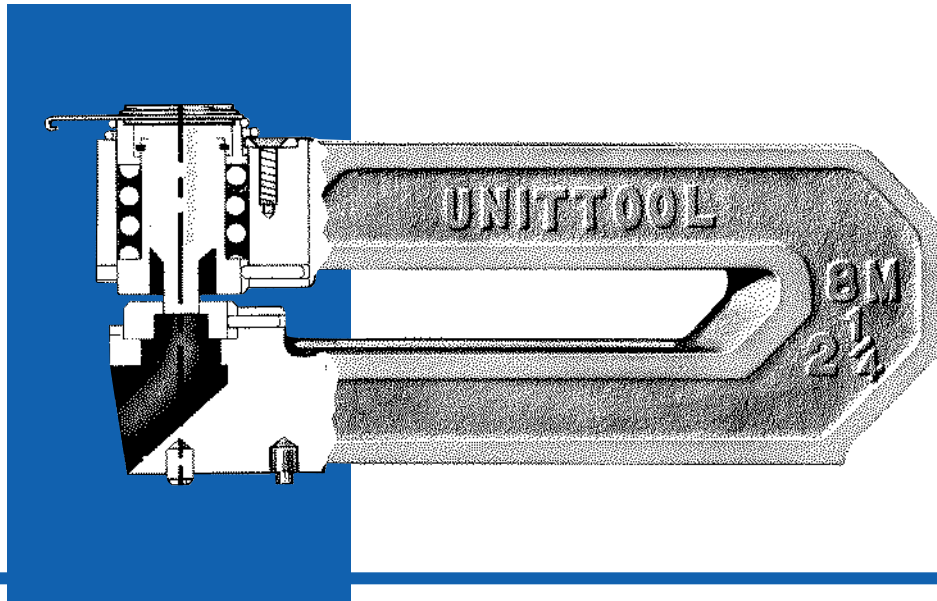
UNITTOOL "M" SERIES puNChiNg uNiTs

5-1/2" ShuT hEighT

punch size range — .093 to 5.00 dia.

2-19/32" DiE hEighT

Capacity up to 10 gauge mild steel



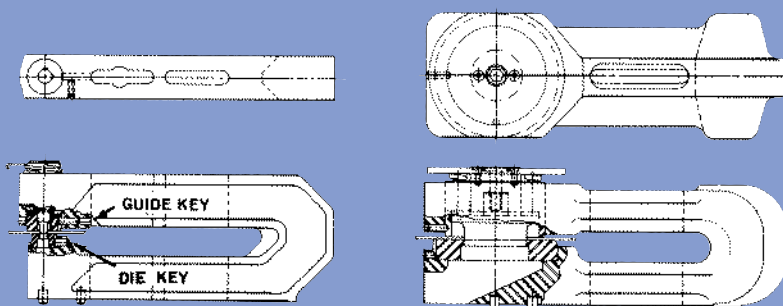
Unittool "M" Series units are designed for use in press equipment with limited die space. The power packed stripping die assembly produces maximum stripping pressure in a compact space to permit punching large holes on close hole centers.

The sturdy holders are keyed for shape hole punching at no extra cost. The die section is designed for maximum strength to prevent die "tip over" sometimes caused by two pieces construction.

The punches and dies are manufactured from Oil Hardened Tool Steel (O-1). This material has proven to be satisfactory for most applications. Other material, such as High Speed Steel (M-2), High Carbon-High Chrome (D-2), 5% Chrome (A-2) and Shock Resistant Steel (S-5) are also available.

Unittool's punch and head assembly design makes it possible to shim up the punch to new length after excessive sharpening. Operating with short punches overworks the springs and causes excessive breakage. Replacement punches can be ordered without the head for additional saving.

Our free engineering consulting service is available, to help you to produce a high quality product at the lowest possible cost.

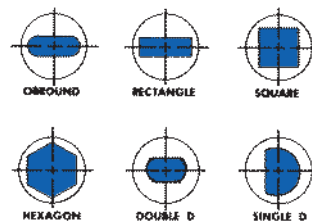


KEYiNg ARRANGEMENT
FOR MODELS M1¹/₄, M1³/₄,
M2¹/₄, M2¹/₂, M3 & M4

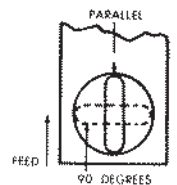
KEYiNg ARRANGEMENT
FOR MODELS M5 & M8

ShApED hOLE puNChiNg DATA

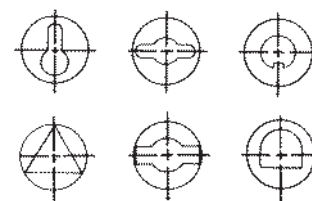
Standard Shapes



Standard shapes are keyed for both parallel and 90 degree position to the center line of the holder.



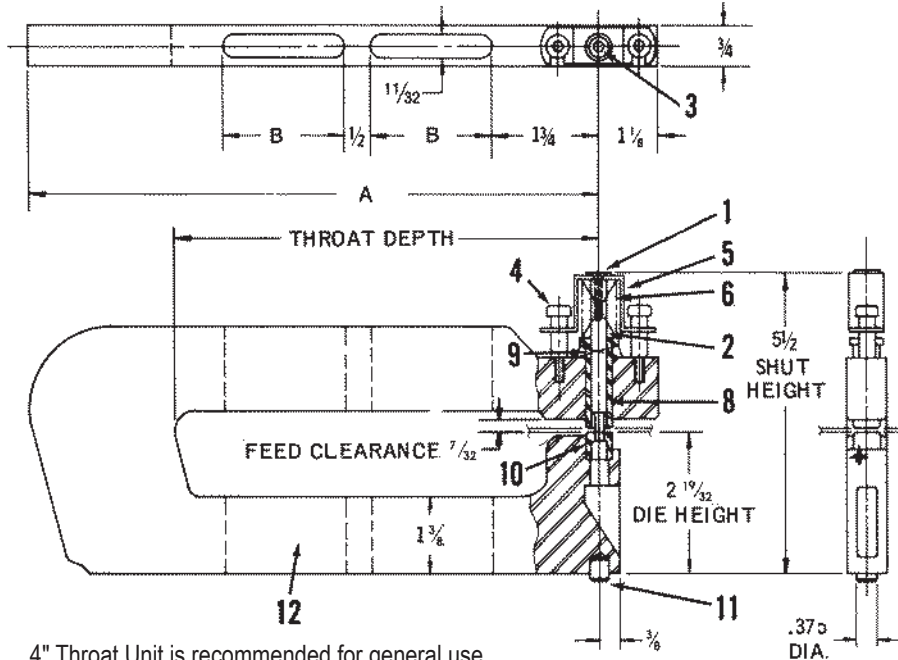
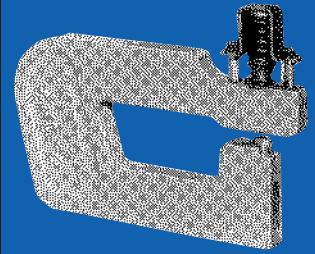
Semi standard and special shapes



SEND SKETCH
FOR PRICE QUOTATION

MODEL M-3/4"

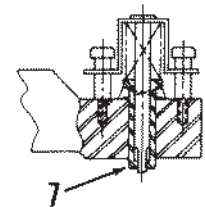
	CAT. NO.	THROAT DEPTH	HOLDER WIDTH	LENGTH A	LENGTH B	LENGTH C
5 1/2" SHUT HEIGHT	4M-3/4	4 1/2	3/4	7 1/8	2 3/4	—
	8M-3/4	8 1/2	3/4	11 1/8	2 3/4	—
2 19/32" DIE HEIGHT						



4" Throat Unit is recommended for general use.
8" Throat Unit should be used only where extra throat depth is required.

ALTERNATE ASSEMBLY
FOR HOLE SIZE
.125 AND UNDER

-Furnished with Closed Guide
and Long Punch Tip.

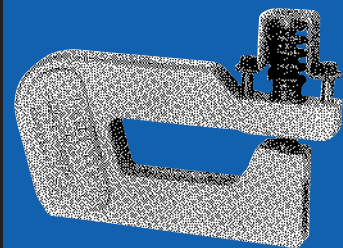


MAXIMUM PUNCH SIZE .3125 – MAXIMUM MATERIAL THICKNESS – 10 GAUGE MILD STEEL

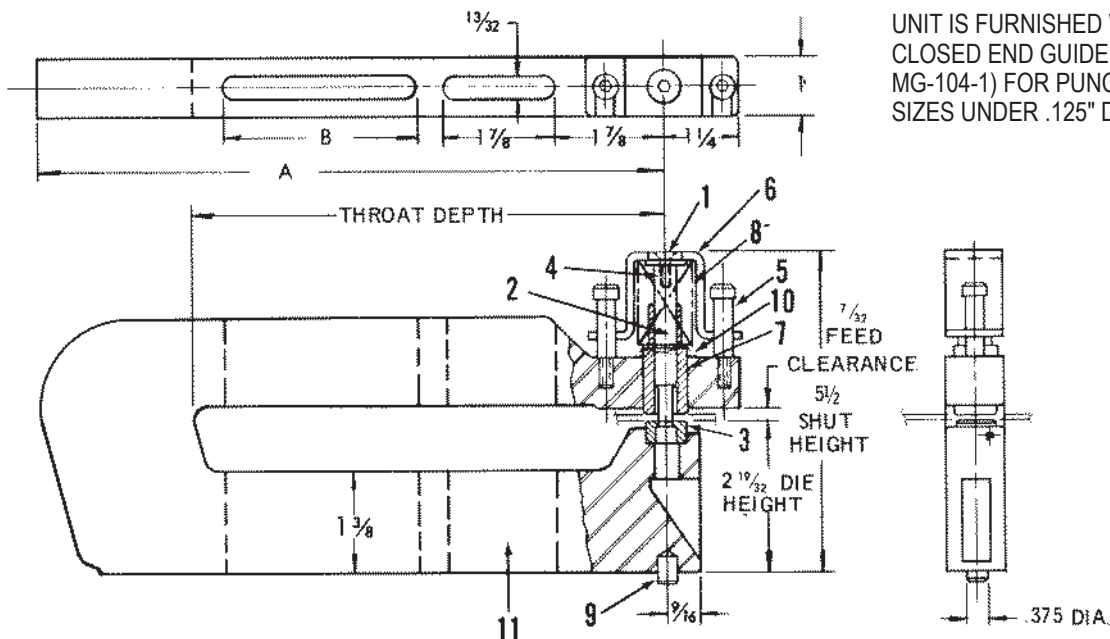
ITEM NO.	pART LiST DESCRIpTiON	CATALOg NO.	ITEM NO.	pART LiST DESCRIpTiON	CATALOg NO.
1	Punch Head	MPH-077	9	Lifter Spring	MLS-076
2	Punch (for size .125 and under) – Long Tip for Closed Guide.	MP-072-1	10	Die	MD-073
2	Punch (for size over .125) Stub Tip for Open Guide	MP-072-2	11	Pilot Pin	PP-1000
	Punch & Head Ass'y (for size .125 and under)	MPA-072-1A	12	1 Holder - 4" Throat	4M3/4C
	Punch & Head Ass'y for size over .125	MPA-072-2A		1 Holder - 8" Throat	8M3/4C
3	Flat Head Socket Screw	10-32x1" F.H.S.S.	<p>MINIMUM RECOMENDED DIE CLEARANCE .006</p>		
4	Stripper Bolts	MSB-078			
5	Retainer Cup	MR-079			
6	Stripper Spring	MSS-075			
7	Stripper Guide (Closed -Specify Punch Tip Size (Do not use Stub Tip Punches in Closed Guide)	MG-074-1			
8	Stripper Guide (Open)	MG-074-2			

MODEL M-1"

	CAT. NO.	THROAT DEPTH	HOLDER WIDTH	LENGTH A	LENGTH B
5 1/2" SHUT HEIGHT	4M-1	4 1/2	1	7 1/8	—
	8M-1	8 1/2	1	11 1/8	3 1/2
2 19/32" DIE HEIGHT					



THE UNIT IS FOR ROUND HOLE PUNCHING ONLY.



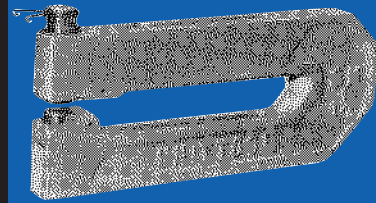
UNIT IS FURNISHED WITH CLOSED END GUIDE (Part No. MG-104-1) FOR PUNCH TIP SIZES UNDER .125" DIAMETER.

MAXIMUM PUNCH SIZE .375 – MAXIMUM MATERIAL THICKNESS – 10 GAUGE MILD STEEL

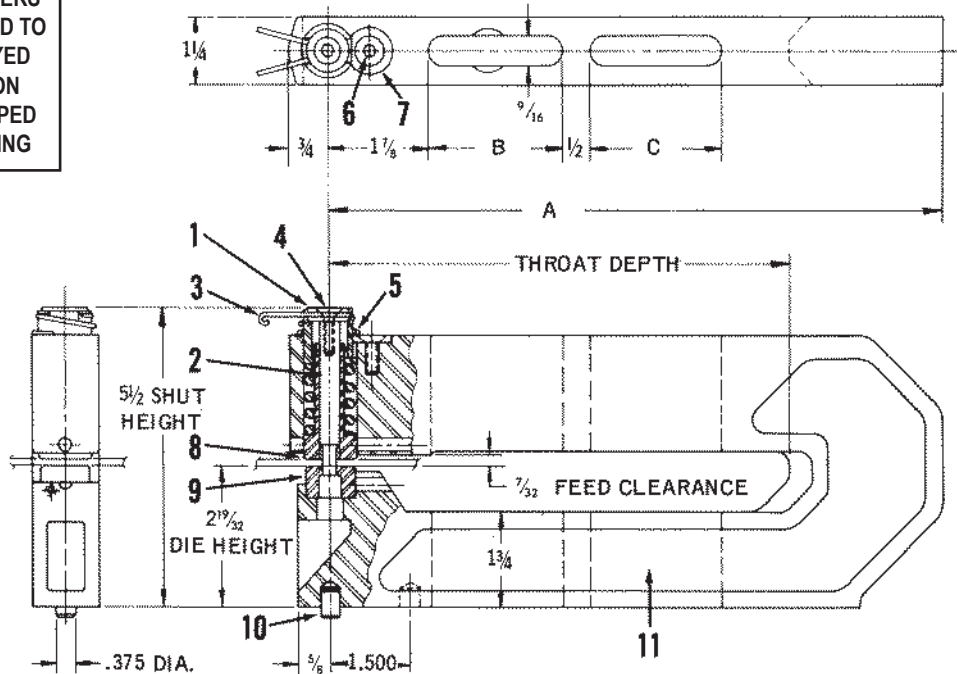
ITEM NO.	PART LIST DESCRIPTION	CATALOG NO.	ITEM NO.	PART LIST DESCRIPTION	CATALOG NO.
1	Punch Head	MPH-107	9	Pilot Pin	PP-1000
2	Punch & Head Assy.	MPA-102A	10	Lifter Spring	MLS-106
	Punch Only	MP-122	11	1 Holder - 4" Throat	4M1C
3	Die	MD103		1 Holder - 8" Throat	8M1C
4	Flat Head Socket Screw	10-32x1"	MINIMUM RECOMENDED DIE CLEARANCE .006		
5	Stripper Bolt (2 required)	MSB-108			
6	Retainer Clip	MR-109			
7	Stripper Guide (Closed End) – for Punch Tip .125" Dia. & Smaller, Specify Size	MG-104-1			
	Stripper Guide (Open End) – for Punch Tip over .125" Dia.	MG-104-2			
8	Stripper Spring	MSS-105			

MODEL M-1 1/4"

	CAT. NO.	THROAT DEPTH	HOLDER WIDTH	LENGTH A	LENGTH B	LENGTH C
5 1/2" SHUT HEIGHT	4M-1 1/4	4 5/8	1 1/4	7 7/8	1 7/8	—
	8M-1 1/4	8 5/8	1 1/4	11 7/8	5 7/8	—
2 19/32" DIE HEIGHT	12M-1 1/4	12 5/8	1 1/4	15 7/8	5 7/8	3 1/2



ROUND HOLDERS ARE MACHINED TO ACCEPT KEYED CONVERSION KIT FOR SHAPED HOLE PIERCING



MAXIMUM PUNCH SIZE .375" – MAXIMUM MATERIAL THICKNESS – 10 GAUGE MILD STEEL

ITEM NO.	pART LiST DESCRipTION	CATALoG NO.	ITEM NO.	pART LiST DESCRipTION	CATALoG NO.
1	Punch Head	MPH-127	11	² Holder – 4" Throat	4M1 1/4C
2	Punch (Round)	MP-122		² Holder – 8" Throat	8M1 1/4C
	Round Punch & Head Ass'y.	MPA-122A		² Holder – 12" Throat	12M1 1/4C
	Punch (Shaped)	MP-122K	12	Guide or Die Key	GK-100
	Shaped Punch & Head Ass'y.	MPA-122K	13	Shaped Hole Conversion Kit	MCK-125
3	Punch Retainer	MPR-128		¹ includes Lifter Spring	
4	Flat Head Socket Screw	10-32x1" F.H.S.S.		² includes Pilot Pin & Guide Retainer	
5	Lifter Spring	MLS-126			
6	Button Head Screw	1/4-20x5/8 B.H.S.			
7	Guide Retainer	MGR-300			
8	¹ Guide Ass'y.-(not keyed)	MG-124			
	¹ Guide Ass'y.-(keyed)	MG-124K			
9	Die (Round)	MD-123			
	Die (Shaped)	MD-123K			
10	Pilot Pin (Round)	PP-1000			
	Pilot Pin (Diamond)	PP-1000K			

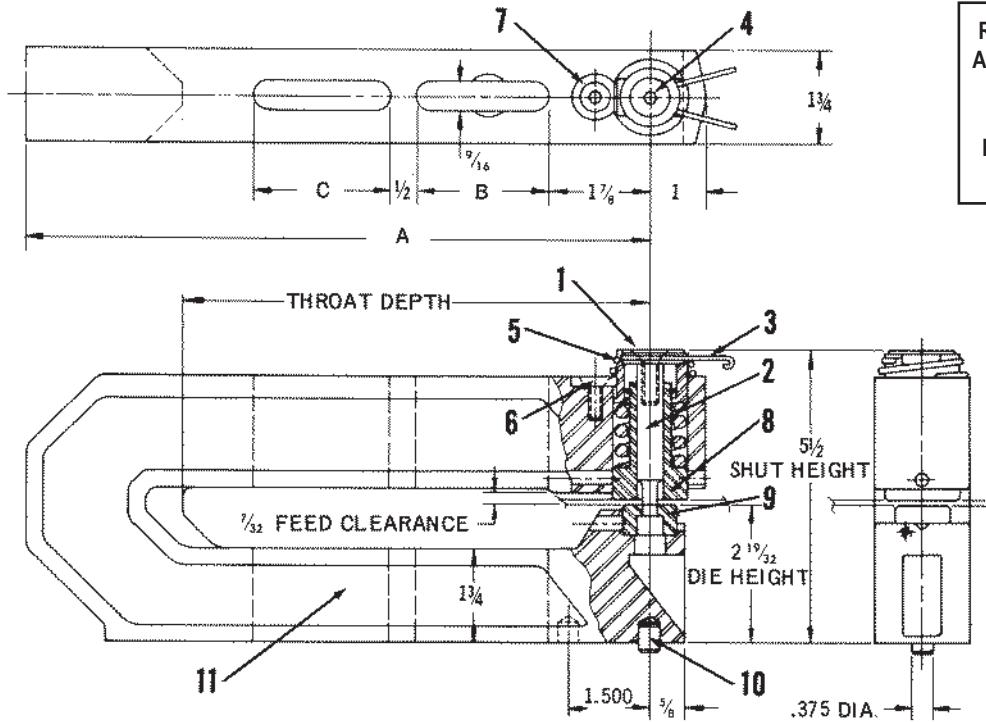
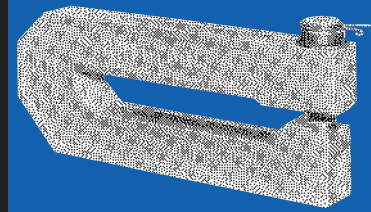
**MINIMUM RECOMENDED
DIE CLEARANCE .006**

MODEL M-1 3/4"

5 1/2" SHUT HEIGHT

2 19/32" DIE HEIGHT

CAT. NO.	THROAT DEPTH	HOLDER WIDTH	LENGTH A	LENGTH B	LENGTH C
4M-1 3/4	4 5/8	1 3/4	7 7/8	1 7/8	—
8M-1 3/4	8 5/8	1 3/4	11 7/8	5 7/8	—
12M-1 3/4	12 5/8	1 3/4	15 7/8	5 7/8	5 7/8
18M-1 3/4	18 5/8	1 3/4	21 7/8	5 7/8	3 1/2
24M-1 3/4	24 5/8	1 3/4	27 3/8	5 7/8	5 7/8



ROUND HOLDERS ARE MACHINED TO ACCEPT KEYED CONVERSION KIT FOR SHAPED HOLE PIERCING

MAXIMUM PUNCH SIZE .500" – MAXIMUM MATERIAL THICKNESS – 10 GAUGE MILD STEEL

ITEM NO.	PART LIST DESCRIPTION	CATALOG NO.	ITEM NO.	PART LIST DESCRIPTION	CATALOG NO.
1	Punch Head	MPH-177	11	2 Holder – 4" Throat	4M1 3/4C
2	Punch (Round)	MP-172		2 Holder – 8" Throat	8M1 3/4C
	Round Punch & Head Ass'y	MPA-172A		2 Holder – 12" Throat	12M1 3/4C
	Punch (Shaped)	MP-172K		2 Holder – 18" Throat	18M1 3/4C
	Shaped Punch & Head Ass'y	MPA-172K	12	Guide or Die Key	GK-100
3	Punch Retainer	MPR-178	13	Shaped Hole Conversion Kit	MCK-175
4	Flat Head Socket Screw	5/16-24x1" F.H.S.S.		1 includes Lifter Spring	
5	Lifter Spring	MLS-176		2 includes Pilot Pin & Guide Retainer	
6	Button Head Screw	1/4-20x5/8 B.H.S.			
7	Guide Retainer	MGR-300			
8	1 Guide Ass'y. (not keyed)	MG-174			
	1 Guide Ass'y. (keyed)	MG-174K			
9	Die (Round)	MD-173		MINIMUM RECOMENDED DIE CLEARANCE .006	
	Die (Shaped)	MD-173K			
10	Pilot Pin (Round)	PP-1000			
	Pilot Pin (Keyed)	PP-1000K			

MODEL M-2 1/4"

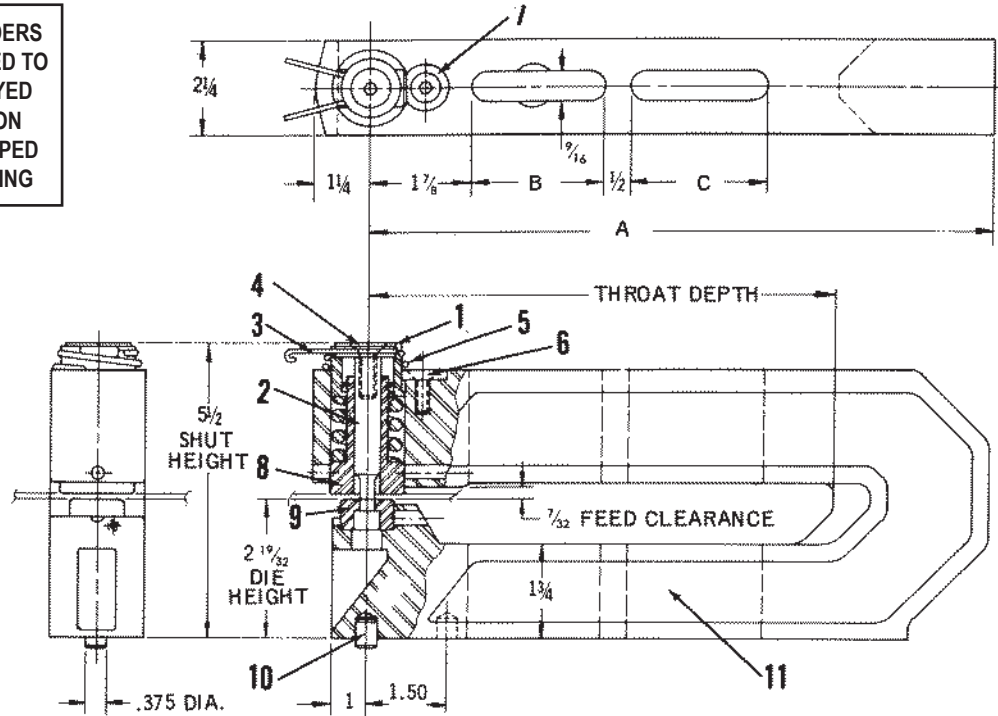
5 1/2" SHUT HEIGHT

2 19/32" DIE HEIGHT

CAT. NO.	THROAT DEPTH	HOLDER WIDTH	LENGTH A	LENGTH B	LENGTH C
4M-2 1/4	4 5/8	2 1/4	7 7/8	1 7/8	-
8M-2 1/4	8 5/8	2 1/4	11 7/8	5 7/8	-
12M-2 1/4	12 5/8	2 1/4	15 7/8	5 7/8	3 1/2
18M-2 1/4	18 5/8	2 1/4	21 7/8	5 7/8	5 1/2
24M-2 1/4	24 5/8	2 1/4	27 3/8	5 7/8	5 1/2



ROUND HOLDERS ARE MACHINED TO ACCEPT KEYED CONVERSION KIT FOR SHAPED HOLE PIERCING



MAXIMUM PUNCH SIZE – 1.000" – MAXIMUM MATERIAL THICKNESS – 10 GAUGE MILD STEEL

ITEM NO.	pART LiST DESCRipTiON	CATALoG NO.	ITEM NO.	pART LiST DESCRipTiON	CATALoG NO.
1	Punch Head	MPH-227	11	2 Holder 4" Throat	4M2 1/4C
2	Punch (Round)	MP-222		2 Holder 8" Throat	8M2 1/4C
	Round Punch & Head Ass'y	MPA-222A		2 Holder 12" Throat	12M2 1/4C
	Punch (Shaped)	MP-222K		2 Holder 18" Throat	18M2 1/4C
	Shaped Punch & Head Ass'y	MPA-222K	12	Guide or Die Key	GK-100
3	Punch Retainer	MPR-228	13	Shaped Hole Conversion Kit	MCK-225
4	Flat Head Socket Screw	1/2-20x1" F.H.S.S.		1 includes Lifter Spring	
5	Lifter Spring	MLS-226		2 includes Pilot Pin & Guide Retainer	
6	Button Head Screw	1/4-20x5/8 B.H.S.			
7	Guide Retainer	MGR-300			
8	1 Guide Ass'y. (not keyed)	MG-224			
	1 Guide Ass'y. (keyed)	MG-224K			
9	Die-(Round)	MD-223			
	Die-(Shaped)	MD-223K			
10	Pilot Pin (Round)	PP-1000			
	Pilot Pin (Diamond)	PP-1000K			

MINIMUM RECOMENDED
DIE CLEARANCE .006

MODEL M-2 1/2"

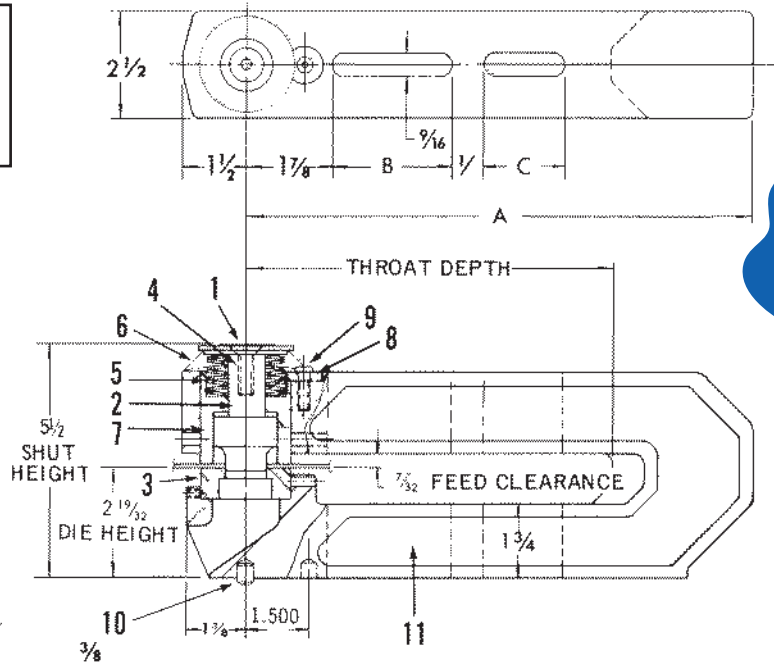
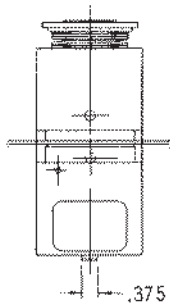
5 1/2" SHUT HEIGHT

2 19/32" DIE HEIGHT

CAT. NO.	THROAT DEPTH	HOLDER WIDTH	LENGTH A	LENGTH B	LENGTH C
4M-2 1/2	4 5/8	2 1/2	7 7/8	1 7/8	—
8M-2 1/2	8 5/8	2 1/2	11 7/8	5 7/8	—
12M-2 1/2	12 5/8	2 1/2	15 7/8	5 7/8	3 1/2
18M-2 1/2	18 5/8	2 1/2	21 7/8	5 7/8	5 7/8
24M-2 1/2	24 1/8	2 1/2	27 3/8	5 7/8	5 7/8



THIS UNIT IS KEYPED FOR BOTH ROUND & SHAPED PUNCHES & DIES



EXCLUSIVE WITH UNITOOL!

MAXIMUM PUNCH SIZE 1.500" – MAXIMUM MATERIAL THICKNESS – 10 GAUGE MILD STEEL

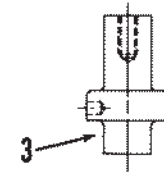
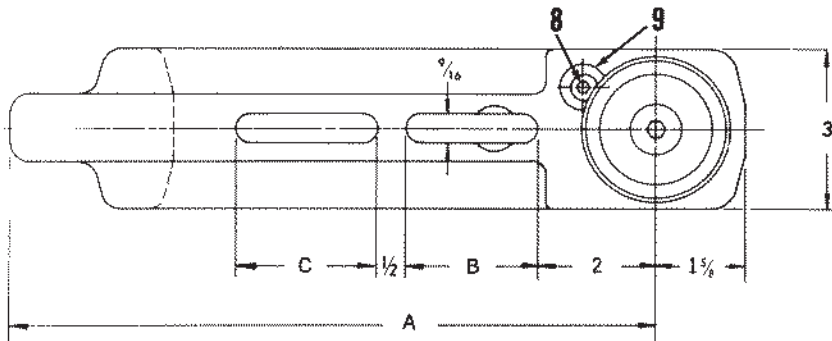
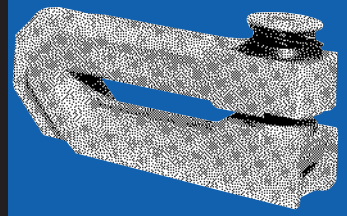
ITEM NO.	PART LIST DESCRIPTION	CATALOG NO.	ITEM NO.	PART LIST DESCRIPTION	CATALOG NO.
1	Punch Head	MPH-257	11	1 Holder 4" Throat	4M2-1/2CK
2	Punch (Round)	MP-252		1 Holder 8" Throat	8M2-1/2CK
	Punch (Shaped)	MP-252K		1 Holder 12" Throat	12M2-1/2CK
3	Die (Round)	MD-253		1 Holder 18" Throat	18M2-1/2CK
	Die (Shaped)	MD-253K		1 Holder 24" Throat	24M2-1/2CK
4	Flat Head Socket Screw	3/8-24x1"	1 includes Round Pilot Pin, Diamond Pilot Pin Guide Key, Die Key & Guide Retainer		
5	Stripper Spring (8 per set)	MSS-255	<p>MINIMUM RECOMENDED DIE CLEARANCE .006</p>		
6	Lifter Spring	MLS-256			
7	Guide (Keyed)	MG-254K			
8	Guide (Retainer)	MGR-300			
9	Button Head Screw	1/4-20x5/8			
10	Pilot Pin (Round)	PP-1000			
	Pilot Pin (Shaped)	PP-1000K			

MODEL M-3"

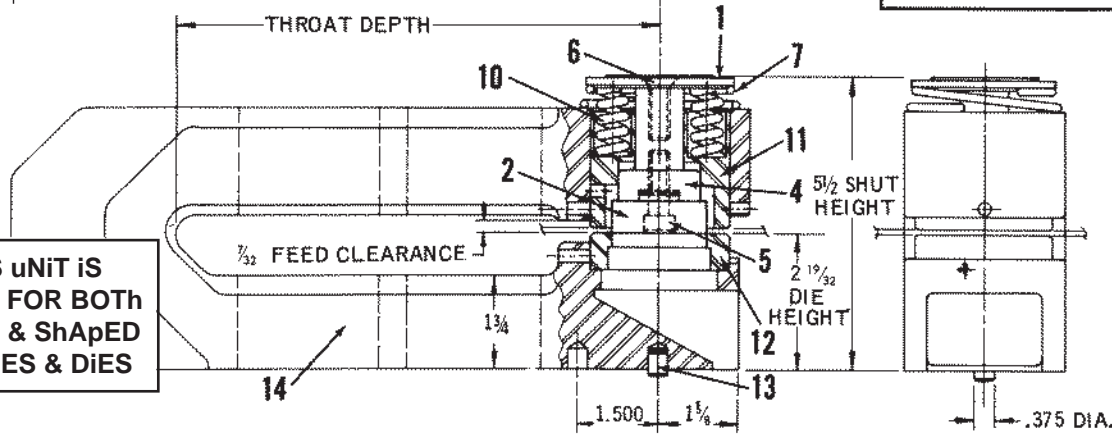
5 1/2" SHUT HEIGHT

2 19/32" DIE HEIGHT

CAT. NO.	THROAT DEPTH	HOLDER WIDTH	LENGTH A	LENGTH B	LENGTH C
4M-3	4 5/8	3	7 7/8	1 7/8	—
8M-3	8 5/8	3	11 7/8	5 7/8	—
12M-3	12 5/8	3	15 7/8	5 7/8	3 1/2
18M-3	18 5/8	3	21 7/8	5 7/8	5 7/8
24M-3	24 5/8	3	27 3/8	5 7/8	5 7/8



ALTERNATE FOR PUNCH TIP UNDER 1.125" DIA.



This unit is KEYED FOR BOTH ROUND & SHAPED PUNCHES & DIES

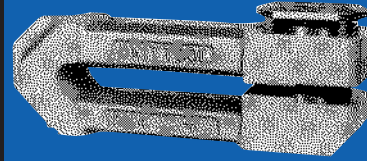
MAXIMUM PUNCH SIZE – 2.000" – MAXIMUM MATERIAL THICKNESS – 10 GAUGE MILD STEEL

ITEM NO.	PART LIST DESCRIPTION	CATALOG NO.	ITEM NO.	PART LIST DESCRIPTION	CATALOG NO.
1	Punch Head	MPH-307	13	Pilot Pin (Round)	PP-1000
2	Punch (Round) 1.125 Dia. & over	MP-302		Pilot Pin (Diamond)	PP-1000K
3	Punch (Round) under 1.125 Dia.	MP-302-1	14	1 Holder 4" Throat	4M3CK
	Punch (Shaped)	MP-302-K		1 Holder 8" Throat	8M3CK
4	Punch Driver	MPD-308		1 Holder 12" Throat	12M3CK
5	Socket Head Cap Screw	3/8-24x1 1/4 S.H.C.S.		1 Holder 18" Throat	18M3CK
6	Flat Head Machine Screw	3/8-24x1 F.H.M.S.		1 Includes Round Pilot Pin, Diamond Pilot Pin Guide Key, Die Key & Guide Retainer	
7	Lifter Spring	MLS-306			
8	Button Head Screw	1/4-20x5/8 B.H.S.			
9	Guide Retainer	MGR-300			
10	Stripper Spring (6 req.)	MSS-305			
11	Guide (keyed)	MG-304K			
12	Die (Round)	HD-303			
	Die (Shaped)	HD-303K			

MINIMUM RECOMENDED DIE CLEARANCE .006

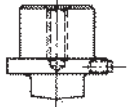
MODEL M-4"

	CAT. NO.	THROAT DEPTH	HOLDER WIDTH	LENGTH A	LENGTH B	LENGTH C
5 1/2" SHUT HEIGHT	10M-4	10 1/2	4	13 1/2	—	—
	14M-4	14 1/2	4	17 1/2	3	—
2 19/32" DIE HEIGHT	18M-4	18 1/2	4	21 1/2	6	—
	24M-4	24 1/8	4	27 1/8	6	—

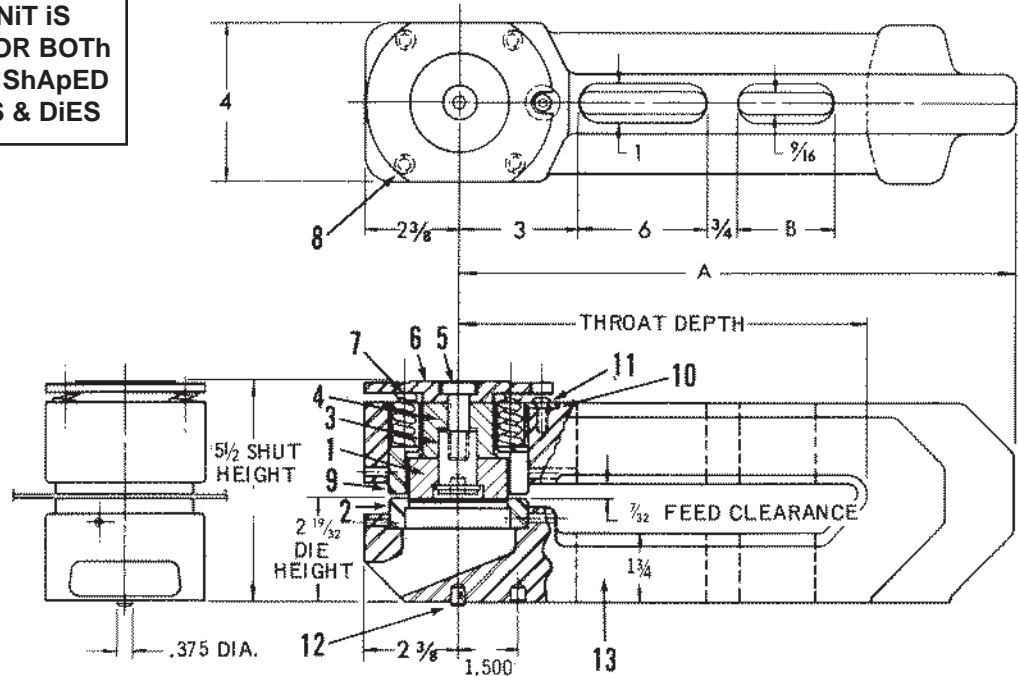


This unit is KEYED FOR BOTH ROUND & SHAPED PUNCHES & DIES

EXCLUSIVE WITH UNITOOL!



ALTERNATE DESIGN FOR PUNCH TIP UNDER 1.562" Dia., MP402A AND ALL SIZE SHAPED HOLE PUNCHES, MP402K.



MAXIMUM PUNCH SIZE 2.500" – MAXIMUM MATERIAL THICKNESS – 10 GAUGE MILD STEEL

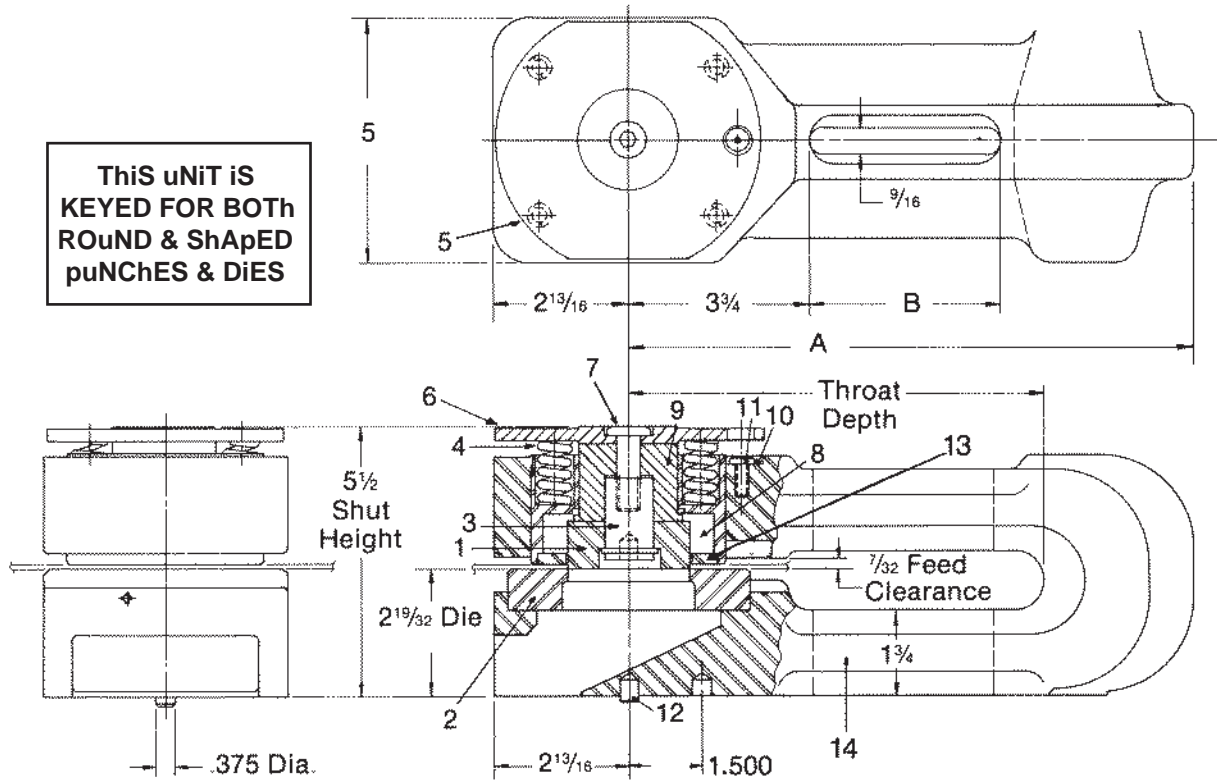
ITEM NO.	PART LIST DESCRIPTION	CATALOG NO.	ITEM NO.	PART LIST DESCRIPTION	CATALOG NO.
1	Punch (Round) 1.000 to 1.562 Dia.	MP-402A	12	Pilot Pin (Round)	PP-1000
	Punch (Round) over 1.562 Dia. thru. 2.500 Dia.	MP-402B		Pilot Pin (Shaped)	PP-1000K
	Punch (Shaped)	MP-402-K	13	1 Holder – 10" Throat	10M4CK
2	Die (Round)	MD-403		1 Holder – 14" Throat	14M4CK
	Die (Shaped)	MD-403K		1 Holder – 18" Throat	18M4CK
3	Punch Retainer	PR-500		1 Holder – 24" Throat	24M4CK
4	Punch Driver	MPD-408	1 Includes Round Pilot Pin, Diamond Pilot Pin Guide Key, Die Key & Guide Retainer		
5	Button Head Screw	1/2-13x1-1/2"			
6	Punch Plate	MPP-407	MINIMUM RECOMENDED DIE CLEARANCE .008		
7	Stripper Spring (12 Required)	MSS-305			
8	Lifter Spring (4 Required)	MLS-506			
9	Guide (Keyed)	MG-404K			
10	Guide (Retainer)	MGR-300			
11	Button Head Screw	1/4-20x5/8"			

MODEL M-5"

	CAT. NO.	THROAT DEPTH	HOLDER WIDTH	LENGTH A	LENGTH B	LENGTH C
5 1/2" SHUT HEIGHT	10M-5	10 5/8	5	14 1/2	6	—
	14M-5	14 5/8	5	18 1/2	11	—
2 19/32" DIE HEIGHT	18M-5	18 5/8	5	22 1/2	14	—
	24M-5	24 5/8	5	27 1/8	14	—



THIS UNIT IS KEYED FOR BOTH ROUND & SHAPED PUNCHES & DIES



MAXIMUM PUNCH SIZE – 3.500" – MAXIMUM MATERIAL THICKNESS – 10 GAUGE

ITEM NO.	PART LIST DESCRIPTION	CATALOG NO.	ITEM NO.	PART LIST DESCRIPTION	CATALOG NO.
1	Punch Tip (Round) over 1 9/16" to 2 1/4" Dia.	MP-502B	11	Button Head Screw	1/4-20x5/8 B.H.S.
	Punch Tip (Round) over 2 1/4" to 2 7/8" Dia.	MP-502C	12	Pilot Pin (Round)	PP-1000
	Punch Tip (Round) over 2 7/8" to 3 1/2" Dia.	MP-502D	13	Pilot Pin (Shaped)	PP-1000K
	Punch (Shaped) up to 1 1/2" Dimension	UMP-502AK	14	Stripper Plate	MSP-509
	Punch (Shaped) over 1 1/2" to 2 1/2" Dimension	UMP-502CK	15	1 Holder 10" Throat	10M5-CK
	Punch (Shaped) over 2 1/2" to 3 1/2" Dimension	UMP-502DK		1 Holder 14" Throat	14M5-CK
				1 Holder 18" Throat	18M5-CK
2	Die (Round)	HD-603		Guide or Die Key	GK-500
	Die (Shaped)	HD-603K	<p>MINIMUM RECOMENDED DIE CLEARANCE .008</p>		
3	Punch Tip Retainer	PR-500			
4	Stripper Spring (12 req.)	MSS-305			
5	Lifter Spring (4 req.)	MLS-506			
6	Punch Plate	MPP-507			
7	Button Head Screw	1/2-13x2			
8	Guide (Keyed)	MG-504K			
9	Punch Driver	MPD-508			
10	Guide (Retainer)	MGR-300			

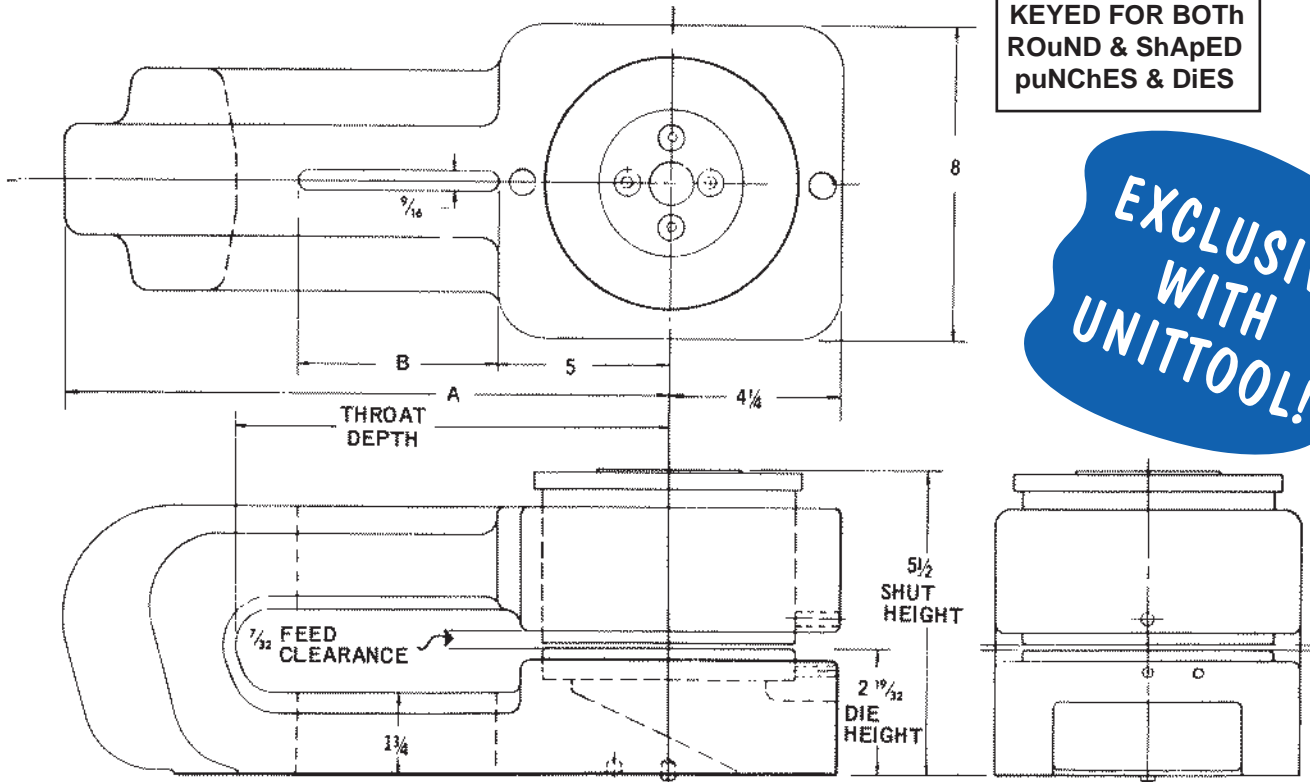
MODEL M-8"

SHUT HEIGHT	CAT. NO.	THROAT DEPTH	HOLDER WIDTH	LENGTH A	LENG B
5 1/2"	14M-8	14 5/8	8	19	5 1/2
2 19/32"	18M-8	18 5/8	8	23	12
	24M-8	24 5/8	8	27 1/8	12



THIS UNIT IS
KEYED FOR BOTH
ROUND & SHAPED
PUNCHES & DIES

EXCLUSIVE
WITH
UNITTOOL!



MINIMUM RECOMENDED DIE CLEARANCE .008

MAXIMUM PUNCH SIZE 5.000" – MAXIMUM MATERIAL THICKNESS – 10 GAUGE

ITEM NO.	PART LIST DESCRIPTION	CATALOG NO.
1	Punch	MP-802
2	Die	MD-803
3	Guide	MG-804K
4	Punch Driver	MPD-808
5	Stripper Spring (10 Required)	MSS-805
6	Lifter Spring (4 Required)	MLS-806
7	Punch Plate	MPH-807
8	Stripper Plate	MSP-809
9	Punch Retainer	MPR-800
10	Punch Screw	5/8-11x3 S.H.C.S.
11	Pilot Pin	PP-1000
12	1 Holder 14" Throat	14M8CK
	1 Holder 18" Throat	18M8CK
	1 Includes Pilot Pin	

Unittools extended range of hole punching makes it possible to pierce up to 5" diameter holes with the popular 5 1/2" shut height and 2 19/32" die height. Shaped holes with a dimension not greater than a 5" diagonal can also be pierced with this unit.

The holder is made from 80,000 tensile strength material. The punches and dies are manufactured from oil hardening tool steel. The punch guide is produced from high grade 4140 alloy steel.

Round punches and die sizes are available from 2 1/2" to 5" diameter. The punch is furnished with 1/16" shear to help reduce normal punching pressure.

MEDIuM DuTY FEED ThRu uNiTS



Utilizes Standard Punches & Dies

For Round & Shaped Holes

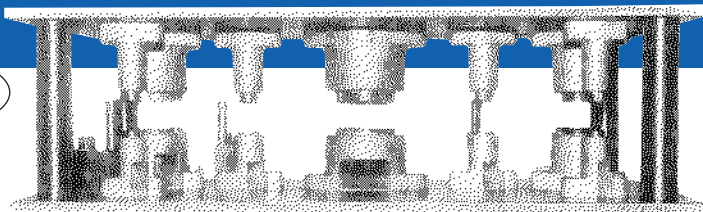
Templates Manufactured To Your Specifications

No Throat Depth For Continuous Part Feed

pUNCHING uNiTS

For Material up To 1/8" Mild Steel

Assembly Can Be Setup Outside The Press

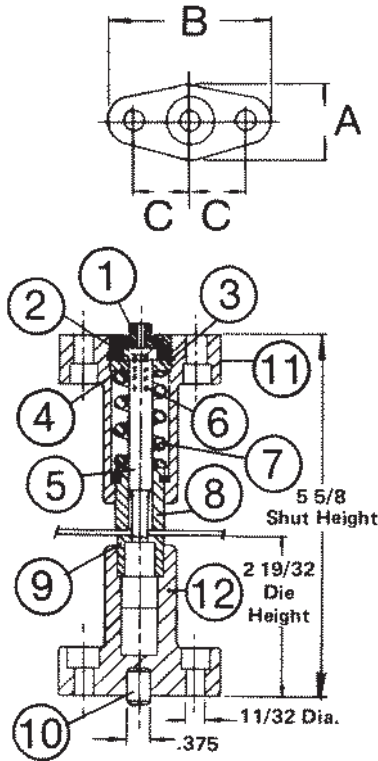


MODEL FTM-1 1/8

5 5/8 Shut height
2 19/32 Die height

Dimension A	1 1/8"
Dimension B	2 1/2"
Dimension C	7/8"

Maximum Punch Size - .375"
Maximum Material - 1/8" Mild Steel

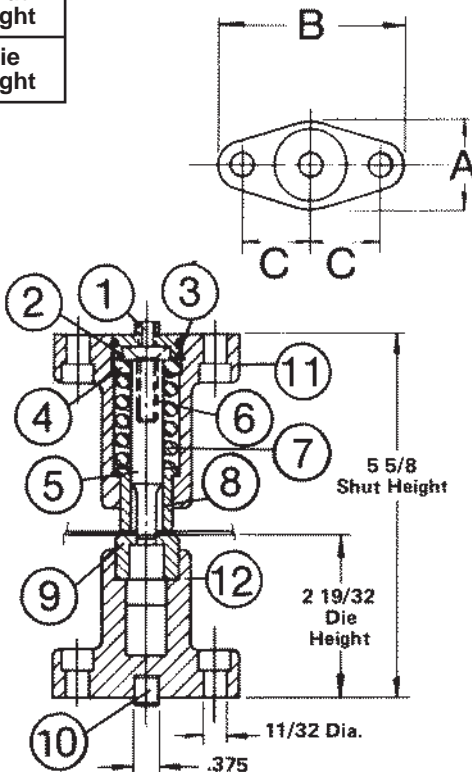


Item No.	Part List Description	Catalog No.
1	Punch Holder Locator	FTPL-121
2	Punch Head	FTPH-127
3	Spring Retainer	FTSR-128
4	Upper Guide	FTUG-124
5	Punch	MP-122
-	Shaped Punch	MP-122K
6	Punch Screw	10-32 x 1
7	Stripper Spring	FTSS-125
8	Lower Guide	FTLG-124
-	Lower Guide Keyed	FTLG-124K
9	Die	HD-123
-	Shaped Die	HD-123K
10	Pilot Pin	PP-1000
-	Pilot Pin	PP-1000K
11	Punch Holder	FTM-1 1/8 PH-C
12	Die Holder	FTM-1 1/8 DH-C

MODEL FTM-1 3/8

5 5/8 Shut height
2 19/32 Die height

Dimension A	1 3/8"
Dimension B	2 7/8"
Dimension C	1 1/16"



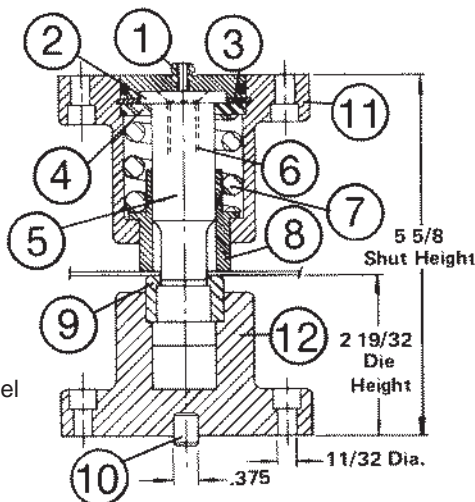
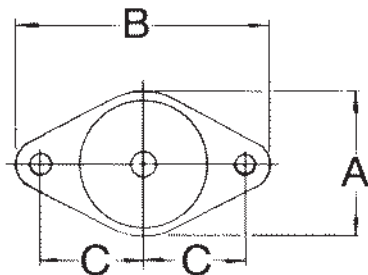
Item No.	Part List Description	Catalog No.
1	Punch Holder Locator	FTPL-131
2	Punch Head	FTPH-137
3	Spring Retainer	FTSR-138
4	Upper Guide	FTUG-134
5	Punch	MP-172
-	Shaped Punch	MP-172K
6	Punch Screw	5/16 - 24 x 1
7	Stripper Spring	FTSS-135
8	Lower Guide	FTLG-134
-	Lower Guide Keyed	FTLG-134K
9	Die	HD-153
-	Shaped Die	HD-153K
10	Pilot Pin	PP-1000
-	Pilot Pin	PP-1000K
11	Punch Holder	FTM-1 3/8 PH-C
12	Die Holder	FTM-1 3/8 DH-C



**MODEL
FTM-2 1/4**

5 5/8	Shut height
2 19/32	Die height

Dimension A	2 1/4"
Dimension B	4"
Dimension C	1 5/8"



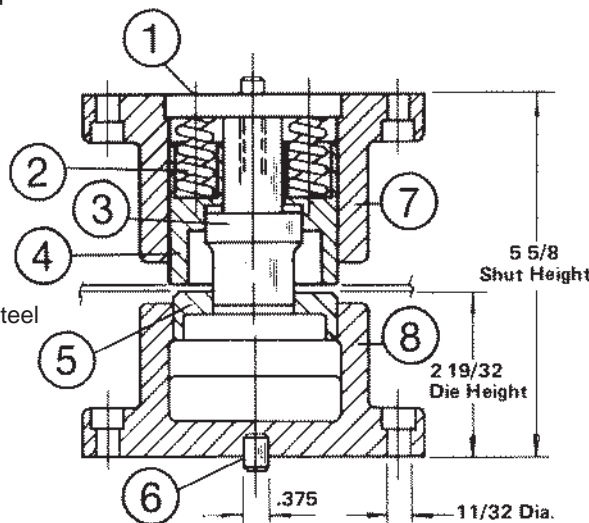
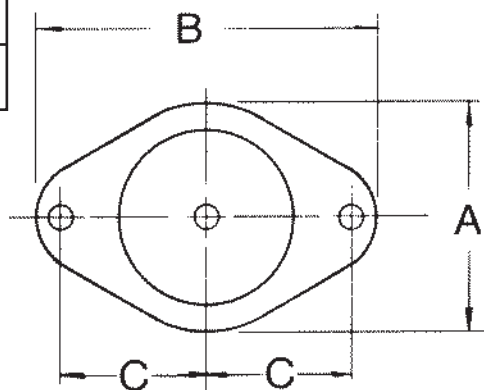
Maximum Punch Size – 1.000"
Maximum Material – 1/8" Mild Steel

Item No.	Part List Description	Catalog No.
1	Punch Holder Locator	FTPL-221
2	Punch Head	FTPH-227
3	Spring Retainer	FTSR-228
4	Upper Guide	FTUG-224
5	Punch	MP-222
-	Shaped Punch	MP-222K
6	Punch Screw	1/2-20 x 1
7	Stripper Spring	FTSS-225
8	Lower Guide	FTLG-224
-	Lower Guide Keyed	FTLG-224K
9	Die	HD-203
-	Shaped Die	HD-203K
10	Pilot Pin	PP-1000
-	Pilot Pin	PP-1000K
11	Punch Holder	FTM-2 1/4 PH-C
12	Die Holder	FTM-2 1/4 DH-C

**MODEL
FTM-3 1/2**

5 5/8	Shut height
2 19/32	Die height

Dimension A	3 1/2"
Dimension B	5 1/4"
Dimension C	2 1/4"

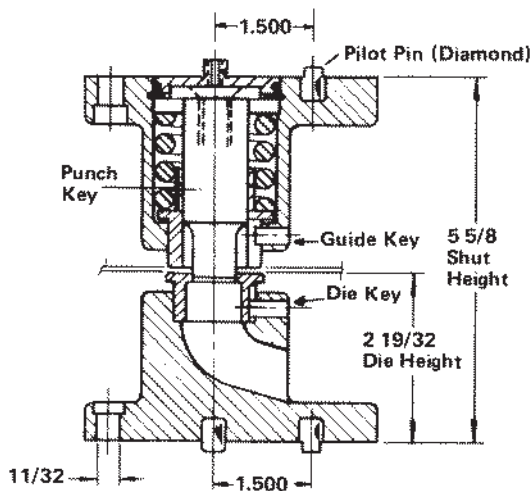
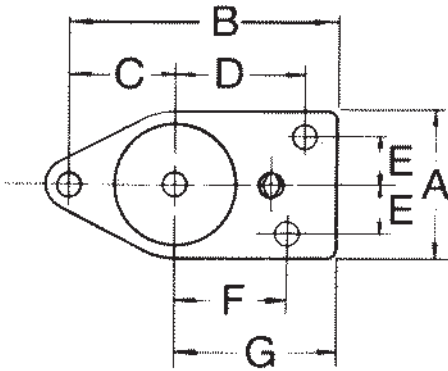


Maximum Punch Size – 2.000"
Maximum Material – 1/8" Mild Steel

Item No.	Part List Description	Catalog No.
1	Punch Holder Locator	FTPL-351
2	Stripper Spring	MSS-305
3	Punch (1 1/8" Dia + over)	MP-302
-	Shaped Punch	MP-302K
-	Punch (Under 1 1/8" Dia)	MP-302-1
4	Guide	MG-304
-	Shaped Guide	MG-304K
5	Die	HD-303
-	Shaped Die	HD-303K
6	Pilot Pin	PP-1000
-	Pilot Pin	PP-1000K
7	Punch Holder	FTM-3 1/2 PH-C
8	Die Holder	FTM-3 1/2 DH-C

SERIES FTM-K KEYED UNITS FOR SHAPED HOLE PUNCHING

This series of feed thru units is designed to pierce your obround, rectangle and irregular shaped holes (including rounds). To prevent the holders from pivoting, and to assure accurate alignment, a second pilot pin is inserted 1 1/2" behind the front pilot hole or locator. For additional shaped hole punching data, refer to page 6 of the accessories and engineering data catalog.



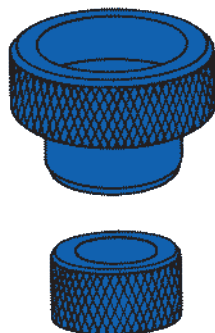
Dimensions	Pilot Pin and Bolt Hole Locations			
	FTM-1 1/8-K	FTM-1 3/8-K	FTM-2 1/4-K	FTM-3 1/2-K
A	1 1/8"	1 3/8"	2 1/4"	3 1/2"
B	3 3/4"	3 15/16"	4 1/2"	5 1/4"
C	7/8"	1 1/16"	1 5/8"	2 1/4"
D	2"	2"	2"	2"
E	3/16"	5/16"	3/4"	*
F	1 1/16"	1 1/16"	1 1/2"	2 1/4"
G	2 1/2"	2 1/2"	2 1/2"	2 1/2"

* Bolt hole pattern same as FTM-3 1/2, Round Hole Unit (page 3)

FTM ACCESSORIES

ALIGNMENT RINGS

placed between the Lower guide & Die, Alignment Rings are used for Accurate orientation of punch holder & Die holder in a template setup.



CAT. NO.	FOR USE WITH MODEL NO.
FTAR-1125	FTM - 1 1/8
FTAR-1375	FTM - 1 3/8
FTAR-2250	FTM - 2 1/4
FTAR-3500	FTM - 3 1/2

hold DOWN BOLT 5/16 - 18 X 1" S.h.C.S

Four required per unit



Cat. No. BFTM-100

COMPENSATOR PLATE & BUTTON

Standard medium duty notching & hole punching equipment may be utilized in the 'FTM' Hole Punching System. To maintain the 5-5/8" shut height of the FTM units, Unittool has available 1/8" compensator plates. Price on application.

