



# Hydraulic Tubing Notcher Female Die Assembly Instructions

***CAUTION: Read and Understand***  
These Instructions, Before Using  
This Machine.

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**1-636-745-7757     Fax 1-636-745-2874**

**[www.mittlerbros.com](http://www.mittlerbros.com)**

# WHEN NOTCHING 0.120" OR THICKER WALL THICKNESS PIPE OR TUBING

**Install Additional 0.005" Thick Brass Shim**

plus the standard 0.015" shim between female die & notcher frame =  
0.020" total shim thickness

**See item 20 (Drwg. 100) or item 21 (Drwg. 100-U)**

#100-104 0.005" Thick Brass Shim - Qty. 2

## Punch To Die Rule Of Thumb

Aluminum = 10% Material Thickness

Mild Steel = 10% Material Thickness

Stainless Steel = 15% Material Thickness

<i>Blade Clearances For Mild Steel</i>		
Mittler Brothers Machine & Tool		
Gauge or Thickness	Decimal Thickness	Overall Clearance To Add To Punch Size
30	.0120	Slip Fit
28	.0149	Slip Fit
26	.0179	.002
24	.0239	.003
22	.0299	.003
20	.0359	.004
18	.0478	.005
16	.0598	.006
14	.0747	.007
13	.0897	.009
12	.1046	.010
11	.1196	.012
1/8	.125	.012
10	.1345	.013
9	.156	.015
8	.164	.017
7	.1793	.021
3/16	.1875	.023
1/4	.250	.037
5/16	.3125	.047
3/8	.375	.057
1/2	.500	.075
5/8	.625	.125
3/4	.750	.150

# 100 Hydraulic Tubing Notcher Set-Up

## Female Die (#7) to Main Frame (#3):

1. Insert 3/8-16 x 2-1/2" Socket Head Cap Screws (qty. 4) (#13) through low frame holes.
2. Install 0.015" thick Brass Shims (#20) over thread on SHCS – one per side.

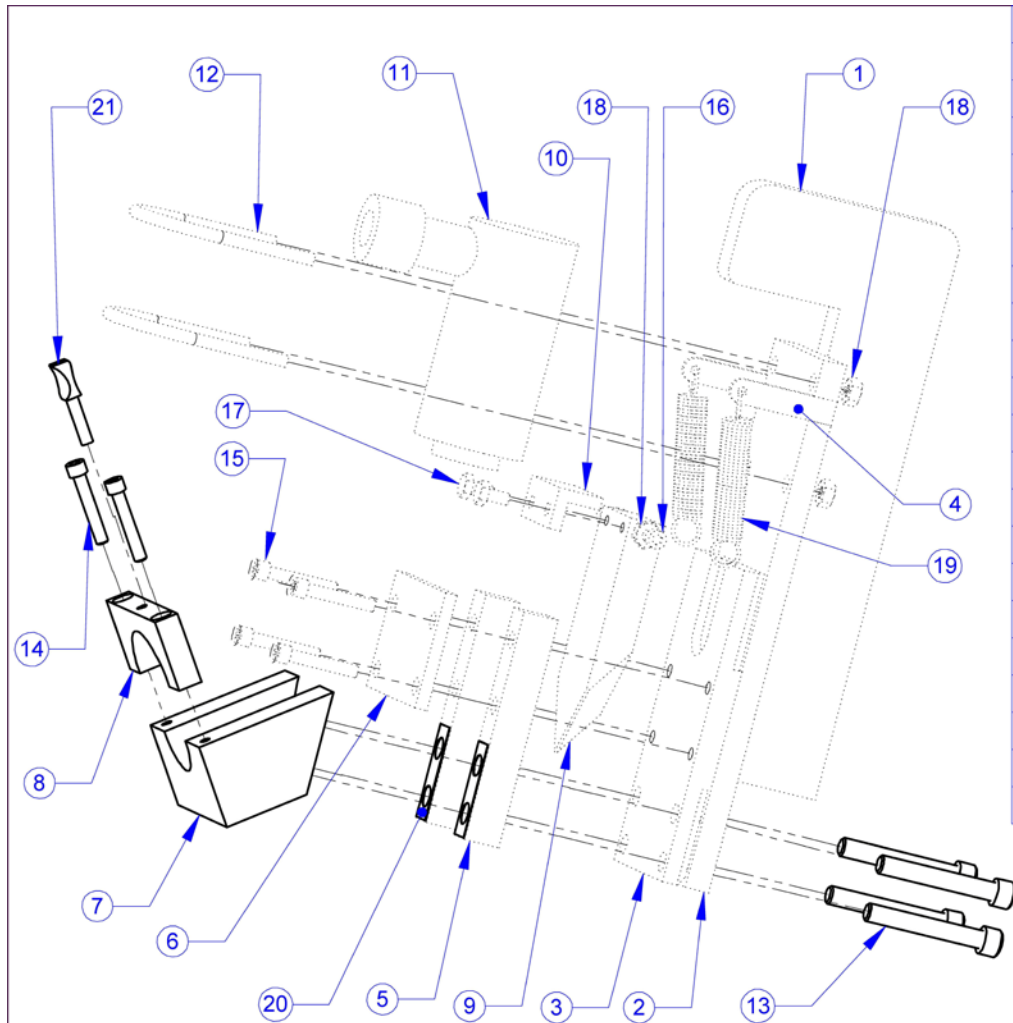
### WHEN NOTCHING 0.120" OR THICKER WALL THICKNESS PIPE OR TUBING

Install Additional 0.005" Thick Brass Shim plus the standard 0.015" shim between female die & notcher frame = 0.020" total shim thickness

3. Thread SHCS into Female Die (#7).
4. Tighten SHCS.

## Tube Hold Down Clamp Assembly:

1. Install 1/4-20 x 1-1/2" Socket Head Cap Screws (#14) (qty. 2) through Clamp Hoop (#8).
2. Thread SHCS (#14) into Female Die (#7).
3. Tighten SHCS.
4. Install 1/4-20 x 1" Thumb Screw (#21) into Clamp Hoop (#8).



ITEM NO	PART NUMBER	DESCRIPTION	QTY.
1	100-008	Back Brace	1
2	100-006	Base Plate	1
3	100-007	Mounting Plate	1
4	100-009	Spring Support Post	2
5	100-001	Side Rail	2
6	100-004R1	Top Plate	1
7	100-010-1500	Die Blank	1
8	100-003	Hoop	1
9	100-005	Punch	1
10	100-015	Punch Stop	1
11	100-507	Ram, 10 Ton, 2-1/8" Stroke	1
12	100-509	UBolt 2-1/4"	2
13	3/8-16 x 2-1/2"	SHCS	4
14	1/4-20 x 1-1/2"	SHCS	2
15	5/16-18 x 1-7/8"	SHCS	4
16	1/4-20 X 1"	SHCS	2
17	1/4-20 x 1/2"	HHCS	2
18	1/4-20	Nut	6
19	100-501	Spring 5/8 x 1-1/2"	2
20	100-103	.015 Brass Shim	2
21	100-504	Thumb Screw 1/4-20 x 1"	1

REVISIONS			
REV.	DESCRIPTION	DATE	BY
A	ADDED ITEM NO. 18-21	4/15/2010	BAB

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	NAME	DATE
DRAWN	RAJ	06-04-08
CHECKED		
ENG APPR.		
MFG APPR.		
Q.A.		

**MB MITTLER BROS. MACHINE & TOOL**  
 10 Cooperative Way, Wright City, MO. 63390  
 (636)745-7757 Fax (636)745-2874

TITLE:  
**Std. Hyd. Tubing Notcher**

COMMENTS		SIZE	DWG. NO.	REV
		A	100	A
		SCALE: 1:5	WEIGHT: 28.177	SHEET 1 OF 1

# 100-U Heavy Duty Hydraulic Tubing Notcher Set-Up

## Female Die (#5) to Main Frame (#3):

1. Insert 3/8-16 x 2-1/2" Socket Head Cap Screws (qty. 4) (#12) through low frame holes.
2. Install 0.015" thick Brass Shims (#21) over thread on SHCS – one per side.

### **WHEN NOTCHING 0.120" OR THICKER WALL THICKNESS PIPE OR TUBING**

Install Additional 0.005" Thick Brass Shim plus the standard 0.015" shim between female die & notcher frame = 0.020" total shim thickness

3. Thread SHCS into Female Die (#5).
4. Tighten SHCS.

## Tube Hold Down Clamp Assembly:

1. Install 1/4-20 x 1-1/2" Socket Head Cap Screws (#15) (qty. 2) through Clamp Hoop (#9).
2. Thread SHCS (#15) into Female Die (#5).
3. Tighten SHCS.
4. Install 1/4-20 x 1" Thumb Screw (#20) into Clamp Hoop (#9).

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	100-107	HD Back Brace	1
2	100-018	HD Base Plate	1
3	100-027	HD Mounting Plate	1
4	100-019	HD Side Rail	2
5	100-030-1500	Die Blank	1
6	100-022	HD Top Plate	1
7	100-023	HD Punch	1
8	100-021	HD Punch Stop	1
9	100-024	HD Clamp	1
10	100-026	Cylinder Clamp	1
11	100-507	Ram, 10 Ton - C102C	1
12	1/2-13x3	SHCS	4
13	1/2-13x2	SHCS	4
14	5/16-18x1	SHCS	2
15	1/4-20 x 2-1/2	SHCS	4
16	5/16-18 x 3	SHCS	4
17	1/4-20 x 1	SHCS	2
18	3/8 x 1-3/4	Dowel Pin	4
19	100-501	Spring	2
20	100-504	Thumb Screw, 1/2-20 x 1"	1
21	100-103	.015 Brass Shim	2
22	1/4 - 20	Nut	4

REV.	DESCRIPTION	DATE	BY
A	Added Items 19-22	5/6/2010	BAB
B	Bolts (item 16) revised	10/12/2010	BAB

NAME	DATE
DRAWN RAJ	07/02/08
CHECKED	
ENG APPR.	
MFG APPR.	
Q.A.	

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 10 Cooperative Way, Wright City, MO. 63390  
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TITLE: HD Hyd. Tubing Notcher

SIZE DWG. NO. REV  
**A** 100-U B

SCALE: 1:4 WEIGHT: SHEET 1 OF 1

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