# SOUTHERN

## MACHINERY SALES

SFMS is a Prime Buyer & Seller of Machinery and Accessories

ation Driven means you're dealing with experts in manufacturing. Our team of specialists in machining & fabricating know your part, your process and the problems you're encountering too. Combining these experts with available solutions from the top new equipment manufacturers as well as an inventory of over 500 used machines, allows our team to meet your needs & budget too. We also can buy your excess machinery for our inventory as well as *Broker*, *Auction*, *Liquidate* and *Appraise* with AMEA Certified Appraisers on staff.

## NEW MACHINERY SOLUTIONS









Solution Driven Powered by the top names in new machinery like Akyapak, American Machinery Group, Bendmak, Bescutter, DoAll, Genmill, Genturn, Piranha, OKK, Takamaz and more allows

**USED CNC MACHINER'** 

Value Added With a large inventory and strong network of partners we have the used Brake, Laser, Waterjet, Plasma, VMC, HMC or Turning Center to meet your needs and maximize your budgets reach!











## USED FABRICATION MACHINERY





Just scan the OR Code below.







Not Just Fabrication! Although Fabrication is in our name its just the beginning of the solutions we can provide. From machining and turning to stone pro-cessing, injection and blow molding. All processes we are experienced in.

## STONE, WOOD, PLASTICS & MANUAL MACHINERY









### SOUTHERN FABRICATING MACHINERY SALES, INC









## AND EQUIPMENT APPRAISERS

## MACHINERY SALES



PRESS BRAKE AIR-BENDING TONNAGE GUIDE																			
Force to Air-Bend Mild Steel (60,000 PSI) F = U.S. tons/lineal ft. of workpiece All Dimensions in inches																			
	V	1/4	3/8	1/2	5/8	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8	10	V	
t	f	3/16	9/32	11/32	7/16	9/16	11/16	7/8	<b>1</b> 1/8	13/8	13/4	2 3/16	2 13/16	31/2	41/2	51/2	67/8	f	
ga.	in.	1/32	1/16	5/64	7/64	9/64	5/32	13/64	1/4	5/16	13/32	33/64	5/8	3/4	11/32	1 <sup>5/</sup> 16	<b>1</b> 5/8	ga.	
20	0.036	3.1 1.75 1.2 For steel of different tensile strength. F valve differs in proportion to strength ratio.											20						
18	0.048	5.4	3.1	2.1	1.55	1.3		F Va	lues	]		r vaiv	Inside radius r for mild steel, is about					18	
16	0.060	9.6	5.5	3.8	2.8	2.2	1.45			_		01	5/32 of female die opening v. for any t.						
14	0.075		9.3	6.4	4.7	3.8	2.5	1.85				Shac	aded F values are for v = 8t, common for average 90° bending.						
12	0.105	]	20.5	14.0	10.4	8.1	5.6	4.1	3.2	2.2	]		For t = 1/2 inch or more, use v = 10t. 12						
11	0.120	18.5 13.9 10.9 <mark>7.4</mark> 5.6 4.3 2.9 2.15									11								
10	0.135	1	25.2 17.				9.9	7.3	5.7	3.8	2.85	2.23	2.23						
3/16	0.188	1		F↓	34.8	27.6	19.1	13.9	11.0	7.5	5.6	4.3	1					3/16	
1/4	0.250			ــــــــــــــــــــــــــــــــــــــ		58.0	39.5	29.0	22.8	15.5	11.4	8.9	6.1	4.5	]	_		1/4	
5/16	0.313	_ ×	·t		<u></u>		69.5	51.0	40.0	27.0	20.0	15.6	10.5	7.8	6.1	]		5/16	
3/8	0.375			/	/			75.0	59.0	40.0	29.5	23.4	15.8	11.7	9.2	6.2	4.6	3/8	
7/16	0.438			/_	<i>}_</i>			115.0	90.0	61.0	45.5	35.2	24.0	17.8	13.9	9.4	6.9	7/16	
1/2	0.500	Г		$\setminus /\!/$		1				85.0	62.0	44.3	33.0	24.5	19.1	13.0	9.8	1/2	
5/8	0.625	l L						t = Workpiece thickness 86.0 58.0					43.0	34.0	23.2	17.5	5/8		
3/4	0.750	r = Inside radius of formed part 91.0							67.0	53.0	36.4	26.7	3/4						
7/8	0.875	v = Vee-die opening f = Minimum flange								40.0	7/8								
1	1.000	146.0 115.0 68.0 58.0									1								

PLEASE VERIFY YOUR TOOLING IS CAPABLE OF HANDLING THE TONNAGE

\*Tonnage requirements for coining are 3 to 5 times Greater than when air bending. Bending pressures for other metals are:

\*Soft brass = 50% of pressure shown. \*Soft Aluminum = 50% of pressure shown. \*Aluminum alloys heat treated= same as steel. \*Stainless steel = 50% more than steel.

## Hydraulic Shear Capacity Chart

T T y G T G	idilo Oi	icai ca	pacity	Onart			
Shear Capacity	3/16"	1/4"	3/8"	1/2"	5/8"	3/4"	1"
A36 Plate (tensile 58-80 ksi)	-	0.25	0.375	0.5	0.625	0.75	1
<b>A514-T1 Plate</b> (tensile 110-130 ksi)	0.105	0.188	0.281	0.375	0.5	0.625	0.75
<b>A572</b> (tensile 60-75 ksi)	0.135	0.25	0.375	0.5	0.625	0.75	1
A588 COR-TEN B (tensile 70-80 ksi)	0.135	0.25	0.375	0.5	0.625	0.75	1
Annealed 40-50 Carbon HR Sheet & Plate	0.105	0.188	0.281	0.375	0.5	0.625	0.75
A.I.S.I 4130 HRSheet - Annealed	0.105	0.188	0.281	0.375	0.5	0.625	0.75
A.I.S.I. 4140 HRPlate - Annealed		0.188	0.281	0.375	0.5	0.625	0.75
A.I.S.I. 6150 HRPlate - Annealed		0.188	0.281	0.375	0.5	0.625	0.75
A.I.S.I. 8620 HRPlate - Annealed		0.188	0.281	0.375	0.5	0.625	0.75
Floor Plate	0.135	0.25	0.375	0.5	0.625	0.75	1
Stainless Steels 302, 304, 316, 410, 430	0.105	0.188	0.281	0.375	0.5	0.625	0.75
<b>Aluminum</b> 1100-0, 1100-H14, 1100-H16, 2024-0 3003- H14 5005-H34, 5052-0 5052-H32 5052-H34, 5086-H32 6061-0 6061-T6	0.21	0.375	0.562	0.75	1	1.125	1.5
<b>Aluminum</b> 2024-T3 2024-T4 7075-T6	0.188	0.25	0.375	0.5	0.625	0.75	1
Inconel 718	0.105	0.188	0.281	0.375	0.5	0.625	0.75
Hastalloy	0.105	0.188	0.281	0.375	0.5	0.625	0.75