

Jay Industries Metals Group EQUIPMENT LIST

METAL STAMPING PRESS DEPARTMENT

<u>Press Number</u>	<u>Tonnage</u>	<u>Bolster L x W</u>	<u>Maximum Shut Height</u>	<u>Stroke</u>
<u>23</u>	800 ton	196" x 64"	50"	16"
1	600 ton	144" x 60"	28" - 40"	18"
2	600 ton	144" x 60"	28" - 40"	18"
6	500 ton	128" x 48"	16" - 28"	12"
2A	400 ton	108" x 54"	16" - 28"	10"
3	300 ton	96" x 54"	23"	10"
5	110 ton	42" x 27"	8.5"	8"
10	225 ton	94" x 33.5"	24" - 30"	16"
11	100 ton			Located at JMS
12	125 ton	25" x 28"	18.5"	6"
15	135 ton	47.5" x 34.25"	14.75"	6"
17	250 ton	60" x 48"	8" - 15.875"	9"
21	110 ton	39" x 30"	24"	8"
24	165 Ton	Hydraulic 110 x 70"	48"	30"
28	300 Ton	108" x 48"	20"	10"
25	220 Ton	96" x 54"	42"	24"

ADDITIONAL PRODUCTION EQUIPMENT

PRESS BREAK EQUIPMENT:

- (1) Cincinatti Press Break - 8 ft. bed, 90 ton, (2) 6 axis independent back gauges
- (1) Cincinatti Press Break - 8 ft. bed, 135 ton, (2) 6 axis independent back gauges
- (1) Heim 40 ton 8' break press
- (1) Chicago 15 ton 4' break press

TUBE BEND EQUIPMENT:

- (1) Wafios right&left hand rotation 2.0" diameter capacity bending machine
- (1) Crippa right hand rotation 3.125" diameter capacity rotary bending machine
- (1) Crippa right hand rotation 1-1/4" diameter capacity rotary bending machine
- (1) Crippa left hand rotation 1-1/4" diameter capacity rotary bending machine
- (1) Crippa right hand rotation 3.0" diameter capacity rotary bending machine
- (1) Bendall automatic bender with 10mm diameter (In storage)

WELDING EQUIPMENT:

Robotic MIG Weld Equipment

- (16) Complete AW6200 cells consisting of one (1) 3.0m RM2-500 revolving trunion and two (2) six-axis Motoman robots with combined reach of 110" radius
- (2) Complete AW6200 cells consisting of one (1) 3.0m RM2-750 revolving trunion and two (2) six-axis Motoman robots with combined reach of 110" radius
- (5) Complete AW6300 cells consisting of one (1) 3.0m RM2-750 TX revolving trunion and two (3) six-axis Motoman robots with combined reach of 110" radius
- (1) Complete AW6000 cells consisting of one (1) 2.0m RM2-500 TX revolving trunion and two (1) six-axis Motoman robots with combined reach of 110" radius
- (1) Complete AW6200 cells consisting of one (1) 2.0m RM2-500 TX revolving trunion and two (2) six-axis Motoman robots with combined reach of 110" radius
- (1) Complete AW6300 cells consisting of one (1) 3.0m RM2-500 revolving trunion and two (3) six-axis Motoman robots with combined reach of 110" radius
- (8) Complete AW6200 cells consisting of one (1) 3.0m RM2-750 TX revolving trunion and two (2) six-axis Motoman robots with combined reach of 110" radius
- (1) Complete AW6200 cells consisting of one (1) 2.0m RM2-250 revolving trunion and two (2) six-axis Motoman robots with combined reach of 110" radius
- (1) Complete AW6200 cells consisting of one (1) 3.0m RM2-750 TX revolving trunion and two (2) six-axis UP165 Motoman robots with spot welding guns
- (1) Complete AW6300 cells consisting of one (1) 3.0m M3XLS 750kg revolving trunion and two (3) six-axis Motoman robots with combined reach of 110" radius
- (13) Complete Speed Cells consisting of two (2) stations and one (1) six-axis Motoman robot with a right-to-left reach of 55" radius
 - (1) MRC SK120 material handling / to spot welder
 - (1) Complete Speed Cell consisting of two (2) stations and one (1) six-axis SK150 spot welding
 - (1) Complete Speed Cell consisting of one (1) station and one (1) six-axis 3kg robot
 - (1) Complete 8' wide Speed Cell with XRC SK16X six-axis welding robot (1) station
 - (1) Complete cell consisting of (1) rotary table and one (1) 3kg six-axis robot
 - (1) Complete cell consisting of (1) rotary table and one (1) 6kg six-axis robot
 - (2) Complete cell consisting of one (1) flip table and one (1) 3kg six-axis Motoman robot
 - (1) Complete Speed Cell with one (1) station and one (1) six-axis robot with plasma torch
 - (1) Complete X-Y base axis with six (6) cutting stations and one (1) six-axis robot with plasma torch
 - (1) Complete cell consisting of one (1) revolving external axis MPS-400 and two (2) six-axis Motoman robots with combined reach of 110" radius
 - (1) Complete Motoman Fabworld consisting of two (2) revolving external axis MH-450 and one six-axis Motoman robot with reach of 75" radius

Production Milling Equipment:

- (1) Haas VF4 milling center - with pallet changer - Milltronic Milling Center
- (2) Bridgeport mill series 1 with a DRC digital read out
- (1) Logan 6" lathe

Manual MIG Weld Machines:

- (2) Units 200 AMP
- (31) Units 300 AMP
- (2) Units 250 AMP
- (3) Units 350 AMP
- (2) Units 450 AMP
- (2) Units 500 AMP
- (1) 110 MIG welder
- (2) Heli arc (tig) 250 AMP
- (11) 300 AMP
- (1) Fabstar 300 AMP

Spotweld Equipment:

- (2) Machines, 75 KVA
- (3) Machines, 30 KVA
- (1) Machine, 15 KVA
- (2) Machines, 75 KVA
- (1) J.T. SNOW 4-point spot welder with 2 points stationary and 2 points CNC X.Y fully programmable J.T. SNOW spot welder w/7 point for spot welding wires
- Orbitform 4-head spin riveter w/a 4-station carousel table

- (1) Lincoln stick welder 250 AMP
- (1) Miller plasma cutter 300 AMP

Spot Welding Equipment:

<u>Brand</u>	<u>TYPE</u>	<u>NO. OF POINTS</u>	<u>Size</u>	<u>Quantity</u>	
Dengensha	Single Point	1	97	1	
Imax	Turn Table	2	120	3	In storage
Imax	Turn Table	5	150	1	In storage
Thompson	Single Point	1	50	1	
Federal	Single Point	1	75	1	
Spot Weld, Inc.	Single Point	1	100	1	
Imax	Turn Table	4	150	1	In storage
United Welder	Single Point	1	75	1	
Imax Machines	Multiple Point	4	150	2	
Chowel	Single Point	1	150	3	
Dengensha	Single Point	1	80	2	In storage
Imax	Multiple Point	4	150	1	In storage

TOOL ROOM EQUIPMENT

- * Lucas Horizontal Boring mill, 42x84 table with 8 ft travel in saddle, 7 ft in table, 5ft in column, 3 ft on spindle
- * (3) Bridgeport milling machine, 9" x 42" table w/power feed and an Acu-rite five (5) digital readout
- * Hendey horizontal lathe, 14" x 30" with collet set, three (3) jaws chuck and four (4) jaws chuck
- * DoAll metalmaster ban saw, with 16" depth of cut, blade welder and feed attachment
- * Edlund two (2) spindle vertical drill press, with automatic tapping head and power feed
- * Cincinnati Bickford vertical radial arm drill press, 18" x 24" table
- * Horizontal spindle surface grinder, model #BRH 20 A 8" x 24" magnetic chuck
- * (3) Reid horizontal spindle surface grinder, model #11 D with 6" x 18" magnetic chuck
- * Cincinnati pedestal grinder, 1 H.P. with 10" wheels and stand
- * Milwaukee bench grinder, 1/2 H.P. with 8" wheels
- * Electro-matic demagnetizer, model #A 1-5
- * Herman granite surface plate, 24" x 36"
- * American shaper 24" Stroke 20" crossfeed
- * Yale electric hoist, 2 ton
- * Coffing manual hoist, 3 ton
- * Moore Jig A Bore with a 19.50" x 10.50" table
- * South Bend lathe with a 16" swing and (3) jaw and (4) jaw
- * Jet belt and disc sander 6" belt and 6" disc
- * Okamoto manual surface grinder with a 6" x 12" magnetic chuck
- * Kalamazoo cut off saw 10" disc
- * Hass CNC milling center 10.50" x 48" table
- * Mitsubishi FX20 wire machine
- * Rockwell hardness tester
- * KR Wilson arbor press, 50 ton
- * Coffing electric hoist, 2 ton
- * Trinco sandblast cabinet 48" x 24" x 24"
- * Krone 20 metric ton hoist
- * Lucifer heat-treat furnace 12" x 12" x 27"
- * KH Huppert heat-treat furnace 7.50" x 13" x 28"
- * Okamoto auto grinder with a 16" x 32" magnetic chuck
- * D & H 10 ton electric hoist
- * Cincinnati horizontal mill with a 44.50" x 20" table
- * Cincinnati vertical mill with a 52.50" x 12" table
- * Sunnen honing machine
- * CM 10 ton manual hoist
- * Cincinnati Bickford radial-arm drill press with a 15" x 6' x 4'
- * Mattison grinder

- * Milltronics MB-25 CNC mill 50" x 25"y - 25"z
- * Bridgeport series #1 vertical milling machine 9" x 36" with power feed x,y,z and Mitutoyo digital readout
- * Southbend turnado horizontal lathe 16" x 72" with collet set, 3 jaw chuck, 4 jaw chuck, Newall digital readout
- * Bridgeport series #2 special vertical milling machine 11" x 58" with power feed x,y,z and Mitutoyo digital readout
- * Colchester clausing horizontal lathe 14" x 160" with 3 jaw chuck and 4 jaw chuck
- * Wellsaw horizontal bandsaw 10" x 16"
- * Doall vertical bandsaw with 16" depth of cut, blade welder, power feed
- * Reid horizontal surface grinder 6" x 18" magnetic chuck
- * Thompson horizontal spindle surface grinder 8" x 25" magnetic chuck
- * Baldor bench grinder 5 H.P. with 6" wheels
- * Baldor bench grinder 1/3 H.P. with 6" wheels
- * Miller syncrowave 250 welder stick / tig
- * Cleereman drill press 28" x 44" table, 16" height
- * Modigs radial arm drill press 17-1/2" x 17-1/2" table
- * (1) Miller 110 mig welder
- ~ Selffeeder Newtric Reamer and Rivetor
- ~ Victors Hydraulic Unit
- ~ Armstrong Industrial Band Saw
- ~ Rockwell drill press
- ~ Miller Welder (60 series #106)
- ~ Hobart Welder (#107)
- ~ Selffeeder Newtric Rivetor
- ~ Miller Hand Welder #101
- ~ Miller Hand Welder #55
- ~ Miller Hand Welder #52
- ~ Miller Hand Welder #56
- ~ Miller Hand Welder #25
- ~ Miller Hand Welder #57
- ~ Miller Hand Welder #15

QUALITY ASSURANCE EQUIPMENT

- * Zeiss CMM with a 60" x 80" x 36" bed
- * Zeiss CMM with a 48" x 80" x 36" bed
- * Tensile comparison machine Tinius Olsen with testing software
- * Macroetching Pax-it software capabilities and Olympus microscope camera
- * (1) Inerpac that has 10,000 (PSI) for weld destruction
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- * Electronic paint thickness gage
- * Garner impact tester
- * Zeiss CMM with a bed size of 40" x 60" x 36" (fully programmable)
- * Zeiss CMM with a bed size of 48" x 80" x 36" (fully programmable)
- *Faro Arm With Advanced Tubular software