

AZ *Automotive Corp.*

**STANDARDIZED
DIE BUILD
PRESS SPECIFICATION**

1.0 Press Specifications

- 1.0.1 Line Die Location Features – 60 Inch Bolster
- 1.0.2 Line Die Location Features – 72 Inch Bolster
- 1.0.3 Progressive Die Location Features
- 1.0.4 Roseville Die Location Features
- 1.0.5 Line Die Utility Locations
- 1.0.6 Progressive Die Utility Locations
- 1.0.7 Press Feeder Specifications

Current Location	Press Number	Press Type	Press Tonnage	Bolster Plate		JIC "T" Slots Bolster / Ram	Ram Dimensions		Shut Height		Stroke	Window Opening's	
				Bolster Size L-R / F-B	Bolster Thickness		Ram Size L-R / F-B	Ram Plate Thickness	Std.	Actual Min / max		Left Width & Height	Right Width & Height
AREA 2	L12-P1	VERSON	1000 inr-600 otr	144/84	23 roll 12 plate	Y/Y	144/84	5	49*	54/66 51/63	33	78/89	78/89
AREA 2	L12-P2	VERSON	1000	120/72	10	Y/Y	120/72	N/A	49	46/60	24	78/89	78/89
AREA 2	L12-P3	VERSON	1000	120/72	12	Y/Y	120/72	N/A	49	46/60	24	78/89	78/89
AREA 2	L12-P4	VERSON	600	120/72	10	Y/Y	120/72	N/A	49	46/60	24	78/89	78/89
AREA 2	L12-P5	VERSON	600	120/72	10	Y/Y	120/72	N/A	49	46/60	24	78/89	78/89
AREA 2	L12-P6	VERSON	600	120/72	10	Y/Y	120/72	N/A	49	46/60	24	78/89	78/89
AREA 2	L13-P1	USI	800	120/84	33.5	Y/N	120/84	5	49*	54/64	32	N/A	N/A
AREA 2	L13-P2	VERSON	1000	120/72	10	Y/Y	120/72	N/A	49	46/60	24	78/89	78/89
AREA 2	L13-P3	VERSON	600	120/60	10	Y/Y	120/60	4	49	46/56	18	42/53	42/53
AREA 2	L13-P4	VERSON	600	120/60	10	Y/Y	120/60	4	49	46/56	18	42/53	42/53
AREA 2	L13-P5	VERSON	600	120/60	10	Y/Y	120/60	4	49	46/56	18	42/53	42/53
AREA 2	L13-P6	VERSON	600	120/60	8	Y/Y	120/60	4	49	48/58	18	42/53	42/53
AREA 2	L14-P1	MULLER	2000 inr 800 otr	158/94	30 roll	Y/Y	158/87	N/A	49*	59/89		96/-	96/-
AREA 2	L14-P2	VERSON	1000	120/72	10	Y/Y	120/72	2	49	44/58	24	78/89	78/89
AREA 2	L14-P3	VERSON	1000	120/72	10	Y/Y	120/72	2	49	44/58	24	78/89	78/89
AREA 2	L14-P4	VERSON	1000	120/72	10	Y/Y	120/72	2	49	44/58	24	78/89	78/89
AREA 2	L14-P5	VERSON	1000	120/72	10	Y/Y	120/72	2	49	44/58	24	78/89	78/89
AREA 4-S	L6-P1	VERSON	800	108/60	10	Y/Y	108/60	N/A	N/A	46/56	16	40.5/38	40.5/38
AREA 4-S	L6-P2	BLISS	300	96/60	7	Y/Y	96/60	N/A	N/A	33/43	16	25/20	25/20
AREA 4-S	L6-P3	BLISS	300	96/60	7	Y/Y	96/60	N/A	N/A	33/43	16	25/20	25/20
AREA 4-S	L6-P4	BLISS	300	96/60	7	Y/Y	96/60	N/A	N/A	33/43	16	25/20	25/20
AREA 4-S	L6-P5	BLISS	300	96/60	7	N/Y	96/60	N/A	N/A	33/43	16	25/20	25/20

49*= 49 inch shut height plus 10 inch cast removable bridge on upper die

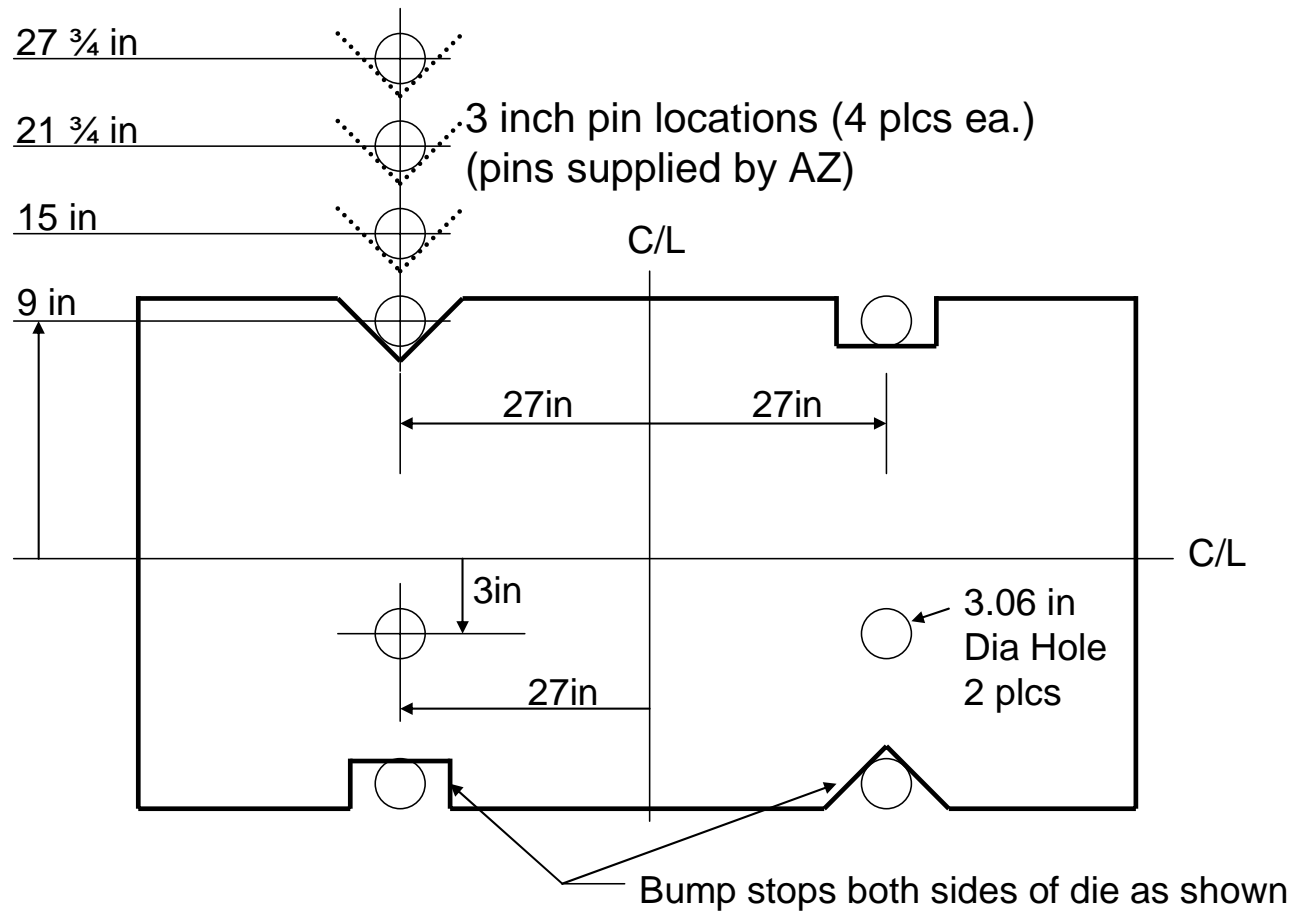
Current Location	Press Number	Press Type	Press Tonnage	Bolster Plate		JIC "T" Slots Bolster / Ram	Ram Dimensions		Shut Height			Window Opening's	
				Bolster Size L-R / F-B	Bolster Thickness		Ram Size L-R / F-B	Ram Plate Thickness	Std.	Actual Min / max	Stroke	Left Width & Height	Right Width & Height
AREA 4-S	L7-P1	DANLY	500	84/60	6	Y/Y	84/60	N/A	37	24/44	20	N/A	N/A
AREA 4-S	L7-P2	DANLY	500	84/60	8	Y/Y	84/60	N/A	37	24/44	20	N/A	N/A
AREA 4-S	L7-P3	DANLY	500	84/60	8	Y/Y	84/60	N/A	37	24/44	20	N/A	N/A
AREA 4-S	L7-P4	NIAGARA	400	84/60	4.75	Y/N	84/60	8	41	30.3/42.2	18	26/22	26/22
AREA 4-S	L7-P5	NIAGARA	400	84/60	4	Y/N	84/60	4	41	32/44	18	26/22	26/22
AREA 4-S	P-31	MINSTER	400	96/48	6	Y/Y	96/48	N/A	20	20/26	12	18/31	18/31
AREA 4-S	P-9 Auto	BLISS	300	60x42	4	Y/Y	60x36	12	20	15/21	8	23/26	23/26
AREA 4-S	P-10 Auto	BLISS	300	72x42	4	Y/Y	72x36	12	20	15/21	8	23/26	23/26
AREA 4-N	L10-P1	VERSON	1000	120/72	10	Y/Y	120/72	10	49	36/50	24	51/47	57/41
AREA 4-N	L10-P2	VERSON	1000	120/72	10	Y/Y	120/72	10	49	36/50	24	51/47	57/41
AREA 4-N	L10-P3	VERSON	1000	120/72	10	Y/Y	120/72	10	49	36/50	24	51/47	57/41
AREA 4-N	L10-P4	VERSON	400	120/60	8	Y/Y	120/60	10	49	40/50	20	39/47	39/47
AREA 4-N	L10-P5	VERSON	400	120/60	8	Y/Y	120/60	10	49	40/50	20	39/47	39/47
AREA 4-N	L10-P6	VERSON	400	120/60	8	Y/Y	120/60	10	49	40/50	20	39/47	39/47
AREA 4-N	L11-P1	VERSON	1000	120/72	10	Y/Y	120/60	N/A	49	36/50	24	51/37	51/37
AREA 4-N	L11-P2	VERSON	1000	120/72	10	Y/Y	120/60	N/A	49	36/50	24	51/37	51/37
AREA 4-N	L11-P3	VERSON	1000	120/72	10	Y/Y	120/60	N/A	49	36/50	24	51/37	51/37
AREA 4-N	L11-P4	VERSON	400	120/60	8	Y/Y	120/60	N/A	49	40/50	20	38/37	38/37
AREA 4-N	L11-P5	VERSON	400	120/60	8	Y/Y	120/60	N/A	49	40/50	20	38/37	38/37
AREA 4-N	L11-P6	VERSON	400	120/60	8	Y/Y	120/60	4	49	46/56	20	39/47	39/47

Current Location	Press Number	Press Type	Press Tonnage	Bolster Plate		JIC "T" Slots Bolster / Ram	Ram Dimensions		Shut Height			Window Opening's	
				Bolster Size L-R / F-B	Bolster Thickness		Ram Size L-R / F-B	Ram Plate Thickness	Std.	Actual Min / max	Stroke	Left Width & Height	Right Width & Height
AREA 5	L9-P9	BLISS	300	96/60	7	Y/N	96/60	N/A	N/A	26/36	16	25/20.5	25/20.5
AREA 5	L9-P10	BLISS	300	96/60	7	N/N	96/60	N/A	N/A	26/36	16	25/20.5	25/20.5
AREA 5	L9-P11	VERSON	300	96/54	7	Y/N	96/54	N/A	N/A	39/45	12	38/45	38/45
AREA 5	L9-P12	VERSON	300	96/54	7	Y/Y	96/54	4	N/A	39/45	12	38/45	38/45
AREA 5	P37	MINSTER	400	108/54	6	Y/Y	108/54	N/A	20	20/26	12	30/20	30/20
AREA 6	P1	VERSON	800	108/60	10	Y/Y	108/60	10	30	46/56	16	41/37	41/37
AREA 6	P2	CLEARING	400	136/84	4	Y/Y	136/84	N/A	30	28/48	12	74/36	74/36
AREA 6	P3	VERSON	500	96/60	8	Y/Y	96/60	17	30	46/52	10	40/50	40/50
AREA 6	P4	VERSON	800	108/72	8.5	Y/Y	108/72	N/A	30	34/46	12	60/28	60/28
AREA 6	P6	CLEARING	300	96/72	7	Y/Y	96/72	14	30	40/52	14	44/36	44/36
AREA 6	P7	WARCO	200	72/42	6	Y/Y	72/42	N/A	30	36/42	20	N/A	N/A
AREA 6	P8	VERSON	1000	144/96	38	Y/Y	144/96	4	30	64/78	14	76/76	76/76
AREA 6	P9	BLOW	600	144/60	8	Y/Y	144/60	N/A	30	22/32	14	54.5/27.75	54.5/27.75
AREA 6	P10	BLOW	1000	144/96	20	Y/Y	144/96	N/A	30	28/42	18	50/78	50/78

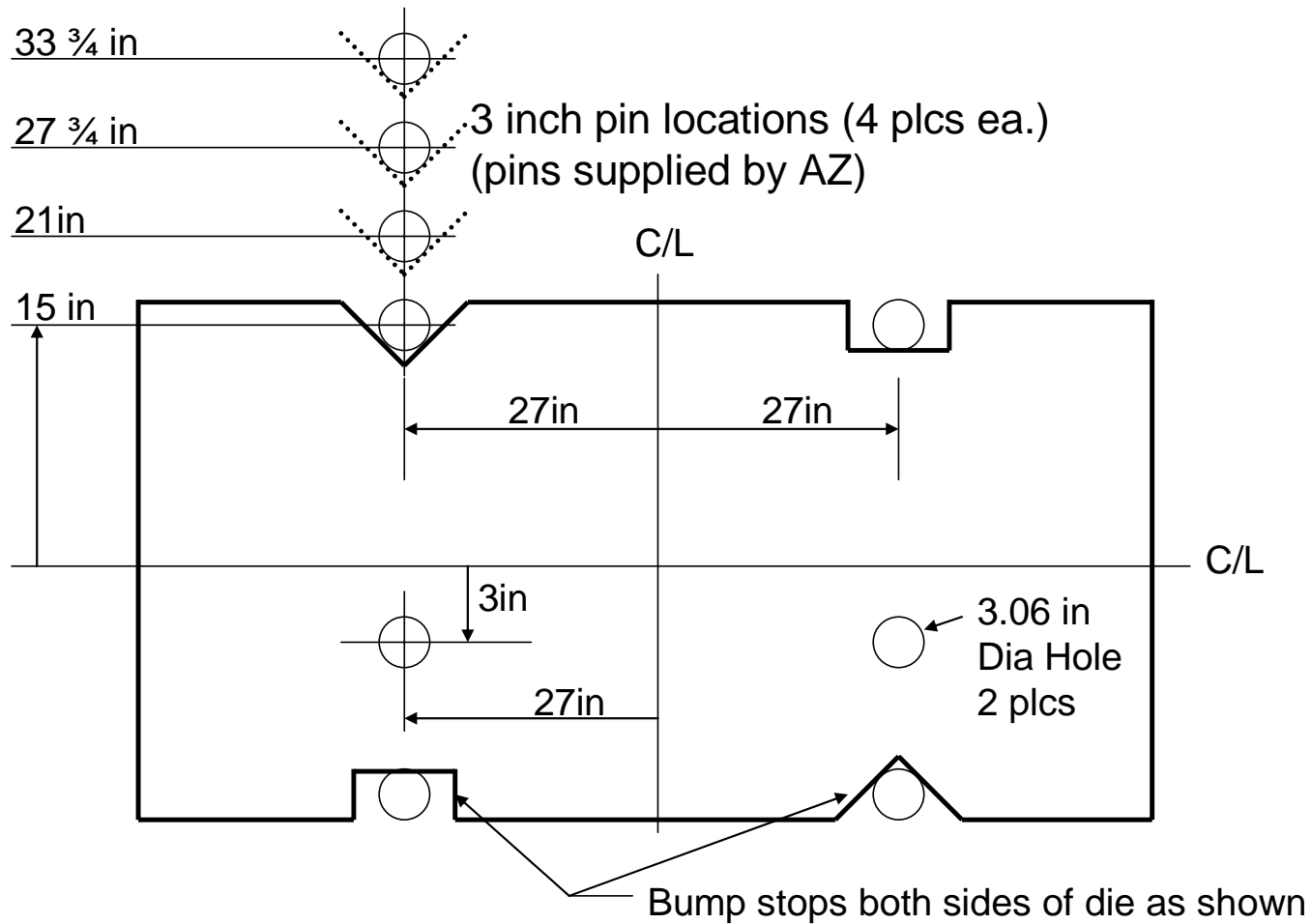
Current Location	Press Number	Press Type	Press Tonnage	Bolster Plate		JIC "T" Slots Bolster / Ram	Ram Dimensions		Shut Height		Stroke	Window Opening's	
				Bolster Size L-R / F-B	Bolster Thickness		Ram Size L-R / F-B	Ram Plate Thickness	Std.	Actual Min / max		Left Width & Height	Right Width & Height
AREA 7	L1-P1	VERSON	800	108/60	10	Y/Y	108/60	N/A	N/A	32/46	20	39/48	39/48
AREA 7	L1-P2	CLEARING	600	108/48	8	Y/Y	108/48	N/A	N/A	20/40	20	N/A	N/A
AREA 7	L1-P3	CLEARING	600	108/48	8	Y/Y	108/48	N/A	N/A	20/40	20	N/A	N/A
AREA 7	L1-P4	CLEARING	300	108/54	7	Y/Y	108/54	N/A	N/A	33/45	16	24.75/24.75	24.75/24.75
AREA 7	L1-P5	CLEARING	300	108/54	7	Y/Y	108/54	N/A	N/A	33/45	16	24.75/24.75	24.75/24.75
AREA 7	L1-P6	CLEARING	300	96/54	7	Y/Y	96/54	N/A	N/A	24/36	16	N/A	N/A
AREA 7	L2-P1	CLEARING	1000-600	120/72	6	Y/Y	120/72	N/A	42	38/52	37	N/A	N/A
AREA 7	L2-P2	VERSON	800	108/60	10	Y/Y	108/60	N/A	42	36/46	16	N/A	N/A
AREA 7	L2-P3	VERSON	800	108/60	10	Y/Y	108/60	N/A	42	36/46	16	N/A	N/A
AREA 7	L2-P4	VERSON	800	108/60	10	Y/Y	108/60	N/A	42	36/46	16	N/A	N/A
AREA 7	L2-P5	VERSON	800	108/60	10	Y/Y	108/60	N/A	42	36/46	16	N/A	N/A
AREA 7	L2-P6	BLISS	600	108/72	10	Y/Y	108/72	N/A	42	30/54	20	N/A	N/A
AREA 7	L3-P1	CLEARING	300	108/54	7	Y/Y	108/54	N/A	N/A	33/45	16	24.75/24.75	24.75/24.75
AREA 7	L3-P2	CLEARING	300	108/54	7	Y/Y	108/54	N/A	N/A	33/45	16	24.75/24.75	24.75/24.75
AREA 7	L3-P3	CLEARING	300	108/54	6	Y/Y	108/54	N/A	N/A	33/46	16	24.75/24.75	24.75/24.75
AREA 7	L3-P4	DANLY	350	96/60	5	Y/Y	96/60	N/A	N/A	34/40	24	N/A	N/A
AREA 7	L3-P5	DANLY	350	96/60	8	Y/Y	96/60	N/A	N/A	31/37	24	N/A	N/A
AREA 7	L3-P6	DANLY	350	96/60	8	Y/Y	96/60	N/A	N/A	31/37	24	N/A	N/A
AREA 7	OFF LINE	CLEARING	700-400	108/70	-	N/N	108/70	N/A	N/A	72/82		N/A	N/A
AREA 7	OFF LINE	CLEARING	700-400	108/70	-	N/N	108/70	N/A	N/A	72/82		N/A	N/A

Current Location	Press Number	Press Type	Press Tonnage	Bolster Plate		JIC "T" Slots Bolster / Ram	Ram Dimensions		Shut Height			Window Opening's	
				Bolster Size L-R / F-B	Bolster Thickness		Ram Size L-R / F-B	Ram Plate Thickness	Std.	Actual Min / max	Stroke	Left Width & Height	Right Width & Height
RSVLE	34	THOMAS	50	30/23	1.5	N/N	13/12	N/A	10	7.5/10.5	3.75	N/A	N/A
RSVLE	38	ROUSELLE	25	20/14	1.5	N/N	18/9	N/A	12	14/16	3	N/A	N/A
RSVLE	35	FEDERAL	60	18.5/29	2.25	N/N	16/7	N/A	9	7/9.5	4	N/A	N/A
RSVLE	2	BLISS	300	96/60	7	Y/Y	96/60	N/A	N/A	21/30	16	38/38	38/38
RSVLE	4	BLISS	300	96/60	7	Y/Y	96/60	N/A	N/A	20/30	16	N/A	N/A
RSVLE	12	MINSTER	150	60/30	4.5	N/N	36/27	N/A	18.5		8	N/A	N/A
RSVLE	310	ROUSELLE	40	26/16	1.75	N/N	26/16	N/A	N/A	15.25/18.75	3	N/A	N/A
RSVLE	313	ROUSELLE	40	26/16	1.75	N/N	12/8	N/A	N/A	11.25/14.75	4	N/A	N/A
RSVLE	27	AIDA		49/26	2.125	N/N	26.5/20	N/A	12	14.25/17.75	7	N/A	N/A
RSVLE	52	AIDA	150	48/24	4.5	N/N	26/19	N/A	14	8.25/13	8	N/A	N/A
RSVLE	53	AIDA	75	37/19	3.5	N/N	21/15	N/A	N/A	8.75/13	6	N/A	N/A
RSVLE	76	MINSTER	300	84/48	5.75	Y/Y	84/48	N/A	23	18/24	12	28/15	28/15
RSVLE	78	MINSTER	400	108/54	5.75	Y/Y	108/54	N/A	25	20/26	12	31/18.5	31/18.5
RSVLE	64	MINSTER	300	84/48	5.75	Y/Y	84/48	N/A	23	15/24	8	27/20	27/20
RSVLE	21	NIAGARA	400	108/54	7.5	Y/Y	108/54	N/A	25	14/28	12	36/22	36/22
RSVLE	77	MINSTER	400	96/48	5.75	Y/Y	96/48	N/A	25	20/26	12	31/18	31/18
RSVLE	70	MINSTER	400	96/48	6	Y/Y	96/48	N/A	25	20/26	12	31/21	31/21
RSVLE	22	NIAGARA	400	108/54	7.5	Y/Y	108/54	N/A	25	14/28	12	37/18.5	37/18.5
RSVLE	20	NIAGARA	400	108/54	7.5	Y/Y	108/54	N/A	25	14/28	12	36/22	36/22
RSVLE	23	NIAGARA	600	120/60	8.5	Y/Y	120/60	N/A	27	22.5/38.5	14	31/38.5	31/38.5
RSVLE	9	MINSTER	400	60/48	6	Y/Y	60/48	N/A	18	22/28	6	23/20	23/20
RSVLE	28	VERSON	1500	288/96	16	Y/Y	288/96	N/A	44	43/55	30	94/42	94/42
RSVLE	29	VERSON	1500	288/96	14	Y/Y	288/96	N/A	44	37/49	30	94/42	94/42
RSVLE	30	VERSON	1000	240/84	12	Y/Y	240/84	N/A	44	33/45	24	118/42	118/42
RSVLE	31	VERSON	600	144/60	12	Y/Y	144/60	N/A	44	35/45	24	94/42	94/42

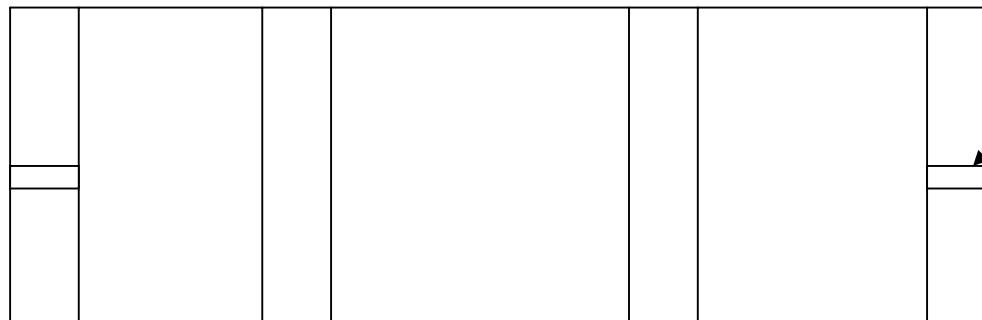
1.0.1 Line Die Location Features - **60** Inch Bolster



1.0.2 Line Die Location Features - 72 Inch Bolster



1.0.3 Progressive Die Location Features



1.005" key way
(center of strip)
(2 places)

Flow 

1.0.4 Roseville Die Location Features

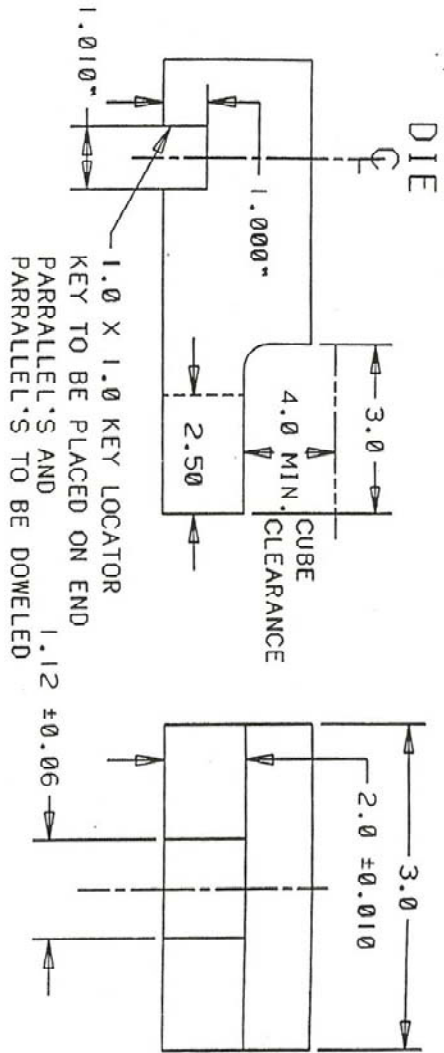


FIGURE 1
PROG. DIES

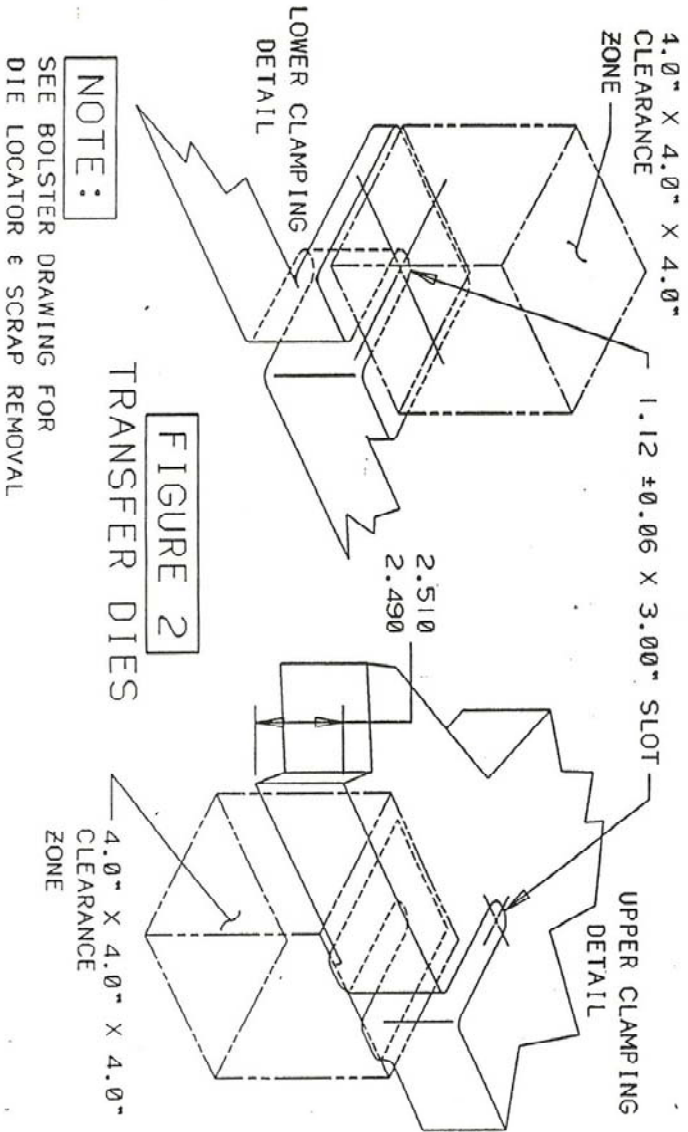
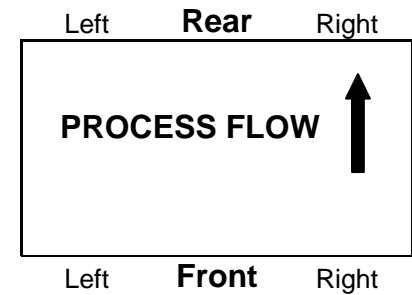


FIGURE 2
TRANSFER DIES

NOTE:
SEE BOLSTER DRAWING FOR DIE LOCATOR & SCRAP REMOVAL

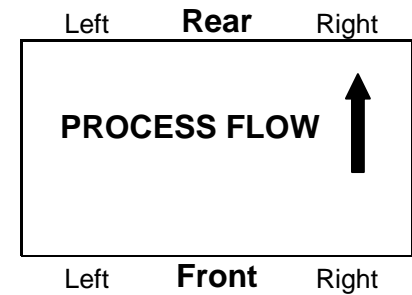
1.0.5 – Die Utilities

Location	Press Number	Air				Electric				Nitrogen			
		Front		Rear		Front		Rear		Front		Rear	
		Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left
AREA 2	L12-P1			X				X					X
AREA 2	L12-P2	X				X					X		
AREA 2	L12-P3	X				X					X		
AREA 2	L12-P4	X				X					X		
AREA 2	L12-P5	X				X					X		
AREA 2	L12-P6	X				X					X		
AREA 2	L13-P1				X				X			X	
AREA 2	L13-P2		X				X			X			
AREA 2	L13-P3		X				X			X			
AREA 2	L13-P4		X				X			X			
AREA 2	L13-P5		X				X			X			
AREA 2	L13-P6		X				X			X			
AREA 2	L14-P1				X				X			X	
AREA 2	L14-P2		X				X			X			
AREA 2	L14-P3		X				X			X			
AREA 2	L14-P4		X				X			X			
AREA 2	L14-P5		X				X			X			
AREA 4-S	L7-P1				X				X			X	
AREA 4-S	L7-P2		X				X			X			
AREA 4-S	L7-P3		X				X			X			
AREA 4-S	L7-P4		X				X			X			
AREA 4-S	L7-P5		X				X			X			



1.0.5 – Die Utilities

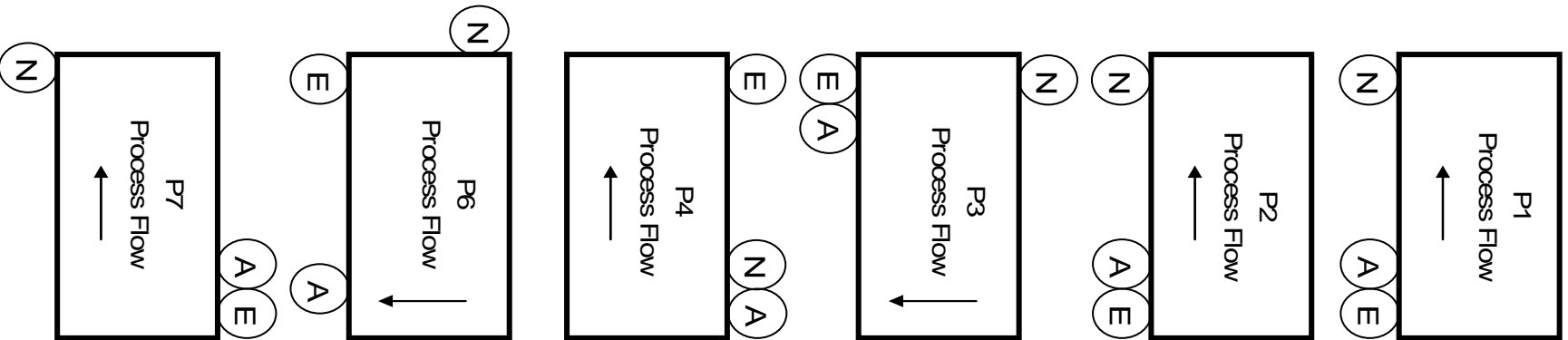
Location	Press Number	Air				Electric				Nitrogen			
		Front		Rear		Front		Rear		Front		Rear	
		Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left
AREA 4-N	L10-P1			X				X					X
AREA 4-N	L10-P2	X				X					X		
AREA 4-N	L10-P3	X				X					X		
AREA 4-N	L10-P4	X				X					X		
AREA 4-N	L10-P5	X				X					X		
AREA 4-N	L10-P6	X				X					X		
AREA 4-N	L11-P1				X				X			X	
AREA 4-N	L11-P2		X				X						
AREA 4-N	L11-P3		X				X						
AREA 4-N	L11-P4		X				X						
AREA 4-N	L11-P5		X				X						
AREA 4-N	L11-P6		X				X						
AREA 7	L2-P1			X				X					X
AREA 7	L2-P2	X						X			X		
AREA 7	L2-P3				X			X					X
AREA 7	L2-P4	X						X			X		
AREA 7	L2-P5				X			X					X
AREA 7	L2-P6			X				X			X		
AREA 7	L3-P1	X				X				X			
AREA 7	L3-P2	X				X				X			
AREA 7	L3-P3			X		X				X			
AREA 7	L3-P4	X					X			X			
AREA 7	L3-P5	X					X			X			
AREA 7	L3-P6	X					X			X			



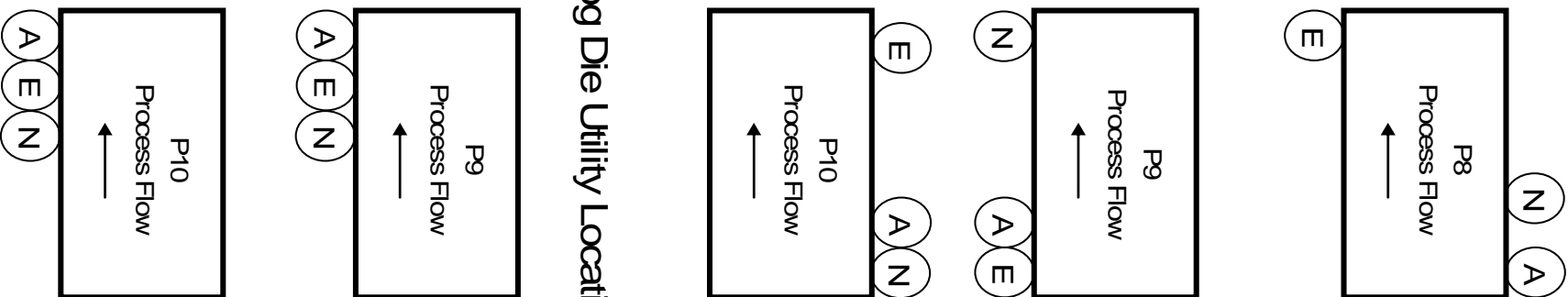
1.06

Area 6 Prog Die Utility Location

(A) = Air (E) = Electric (N) = Nitrogen



Area 4 Prog Die Utility Location



APPROVED: Gary L. Easterly

1.0.7 Press Feeder Specifications

Press Feeders					
	Width (inchs)		Thichness (inchs)		Feed Height
	min	max	min	max	inchs
Area 6					
P1	12	60	0.025	0.250	18
P2	36	72	0.030	0.150	18
P3	36	72	0.030	0.150	18
P4	12	60	0.025	0.187	18
P6	6	76	0.030	0.125	18
P8	36	72	0.030	0.187	18
P9	4	54	0.037	0.160	18
P10	6	72	0.020	0.156	18
Area 4					
Auto9	0	27	0.025	0.150	12
Auto10	0	27	0.025	0.250	12
P31	0	25.5	0.035	0.250	
P37	13.75	30.5	0.035	0.250	