

# CYLINDER AND SHOCK COMPONENTS

PAGE	DATE	NAAMS CODE	DESCRIPTION	DISCONTINUED
<a href="#">U-1</a>	09/05/12		Cylinder and Shock Accessories	
<a href="#">U-2</a>	01/10/11	ACT101-115	Trunnion Cylinder Mounting Bracket Assy	
<a href="#">U-3</a>	03/16/06	ACT140	Trunnion Block 32 MM Bore	
<a href="#">U-4</a>	03/16/06	ACT141	Trunnion Block 45 MM Bore	
<a href="#">U-5</a>	06/01/12	ACT121-135	Trunion Bushing	
<a href="#">U-6</a>	05/11/11	ACT151-158	Trunnion Cylinder Mounting Bracket Assy Aluminum	X
<a href="#">U-7</a>	05/11/11	ACT160	Trunnion Cylinder Mounting Bracket Aluminum	X
<a href="#">U-8</a>	03/16/06	ACT171-185	Trunnion Mounting Bracket Thrust Washer	
<a href="#">U-9</a>	03/30/06	AHM080-181	Shock Bracket	
<a href="#">U-10</a>	09/05/12	ACL0101A-412A	Clevis Assembly	
<a href="#">U-11</a>	05/21/13	ACL0101A-412A	Clevis Assembly Codes	
<a href="#">U-12</a>	05/11/11	ACL0100	Clevis Casting	
<a href="#">U-13</a>	12/02/19	ACL0101C-110C	Clevis	
<a href="#">U-14</a>	05/11/11	ACL0200	Clevis Casting	
<a href="#">U-15</a>	12/02/19	ACL0201C-206C	Clevis	
<a href="#">U-16</a>	05/11/11	ACL0300	Clevis Casting	
<a href="#">U-17</a>	12/02/19	ACL0301C-305C	Clevis	
<a href="#">U-18</a>	05/11/11	ACL0400	Clevis Casting	
<a href="#">U-19</a>	12/02/19	ACL0401C-412C	Clevis	
<a href="#">U-20</a>	02/19/15	ACL0501-0505	Clevis Pin	
<a href="#">U-21</a>	05/11/11	ACL0511-514	Clevis Composite Bearing	
<a href="#">U-22</a>	09/05/12	ACL0515-516	Clevis Composite Bearing	

# TRUNNION CYLINDER MOUNTING BRKT ASSY™

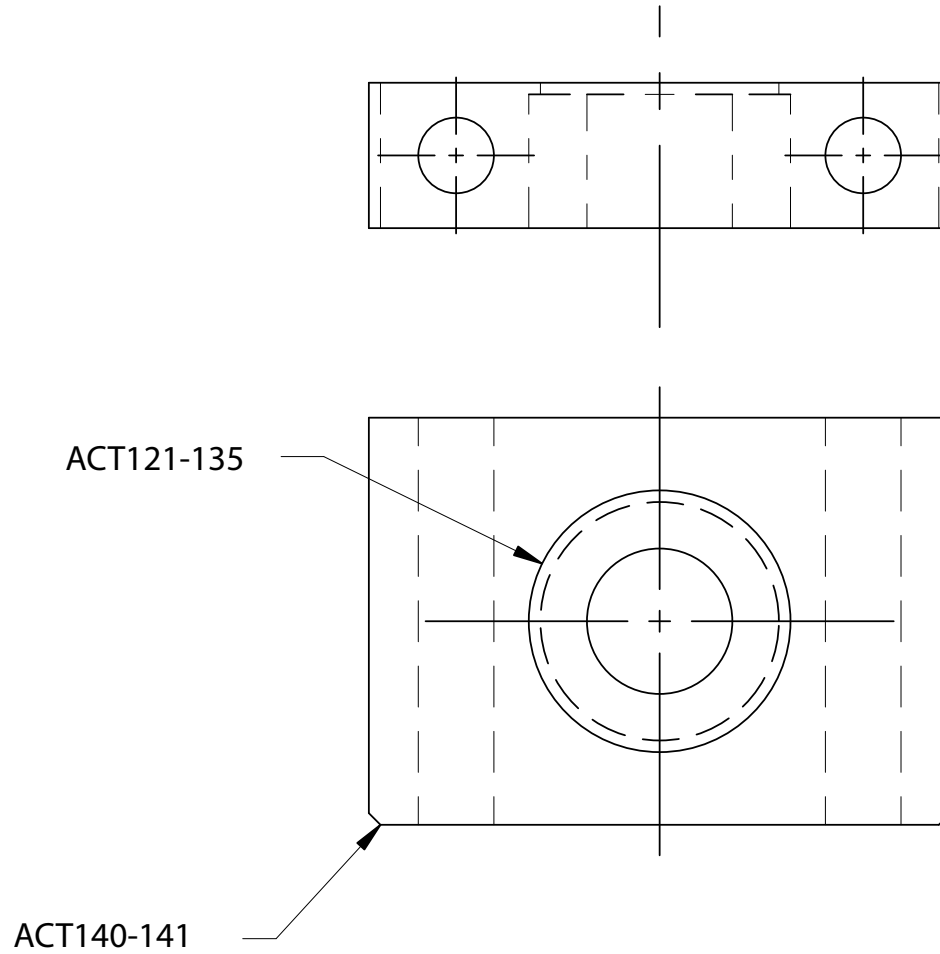
GLOBAL STANDARD COMPONENTS

# NAAMS



Assembly

01/10/11



NAAMS CODE	TRUNNION BLOCK	TRUNNION BEARING	ID +0.10/+0.13
ACT101	ACT140	ACT121	12
ACT102		ACT122	15
ACT103		ACT123	16
ACT104		ACT124	18
ACT105		ACT125	19.05(0.75")
ACT106		ACT126	20
ACT107		ACT127	25
ACT108		ACT128	25.4(1.00")
ACT111	ACT141	ACT131	32.00
ACT112		ACT132	34.93(1.375")
ACT113		ACT133	36.00
ACT114		ACT134	38.1(1.500")
ACT115		ACT135	40

A

# TRUNNION BLOCK 32 MM BORE ACT140



TOLERANCES UNLESS OTHERWISE SPECIFIED:

1 PLACE MACHINING  $\pm 0.3$

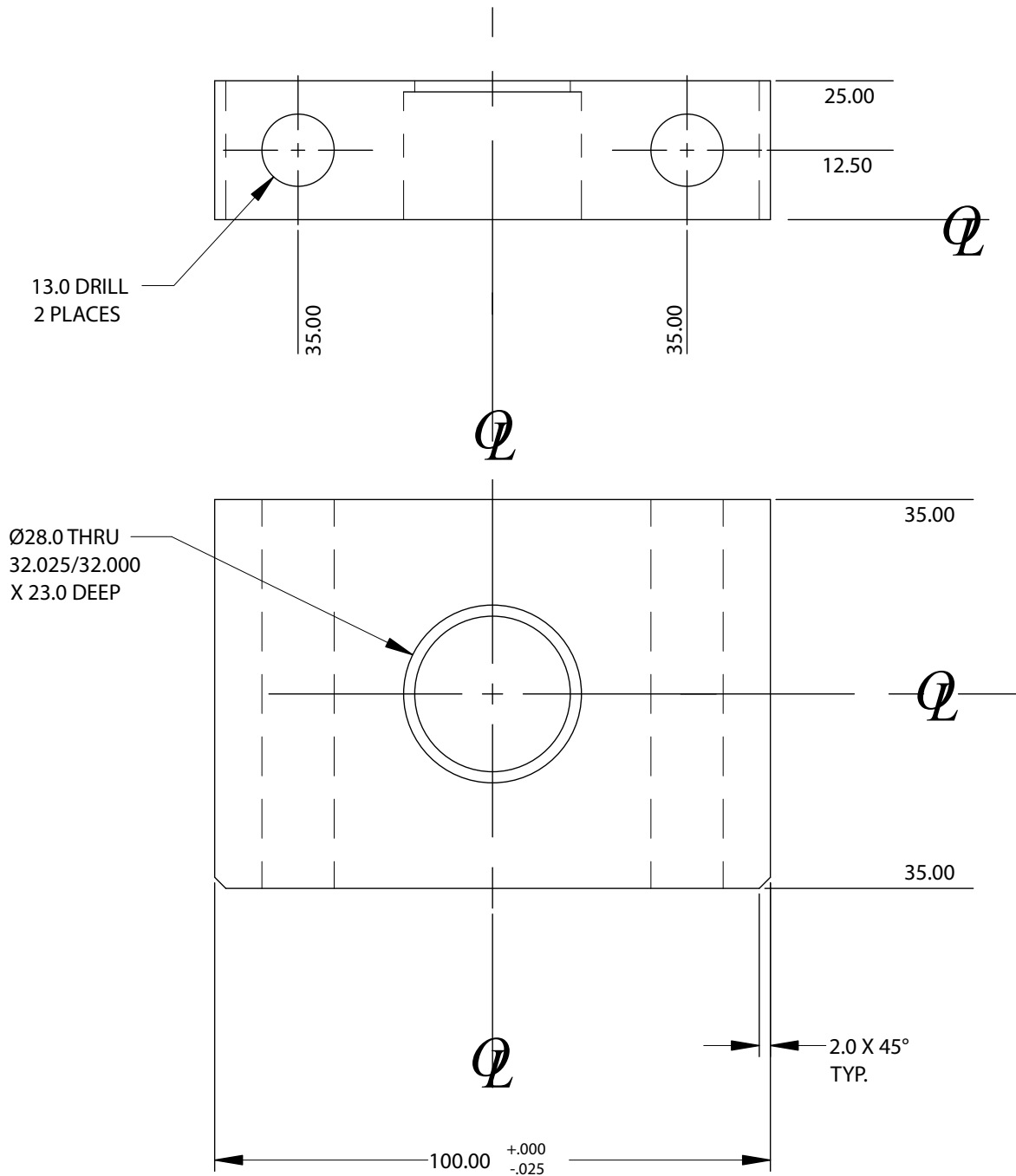
2 PLACE

$\pm 0.08$  BETWEEN MACHINED SURFACES

$\pm 0.13$  TO SCREW HOLES, NON ACCUMULATIVE

Weight 1.07 kg

MATERIAL: STEEL



# TRUNNION BLOCK 45MM BORE ACT141

TOLERANCES UNLESS OTHERWISE SPECIFIED:

1 PLACE MACHINING  $\pm 0.3$

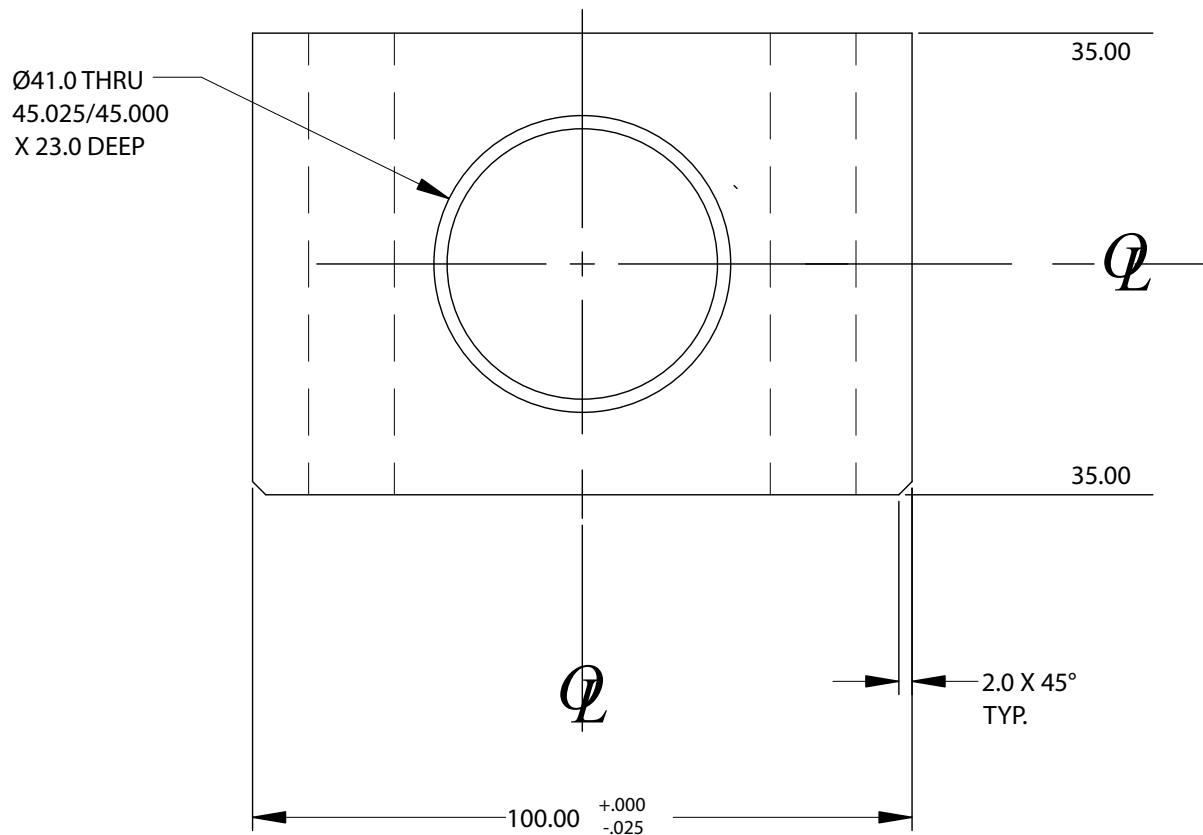
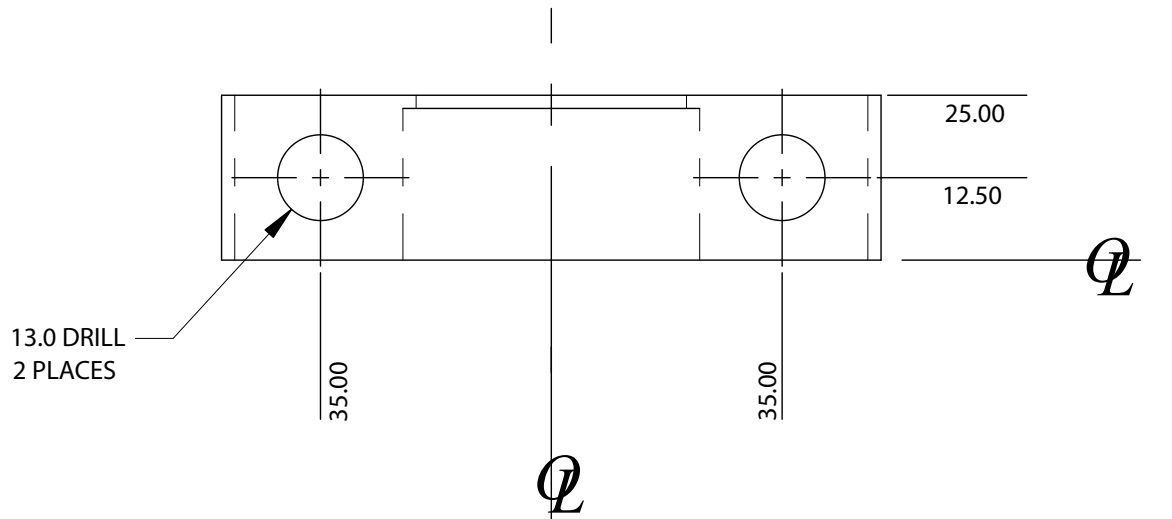
2 PLACE

$\pm 0.08$  BETWEEN MACHINED SURFACES

$\pm 0.13$  TO SCREW HOLES, NON ACCUMULATIVE

Weight 0.92 kg

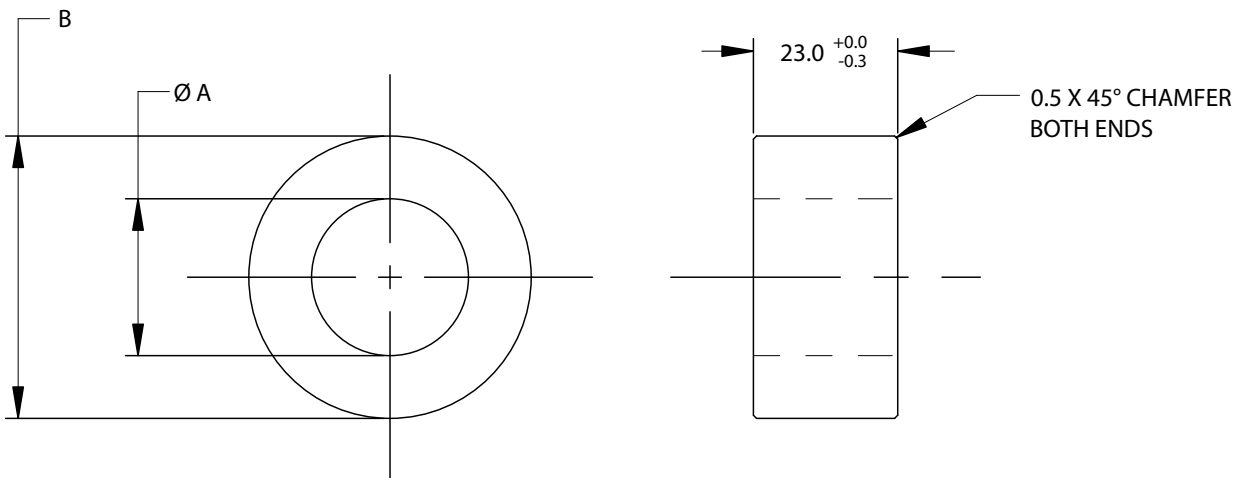
MATERIAL: STEEL



# TRUNNION BUSHING

TOLERANCES UNLESS OTHERWISE SPECIFIED:  
1 PLACE  $\pm 0.3$   
Max Weight 0.02 kg

MATERIAL: POLYESTER REINFORCED EPOXY  
COMPOSITE WITH PTFE AND MS2  
FILLERS. MINIMUM COMPRESSIVE  
STRENGTH NORMAL TO THE  
LAMINATE 240 MPa (35 ksi)

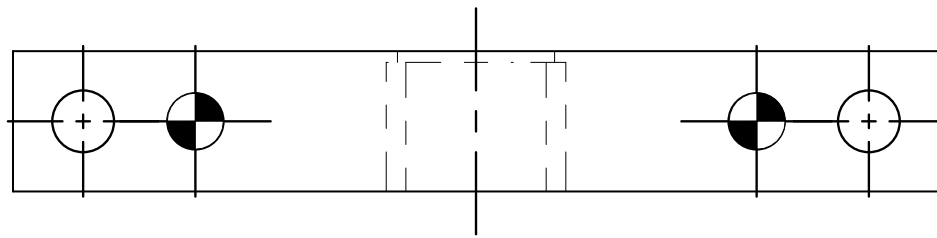


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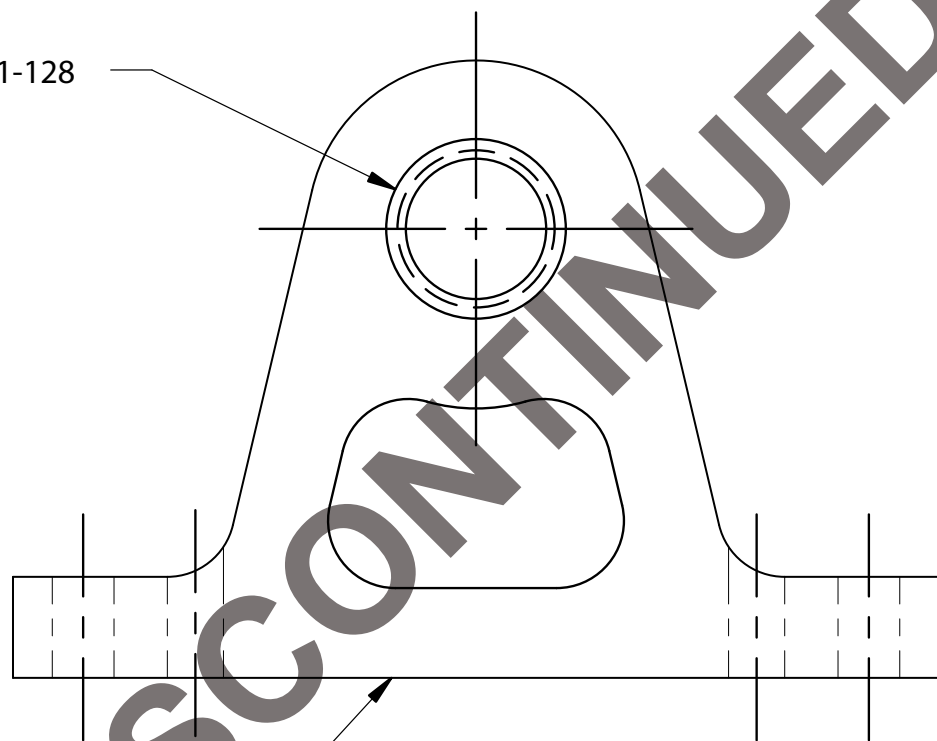
NAAMS CODE	A +0.10 / +0.13	B +0.05 / -0.00
ACT121	12	32.07
ACT122	15	32.07
ACT123	16	32.07
ACT124	18	32.07
ACT125	19.05 (0.75")	32.07
ACT126	20	32.07
ACT127	25	32.07
ACT128	25.4 (1.000")	32.07
ACT131	32.00	45.08
ACT132	34.93 (1.375")	45.08
ACT133	36.00	45.08
ACT134	38.1 (1.500")	45.08
ACT135	40	45.08

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# TRUNNION CYLINDER MOUNTING BRACKET ASSEMBLY - ALUMINUM



ACT121-128



ACT160

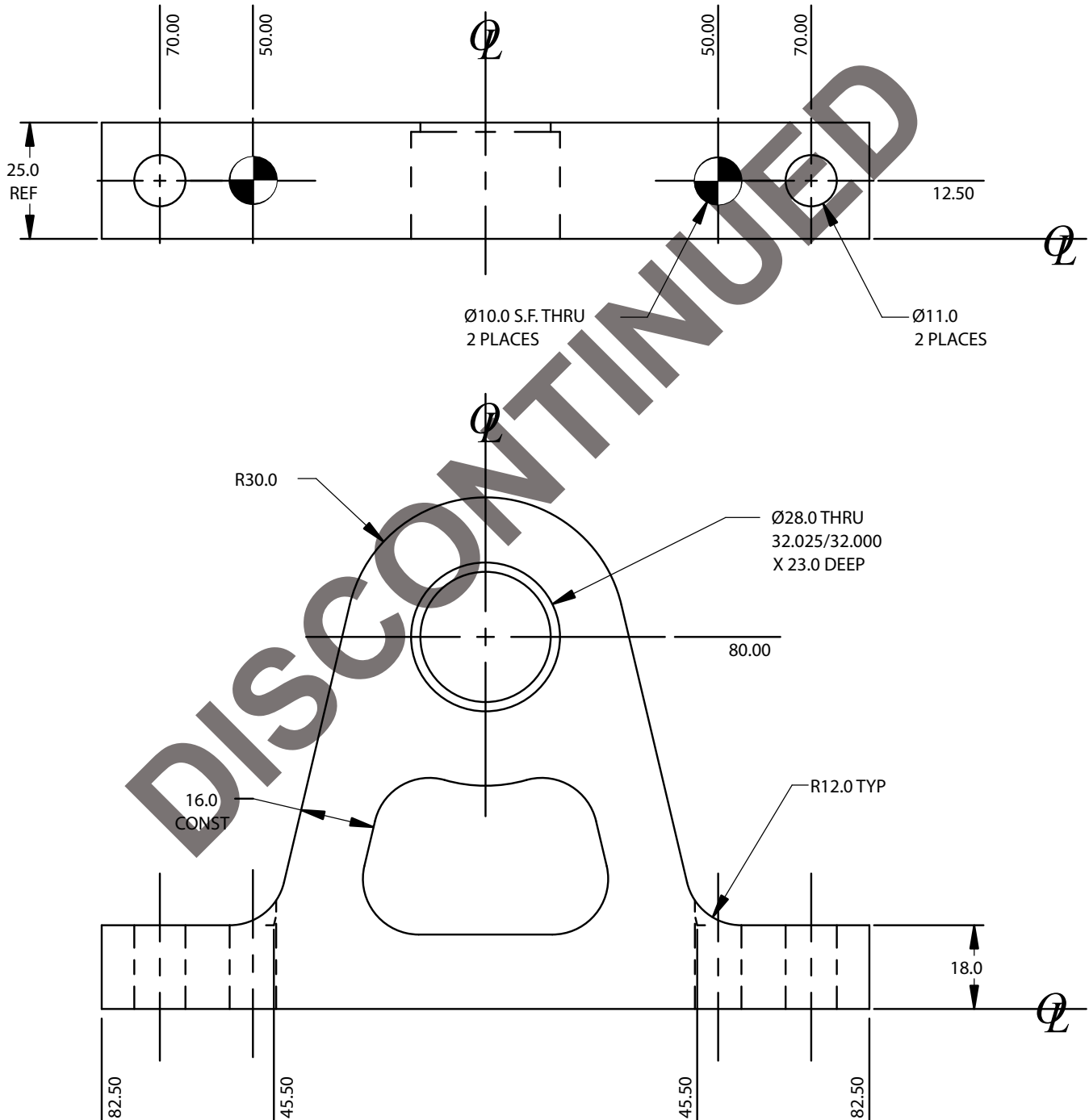
DISCONTINUED

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NAAMS CODE	TRUNNION BLOCK	TRUNNION BEARING
ACT151	ACT160	ACT121
ACT152		ACT122
ACT153		ACT123
ACT154		ACT124
ACT155		ACT125
ACT156		ACT126
ACT157		ACT127
ACT158		ACT128

# TRUNNION BLOCK ALUMINUM ACT160

TOLERANCES UNLESS OTHERWISE SPECIFIED  
 1 PLACE MACHINING  $\pm 0.3$   
 2 PLACE  
 $\pm 0.08$  BETWEEN MACHINED SURFACES  
 $\pm 0.13$  TO SCREW HOLES, NON ACCUMULATIVE  
 $\pm 0.03$  BETWEEN DOWELS IN THE SAME PLANE  
 Weight 0.45 kg



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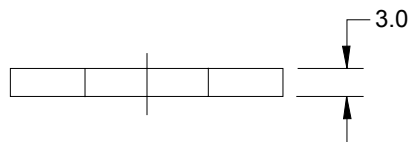
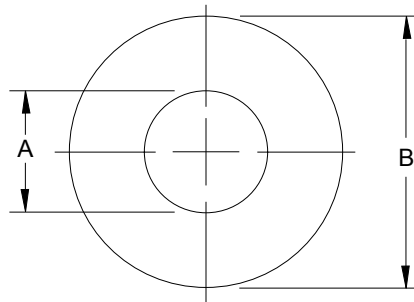
# TRUNNION MOUNTING BRACKET THRUST WASHER

METRIC TOLERANCES UNLESS OTHERWISE SPECIFIED:

1 PLACE  $\pm 0.3$

Max Weight 0.01 kg

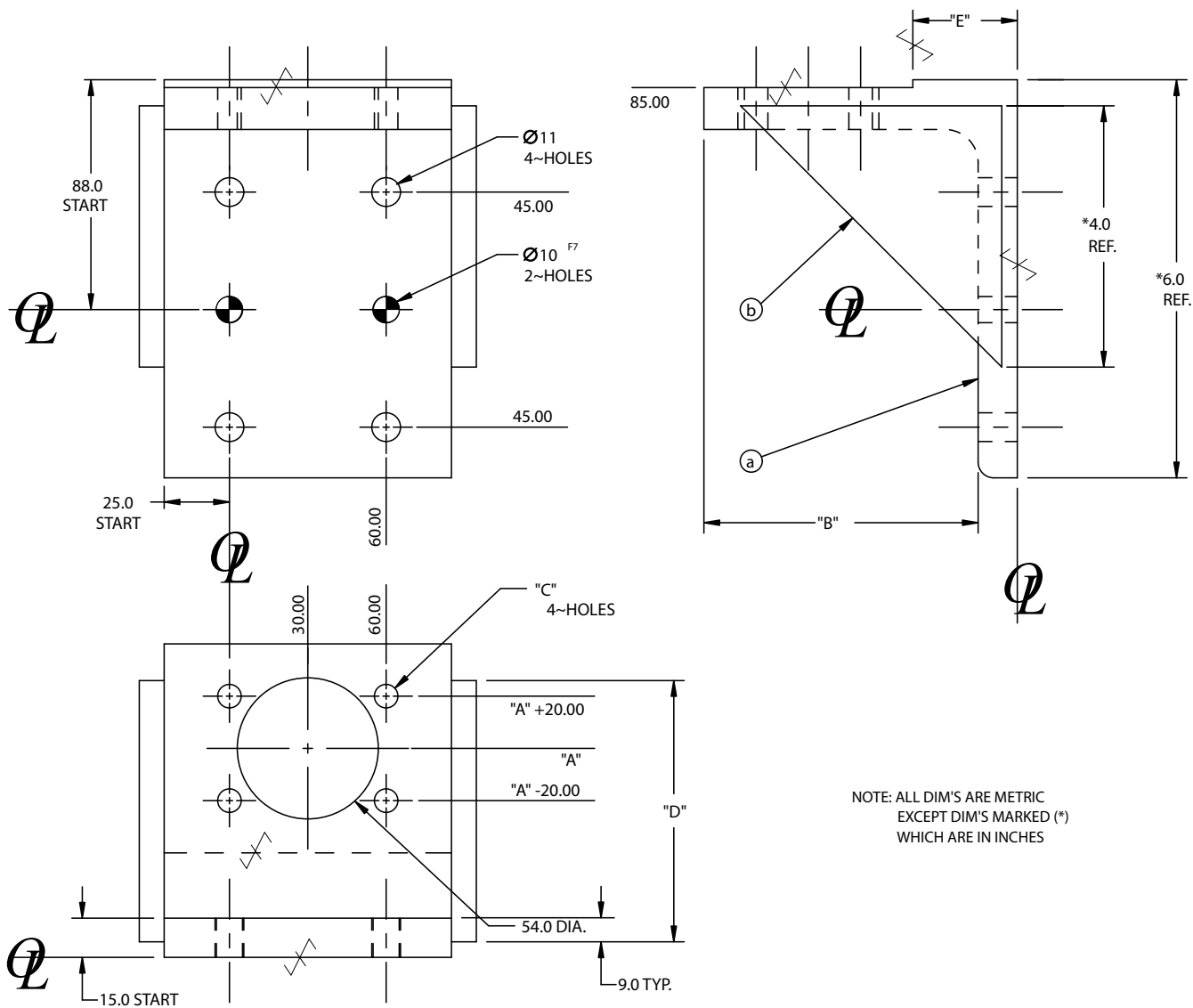
MATERIAL: POLYESTER REINFORCED EPOXY COMPOSITE WITH PTFE AND MS2 FILLERS. MINIMUM COMPRESSIVE STRENGTH NORMAL TO THE LAMINATE 240 MPa (35 ksi)



NAAMS CODE	A +0.10 / +0.50	B	USE WITH ASSEMBLY
ACT171	12	50.8	ACT101 & ACT151
ACT172	15	50.8	ACT102 & ACT152
ACT173	16	50.8	ACT103 & ACT153
ACT174	18	50.8	ACT104 & ACT154
ACT175	19.05 (0.75")	50.8	ACT105 & ACT155
ACT176	20	50.8	ACT106 & ACT156
ACT177	25	50.8	ACT107 & ACT157
ACT178	25.4 (1.000")	50.8	ACT108 & ACT158
ACT181	32	63.5	ACT111
ACT182	34.93 (1.375")	63.5	ACT112
ACT183	36	63.5	ACT113
ACT184	38.1 (1.500")	63.5	ACT114
ACT185	40	63.5	ACT115



# SHOCK BRACKET AHM080-AHM181



STK.

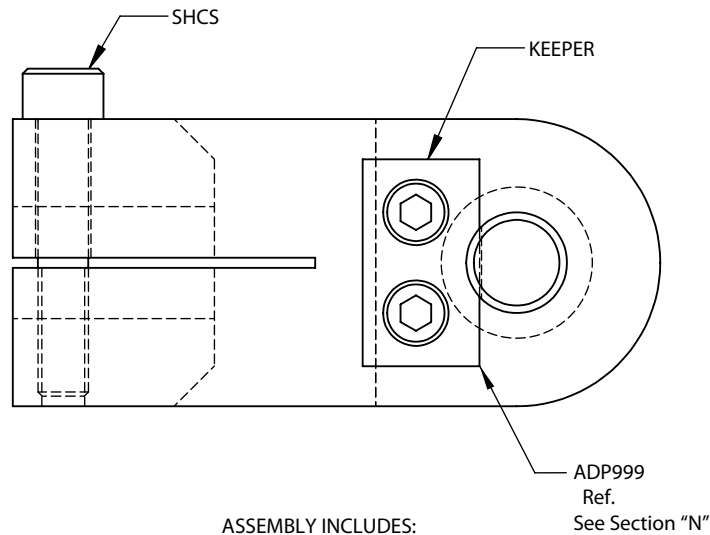
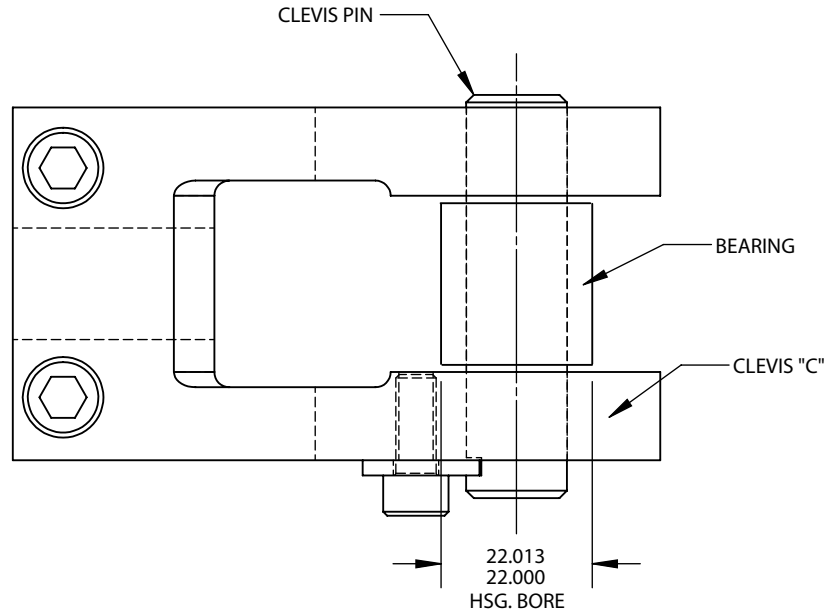
- (a) REQ'D. (1) STL. L-ANGLE ~ "F" x 6" x 3/4" wt. x 110.0mm LG.
- (b) REQ'D. (2) SAE 1020 H.R.S. ~ 3/8" x 4" x "D"mm LG. (ONE MAKES TWO)

NAAMS CODE	A HEIGHT	B	C	D	E	F	WT. kg.
AHM080	80.0	105.0	M8x1.25	100.0	40.0	*6	3.2
AHM081	80.0	105.0	9.0	100.0	40.0	*6	3.2
AHM100	100.0	125.0	M8x1.25	120.0	60.0	*6	3.6
AHM101	100.0	125.0	9.0	120.0	60.0	*6	3.6
AHM120	120.0	145.0	M8x1.25	140.0	80.0	*6	4.0
AHM121	120.0	145.0	9.0	140.0	80.0	*6	4.0
AHM140	140.0	165.0	M8x1.25	160.0	100.0	*8	4.4
AHM141	140.0	165.0	9.0	160.0	100.0	*8	4.4
AHM160	160.0	185.0	M8x1.25	180.0	120.0	*8	4.8
AHM161	160.0	185.0	9.0	180.0	120.0	*8	4.8
AHM180	180.0	205.0	M8x1.25	200.0	140.0	*8	5.2
AHM181	180.0	205.0	9.0	200.0	140.0	*8	5.2

# CLEVIS ASSEMBLY ACL0101A-ACL0412A



NOTE:  
WHEN CLEVIS PIN IS  
NOT HORIZONTAL IN  
APPLICATION USE  
(2) THRUST WASHER



ASSEMBLY INCLUDES:  
CLEVIS, PIN, KEEPER,  
SCREWS, AND BEARING

NOTE:  
UNLESS OTHERWISE SPECIFIED:  
EXCEPT AS NOTED TOLERANCES SHALL BE:  
2 PLACE MACHINING ±.01  
2 PLACE FABRICATION ±.06  
3 PLACE ±.003 BETWEEN MACHINED SURFACES  
±.001 BETWEEN SINGLE DOWEL AND A HEEL SURFACE  
±.001 BETWEEN DOWELS ON THE SAME PLANE  
±.004 BETWEEN DOWELS ON DIFFERENT PLANES  
±.005 TO SCREW HOLES

NAAMS Codes are on the following page.

B

A

# CLEVIS ASSEMBLY ACL0101A-ACL0412A

## NAAMS CODES

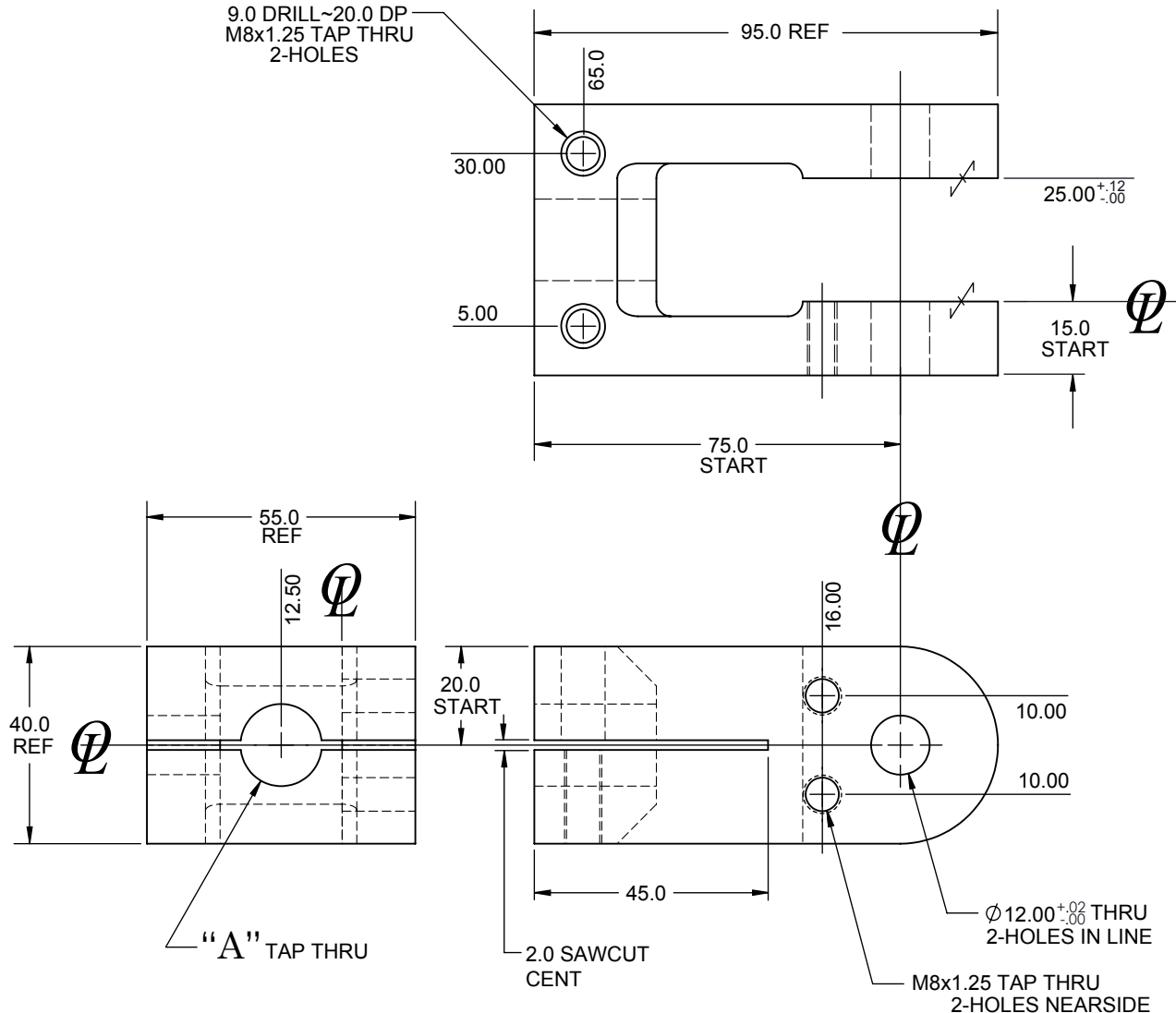
Clevis Assembly	Clevis	Pin	Bearing	Clevis Screws		Keeper	Keeper Screws (2)	Tap Thru Thread	
				Code	Qty.			Inch	Metric
ACL0101A	ACL0101C	ACL0501	ACL0511	F010813	2	ADP999	F010809	-	M10 x 1.25
ACL0102A	ACL0102C	ACL0501	ACL0511	F010813	2	ADP999	F010809	-	M12 x 1.25
ACL0103A	ACL0103C	ACL0501	ACL0511	F010813	2	ADP999	F010809	-	M14 x 1.50
ACL0104A	ACL0104C	ACL0501	ACL0511	F010813	2	ADP999	F010809	-	M15 x 1.50
ACL0105A	ACL0105C	ACL0501	ACL0511	F010813	2	ADP999	F010809	-	M16 x 1.50
ACL0106A	ACL0106C	ACL0501	ACL0511	F010813	2	ADP999	F010809	-	M18 x 1.50
ACL0107A	ACL0107C	ACL0501	ACL0511	F010813	2	ADP999	F010809	7/16-20	-
ACL0108A	ACL0108C	ACL0501	ACL0511	F010813	2	ADP999	F010809	5/8-18	-
ACL0109A	ACL0109C	ACL0501	ACL0511	F010813	2	ADP999	F010809	3/4-10	-
ACL0110A	ACL0110C	ACL0501	ACL0511	F010813	2	ADP999	F010809	3/4-16	-
ACL0201A	ACL0201C	ACL0502	ACL0512	F011016	2	ADP999	F010809	-	M20 x 1.50
ACL0202A	ACL0202C	ACL0502	ACL0512	F011016	2	ADP999	F010809	-	M22 x 1.50
ACL0203A	ACL0203C	ACL0502	ACL0512	F011016	2	ADP999	F010809	-	M26 x 1.50
ACL0204A	ACL0204C	ACL0502	ACL0512	F011016	2	ADP999	F010809	7/8-14	-
ACL0205A	ACL0205C	ACL0502	ACL0512	F011016	2	ADP999	F010809	1-8	-
ACL0206A	ACL0206C	ACL0502	ACL0512	F011016	2	ADP999	F010809	1-14	-
ACL0301A	ACL0301C	ACL0503	ACL0513	F011016	4	ADP999	F010809	-	M27 x 2.00
ACL0302A	ACL0302C	ACL0503	ACL0513	F011016	4	ADP999	F010809	-	M30 x 1.50
ACL0303A	ACL0303C	ACL0503	ACL0513	F011016	4	ADP999	F010809	-	M36 x 1.50
ACL0304A	ACL0304C	ACL0503	ACL0513	F011016	4	ADP999	F010809	-	M36 x 2.00
ACL0305A	ACL0305C	ACL0503	ACL0513	F011016	4	ADP999	F010809	1 1/4-12	-
ACL0401A	ACL0401C	ACL0504	ACL0514	F011019	4	ADP999	F010809	-	M40 x 1.50
ACL0402A	ACL0402C	ACL0504	ACL0514	F011019	4	ADP999	F010809	-	M42 x 2.00
ACL0403A	ACL0403C	ACL0504	ACL0514	F011019	4	ADP999	F010809	-	M45 x 1.50
ACL0404A	ACL0404C	ACL0504	ACL0514	F011019	4	ADP999	F010809	-	M48 x 2.00
ACL0405A	ACL0405C	ACL0504	ACL0514	F011019	4	ADP999	F010809	-	M56 x 2.00
ACL0406A	ACL0406C	ACL0504	ACL0514	F011019	4	ADP999	F010809	-	M64 x 2.00
ACL0407A	ACL0407C	ACL0504	ACL0514	F011019	4	ADP999	F010809	1 1/2-12	-
ACL0408A	ACL0408C	ACL0504	ACL0514	F011019	4	ADP999	F010809	1 3/4-12	-
ACL0409A	ACL0409C	ACL0504	ACL0514	F011019	4	ADP999	F010809	1 7/8-12	-
ACL0410A	ACL0410C	ACL0504	ACL0514	F011019	4	ADP999	F010809	2-12	-
ACL0411A	ACL0411C	ACL0504	ACL0514	F011019	4	ADP999	F010809	2 1/4-12	-
ACL0412A	ACL0412C	ACL0504	ACL0514	F011019	4	ADP999	F010809	2 1/2-12	-

A



# CLEVIS ACL0101C-110C

**MATERIAL: MAKE FROM NAAMS ACL0100 CASTING  
OR OPTIONALLY MACHINE FROM 4140 STK.**



BLACK OXIDE FINISH  
UNLESS OTHERWISE SPECIFIED:  
MAXIMUM ALLOWABLE ROUGHNESS OF ALL:  
1 PLACE FINISH DIMENSIONS TO BE 6 MICRONS  
2 PLACE FINISH DIMENSIONS TO BE 3 MICRONS  
3 PLACE FINISH DIMENSIONS TO BE 1.6 MICRONS

EXCEPT AS NOTED TOLERANCES SHALL BE:  
1 PLACE MACHINING  $\pm 0.3$   
1 PLACE FABRICATION  $\pm 1.5$   
2 PLACE  $\pm 0.08$  BETWEEN MACHINED SURFACES  
 $\pm 0.03$  BETWEEN SINGLE DOWEL AND A HEEL SURFACE  
 $\pm 0.03$  BETWEEN DOWELS IN THE SAME PLANE  
 $\pm 0.10$  BETWEEN DOWELS IN DIFFERENT PLANES  
 $\pm 0.13$  TO SCREW HOLES, NON ACCUMULATIVE

DOWEL HOLE TOLERANCES      DOWEL TOLERANCE  
FOR PRESS FIT USE H6              m6  
FOR SLIP FIT USE F7

ALL MACHINING  $\varnothing$  SURFACES MUST BE FINISHED EXCEPT FOR  
COLD DRAWN OR COLD ROLLED SURFACES.  
ALL WELDMENTS THAT WILL BE STRESS RELIEVED AND HAVE A  
TRAPPED AIR CAVITY WILL BE VENTED DURING FABRICATION

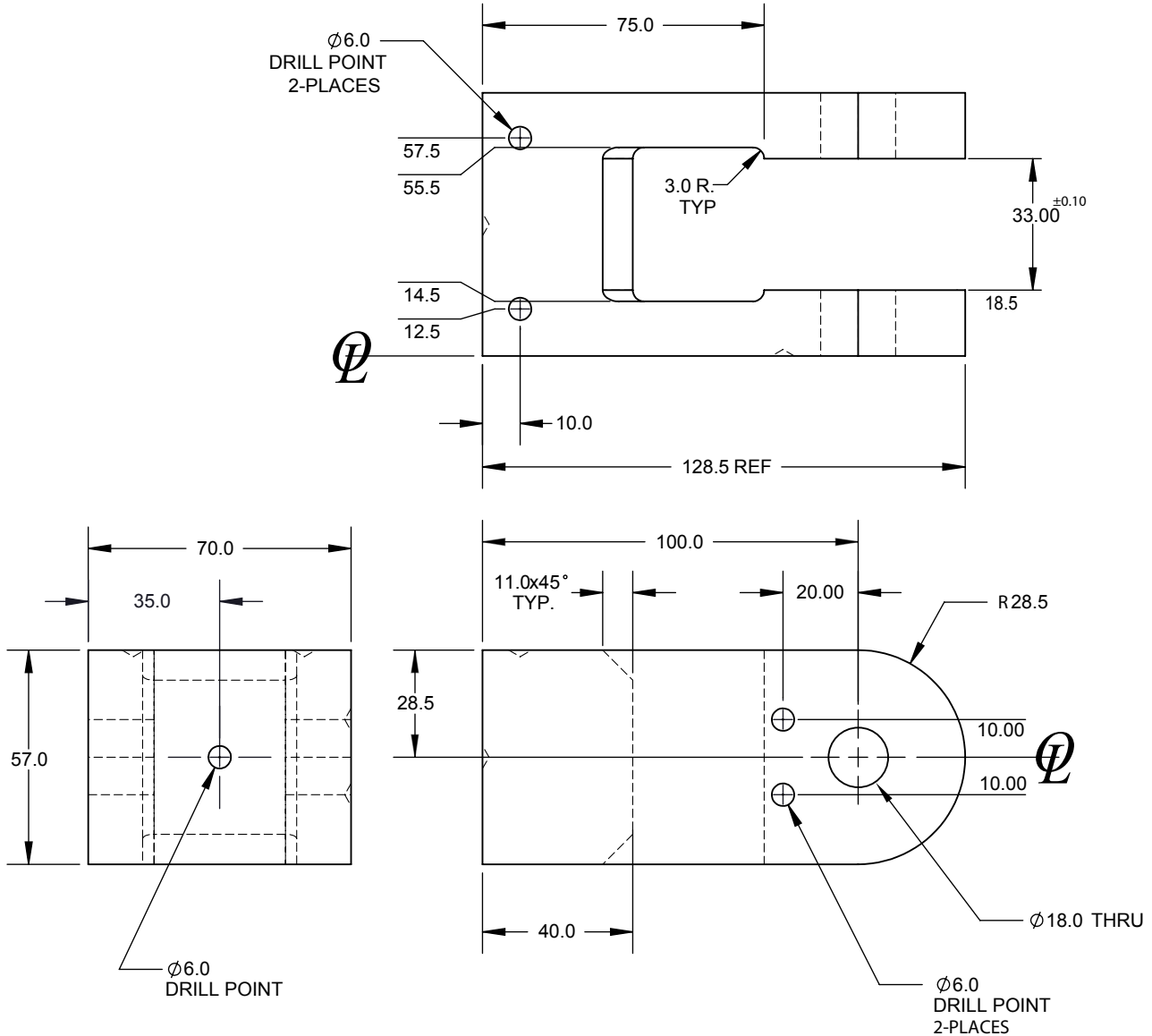
NAAMS CODE	“A” DIMENSION	
	INCH	METRIC
ACL0101C	—	M10 x 1.25
ACL0102C	—	M12 x 1.25
ACL0103C	—	M14 x 1.50
ACL0104C	—	M15 x 1.50
ACL0105C	—	M16 x 1.50
ACL0106C	—	M18 x 1.50
ACL0107C	*7/16 – 20	—
ACL0108C	*5/8 – 18	—
ACL0109C	*3/4 – 10	—
ACL0110C	*3/4 – 16	—

Note: All dimensions are metric except  
Those marked (\*), which are in inches.

A

# CLEVIS CASTING ACL0200

**MATERIAL:4130 STEEL CASTING**  
**OPTIONAL MATERIAL:SAE 4140 BAR STOCK**



UNLESS OTHERWISE SPECIFIED:  
 MAXIMUM ALLOWABLE ROUGHNESS OF ALL:  
 1 PLACE FINISH DIMENSIONS TO BE 6 MICRONS  
 2 PLACE FINISH DIMENSIONS TO BE 3 MICRONS  
 3 PLACE FINISH DIMENSIONS TO BE 1.6 MICRONS

EXCEPT AS NOTED TOLERANCES SHALL BE:  
 1 PLACE MACHINING ±0.3  
 1 PLACE FABRICATION ±1.5  
 2 PLACE ±0.08 BETWEEN MACHINED SURFACES  
 ±0.03 BETWEEN SINGLE DOWEL AND A HEEL SURFACE  
 ±0.03 BETWEEN DOWELS IN THE SAME PLANE  
 ±0.10 BETWEEN DOWELS IN DIFFERENT PLANES  
 ±0.13 TO SCREW HOLES, NON ACCUMULATIVE

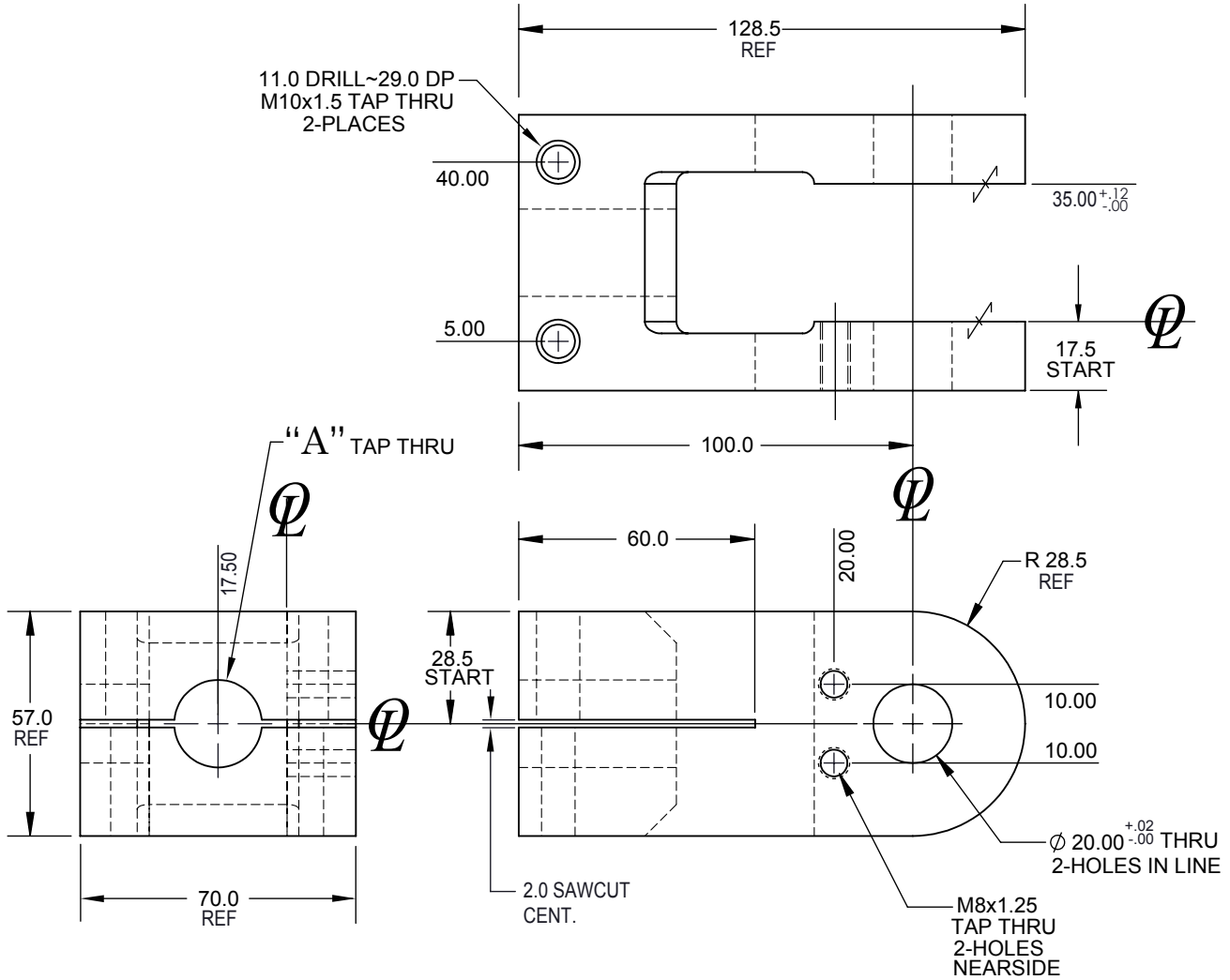
DOWEL HOLE TOLERANCES  
 FOR PRESS FIT USE H6  
 FOR SLIP FIT USE F7

DOWEL TOLERANCE  
 m6

ALL MACHINING  $\phi$  SURFACES MUST BE FINISHED EXCEPT FOR  
 COLD DRAWN OR COLD ROLLED SURFACES.  
 ALL WELDMENTS THAT WILL BE STRESS RELIEVED AND HAVE A  
 TRAPPED AIR CAVITY WILL BE VENTED DURING FABRICATION

# CLEVIS ACL0201C-206C

**MATERIAL: MAKE FROM NAAMS ACL0200 CASTING  
 OR OPTIONALLY MACHINE FROM 4140 STK.**



BLACK OXIDE FINISH  
 UNLESS OTHERWISE SPECIFIED:  
 MAXIMUM ALLOWABLE ROUGHNESS OF ALL:  
 1 PLACE FINISH DIMENSIONS TO BE 6 MICRONS  
 2 PLACE FINISH DIMENSIONS TO BE 3 MICRONS  
 3 PLACE FINISH DIMENSIONS TO BE 1.6 MICRONS

EXCEPT AS NOTED TOLERANCES SHALL BE:  
 1 PLACE MACHINING  $\pm 0.3$   
 1 PLACE FABRICATION  $\pm 1.5$   
 2 PLACE  $\pm 0.08$  BETWEEN MACHINED SURFACES  
 $\pm 0.03$  BETWEEN SINGLE DOWEL AND A HEEL SURFACE  
 $\pm 0.03$  BETWEEN DOWELS IN THE SAME PLANE  
 $\pm 0.10$  BETWEEN DOWELS IN DIFFERENT PLANES  
 $\pm 0.13$  TO SCREW HOLES, NON ACCUMULATIVE

DOWEL HOLE TOLERANCES FOR PRESS FIT USE H6  
 FOR SLIP FIT USE F7

DOWEL TOLERANCE m6

ALL MACHINING  $\varnothing$  SURFACES MUST BE FINISHED EXCEPT FOR COLD DRAWN OR COLD ROLLED SURFACES.  
 ALL WELDMENTS THAT WILL BE STRESS RELIEVED AND HAVE A TRAPPED AIR CAVITY WILL BE VENTED DURING FABRICATION

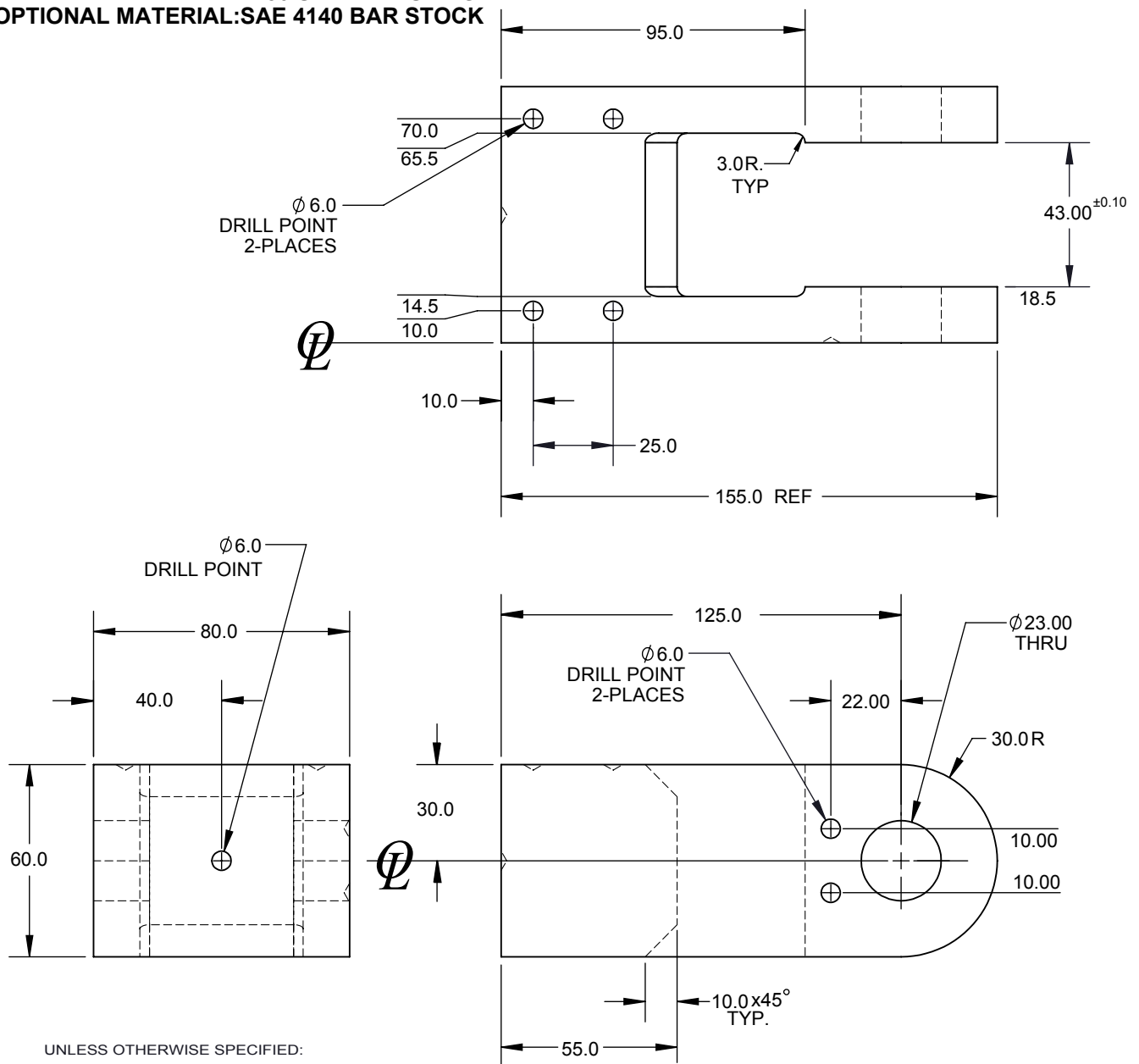
NAAMS CODE	"A" DIMENSION	
	INCH	METRIC
ACL0201C	--	M20 x 1.5
ACL0202C	--	M22 x 1.5
ACL0203C	--	M26 x 1.5
ACL0204C	*7/8 - 14	--
ACL0205C	*1 - 8	--
ACL0206C	*1 - 14	--

Note: All dimensions are metric except Those marked (\*), which are in inches.

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# CLEVIS CASTING ACL0300

**MATERIAL: 4130 STEEL CASTING**  
**OPTIONAL MATERIAL: SAE 4140 BAR STOCK**



UNLESS OTHERWISE SPECIFIED:  
 MAXIMUM ALLOWABLE ROUGHNESS OF ALL:  
 1 PLACE FINISH DIMENSIONS TO BE 6 MICRONS  
 2 PLACE FINISH DIMENSIONS TO BE 3 MICRONS  
 3 PLACE FINISH DIMENSIONS TO BE 1.6 MICRONS

EXCEPT AS NOTED TOLERANCES SHALL BE:  
 1 PLACE MACHINING  $\pm 0.3$   
 1 PLACE FABRICATION  $\pm 1.5$   
 2 PLACE  $\pm 0.08$  BETWEEN MACHINED SURFACES  
 $\pm 0.03$  BETWEEN SINGLE DOWEL AND A HEEL SURFACE  
 $\pm 0.03$  BETWEEN DOWELS IN THE SAME PLANE  
 $\pm 0.10$  BETWEEN DOWELS IN DIFFERENT PLANES  
 $\pm 0.13$  TO SCREW HOLES, NON ACCUMULATIVE

DOWEL HOLE TOLERANCES FOR PRESS FIT USE H6  
 FOR SLIP FIT USE F7

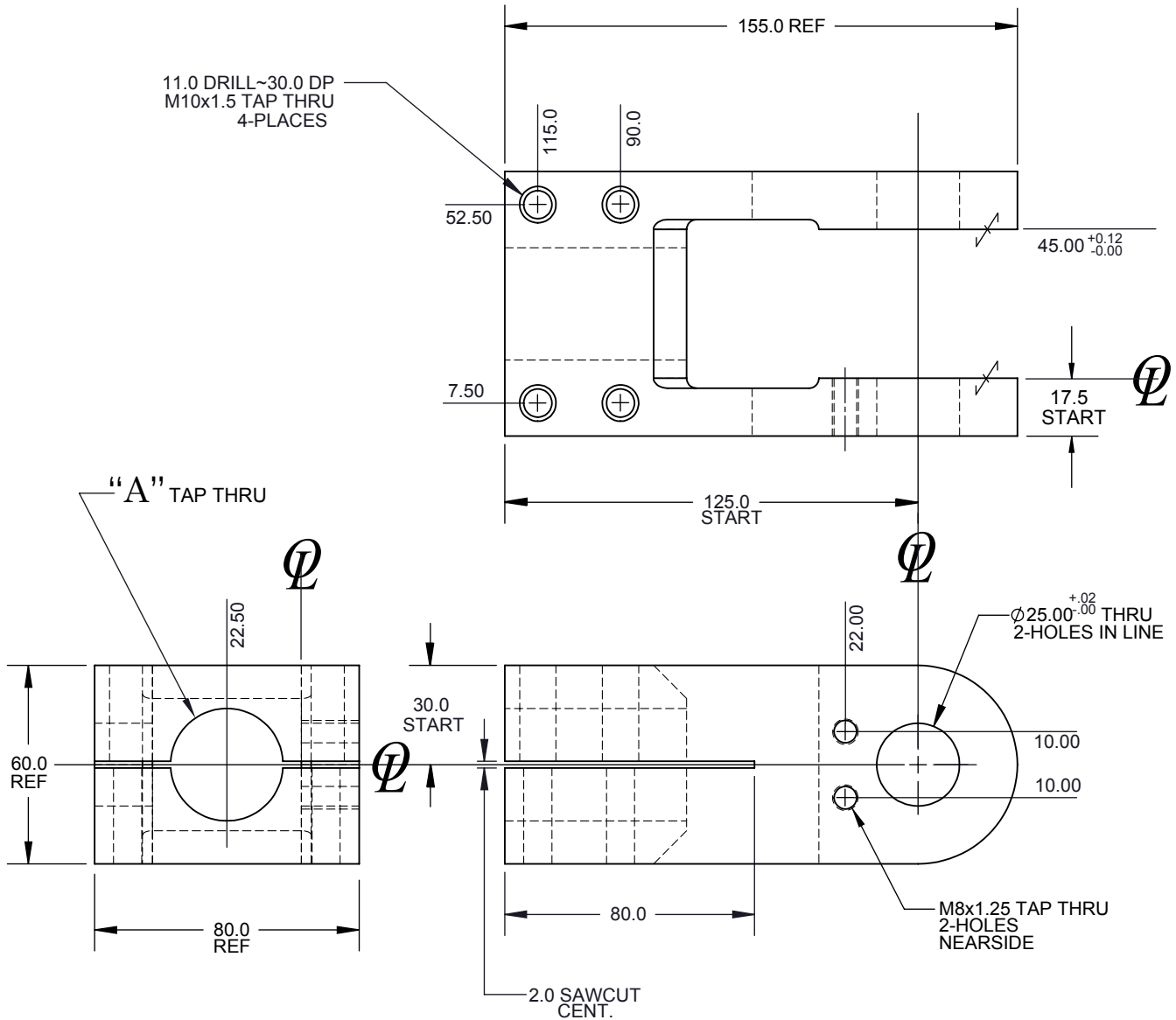
DOWEL TOLERANCE m6

ALL MACHINING  $\phi$  SURFACES MUST BE FINISHED EXCEPT FOR COLD DRAWN OR COLD ROLLED SURFACES.  
 ALL WELDMENTS THAT WILL BE STRESS RELIEVED AND HAVE A TRAPPED AIR CAVITY WILL BE VENTED DURING FABRICATION



# CLEVIS ACL0301C-305C

**MATERIAL: MAKE FROM NAAMS ACL0300 CASTING  
OR OPTIONALLY MACHINE FROM 4140 STK.**



BLACK OXIDE FINISH  
UNLESS OTHERWISE SPECIFIED:  
MAXIMUM ALLOWABLE ROUGHNESS OF ALL:  
1 PLACE FINISH DIMENSIONS TO BE 6 MICRONS  
2 PLACE FINISH DIMENSIONS TO BE 3 MICRONS  
3 PLACE FINISH DIMENSIONS TO BE 1.6 MICRONS

EXCEPT AS NOTED TOLERANCES SHALL BE:  
1 PLACE MACHINING ±0.3  
1 PLACE FABRICATION ±1.5  
2 PLACE ±0.08 BETWEEN MACHINED SURFACES  
±0.03 BETWEEN SINGLE DOWEL AND A HEEL SURFACE  
±0.03 BETWEEN DOWELS IN THE SAME PLANE  
±0.10 BETWEEN DOWELS IN DIFFERENT PLANES  
±0.13 TO SCREW HOLES, NON ACCUMULATIVE

DOWEL HOLE TOLERANCES  
FOR PRESS FIT USE H6  
FOR SLIP FIT USE F7

DOWEL TOLERANCE  
m6

ALL MACHINING  $\varnothing$  SURFACES MUST BE FINISHED EXCEPT FOR  
COLD DRAWN OR COLD ROLLED SURFACES.  
ALL WELDMENTS THAT WILL BE STRESS RELIEVED AND HAVE A  
TRAPPED AIR CAVITY WILL BE VENTED DURING FABRICATION

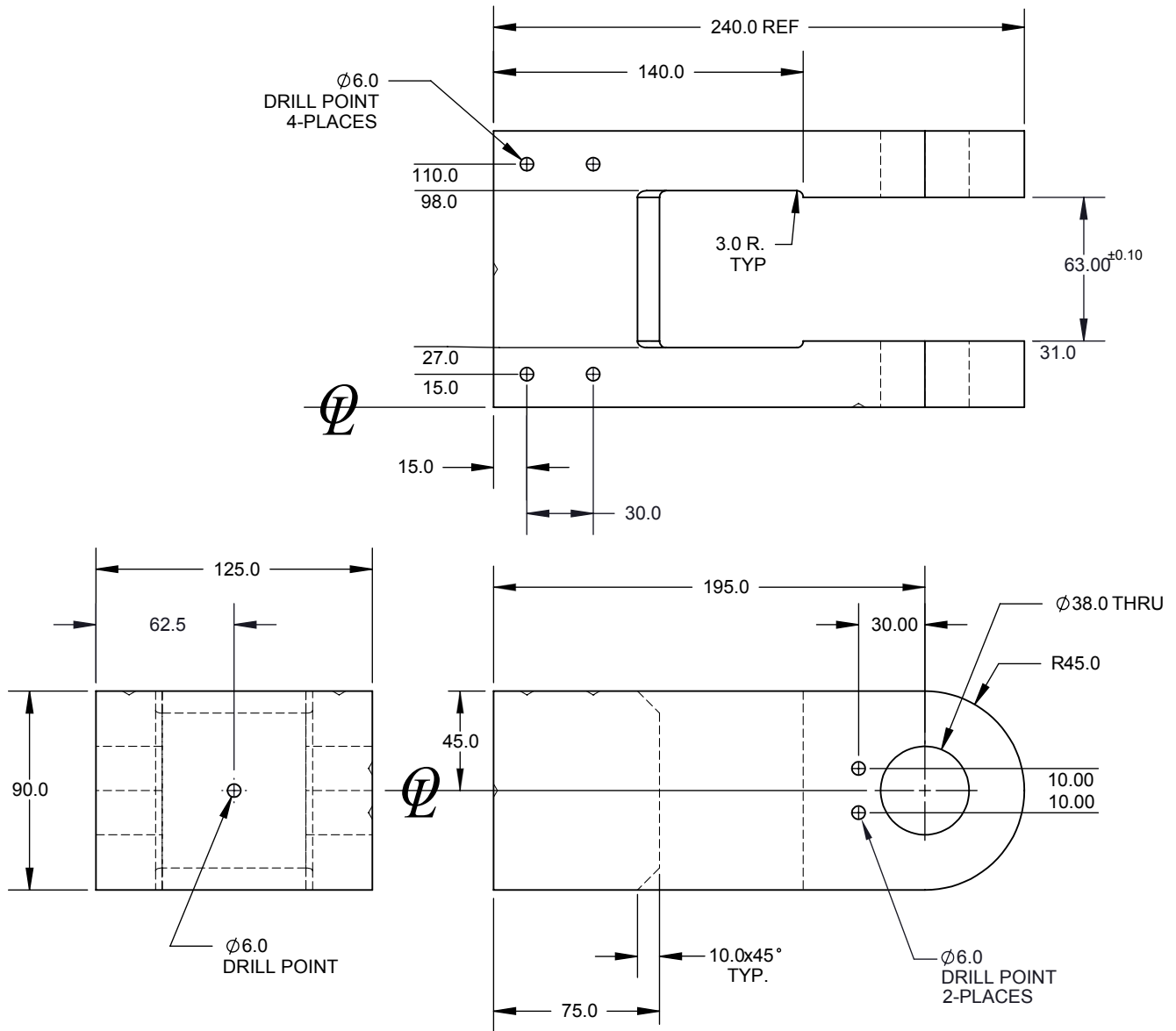
NAAMS CODE	“A DIMENSION	
	INCH	METRIC
ACL0301C	---	M27 x 2.0
ACL0302C	---	M30 x 1.5
ACL0303C	---	M36 x 1.5
ACL0304C	---	M36 x 2.0
ACL0305C	*1 1/4 – 12	

Note: All dimensions are metric except  
Those marked (\*), which are in inches.

A

# CLEVIS CASTING ACL0400

**MATERIAL:4130 STEEL CASTING**  
**OPTIONAL MATERIAL:SAE 4140 BAR STOCK**



UNLESS OTHERWISE SPECIFIED:  
 MAXIMUM ALLOWABLE ROUGHNESS OF ALL:  
 1 PLACE FINISH DIMENSIONS TO BE 6 MICRONS  
 2 PLACE FINISH DIMENSIONS TO BE 3 MICRONS  
 3 PLACE FINISH DIMENSIONS TO BE 1.6 MICRONS

EXCEPT AS NOTED TOLERANCES SHALL BE:  
 1 PLACE MACHINING  $\pm 0.3$   
 1 PLACE FABRICATION  $\pm 1.5$   
 2 PLACE  $\pm 0.08$  BETWEEN MACHINED SURFACES  
 $\pm 0.03$  BETWEEN SINGLE DOWEL AND A HEEL SURFACE  
 $\pm 0.03$  BETWEEN DOWELS IN THE SAME PLANE  
 $\pm 0.10$  BETWEEN DOWELS IN DIFFERENT PLANES  
 $\pm 0.13$  TO SCREW HOLES, NON ACCUMULATIVE

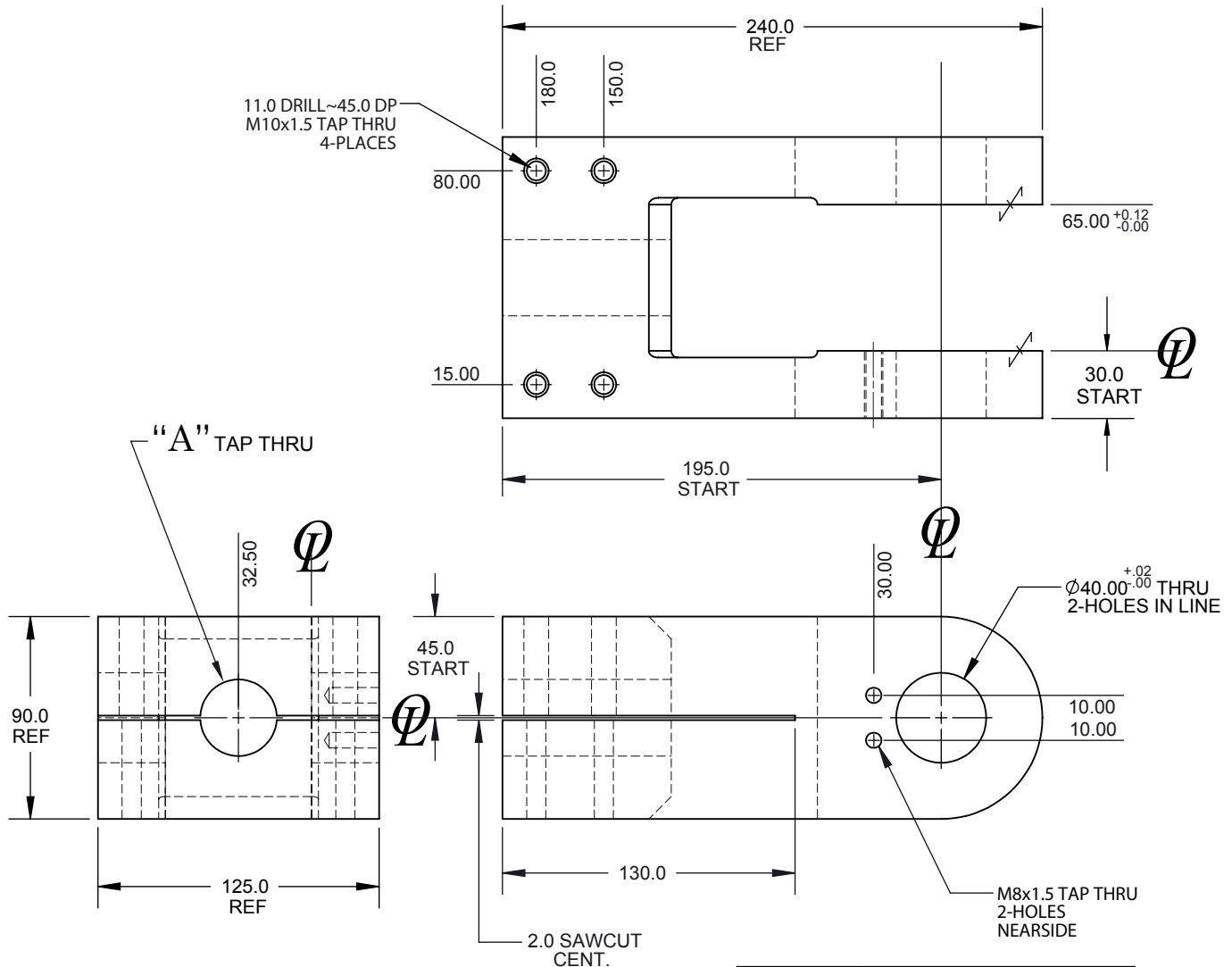
DOWEL HOLE TOLERANCES  
 FOR PRESS FIT USE H6  
 FOR SLIP FIT USE F7

DOWEL TOLERANCE  
 m6

ALL MACHINING  $\varnothing$  SURFACES MUST BE FINISHED EXCEPT FOR  
 COLD DRAWN OR COLD ROLLED SURFACES.  
 ALL WELDMENTS THAT WILL BE STRESS RELIEVED AND HAVE A  
 TRAPPED AIR CAVITY WILL BE VENTED DURING FABRICATION

# CLEVIS ACL0401C-412C

**MATERIAL: MAKE FROM NAAMS ACL0400 CASTING  
OR OPTIONALLY MACHINE FROM 4140 STK.**



BLACK OXIDE FINISH  
UNLESS OTHERWISE SPECIFIED:  
MAXIMUM ALLOWABLE ROUGHNESS OF ALL:  
1 PLACE FINISH DIMENSIONS TO BE 6 MICRONS  
2 PLACE FINISH DIMENSIONS TO BE 3 MICRONS  
3 PLACE FINISH DIMENSIONS TO BE 1.6 MICRONS

EXCEPT AS NOTED TOLERANCES SHALL BE:  
1 PLACE MACHINING  $\pm 0.3$   
1 PLACE FABRICATION  $\pm 1.5$   
2 PLACE  $\pm 0.08$  BETWEEN MACHINED SURFACES  
 $\pm 0.03$  BETWEEN SINGLE DOWEL AND A HEEL SURFACE  
 $\pm 0.03$  BETWEEN DOWELS IN THE SAME PLANE  
 $\pm 0.10$  BETWEEN DOWELS IN DIFFERENT PLANES  
 $\pm 0.13$  TO SCREW HOLES, NON ACCUMULATIVE

DOWEL HOLE TOLERANCES FOR PRESS FIT USE H6  
FOR SLIP FIT USE F7

DOWEL TOLERANCE m6

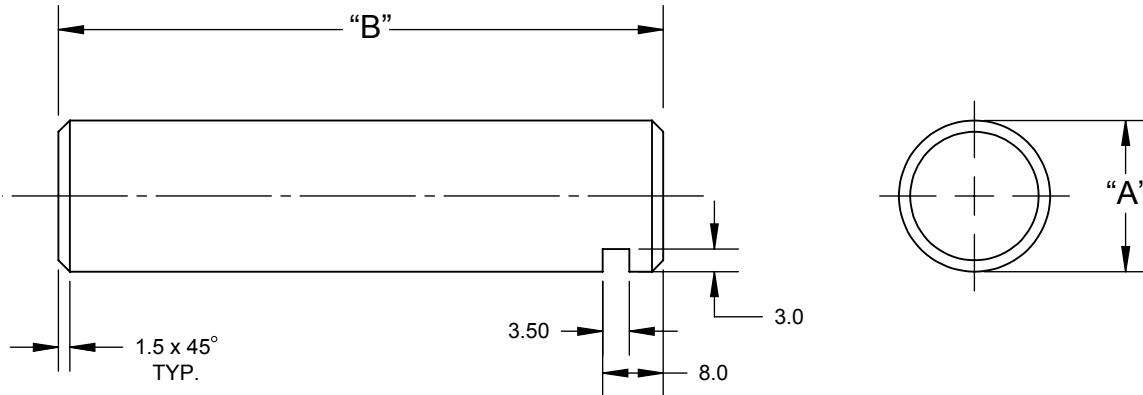
ALL MACHINING  $\varnothing$  SURFACES MUST BE FINISHED EXCEPT FOR COLD DRAWN OR COLD ROLLED SURFACES.  
ALL WELDMENTS THAT WILL BE STRESS RELIEVED AND HAVE A TRAPPED AIR CAVITY WILL BE VENTED DURING FABRICATION

NAAMS CODE	“A” DIMENSION	
	INCH	METRIC
ACL0401C	---	M40 x 1.5
ACL0402C	---	M42 x 2.0
ACL0403C	---	M45 x 1.5
ACL0404C	---	M48 x 2.0
ACL0405C	---	M56 x 2.0
ACL0406C	---	M64 x 2.0
ACL0407C	*1 1/2 – 12	---
ACL0448C	*1 3/4 – 12	---
ACL0409C	*1 7/8 – 12	---
ACL0410C	*2 – 12	---
ACL0411C	*2 1/4 – 12	---
ACL0412C	*2 1/2 – 12	---

Note: All dimensions are metric except Those marked (\*), which are in inches.

A

# CLEVIS PIN



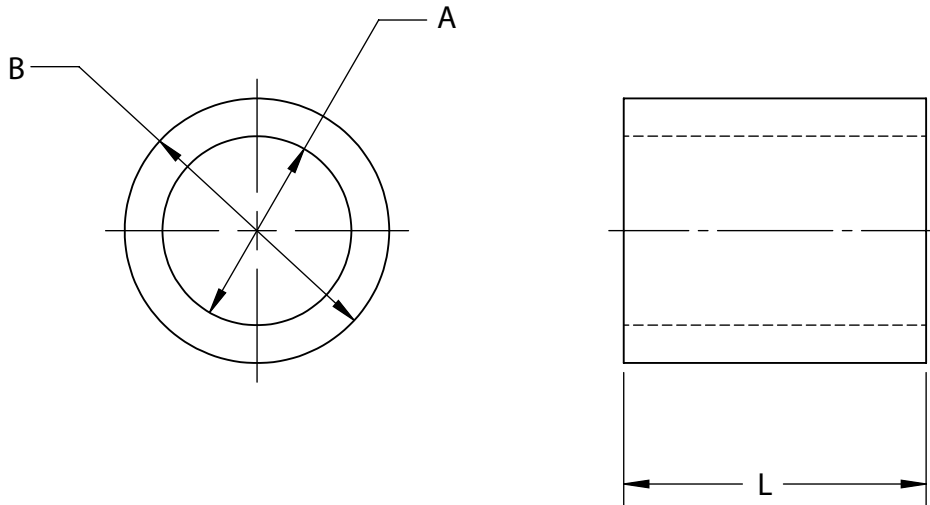
NAAMS Code	"A" Dia	"B" Length
ACL0501	12.00 <sup>+0.00</sup> / <sub>-0.025</sub>	65.00
ACL0502	20.00 <sup>+0.00</sup> / <sub>-0.025</sub>	80.00
ACL0503	25.00 <sup>+0.00</sup> / <sub>-0.025</sub>	90.00
ACL0504	40.00 <sup>+0.00</sup> / <sub>-0.025</sub>	135.00
ACL0505	20.00 <sup>+0.00</sup> / <sub>-0.025</sub>	60.00

STK: "A" DIA x "B" LG.  
 T.G.P. & C. 1045-1050  
 28-32 Rc., .013 CHROME 64-70 Rc.  
 0.20-0.40 MICROMETER  
 (8-16 MICROINCH)

METRIC DIMENSIONAL TOLERANCES UNLESS OTHERWISE SPECIFIED:  
 1 PLACE MACHINING  $\pm 0.3$   
 1 PLACE FABRICATION  $\pm 1.5$   
 2 PLACE  $\pm 0.08$  BETWEEN MACHINED SURFACES  
 $\pm 0.03$  BETWEEN SINGLE DOWEL AND A HEEL SURFACE  
 $\pm 0.03$  BETWEEN DOWELS IN THE SAME PLANE  
 $\pm 0.10$  BETWEEN DOWELS IN DIFFERENT PLANES  
 $\pm 0.13$  TO SCREW HOLES, NON ACCUMULATIVE

A

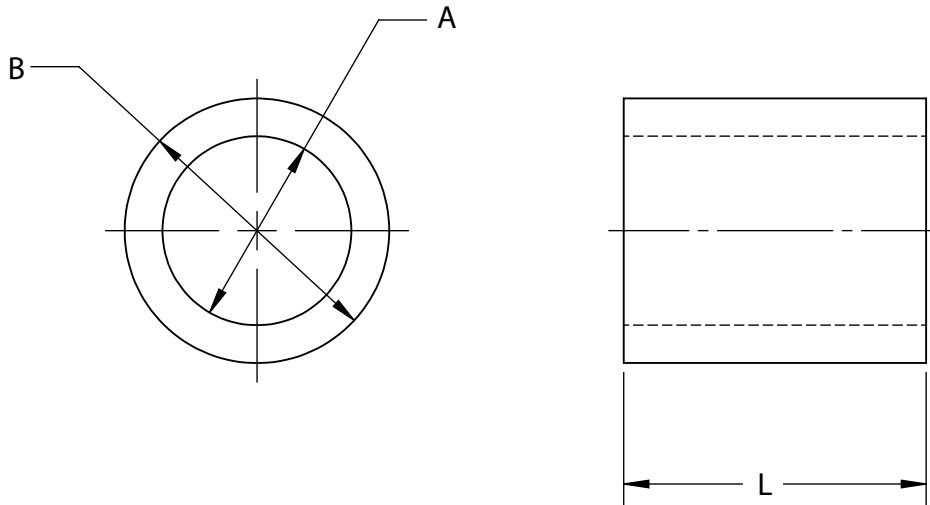
# CLEVIS COMPOSITE BEARING



NAAMS CODE	A DIM	B DIM	L DIM. ±0.13	PRESS FIT	RECOM. HSG. BORE	RECOM. SHAFT DIA.
ACL0511	$\frac{12.074}{12.050}$	$\frac{22.050}{22.024}$	20	$\frac{0.050}{0.013}$	$\frac{22.013}{22.000}$	$\frac{12.000}{11.975}$
ACL0512	$\frac{20.078}{20.052}$	$\frac{30.050}{30.024}$	30	$\frac{0.050}{0.013}$	$\frac{30.013}{30.000}$	$\frac{20.000}{19.975}$
ACL0513	$\frac{25.080}{25.054}$	$\frac{35.050}{35.024}$	40	$\frac{0.050}{0.013}$	$\frac{35.013}{35.000}$	$\frac{25.000}{24.975}$
ACL0514	$\frac{40.094}{40.068}$	$\frac{50.064}{50.038}$	60	$\frac{0.064}{0.013}$	$\frac{50.025}{50.000}$	$\frac{40.000}{39.975}$

MATERIAL: REINFORCED TEFLON COMPOSITE LINER  
 WITH FIBER REINFORCED EPOXY SHELL  
 MEETING THE FOLLOWING SPECIFICATIONS:  
 ASTM D570 (WATER ABSORPTION)  
 ASTM D635 (FLAMMABILITY)  
 Maximum P (STATIC) 138 MPa (20,000 psi)  
 Maximum V (CONTINUOUS) 2.54 m/sec (500 ft/min)  
 Maximum PV 1.22 MPa m/sec (35,000 psi ft/min)

# CLEVIS COMPOSITE BEARING



NAAMS CODE	A DIM	B DIM	L DIM. ±0.13	PRESS FIT	RECOM. HSG. BORE	RECOM SHAFT DIA.	NOTE
ACL0515	$\frac{20.078}{20.052}$	$\frac{30.050}{30.024}$	20.0	$\frac{0.050}{0.013}$	$\frac{30.013}{30.000}$	$\frac{20.000}{19.975}$	FOR LIGHT DUTY DROP AWAY LEAF
ACL0516	$\frac{25.080}{25.054}$	$\frac{35.050}{35.024}$	25.0	$\frac{0.050}{0.013}$	$\frac{35.013}{35.000}$	$\frac{25.000}{24.975}$	FOR LIGHT DUTY DROP AWAY LEAF

MATERIAL: REINFORCED TEFLON COMPOSITE LINER  
 WITH FIBER REINFORCED EPOXY SHELL  
 MEETING THE FOLLOWING SPECIFICATIONS:  
 ASTM D570 (WATER ABSORPTION)  
 ASTM D635 (FLAMMABILITY)  
 Maximum P (STATIC) 138 MPa (20,000 psi)  
 Maximum V (CONTINUOUS) 2.54 m/sec (500 ft/min)  
 Maximum PV 1.22 MPa m/sec (35,000 psi ft/min)