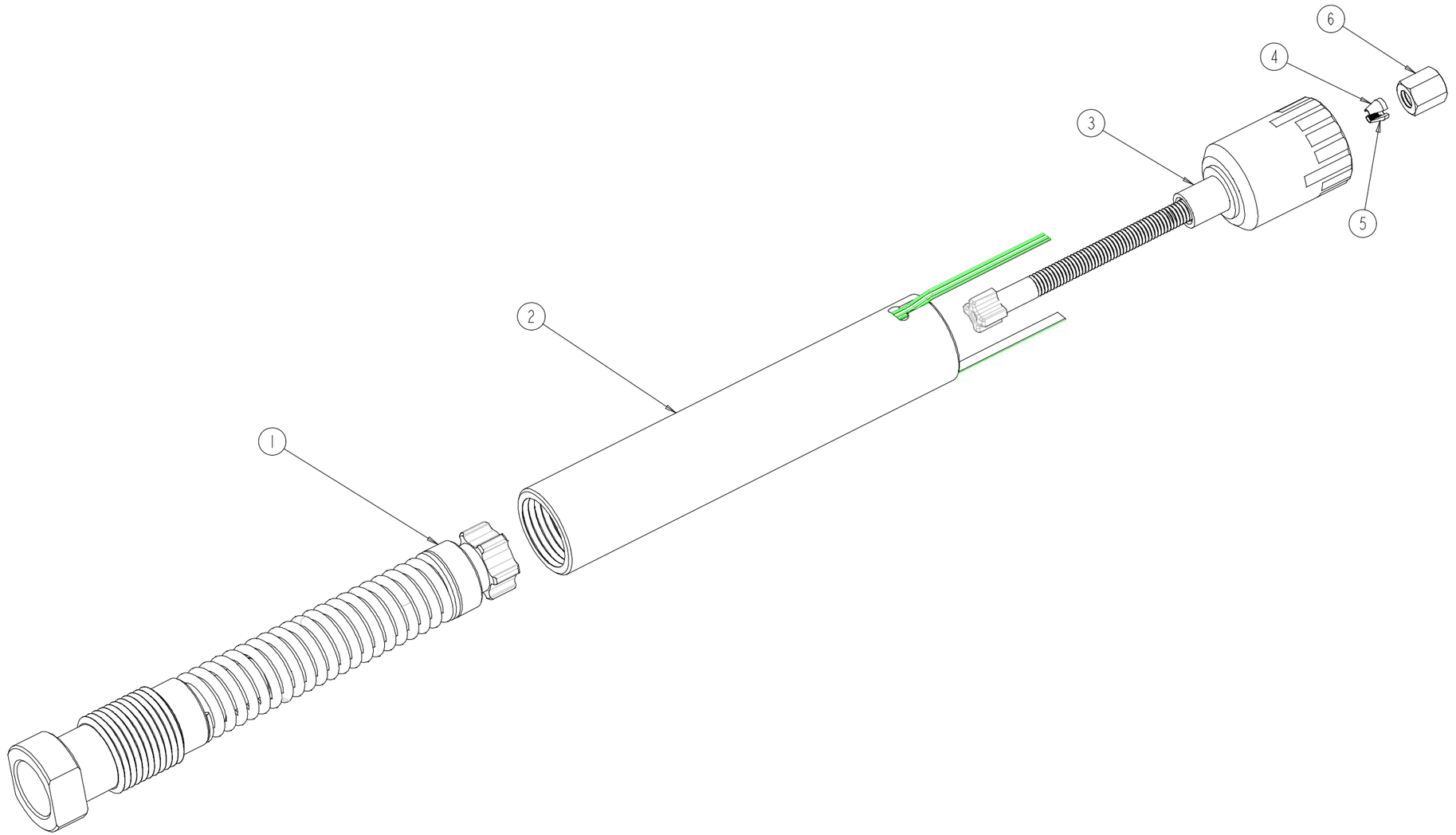
DWG. NO. 2500404 | SIZE 1 | REV. 1 | SH. 1

ITEM	PART NO	REQD	DESCRIPTION	MATERIAL
6	250050		Collet Cap	Aluminum 6061-T6
5	250049		Collet Cable Grip	Aluminum 6061-T6
4	250049		Collet Cable Grip	Aluminum 6061-T6
3	250084		Adjuster Assembly	
2	250043		Flex Circuit Installation on Spring Plunger Retainer	
1	250041		Spring Plunger and Mount Bushing	



REV	DWG	CHK	ZONE	DATE	CHANGES

UNLESS OTHERWISE SPECIFIED

TOLERANCES: X.X ± 0.25 | FRAC. ± 1/64 | X.XX ± 0.10 | Angles ± 0.50° | X.XXX ± 0.05 | FINISH 125

DO NOT SCALE PRINT

THREADS ARE CLASS 2
CHAMFER ENDS OF ALL SCREW THREADS 30°
CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS
BREAK EDGES .016 MAX. ON MACHINED WORK
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE
IN ACCORDANCE WITH ASME Y14.5M & B46.1

SHOP ORDERS

ACCT NO. | NO. REQD 1
SEL TO N Hartman
SURFACE TREATMT as specified
IDENT METHOD TAG
PROJECT NUMBER
PROJECT NAME
DWG BY D Uken | DATE 21-Mar-03
CHK BY N Hartman | DATE
APR BY N Hartman | DATE

SER NO. -
DATE ISSD -
DATE REQD -

ERNEST ORLANDO LAWRENCE
BERKELEY NATIONAL LABORATORY
UNIVERSITY OF CALIFORNIA - BERKELEY

ATLAS PIXEL DETECTOR
TENSION MECHANISM
Tension Mechanism

MICROFILMED: | PATENT CLEAR:

DWG. TYPE: ASSEM | DESIGN ACCT. NO.
SHOWN ON: 250030
CATEGORY CODE: API300
SCALE: 2.000 | DO NOT SCALE PRINTS
SHEET 1 OF 2
DWG. NO. 2500404 | SIZE | REV. 1

Pro/E File: 2500404_Rev1_DrFile_250030

DWG. NO.	SIZE	REV.	SH.
2500404	1	2	

ITEM	PART NO	REQD	DESCRIPTION	MATERIAL
5	250050	1	Collet Cap	Aluminum 6061-T6
4	250049	2	Collet Cable Grip	Aluminum 6061-T6
3	250084	1	Adjuster Assembly	
2	250043	1	Flex Circuit Installation on Spring Plunger Retainer	
1	250041	1	Spring Plunger and Mount Bushing	

GAP AND CLEARANCE ANALYSIS:

(A) Cable tension adjustment - increase: >17 mm {9mm (beampipe align) + 5mm (cable slack) + 3mm (clearance)}

(B) Cable tension adjustment - decrease: >12 mm {9mm (beampipe align) + 3mm (clearance)}

(C) Bakeout overload motion allowance: 4mm

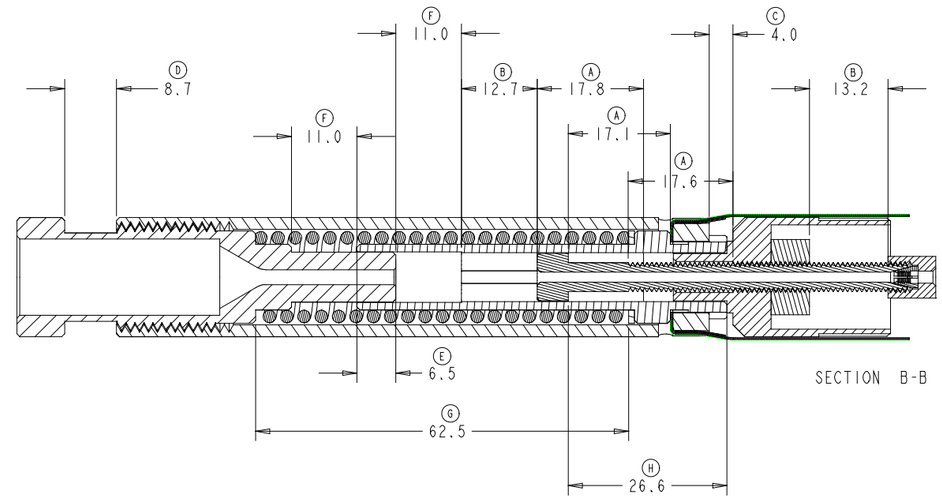
(D) Spring pre-load adjustment - increase: >8mm {6mm (7kg to 10kg adjustment) + 2mm (10% spring tolerance)}

(E) Spring pre-load adjustment - decrease: >6mm {4mm (plunger pilot engagement) + 2mm (10% spring tolerance)}

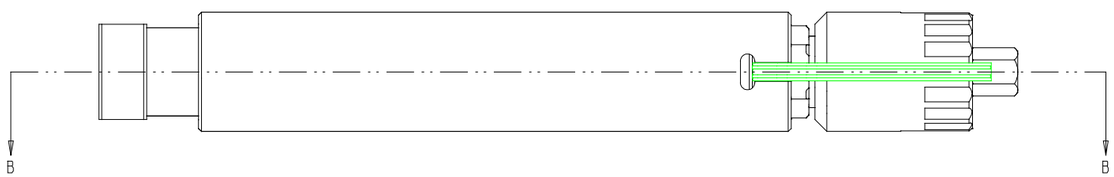
(F) Spring plunger travel: >11mm {6mm (7kg to 10kg adj) + 4mm (bakeout) + 1mm (clearance)}

(G) Spring preload dimension for 7 kilogram preset

(H) Adjuster assembly preset dimension



SECTION B-B



REV	DWG	CHK	ZONE	DATE	CHANGES

UNLESS OTHERWISE SPECIFIED

TOLERANCES: X.X ± 0.5 | FRAC. ± 1/64 | X.XX ± 0.05 | Angles ± 0.50° | X.XXX ± 0.01 | FINISH 125

DO NOT SCALE PRINT

THREADS ARE CLASS 2

CHAMFER ENDS OF ALL SCREW TREADS 30°

CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS

BREAK EDGES .016 MAX. ON MACHINED WORK

REMOVE BURRS, WELD SPLATTER & LOOSE SCALE

IN ACCORDANCE WITH ASME Y14.5M & B46.1

SHOP ORDERS

ACCT NO.	NO. REQD 1	SER NO.	-
DEL TO	N Hartman	DATE ISSD	-
SURFACE TREATMT	as specified	DATE REQD	-
IDENT METHOD	TAG		
PROJECT NUMBER			
PROJECT NAME			
DWG BY	D Uken	DATE	21-Mar-03
CHK BY	N Hartman	DATE	
APR BY	N Hartman	DATE	

ERNEST ORLANDO LAWRENCE BERKELEY NATIONAL LABORATORY
UNIVERSITY OF CALIFORNIA - BERKELEY

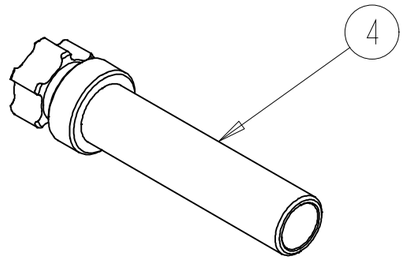
ATLAS PIXEL DETECTOR
TENSION MECHANISM
Tension Mechanism

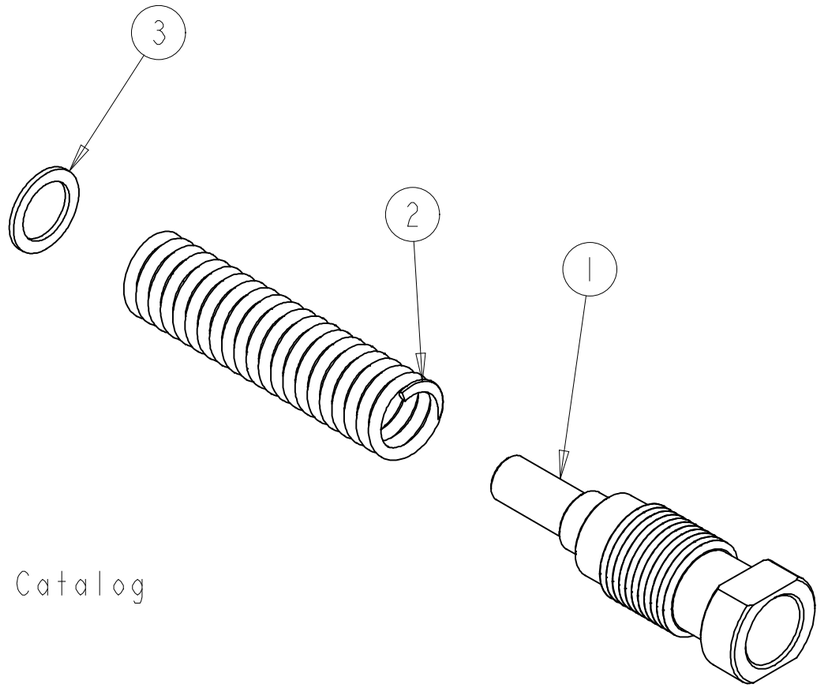
MICROFILMED:	DWG. TYPE	SHOWN ON	SCALE: 2.000	DO NOT SCALE PRINTS
	ASSEM	250030	SHEET 2 OF 2	
PATENT CLEAR:	DESIGN ACCT. NO.	CATEGORY CODE	DWG. NO.	SIZE / REV.
		API300	2500404	1

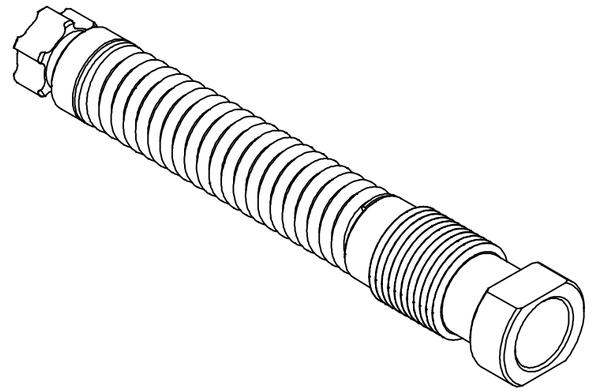
Orig. File: 2500404.Iter1.File: 250040

DWG. NO. 2500412 | SIZE 1 | REV. 1 | SH. 1

ITEM	PART NO	REQD	DESCRIPTION	MATERIAL
4	250044		Spring Plunger	Aluminum 6061-T6
3	250045		Thrust Washer	Aluminum 6061-T6
2	ASR_C0600_081_3000_SS		Stainless Steel Compressoin Spring	Stainless Steel
1	250042		Mount Bushing	Aluminum 6061-T6







NOTE:

Compression Spring is
Catalog Number C0600-081-3000
Associated Spring Raymond SPEC Catalog
Website: www.asraymond.com

REV	DWG	CHK	ZONE	DATE	CHANGES

UNLESS OTHERWISE SPECIFIED

TOLERANCES		
	X.X ± 0.25	FRAC. ± 1/64
	X.XX ± 0.10	Angles ± 0.50°
	X.XXX ± 0.05	FINISH 125 √(µin)

DO NOT SCALE PRINT

THREADS ARE CLASS 2
CHAMFER ENDS OF ALL SCREW TREADS 30°
CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS
BREAK EDGES .016 MAX. ON MACHINED WORK
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE
IN ACCORDANCE WITH ASME Y14.5M & B46.1

SHOP ORDERS

SER NO.	-		
ACCT NO.		NO. REQD	1
DATE ISSD	-		
DEL TO	N Hartman	DATE REQD	-
SURFACE TREATMT			
IDENT METHOD	TAG		
PROJECT NUMBER			
PROJECT NAME			
DWG BY	D Uken	DATE	21-Mar-03
CHK BY	N Hartman	DATE	
APR BY	E Anderssen	DATE	

(logo)

ERNEST ORLANDO LAWRENCE
BERKELEY NATIONAL LABORATORY
UNIVERSITY OF CALIFORNIA - BERKELEY

ATLAS PIXEL DETECTOR
TENSION MECHANISM
Spring Plunger and Mount Bushing

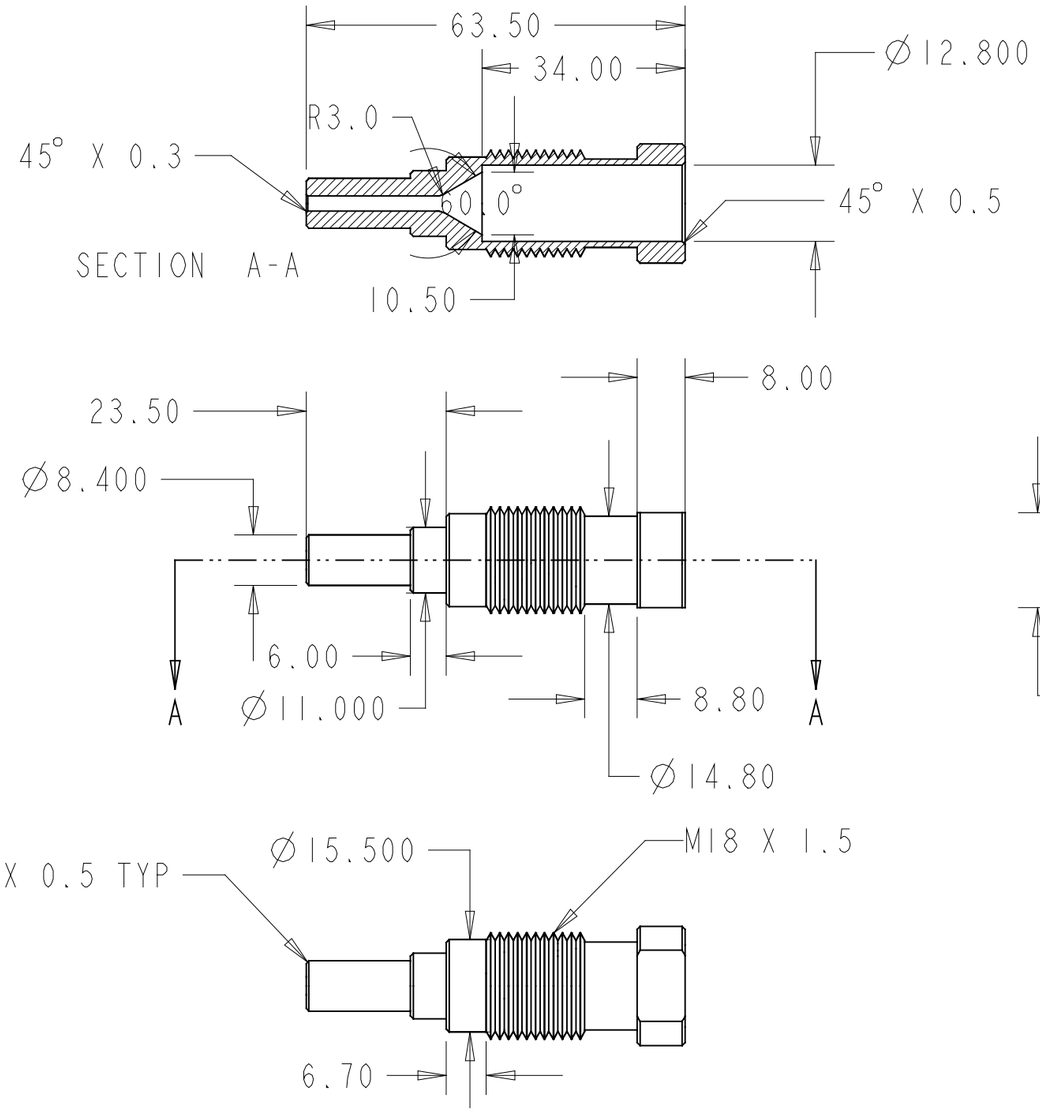
MICROFILMED:	DWG. TYPE	SHOWN ON	SCALE: 1.000	DO NOT SCALE PRINTS
	ASSEM	250043	SHEET 1 OF 1	
PATENT CLEAR:	DESIGN ACCT. NO.	CATEGORY CODE	DWG. NO.	SIZE / REV.
		API300	2500412	1

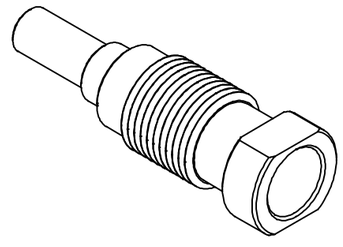
Rev. 1/8/2001 ATLAS

Dwg. File: 250041 Model File: 250041

DWG. NO.	SIZE	REV.	SH.
2500422	1	1	

DESCRIPTION	MATERIAL	MAT. LOCATION
	Aluminum 6061-T6	-





REV	DWG	CHK	ZONE	DATE	CHANGES

UNLESS OTHERWISE SPECIFIED

TOLERANCES		
	X.X ± 0.25	FRAC. ± 1/64
	X.XX ± 0.10	Angles ± 0.50°
	X.XXX ± 0.05	FINISH 125 (µin)

DO NOT SCALE PRINT

THREADS ARE CLASS 2
CHAMFER ENDS OF ALL SCREW TREADS 30°
CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS
BREAK EDGES .016 MAX. ON MACHINED WORK
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE
IN ACCORDANCE WITH ASME Y14.5M & B46.1

SHOP ORDERS

ACCT NO.	NO. REQD 1	SER NO.	-
DEL TO N Hartman		DATE ISSD	-
SURFACE TREATMT Gold Anodize		DATE REQD	-
IDENT METHOD TAG			
PROJECT NUMBER		(logo)	
PROJECT NAME			
DWG BY D Uken		DATE 21-Mar-03	
CHK BY N Hartman		DATE	
APR BY E Anderssen		DATE	

ERNEST ORLANDO LAWRENCE BERKELEY NATIONAL LABORATORY
UNIVERSITY OF CALIFORNIA - BERKELEY

ATLAS PIXEL DETECTOR
TENSION MECHANISM
Mount Bushing

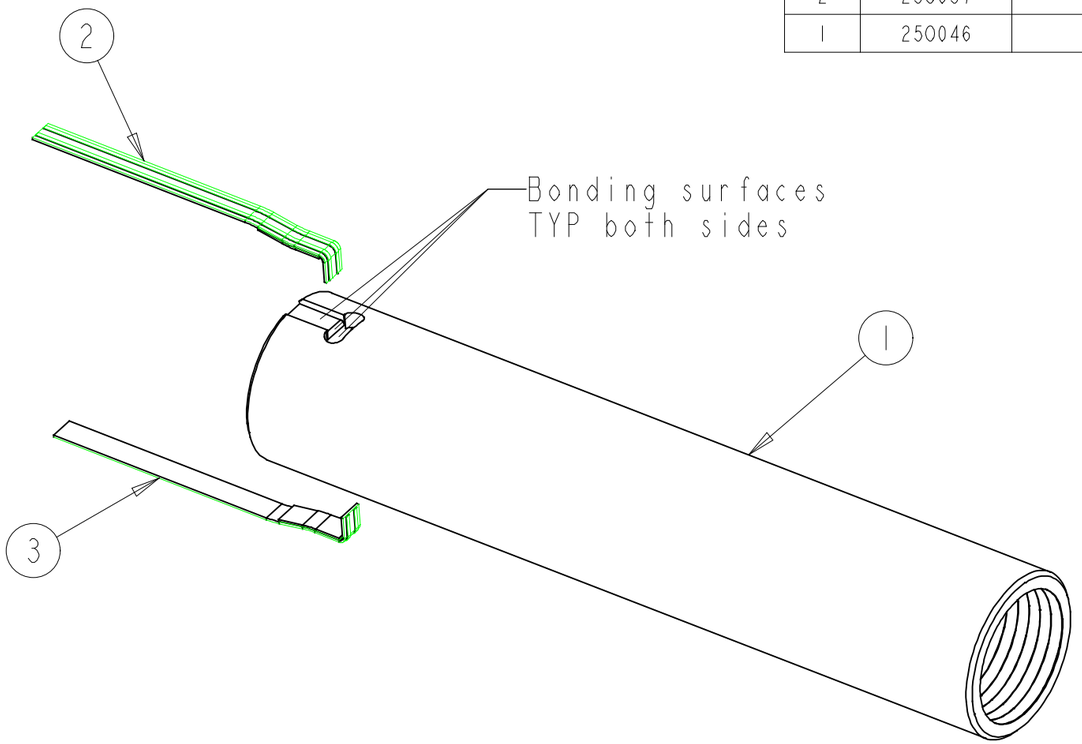
MICROFILMED:	DWG. TYPE	SHOWN ON	SCALE: 1.000	DO NOT SCALE PRINTS
	PART	250041	SHEET 1 OF 1	
PATENT CLEAR:	DESIGN ACCT. NO.	CATEGORY CODE API300	DWG. NO. 2500422	SIZE / REV. 1

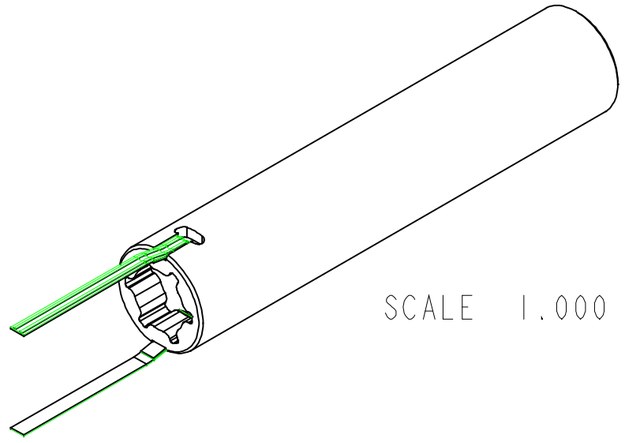
Rev: 1/6/2001 ATLAS

Dwg. File: 250042 Model File: 250042

DWG. NO. 2500432 | SIZE 1 | REV. 1 | SH. 1

ITEM	PART NO	REQD	DESCRIPTION	MATERIAL
3	250057		Flex Circuit Contact Sensor	
2	250057		Flex Circuit Contact Sensor	
1	250046		Spring Plunger Capture	Aluminum 6061-T6





SCALE 1.000

NOTE:

Flex Circuit Assemblies should be bonded to
Spring Plunger Retainer with exposed contacts
facing the open threaded end of the part as shown.

REV	DWG	CHK	ZONE	DATE	CHANGES

UNLESS OTHERWISE SPECIFIED

TOLERANCES:
- X.X ± 0.1
- FRAC. ± 1/64
- X.XX ± 0.01
- Angles ± 0.50°
- X.XXX ± 0.001
- FINISH 125 √(µin)

DO NOT SCALE PRINT

THREADS ARE CLASS 2
CHAMFER ENDS OF ALL SCREW TREADS 30°
CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS
BREAK EDGES .016 MAX. ON MACHINED WORK
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE
IN ACCORDANCE WITH ASME Y14.5M & B46.1

SHOP ORDERS

ACCT NO.	NO. REQD 1	SER NO.	-
DEL TO N Hartman		DATE ISSD	-
SURFACE TREATMT		DATE REQD	-
IDENT METHOD TAG			
PROJECT NUMBER		(logo)	
PROJECT NAME			
DWG BY D Uken		DATE 26-Mar-03	
CHK BY N Hartman		DATE	
APR BY E Anderssen		DATE	

ERNEST ORLANDO LAWRENCE
BERKELEY NATIONAL LABORATORY
UNIVERSITY OF CALIFORNIA - BERKELEY

ATLAS PIXEL DETECTOR
TENSION MECHANISM
Flex Circuit Installation on Spring Plunger Retainer

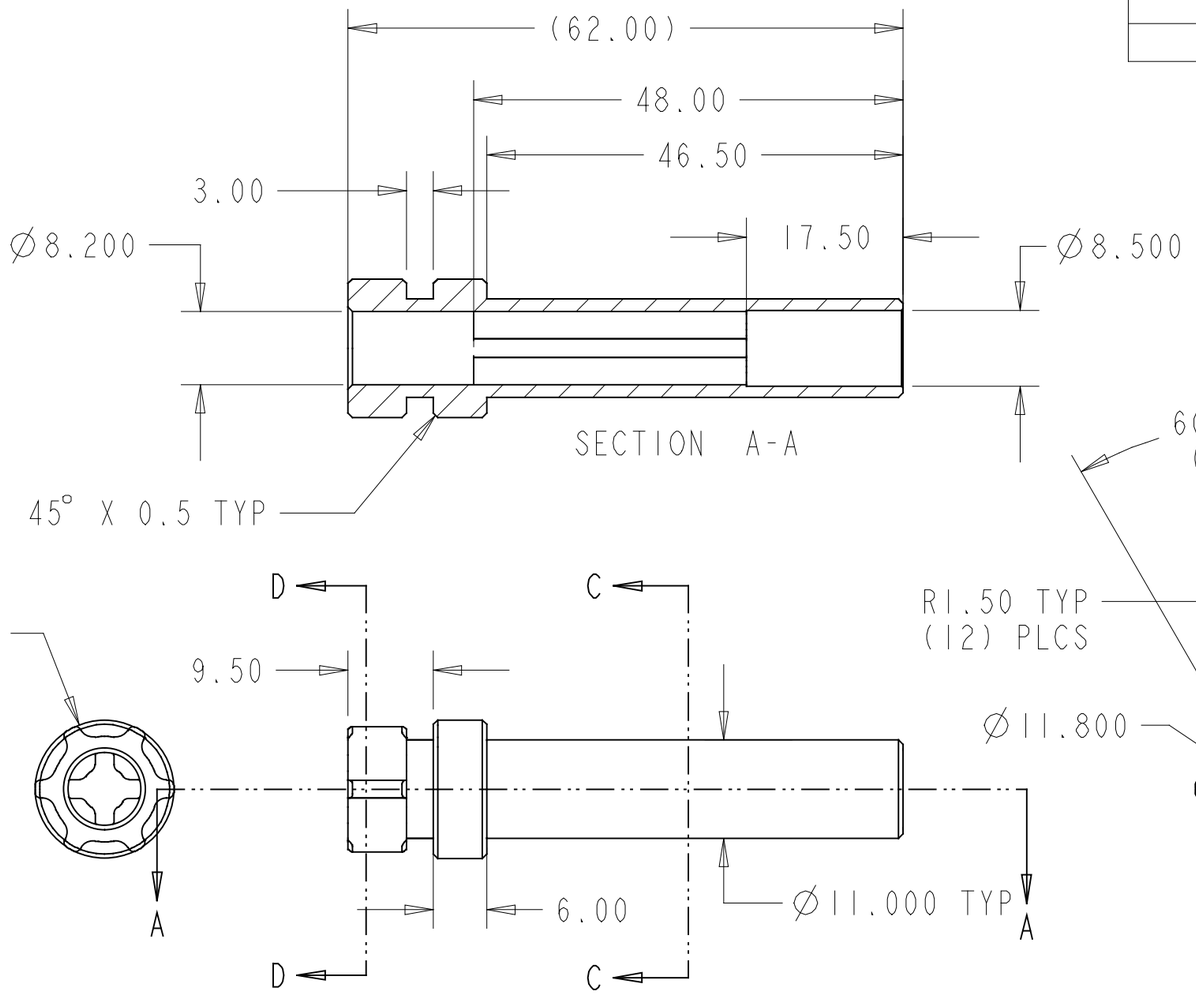
MICROFILMED:	DWG. TYPE	SHOWN ON	SCALE: 1.500	DO NOT SCALE PRINTS
	ASSEM	250040	SHEET 1 OF 1	
PATENT CLEAR:	DESIGN ACCT. NO.	CATEGORY CODE AP1300	DWG. NO. 2500432	SIZE / REV. 1

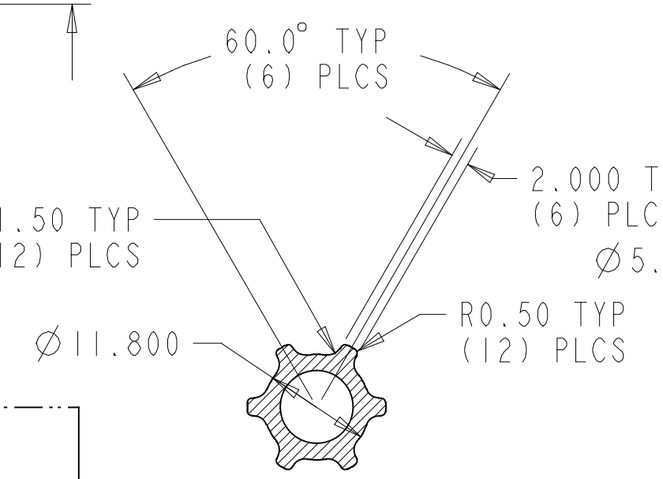
Rev. 1/8/2001 ATLAS

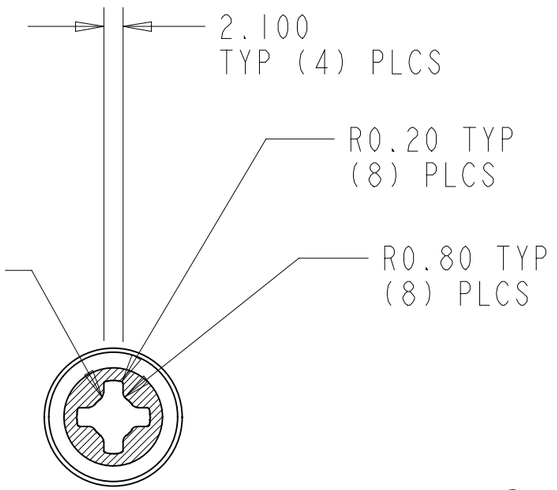
Dwg. File: 250043 Model File: 250043

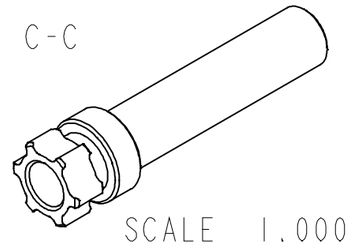
DWG. NO.	SIZE	REV.	SH.
2500442	1	1	

DESCRIPTION	MATERIAL	MAT. LOCATION
CNC Machine	Aluminum 6061-T6	-









SCALE 1.000

REV	DWG	CHK	ZONE	DATE	CHANGES

UNLESS OTHERWISE SPECIFIED

TOLERANCES		
	X.X ± 0.25	FRAC. ± 1/64
	X.XX ± 0.10	Angles ± 0.50°
	X.XXX ± 0.05	FINISH 125 (µin)

DO NOT SCALE PRINT

THREADS ARE CLASS 2
CHAMFER ENDS OF ALL SCREW TREADS 30°
CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS
BREAK EDGES .016 MAX. ON MACHINED WORK
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE
IN ACCORDANCE WITH ASME Y14.5M & B46.1

SHOP ORDERS

SER NO.	-		
ACCT NO.		NO. REQD	
DATE ISSD	-		
DEL TO	N Hartman	DATE REQD	-
SURFACE TREATMT	Blue Anodize		
IDENT METHOD	TAG		
PROJECT NUMBER		(logo)	
PROJECT NAME			
DWG BY	D Uken	DATE	21-Mar-03
CHK BY	N Hartman	DATE	
APR BY	E Anderssen	DATE	

ERNEST ORLANDO LAWRENCE BERKELEY NATIONAL LABORATORY
UNIVERSITY OF CALIFORNIA - BERKELEY

ATLAS PIXEL DETECTOR
TENSION MECHANISM
Spring Plunger

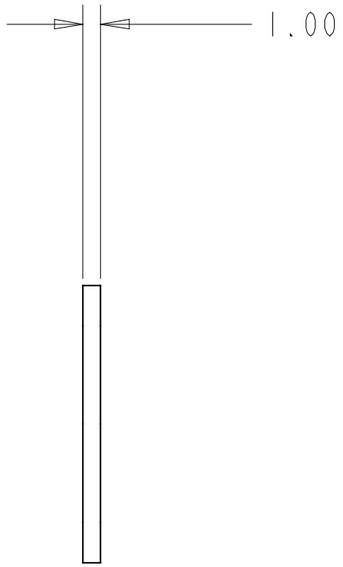
MICROFILMED:	DWG. TYPE	SHOWN ON	SCALE: 1.500	DO NOT SCALE PRINTS
	PART	250041	SHEET 1 OF 1	
PATENT CLEAR:	DESIGN ACCT. NO.	CATEGORY CODE API300	DWG. NO. 2500442	SIZE / REV. 1

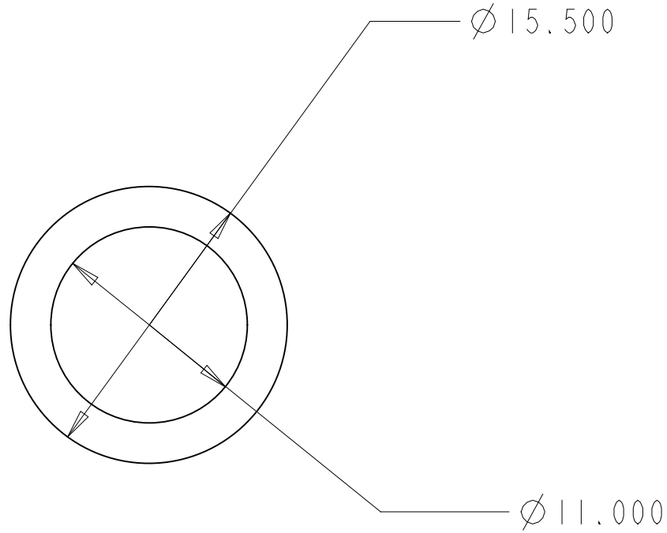
Rev. 1/6/2001 ATLAS

Dwg. File: 250044 Model File: 250044

DWG. NO.	SIZE	REV.	SH.
2500452	1	1	

DESCRIPTION	MATERIAL	MAT. LOCATION
	Aluminum 6061-T6	-





SCALE 1.000

REV	DWG	CHK	ZONE	DATE	CHANGES

UNLESS OTHERWISE SPECIFIED

TOLERANCES		
	X.X ± 0.25	FRAC. ± 1/64
	X.XX ± 0.10	Angles ± 0.50°
	X.XXX ± 0.05	FINISH 125 √(µin)

DO NOT SCALE PRINT

THREADS ARE CLASS 2
CHAMFER ENDS OF ALL SCREW TREADS 30°
CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS
BREAK EDGES .016 MAX. ON MACHINED WORK
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE
IN ACCORDANCE WITH ASME Y14.5M & B46.1

SHOP ORDERS

ACCT NO.	NO. REQD	SER NO.	-
DEL TO N Hartman		DATE ISSD	-
SURFACE TREATMT Hard Anodize		DATE REQD	-
IDENT METHOD TAG			
PROJECT NUMBER		(logo)	
PROJECT NAME			
DWG BY D Uken	DATE 21-Mar-03		
CHK BY N Hartman	DATE		
APR BY E Anderssen	DATE		

ERNEST ORLANDO LAWRENCE
BERKELEY NATIONAL LABORATORY
UNIVERSITY OF CALIFORNIA - BERKELEY

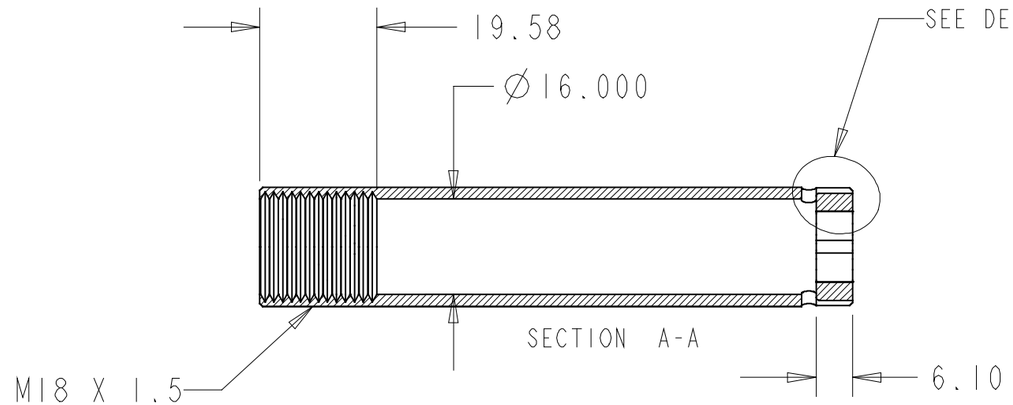
ATLAS PIXEL DETECTOR
TENSION MECHANISM
Thrust Washer

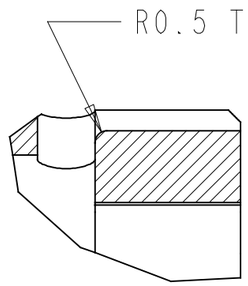
MICROFILMED:	DWG. TYPE	SHOWN ON	SCALE: 3.000	DO NOT SCALE PRINTS
	PART	250041	SHEET 1 OF 1	
PATENT CLEAR:	DESIGN ACCT. NO.	CATEGORY CODE API300	DWG. NO. 2500452	SIZE / REV. 1

Dwg. File: 250045 Model File: 250045
Rev. 1/8/2001 ATLAS

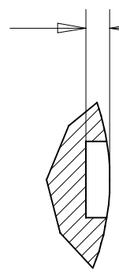
DWG. NO. 2500462 | SIZE 1 | REV. 1 | SH. 1

DESCRIPTION	MATERIAL	MAT. LOCATION
CNC Machine, Wire EDM	Aluminum 6061-T6	-

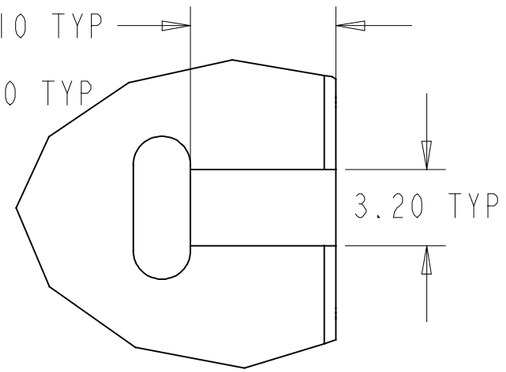




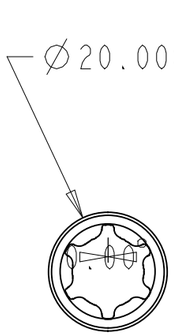
DETAIL A
SCALE 4.000

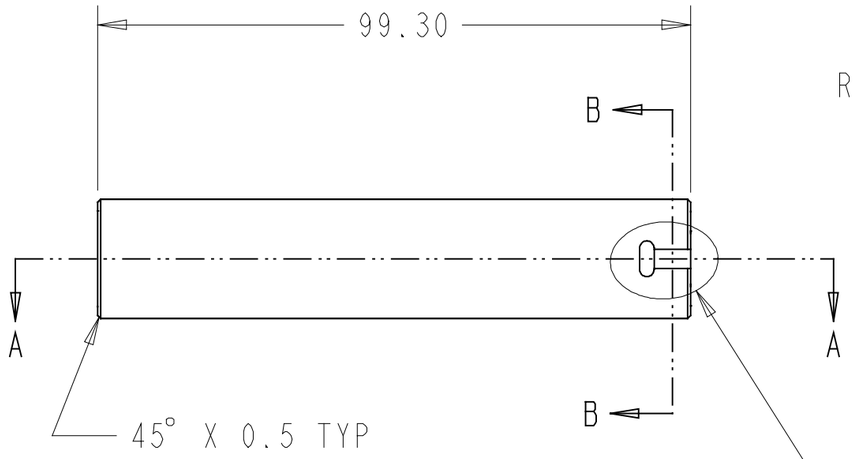


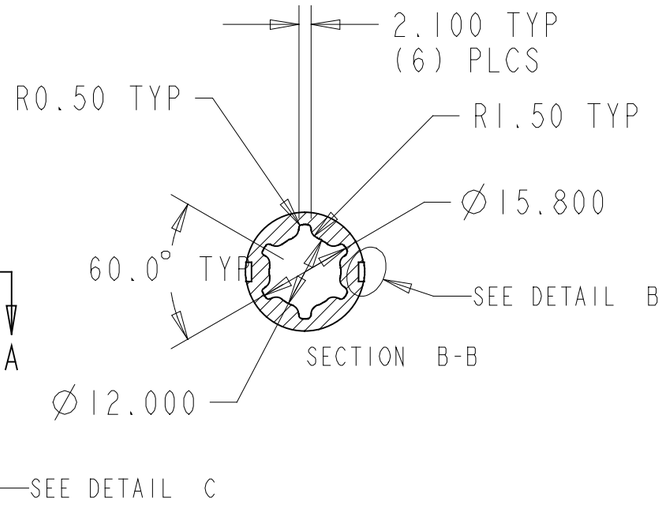
DETAIL B
SCALE 4.000

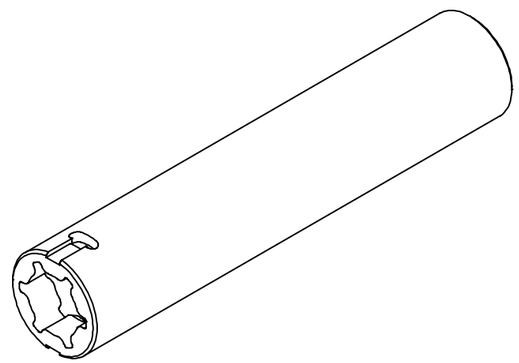


DETAIL C
SCALE 4.000









REV	DWG	CHK	ZONE	DATE	CHANGES

UNLESS OTHERWISE SPECIFIED

TOLERANCES		
	X.X ± 0.25	FRAC. ± 1/64
	X.XX ± 0.10	Angles ± 0.50°
	X.XXX ± 0.05	FINISH 125 √(µin)

DO NOT SCALE PRINT

THREADS ARE CLASS 2
CHAMFER ENDS OF ALL SCREW TREADS 30°
CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS
BREAK EDGES .016 MAX. ON MACHINED WORK
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE
IN ACCORDANCE WITH ASME Y14.5M & B46.1

SHOP ORDERS

SER NO.	-		
ACCT NO.		NO. REQD	DATE ISSD -
DEL TO	N Hartman		DATE REQD -
SURFACE TREATMT	Gold Anodize		
IDENT METHOD	TAG		
PROJECT NUMBER			(logo)
PROJECT NAME			
DWG BY	D Uken		DATE 21-Mar-03
CHK BY	N Hartman		DATE
APR BY	E Anderssen		DATE

ERNEST ORLANDO LAWRENCE BERKELEY NATIONAL LABORATORY
UNIVERSITY OF CALIFORNIA - BERKELEY

ATLAS PIXEL DETECTOR
TENSION MECHANISM
Spring Plunger Retainer

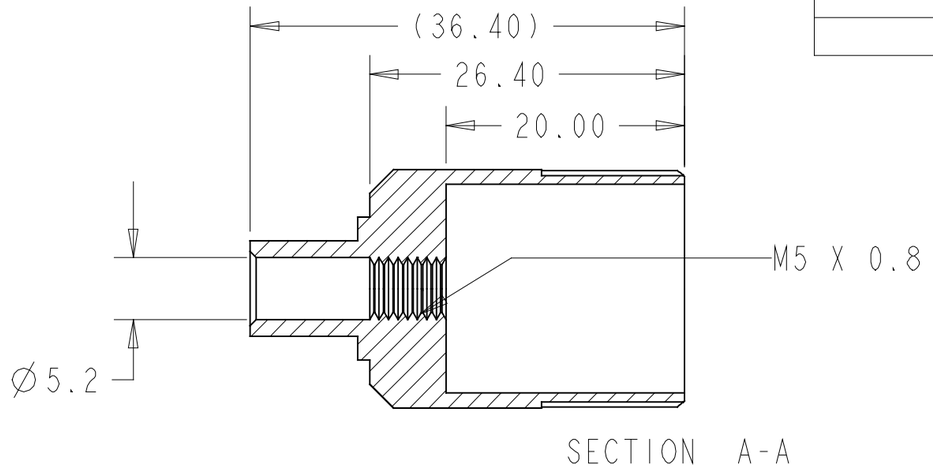
MICROFILMED:	DWG. TYPE	SHOWN ON	SCALE: 1.000	DO NOT SCALE PRINTS
	PART	250043	SHEET 1 OF 1	
PATENT CLEAR:	DESIGN ACCT. NO.	CATEGORY CODE API300	DWG. NO. 2500462	SIZE / REV. 1

Dwg. File: 250046 Model File: 250046

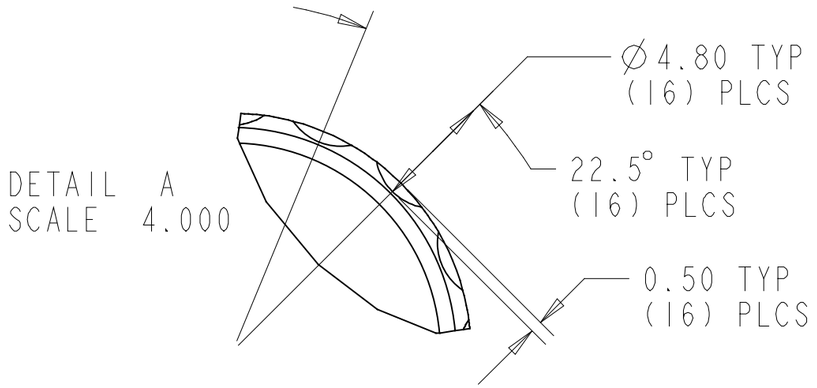
Rev. 1/8/2001 ATLAS

DWG. NO.	SIZE	REV.	SH.
2500472	1	1	

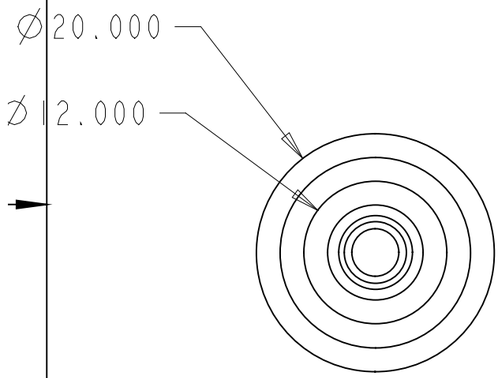
DESCRIPTION	MATERIAL	MAT. LOCATION
	Aluminum 6061-T6	-

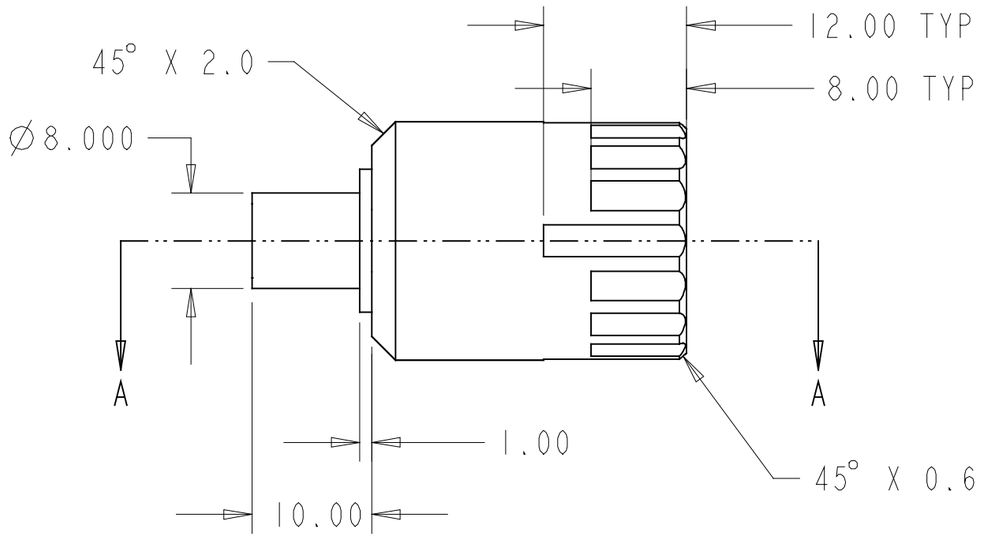


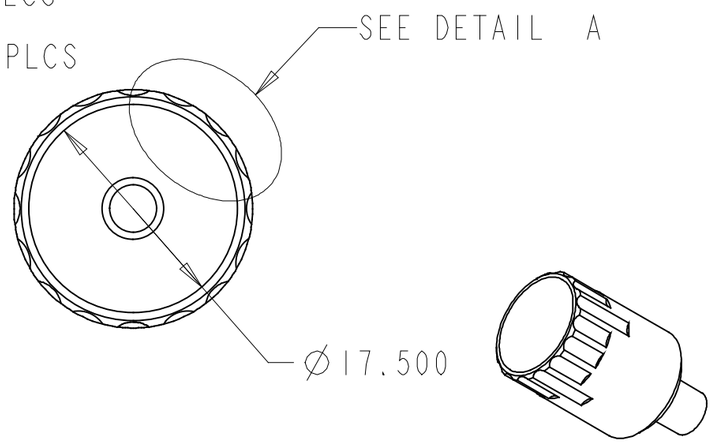
SECTION A-A



DETAIL A
SCALE 4.000







SCALE 1.000

REV	DWG	CHK	ZONE	DATE	CHANGES

UNLESS OTHERWISE SPECIFIED

TOLERANCES		
	X.X ± 0.1	FRAC. ± 1/64
	X.XX ± 0.01	Angles ± 0.50°
	X.XXX ± 0.001	FINISH 125 √ (µin)

DO NOT SCALE PRINT

THREADS ARE CLASS 2
CHAMFER ENDS OF ALL SCREW TREADS 30°
CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS
BREAK EDGES .016 MAX. ON MACHINED WORK
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE
IN ACCORDANCE WITH ASME Y14.5M & B46.1

SHOP ORDERS

ACCT NO.	NO. REQD 1	SER NO.	-
DEL TO N Hartman		DATE ISSD	-
SURFACE TREATMT Blue Anodize		DATE REQD	-
IDENT METHOD TAG			
PROJECT NUMBER		(logo)	
PROJECT NAME			
DWG BY D Uken		DATE 28-Mar-03	
CHK BY N Hartma		DATE	
APR BY E Anderssen		DATE	

ERNEST ORLANDO LAWRENCE BERKELEY NATIONAL LABORATORY
UNIVERSITY OF CALIFORNIA - BERKELEY

ATLAS PIXEL DETECTOR
TENSION MECHANISM
Tension Adjuster

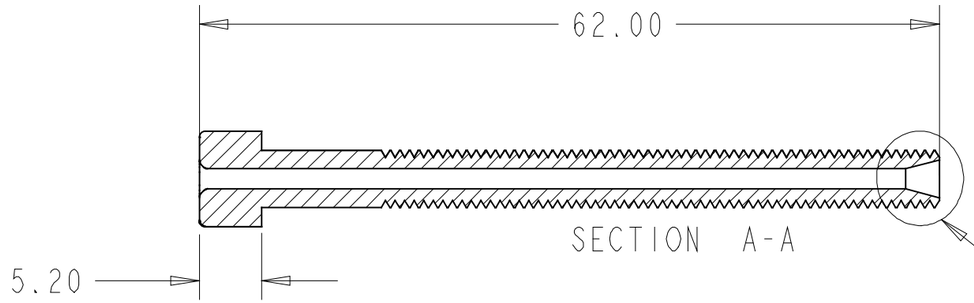
MICROFILMED:	DWG. TYPE	SHOWN ON	SCALE: 2.000	DO NOT SCALE PRINTS
	PART	250084	SHEET 1 OF 1	
PATENT CLEAR:	DESIGN ACCT. NO.	CATEGORY CODE API300	DWG. NO. 2500472	SIZE / REV. 1

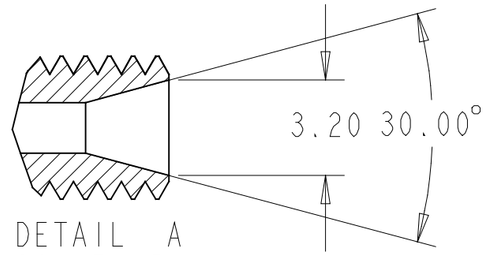
Rev. 1/8/2001 ATLAS

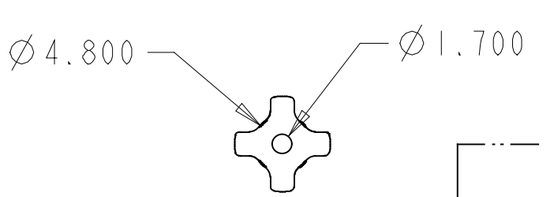
Dwg. File: 250047 Model File: 250047

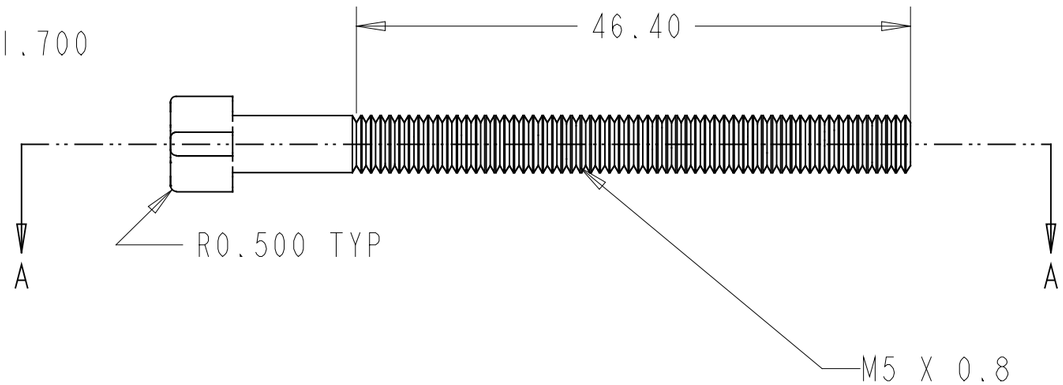
DWG. NO.	SIZE	REV.	SH.
2500482	1	1	

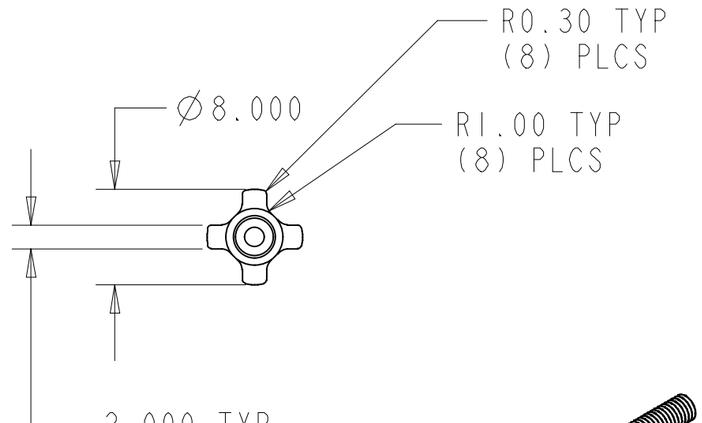
DESCRIPTION	MATERIAL	MAT. LOCATION
	304 Stainless Steel	-

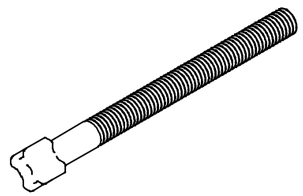












SCALE 1.000

REV	DWG	CHK	ZONE	DATE	CHANGES

UNLESS OTHERWISE SPECIFIED

TOLERANCES		
	X.X ± 0.1	FRAC. ± 1/64
	X.XX ± 0.01	Angles ± 0.50°
	X.XXX ± 0.001	FINISH 125 (µin)

DO NOT SCALE PRINT

THREADS ARE CLASS 2
CHAMFER ENDS OF ALL SCREW TREADS 30°
CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS
BREAK EDGES .016 MAX. ON MACHINED WORK
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE
IN ACCORDANCE WITH ASME Y14.5M & B46.1

SHOP ORDERS

ACCT NO.	NO. REQD 2	SER NO.	-
DEL TO N Hartman		DATE ISSD	-
SURFACE TREATMT		DATE REQD	-
IDENT METHOD TAG			
PROJECT NUMBER		(logo)	
PROJECT NAME			
DWG BY D Uken	DATE 28-Mar-03		
CHK BY N Hartman	DATE		
APR BY E Anderssen	DATE		

ERNEST ORLANDO LAWRENCE BERKELEY NATIONAL LABORATORY
UNIVERSITY OF CALIFORNIA - BERKELEY

ATLAS PIXEL DETECTOR
TENSION MECHANISM
Collet Holder Screw

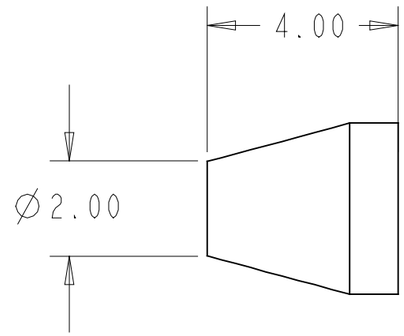
MICROFILMED:	DWG. TYPE	SHOWN ON	SCALE: 2.000	DO NOT SCALE PRINTS
	PART	250084	SHEET 1 OF 1	
PATENT CLEAR:	DESIGN ACCT. NO.	CATEGORY CODE API300	DWG. NO. 2500482	SIZE / REV. 1

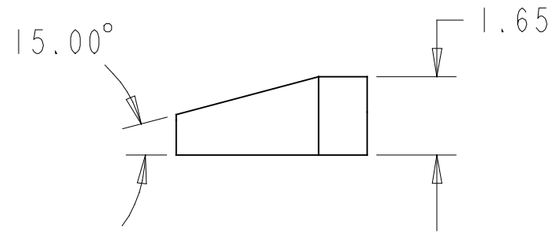
Rev. 1/8/2001 ATLAS

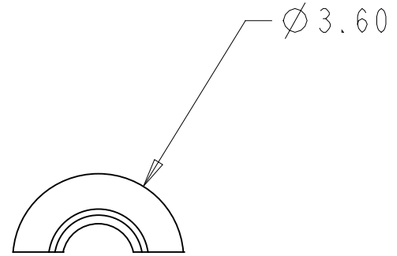
Dwg. File: 250048 Model File: 250048

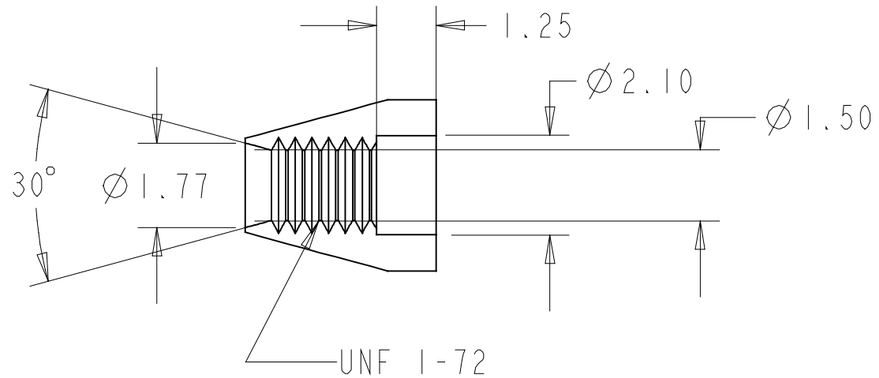
DWG. NO.	SIZE	REV.	SH.
2500492	1	1	

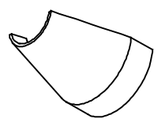
DESCRIPTION	MATERIAL	MAT. LOCATION
	Aluminum 6061-T6	-











SCALE 5.000

REV	DWG	CHK	ZONE	DATE	CHANGES

UNLESS OTHERWISE SPECIFIED

TOLERANCES		
	X.X ± 0.25	FRAC. ± 1/64
	X.XX ± 0.10	Angles ± 0.50°
	X.XXX ± 0.05	FINISH 125 (µin)

DO NOT SCALE PRINT

THREADS ARE CLASS 2
CHAMFER ENDS OF ALL SCREW TREADS 30°
CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS
BREAK EDGES .016 MAX. ON MACHINED WORK
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE
IN ACCORDANCE WITH ASME Y14.5M & B46.1

SHOP ORDERS

ACCT NO.	NO. REQD 8	SER NO.	-
DEL TO N Hartman		DATE ISSD	-
SURFACE TREATMT		DATE REQD	-
IDENT METHOD TAG			
PROJECT NUMBER		(logo)	
PROJECT NAME			
DWG BY D Uken		DATE 24-Mar-03	
CHK BY N Hartman		DATE	
APR BY E Anderssen		DATE	

ERNEST ORLANDO LAWRENCE BERKELEY NATIONAL LABORATORY
UNIVERSITY OF CALIFORNIA - BERKELEY

ATLAS PIXEL DETECTOR
TENSION MECHANISM
Collet Cable Grip

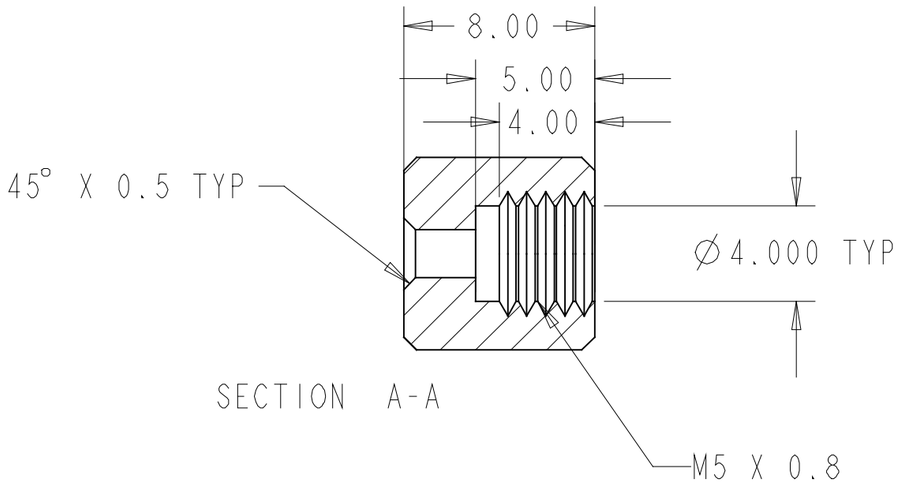
MICROFILMED:	DWG. TYPE	SHOWN ON	SCALE: 8.000	DO NOT SCALE PRINTS
	PART	250040	SHEET 1 OF 1	
PATENT CLEAR:	DESIGN ACCT. NO.	CATEGORY CODE API300	DWG. NO. 2500492	SIZE / REV. 1

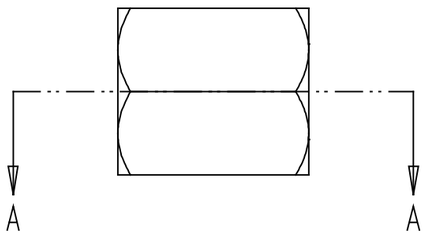
Dwg. File: 250049 Model File: 250049

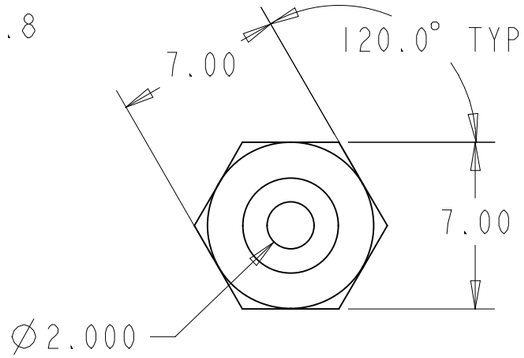
Rev. 12/2001 ATLAS

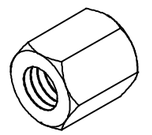
DWG. NO.	SIZE	REV.	SH.
2500502	1	1	

DESCRIPTION	MATERIAL	MAT. LOCATION
	304 Stainless Steel	-









SCALE 2.000

REV	DWG	CHK	ZONE	DATE	CHANGES

UNLESS OTHERWISE SPECIFIED

TOLERANCES		
	X.X ± 0.25	FRAC. ± 1/64
	X.XX ± 0.10	Angles ± 0.50°
	X.XXX ± 0.05	FINISH 125 (µin)

DO NOT SCALE PRINT

THREADS ARE CLASS 2
CHAMFER ENDS OF ALL SCREW TREADS 30°
CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS
BREAK EDGES .016 MAX. ON MACHINED WORK
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE
IN ACCORDANCE WITH ASME Y14.5M & B46.1

SHOP ORDERS

ACCT NO.	NO. REQD 2	SER NO.	-
DEL TO N Hartman		DATE ISSD	-
SURFACE TREATMT		DATE REQD	-
IDENT METHOD TAG			
PROJECT NUMBER		(logo)	
PROJECT NAME			
DWG BY D Uken		DATE 24-Mar-03	
CHK BY N Hartman		DATE	
APR BY E Anderssen		DATE	

ERNEST ORLANDO LAWRENCE BERKELEY NATIONAL LABORATORY
UNIVERSITY OF CALIFORNIA - BERKELEY

ATLAS PIXEL DETECTOR
TENSION MECHANISM
Collet Cap

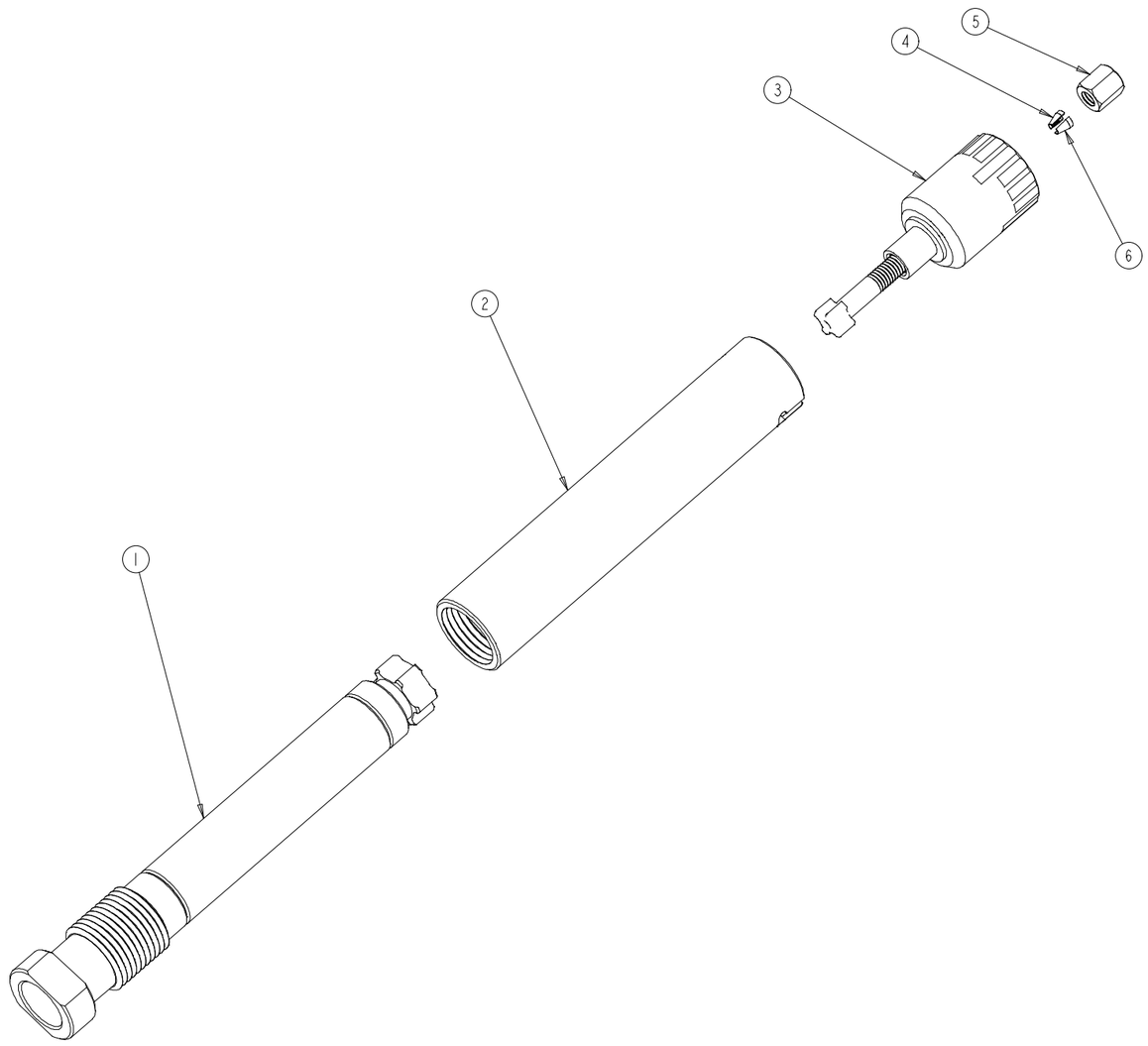
MICROFILMED:	DWG. TYPE	SHOWN ON	SCALE: 4.000	DO NOT SCALE PRINTS
	PART	250040	SHEET 1 OF 1	
PATENT CLEAR:	DESIGN ACCT. NO.	CATEGORY CODE API300	DWG. NO. 2500502	SIZE / REV. 1

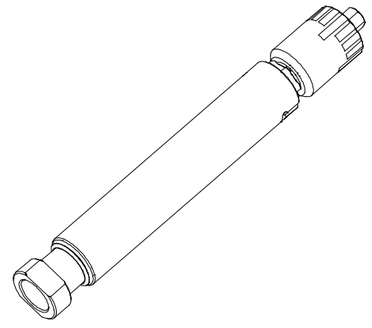
Rev. 1/8/2001 ATLAS

Dwg. File: 250050 Model File: 250050

DWG. NO.	SIZE	REV.	SH.
2500514		1	1

ITEM	PART NO	REQD	DESCRIPTION	MATERIAL
6	250049		Collet Cable Grip	Aluminum 6061-T6
5	250050		Collet Cap	304 Stainless Steel
4	250049		Collet Cable Grip	Aluminum 6061-T6
3	250084		Adjuster Assembly	
2	250046		Spring Plunger Retainer	Aluminum 6061-T6
1	250052		Solid Spring Plunger and Mount Bushing	





SCALE 1.000

REV	DWG	CHK	ZONE	DATE	CHANGES

UNLESS OTHERWISE SPECIFIED

TOLERANCES: X.X ± 0.25 | FRAC. ± 1/64 | X.XX ± 0.10 | Angles ± 0.50° | X.XXX ± 0.05 | FINISH 125 (Ra µin)

DO NOT SCALE PRINT

THREADS ARE CLASS 2

CHAMFER ENDS OF ALL SCREW THEADS 30°

CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS

BREAK EDGES .016 MAX. ON MACHINED WORK

REMOVE BURRS, WELD SPLATTER & LOOSE SCALE

IN ACCORDANCE WITH ASME Y14.5M & B46.1

SHOP ORDERS

SER NO. -
ACCT NO. NO. REQD 1
DEL TO N Hartman
SURFACE TREATMT
IDENT METHOD TAG
PROJECT NUMBER
PROJECT NAME
DWG BY D Uken DATE 24-Mar-03
CHK BY N Hartman DATE
APR BY E Anderssen DATE
DATE ISSD -
DATE REQD -

ERNEST ORLANDO LAWRENCE BERKELEY NATIONAL LABORATORY
UNIVERSITY OF CALIFORNIA - BERKELEY

ATLAS PIXEL DETECTOR
TENSION MECHANISM
Position Mechanism

MICROFILMED: | DWG. TYPE ASSEM | SHOWN ON 250030 | SCALE: 1.500 | DO NOT SCALE PRINTS

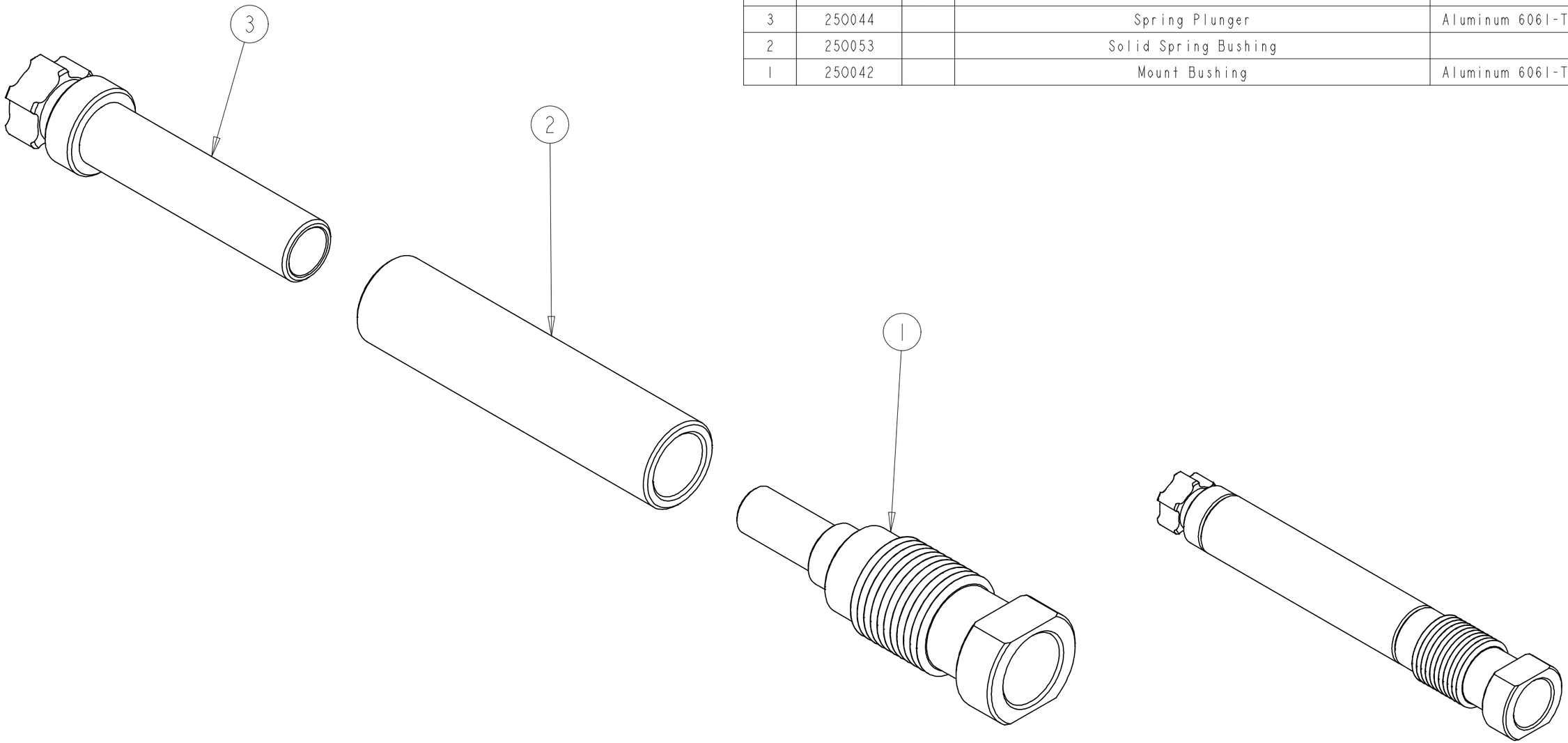
SHEET 1 OF 1

PATENT CLEAR: | DESIGN ACCT. NO. API300 | CATEGORY CODE | DWG. NO. 2500514 | SIZE | REV. 1

Pro/E File: 250051_Rev1.Prt; 250031

DWG. NO. 2500522 | SIZE 1 | REV. 1 | SH. 1

ITEM	PART NO	REQD	DESCRIPTION	MATERIAL
3	250044		Spring Plunger	Aluminum 6061-T6
2	250053		Solid Spring Bushing	
1	250042		Mount Bushing	Aluminum 6061-T6



SCALE 1.000

REV	DWG	CHK	ZONE	DATE	CHANGES

UNLESS OTHERWISE SPECIFIED

TOLERANCES:
- X.X ± 0.25
- X.XX ± 0.10
- X.XXX ± 0.05
- FRAC. ± 1/64
- Angles ± 0.50°
- FINISH 125 √(μin)

DO NOT SCALE PRINT

THREADS ARE CLASS 2
CHAMFER ENDS OF ALL SCREW TREADS 30°
CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS
BREAK EDGES .016 MAX. ON MACHINED WORK
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE
IN ACCORDANCE WITH ASME Y14.5M & B46.1

SHOP ORDERS

SER NO.	-		
ACCT NO.		NO. REQD	1
DATE ISSD	-		
DEL TO	N Hartman	DATE REQD	-
SURFACE TREATMT			
IDENT METHOD	TAG		
PROJECT NUMBER		(logo)	
PROJECT NAME			
DWG BY	D Uken	DATE	24-Mar-03
CHK BY	N Hartman	DATE	
APR BY	E Anderssen	DATE	

ERNEST ORLANDO LAWRENCE BERKELEY NATIONAL LABORATORY
UNIVERSITY OF CALIFORNIA - BERKELEY

ATLAS PIXEL DETECTOR
TENSION MECHANISM
Solid Spring Plunger and Mount Bushing

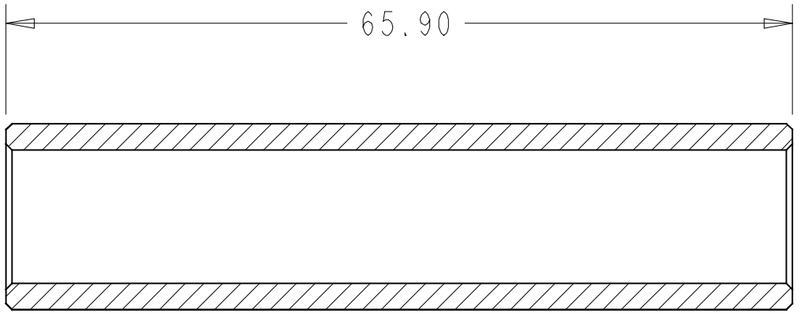
MICROFILMED:	DWG. TYPE	SHOWN ON	SCALE: 1.500	DO NOT SCALE PRINTS
	ASSEM	250051	SHEET 1 OF 1	
PATENT CLEAR:	DESIGN ACCT. NO.	CATEGORY CODE	DWG. NO.	SIZE / REV.
		API300	2500522	1

Dwg. File: 250052 Model File: 250052

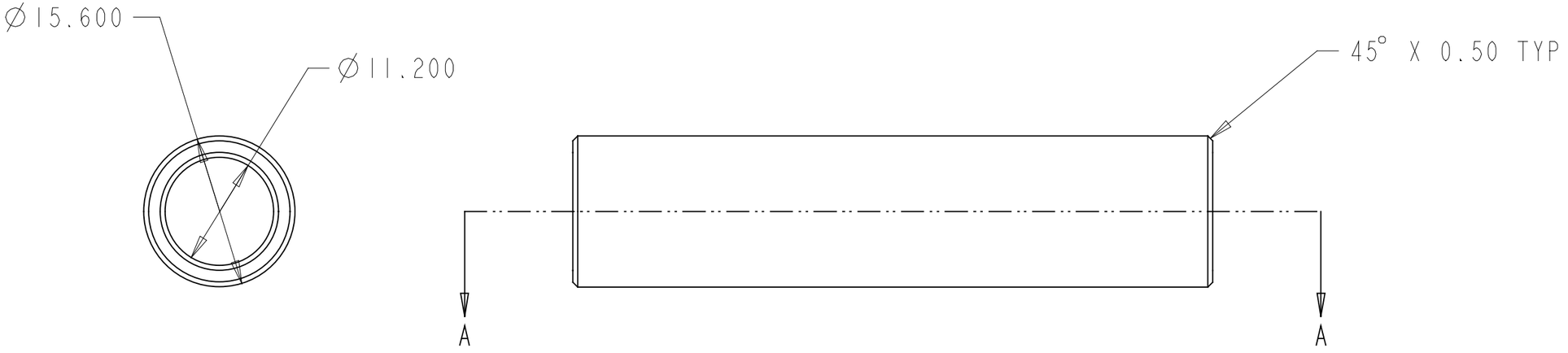
Rev. 1/8/2001 ATLAS

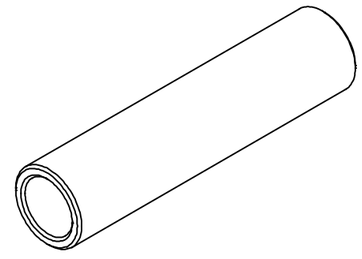
DWG. NO.	SIZE	REV.	SH.
2500532	1	1	

DESCRIPTION	MATERIAL	MAT. LOCATION
	Aluminum 6061-T6	-



SECTION A-A





SCALE 1.000

REV	DWG	CHK	ZONE	DATE	CHANGES

UNLESS OTHERWISE SPECIFIED

TOLERANCES: X.X ± 0.1 | FRAC. ± 1/64 | X.XX ± 0.01 | Angles ± 0.50° | X.XXX ± 0.001 | FINISH 125 √(µin)

DO NOT SCALE PRINT

THREADS ARE CLASS 2
CHAMFER ENDS OF ALL SCREW TREADS 30°
CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS
BREAK EDGES .016 MAX. ON MACHINED WORK
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE
IN ACCORDANCE WITH ASME Y14.5M & B46.1

SHOP ORDERS

ACCT NO.	NO. REQD 1	DATE ISSD -
DEL TO N Hartman		DATE REQD -
SURFACE TREATMT		SER NO. -
IDENT METHOD TAG		
PROJECT NUMBER		(logo)
PROJECT NAME		
DWG BY D Uken	DATE 28-Mar-03	
CHK BY N Hartman	DATE	
APR BY E Anderssen	DATE	

ERNEST ORLANDO LAWRENCE BERKELEY NATIONAL LABORATORY
UNIVERSITY OF CALIFORNIA - BERKELEY

ATLAS PIXEL DETECTOR
TENSION MECHANISM
Solid Spring Bushing

MICROFILMED:	DWG. TYPE	SHOWN ON	SCALE: 2.000	DO NOT SCALE PRINTS
	PART	250052	SHEET 1 OF 1	
PATENT CLEAR:	DESIGN ACCT. NO.	CATEGORY CODE API300	DWG. NO. 2500532	SIZE / REV. 1

Rev: 1/8/2001 ATLAS

Dwg. File: 250053 Model File: 250053