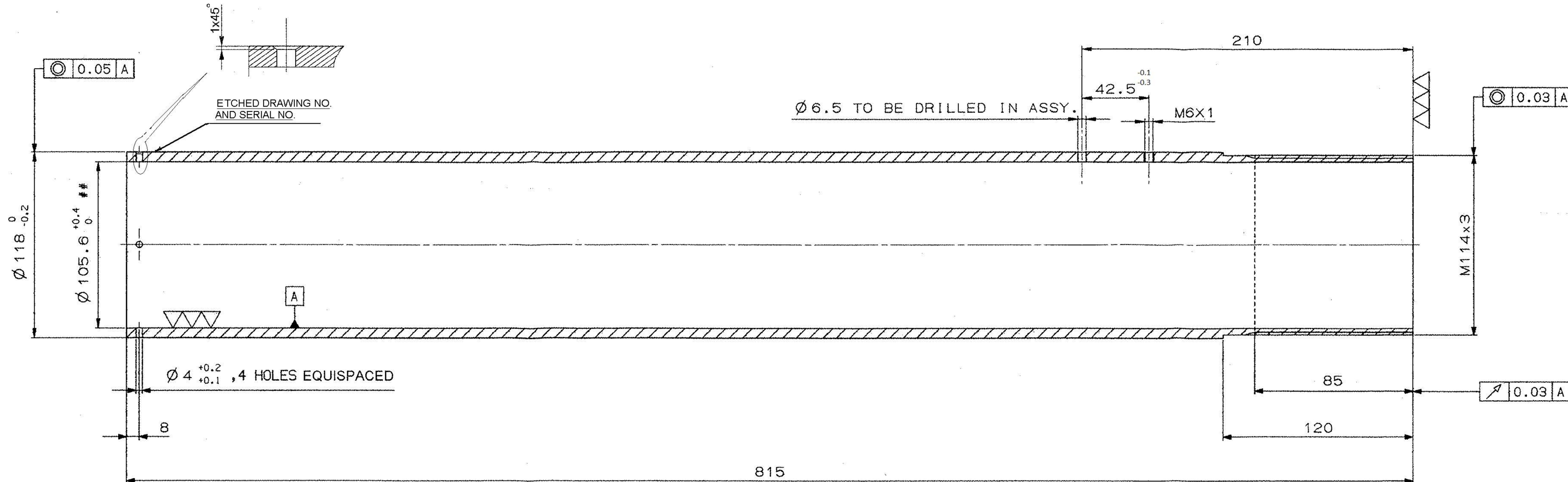


REVISION - II

***** PAINTING**

1. PRIMER RED OXIDE TO STANDARD IS:12744 TO BE APPLIED BY FIRM WHO IS SUPPLYING STORE TO MPF AS PER DW-1134
2. PAINTING TO BE DONE AT MPF IN OR DURING ASSEMBLY AS PER DW-1134
3. APPLY PRIMER AND PAINT ON OUTSIDE SURFACE ONLY
4. DO NOT APPLY PRIMER AND PAINT ON THREAD AND BORE SURFACE



**** MATERIAL: S.S AISI 316**

INTERNAL SURFACE TO BE HARD CHROMIUM PLATED
DIMENSION TO BE FINISHED AFTER WELDING OF SHEAR PIN HOLDER(DRG.NO.DW-1108-1104-14) AND PIN(DRG.NO.DW-1108-1106-14)WITH TUBE LRMR(DRG.NO.DW-1108-1101-12)

HARD CHROMIUM PLATING THICKNESS:-100-150 MICRON

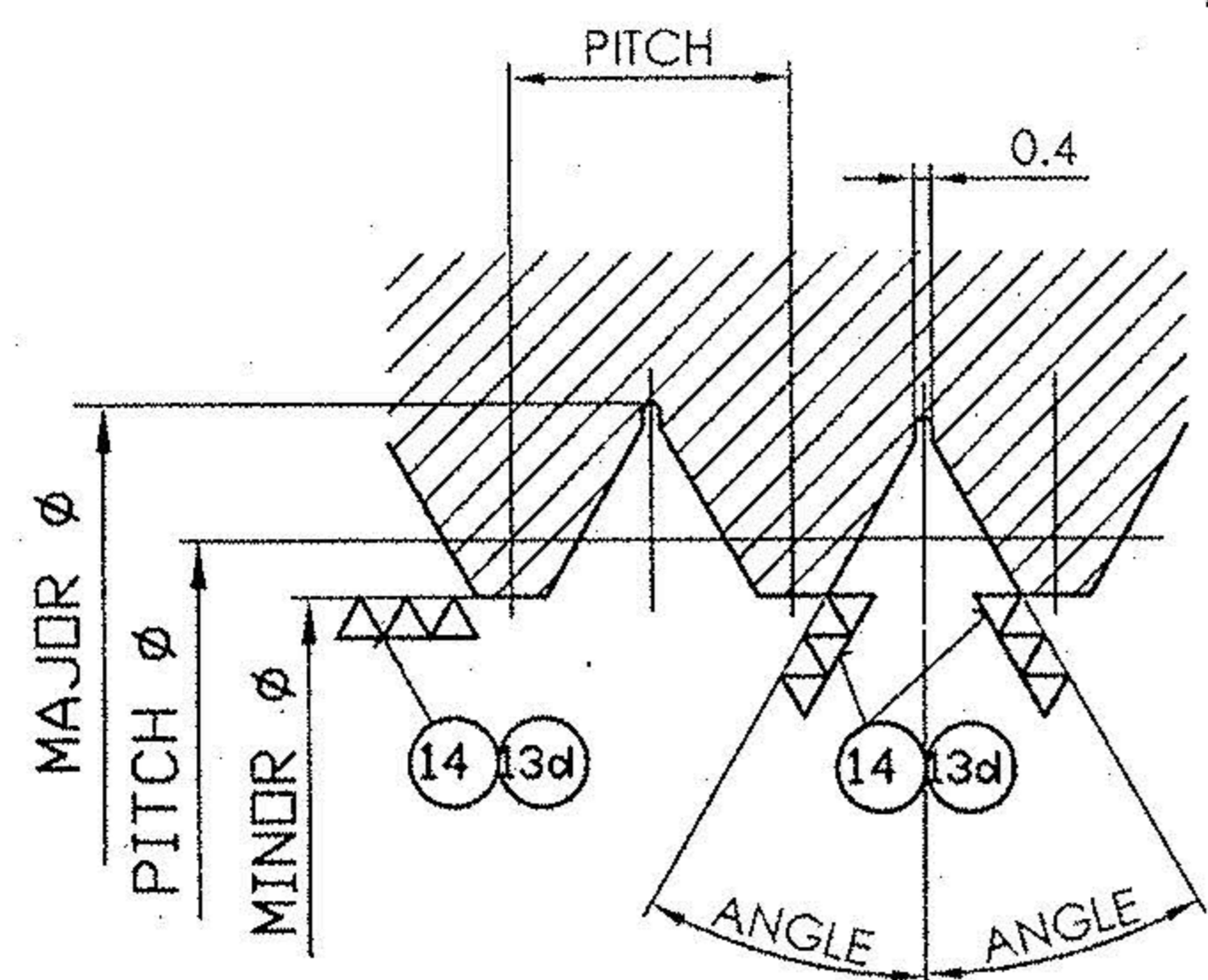


NOTE:-

INSPECTION OF BORE & THREAD

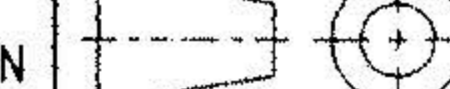
- CHECK TUBE ID WITH PLUG GAUGE HAVING DIMENSIONS - $\varnothing 105.628 \pm 0.007$
- CHECK THREAD M114x3 WITH RING GAUGE HAVING FOLLOWING DIMENSIONS

THREAD ANGLE & TOLERANCE	30° ± 10'	30° ± 14'
PITCH	3 ± 0.005	3 ± 0.005
MINOR DIA	$\varnothing 110.704 \pm 0.0115$	$\varnothing 111.0334 \pm 0.03$
PITCH DIA	$\varnothing 111.9834 \pm 0.0115$	$\varnothing 111.6334 \pm 0.0115$
MAJOR DIA	$\varnothing 114.187 \text{ MIN}$	$\varnothing 113.97 \text{ MIN}$
GO-GAUGE		NO GO-GAUGE



THE COPYRIGHT OF THESE DRAWINGS AND ATTACHMENTS TO THE INDIAN ORDNANCE FACORIES, MINISTRY OF DEFENCE, GOVT. OF INDIA THEY SHOULD NOT BE COPIED, RE-PRODUCED IN ANY WAY OR THE INFORMATION CONTAINED THEREIN MADE AVAILABLE TO UNAUTHORISED PERSONS WITHOUT THE WRITTEN PERMISSION OF THE DIRECTOR OF ORDNANCE FACORIES.

NOMINAL SIZE & FIT DEVIATION

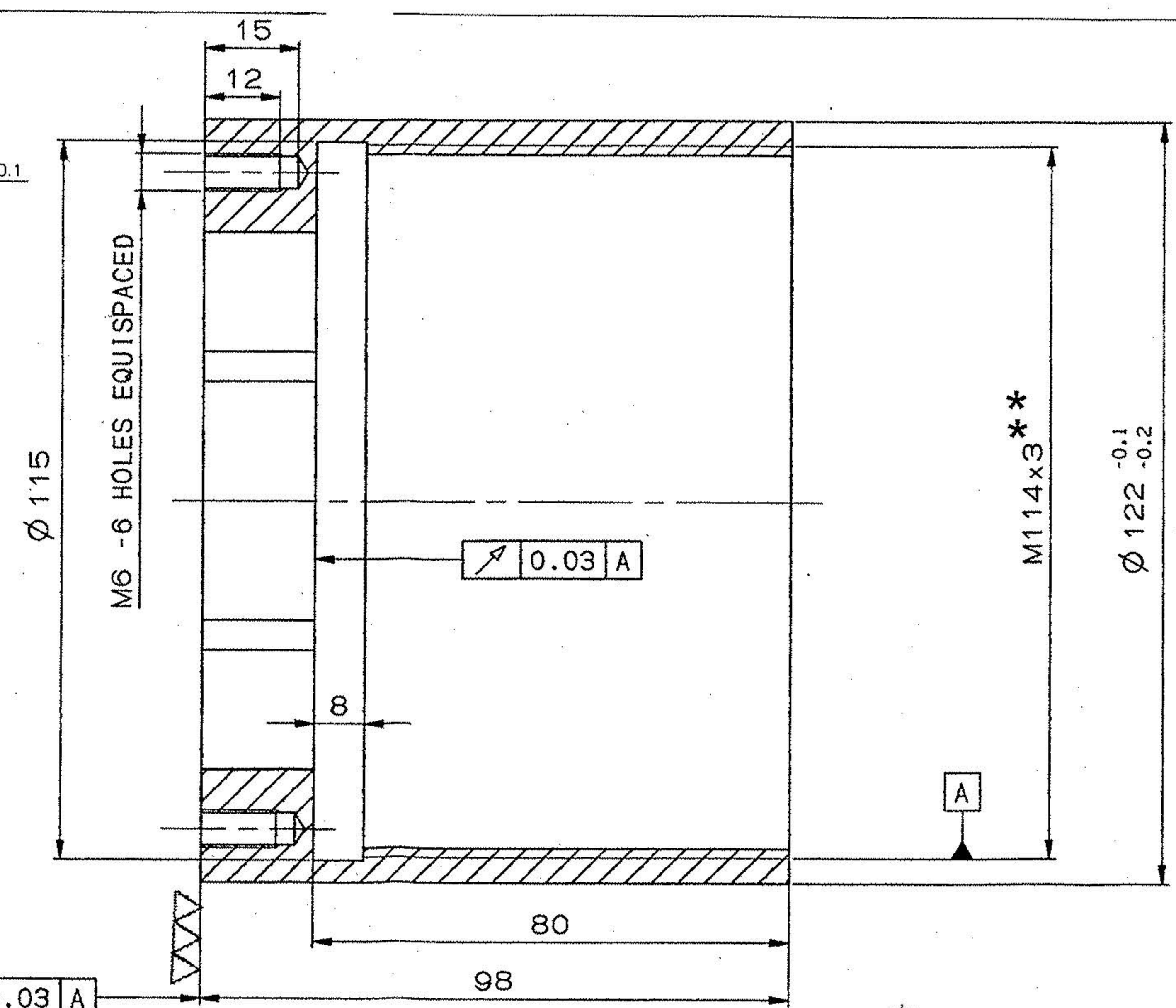
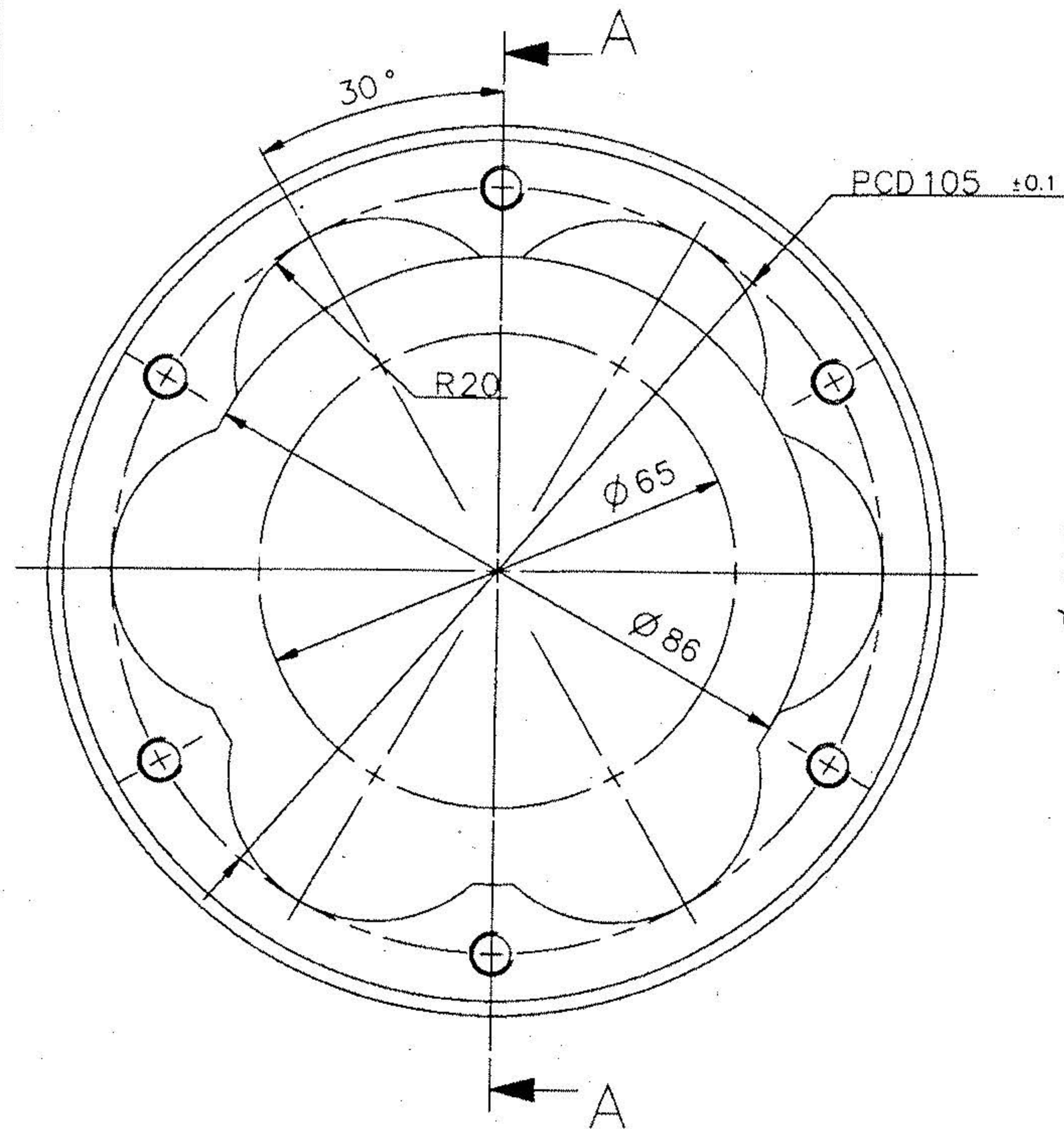


MACHINE TOOL PROTOTYPE FACTORY, AMBERNATH

Design Office

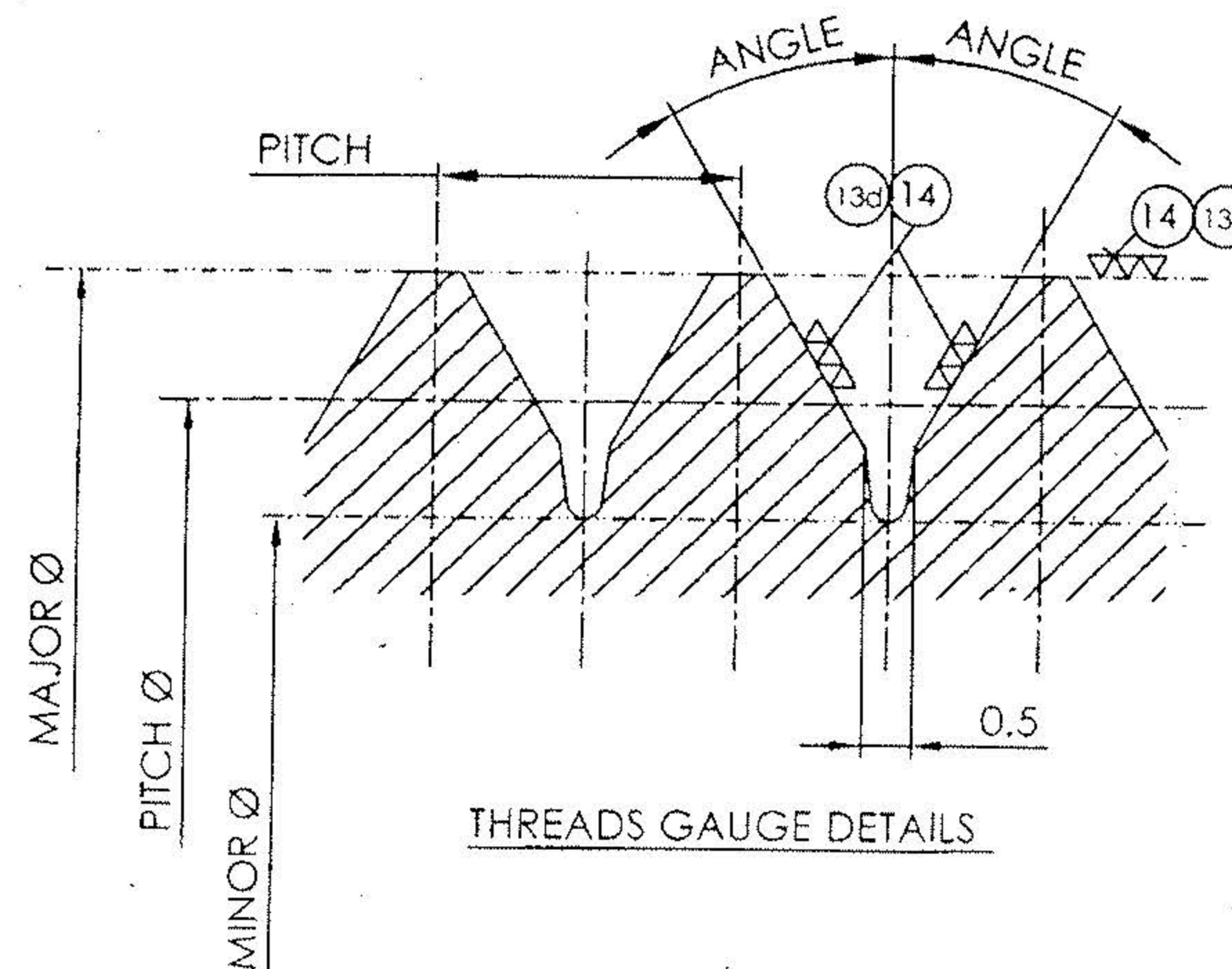
DRAWING No. DW-1108-1101-12

No. OFF	DESCRIPTION	PART No.	MATERIAL	STANDARD	DIMENSIONS	REMARKS
1	TUBE-LRMR		**			***
GENERAL TOLERANCE						
LINEAR DIMENSIONS						
0-6						±0.1
6-30						±0.2
30-120						±0.3
120-315						±0.5
315-1000						±0.8
1000-2000						±1.2
ANGULAR DIMENSION						
1-10						±1'
10-50						±30'
50-100						±20'
>100						±10'
VALUE IN "um"						
~						>25
▽						8-25
▽▽						1.8-8
▽▽▽						0.025-1.8
▽▽▽▽						<0.025
TUBE LR-MR TUBE ASSY. LAUNCHER ASSY LR-MR LAUNCHER KAVACH MOD-II						
SCALE 1:2						DRAWN 19.01.08 gujjar
CHECKED " " sry						DATE NAME
APPROVED						
REPLACED BY						
REPLACED FOR						
MACHINE TOOL PROTOTYPE FACTORY, AMBERNATH						DRAWING No. DW-1108-1101-12



- ***
PAINTING
1. PRIMER RED OXIDE TO STANDARD IS:12744 TO BE APPLIED BY FIRM WHO IS SUPPLYING STORE TO MPF AS PER DW-1134
 2. PAINTING TO BE DONE AT MPF IN OR DURING ASSY. AS PER DW-1134
 3. DO NOT APPLY THE PRIMER AND PAINT ON THREAD.

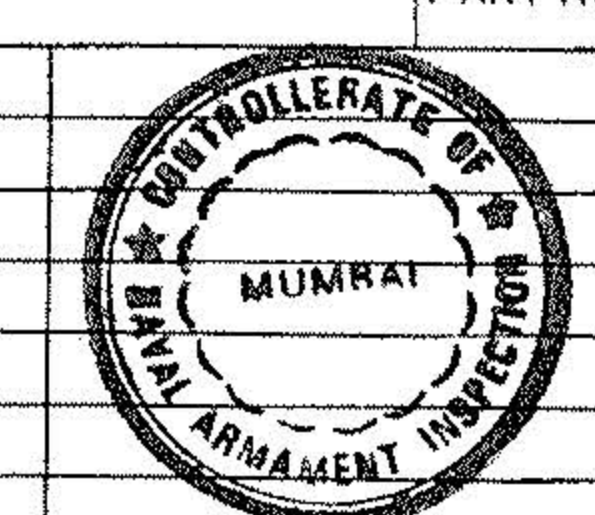
* MATERIAL: S.S AISI 316



** CHECK WITH PLUG GAUGE
HAVING FOLLOWING DIMENSIONS

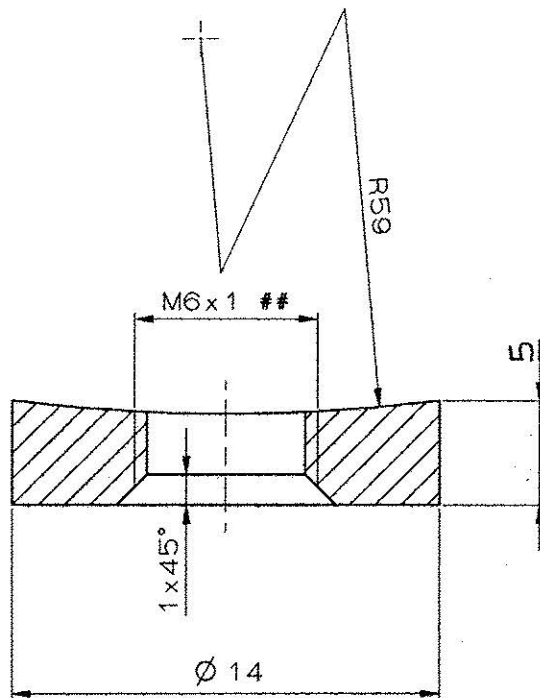
THREAD ANGLE & TOLERANCE	30° ± 10'	30° ± 14'
PITCH	3 ± 0.005	3 ± 0.005
MINOR DIA	Ø110.319 MAX	Ø110.319 MAX
PITCH DIA	Ø112.075 ± 0.007	Ø112.435 ± 0.007
MAJOR DIA	Ø114.024 ± 0.014	Ø113.035 ± 0.014
GO-GAUGE		NO GO-GAUGE

16	ADOPTOR		*		***	
No.OFF	DESCRIPTION	PART No.	MATERIAL	STANDARD	DIMENSIONS	REMARKS
GENERAL TOLERANCE						
LINEAR DIMENSIONS						
0-6	±0.1					
6-30	±0.2					
30-120	±0.3					
120-315	±0.5					
315-1000	±0.8					
1000-2000	±1.2					
ANGULAR DIMENSION						
1-10	±1°					
10-50	±30'					
50-100	±20'					
>100	±10'					
VALUE IN "um"						
~	>25					
▽	8-25					
▽▽	1.5-8					
▽▽▽	0.025-1.6					
▽▽▽▽	<0.025					
NOMINAL SIZE & TOLERANCE						
MACHINE TOOL PROTOTYPE FACTORY, AMBERNATH			Design Office			
DRAWING No. DW-1108-1102-13			SCALE 1:1			
DRAWN: vijay			CHECKED: [Signature]			
APPROVED: [Signature]			REPLACED BY: [Signature]			
REPLACED FOR: [Signature]			DATE: [Signature]			
NAME: [Signature]			NAME: [Signature]			



(G Ramesh)
Commander
Chief Inspector of Naval Armament
for Controller of Naval Armament Inspection

THE COPYRIGHT OF THESE DRAWINGS AND ATTACHMENTS TO THE INDIAN ORDNANCE FACTORIES, MINISTRY OF DEFENCE, GOVT. OF INDIA THEY SHOULD NOT BE COPIED, RE-PRODUCED IN ANY WAY OR THE INFORMATION CONTAINED THEREIN MADE AVAILABLE TO UNAUTHORISED PERSONS WITHOUT THE WRITTEN PERMISSION OF THE DIRECTOR OF ORDNANCE FACTORIES.



**** PAINTING**

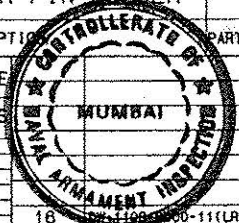
1. PRIMER RED OXIDE TO STANDARD IS:12744 TO BE APPLIED BY FIRM WHO IS SUPPLYING STORE TO MPF AS PER DW-1134
2. PAINTING TO BE DONE AT MPF IN OR DURING ASSEMBLY AS PER DW-1134
3. DO NOT APPLY PRIMER AND PAINT ON THREAD

TO BE DONE AFTER WELDING

***** MATERIAL :S.S AISI 316

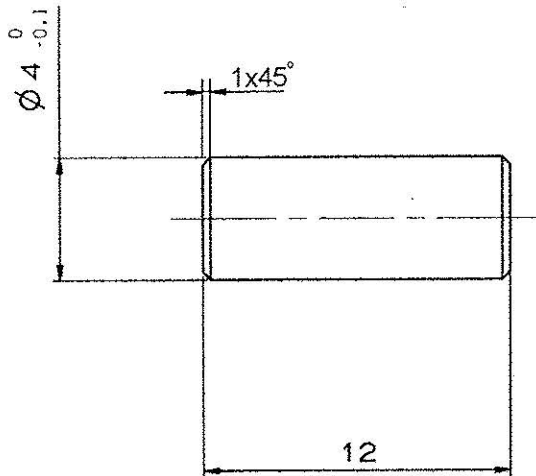


1		SHEAR PIN HOLDER		*	**	
NO. OFF	DESCRIPTION	PART NO.	MATERIAL & STD.	DIMENSION	REMARKS	
GENERAL TOLERANCE						
LINEAR DIMENSIONS						
0-8	±0.1					
8-25	±0.2					
25-50	±0.3					
50-100	±0.5					
100-200	±0.8					
200-500	±1.2					
ANGULAR DIMENSION	NO. OFF	DRG. NO. OF ASSOCIATED PART	INDEX	ALTERATION	DATE	NAME
1-10	±1°					
10-50	±30'					
50-100	±20'					
>100	±10'					
VALUE IN "um"						
~	±25					
∇	8-25					
▽	1.0-8					
▽▽	0.025-1.6					
▽▽▽	< 0.025					
NOMINAL SIZE & FIT	DEVIATION	MACHINE TOOL PROTOTYPE FACTORY AMBERNATH		Design Office	REPLACED BY REPLACED FOR DRAWING NO. DW-1108-1104-14	



(G Ramesh)
Commander
Chief Inspector of Naval Armament
for Controller of Naval Armament Inspection

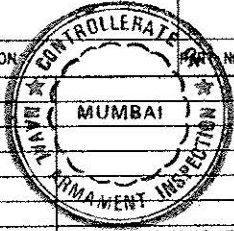
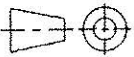
SCALE 5:1
DRAWN 22.01.08 VIJAY
CHECKED -11 JAY
APPROVED [Signature]



**** PAINTING**

1. PRIMER RED OXIDE TO STANDARD IS:12744 TO BE APPLIED BY FIRM WHO IS SUPPLYING STORE TO MPFAS PER DW-1134
2. PAINTING TO BE DONE AT MPF IN OR DURING ASSEMBLY AS PER DW-1134



1		PIN		S.S. AISI 316	
NO. OFF	DESCRIPTION	NO.	MATERIAL & STD.	DIMENSION	REMARKS
GENERAL TOLERANCE		 (G Ramesh) Commander Chief Inspector of Naval Armament for Controller of Naval Armament Inspection			
LINEAR DIMENSIONS					
0-8	±0.1				
8-30	±0.2				
30-120	±0.3				
120-315	±0.5				
315-1000	±0.8				
1000-2000	±1.2				
ANGULAR DIMENSION		NO. OFF	DRO. NO OF ASSOCIATED PART	INDEX	OTHER
1-10	±1°	PIN FOR BARREL ASSY LAUNCHER ASSY. LR-MR LAUNCHER KAVACH MOD-II MACHINE TOOL PROTOTYPE FACTORY AMBERNATH			
10-50	±30"				
50-100	±20"				
>100	±10"				
VALUE IN "um"		SCALE 1:1 DRAWN 28.01.08 VIJAY CHECKED 28.01.08 Jyo APPROVED 28.01.08 R			
~	±25	REPLACED BY			
∅	0-25	REPLACED FOR			
∅∅	1.0-B	DRAWING NO.			
∅∅∅	0.025-1.0	DW-1108-1106-14			
∅∅∅∅	<0.025	Design Office			
NOMINAL SIZE & FIT	DEVIATION				

DW-1134

PROCEDURE FOR PAINTING OF KAVACH MOD-II COMPONENTS

Procedure for applying paint on steel, galvanised steel, zinc or
aluminium sprayed steel and aluminium metal component

For Steel painting

1. Wash down with detergent solution and rinse with fresh water thoroughly and dry.
2. Immediately after drying apply 3 - 4 coats of Red Oxide Zinc Phosphate Primer conforming to IS: 12744. Primer coating thickness of 120 ± 15 microns.
3. With in 4 to 24 hours of application of primer coating, two coats of the High Performance Exterior Paint (HEPT) to RAL7040 Pattern no. N8010-P009681 should be applied. Paint coating thickness of 190 ± 10 microns.

For Aluminium Painting

1. Wash down with detergent solution and rinse with fresh water thoroughly and dry.
2. Immediately after drying apply one coat of Pre-treatment Primer conforming to DEF STAN 80 -15 (Patt. nos.8010-000116 & 8010-000117).
3. Apply two coats of Yellow Zinc Chromate Primer conforming to IS: 1874 (Patt.no.8010-000113) Total primer coating thickness of 60 - 80 microns.
4. With in 4 to 24 hours of application of Primer coating, two coats of the High Performance Exterior Paint (HEPT) to RAL7040 pattern no. N8010-P009681 should be applied. Paint coating thickness of 120 - 125 microns.

Details of Primer,Pre-treatment Primer and Paint

- A. Primer for Steel: - Red Oxide Zinc Phosphate conforming to specification IS: 12744.
- B. Pre-treatment Primer for Aluminium:- DEF STAN 80-15 (Patt.nos. 8010-000116 & 8010-000117)
- C. Primer for Aluminium :- Yellow Zinc Chromate to IS:-1874 (Patt. no.8010-000113)
- D. Paint: - High Performance Exterior Paint (HEPT) to RAL7040 Pattern no. N8010-P009681
- E. Paint colour shade :- Smoke Gray



etc
JK
(G Ramesh)
Commander
Chief Inspector of Naval Armament
for Controller of Naval Armament Inspection

15-37700094

S 09/08/17
JNM/Std Cell