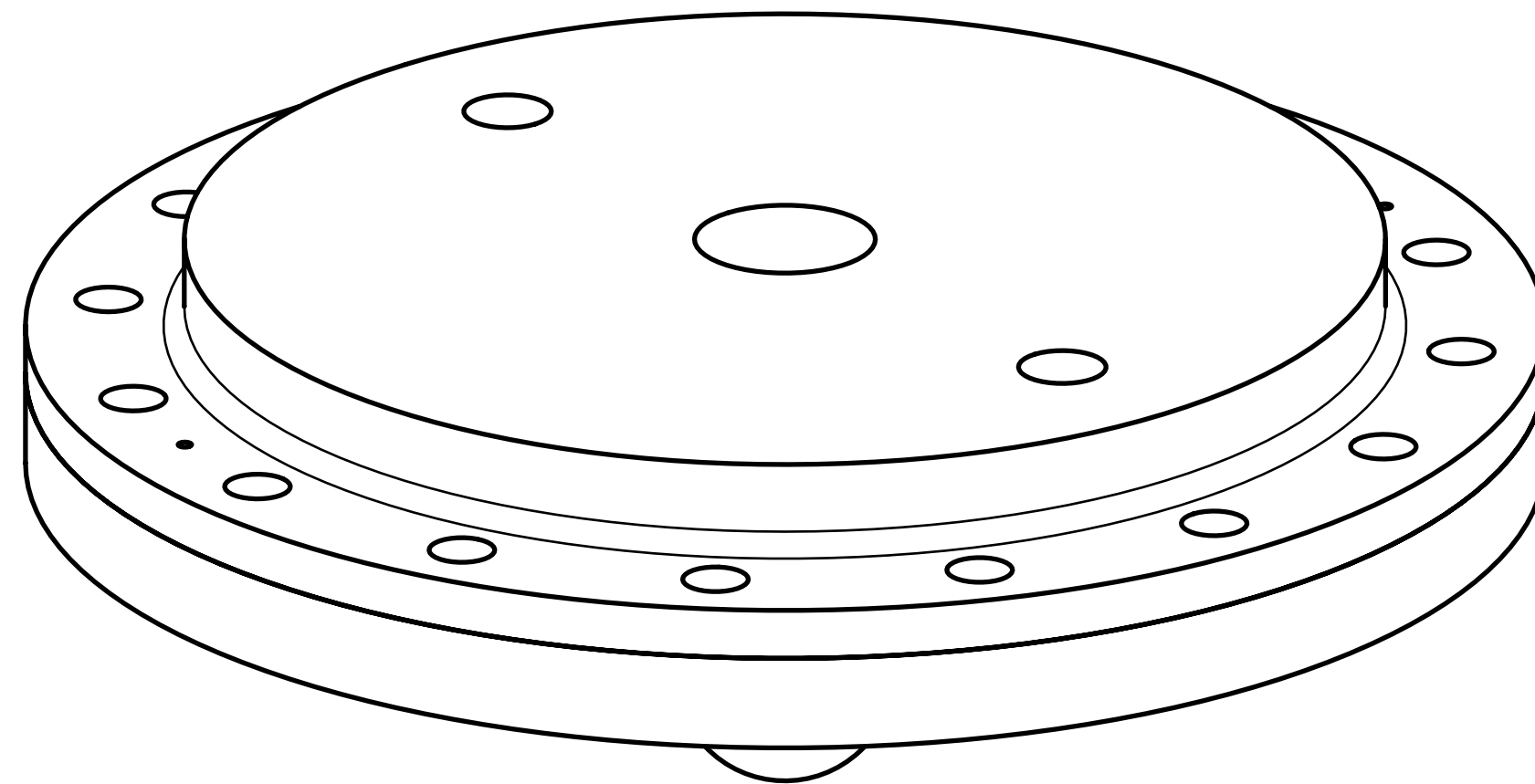


AIAA Liquid Rocket Engine Initiative

Injector Phase Design

QUOTATION VERSION - INJECTOR 6.0



SHEETS:

- 1) Cover
- 2) Aggregate Injector Assembly
- 3) Manifold
- 4) Manifold - Pintle Tube
- 5) Manifold - Orifices
- 6) Headplate
- 7) Headplate - Seal Groove
- 8) Headplate - Manifold Contours

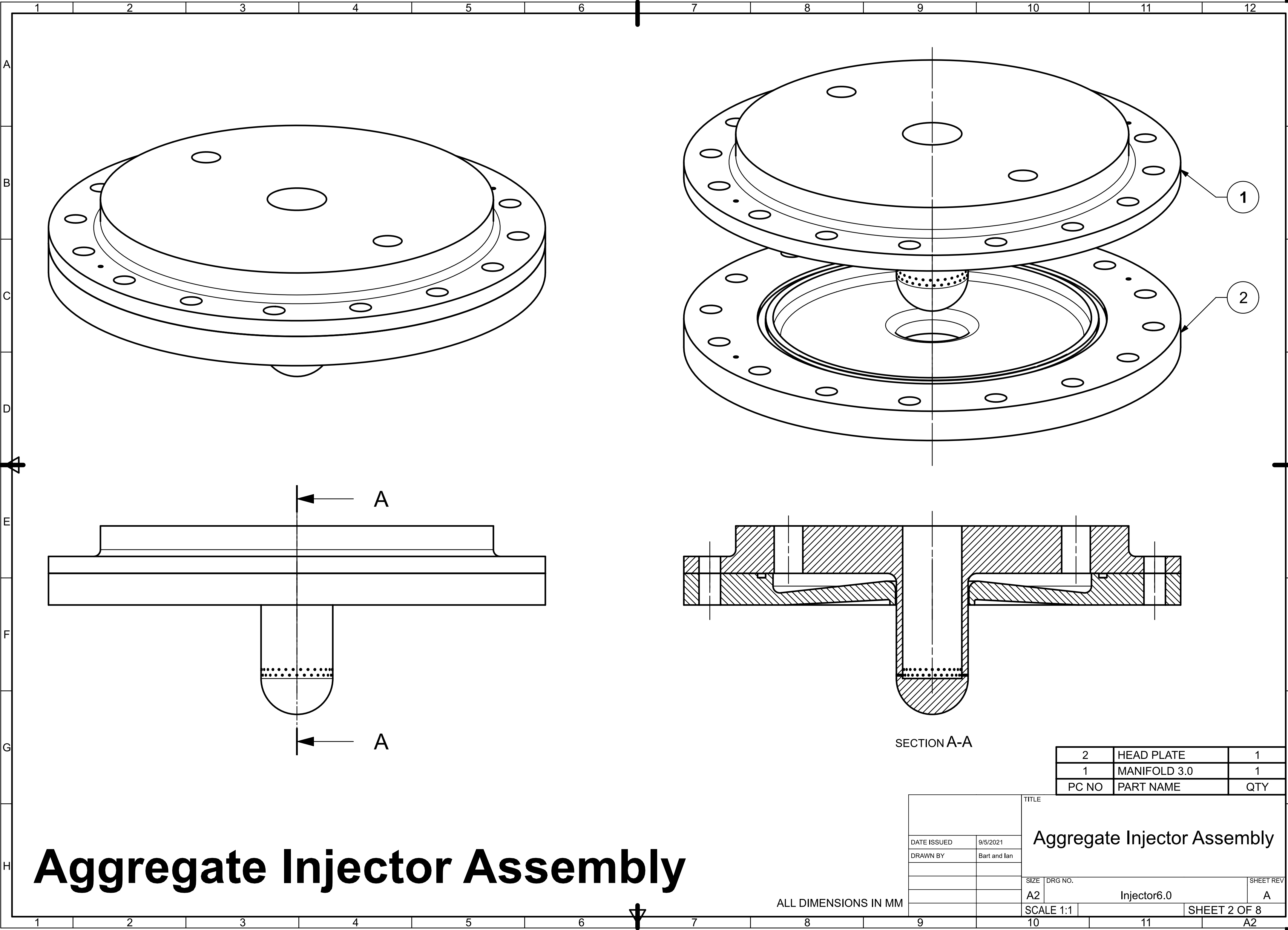
Designed by:

Bartosz Wielgos

Ian Brown

As of:

9/4/2021

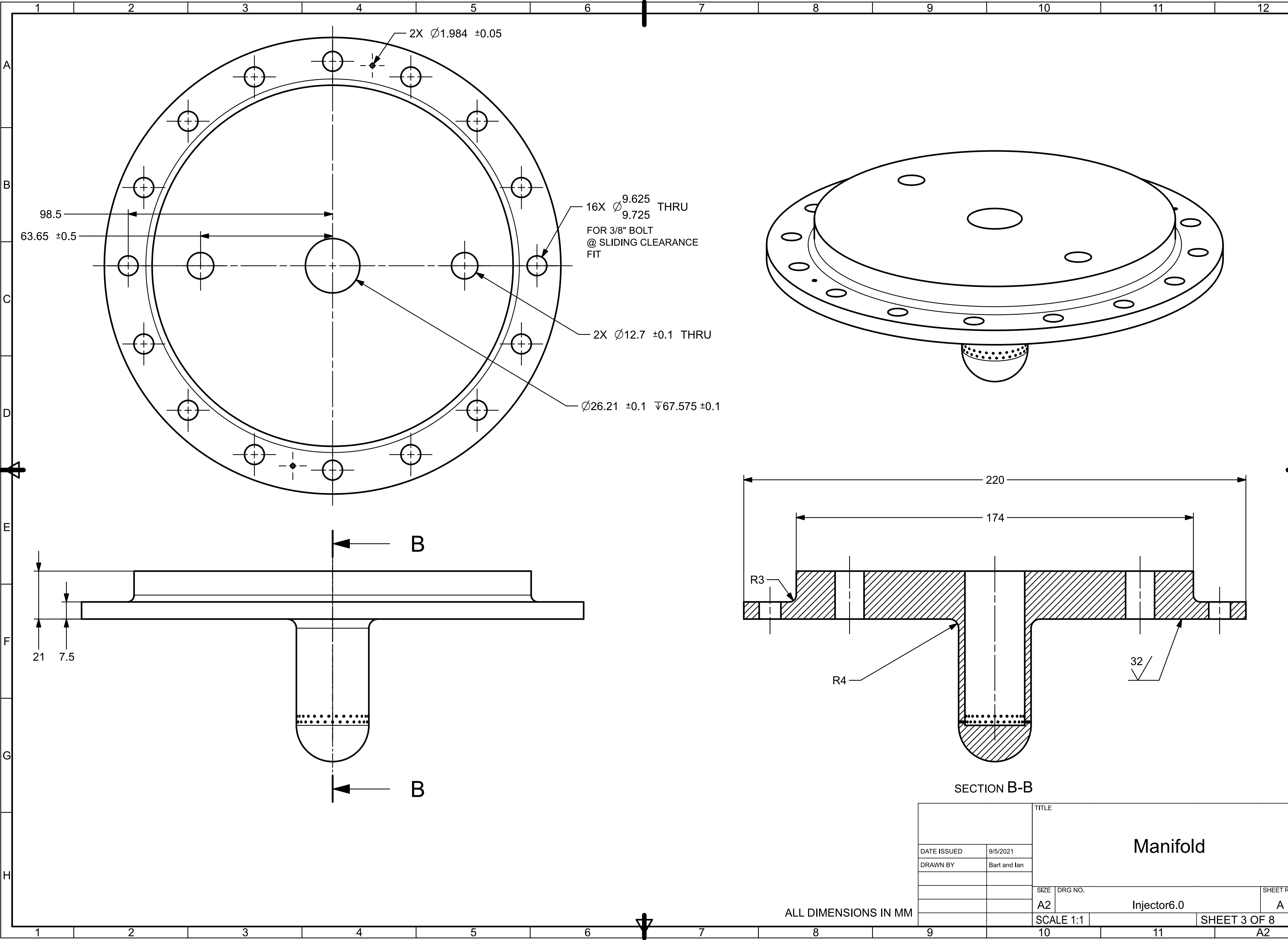


Aggregate Injector Assembly

ALL DIMENSIONS IN MM

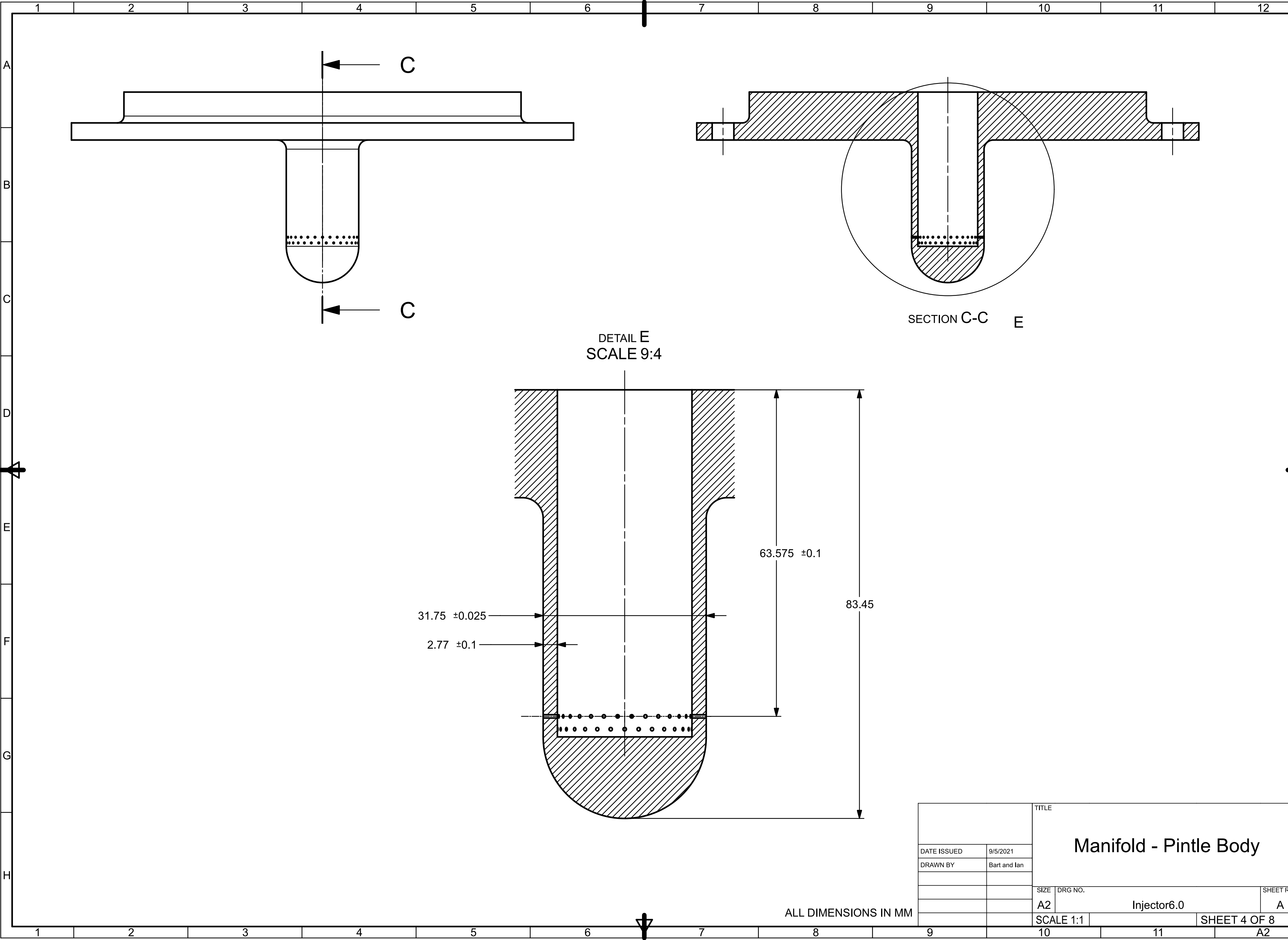
DATE ISSUED 9/5/2021 DRAWN BY Bart and Ian		Aggregate Injector Assembly	
SIZE A2		DRG NO. Injector6.0	
SCALE 1:1		SHEET 2 OF 8	

2	HEAD PLATE	1
1	MANIFOLD 3.0	1
PC NO	PART NAME	QTY

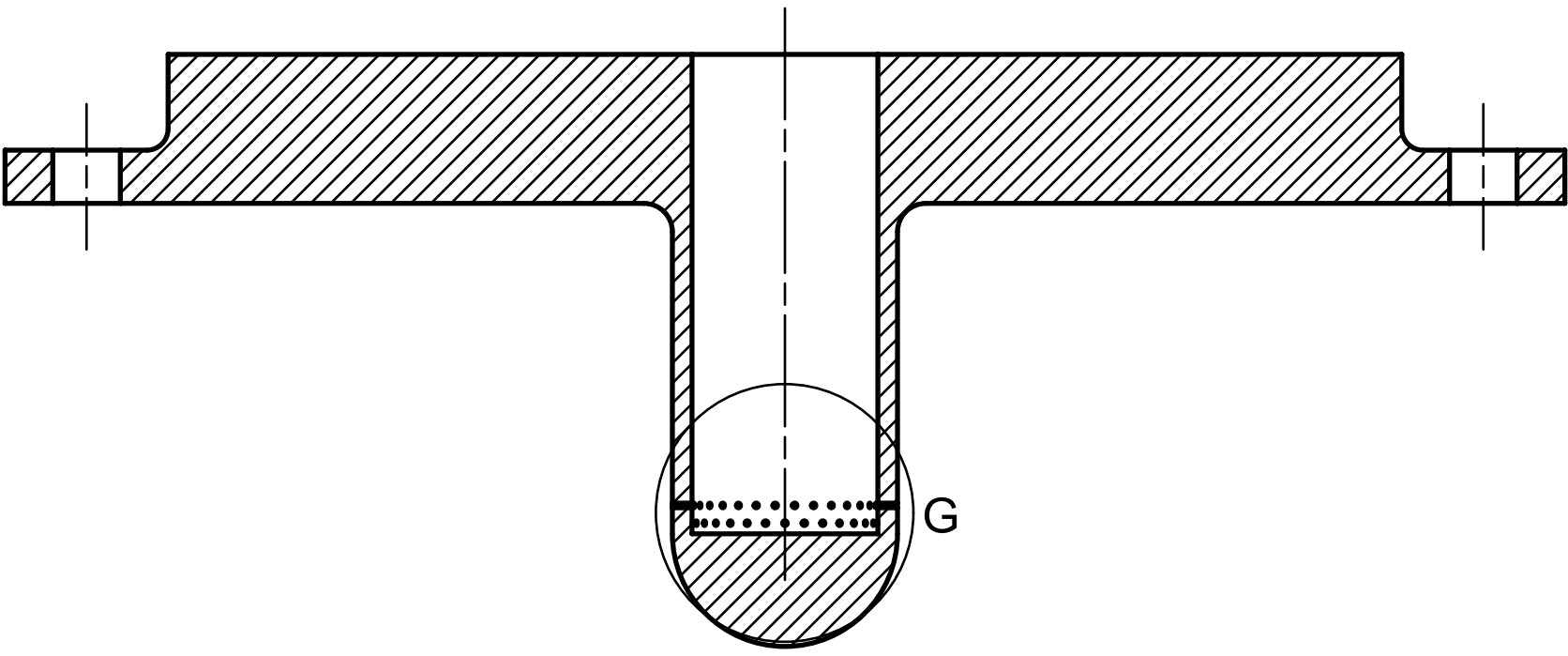
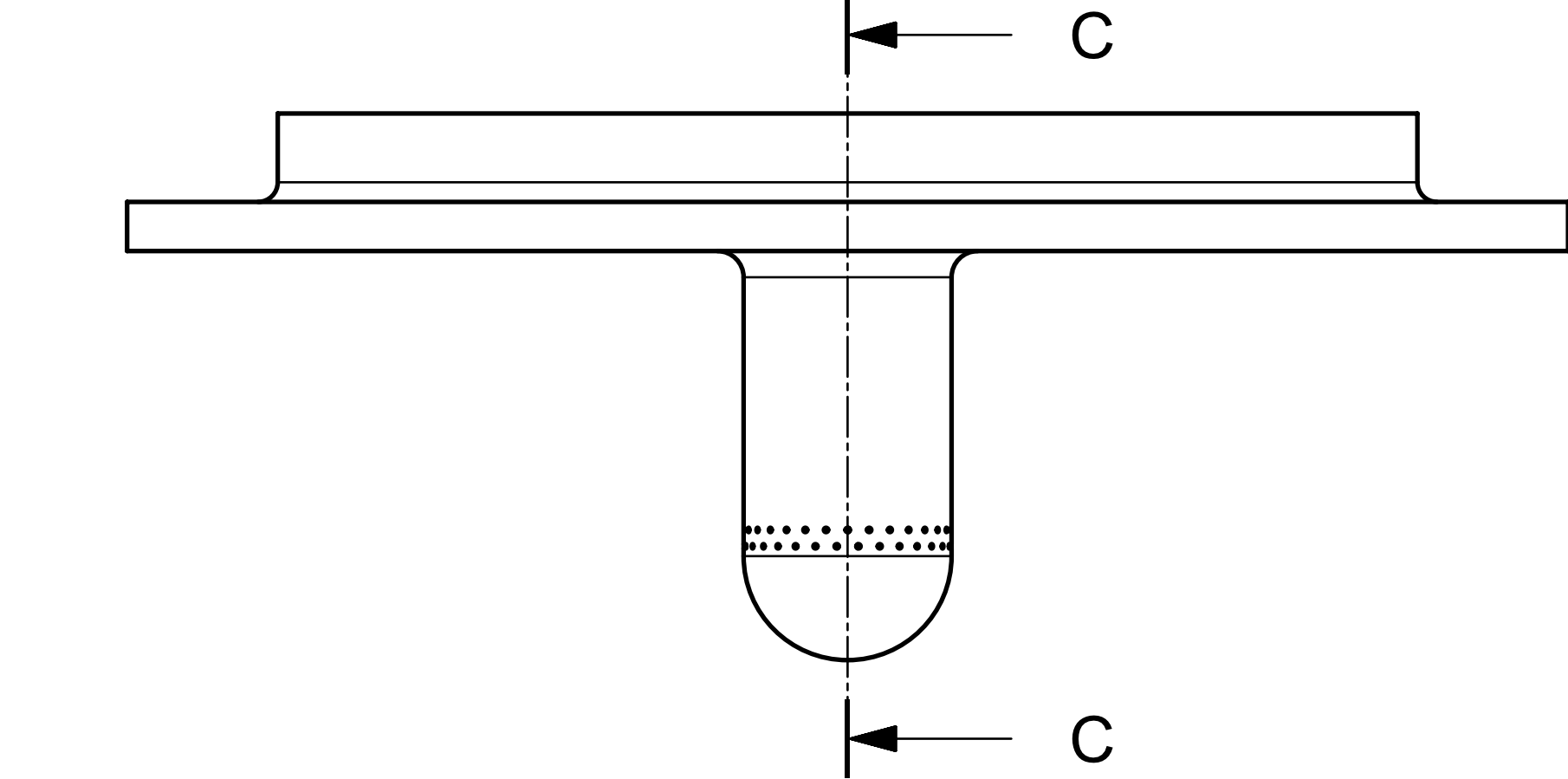
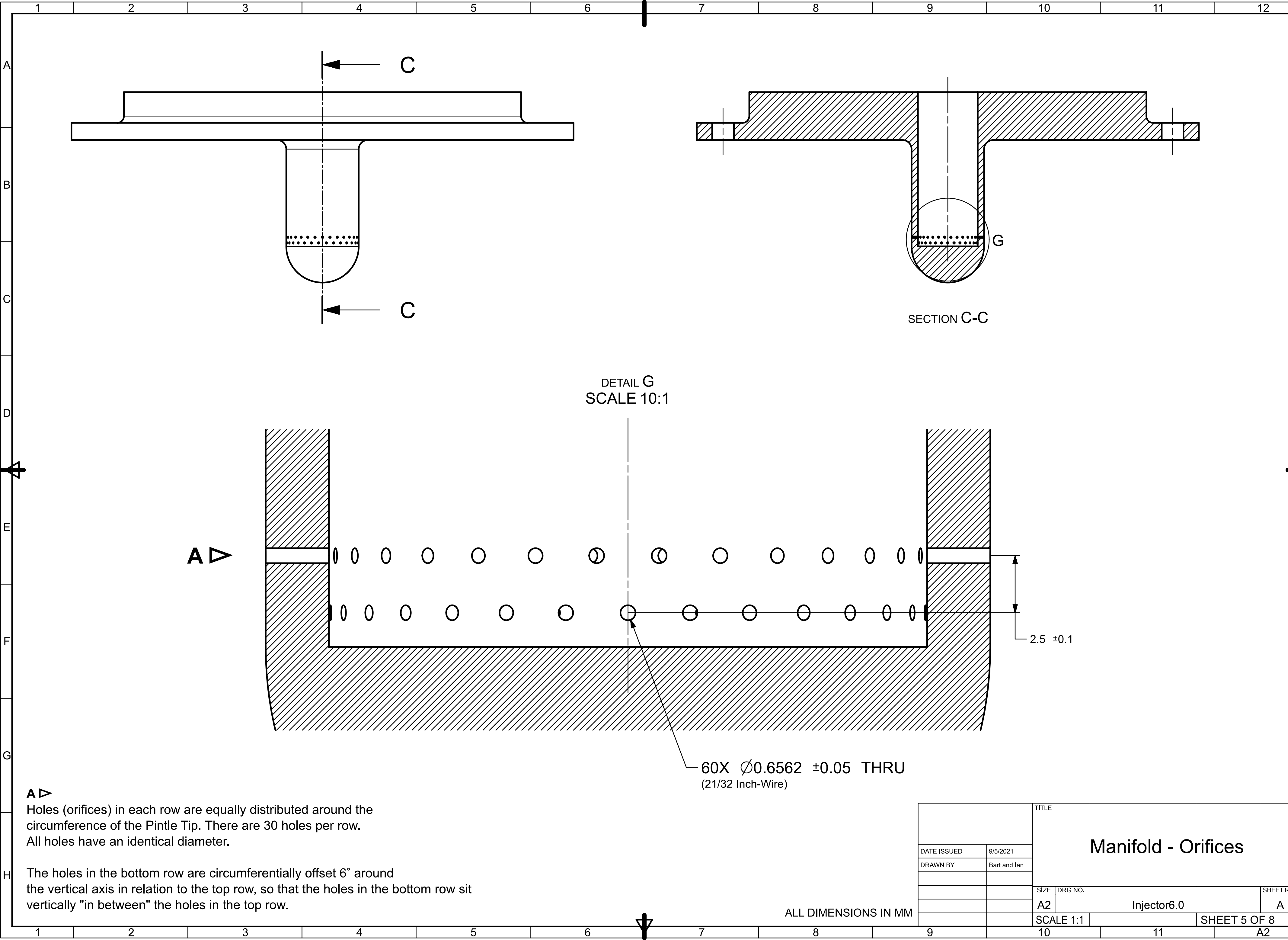


		TITLE Manifold		
DATE ISSUED	9/5/2021			
DRAWN BY	Bart and Ian			
		SIZE A2	DRG NO. Injector6.0	SHEET REV A
		SCALE 1:1		SHEET 3 OF 8

ALL DIMENSIONS IN MM



		TITLE		
		Manifold - Pintle Body		
DATE ISSUED	9/5/2021			
DRAWN BY	Bart and Ian			
		SIZE	DRG NO.	SHEET REV
		A2	Injector6.0	A
		SCALE 1:1		SHEET 4 OF 8



SECTION C-C

DETAIL G
SCALE 10:1

A ▷

2.5 ±0.1

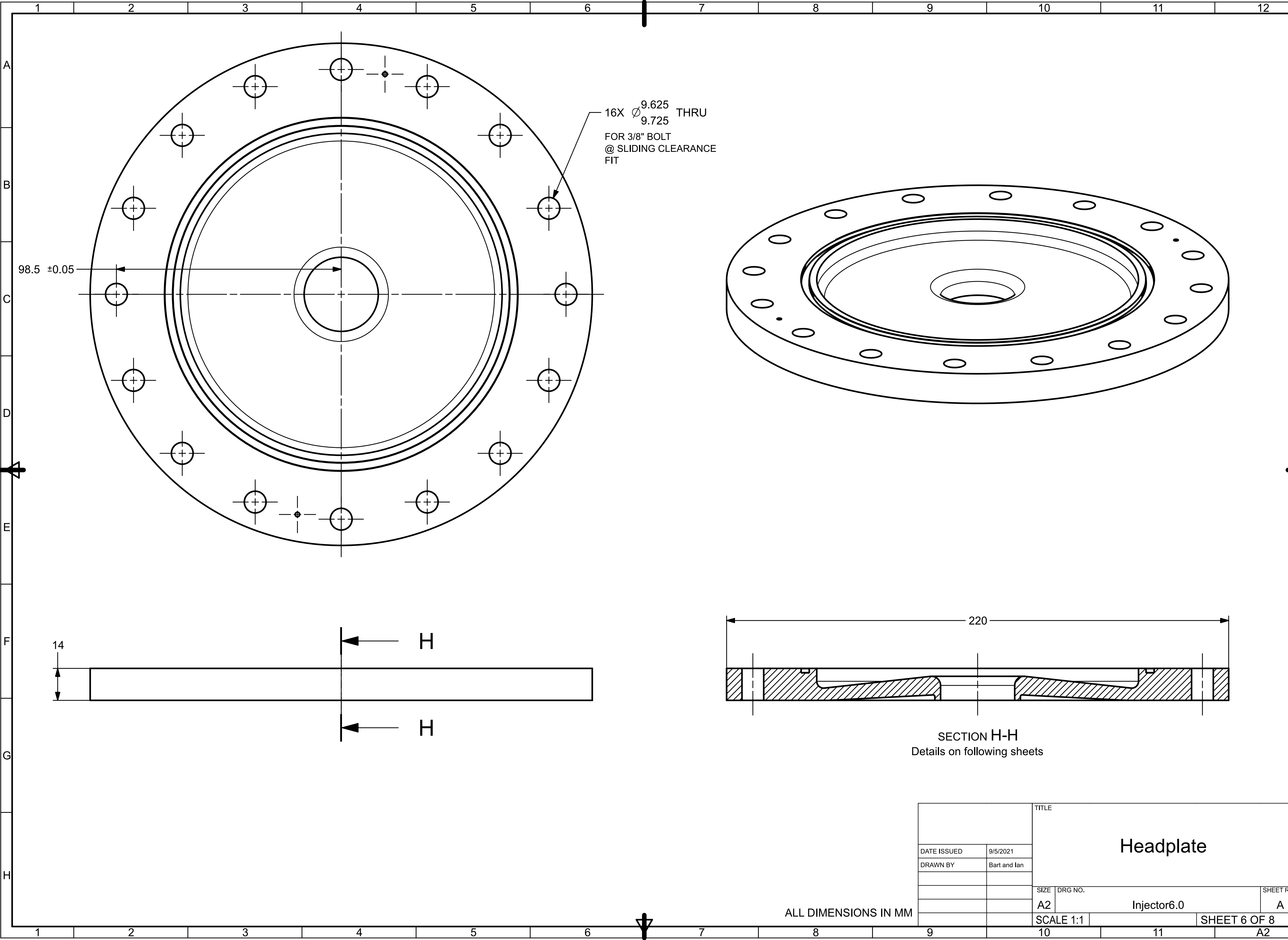
60X Ø0.6562 ±0.05 THRU
(21/32 Inch-Wire)

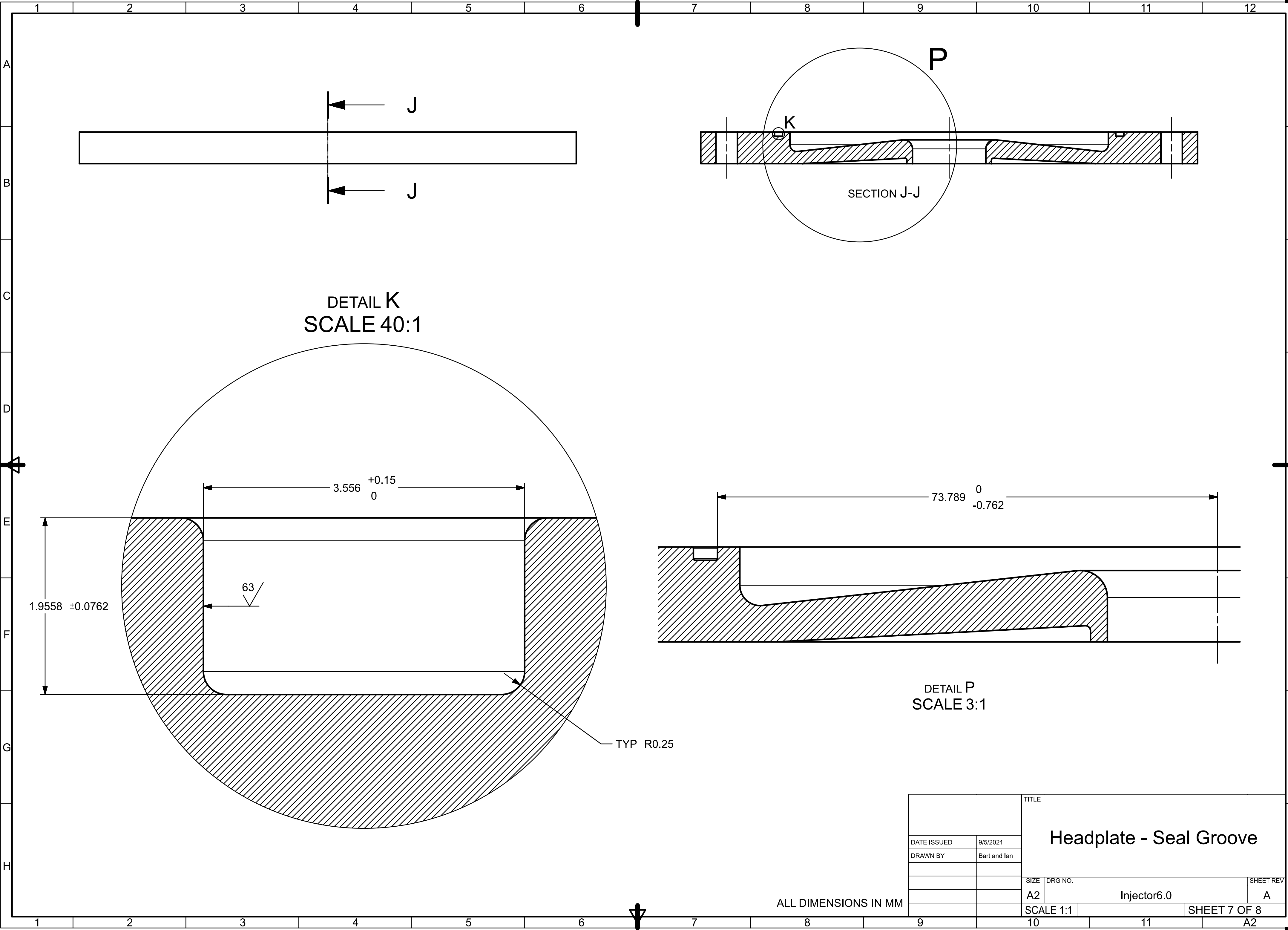
A ▷
Holes (orifices) in each row are equally distributed around the circumference of the Pintle Tip. There are 30 holes per row. All holes have an identical diameter.

The holes in the bottom row are circumferentially offset 6° around the vertical axis in relation to the top row, so that the holes in the bottom row sit vertically "in between" the holes in the top row.

ALL DIMENSIONS IN MM

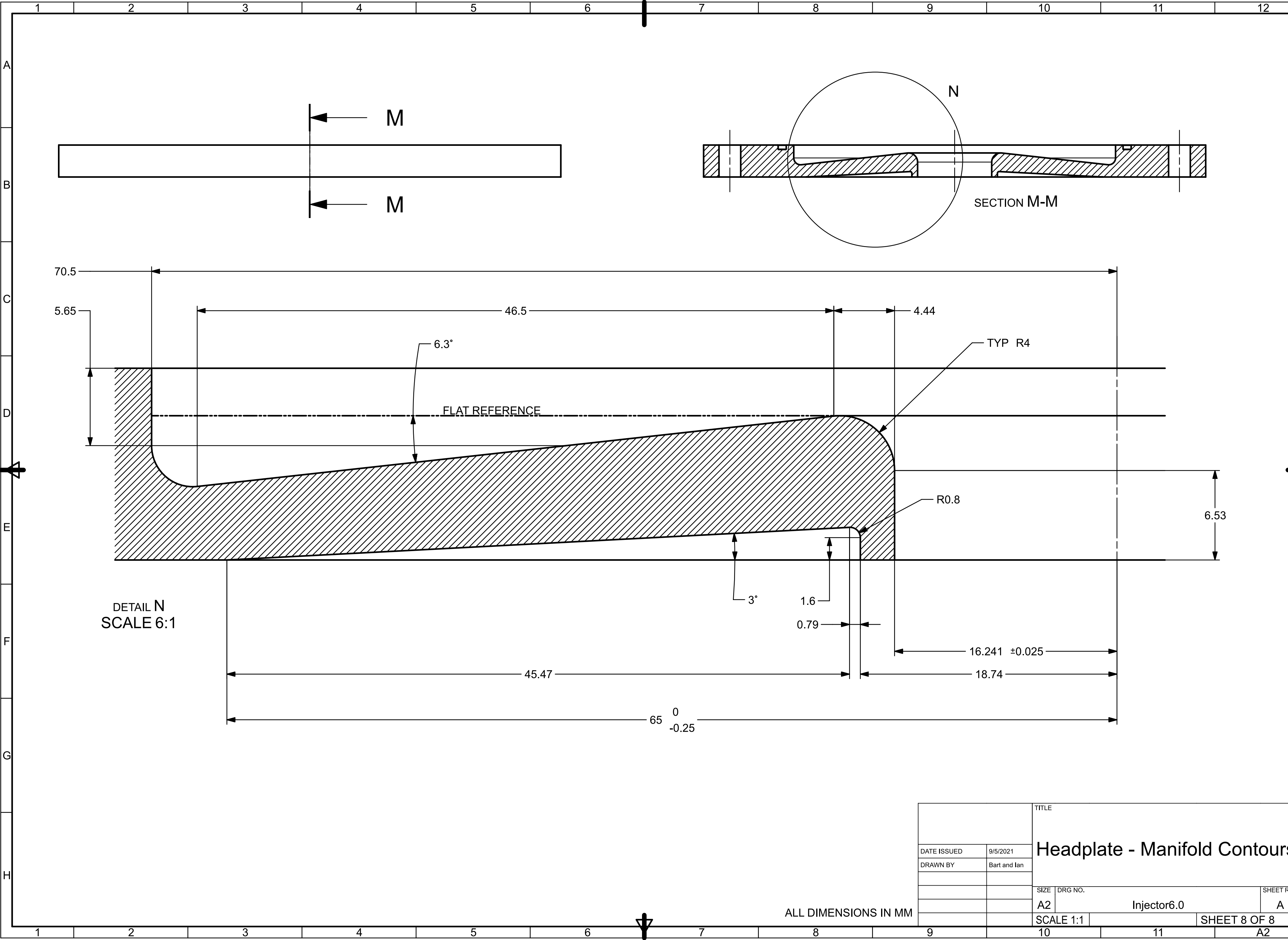
		TITLE		
DATE ISSUED		9/5/2021		
DRAWN BY		Bart and Ian		
		SIZE	DRG NO.	SHEET REV
		A2	Injector6.0	A
		SCALE 1:1		SHEET 5 OF 8





		TITLE		
		Headplate - Seal Groove		
DATE ISSUED	9/5/2021			
DRAWN BY	Bart and Ian			
		SIZE	DRG NO.	SHEET REV
		A2	Injector6.0	A
		SCALE 1:1		SHEET 7 OF 8

ALL DIMENSIONS IN MM



		TITLE		
DATE ISSUED	9/5/2021	Headplate - Manifold Contours		
DRAWN BY	Bart and Ian			
SIZE	DRG NO.	SHEET REV		
A2	Injector6.0	A		
SCALE 1:1		SHEET 8 OF 8		

ALL DIMENSIONS IN MM