

# PULSAR SPECIFICATION SHEET

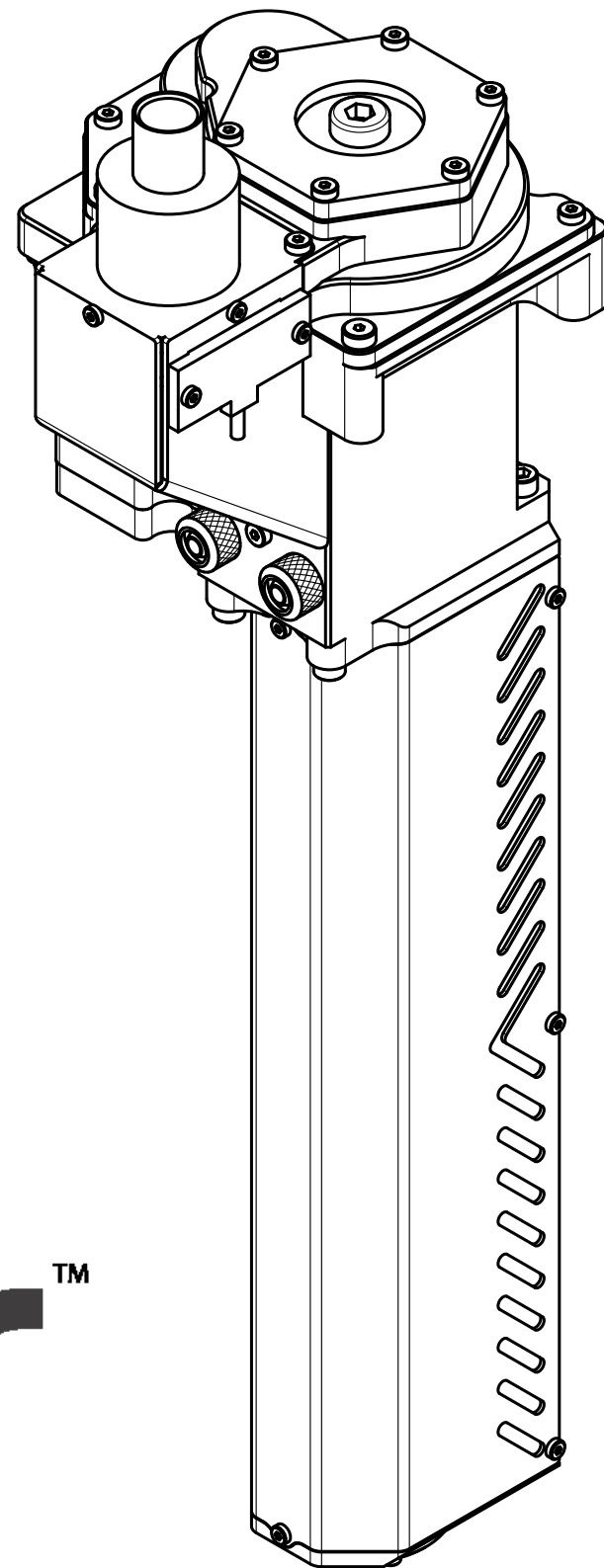
| Parameter                   | Value                   | Units      |
|-----------------------------|-------------------------|------------|
| Weight                      | 7                       | kg         |
| Operating Speed             | 450                     | RPM        |
| Max Temperature             | 500                     | °C         |
| Max Environment Temperature | 100                     | °C         |
| Available Nozzle Sizes      | Blank / 1.0 / 3.0 / 5.0 | mm         |
| Max Mass Flow               | 2.5                     | kg/h       |
| Max Volumetric Flow         | 250                     | cubic mm/s |
| Total Length                | 500                     | mm         |
| Total Heater Power          | 1100                    | W          |
| Operating Voltage           | 120 / 240               | V          |
| Cold Zone Cooling Medium    | Water                   |            |
| Part Cooling                | Compressed Air          |            |
| Additional Feature          | Bed Sensor connector    |            |
| Additional Feature          | Fan Connector           |            |

## Heater Specification

| Parameter                   | Value     | Units |
|-----------------------------|-----------|-------|
| Zones                       | 3         |       |
| Heater Top Barrel           | 500       | W     |
| Heater Bottom Barrel        | 350       | W     |
| Nozzle Heater               | 250       | W     |
| Sensors                     | PT100     |       |
| Operating Voltage           | 120 / 240 | V     |
| Max Temperature             | 500       | °C    |
| Max Environment Temperature | 100       | °C    |

## Extrusion Screw Specification

| Parameter                        | Value  | Units |
|----------------------------------|--------|-------|
| Screw Diameter                   | 19.3   | mm    |
| Screw Ratio                      | 2.57   |       |
| Screw Length                     | 348    | mm    |
| Motor Specification              |        |       |
| Parameter                        | Value  | Units |
| Size                             | Nema23 |       |
| Stepper Driver Operating Voltage | 18-50  | V     |
| Maximum Current                  | 2.8    | A     |
| Gearbox Ratio                    | 11.46  |       |



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Product Name

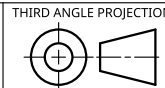
PULSAR PRODUCTION 002

SIZE

# B

UNITS

MM



SCALE

1:2

SHEET

1 of 7

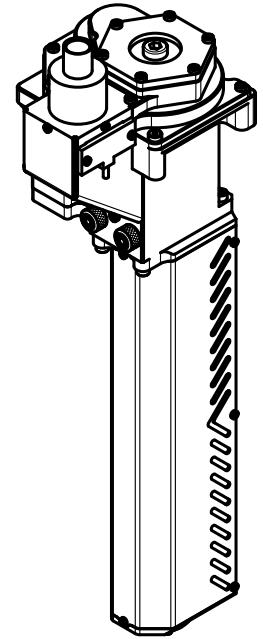
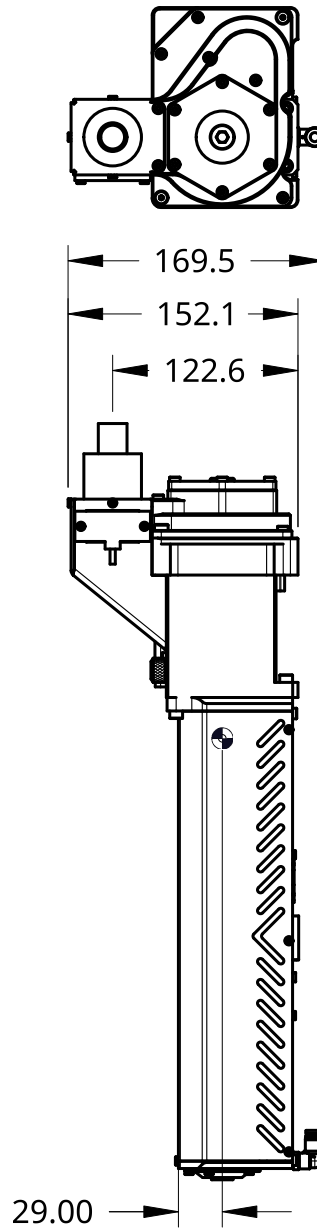
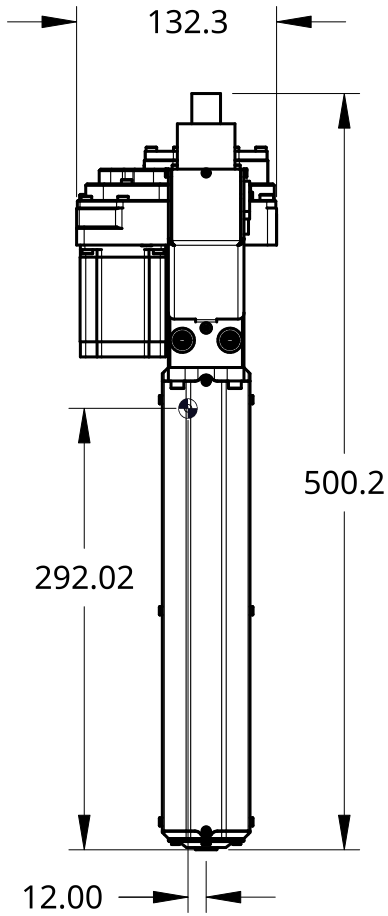
DATE \_\_\_\_\_

2022-01-12

Drawing Number: XXD-01897

CSDT V005

# pulsar™



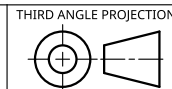
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Product Name  
**PULSAR PRODUCTION 002**

SIZE  
**A**

UNITS  
**MM**



SCALE  
**1:5**

SHEET  
**2 of 7**

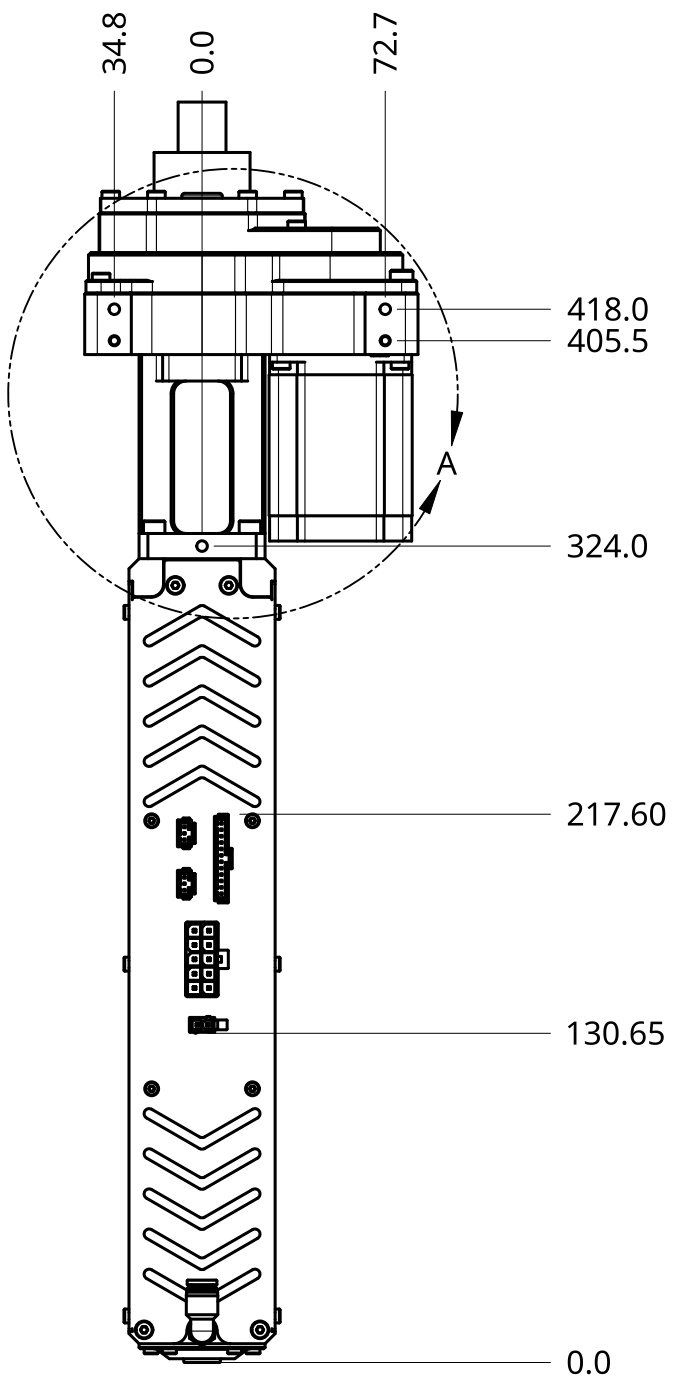
DATE  
**2022-01-12**

Drawing Number: XXD-01897

CSDT V005

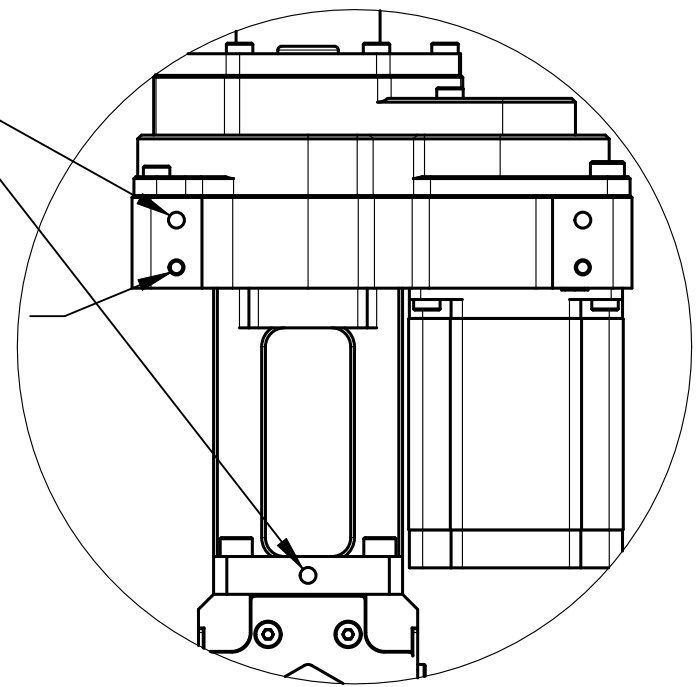
B

A



3x M5x0.8

2x Reamed Ø4.00 mm  
↓ 10 mm



DETAIL A  
SCALE 1:2

B

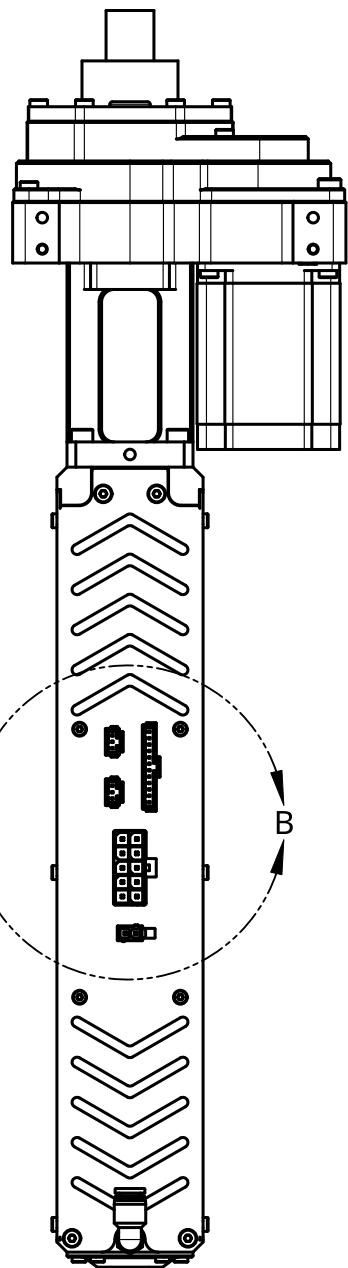
A

2

1

2

1



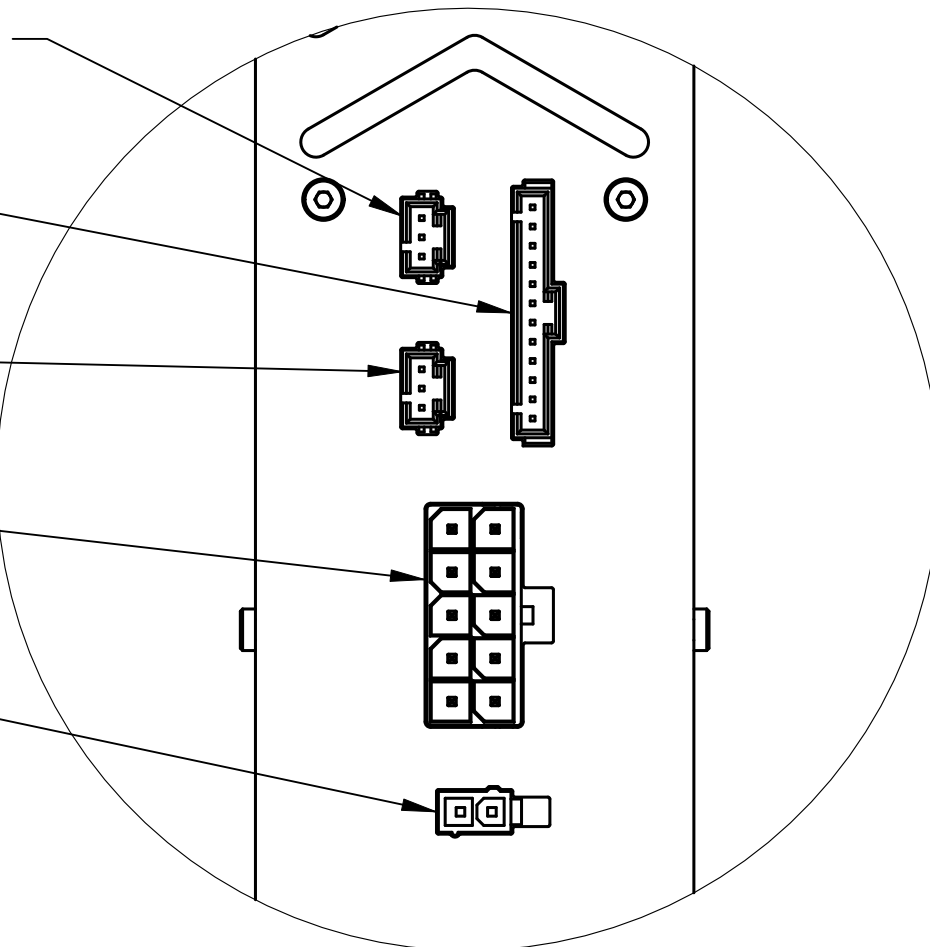
Material Sensor Connector  
Molex SL 3 Pin  
705410037

Signal Connector  
Molex SL 12 Pin  
705450046

Bed Sensor Connector  
Molex SL 3 Pin  
705410037

Power Connector  
Molex Mega-Fit 10 Pin  
1720650010

Fan Connector  
Mini-Fit Jr 2 Pin



DETAIL B  
SCALE 1:1

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Product Name

PULSAR PRODUCTION 002

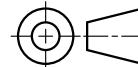
SIZE

A

UNITS

MM

THIRD ANGLE PROJECTION



SCALE

1:3

SHEET

4 of 7

DATE

2022-01-12

Drawing Number: XXD-01897

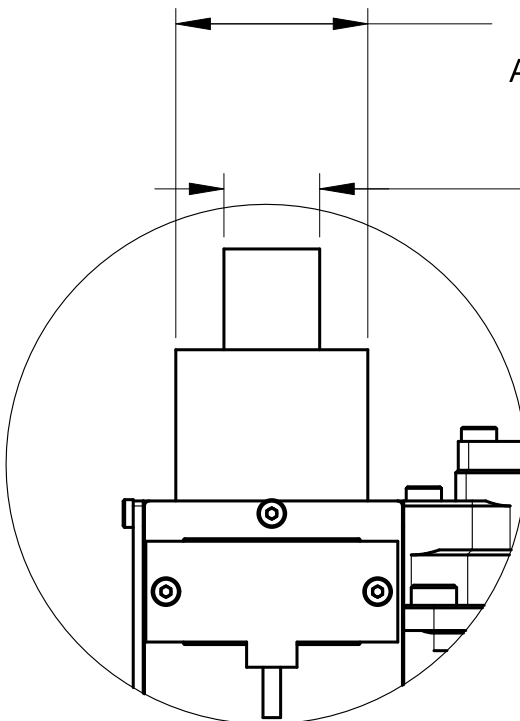
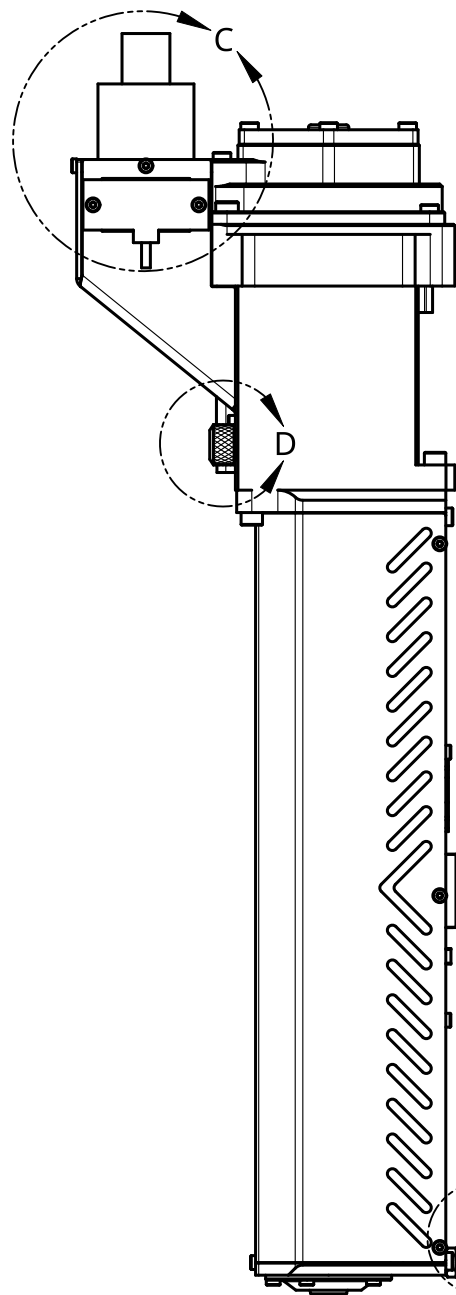
CSDT V005

2

1

2

1

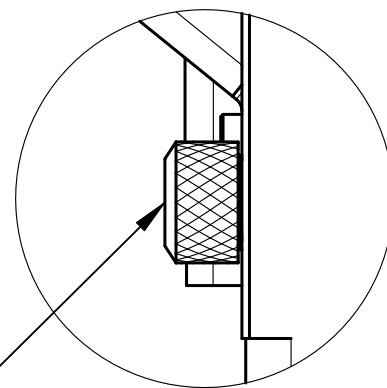


DETAIL C  
SCALE 2:3

$[1\frac{1}{2} \text{ in}]$   
Ø38.1  
Air Exhaust Hose (Optional)

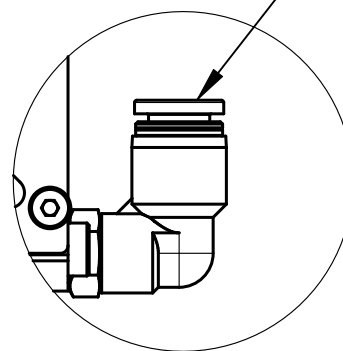
$[\frac{3}{4} \text{ in}]$   
Ø19.0  
Material Hose

OD  $[\frac{3}{8} \text{ in}]$  - ID  $[\frac{1}{4} \text{ in}]$   
OD Ø9.53 - ID Ø6.35  
Cooling Hose



DETAIL D  
SCALE 1:1

$[\frac{1}{4} \text{ in}]$   
Ø6.00 mm  
Compressed Air Hose



DETAIL E  
SCALE 1:1

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**PULSAR PRODUCTION 002**

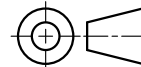
SIZE

A

UNITS

MM

THIRD ANGLE PROJECTION



SCALE

1:3

SHEET

5 of 7

DATE

2022-01-12

Drawing Number: XXD-01897

CSDT V005

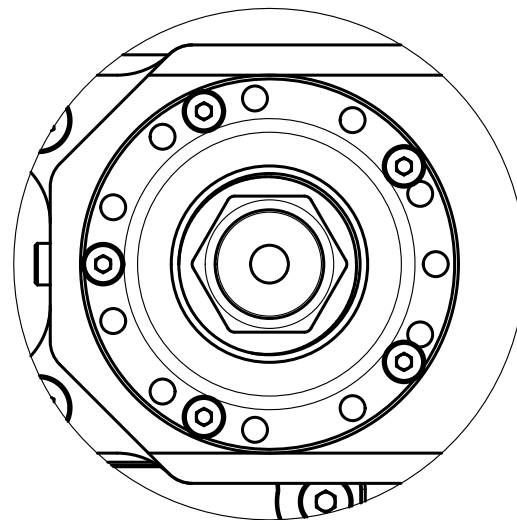
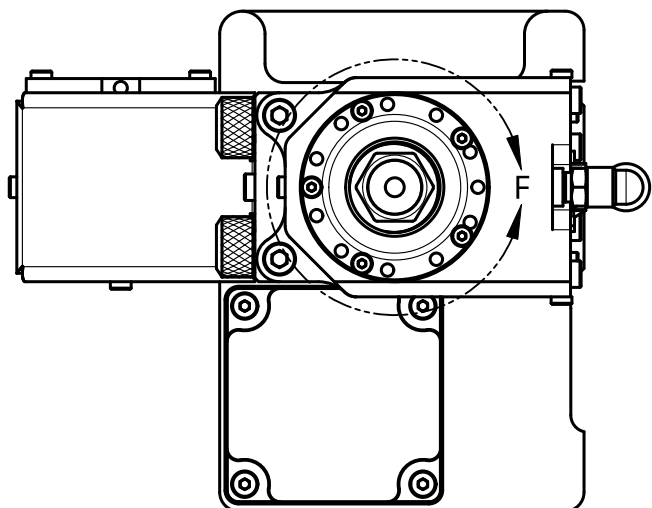
2

1

2

1

B



DETAIL F  
SCALE 1:1

A

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Product Name

PULSAR PRODUCTION 002

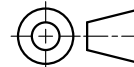
SIZE

A

UNITS

MM

THIRD ANGLE PROJECTION



SCALE

1:2

SHEET

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DATE

2022-01-12

Drawing Number: XXD-01897

CSDT V005

2

1

2

1

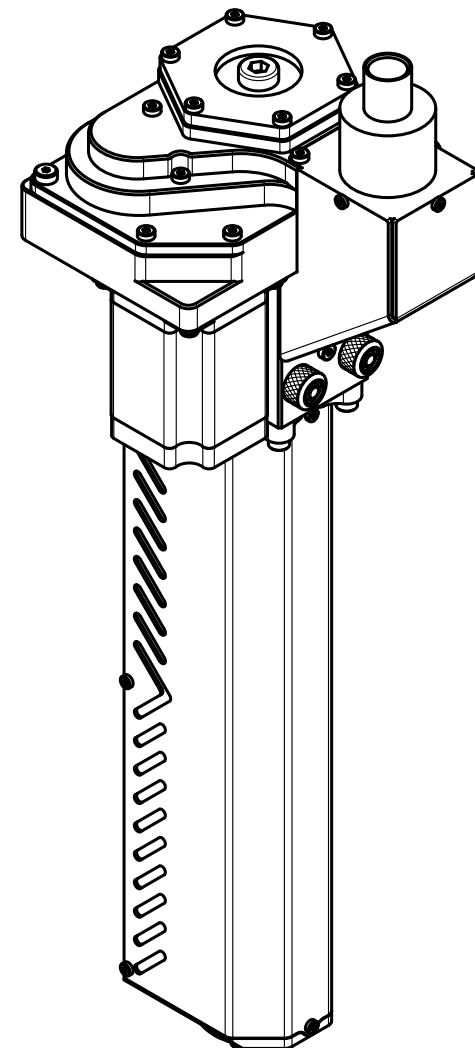
**PULSAR CHARLIE PROD 002 CHANGELOG COMPATIBLE IN 001**

| Part number | Name               | Update from 001                                  |
|-------------|--------------------|--------------------------------------------------|
| XXP-01593   | Feed Throat        | M5 Hotzone hole depth increased                  |
| XXP-01787   | Inlet Tube         | Length Increased, redesign of slots, New Chamfer |
| XXP-01679   | Shroud             | Nozzle auto centering feature added              |
| XXP-02059   | Bearing plate shim | New Part                                         |
| XXP-01788   | Hose Connector     | Increased overall height                         |

**PROD 002 CHANGELOG INCOMPATIBLE IN 001**

| Part number | Name          | Update from 001                    |
|-------------|---------------|------------------------------------|
| XXP-01585   | Barrel        | Simplified clocking feature        |
| XXP-01791   | Upper Bracket | Simplified Barrel clocking feature |

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PULSAR PRODUCTION 002

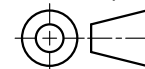
SIZE

A

UNITS

MM

THIRD ANGLE PROJECTION



SCALE

1:3

SHEET

7 of 7

DATE

2022-01-12

Drawing Number: XXD-01897

CSDT V005

2

1