

# MEAT GRIPPER

GUIDE: 95333 Rev 00  
0801-D11A Rev 04

## Users Guide

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## 1. Precautions



### READ MANUAL

Do not start, operate or service machine until you read and understand operator's manual. Failure to do so could result in serious injury.



### HAND CRUSH NOTICE

Indicates the possibility for a crush force between components.



### DANGER NOTICE

Indicates an imminently hazardous situation which, if not avoided, will result in serious injury or death.



### CAUTION NOTICE

Indicates a potentially hazardous situation which, if not avoided, could result in serious injury or death.



### WARNING NOTICE

Indicates a potentially hazardous situation which, if not avoided, will or could result in minor or moderate injury; also used where the risk applies to only property damages.

**IGNORING INFORMATION ABOUT POTENTIAL HAZARDS CAN LEAD TO SERIOUS HARM TO PERSONNEL AND/OR DAMAGE TO THE EQUIPMENT, AND MAY RESULT IN THE NULLIFICATION OF THE MANUFACTURERS' EQUIPMENT WARRANTY.**

**HEED ALL PRECAUTION NOTICES**

## 2. System Description

This gripper is a pneumatically actuated parallel paddle mechanisms for pick and place automation. The gripper is supplied with an ISO 31.5 mm mounting hub. All mounting hardware is supplied. The gripper does not utilize sensors. Actuation valves and plumbing is not included. The pneumatic supply of clean, dry air is to be provided by the customer.

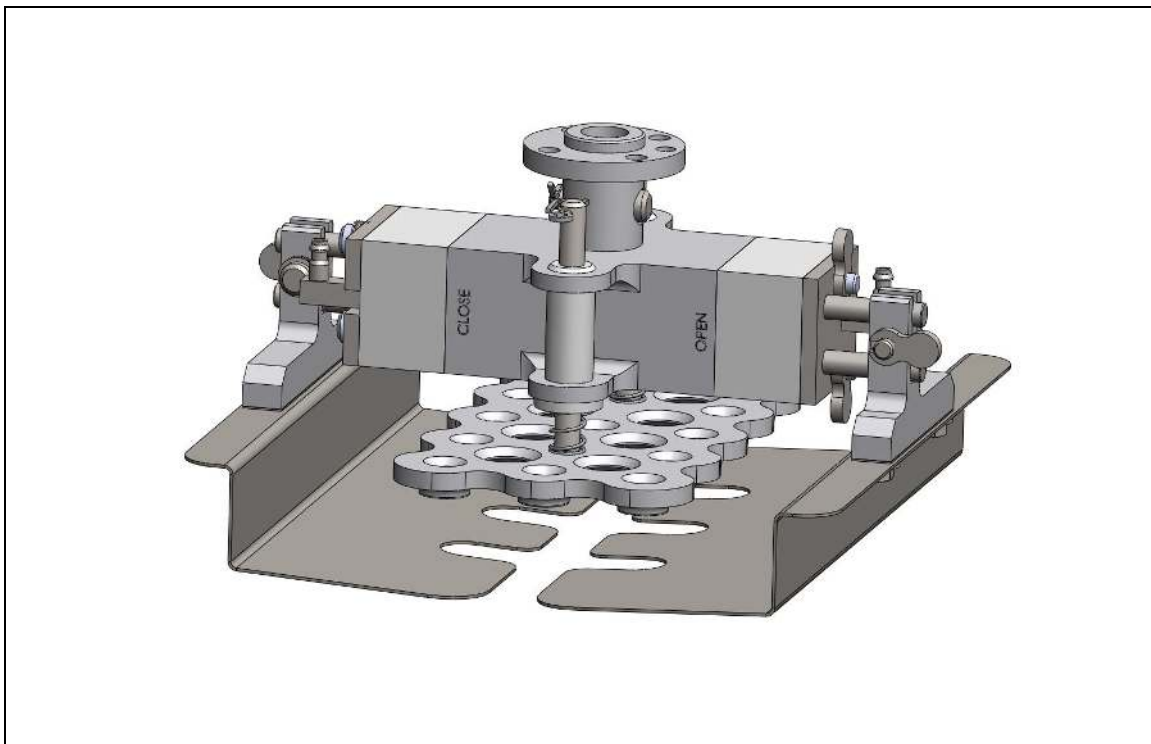


Figure 1: Gripper

### 3. Installation

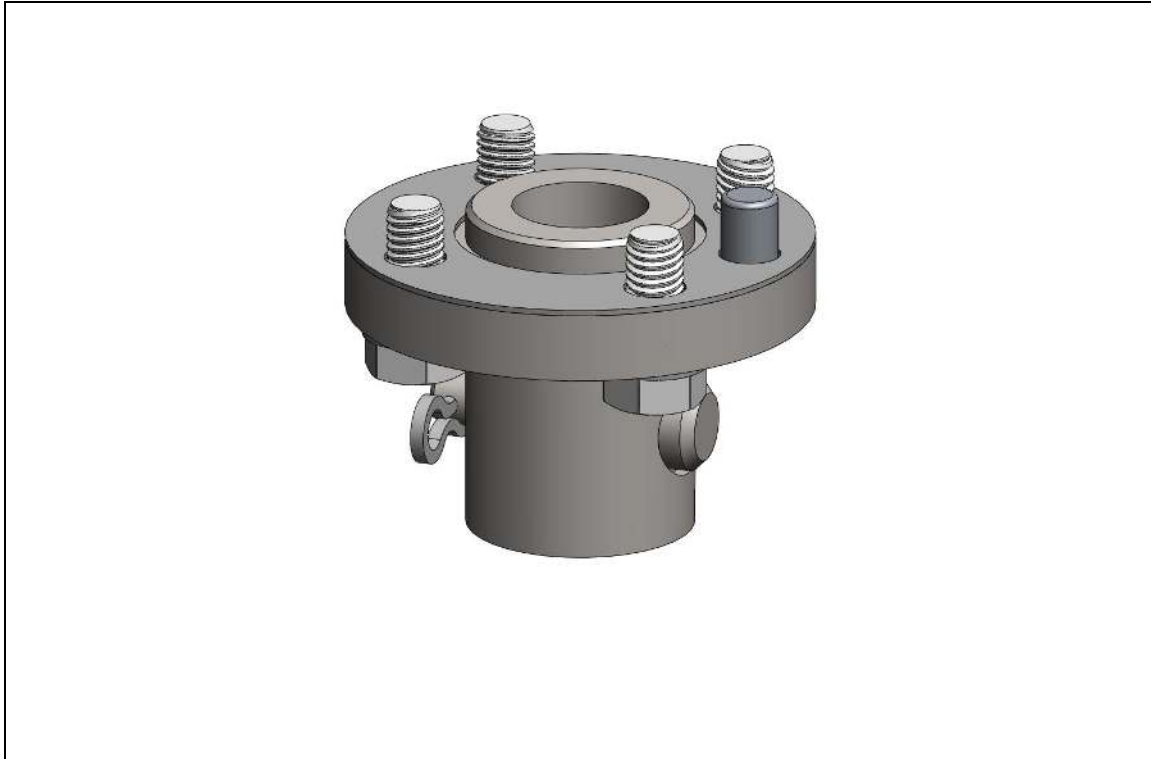


Figure 2: Hub

The gripper is supplied with an ISO 31.5mm mounting hub. The hub supplied will include the robot interface mounting hardware as shown in Figure 2. When attaching to the robot, torque the fasteners to the specification listed below. Once the adapter is mounted with the gaskets provided, it does not need to be removed for cleaning. The adapter can be cleaned in place.

DIN 912-A2 SS Property Class 70	
Soc. Hd. Cap Screws	Torque (Nm)
M5	5.1

## 4. Connecting the Pneumatic Supply



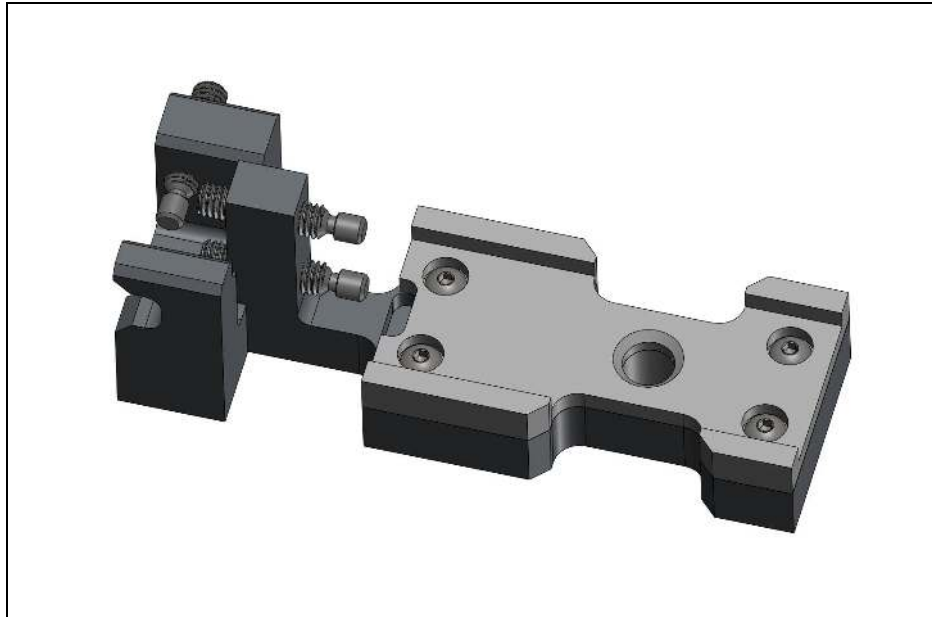
### HAND CRUSH NOTICE

Indicates the possibility for a crush force between components.

When installing the plumbing for pneumatic supply the line pressure must be ZERO PSI. If there is any line pressure, depending on the position of the pneumatic cylinders, there is a possibility that the pneumatic cylinders will move to the default positions. Serious injury could occur. Pneumatic pressure should only be supplied when the gripper is clear of any obstruction or personnel!

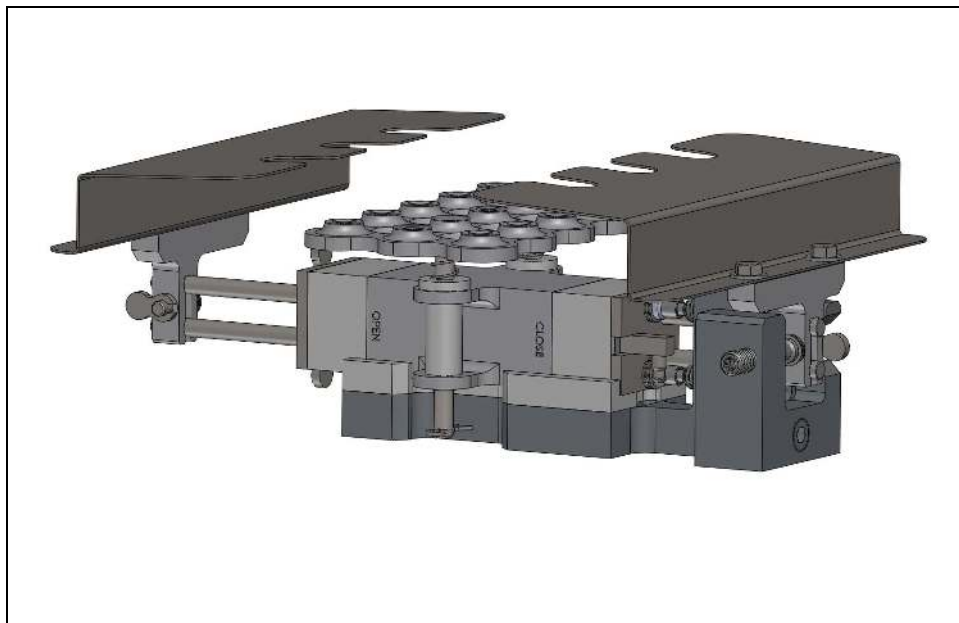
## 5. USDA Certification Operation Criteria

In order to comply with USDA it is necessary to remove the gripper from operation once a day, disassemble clean and inspect for contamination. Disassembly requires the use of the Applied Robotics Inc. Compression Tool as shown in the figure below.



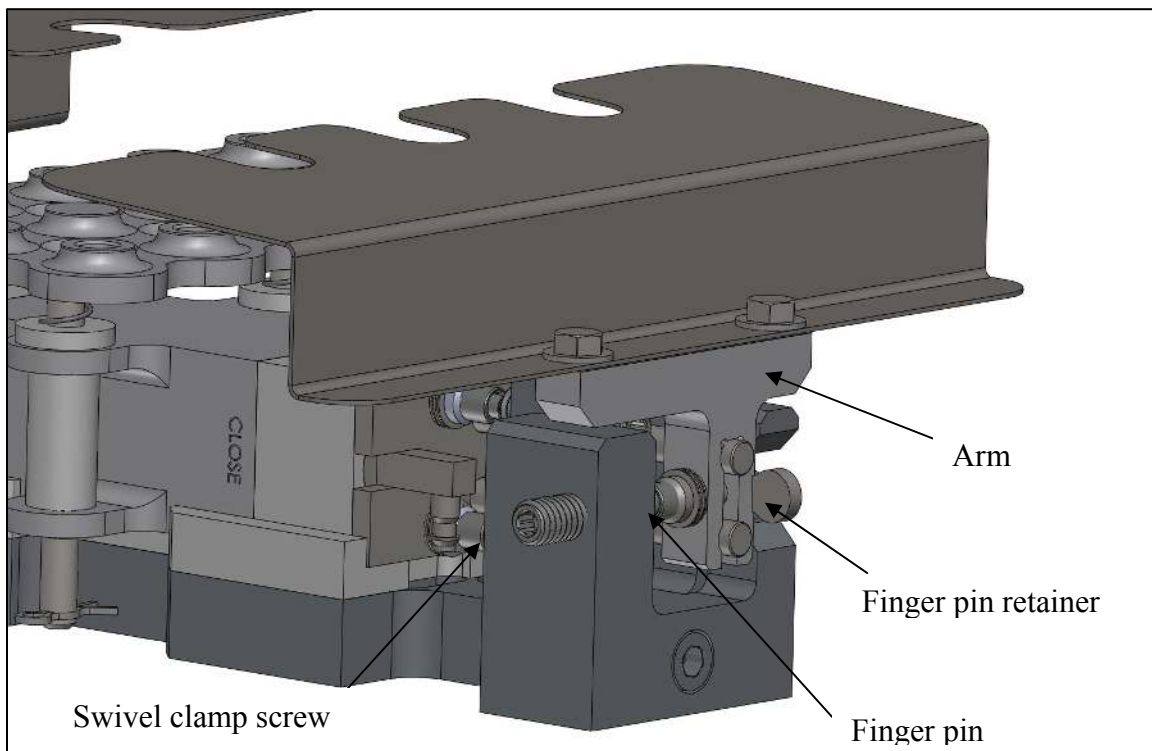
**Disassembly Tool**

After the gripper exterior is cleaned it can be placed into the tool upside down for disassembly. The tool is used to release the pressure off of the body and finger retaining pins. This allows the removal of the retainers. Follow Disassembly Procedure below.

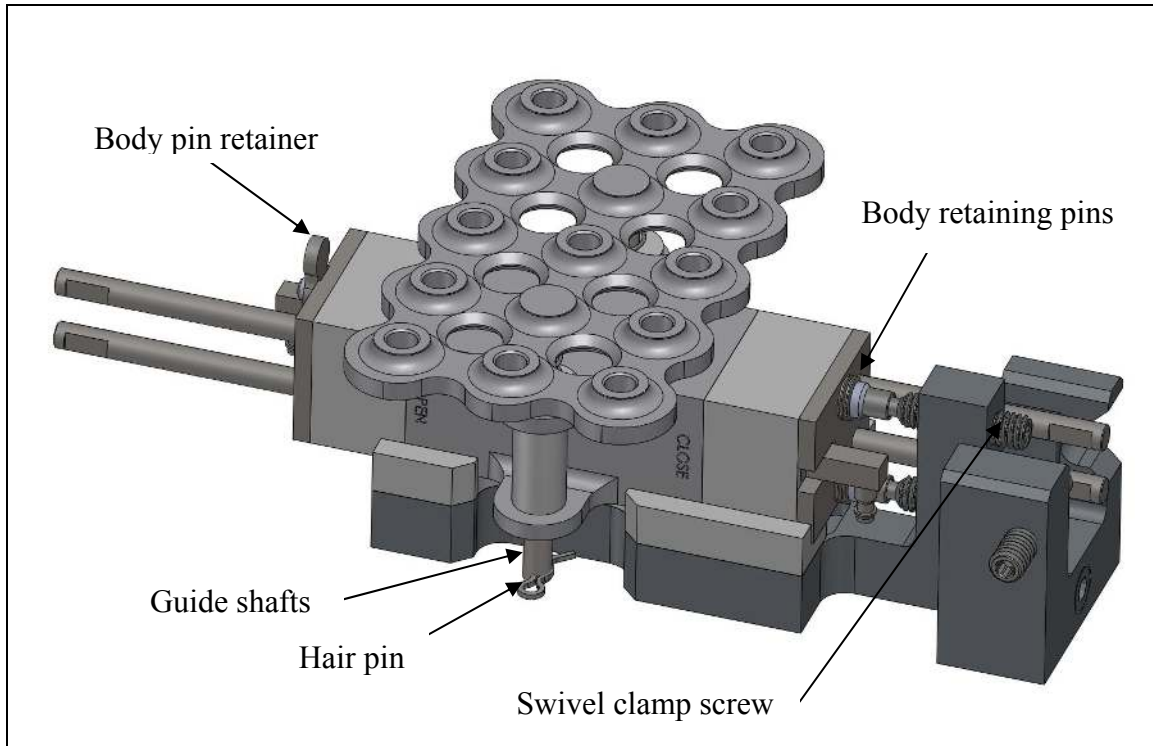


## 6. Disassembly procedure

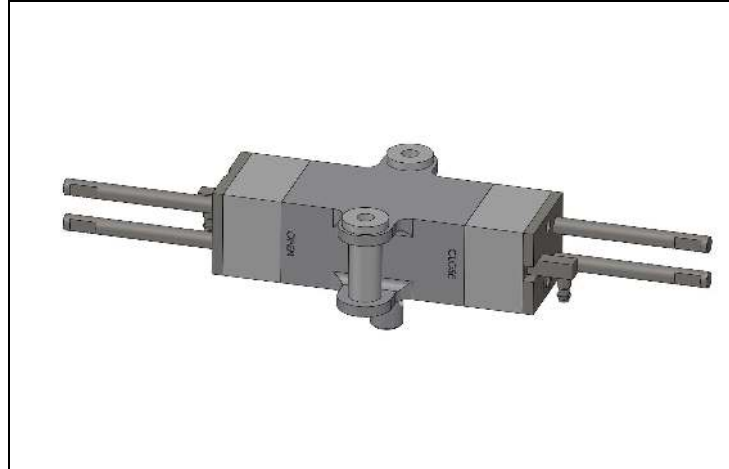
1. The first step is to remove the arms that mount the fingers.
2. Turn the swivel clamp screw to compress finger pin.
3. Remove the finger pin retainer. Release the tension on the finger pin.
4. Remove the finger pin. Slide the arm off of the piston rods.
5. Pull the gripper out of the fixture and rotate 180 degrees and repeat step 1 through 4.



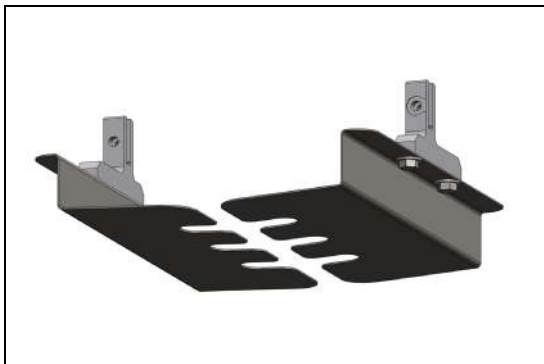




6. Turn the swivel clamp screw to compress the body retaining pins.
7. Remove the body pin retainer.
8. Release the tension on the finger pin.
9. Remove the gripper from the tool and pull out the body pins.
10. Remove the hair pins from the paddle guide shafts and slide the paddle assembly off of the gripper.
11. Refer to the assembly drawing to disassemble the body portion of the gripper shown below.



**Body**



**Fingers**



**Paddle**

The fingers and paddle assemblies shown do not have to be disassembled any further than shown above. The components are gasket and can be cleaned assemble.

## 7. Specifications

Weight w/ISO 31.5mm Hub	0.89 kg
Opening	118.0 mm
Open/Close Rate	65 ms
Max Operating Pressure	4 bar

## 8. Technical Support

Contact Applied Robotics main office at 1- (518) 384-1000

## 9. Maintenance Schedule

## 10. Preventative Maintenance

## 11. Rebuild Kit

The recommended rebuild kit is in the Appendix.

## 12. Appendix

0801-D11A MAIN ASSEMBLY, MEAT GRIPPER

0901-D38A TOOL, COMPRESSION MEAT GRIPPER

XXXX-XXXX REBUILD KIT – MEAT GRIPPER