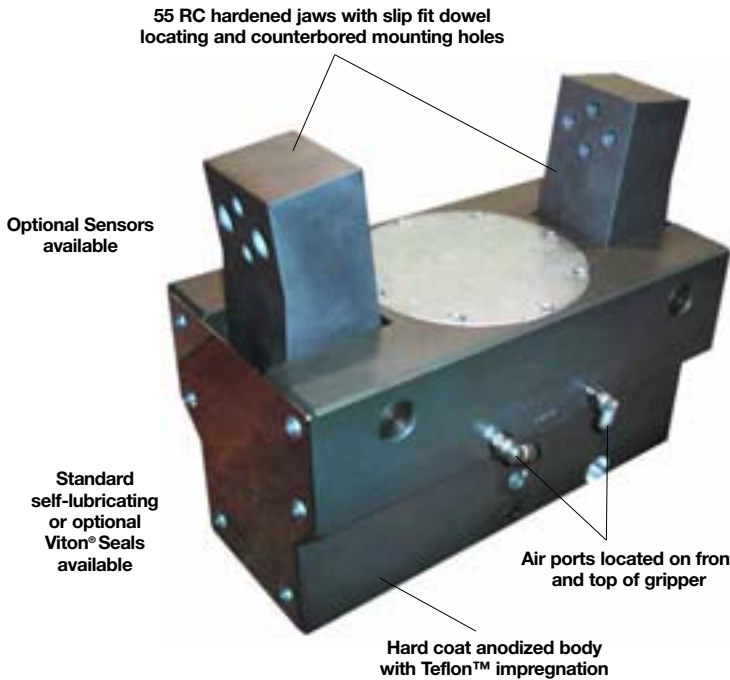


# Heavy Duty Angular Grippers

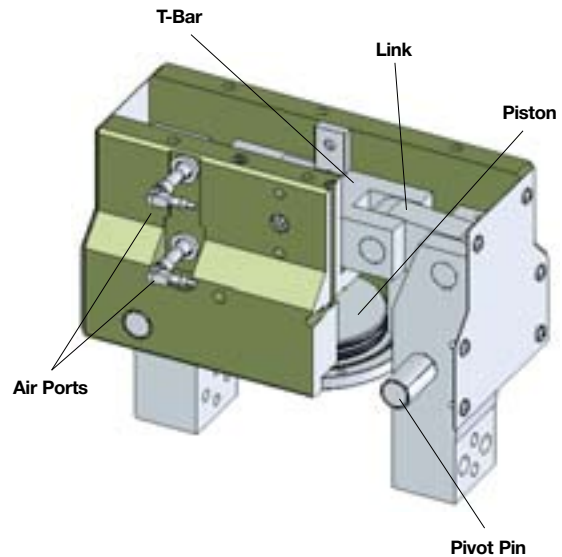
Heavy duty, over the center toggle locking angular grippers with massive gripping force used in applications where large and heavy parts must be handled.

These large bore, double acting piston actuated grippers, feature slip fit dowel locating holes for accurate location of unit to mounting apparatus and jaws. Hard coat anodizing with Teflon™ impregnating ensures long life and minimal wear to gripper bodies.

## Features:



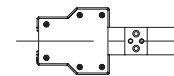
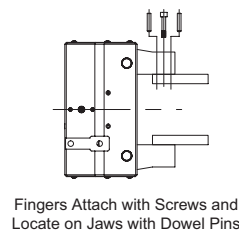
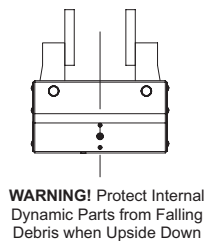
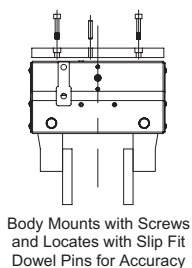
Dynamic parts are hardened and ground for long life and minimal jaw play



A double acting piston is connected by a shaft to the T-bar. The T-bar is connected to the linkages which are attached to the jaws. The jaws pivot on a pin converting the linear motion on the T-bar and piston into the angular motion of the jaws.

The RA Series are capable of internal gripping without locking and/or external gripping with locking.

## Mounting:



## RA-45

|                                  |          |        |
|----------------------------------|----------|--------|
| Total Rated Grip Force: .....    | 1686 lbs | 7500 N |
| Stroke (degree per finger):..... | 7.75°    | 7.75°  |
| Weight:.....                     | 30.9 lbs | 14 kg  |

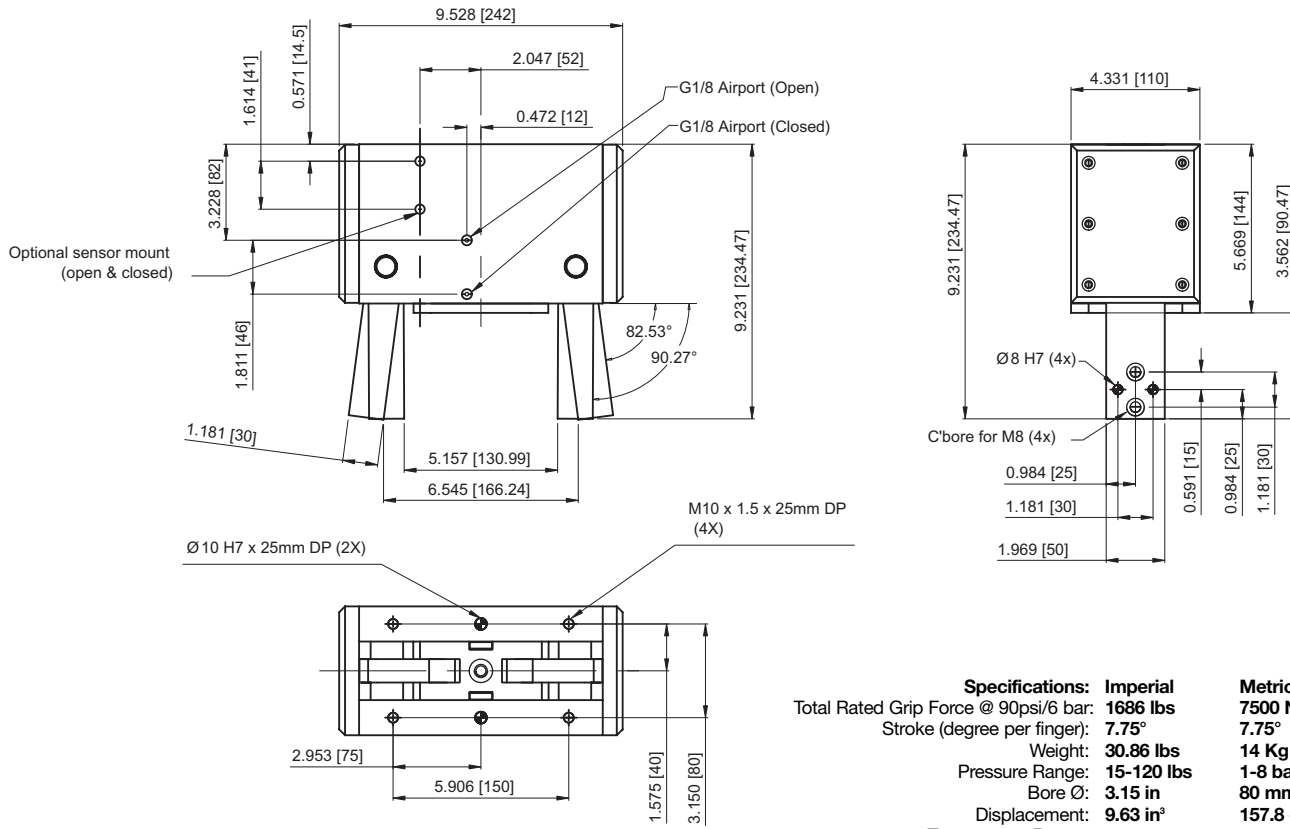
See page 2.5.1

## RA-55

|                                  |          |         |
|----------------------------------|----------|---------|
| Total Rated Grip Force: .....    | 6000 lbs | 26689 N |
| Stroke (degree per finger):..... | 7.75°    | 7.75°   |
| Weight:.....                     | 96.8 lbs | 44 kg   |

See page 2.5.2

# RA-45 Two Jaw Angular Gripper



|                                       | Imperial          | Metric      |
|---------------------------------------|-------------------|-------------|
| Total Rated Grip Force @ 90psi/6 bar: | 1686 lbs          | 7500 N      |
| Stroke (degree per finger):           | 7.75°             | 7.75°       |
| Weight:                               | 30.86 lbs         | 14 Kg       |
| Pressure Range:                       | 15-120 lbs        | 1-8 bar     |
| Bore Ø:                               | 3.15 in           | 80 mm       |
| Displacement:                         | 9.63 in³          | 157.8 cm³   |
| Temperature Range:                    |                   |             |
| Standard Seals:                       | -30°~180° F       | -35°~80° C  |
| Viton® Seals:                         | -20°~300° F       | -30°~150° C |
| Actuation:                            | 0.2 sec           | 0.2 sec     |
| Accuracy:                             | ±0.005 in         | ±0.13 mm    |
| Repeatability:                        | ±0.004 in         | ±0.10 mm    |
| Valve required to operate:            | 4 way, 2 position |             |

Unless noted, all tolerances are as indicated here:



Third Angle Projection



All Dowel Holes are SF (Slip Fit)  
Locational Tolerance ±0.0005" or [±0.013mm]



Metric Threads  
Course Pitch

|           |                 |         |                |
|-----------|-----------------|---------|----------------|
| Imperial: | 0.00 = ±.01     | Metric: | [0.] = ±.25    |
|           | 0.000 = ±.005   |         | [0.0] = ±.13   |
| in.       | 0.0000 = ±.0005 | [mm]    | [0.00] = ±.013 |

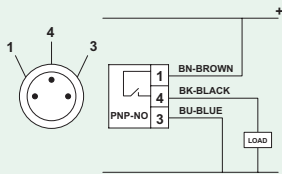
## Ordering Information:

**RA-45-C-O-DSV**

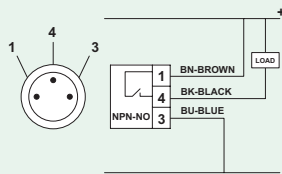
### Available Option Descriptions:

- Sensor: Gripper Closed -C
- Sensor: Gripper Open -O
- Failsafe Valve -DSV
- Sensor Mounting Kit
- Quick Disconnect Cable, 8m, 90° with LED

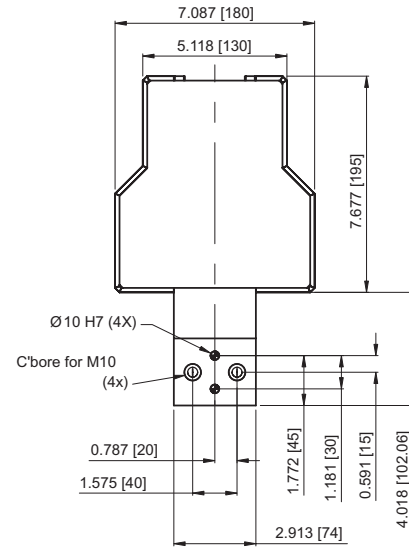
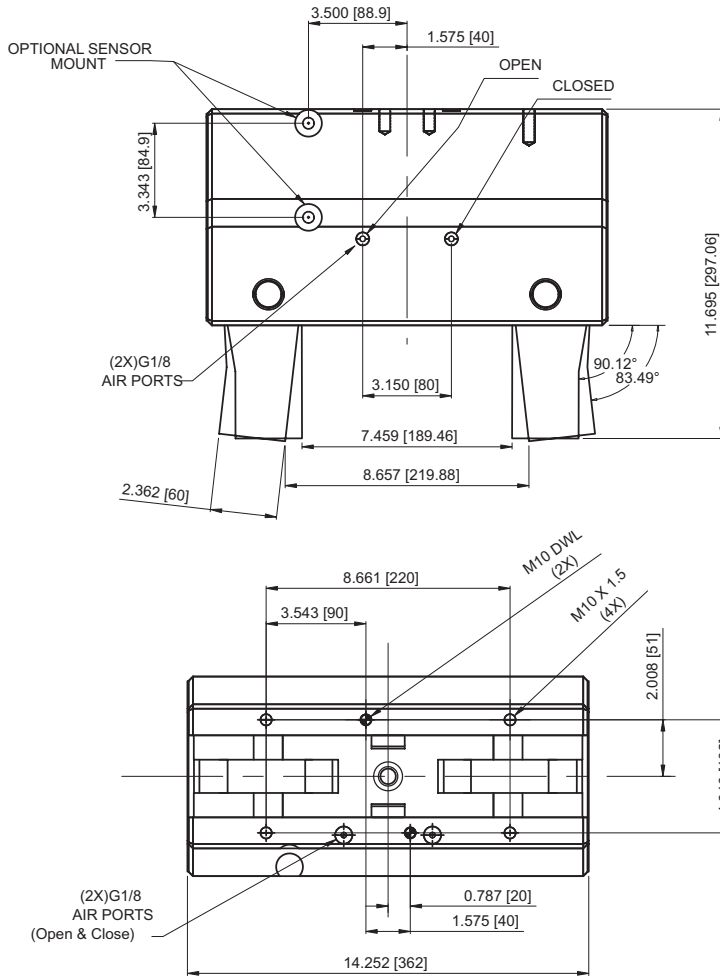
PNP Wiring Diagram



NPN Wiring Diagram



# RA-55 Heavy Duty Angular Gripper



| Specifications:                       | Imperial              | Metric                 |
|---------------------------------------|-----------------------|------------------------|
| Total Rated Grip Force @ 90psi/6 bar: | 6000 lbs              | 26689 N                |
| Stroke (degree per finger):           | 7.75°                 | 7.75°                  |
| Weight:                               | 96.8 lbs              | 44 Kg                  |
| Pressure Range:                       | 40-100 lbs            | 3-7 bar                |
| Bore $\varnothing$ :                  | 4.92 in               | 125 mm                 |
| Displacement:                         | 32.78 in <sup>3</sup> | 537.16 cm <sup>3</sup> |
| Temperature Range:                    | -30°~180° F           | -35°~80° C             |
| Standard Seals:                       | -30°~180° F           | -30°~150° C            |
| Viton® Seals:                         | -20°~300° F           | -30°~150° C            |
| Actuation:                            | 0.2 sec               | 0.2 sec                |
| Accuracy:                             | ±0.005 in             | ±0.13 mm               |
| Repeatability:                        | ±0.004 in             | ±0.10 mm               |
| Valve required to operate:            | 4 way, 2 position     |                        |

Unless noted, all tolerances are as indicated here:



All Dowel Holes are SF (Slip Fit)  
Locational Tolerance  $\pm 0.0005$ " or  $\pm 0.013$ mm



| Imperial:                 | Metric:                  |
|---------------------------|--------------------------|
| 0.00 = $\pm 0.01$         | [0.] = $\pm 0.25$        |
| 0.000 = $\pm 0.005$       | [0.] = $\pm 0.13$        |
| in. 0.0000 = $\pm 0.0005$ | [mm] [0.00] = $\pm 0.13$ |

## Ordering Information:

**RA-55-C-O-DSV**

### Available Option Descriptions:

- Sensor: Gripper Closed -**C**
- Sensor: Gripper Open -**O**
- Failsafe Valve -**DSV**
- Sensor Mounting Kit
- Quick Disconnect Cable, 8m, 90° with LED

