

Service Manual

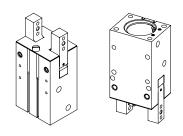
ROBOHAND | CT/DCT Series

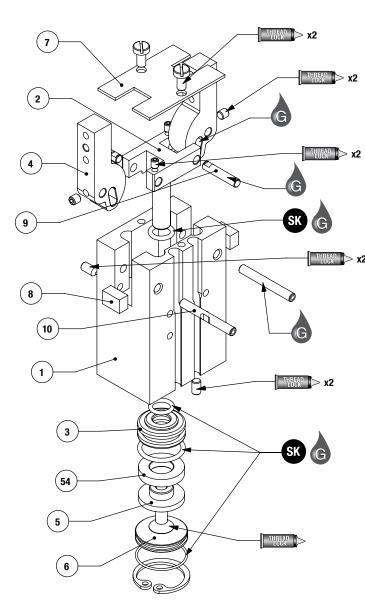


WARNING: This is a controlled document. It is your responsibility to deliver this information to the end user of the Destaco Robohand product. Failure to deliver this could result in your liability for injury to the user or damage to the machine. For copies of this manual, call your Customer Service Representative at 1.248.836.6700

CT SERIES

Angular Grippers | Maintenance and Assembly Procedure





| Item | Qty | Name |
|-----------|-----|----------------|
| | | |
| <u>01</u> | 1 | Body |
| 02 | 1 | Driver |
| 03 | 1 | Piston |
| 04 | 2 | Jaw |
| 05 | 1 | Washer |
| 06 | 1 | Cap |
| 07 | 1 | Shielded Plate |
| 80 | 2 | Wiper Cover |
| 09 | 2 | Drive Pin |
| 10 | 2 | Pivot Pin |
| 54 | 1 | Magnet |

NOTE: Contact the Robohand Sales Department for a complete spare parts list with order numbers and prices.

Assembly Procedure

- 1) Lubricate and install the seals into cap (x1), piston (x2) and body (x1)
- 2) If top air ports are used, clear them and plug the side air ports on the body (#1)
- 3) Lubricate the sloping rack of jaws (#4)
- 4) Install both drive pins (#9) into driver (#2) through sloping racks of jaws. Check that the pin flat surface is correctly aligned before continuing with their installation.
- 5) Lock drive pins in the driver with screws, tightening down on to the flat surface of the pins.
- 6) Position driver and jaws assembly into body.
- 7) Install both pivot pins (#10) into body, through the bore of jaws. Check that the pin flat surface is correctly aligned before continuing with their installation.
- 8) Pivot pin locking:
 - DCT-12 (not shown): lock pivot pins into body with screws, tightening down on to the flat surface of the pins (pins are fixed into body
 - and rotating into jaws)

 DCT-16 to CT-50: lock pivot pins into jaws with screws, tightening down on to the flat surface of the pins (pins are fixed into jaws and rotating into body)
- 9) Magnet mounting: DCT-12 to DCT-20: install the magnet (#54) on the washer (#5)
 - DCT-25 to CT-50 (not shown): install magnet (#54) onto piston (#3) and lock it by means of its retaining ring.
- 10) Piston mounting:
 DCT-12 to DCT-20: insert the piston and the washer with magnet into body. Fix the assembly at the end of the driver with screw.
 - DCT-25 to CT-50 (not shown): insert the piston with magnet into body. Fix the assembly at the end of the drivers with screw.
- 11) Check unit operation unladen.
- 12) Install the cap (#6) into body and lock it by means of its retaining ring.
- 13) Place both wiper covers (#8) into body and lock them with their screws.
- 14) Fix the shielded plate (#7) onto body with both screws.













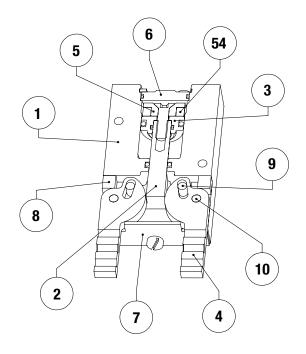








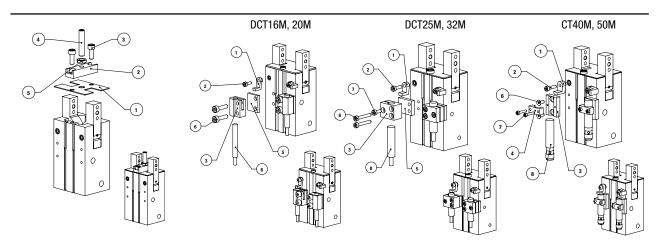
Angular Grippers | Maintenance and Assembly Procedure



| Item | Qty | Name |
|------|-----|----------------|
| 01 | 1 | Body |
| 02 | 1 | Driver |
| 03 | 1 | Piston |
| 04 | 2 | Jaw |
| 05 | 1 | Washer |
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| 07 | 1 | Shielded Plate |
| 08 | 2 | Wiper Cover |
| 09 | 2 | Drive Pin |
| 10 | 2 | Pivot Pin |
| 54 | 1 | Magnet |
| | | |

NOTE: Contact the Robohand Sales Department for a complete spare parts list with order numbers and prices.

Accessory Installation & Adjustment Instructions



Installation - Adjustment Stop

- 1) Unscrew both screws for mounting of the shielded plate and remove it.
- 2) Fix the new shielded plate (#1) and the stop (#2) onto body with both screws (#3)
- 3) Install the locknut system (#4) and (#5) on the stop.
- 4) Tighten screw for maximum target jaw opening and lock with locknut.

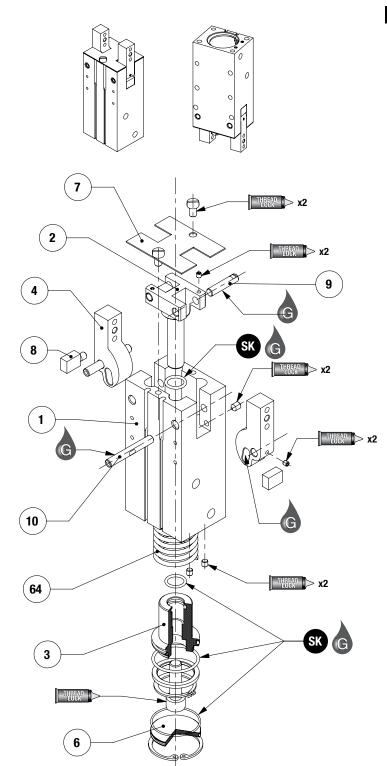
Installation - Inductive Sensor Holders

- 1) Fix the flags (#1) at the end of pivot pins with their screws (#2)
- DCT-16M to DCT-32M: fix holder (#3) and spacer (#5) onto body with both screws (#6) DCT-40M to DCT-50M: fix holder (#3) onto body with both screws (#6)
- 3) Sensor mounting:
 - DCT-16M to DCT-20M: unscrew lightly both screws for mounting (#6) of holder and insert sensor (#8, not included) into it. Position sensor so that it senses up on flag. Lock the sensor by tightening both screws.
 - DCT-25M to DCT-32M: unscrew lightly screw (#7) on holder and insert sensor (#8, not included) into it. Position sensor so that it senses up the flag. Lock the sensor by tightening screw.
 - CT-40M to CT-50M: insert sensor (#8, not included) in stop into holder. Lock the sensor by tightening the collar holder with both screws (not shown).
- 4) Adjust flag position by unscrewing their screws for desired sensing positions.



CT-RE SERIES

Angular Grippers | Maintenance and Assembly Procedure



| Item | Qty | Name |
|------|-----|----------------|
| | | |
| 01 | 1 | Body |
| 02 | 1 | Driver |
| 03 | 1 | Piston |
| 04 | 2 | Jaw |
| 05 | 1 | Washer |
| 06 | 1 | Cap |
| 07 | 1 | Shielded Plate |
| 08 | 2 | Wiper Cover |
| 09 | 2 | Drive Pin |
| 10 | 2 | Pivot Pin |
| 54 | 1 | Magnet |
| 64 | 1 | Spring |

NOTE: Contact the Robohand Sales Department for a complete spare parts list with order numbers and prices.

Assembly Procedure

- 1) Lubricate and install the seals into cap (x1), piston (x2) and body (x1)
- 2) If top air ports are used, clear them and plug the side air ports on the body (#1)
- 3) Lubricate the sloping rack of jaws (#4)
- 4) Install both drive pins (#9) into driver (#2) through sloping racks of jaws. Check that the pin flat surface is correctly aligned before continuing with their installation.
- 5) Lock drive pins in the driver with screws, tightening down on to the flat surface of the pins.
- 6) Position driver and jaws assembly into body.
- 7) Install both pivot pins (#10) into body, through the bore of jaws. Check that the pin flat surface is correctly aligned before continuing with their installation.
- 8) Pivot pin locking:
 - DCT-12 (not shown): lock pivot pins into body with screws, tightening down on to the flat surface of the pins (pins are fixed into body and rotating into jaws)
 - DCT-16 to CT-50: lock pivot pins into jaws with screws, tightening down on to the flat surface of the pins (pins are fixed into jaws and rotating into body)
- 9) Magnet mounting: DCT-12 to DCT-20: install the magnet (#54) on the washer (#5)
 - DCT-25 to CT-50 (not shown): install magnet (#54) onto piston (#3) and lock it by means of its retaining ring.
- 10) Piston mounting:
 DCT-12 to DCT-20: insert the spring, then the piston and the washer with magnet into body. Fix the assembly at the end of the driver with screw.
 - DCT-25 to CT-50 (not shown): insert the spring, then the piston with magnet into body. Fix the assembly at the end of the drivers with screw.
- 11) Check unit operation unladen.
- 12) Install the cap (#6) into body and lock it by means of its retaining ring.
- 13) Place both wiper covers (#8) into body and lock them with their screws.
- 14) Fix the shielded plate (#7) onto body with both screws.















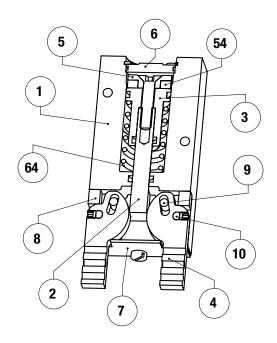






CT-RE SERIES

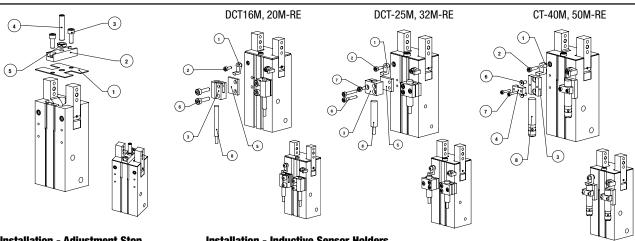
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Accessory Installation & Adjustment Instructions



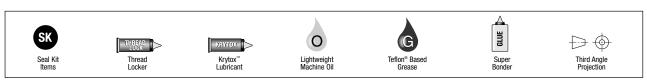
Installation - Adjustment Stop

- 1) Unscrew both screws for mounting of the shielded plate and remove it.
- 2) Fix the new shielded plate (#1) and the stop (#2) onto body with both screws (#3)
- 3) Install the locknut system (#4) and (#5) on the stop.
- 4) Tighten screw for maximum target jaw opening and lock with locknut.

Installation - Inductive Sensor Holders

- 1) Fix the flags (#1) at the end of pivot pins with their screws (#2)
- DCT-16M to DCT-32M: fix holder (#3) and spacer (#5) onto body with both screws (#6) CT-40M to CT-50M: fix holder (#3) onto body with both screws (#6)

- 3) Sensor mounting:
 DCT-16M to DCT-20M: unscrew lightly both screws for mounting (#6) of holder and insert sensor (#8, not included) into it. Position sensor so that it senses up on flag. Lock the sensor by tightening both screws.
 - DCT-25M to DCT-32M: unscrew lightly screw (#7) on holder and insert sensor (#8, not included) into it. Position sensor so that it senses up the flag. Lock the sensor by tightening screw.
 - CT-40M to CT-50M: insert sensor (#8, not included) in stop into holder. Lock the sensor by tightening the collar holder with both screws (not shown).
- 4) Adjust flag position by unscrewing their screws for desired sensing positions.









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