

# FRICTION TRANSPORTER TPE 15 INSTALLATION & SERVICE MANUAL

2021-01-18

### TPE 15/19 Installation & operation

The TPE 15/19 must be filled with the supplied 250 ml lubricating oil before use. The oil is shipped in a separate container to avoid accidental leaking.

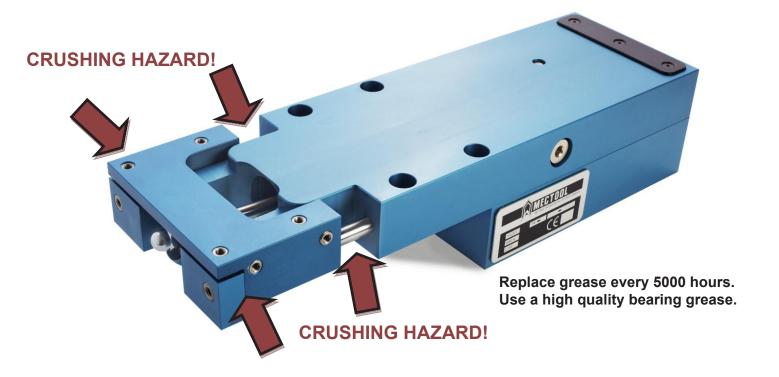
Remove nut 15-370 at the top of the Transporter, pour in the oil and re-attach the nut.

The Transporter is now ready for operation.

Replace the oil every 5,000 hours with a high quality lubricating oil.







### Installation instructions.

TPE 15/19 must be mounted horizontally, it may not be mounted on the side or pitched.

A custom tray or chute must be designed. We recommend aluminum or any light gauge material to reduce tray weight.

Maximum weight, tray only: 5 kg. Transportation capacity: 15 kg.

Using metric screws, fasten tray or chute to the TPE 15/19 using all holes. The tray or chute must be supported at both ends to minimize vibration and deflection.

#### **IMPORTANT!**

TPE 15/19 must be mounted so no danger is provided for working personnel.

Do not attach the motor controller unit to the press. Vibrations will damage the controller and void all warranty.

### Operating the TPE 15/19.

Connect the controller power cable to a power outlet (110 - 240 Volt AC, 50/60 Hz).

Do not change or replace the cable between the Transporter and the controller.

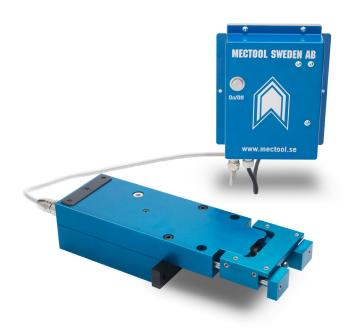
Make sure that the tray can move freely in both directions.

Push the power button on the controller, the TPE 15/19 will start after a few seconds.

If you want to restart the TPE 15/19 you must wait 5 seconds for the controller to be ready.

**CRUSHING HAZARD!** (Indicated by red arrows in picture)





Please note that some parts may not be available because they are not field replaceable. If this is the case, a subassembly must be used. Some parts are only available as a subassembly and cannot be purchased individually. Check the spare parts reference lists for details.

### Disassembly.

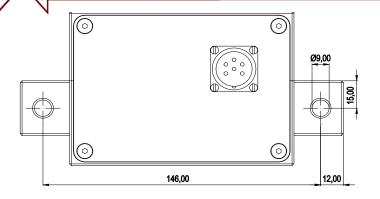
- 1. Disconnect the motor connection.
- **2.** To remove motor cover 15-121, blow compressed air into the hole where the cables are located.
- **3.** Move the slide frame 15-624 to its rear position.
- 4. Remove the dome nut 15-276.
- **5.** Remove the threaded washer 15-157 while holding a screwdriver in the slot on the drawbar 15-148.
- **6.** Remove urethane washer 15-158.
- 7. Remove guides 15-150 (2 pcs).
- 8. Remove the slide frame 15-624.
- **9.** Remove cover 15-111 and disconnect the motor. Remove the plastic plug to the stator (requires special tools).
- **10.** Turn the Transporter upside down.
- **11.** Remove the screw 15-222.
- **12.** Remove the guide pins 15-286 (2 pcs).
- **13.** Remove the screws 15-204 (4 pcs).
- **14.** Remove the motor bracket, the mechanism remains in the machine body.
- **15.** Remove the nut 15-277.
- 16. Remove the drawbar 15-148.
- 17. Remove the rocker mechanism 15-626.
- **18.** Remove the connecting rod 15-623.
- **19.** Remove the gear 15-143 with a slide hammer.
- **20.** Clean the Transporter.
- **21.** Remove circlip 15-282 to remove the rotor.

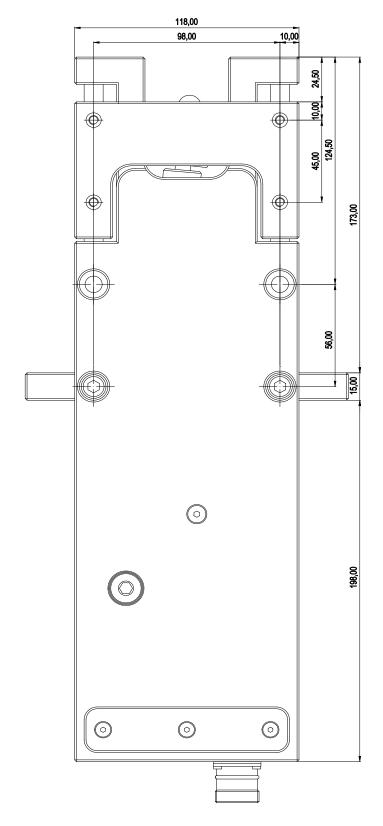
### Reassembly.

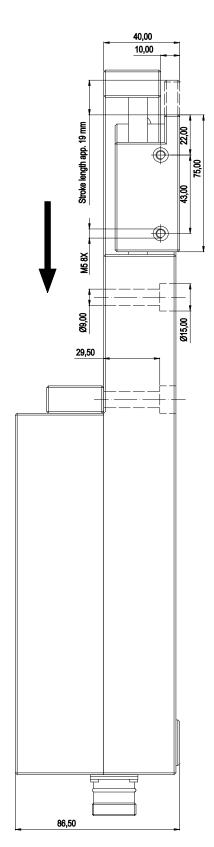
- **1.** Grease all shafts, bearings and gears with high quality bearing grease.
- 2. Install the gear in the machine body.
- **3.** Install the connecting rod on the gear with washer 15-271 and screw 15-221.
- **4.** Put shim 15-274 0,2 mm on shaft 15-137 and install on rocker mehanism 15-626. Put shim 15-275 0,5 mm on the shaft and install screw 15-221 with washer 15-271 on the shaft's end.
- **5.** Put shim 15-275 0.5 mm on shaft 15-129.
- **6.** Install rocker mechanism with link on shaft 15-129.
- **7.** Install drawbar 15-148 in the link, lock with nut 15-277.
- 8. Put shim 15-275 0,5 mm on shaft 15-129.
- **9.** Install guide pins 15-286 in the machine body.
- **10.** Install O-ring 15-352 in the indentation on the motor bracket.
- **11.** Install the motor bracket on the guide pins in the machine body and fit the motor shaft's teeth with the gear, then tighten screws 15-204.
- **12.** Install screw 15-222 with O-ring 15-355.
- 13. Assemble the slide frame in reverse order.

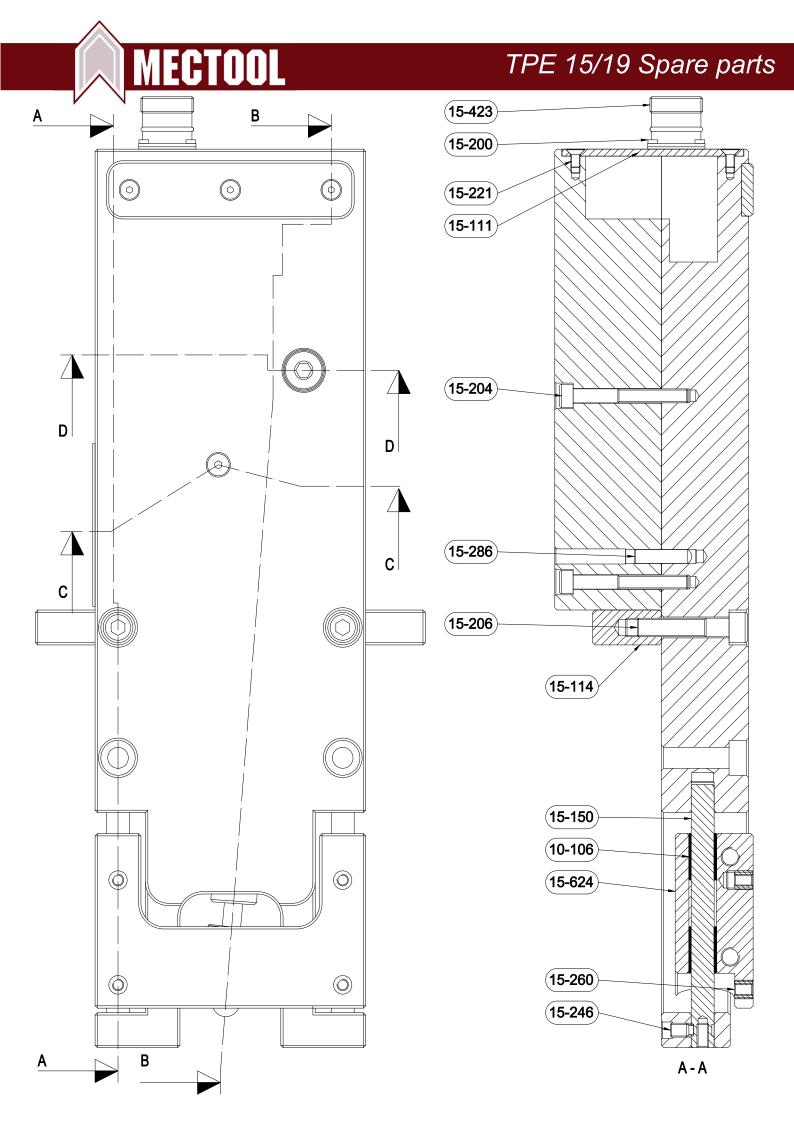
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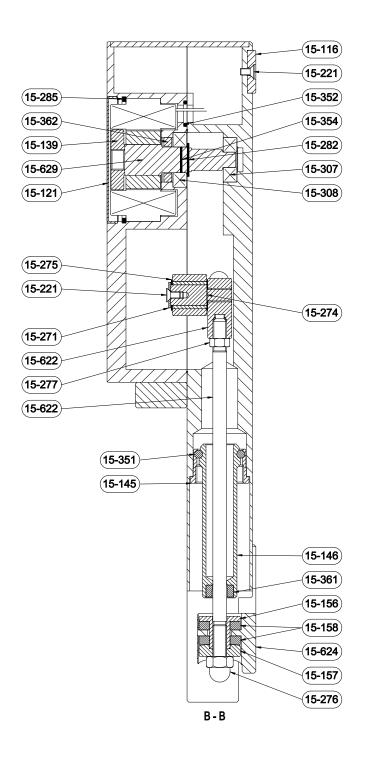
### TPE 15/19 Dimensional drawing

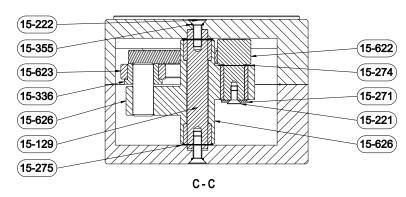


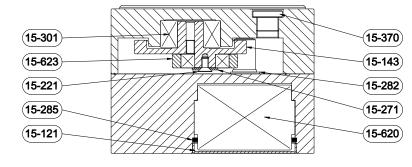












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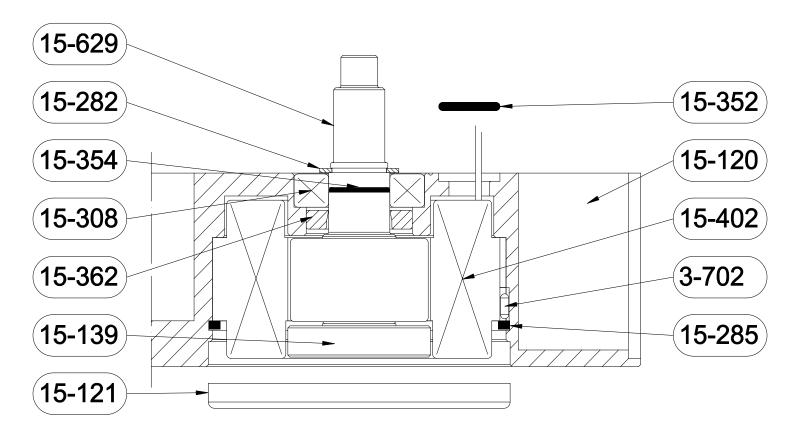


### TPE 15/19 Spare parts

| Part No. | Description       | Qty |
|----------|-------------------|-----|
| 3-702    | Pin               | 1   |
| 10-106   | Composite bearing | 4   |
| 15-111   | Cover             | 1   |
| 15-114   | Attachment        | 1   |
| 15-116   | Slide block       | 1   |
| 15-121   | Motor cover       | 1   |
| 15-129   | Shaft             | 1   |
| 15-139   | Fly wheel         | 1   |
| 15-143   | Gear              | 1   |
| 15-145   | Bushing           | 1   |
| 15-146   | Sleeve            | 1   |
| 15-150   | Guide             | 2   |
| 15-156   | Nut               | 1   |
| 15-157   | Threaded washer   | 1   |
| 15-158   | Urethane washer   | 2   |
| 15-200   | Screw             | 4   |
| 15-204   | Screw             | 4   |
| 15-206   | Screw             | 2   |
| 15-221   | Screw             | 9   |
| 15-222   | Screw             | 2   |
| 15-246   | Screw             | 2   |
| 15-260   | Threaded insert   | 8   |
| 15-271   | Washer            | 2   |
| 15-274   | Washer            | 1   |
| 15-275   | Washer            | 3   |
| 15-276   | Nut               | 1   |
| 15-277   | Nut               | 1   |
| 15-282   | Circlip           | 1   |

| Part No. | Description           | Qty |
|----------|-----------------------|-----|
| 15-285   | Locking ring          | 1   |
| 15-286   | Guide pin             | 2   |
| 15-301   | Bearing               | 1   |
| 10-307   | Bearing               | 1   |
| 15-308   | Bearing               | 1   |
| 15-336   | Bushing               | 1   |
| 15-351   | O-ring                | 1   |
| 15-352   | O-ring                | 1   |
| 15-354   | O-ring                | 1   |
| 15-355   | O-ring                | 2   |
| 15-361   | Radial shaft seal     | 1   |
| 15-362   | Radial shaft seal     | 1   |
| 15-370   | Plug                  | 1   |
| 15-402   | Stator                | 1   |
| 15-423   | Socket                | 1   |
|          |                       |     |
|          |                       |     |
|          | Subassemblies         |     |
| Dord No. | Description           | Ot  |
| Part No. | Description           | Qty |
| 15-611   | Motor controller unit | 1   |
| 15-615   | Extension cable 3,5M  | -   |
| 15-620   | Motor                 | 1   |
| 15-622   | Drawbar               | 1   |
| 15-623   | Connecting rod        | 1   |
| 15-624   | Slide frame           | 1   |
| 15-626   | Rocker                | 1   |
| 15-629   | Motor shaft           | 1   |

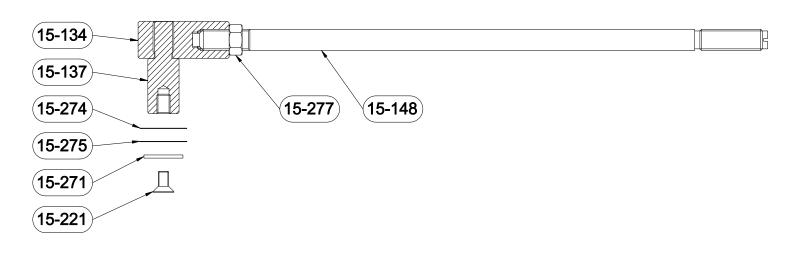




| Part No. | Description           | Qty |
|----------|-----------------------|-----|
| 3-702    | Pin                   | 1   |
| 15-120   | Motor housing *       | 1   |
| 15-121   | Motor cover           | 1   |
| 15-139   | Fly wheel             | 1   |
| 15-282   | Circlip               | 1   |
| 15-285   | Locking ring          | 1   |
|          |                       |     |
|          | * Not sold separately | Ĺ   |

| Part No. | Description       | Qty |
|----------|-------------------|-----|
| 15-308   | Bearing           | 1   |
| 15-352   | O-ring            | 1   |
| 15-354   | O-ring            | 1   |
| 15-362   | Radial shaft seal | 1   |
| 15-402   | Stator *          | 1   |
| 15-629   | Motor shaft       | 1   |
|          |                   |     |
|          |                   |     |

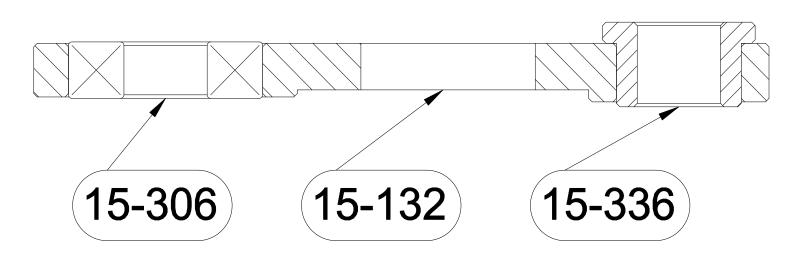




| Part No. | Description           | Qty |
|----------|-----------------------|-----|
| 15-134   | Link *                | 1   |
| 15-137   | Shaft *               | 1   |
| 15-148   | Rod *                 | 1   |
| 15-221   | Screw                 | 1   |
|          |                       | '   |
|          | * Not sold separately | '   |

| Part No. | Description | Qty |
|----------|-------------|-----|
| 15-271   | Washer      | 1   |
| 15-274   | Washer      | 1   |
| 15-275   | Washer      | 1   |
|          |             |     |
|          |             |     |
|          |             |     |

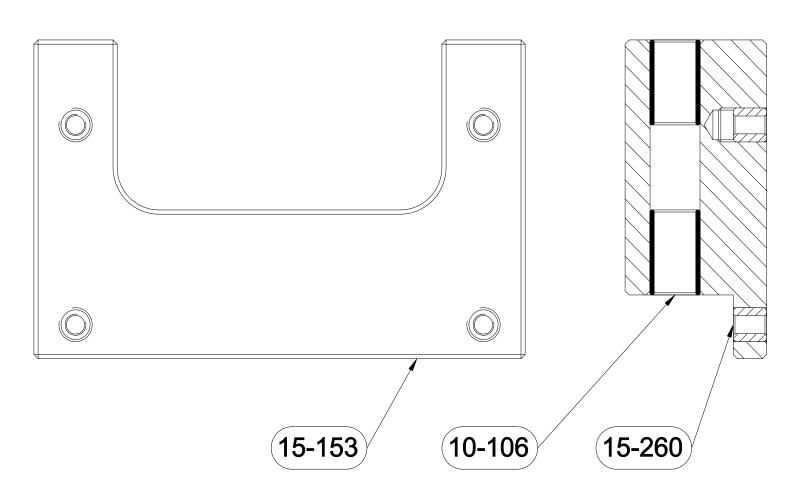




| Part No. | Description           | Qty |
|----------|-----------------------|-----|
| 15-132   | Connecting rod *      | 1   |
| 15-306   | Bearing *             | 1   |
|          |                       | ,   |
|          | * Not sold separately | ,   |

| Part No. | Description | Qty |
|----------|-------------|-----|
| 15-336   | Bushing     | 1   |
|          |             |     |
|          |             |     |
|          |             | ·   |

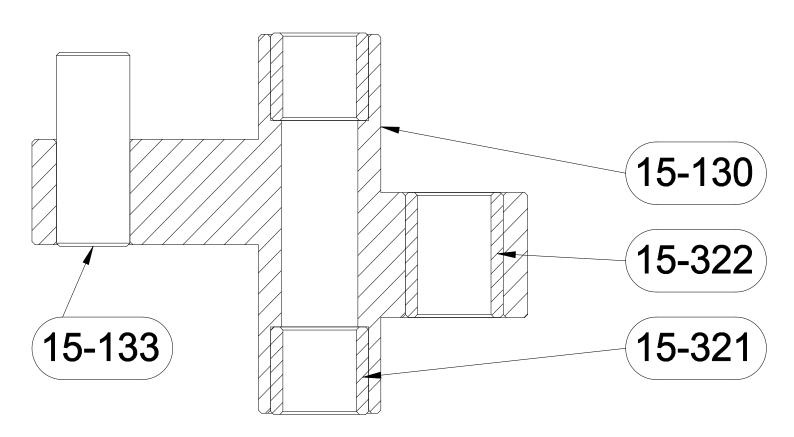




| Part No. | Description           | Qty |
|----------|-----------------------|-----|
| 10-106   | Composite bearing     | 4   |
| 15-153   | Slide frame *         | 1   |
|          |                       |     |
|          | * Not sold separately | ·   |

| Part No. | Description     | Qty |
|----------|-----------------|-----|
| 15-260   | Threaded insert | 8   |
|          |                 |     |
|          |                 |     |
|          |                 | ·   |

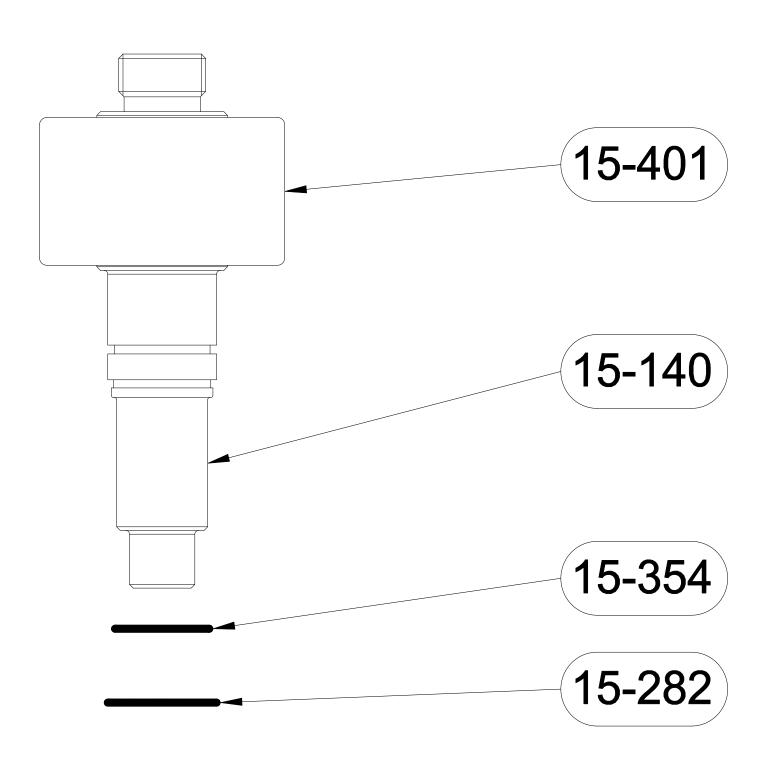




| Part No. | Description           | Qty |
|----------|-----------------------|-----|
| 15-130   | Rocker *              | 1   |
| 15-133   | Shaft *               | 1   |
|          |                       |     |
|          | * Not sold separately | ·   |

| Part No. | Description | Qty |
|----------|-------------|-----|
| 15-321   | Bushing *   | 2   |
| 15-322   | Bushing *   | 1   |
|          |             |     |
|          |             |     |





| Part No. | Description           | Qty |
|----------|-----------------------|-----|
| 15-140   | Shaft *               | 1   |
| 15-282   | Circlip               | 1   |
|          |                       | '   |
|          | * Not sold separately | ,   |

| Part No. | Description | Qty |
|----------|-------------|-----|
| 15-354   | O-ring      | 1   |
| 15-401   | Rotor *     | 1   |
|          |             |     |
|          |             |     |



### TPE 15/19

Max load capacity 15 kg

Max tray weight 5 kg

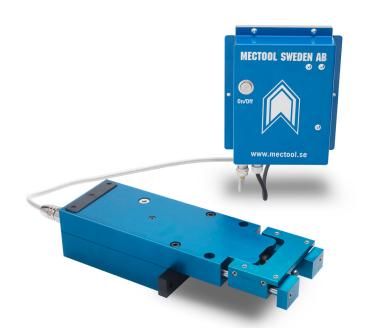
Stroke length 19 mm

Feed rate 4 - 8 m/min

Sound level 55 dB (A)

Motor effect 0,1 kw

Electrical connection 110 - 240 V



### **TPE 100**

Max load capacity 100 kg

Max tray weight 35 kg

Stroke length 16 mm

Feed rate 4 m/min

Sound level 62 dB (A)

Motor effect 0,5 kw

Electrical connection 380-415 V 50-60 Hz optional 110-120 V







### Factory repair service.

If your Transporter requires repair, return it to our Service Center. A technician will examine your Transporter and get back to you with a quote of estimated costs.

Repairs include fault tracing and repair or replacement of failed components, as well as final testing to ensure your Transporter is functioning according to specifications.

All items with the warranty period are evaluated by technicians to verify warranty eligibility.

All Transporters repaired by Mectool receive a new three month manufacturer's warranty period (wear parts excluded).

#### **Mectool Sweden AB**

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# EC DECLARATION OF CONFORMITY FOR MACHINERY

Original

Directive 2006/42/EC, Annex II 1A

| Manufacturer (an | d where appropriate | his authorised | representative) | ): |
|------------------|---------------------|----------------|-----------------|----|
|------------------|---------------------|----------------|-----------------|----|

Company:

Mectool Sweden AB

Address:

Box 132, 293 23 Olofström

Hereby declares that:

Type of machinery:

Friktionstransportör

No. of machinery:

TP-3, TP-10, TP-40, TP-70, TP-140, TPE-15, TPE-100

Complies with the requirements of Machinery Directive 2006/42/EC.

Complies also with applicable requirements of the following EC directives:

2014/30/EU, EMC (elektromagnetisk kompabilitet)

The following harmonized standards have been applied:

SS-EN ISO 12100 (Maskinsäkerhet, allmänna konstruktionsprinciper - Riskbedömning och riskreducering) SS-EN 13857 (Skyddsavstånd)

SS-EN 60204-1 (Maskiners el-utrustning)

The following other standards and specifications have been applied:

#### Authorized to compile the technical file:

Name:

Kenneth Brodin

Address:

Mectool Sweden AB, Box 132, 293 23 Olofström

Signature:

Place and date:

Signature:

Name:

Kenneth Brodin

Position:

VD