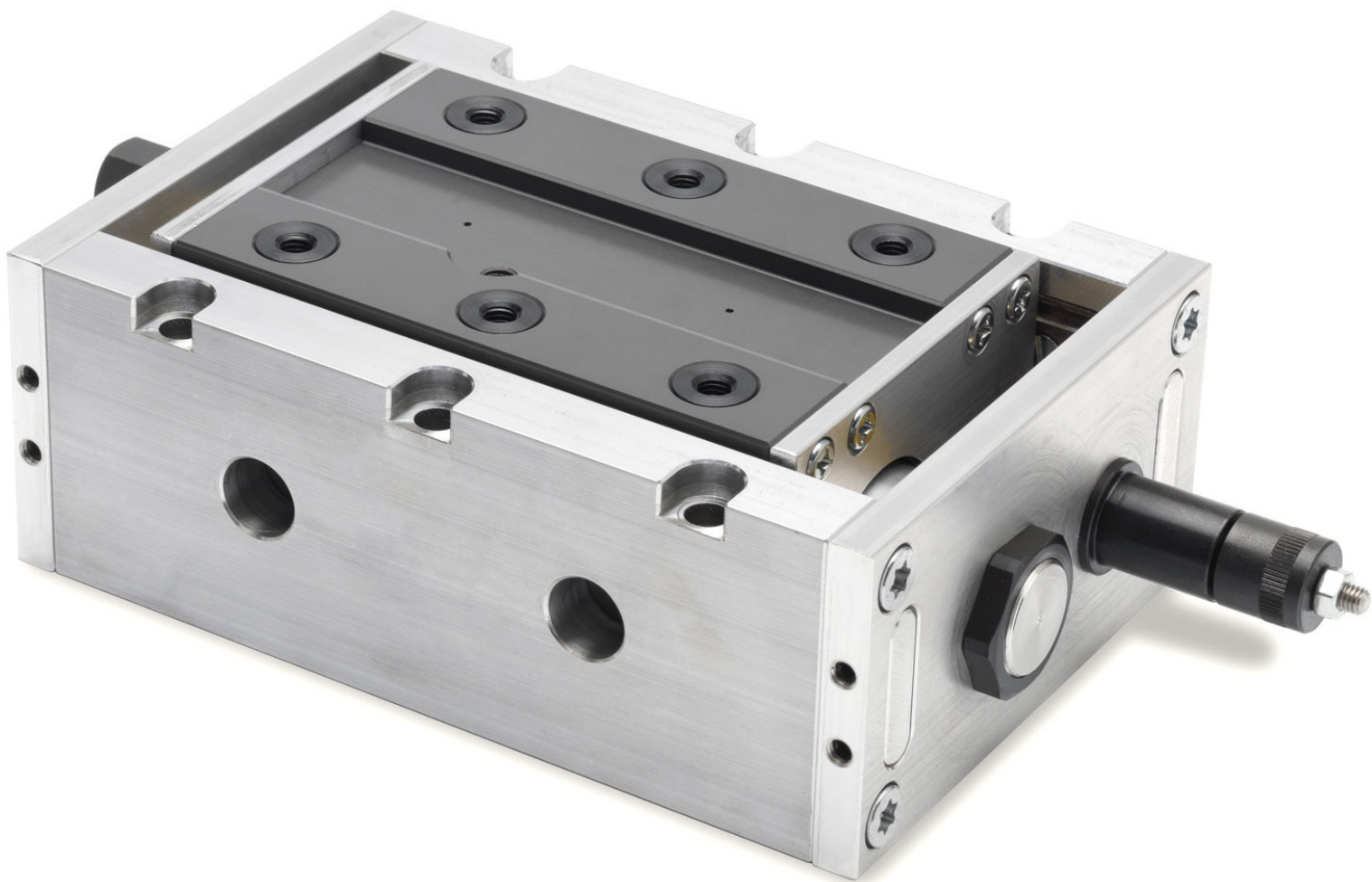




**MECTOOL**

MADE IN SWEDEN



FRICION TRANSPORTER TP 70

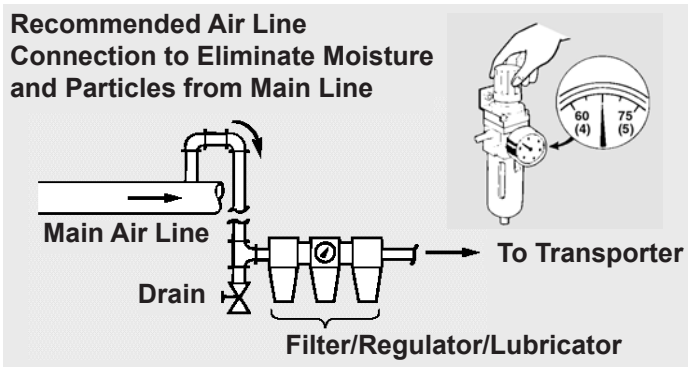
# INSTALLATION & SERVICE MANUAL



1. Rigidly mount the Transporter to a solid surface using these recommended bolt sizes:

Model	Quantity	Metric	Inch
TP3	4	M8	5/16
TP10	4	M8	5/16
TP40	2	M10	3/8
TP70	6	M8	5/16
TP140	6	M8	5/16

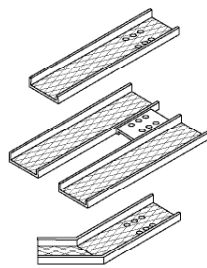
2. Air line requires use of an oil mist-type combination filter/regulator/lubricator, and pressure gauge. Set pressure to 4-5 bar (60-75 psi). Do not exceed 5.5 bar (80 psi) as excess pressure will damage the Transporter.



3. Fill the lubricator with a good grade of hydraulic oil such as Shell Tellus 32 or equivalent. Set the lubricator for one (1) drop per minute.

4. Connect the air line with flexible poly-flow tubing into the threaded inlet. On model TP3 use 1/4" tubing for 1/8" NPT. Models TP10, TP40, TP70 and TP140 use 3/8" tubing for 1/4" NPT.

5. A custom "U" profile tray or chute must be designed to handle each specific application or tool. Any material can be used but we recommend aluminum or any light gauge material to reduce tray weight. Maximum tray weight should not exceed the following table data:

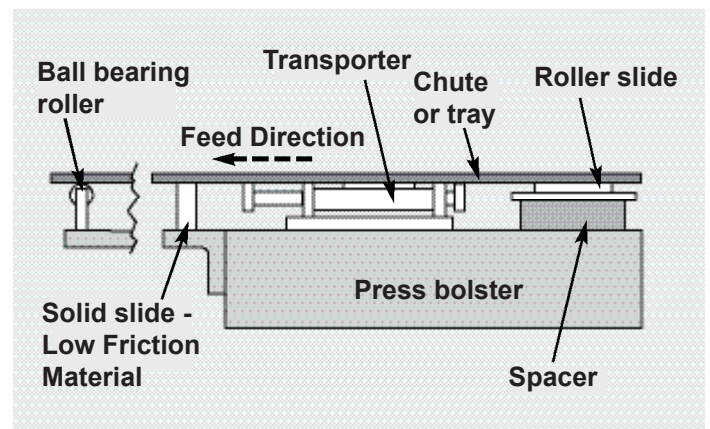


Model	Max. weight tray only		Max. weight of parts	
	Kg	Lbs.	Kg	Lbs.
TP3	1,5	3,3	3	6,6
TP10	3	6,6	10	20
TP40	15	33	40	80
TP70	50	110	70	140
TP140	100	200	140	300

6. Fasten the tray or chute to the Transporter with metric screws at all holes. Be sure to use spacers or washers between the Transporter and the tray to reduce contact friction between the moving tray and the Transporter body. Refer to the following table:

Model	Quantity	Screw size	Depth
TP3	6	M6	8 mm
TP10	6	M6	8 mm
TP40	6	M8	9 mm
TP70	6	M8	8 mm
TP140	6	M8	8 mm

7. The conveyor tray or chute must be supported at both ends to minimize vibration and deflection. A block of Delrin GP-500 or Nylon, low friction material can be used for the tray to slide.



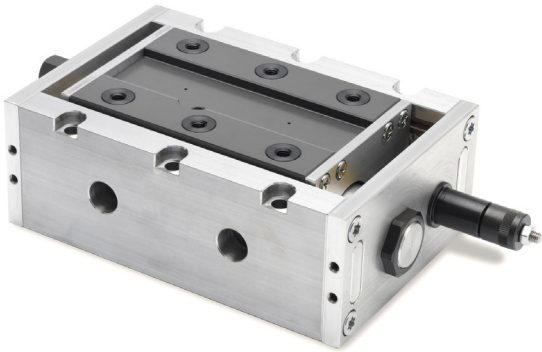
8. The speed adjustment is preset at the factory with the correct frequency for a lightweight tray or chute. The speed can be adjusted by turning the screw or knob clockwise to decrease the movement on the models TP3, TP10 and TP40. The TP70 and TP140 are adjusted by turning the screw or knob counter-clockwise to decrease the movement. Maximum speed is not required to move parts or scrap efficiently.

9. If the TP40 speed frequency is inadequate, release the air regulator rod 40-029 and gently push forward to increase speed or backwards to decrease.

10. The TP10 may require a slight adjustment to maintain proper speed frequency after a period of operation. If speed adjustment screw 10-405 does not slow the unit sufficiently, it may be necessary to slightly snug the two screws at the air regulator valve 10-603. This reduces the air being released from the valve and decreases speed. Snugging the screws too tightly will cause bending of the air regulator rod and poor performance.

11. Spray the same Tellus oil used in lubrication on the pistons every week.

12. If there is a build-up of sticky oil on the conveyor tray or if the scrap parts are very oily, they may stick to the surface and reduce movement. To reduce friction, try dimpling the surface of the conveyor chute with a ballpeen hammer or use a different material like expanded metal or profiled, roll-formed material.



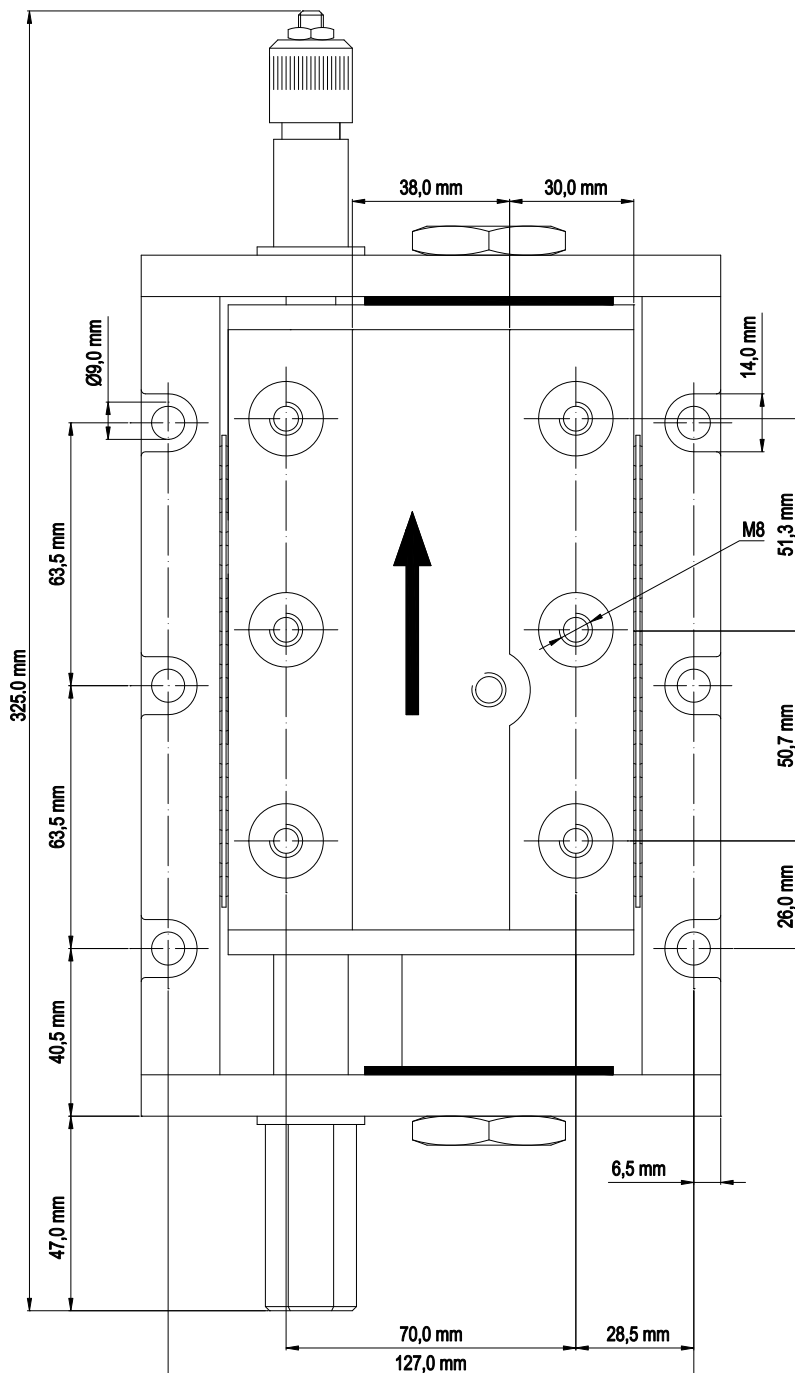
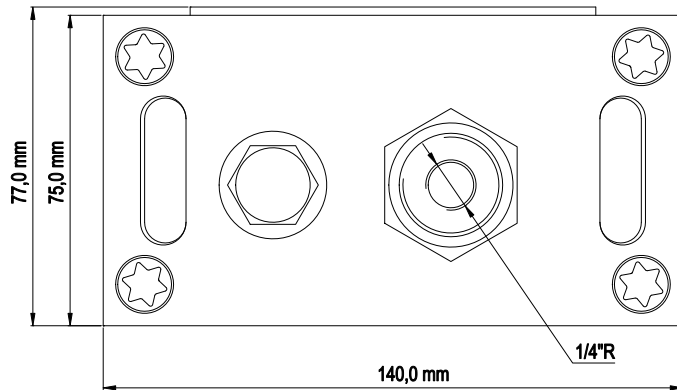
*Please note that some parts may not be available because they are not field replaceable. If this is the case, a subassembly must be used. Some parts are only available as a subassembly and cannot be purchased individually. Check the spare parts reference lists for details.*

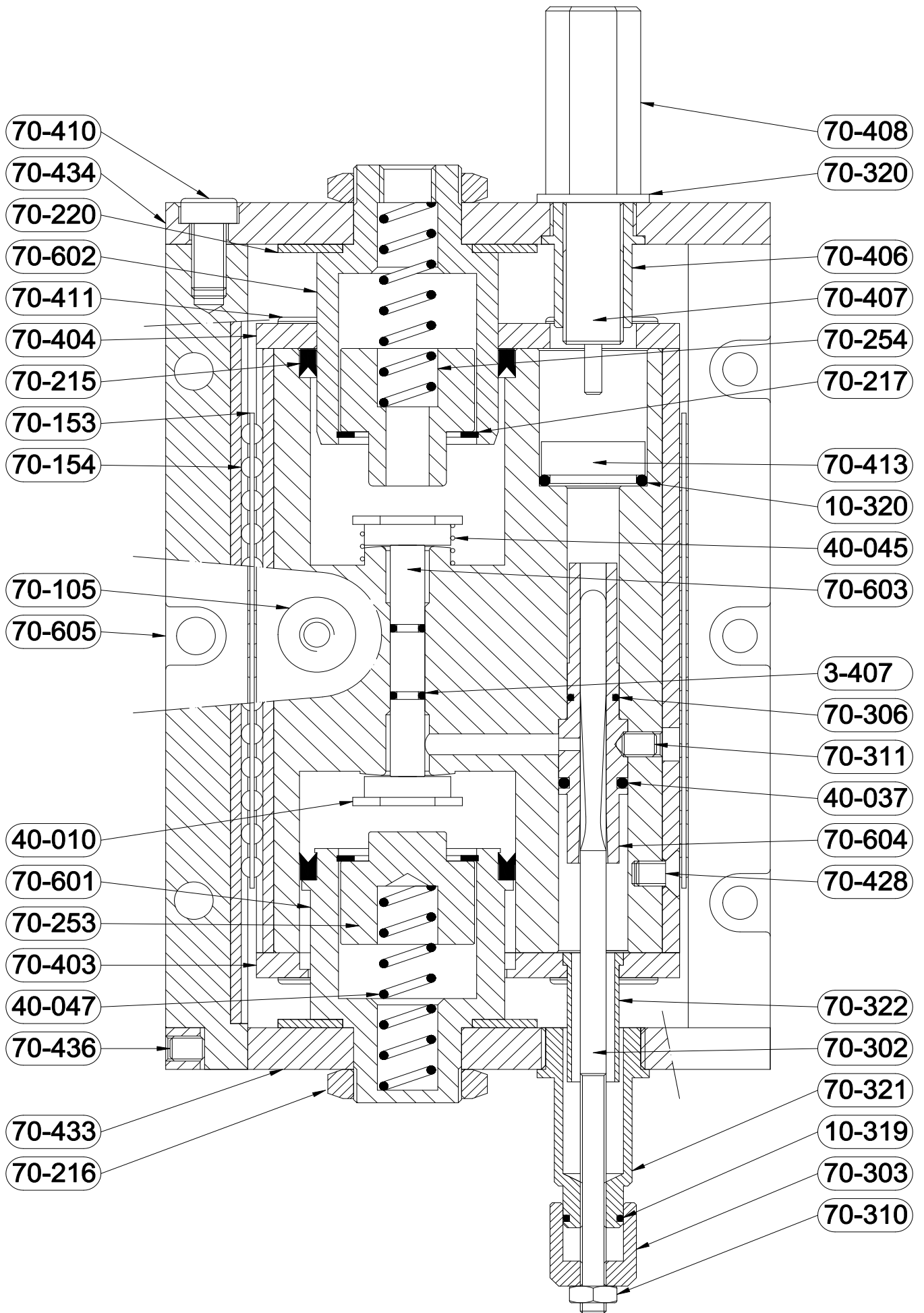
### Disassembly.

1. Remove the nut 70-216 from the front piston 70-601 and push the piston inside the cylinder.
2. Remove the eight (8) 70-410 screw with a T40 torx wrench. Loosen the eight (8) set screws 70-436. There is no need to remove the set screws.
3. Pull the front and rear holders away from the machine body while holding the guide assemblies to prevent the bearings from being lost. The rear piston 70-602 and shock absorber 70-407 will come out with the rear holder. The speed adjustment assembly will come out with the front holder.
4. Remove the front and rear retaining plates. The front piston can now be removed from the machine body.
5. Remove the locking screw 70-311 and remove the speed adjustment valve 70-604.
6. Unscrew the valve discs 40-010 and pull the seals out. Check all seals and O-rings for damage. Make sure the valve discs are flat and that valve rod 70-603 is straight.

### Reassembly.

1. Install speed adjustment valve 70-604 and align the indent for locking screw 70-311.
2. Use the 70-436 set screws to adjust any looseness in the slide assembly before tightening the screws 70-410.

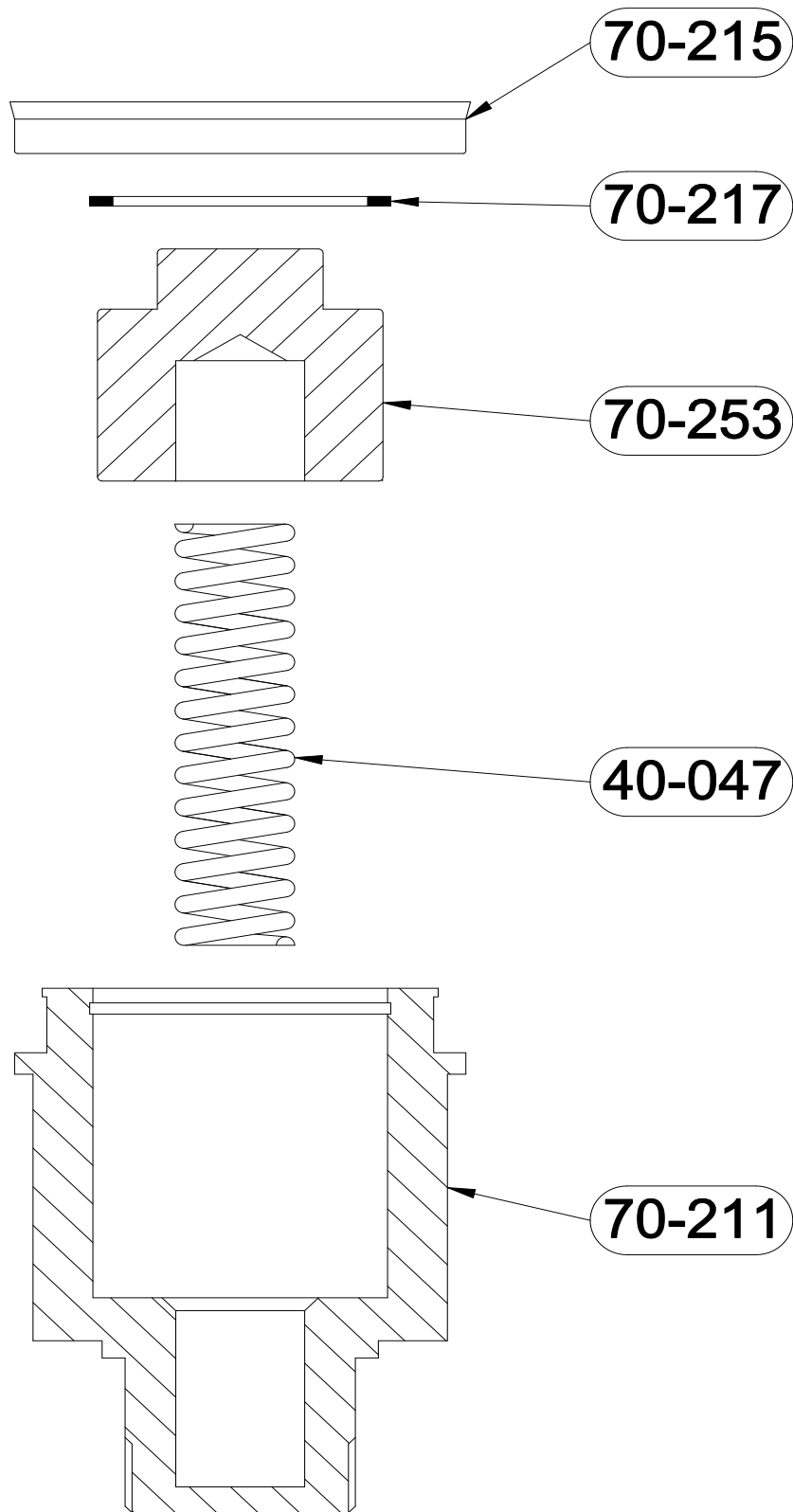






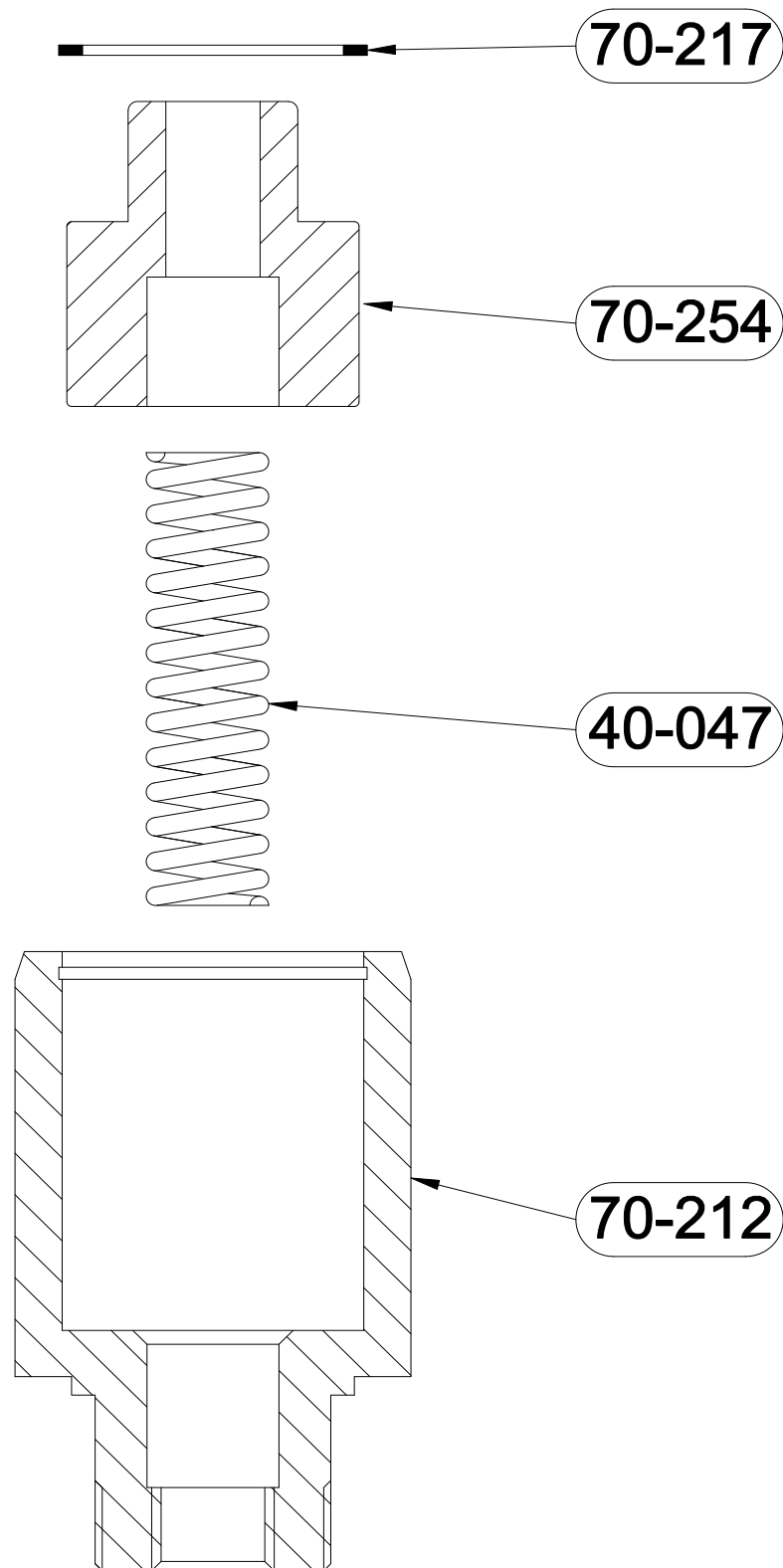
<b>Part No.</b>	<b>Description</b>	<b>Qty</b>
3-407	O-ring	2
10-319	O-ring	1
10-320	O-ring	1
40-010	Valve disc	2
40-037	O-ring	1
40-045	Spring	1
40-047	Spring	2
70-105	Mounting insert	6
70-153	Bearing retainer	2
70-154	Ball	56
70-215	Cup seal	2
70-216	Nut	2
70-217	Circlip	2
70-220	Urethane washer	2
70-253	Rear spring guide	1
70-254	Front spring guide	1
70-303	Speed adjustment knob	1
70-306	O-ring	1
70-310	Nut	1
70-311	Screw	1
70-320	Washer	1
70-321	Rear bushing	1
70-322	Silencer	1

<b>Part No.</b>	<b>Description</b>	<b>Qty</b>
70-403	Rear retaining plate	1
70-404	Front retaining plate	1
70-406	Front bushing	1
70-407	Shock absorber	1
70-408	Nut	1
70-410	Screw	8
70-411	Screw	12
70-413	Shock absorber plug	1
70-428	Screw	14
70-433	Rear holder	1
70-434	Front holder	1
70-436	Screw	8
<b>Subassemblies</b>		
<b>Part No.</b>	<b>Description</b>	<b>Qty</b>
70-001	Repair kit	-
70-601	Rear piston	1
70-602	Front piston	1
70-603	Valve rod	1
70-604	Valve	1
70-605	Ball guide	2



Part No.	Description	Qty
40-047	Spring	1
70-211	Rear piston *	1
70-215	Cup seal	1
* Not sold separately		

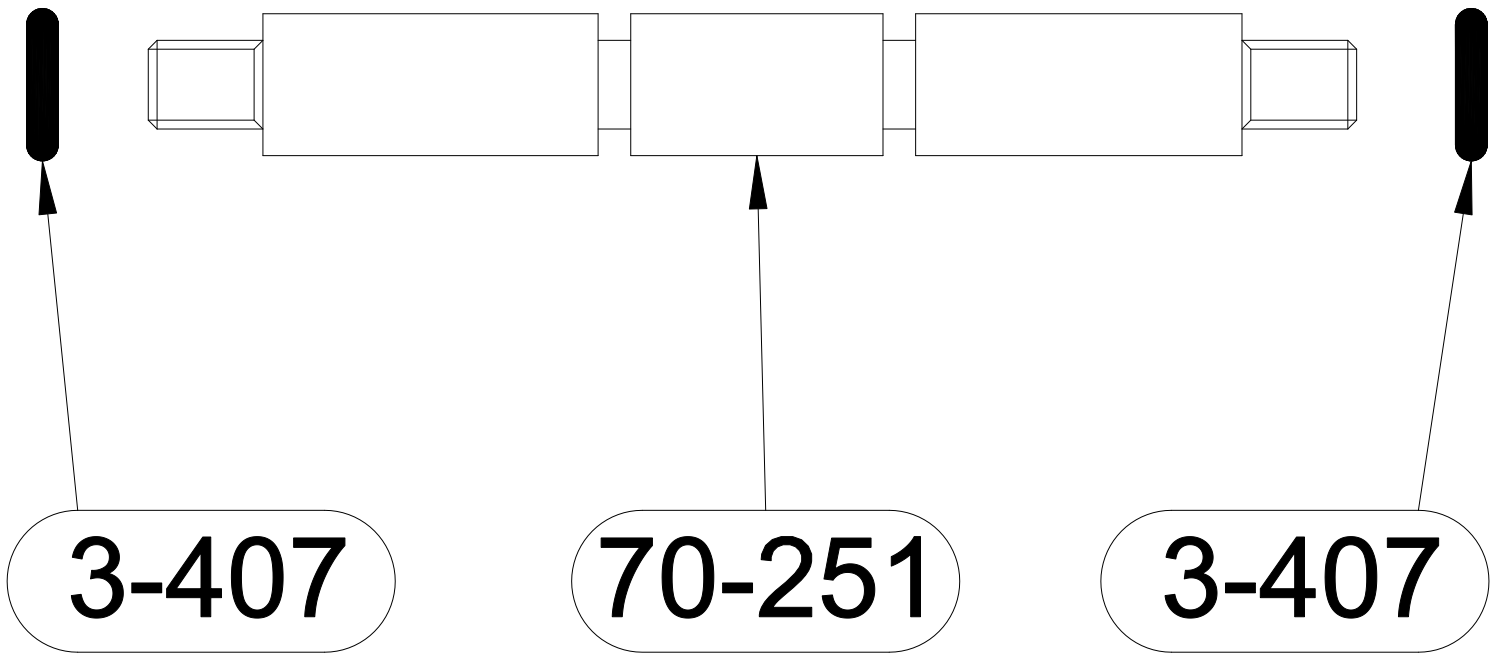
Part No.	Description	Qty
70-217	Circlip	1
70-253	Spring guide	1



Part No.	Description	Qty
40-047	Spring	1
70-212	Front piston *	1
70-215	Cup seal	1
* Not sold separately		

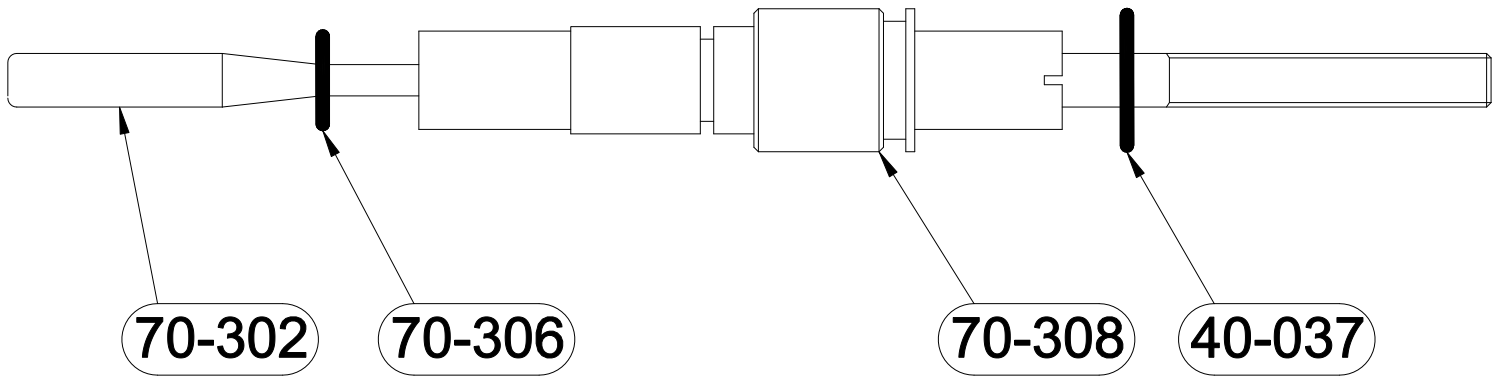
Part No.	Description	Qty
70-217	Circlip	1
70-254	Spring guide	1





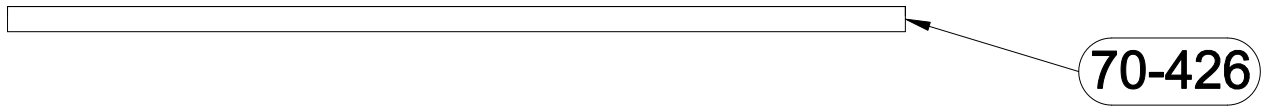
Part No.	Description	Qty
3-407	O-ring	2
* Not sold separately		

Part No.	Description	Qty
70-251	Valve rod *	1



Part No.	Description	Qty
40-037	O-ring	1
70-302	Valve rod *	1
* Not sold separately		

Part No.	Description	Qty
70-306	O-ring	1
70-308	Valve *	1



70-426



70-428



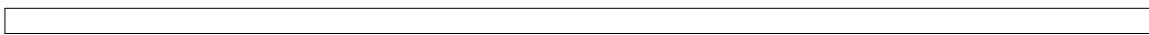
70-154



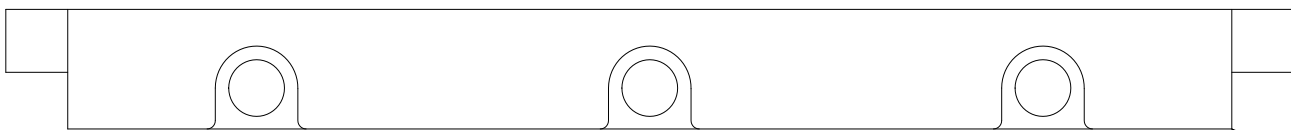
70-153



70-428



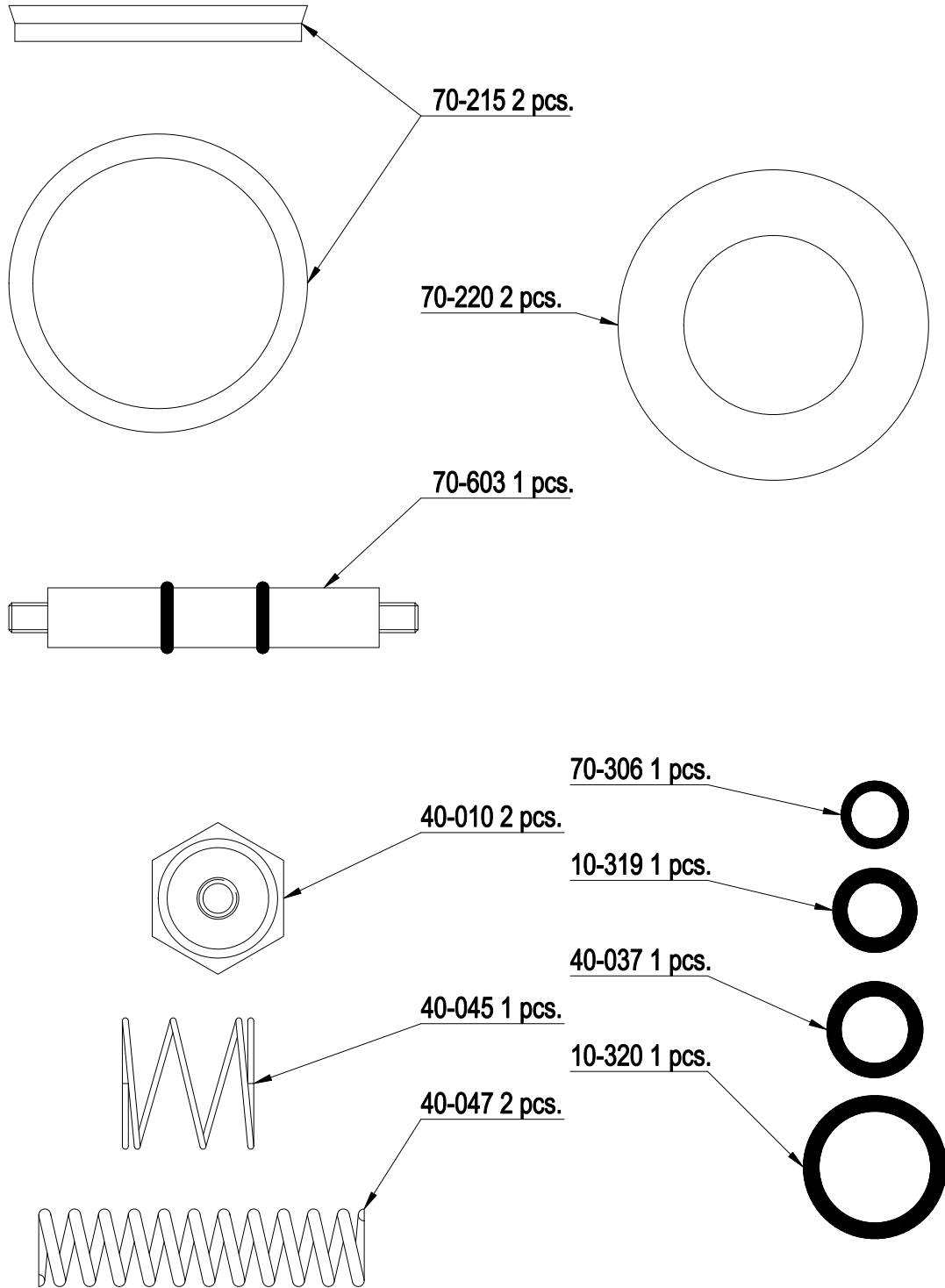
70-437



70-435

Part No.	Description	Qty
70-153	Ball retainer	1
70-154	Ball	28
70-426	Ball guide *	1
* Not sold separately		

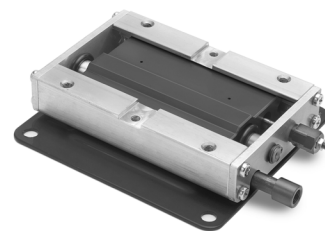
Part No.	Description	Qty
70-428	Screw	7
70-435	Guide column *	1
70-437	Ball guide *	1





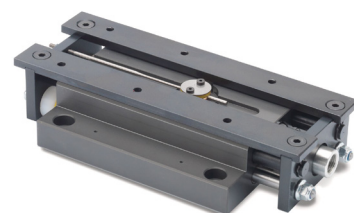
### TP 3

Air pressure	4 - 5,5 bar
Air consumption	5 l/min
Length of stroke	23 mm
Rate of feed	8 - 10 m/min
Max gradient on feed chute	8 °
Sound level	56 dB (A)
Weight	1,5 kg
Transportation capacity	3 kg
Max weight chute	1,5 kg



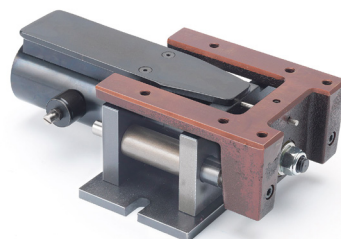
### TP 10

Air pressure	4 - 5,5 bar
Air consumption	11 l/min
Length of stroke	23 mm
Rate of feed	8 - 10 m/min
Max gradient on feed chute	8 °
Sound level	60 dB (A)
Weight	3 kg
Transportation capacity	10 kg
Max weight chute	3 kg



### TP 40

Air pressure	4 - 5,5 bar
Air consumption	31 l/min
Length of stroke	27 mm
Rate of feed	8 - 10 m/min
Max gradient on feed chute	8 °
Sound level	68 dB (A)
Weight	8,5 kg
Transportation capacity	40 kg
Max weight chute	15 kg



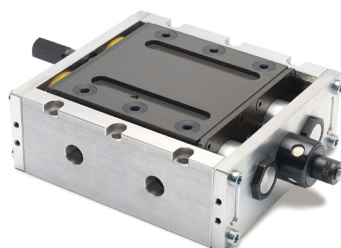
### TP 70

Air pressure	4 - 5,5 bar
Air consumption	44 l/min
Length of stroke	27 mm
Rate of feed	8 - 10 m/min
Max gradient on feed chute	8 °
Sound level	68 dB (A)
Weight	6 kg
Transportation capacity	70 kg
Max weight chute	50 kg



### TP 140

Air pressure	4 - 5,5 bar
Air consumption	42 l/min
Length of stroke	27 mm
Rate of feed	8 - 10 m/min
Max gradient on feed chute	8 °
Sound level	62 dB (A)
Weight	8,5 kg
Transportation capacity	140 kg
Max weight chute	100 kg



Air consumption is measured at a pace of 120 strokes per minute and an air pressure of 4 bar.



### 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).

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# EC DECLARATION OF CONFORMITY FOR MACHINERY

Original

Directive 2006/42/EC, Annex II 1A

## Manufacturer (and 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 kompatibilitet)

## 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:

Olofström 2021-01-12

Signature:



Name: Kenneth Brodin

Position: VD