ENGEI INJECTION MOULDING MACHINE
e-motion 50/30
Technical data and equipment according to data sheet

Machine execution for processing of:
THgMPOPLAST

CLAMP UNIT:
Tie-barless clamp unit with servodrive. The closing mechanism consists of simple lever, crank and planetary gear. A special guide frame guarantees exact platen parallelism. The low deflection of the c-base is compensated with the flex link on the stationary platen. The tie-barless design ensures an essential larger useable platen area and best access for automation. Ejector assembly and mold height adjustment are integrated in the moving platen.

Platens in standard execution
Layout according to JIS: JIS

Platens with locating diameter in standard execution 100 mm

Ejector pin for central coupling
OPT123260

Ejector plate with 100 mm x 100 mm JIS pattern, ejector drive with retaining brake

spacer plate on movable platen for reduction of mould height by 40 mm
evenness <10µm, Ra 0,4
with water cooling, hole pattern on 100 mm horizontal abolished
OPT136668

Mechanical safety for clamp closing

preparation of base frame for mounting of robot
OPT137528

"Autoprotect"-precision mold protection.
even learning system with force monitoring

"Autoprotect"-injection monitoring.
Selectable monitoring of speed, pressure or cavity pressure.

4-zone mold heating control. Includes additional temperature control card.
Connections according to Euromap 14

toggle with central lubrication and oil
recirculation

**INJECTION UNIT:**
Electrical injection unit in Inline-design. The servodrive for injection with integrated high resolution measuring system guarantees best precision and repeatability. Injection and back pressure is detected by a measuring diaphragm directly on plasticating screw support. Carriage movement and plasticating are also powered by servo drives. Barrels, plasticating screws and check valves of Engel hydraulic machines are useable. The choice of diameter, geometry and material allows a perfect combination for specific processing conditions. Cooling of feed throat is controlled. The comfortable access ensures a very short set-up time.

48  d070500039  Premium-execution (injection speed 800 mm/sec ) software package "faster cycle"
OPT136681

14  d070500500  Hopper support, moveable (hopper not included in shipment)

56  d070503000  Universal adaptor for hopper / conveyor, located on movable hopper support

15  d072000160  Injection unit with surrounding covering incl. safety door

**BARREL AND SCREW ASSEMBLY:**
A variety of choices of diameter, materials and geometry from standard selections allow the assembly of a customized package to suit any application.

**Barrel execution:**

16  d140500510  barrel M3 higher abrasion and corrosion resistant working range up to 350 degrees C

**Screw execution:**

49  d141000444  screw S10 - diameter 20 mm screw length L/D 24 through hardened PM steel, high abrasive resistant includes R9b check assembly, screw shaft with clamping coupling

**Nozzle execution:**

57  d143002769  corrosion resistant open nozzle in special execution
Barrelhead thread M28x1.5
Nozzle radius 10 mm
Nozzle orifice 3.5 mm
outer diameter max. 40 mm
incl. heater band
OPT136671

19 d144000910 Corrosion resistant barrelhead

**Barrel heating:**

20 d144500102 230 volt barrel and nozzle heaterbands
21 d144500104 Ceramic heaterbands

**CONTROLS/ELECTRICAL:**

22 d230500510 CC200 control package including:
- "Windows" style display with 15" TFT-color Touch Screen
- Data storage via USB interface
- Ethernet network interface
- Freely programmable cycle sequence supported by graphical symbols
- Screen pages configurable
- e-help
- Notepad
- Alarm Messaging via Email
- weekly timer
- Micrograph
- Microplast
- PD-log
Screen text
german: DE
english: EN

23 d231000110 Incoming voltage
(by IT or FI-used power systems a disconnecting transformer for servo drives is requested)
3X400V+N+PE/50HZ

24 d231001200 ecographe for energy analysis of IMM

25 d232000200 Access rights with key card

58 d233000300 Interface for external vacuum equipment

59 d233000400 Interface for colour feeder via dry contact
(contact is closed during plasticizing)

26 d233000800 Interface for freely programmable dry contacts
(terminal strip)
(4x digital output, 4x digital input)

50 d233001000 Ejector back confirmation

60 d233001200 Interface for temperature control units
### MEDIA:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>30</td>
<td>Solenoid operated pneumatic valve 2/2-ways, R1/4&quot; ports, mounted on moving platen. For airblow only.</td>
</tr>
<tr>
<td>31</td>
<td>Automatic grease lubrication system</td>
</tr>
<tr>
<td>32</td>
<td>Oil central lubrication for lever</td>
</tr>
<tr>
<td>33</td>
<td>Oil-bath lubrication of injection unit</td>
</tr>
<tr>
<td>34</td>
<td>Combined water terminal for machine and mould cooling</td>
</tr>
<tr>
<td>35</td>
<td>Water flow control manifold 0-10 l/min, 6-circuits</td>
</tr>
</tbody>
</table>

### TECHNOLOGY PACKAGES:

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<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>64</td>
<td>Pressure transducer for vacuum monitoring including PD-recording</td>
</tr>
<tr>
<td>65</td>
<td>Vacuum valve placed beside movable platen non-operator side routed (10 mm) to movable platen OPT137221</td>
</tr>
</tbody>
</table>
### MISCELLANEOUS PACKAGES:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>36</td>
<td>d420200100 execution as per European Norm EN 201</td>
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### LABELLING/PAINTING

<table>
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<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>37</td>
<td>d480500100 Labelling</td>
</tr>
<tr>
<td></td>
<td>german: DE</td>
</tr>
<tr>
<td>38</td>
<td>d481500110 Standard painting</td>
</tr>
<tr>
<td></td>
<td>(ENGEL light green/black grey and grey)</td>
</tr>
</tbody>
</table>

### SUPPLEMENTAL EQUIPMENT:

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<tr>
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<th>Description</th>
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<tbody>
<tr>
<td>39</td>
<td>d540500900 program &quot;virt mould&quot; for viewing and revising of parameter settings and for process optimization on PC incl. simulation</td>
</tr>
<tr>
<td>40</td>
<td>d542500100 Levelling and vibration mounts in standard execution</td>
</tr>
<tr>
<td>70</td>
<td>d542500109 reinforced machine support pads</td>
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<tr>
<td></td>
<td>SUNNEX MHD190</td>
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<tr>
<td></td>
<td>OPT126575</td>
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<tr>
<td>41</td>
<td>d542501000 Machine delivery in one piece</td>
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<tr>
<td></td>
<td>(clamp unit and injection unit H)</td>
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<tr>
<td>42</td>
<td>d543000100 Manual - 1 copy</td>
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<tr>
<td></td>
<td>german: DE</td>
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