## PATENT ASSIGNMENT COVER SHEET

**SUBMISSION TYPE:** NEW ASSIGNMENT  
**NATURE OF CONVEYANCE:** SECURITY INTEREST

### CONVEYING PARTY DATA

<table>
<thead>
<tr>
<th>Name</th>
<th>Execution Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>BROOKS AUTOMATION, INC.</td>
<td>10/04/2017</td>
</tr>
<tr>
<td>BIOSTORAGE TECHNOLOGIES, INC.</td>
<td>10/04/2017</td>
</tr>
</tbody>
</table>

### RECEIVING PARTY DATA

<table>
<thead>
<tr>
<th>Name</th>
<th>MORGAN STANLEY SENIOR FUNDING, INC.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Street Address</td>
<td>1300 THAMES STREET, 4TH FLOOR, THAMES STREET WHARF</td>
</tr>
<tr>
<td>City</td>
<td>BALTIMORE</td>
</tr>
<tr>
<td>State/Country</td>
<td>MARYLAND</td>
</tr>
<tr>
<td>Postal Code</td>
<td>21231</td>
</tr>
</tbody>
</table>

### PROPERTY NUMBERS Total: 552

<table>
<thead>
<tr>
<th>Property Type</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patent Number</td>
<td>5741109</td>
</tr>
<tr>
<td>Patent Number</td>
<td>5875651</td>
</tr>
<tr>
<td>Patent Number</td>
<td>5879461</td>
</tr>
<tr>
<td>Patent Number</td>
<td>5882413</td>
</tr>
<tr>
<td>Patent Number</td>
<td>5894760</td>
</tr>
<tr>
<td>Patent Number</td>
<td>5910287</td>
</tr>
<tr>
<td>Patent Number</td>
<td>5911896</td>
</tr>
<tr>
<td>Patent Number</td>
<td>5931626</td>
</tr>
<tr>
<td>Patent Number</td>
<td>5960638</td>
</tr>
<tr>
<td>Patent Number</td>
<td>5991510</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6002840</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6041620</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6041621</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6046435</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6050774</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6053008</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6054688</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6056026</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6059507</td>
</tr>
<tr>
<td>Property Type</td>
<td>Number</td>
</tr>
<tr>
<td>--------------</td>
<td>---------</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6327866</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6330811</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6357257</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6360144</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6364592</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6364593</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6364595</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6366830</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6403945</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6405843</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6408631</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6418350</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6418352</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6419438</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6425264</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6426019</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6426050</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6427483</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6438460</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6438994</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6447233</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6450755</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6452503</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6453214</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6454512</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6464448</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6468021</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6473668</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6474082</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6478532</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6481223</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6494054</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6501070</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6502869</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6510697</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6517781</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6520726</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6526668</td>
</tr>
<tr>
<td>Patent Number:</td>
<td>Number</td>
</tr>
<tr>
<td>---------------</td>
<td>--------</td>
</tr>
<tr>
<td>6530237</td>
<td></td>
</tr>
<tr>
<td>6530732</td>
<td></td>
</tr>
<tr>
<td>6530736</td>
<td></td>
</tr>
<tr>
<td>6532403</td>
<td></td>
</tr>
<tr>
<td>6547510</td>
<td></td>
</tr>
<tr>
<td>6560981</td>
<td></td>
</tr>
<tr>
<td>6562094</td>
<td></td>
</tr>
<tr>
<td>6567711</td>
<td></td>
</tr>
<tr>
<td>6568098</td>
<td></td>
</tr>
<tr>
<td>6574978</td>
<td></td>
</tr>
<tr>
<td>6579052</td>
<td></td>
</tr>
<tr>
<td>6585470</td>
<td></td>
</tr>
<tr>
<td>6591162</td>
<td></td>
</tr>
<tr>
<td>6591960</td>
<td></td>
</tr>
<tr>
<td>6592679</td>
<td></td>
</tr>
<tr>
<td>6595009</td>
<td></td>
</tr>
<tr>
<td>6598406</td>
<td></td>
</tr>
<tr>
<td>6612797</td>
<td></td>
</tr>
<tr>
<td>6618645</td>
<td></td>
</tr>
<tr>
<td>6619359</td>
<td></td>
</tr>
<tr>
<td>6623235</td>
<td></td>
</tr>
<tr>
<td>6634851</td>
<td></td>
</tr>
<tr>
<td>6640891</td>
<td></td>
</tr>
<tr>
<td>6641348</td>
<td></td>
</tr>
<tr>
<td>6643563</td>
<td></td>
</tr>
<tr>
<td>6671583</td>
<td></td>
</tr>
<tr>
<td>6673161</td>
<td></td>
</tr>
<tr>
<td>6690993</td>
<td></td>
</tr>
<tr>
<td>6711731</td>
<td></td>
</tr>
<tr>
<td>6719517</td>
<td></td>
</tr>
<tr>
<td>6722145</td>
<td></td>
</tr>
<tr>
<td>6729462</td>
<td></td>
</tr>
<tr>
<td>6730520</td>
<td></td>
</tr>
<tr>
<td>6736582</td>
<td></td>
</tr>
<tr>
<td>6737826</td>
<td></td>
</tr>
<tr>
<td>6765222</td>
<td></td>
</tr>
<tr>
<td>6769861</td>
<td></td>
</tr>
<tr>
<td>6779962</td>
<td></td>
</tr>
<tr>
<td>Property Type</td>
<td>Number</td>
</tr>
<tr>
<td>---------------</td>
<td>------------</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6784418</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6789328</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6815661</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6825042</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6843065</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6861035</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6869263</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6880757</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6881354</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6895766</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6898487</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6913302</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6918731</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6920763</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6944517</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6944584</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6960057</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6974782</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6990430</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7002675</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7016751</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7024866</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7025120</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7039498</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7042568</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7055875</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7058627</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7059144</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7066707</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7100340</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7102124</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7103428</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7109509</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7111467</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7121414</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7127901</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7134825</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7179044</td>
</tr>
<tr>
<td>Property Type</td>
<td>Number</td>
</tr>
<tr>
<td>--------------</td>
<td>----------</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7192791</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7194867</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7210246</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7217076</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7232284</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7233842</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7234310</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7245989</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7255524</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7270784</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7289863</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7290813</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7293811</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7293950</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7300082</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7313922</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7320224</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7373968</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7374386</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7415831</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7419346</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7421831</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7422406</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7449152</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7450224</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7458763</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7459130</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7478454</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7478540</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7490483</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7515049</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7522267</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7572092</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7575406</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7578649</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7585144</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7596251</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7607879</td>
</tr>
<tr>
<td>Property Type</td>
<td>Number</td>
</tr>
<tr>
<td>---------------</td>
<td>---------</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7614444</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7635246</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7648321</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7648327</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7669903</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7677394</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7677859</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7699573</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7712808</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7737567</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7748944</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7762755</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7769482</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7788942</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7792350</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7793842</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7798758</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7829028</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7834618</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7841820</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7854898</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7858044</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7859685</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7880155</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7882394</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7890194</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7891935</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7891936</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7894657</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7899562</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7901539</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7904182</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7925378</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7945348</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7946800</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7959395</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7959403</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7975746</td>
</tr>
<tr>
<td>Property Type</td>
<td>Number</td>
</tr>
<tr>
<td>---------------</td>
<td>---------</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7988398</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7988399</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8008884</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8016541</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8029225</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8029226</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8047253</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8082741</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8083994</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8091381</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8112171</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8125652</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8129984</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8167522</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8178829</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8182192</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8197177</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8222892</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8231322</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8237391</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8252232</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8253948</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8261562</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8267632</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8267634</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8267636</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8270702</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8272825</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8272827</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8283813</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8292563</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8293066</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8297319</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8303764</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8313277</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8328495</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8356207</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8371792</td>
</tr>
<tr>
<td>Property Type</td>
<td>Number</td>
</tr>
<tr>
<td>---------------</td>
<td>-------------</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8376685</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8381581</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8398355</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8403613</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8403619</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8413452</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8419341</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8424703</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8425172</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8434989</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8439414</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8439623</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8442667</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8454293</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8459922</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8473270</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8500388</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8509938</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8510476</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8523507</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8545165</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8562271</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8573919</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8590956</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8602706</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8602716</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8612198</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8628288</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8634633</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8636459</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8639365</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8639489</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8651789</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8651796</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8659205</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8662812</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8672605</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8678734</td>
</tr>
<tr>
<td>Property Type</td>
<td>Number</td>
</tr>
<tr>
<td>--------------</td>
<td>---------</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8680803</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8696298</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8747050</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8752449</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8764934</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8775148</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8800774</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8801069</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8803513</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8807905</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8812150</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8821099</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8822209</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8823294</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8827617</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8827618</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8851817</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8851820</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8869552</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8870514</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8870516</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8874274</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8881297</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8882433</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8888433</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8892248</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8910985</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8918203</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8934706</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8944738</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8950998</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8951002</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8960099</td>
</tr>
<tr>
<td>Patent Number</td>
<td>8972029</td>
</tr>
<tr>
<td>Patent Number</td>
<td>9020617</td>
</tr>
<tr>
<td>Patent Number</td>
<td>9024488</td>
</tr>
<tr>
<td>Patent Number</td>
<td>9033647</td>
</tr>
<tr>
<td>Patent Number</td>
<td>9099506</td>
</tr>
<tr>
<td>Property Type</td>
<td>Number</td>
</tr>
<tr>
<td>---------------</td>
<td>---------</td>
</tr>
<tr>
<td>Patent Number</td>
<td>9104650</td>
</tr>
<tr>
<td>Patent Number</td>
<td>9105673</td>
</tr>
<tr>
<td>Patent Number</td>
<td>9117859</td>
</tr>
<tr>
<td>Patent Number</td>
<td>9147590</td>
</tr>
<tr>
<td>Patent Number</td>
<td>9151770</td>
</tr>
<tr>
<td>Patent Number</td>
<td>9184078</td>
</tr>
<tr>
<td>Patent Number</td>
<td>9186799</td>
</tr>
<tr>
<td>Patent Number</td>
<td>9190304</td>
</tr>
<tr>
<td>Patent Number</td>
<td>9222821</td>
</tr>
<tr>
<td>Patent Number</td>
<td>9224628</td>
</tr>
<tr>
<td>Patent Number</td>
<td>9230841</td>
</tr>
<tr>
<td>Patent Number</td>
<td>9248568</td>
</tr>
<tr>
<td>Patent Number</td>
<td>9266038</td>
</tr>
<tr>
<td>Patent Number</td>
<td>9266039</td>
</tr>
<tr>
<td>Patent Number</td>
<td>9275885</td>
</tr>
<tr>
<td>Patent Number</td>
<td>9297728</td>
</tr>
<tr>
<td>Patent Number</td>
<td>9324594</td>
</tr>
<tr>
<td>Patent Number</td>
<td>9334859</td>
</tr>
<tr>
<td>Patent Number</td>
<td>9368382</td>
</tr>
<tr>
<td>Patent Number</td>
<td>9378995</td>
</tr>
<tr>
<td>Patent Number</td>
<td>9401294</td>
</tr>
<tr>
<td>Patent Number</td>
<td>9437469</td>
</tr>
<tr>
<td>Patent Number</td>
<td>9478446</td>
</tr>
<tr>
<td>Patent Number</td>
<td>9514974</td>
</tr>
<tr>
<td>Patent Number</td>
<td>9517558</td>
</tr>
<tr>
<td>Patent Number</td>
<td>9524896</td>
</tr>
<tr>
<td>Patent Number</td>
<td>9545724</td>
</tr>
<tr>
<td>Patent Number</td>
<td>9567988</td>
</tr>
<tr>
<td>Patent Number</td>
<td>9570330</td>
</tr>
<tr>
<td>Patent Number</td>
<td>9601362</td>
</tr>
<tr>
<td>Patent Number</td>
<td>9623555</td>
</tr>
<tr>
<td>Patent Number</td>
<td>9630775</td>
</tr>
<tr>
<td>Patent Number</td>
<td>9656386</td>
</tr>
<tr>
<td>Patent Number</td>
<td>9670010</td>
</tr>
<tr>
<td>Patent Number</td>
<td>9687753</td>
</tr>
<tr>
<td>Patent Number</td>
<td>9691649</td>
</tr>
<tr>
<td>Patent Number</td>
<td>9691651</td>
</tr>
<tr>
<td>Patent Number</td>
<td>9702887</td>
</tr>
<tr>
<td>Property Type</td>
<td>Number</td>
</tr>
<tr>
<td>---------------</td>
<td>----------</td>
</tr>
<tr>
<td>Patent Number</td>
<td>9723832</td>
</tr>
<tr>
<td>Patent Number</td>
<td>9751209</td>
</tr>
<tr>
<td>Patent Number</td>
<td>9752615</td>
</tr>
<tr>
<td>Patent Number</td>
<td>9761478</td>
</tr>
<tr>
<td>Patent Number</td>
<td>5588827</td>
</tr>
<tr>
<td>Patent Number</td>
<td>5607276</td>
</tr>
<tr>
<td>Patent Number</td>
<td>5609459</td>
</tr>
<tr>
<td>Patent Number</td>
<td>5613821</td>
</tr>
<tr>
<td>Patent Number</td>
<td>5647724</td>
</tr>
<tr>
<td>Patent Number</td>
<td>5655060</td>
</tr>
<tr>
<td>Patent Number</td>
<td>5664925</td>
</tr>
<tr>
<td>Patent Number</td>
<td>5765983</td>
</tr>
<tr>
<td>Patent Number</td>
<td>5778968</td>
</tr>
<tr>
<td>Patent Number</td>
<td>5854468</td>
</tr>
<tr>
<td>Patent Number</td>
<td>5908281</td>
</tr>
<tr>
<td>Patent Number</td>
<td>5954472</td>
</tr>
<tr>
<td>Patent Number</td>
<td>5997235</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6062798</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6139245</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6231297</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6265803</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6279412</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6299404</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6352265</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6409448</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6428266</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6481956</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6485250</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6609876</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6837663</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7037083</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7047984</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7155919</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7413411</td>
</tr>
<tr>
<td>Patent Number</td>
<td>7806643</td>
</tr>
<tr>
<td>Patent Number</td>
<td>5520538</td>
</tr>
<tr>
<td>Patent Number</td>
<td>5577879</td>
</tr>
<tr>
<td>Patent Number</td>
<td>5720590</td>
</tr>
<tr>
<td>Property Type</td>
<td>Number</td>
</tr>
<tr>
<td>---------------------</td>
<td>----------</td>
</tr>
<tr>
<td>Patent Number:</td>
<td>5743704</td>
</tr>
<tr>
<td>Patent Number:</td>
<td>5813823</td>
</tr>
<tr>
<td>Patent Number:</td>
<td>5899658</td>
</tr>
<tr>
<td>Patent Number:</td>
<td>6002971</td>
</tr>
<tr>
<td>Patent Number:</td>
<td>6158941</td>
</tr>
<tr>
<td>Patent Number:</td>
<td>6318945</td>
</tr>
<tr>
<td>Patent Number:</td>
<td>6510688</td>
</tr>
<tr>
<td>Patent Number:</td>
<td>6986636</td>
</tr>
<tr>
<td>Patent Number:</td>
<td>9299597</td>
</tr>
<tr>
<td>Patent Number:</td>
<td>9312152</td>
</tr>
<tr>
<td>Patent Number:</td>
<td>9401270</td>
</tr>
<tr>
<td>Patent Number:</td>
<td>9524892</td>
</tr>
<tr>
<td>Patent Number:</td>
<td>9536763</td>
</tr>
<tr>
<td>Patent Number:</td>
<td>9633881</td>
</tr>
<tr>
<td>Patent Number:</td>
<td>9646817</td>
</tr>
<tr>
<td>Patent Number:</td>
<td>9646858</td>
</tr>
<tr>
<td>Patent Number:</td>
<td>RE40627</td>
</tr>
<tr>
<td>Application Number:</td>
<td>12696224</td>
</tr>
<tr>
<td>Application Number:</td>
<td>12696268</td>
</tr>
<tr>
<td>Application Number:</td>
<td>15095898</td>
</tr>
<tr>
<td>Application Number:</td>
<td>15397544</td>
</tr>
<tr>
<td>Application Number:</td>
<td>11046655</td>
</tr>
<tr>
<td>Application Number:</td>
<td>11644240</td>
</tr>
<tr>
<td>Application Number:</td>
<td>11877058</td>
</tr>
<tr>
<td>Application Number:</td>
<td>12008985</td>
</tr>
<tr>
<td>Application Number:</td>
<td>12054160</td>
</tr>
<tr>
<td>Application Number:</td>
<td>12131024</td>
</tr>
<tr>
<td>Application Number:</td>
<td>12177737</td>
</tr>
<tr>
<td>Application Number:</td>
<td>12886301</td>
</tr>
<tr>
<td>Application Number:</td>
<td>12901146</td>
</tr>
<tr>
<td>Application Number:</td>
<td>12941009</td>
</tr>
<tr>
<td>Application Number:</td>
<td>13061083</td>
</tr>
<tr>
<td>Application Number:</td>
<td>13106180</td>
</tr>
<tr>
<td>Application Number:</td>
<td>13111149</td>
</tr>
<tr>
<td>Application Number:</td>
<td>13334619</td>
</tr>
<tr>
<td>Application Number:</td>
<td>13555957</td>
</tr>
<tr>
<td>Application Number:</td>
<td>13561873</td>
</tr>
<tr>
<td>Application Number:</td>
<td>13861693</td>
</tr>
<tr>
<td>Property Type</td>
<td>Number</td>
</tr>
<tr>
<td>-------------------</td>
<td>---------</td>
</tr>
<tr>
<td>Application Number</td>
<td>14001803</td>
</tr>
<tr>
<td>Application Number</td>
<td>14014910</td>
</tr>
<tr>
<td>Application Number</td>
<td>14071314</td>
</tr>
<tr>
<td>Application Number</td>
<td>14130263</td>
</tr>
<tr>
<td>Application Number</td>
<td>14148785</td>
</tr>
<tr>
<td>Application Number</td>
<td>14161039</td>
</tr>
<tr>
<td>Application Number</td>
<td>14216829</td>
</tr>
<tr>
<td>Application Number</td>
<td>14305715</td>
</tr>
<tr>
<td>Application Number</td>
<td>14316414</td>
</tr>
<tr>
<td>Application Number</td>
<td>14344930</td>
</tr>
<tr>
<td>Application Number</td>
<td>14344944</td>
</tr>
<tr>
<td>Application Number</td>
<td>14353153</td>
</tr>
<tr>
<td>Application Number</td>
<td>14365277</td>
</tr>
<tr>
<td>Application Number</td>
<td>14377987</td>
</tr>
<tr>
<td>Application Number</td>
<td>14419854</td>
</tr>
<tr>
<td>Application Number</td>
<td>14452490</td>
</tr>
<tr>
<td>Application Number</td>
<td>14469260</td>
</tr>
<tr>
<td>Application Number</td>
<td>14472678</td>
</tr>
<tr>
<td>Application Number</td>
<td>14530102</td>
</tr>
<tr>
<td>Application Number</td>
<td>14537696</td>
</tr>
<tr>
<td>Application Number</td>
<td>14540055</td>
</tr>
<tr>
<td>Application Number</td>
<td>14540058</td>
</tr>
<tr>
<td>Application Number</td>
<td>14540072</td>
</tr>
<tr>
<td>Application Number</td>
<td>14540077</td>
</tr>
<tr>
<td>Application Number</td>
<td>14541934</td>
</tr>
<tr>
<td>Application Number</td>
<td>14568742</td>
</tr>
<tr>
<td>Application Number</td>
<td>14600751</td>
</tr>
<tr>
<td>Application Number</td>
<td>14611697</td>
</tr>
<tr>
<td>Application Number</td>
<td>14617052</td>
</tr>
<tr>
<td>Application Number</td>
<td>14671423</td>
</tr>
<tr>
<td>Application Number</td>
<td>14698110</td>
</tr>
<tr>
<td>Application Number</td>
<td>14822310</td>
</tr>
<tr>
<td>Application Number</td>
<td>14822392</td>
</tr>
<tr>
<td>Application Number</td>
<td>14852365</td>
</tr>
<tr>
<td>Application Number</td>
<td>14868689</td>
</tr>
<tr>
<td>Application Number</td>
<td>14875921</td>
</tr>
<tr>
<td>Application Number</td>
<td>14928352</td>
</tr>
<tr>
<td>Application Number</td>
<td>14937676</td>
</tr>
<tr>
<td>Property Type</td>
<td>Number</td>
</tr>
<tr>
<td>---------------</td>
<td>-------------</td>
</tr>
<tr>
<td>Application Number</td>
<td>14976952</td>
</tr>
<tr>
<td>Application Number</td>
<td>14988256</td>
</tr>
<tr>
<td>Application Number</td>
<td>15012399</td>
</tr>
<tr>
<td>Application Number</td>
<td>15012425</td>
</tr>
<tr>
<td>Application Number</td>
<td>15085431</td>
</tr>
<tr>
<td>Application Number</td>
<td>15085630</td>
</tr>
<tr>
<td>Application Number</td>
<td>15103268</td>
</tr>
<tr>
<td>Application Number</td>
<td>15110130</td>
</tr>
<tr>
<td>Application Number</td>
<td>15137722</td>
</tr>
<tr>
<td>Application Number</td>
<td>15143125</td>
</tr>
<tr>
<td>Application Number</td>
<td>15209497</td>
</tr>
<tr>
<td>Application Number</td>
<td>15215143</td>
</tr>
<tr>
<td>Application Number</td>
<td>15270354</td>
</tr>
<tr>
<td>Application Number</td>
<td>15333021</td>
</tr>
<tr>
<td>Application Number</td>
<td>15369573</td>
</tr>
<tr>
<td>Application Number</td>
<td>15376119</td>
</tr>
<tr>
<td>Application Number</td>
<td>15386799</td>
</tr>
<tr>
<td>Application Number</td>
<td>15410606</td>
</tr>
<tr>
<td>Application Number</td>
<td>15465326</td>
</tr>
<tr>
<td>Application Number</td>
<td>15489449</td>
</tr>
<tr>
<td>Application Number</td>
<td>15496989</td>
</tr>
<tr>
<td>Application Number</td>
<td>15545394</td>
</tr>
<tr>
<td>Application Number</td>
<td>15633100</td>
</tr>
<tr>
<td>Application Number</td>
<td>15634871</td>
</tr>
<tr>
<td>Application Number</td>
<td>15634957</td>
</tr>
<tr>
<td>Application Number</td>
<td>15647091</td>
</tr>
<tr>
<td>Application Number</td>
<td>15671865</td>
</tr>
<tr>
<td>Application Number</td>
<td>15693871</td>
</tr>
<tr>
<td>Application Number</td>
<td>15695744</td>
</tr>
<tr>
<td>Application Number</td>
<td>15702436</td>
</tr>
<tr>
<td>Application Number</td>
<td>62405714</td>
</tr>
<tr>
<td>Application Number</td>
<td>62450818</td>
</tr>
<tr>
<td>Application Number</td>
<td>62455874</td>
</tr>
<tr>
<td>Application Number</td>
<td>62502292</td>
</tr>
<tr>
<td>Application Number</td>
<td>62531218</td>
</tr>
<tr>
<td>Patent Number</td>
<td>5769184</td>
</tr>
<tr>
<td>Patent Number</td>
<td>5837059</td>
</tr>
<tr>
<td>Patent Number</td>
<td>6309161</td>
</tr>
<tr>
<td>Property Type</td>
<td>Number</td>
</tr>
<tr>
<td>---------------</td>
<td>--------</td>
</tr>
<tr>
<td>Patent Number</td>
<td>5588789</td>
</tr>
</tbody>
</table>

**CORRESPONDENCE DATA**

Fax Number: (800)494-7512

*Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.*

Phone: 202-370-4750

Email: ipteam@cogencyglobal.com

Correspondent Name: MELONY SOT

Address Line 1: 1025 VERMONT AVE NW, SUITE 1130

Address Line 2: COGENCY GLOBAL INC.

Address Line 4: WASHINGTON, D.C. 20005

**ATTORNEY DOCKET NUMBER:** F173096 PT

**NAME OF SUBMITTER:** THERESA VOLANO

**SIGNATURE:** /Theresa Volano/

**DATE SIGNED:** 10/06/2017

**Total Attachments:** 29

source=#90136714v1 - (Brooks Patent Security Agreement Filing)#page2.tif

source=#90136714v1 - (Brooks Patent Security Agreement Filing)#page3.tif

source=#90136714v1 - (Brooks Patent Security Agreement Filing)#page4.tif

source=#90136714v1 - (Brooks Patent Security Agreement Filing)#page5.tif

source=#90136714v1 - (Brooks Patent Security Agreement Filing)#page6.tif

source=#90136714v1 - (Brooks Patent Security Agreement Filing)#page7.tif

source=#90136714v1 - (Brooks Patent Security Agreement Filing)#page8.tif

source=#90136714v1 - (Brooks Patent Security Agreement Filing)#page9.tif

source=#90136714v1 - (Brooks Patent Security Agreement Filing)#page10.tif

source=#90136714v1 - (Brooks Patent Security Agreement Filing)#page11.tif

source=#90136714v1 - (Brooks Patent Security Agreement Filing)#page12.tif

source=#90136714v1 - (Brooks Patent Security Agreement Filing)#page13.tif

source=#90136714v1 - (Brooks Patent Security Agreement Filing)#page14.tif

source=#90136714v1 - (Brooks Patent Security Agreement Filing)#page15.tif

source=#90136714v1 - (Brooks Patent Security Agreement Filing)#page16.tif

source=#90136714v1 - (Brooks Patent Security Agreement Filing)#page17.tif

source=#90136714v1 - (Brooks Patent Security Agreement Filing)#page18.tif

source=#90136714v1 - (Brooks Patent Security Agreement Filing)#page19.tif

source=#90136714v1 - (Brooks Patent Security Agreement Filing)#page20.tif

source=#90136714v1 - (Brooks Patent Security Agreement Filing)#page21.tif

source=#90136714v1 - (Brooks Patent Security Agreement Filing)#page22.tif

source=#90136714v1 - (Brooks Patent Security Agreement Filing)#page23.tif

source=#90136714v1 - (Brooks Patent Security Agreement Filing)#page24.tif

source=#90136714v1 - (Brooks Patent Security Agreement Filing)#page25.tif

source=#90136714v1 - (Brooks Patent Security Agreement Filing)#page26.tif

source=#90136714v1 - (Brooks Patent Security Agreement Filing)#page27.tif

source=#90136714v1 - (Brooks Patent Security Agreement Filing)#page28.tif
PATENT SECURITY AGREEMENT

This PATENT SECURITY AGREEMENT (this “Patent Security Agreement”) is made this 4th day of October, 2017, by and among the Grantors listed on the signature pages hereof (collectively, jointly and severally, “Grantors” and each individually “Grantor”), and MORGAN STANLEY SENIOR FUNDING, INC., a Delaware corporation (“Morgan Stanley”), in its capacity as Collateral Agent for each member of the Lender Group (in such capacity, together with its successors and assigns in such capacity, “Agent”).

WITNESSETH:

WHEREAS, pursuant to certain Credit Agreement dated as of October 4, 2017 (as amended, restated, supplemented, or otherwise modified from time to time, the “Credit Agreement”) by and among Brooks Automation, Inc., as borrower (the “Borrower”), the lenders party thereto as “Lenders” (each of such Lenders, together with their successors and assigns, is referred to hereinafter collectively as a “Lender”), Agent, Morgan Stanley, as administrative agent, and the other agents and parties thereto, the Lender Group has agreed to make certain financial accommodations available to Borrower from time to time pursuant to the terms and conditions thereof; and

WHEREAS, the members of Lender Group are willing to make the financial accommodations to Borrower as provided for in the Credit Agreement and the other Loan Documents, but only upon the condition, among others, that the Grantors shall have executed and delivered to Agent, for the benefit of the Lender Group, that certain Guaranty and Security Agreement, dated as of October 4, 2017 (including all annexes, exhibits or schedules thereto, as from time to time amended, restated, supplemented or otherwise modified, the “Guaranty and Security Agreement”); and

WHEREAS, pursuant to the Guaranty and Security Agreement, Grantors are required to execute and deliver to Agent, for the benefit of the Lender Group, this Patent Security Agreement;

NOW, THEREFORE, in consideration of the premises and mutual covenants herein contained and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each Grantor hereby agrees as follows:

1. DEFINED TERMS. All initially capitalized terms used but not otherwise defined herein have the meanings given to them in the Guaranty and Security Agreement or, if not defined therein, in the Credit Agreement, and this Patent Security Agreement shall be subject to the rules of construction set forth in Section 1(b) of the Guaranty and Security Agreement, which rules of construction are incorporated herein by this reference, mutatis mutandis.

2. GRANT OF SECURITY INTEREST IN PATENT COLLATERAL. Each Grantor hereby unconditionally grants, assigns, and pledges to Agent, for the benefit each member of the Lender Group, to secure the Secured Obligations, a continuing security interest (referred to in this Patent Security Agreement as the “Security Interest”) in all of such Grantor’s right, title and interest in and to the following, whether now owned or hereafter acquired or arising (collectively, the “Patent Collateral”):

   (a) all of its Patents and Intellectual Property Licenses with respect to Patents to which it is a party including those referred to on Schedule I;

   (b) all divisionals, continuations, continuations-in-part, reissues, reexaminations, or extensions of the foregoing; and
all products and proceeds of the foregoing, including any claim by such Grantor against third parties for past, present or future infringement of any Patent or any Patent exclusively licensed under any Intellectual Property License, including the right to receive damages, or right to receive license fees, royalties, and other compensation under any Intellectual Property Licenses with respect to Patents.

3. **SECURITY FOR SECURED OBLIGATIONS.** This Patent Security Agreement and the Security Interest created hereby secures the payment and performance of the Secured Obligations, whether now existing or arising hereafter. Without limiting the generality of the foregoing, this Patent Security Agreement secures the payment of all amounts which constitute part of the Secured Obligations and would be owed by Grantors, or any of them, to Agent, the other members of the Lender Group, or any of them, whether or not they are unenforceable or not allowable due to the existence of an Insolvency Proceeding involving any Grantor.

4. **SECURITY AGREEMENT.** The Security Interest granted pursuant to this Patent Security Agreement is granted in conjunction with the security interests granted to Agent, for the benefit of the Lender Group, pursuant to the Guaranty and Security Agreement. Each Grantor hereby acknowledges and affirms that the rights and remedies of Agent with respect to the Security Interest in the Patent Collateral made and granted hereby are more fully set forth in the Guaranty and Security Agreement, the terms and provisions of which are incorporated by reference herein as if fully set forth herein. To the extent there is any inconsistency between this Patent Security Agreement and the Guaranty and Security Agreement, the Guaranty and Security Agreement shall control.

5. **AUTHORIZATION TO SUPPLEMENT.** If any Grantor shall obtain rights to any new patent application or issued patent or become entitled to the benefit of any patent application or patent for any divisional, continuation, continuation-in-part, reissue, or reexamination of any existing patent or patent application, the provisions of this Patent Security Agreement shall automatically apply thereto. Grantors shall give prompt notice in writing to Agent with respect to any such new patent rights. Without limiting Grantors’ obligations under this Section, Grantors hereby authorize Agent unilaterally to modify this Patent Security Agreement by amending Schedule I to include any such new patent rights of each Grantor. Notwithstanding the foregoing, no failure to so modify this Patent Security Agreement or amend Schedule I shall in any way affect, invalidate or detract from Agent’s continuing security interest in all Collateral, whether or not listed on Schedule I.

6. **COUNTERPARTS.** This Patent Security Agreement is a Loan Document. This Patent Security Agreement may be executed in any number of counterparts and by different parties on separate counterparts, each of which, when executed and delivered, shall be deemed to be an original, and all of which, when taken together, shall constitute but one and the same Patent Security Agreement. Delivery of an executed counterpart of this Patent Security Agreement by telefacsimile or other electronic method of transmission shall be equally as effective as delivery of an original executed counterpart of this Patent Security Agreement. Any party delivering an executed counterpart of this Patent Security Agreement by telefacsimile or other electronic method of transmission also shall deliver an original executed counterpart of this Patent Security Agreement but the failure to deliver an original executed counterpart shall not affect the validity, enforceability, and binding effect of this Patent Security Agreement.

7. **CHOICE OF LAW AND VENUE, JURY TRIAL WAIVER, AND JUDICIAL REFERENCE PROVISION.** THIS PATENT SECURITY AGREEMENT SHALL BE SUBJECT TO THE PROVISIONS REGARDING CHOICE OF LAW AND VENUE, JURY TRIAL WAIVER, AND JUDICIAL REFERENCE SET FORTH IN SECTION 25 OF THE SECURITY AGREEMENT, AND SUCH PROVISIONS ARE INCORPORATED HEREIN BY THIS REFERENCE, MUTATIS MUTANDIS.
IN WITNESS WHEREOF, the parties hereto have caused this Patent Security Agreement to be executed and delivered as of the day and year first above written.

GRANTORS:

BROOKS AUTOMATION, INC., a Delaware corporation

By:  
Name: Lindon G. Robertson
Title: EVP & CFO

BIOSTORAGE TECHNOLOGIES, INC., a Delaware corporation

By:  
Name: Lindon G. Robertson
Title: President

[SIGNATURE PAGE TO PATENT SECURITY AGREEMENT]
ACCEPTED AND ACKNOWLEDGED BY:

AGENT:

MORGAN STANLEY SENIOR FUNDING,
INC., a Delaware corporation

By: ________________________________
   Name: Jonathon Rauen
   Title: Authorized Signatory

[SIGNATURE PAGE TO PATENT SECURITY AGREEMENT]
## Schedule I

to

**Patent Security Agreement**

Issued:

<table>
<thead>
<tr>
<th>Patent No.</th>
<th>Issue Date</th>
<th>Application No.</th>
<th>Filing Date</th>
<th>Docket Number</th>
<th>Owner</th>
</tr>
</thead>
<tbody>
<tr>
<td>5,875,651</td>
<td>2-Mar-99</td>
<td>08/874,122</td>
<td>12-Jun-97</td>
<td>0100.2117-000</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>5,931,626</td>
<td>3-Aug-99</td>
<td>09/008,615</td>
<td>16-Jan-98</td>
<td>390-007395-US(PAR)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,041,620</td>
<td>28-Mar-00</td>
<td>09/222,814</td>
<td>30-Dec-98</td>
<td>0100.2282-000</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,041,621</td>
<td>28-Mar-00</td>
<td>09/222,813</td>
<td>30-Dec-98</td>
<td>0100.2302-000</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,046,435</td>
<td>4-Apr-00</td>
<td>09/274,067</td>
<td>22-Mar-99</td>
<td>390-007217-US(D01)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,050,774</td>
<td>18-Apr-00</td>
<td>09/172,945</td>
<td>14-Oct-98</td>
<td>390-013493-US(PAR)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,053,008</td>
<td>25-Apr-00</td>
<td>09/222,816</td>
<td>30-Dec-98</td>
<td>0100.2298-000</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,056,026</td>
<td>2-May-00</td>
<td>09/204,320</td>
<td>2-Dec-98</td>
<td>ASTGP059</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>#</td>
<td>Date</td>
<td>Appl. No.</td>
<td>Ex. Date</td>
<td>Ser. No.</td>
<td>Assignee</td>
</tr>
<tr>
<td>------</td>
<td>-----------</td>
<td>-----------</td>
<td>------------</td>
<td>----------------</td>
<td>-----------------------------------</td>
</tr>
<tr>
<td>6,065,305</td>
<td>23-May-00</td>
<td>09/222,815</td>
<td>30-Dec-98</td>
<td>0100.2297-000</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,076,372</td>
<td>20-Jun-00</td>
<td>09/222,809</td>
<td>30-Dec-98</td>
<td>0100.2274-000</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,079,928</td>
<td>27-Jun-00</td>
<td>09/084,754</td>
<td>26-May-98</td>
<td>390P007411-US(PAR)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,105,388</td>
<td>22-Aug-00</td>
<td>09/222,810</td>
<td>30-Dec-98</td>
<td>0100.2299-000</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,106,213</td>
<td>22-Aug-00</td>
<td>09/185,222</td>
<td>3-Nov-98</td>
<td>390P011096-US(PAR)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,116,848</td>
<td>12-Sep-00</td>
<td>08/979,194</td>
<td>26-Nov-97</td>
<td>390-009055-US(PAR)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,120,229</td>
<td>19-Sep-00</td>
<td>09/243,516</td>
<td>1-Feb-99</td>
<td>390-007628-US(PAR)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,123,502</td>
<td>26-Sep-00</td>
<td>08/889,516</td>
<td>8-Jul-97</td>
<td>390-007215-US(PAR)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,125,656</td>
<td>3-Oct-00</td>
<td>09/432,214</td>
<td>3-Nov-99</td>
<td>0100.2285-000</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,135,698</td>
<td>24-Oct-00</td>
<td>09/346,166</td>
<td>1-Jul-99</td>
<td>ASTGP064</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,138,721</td>
<td>31-Oct-00</td>
<td>09/145,704</td>
<td>2-Sep-98</td>
<td>ASTGP065</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,164,664</td>
<td>26-Dec-00</td>
<td>09/049,330</td>
<td>27-Mar-98</td>
<td>ASTGP066</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,171,780</td>
<td>9-Jan-01</td>
<td>09/030,578</td>
<td>24-Feb-98</td>
<td>1181-014747-US(04)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,176,102</td>
<td>23-Jan-01</td>
<td>09/222,812</td>
<td>30-Dec-98</td>
<td>0100.2290-000</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,205,812</td>
<td>27-Mar-01</td>
<td>09/453,297</td>
<td>3-Dec-99</td>
<td>0100.2289-000</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,211,514</td>
<td>3-Apr-01</td>
<td>08/918,860</td>
<td>26-Aug-97</td>
<td>390-009018-US(PAR)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,220,808</td>
<td>24-Apr-01</td>
<td>09/115,526</td>
<td>13-Jul-98</td>
<td>ASTGP070</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,224,319</td>
<td>1-May-01</td>
<td>09/113,784</td>
<td>10-Jul-98</td>
<td>390-011112-US(PAR)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,229,603</td>
<td>8-May-01</td>
<td>08/867,584</td>
<td>2-Jun-97</td>
<td>1181-014747-US(02)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>Patent No.</td>
<td>Date</td>
<td>Document No.</td>
<td>Filing Date</td>
<td>Application No.</td>
<td>Assignee</td>
</tr>
<tr>
<td>-----------</td>
<td>----------</td>
<td>--------------</td>
<td>-------------</td>
<td>-----------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>6,231,289</td>
<td>15-May-01</td>
<td>09/559,720</td>
<td>26-Apr-00</td>
<td>390P007411-US(D01)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,256,555</td>
<td>3-Jul-01</td>
<td>09/204,747</td>
<td>2-Dec-98</td>
<td>390-012835-US(PAR)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,261,044</td>
<td>17-Jul-01</td>
<td>09/130,254</td>
<td>6-Aug-98</td>
<td>ASTGP074</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,272,400</td>
<td>7-Aug-01</td>
<td>09/114,549</td>
<td>13-Jul-98</td>
<td>0100.1542-000</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,275,748</td>
<td>14-Aug-01</td>
<td>09/312,343</td>
<td>14-May-99</td>
<td>390-012835-US(C01)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,298,280</td>
<td>2-Oct-01</td>
<td>09/162,334</td>
<td>28-Sep-98</td>
<td>ASTGP075</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,326,755</td>
<td>4-Dec-01</td>
<td>09/547,551</td>
<td>12-Apr-00</td>
<td>ASTGP078</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,327,863</td>
<td>11-Dec-01</td>
<td>09/627,579</td>
<td>28-Jul-00</td>
<td>0100.2006-001</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,327,866</td>
<td>11-Dec-01</td>
<td>09/605,472</td>
<td>28-Jun-00</td>
<td>0100.2290-015</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,330,811</td>
<td>18-Dec-01</td>
<td>09/606,088</td>
<td>29-Jun-00</td>
<td>0100.2275-000</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,357,257</td>
<td>19-Mar-02</td>
<td>09/768,505</td>
<td>25-Jan-01</td>
<td>0100.2283-000</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,364,595</td>
<td>2-Apr-02</td>
<td>09/247,695</td>
<td>10-Feb-99</td>
<td>ASTGP079</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>Publication Number</td>
<td>Date</td>
<td>Application Number</td>
<td>Patent Number</td>
<td>Company</td>
<td></td>
</tr>
<tr>
<td>-------------------</td>
<td>----------</td>
<td>--------------------</td>
<td>---------------</td>
<td>--------------------------</td>
<td></td>
</tr>
<tr>
<td>6,366,830</td>
<td>2-Apr-02</td>
<td>09/841,539</td>
<td>24-Apr-01</td>
<td>390-012833-US(C01)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,405,843</td>
<td>18-Jun-02</td>
<td>09/574,127</td>
<td>19-May-00</td>
<td>390-011117-US(PAR)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,408,631</td>
<td>25-Jun-02</td>
<td>09/780,026</td>
<td>9-Feb-01</td>
<td>0100.2033-000</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,419,438</td>
<td>16-Jul-02</td>
<td>09/723,629</td>
<td>28-Nov-00</td>
<td>C.ASTGP080</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,425,264</td>
<td>30-Jul-02</td>
<td>09/930,199</td>
<td>16-Aug-01</td>
<td>0100.2287-000</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,426,019</td>
<td>30-Jul-02</td>
<td>09/545,670</td>
<td>7-Apr-00</td>
<td>0100.2274-022</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,426,050</td>
<td>30-Jul-02</td>
<td>09/111,553</td>
<td>7-Jul-98</td>
<td>1181-014747-US(I06)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,427,483</td>
<td>6-Aug-02</td>
<td>09/986,524</td>
<td>9-Nov-01</td>
<td>0100.2281-000</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,438,460</td>
<td>20-Aug-02</td>
<td>09/920,353</td>
<td>1-Aug-01</td>
<td>390-012835-US(C03)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,438,994</td>
<td>27-Aug-02</td>
<td>09/963,450</td>
<td>27-Sep-01</td>
<td>0100.2295-000</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,447,233</td>
<td>10-Sep-02</td>
<td>09/641,996</td>
<td>18-Aug-00</td>
<td>390P011096-US(C01)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,453,214</td>
<td>17-Sep-02</td>
<td>09/890,839</td>
<td>2-Aug-01</td>
<td>390-012835-US(C02)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,454,512</td>
<td>24-Sep-02</td>
<td>09/527,537</td>
<td>16-Mar-00</td>
<td>390P011104-US(PAR)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,468,021</td>
<td>22-Oct-02</td>
<td>09/461,498</td>
<td>14-Dec-99</td>
<td>C.ASTGP083</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,473,668</td>
<td>29-Oct-02</td>
<td>09/873,691</td>
<td>4-Jun-01</td>
<td>ASTGP085</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,474,082</td>
<td>5-Nov-02</td>
<td>09/886,936</td>
<td>21-Jun-01</td>
<td>0100.2121-001</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,478,532</td>
<td>12-Nov-02</td>
<td>09/452,059</td>
<td>30-Nov-99</td>
<td>ASTGP086</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,481,223</td>
<td>19-Nov-02</td>
<td>09/728,501</td>
<td>30-Nov-00</td>
<td>0100.2119-001</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>Patent No.</td>
<td>Date</td>
<td>Application No.</td>
<td>Filing Date</td>
<td>Doc. No.</td>
<td>Assignee</td>
</tr>
<tr>
<td>-----------</td>
<td>------</td>
<td>----------------</td>
<td>-------------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td>6,494,054</td>
<td>17-Dec-02</td>
<td>09/930,166</td>
<td>16-Aug-01</td>
<td>0100.2294-000</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,501,070</td>
<td>31-Dec-02</td>
<td>09/612,757</td>
<td>10-Jul-00</td>
<td>390-012836-US(C01)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,502,869</td>
<td>7-Jan-03</td>
<td>09/115,414</td>
<td>14-Jul-98</td>
<td>ASTGP089C</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,510,697</td>
<td>28-Jan-03</td>
<td>09/878,160</td>
<td>7-Jun-01</td>
<td>0100.2039-000</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,517,781</td>
<td>11-Feb-03</td>
<td>09/476,959</td>
<td>3-Jan-00</td>
<td>1181-014747-US(C01)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,520,726</td>
<td>18-Feb-03</td>
<td>09/517,377</td>
<td>2-Mar-00</td>
<td>390P011107-US(D01)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,526,668</td>
<td>4-Mar-03</td>
<td>09/520,595</td>
<td>8-Mar-00</td>
<td>390-011302-US(PAR)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,530,237</td>
<td>11-Mar-03</td>
<td>09/824,530</td>
<td>2-Apr-01</td>
<td>0100.2012-000</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,530,736</td>
<td>11-Mar-03</td>
<td>09/905,339</td>
<td>13-Jul-01</td>
<td>ASTGP091</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,547,510</td>
<td>15-Apr-03</td>
<td>09/072,097</td>
<td>4-May-98</td>
<td>390-007802-US(PAR)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,560,981</td>
<td>13-May-03</td>
<td>09/894,964</td>
<td>28-Jun-01</td>
<td>0100.2127-000</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,574,978</td>
<td>10-Jun-03</td>
<td>09/870,385</td>
<td>30-May-01</td>
<td>0100.2110-001</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,579,052</td>
<td>17-Jun-03</td>
<td>08/891,543</td>
<td>11-Jul-97</td>
<td>ASTGP095</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,591,162</td>
<td>8-Jul-03</td>
<td>09/641,032</td>
<td>16-Aug-00</td>
<td>ASTGP096</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,591,960</td>
<td>15-Jul-03</td>
<td>09/943,555</td>
<td>30-Aug-01</td>
<td>ASTGP097</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>Patent Number</td>
<td>Date</td>
<td>Filing Number</td>
<td>Application Date</td>
<td>Office Action</td>
<td>Inventor Company</td>
</tr>
<tr>
<td>---------------</td>
<td>----------</td>
<td>---------------</td>
<td>------------------</td>
<td>---------------</td>
<td>------------------</td>
</tr>
<tr>
<td>6,592,679</td>
<td>15-Jul-03</td>
<td>09/905,490</td>
<td>13-Jul-01</td>
<td>ASTGP099</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,595,009</td>
<td>22-Jul-03</td>
<td>10/196,420</td>
<td>17-Jul-02</td>
<td>0100.2296-000</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,598,406</td>
<td>29-Jul-03</td>
<td>10/166,577</td>
<td>10-Jun-02</td>
<td>0100.2033-001</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,612,797</td>
<td>2-Sep-03</td>
<td>09/313,945</td>
<td>18-May-99</td>
<td>ASTGP100</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,619,359</td>
<td>16-Sep-03</td>
<td>09/788,034</td>
<td>16-Feb-01</td>
<td>390-011261-US(PAR)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,634,851</td>
<td>21-Oct-03</td>
<td>09/483,625</td>
<td>14-Jan-00</td>
<td>ASTGP101</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,640,891</td>
<td>4-Nov-03</td>
<td>09/655,021</td>
<td>5-Sep-00</td>
<td>603191.403</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,641,348</td>
<td>4-Nov-03</td>
<td>09/184,561</td>
<td>2-Nov-98</td>
<td>390-009026-US(PAR)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,671,583</td>
<td>30-Dec-03</td>
<td>09/822,106</td>
<td>30-Mar-01</td>
<td>0100.2014-000</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,673,161</td>
<td>6-Jan-04</td>
<td>09/898,693</td>
<td>3-Jul-01</td>
<td>390-009906-US(PAR)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,729,462</td>
<td>4-May-04</td>
<td>10/444,327</td>
<td>22-May-03</td>
<td>ASTGP106</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,730,520</td>
<td>4-May-04</td>
<td>10/120,644</td>
<td>9-Apr-02</td>
<td>1181-014747-US(DC1)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>6,765,222</td>
<td>20-Jul-04</td>
<td>10/335,134</td>
<td>30-Dec-02</td>
<td>390-012836-US(D01)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>Patent Number</td>
<td>Date</td>
<td>Filed Number</td>
<td>Date</td>
<td>Application Number</td>
<td>Assignee</td>
</tr>
<tr>
<td>---------------</td>
<td>---------</td>
<td>--------------</td>
<td>---------</td>
<td>--------------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>7,055,875</td>
<td>6-Jun-06</td>
<td>10/888,819</td>
<td>10-Jul-04</td>
<td>ASTGP110</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>7,066,707</td>
<td>27-Jun-06</td>
<td>10/087,400</td>
<td>1-Mar-02</td>
<td>ASTGP111</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>7,100,340</td>
<td>5-Sep-06</td>
<td>10/087,638</td>
<td>1-Mar-02</td>
<td>ASTGP112</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>7,102,124</td>
<td>5-Sep-06</td>
<td>10/895,484</td>
<td>20-Jul-04</td>
<td>390-012836-US(DQ2)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>7,103,428</td>
<td>5-Sep-06</td>
<td>11/071,996</td>
<td>4-Mar-05</td>
<td>0100.2055-002</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>7,111,467</td>
<td>26-Sep-06</td>
<td>10/470,123</td>
<td>25-Feb-02</td>
<td>0100.2124-010</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>7,179,044</td>
<td>20-Feb-07</td>
<td>10/244,852</td>
<td>16-Sep-02</td>
<td>390-011110-US(DQ1)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>7,194,867</td>
<td>27-Mar-07</td>
<td>10/804,842</td>
<td>19-Mar-04</td>
<td>0100.2069-000</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>7,234,310</td>
<td>26-Jun-07</td>
<td>11/081,003</td>
<td>18-Sep-03</td>
<td>0100.2130-007</td>
<td>Brooks Automation, Inc.</td>
</tr>
</tbody>
</table>

#90122365v3
<table>
<thead>
<tr>
<th>Publication Number</th>
<th>Date</th>
<th>Priority Date</th>
<th>Filing Date</th>
<th>Number</th>
<th>Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>7,290,813</td>
<td>6-Nov-07</td>
<td>11/014,401</td>
<td>16-Dec-04</td>
<td>ASTGP128</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>7,293,950</td>
<td>13-Nov-07</td>
<td>10/234,640</td>
<td>3-Sep-02</td>
<td>C.ASTGP118</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>7,300,082</td>
<td>27-Nov-07</td>
<td>10/624,133</td>
<td>21-Jul-03</td>
<td>ASTGP122</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>7,313,922</td>
<td>1-Jan-08</td>
<td>10/948,955</td>
<td>24-Sep-04</td>
<td>0100.2091-000</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>7,320,224</td>
<td>22-Jan-08</td>
<td>10/763,056</td>
<td>21-Jan-04</td>
<td>0100.2045-000</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>7,373,968</td>
<td>20-May-08</td>
<td>10/893,565</td>
<td>16-Jul-04</td>
<td>630191.403</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>7,374,386</td>
<td>20-May-08</td>
<td>11/104,397</td>
<td>12-Apr-05</td>
<td>390-010262-US(C01)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>7,419,346</td>
<td>2-Sep-08</td>
<td>10/194,702</td>
<td>12-Jul-02</td>
<td>ASTGP119</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>7,478,540</td>
<td>20-Jan-09</td>
<td>11/349,060</td>
<td>7-Feb-06</td>
<td>0100.2131-010</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>7,490,483</td>
<td>17-Feb-09</td>
<td>11/244,323</td>
<td>5-Oct-05</td>
<td>0100.2135-001</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>7,515,049</td>
<td>7-Apr-09</td>
<td>11/449,084</td>
<td>8-Jun-06</td>
<td>ASTGP140</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>Patent Number</td>
<td>Date</td>
<td>Application Number</td>
<td>Action Date</td>
<td>Expiration Date</td>
<td>Assignee</td>
</tr>
<tr>
<td>---------------</td>
<td>---------</td>
<td>--------------------</td>
<td>-------------</td>
<td>----------------</td>
<td>----------</td>
</tr>
<tr>
<td>7,585,144</td>
<td>8-Sep-09</td>
<td>11/774,764</td>
<td>9-Jul-07</td>
<td>ASTGP143C</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>7,596,251</td>
<td>29-Sep-09</td>
<td>10/769,462</td>
<td>30-Jan-04</td>
<td>1181P014736-US(PAR)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>7,614,444</td>
<td>10-Nov-09</td>
<td>10/842,053</td>
<td>7-May-04</td>
<td>630191.403</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>7,648,327</td>
<td>19-Jan-10</td>
<td>11/305,256</td>
<td>16-Dec-05</td>
<td>ASTGP137</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>7,788,942</td>
<td>7-Sep-10</td>
<td>11/590,673</td>
<td>31-Oct-06</td>
<td>0100.2016-010</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>7,798,758</td>
<td>21-Sep-10</td>
<td>11/594,365</td>
<td>7-Nov-06</td>
<td>390P012404-US(C01)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>Patent Number</td>
<td>Date</td>
<td>Filing Date</td>
<td>Issue Date</td>
<td>Description</td>
<td>Assignee</td>
</tr>
<tr>
<td>--------------</td>
<td>------</td>
<td>-------------</td>
<td>------------</td>
<td>-------------</td>
<td>----------</td>
</tr>
<tr>
<td>7,841,820</td>
<td>30-Nov-10</td>
<td>11/938,236</td>
<td>9-Nov-07</td>
<td>C.ASTGP118C</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>7,975,746</td>
<td>12-Jul-11</td>
<td>12/637,597</td>
<td>14-Dec-09</td>
<td>1181P014737-US(C01)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>8,008,884</td>
<td>30-Aug-11</td>
<td>12/175,278</td>
<td>17-Jul-08</td>
<td>390P013018-US(PAR)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>Publication Number</td>
<td>Date</td>
<td>Application Number</td>
<td>Filing Date</td>
<td>Office of Filing</td>
<td>Assignee</td>
</tr>
<tr>
<td>-------------------</td>
<td>------------</td>
<td>--------------------</td>
<td>-------------</td>
<td>-----------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>8,029,225</td>
<td>4-Oct-11</td>
<td>12/206,382</td>
<td>8-Sep-08</td>
<td>390P014155-US(C01)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>8,091,381</td>
<td>10-Jan-12</td>
<td>12/358,448</td>
<td>23-Jan-09</td>
<td>0100.2135-009</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>8,112,171</td>
<td>7-Feb-12</td>
<td>11/196,063</td>
<td>3-Aug-05</td>
<td>390-010850-US(C01)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>8,125,652</td>
<td>28-Feb-12</td>
<td>12/977,514</td>
<td>29-Dec-10</td>
<td>390P014524-US(C11)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>8,182,192</td>
<td>22-May-12</td>
<td>12/843,659</td>
<td>26-Jul-10</td>
<td>390P012320-US(D01)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>8,197,177</td>
<td>12-Jun-12</td>
<td>12/025,541</td>
<td>4-Feb-08</td>
<td>390P014151-US(C17)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>8,231,322</td>
<td>31-Jul-12</td>
<td>12/148,346</td>
<td>18-Apr-08</td>
<td>390-010262-US(C02)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>8,237,391</td>
<td>7-Aug-12</td>
<td>13/219,267</td>
<td>26-Aug-11</td>
<td>390P013018-US(C01)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>8,253,948</td>
<td>28-Aug-12</td>
<td>13/406,252</td>
<td>27-Feb-12</td>
<td>390P014524-US(C12)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>8,261,562</td>
<td>2012-09-11</td>
<td>12/848,681</td>
<td>2010-08-02</td>
<td>0100.2016-011</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>8,267,636</td>
<td>18-Sep-12</td>
<td>12/117,355</td>
<td>8-May-08</td>
<td>390P010855-US(PAR)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>8,270,702</td>
<td>18-Sep-12</td>
<td>12/875,462</td>
<td>3-Sep-10</td>
<td>390P014524-US(C03)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>#</td>
<td>Date</td>
<td>Page</td>
<td>Date</td>
<td>App Num</td>
<td>Assignee</td>
</tr>
<tr>
<td>------</td>
<td>---------------</td>
<td>------------</td>
<td>-----------</td>
<td>-----------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>8,328,495</td>
<td>11-Dec-12</td>
<td>12/544,064</td>
<td>19-Aug-09</td>
<td>390P012404-US(C1)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>8,356,207</td>
<td>15-Jan-13</td>
<td>13/008,559</td>
<td>18-Jan-11</td>
<td>390P011804-US(C01)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>8,381,581</td>
<td>26-Feb-13</td>
<td>12/565,157</td>
<td>23-Sep-09</td>
<td>1181-014662-US(PAR)</td>
<td><strong>Assigned to RTS LIFE SCIENCE LIMITED</strong>¹</td>
</tr>
<tr>
<td>8,403,619</td>
<td>26-Mar-13</td>
<td>13/030,926</td>
<td>18-Feb-11</td>
<td>390-011458-US(D01)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>8,413,452</td>
<td>9-Apr-13</td>
<td>12/950,080</td>
<td>19-Nov-10</td>
<td>0100.2173-003</td>
<td>Brooks Automation, Inc.</td>
</tr>
</tbody>
</table>

¹ Mintz/Brooks: This patent appears to owned by RTS LIFE SCIENCE LIMITED. Please confirm or delete.
<table>
<thead>
<tr>
<th>Patent No.</th>
<th>Priority Date</th>
<th>Filing Date</th>
<th>Issued Date</th>
<th>Classification</th>
<th>Assignee</th>
</tr>
</thead>
<tbody>
<tr>
<td>8,434,989</td>
<td>7-May-13</td>
<td>12/030,902</td>
<td>14-Feb-08</td>
<td>390P014151-US(Cl4)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>8,500,388</td>
<td>6-Aug-13</td>
<td>12/025,516</td>
<td>4-Feb-08</td>
<td>390P014151-US(Cl6)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>8,509,938</td>
<td>13-Aug-13</td>
<td>13/366,968</td>
<td>6-Feb-12</td>
<td>390-010850-US(C02)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>8,523,507</td>
<td>3-Sep-13</td>
<td>13/248,386</td>
<td>29-Sep-11</td>
<td>390P014151-US(D14)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>8,628,288</td>
<td>14-Jan-14</td>
<td>13/436,155</td>
<td>30-Mar-12</td>
<td>390-011803-US(C01)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>8,634,633</td>
<td>21-Jan-14</td>
<td>13/617,333</td>
<td>14-Sep-12</td>
<td>390P014524-US(Cl3)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>#</td>
<td>Date</td>
<td>Publication</td>
<td>Date</td>
<td>Application #</td>
<td>Inc.</td>
</tr>
<tr>
<td>------</td>
<td>------------</td>
<td>-------------</td>
<td>----------</td>
<td>---------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>8,662,812</td>
<td>4-Mar-14</td>
<td>13/625,704</td>
<td>24-Sep-12</td>
<td>390P012907-US(C01)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>8,672,605</td>
<td>18-Mar-14</td>
<td>12/025,477</td>
<td>4-Feb-08</td>
<td>390P014151-US(C15)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>8,747,050</td>
<td>10-Jun-14</td>
<td>13/617,171</td>
<td>14-Sep-12</td>
<td>390P010855-US(C01)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>8,800,774</td>
<td>12-Aug-14</td>
<td>13/337,028</td>
<td>23-Dec-11</td>
<td>C.ASTGP133C1</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>8,803,513</td>
<td>12-Aug-14</td>
<td>13/412,392</td>
<td>5-Mar-12</td>
<td>390P012408-US(C01)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>8,822,209</td>
<td>2-Sep-14</td>
<td>12/171,984</td>
<td>11-Jul-08</td>
<td>630191.405</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>8,827,618</td>
<td>9-Sep-14</td>
<td>13/692,749</td>
<td>3-Dec-12</td>
<td>390P014781-US(PAR)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>8,851,820</td>
<td>7-Oct-14</td>
<td>12/780,761</td>
<td>14-May-10</td>
<td>ASTGP187</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>Patent Number</td>
<td>Date</td>
<td>Application Number</td>
<td>Filing Date</td>
<td>Patent Number</td>
<td>Assignee</td>
</tr>
<tr>
<td>---------------</td>
<td>------------</td>
<td>--------------------</td>
<td>--------------</td>
<td>---------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>8,869,552</td>
<td>2014-10-28</td>
<td>13/605,738</td>
<td>2012-09-06</td>
<td>0100.2016-014</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>8,874,274</td>
<td>28-Oct-14</td>
<td>12/864,142</td>
<td>22-Jan-09</td>
<td>0100.2202-004</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>8,881,297</td>
<td>4-Nov-14</td>
<td>13/605,941</td>
<td>6-Sep-12</td>
<td>C.ASTGP195</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>8,944,738</td>
<td>3-Feb-15</td>
<td>13/248,600</td>
<td>29-Sep-11</td>
<td>390P014155-US(C02)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>9,147,590</td>
<td>29-Sep-15</td>
<td>13/768,495</td>
<td>15-Feb-13</td>
<td>390P011831-US(D01)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>Application Number</td>
<td>Filing Date</td>
<td>Publication Number</td>
<td>Publication Date</td>
<td>Inc.</td>
<td></td>
</tr>
<tr>
<td>--------------------</td>
<td>-------------</td>
<td>--------------------</td>
<td>------------------</td>
<td>------</td>
<td></td>
</tr>
<tr>
<td>9,184,078</td>
<td>10-Nov-15</td>
<td>13/464,923</td>
<td>4-May-12</td>
<td>Brooks Automation, Inc.</td>
<td></td>
</tr>
<tr>
<td>9,186,799</td>
<td>17-Nov-15</td>
<td>13/547,786</td>
<td>12-Jul-12</td>
<td>C.ASTGP194</td>
<td></td>
</tr>
<tr>
<td>9,190,304</td>
<td>17-Nov-15</td>
<td>13/475,723</td>
<td>18-May-12</td>
<td>Brooks Automation, Inc.</td>
<td></td>
</tr>
<tr>
<td>9,224,628</td>
<td>29-Dec-15</td>
<td>13/625,442</td>
<td>24-Sep-12</td>
<td>Brooks Automation, Inc.</td>
<td></td>
</tr>
<tr>
<td>9,230,841</td>
<td>5-Jan-16</td>
<td>14/579,067</td>
<td>22-Dec-14</td>
<td>Brooks Automation, Inc.</td>
<td></td>
</tr>
<tr>
<td>9,248,568</td>
<td>2-Feb-16</td>
<td>11/179,762</td>
<td>11-Jul-05</td>
<td>Brooks Automation, Inc.</td>
<td></td>
</tr>
<tr>
<td>9,266,038</td>
<td>23-Feb-16</td>
<td>13/983,973</td>
<td>8-Feb-12</td>
<td>0100.2318-003</td>
<td></td>
</tr>
<tr>
<td>9,266,039</td>
<td>23-Feb-16</td>
<td>13/988,497</td>
<td>23-Nov-11</td>
<td>Brooks Automation, Inc.</td>
<td></td>
</tr>
<tr>
<td>9,275,885</td>
<td>1-Mar-16</td>
<td>13/457,278</td>
<td>26-Apr-12</td>
<td>Brooks Automation, Inc.</td>
<td></td>
</tr>
<tr>
<td>9,297,728</td>
<td>29-Mar-16</td>
<td>12/941,009</td>
<td>5-Nov-10</td>
<td>Brooks Automation, Inc.</td>
<td></td>
</tr>
<tr>
<td>9,324,594</td>
<td>26-Apr-16</td>
<td>13/334,181</td>
<td>22-Dec-11</td>
<td>Brooks Automation, Inc.</td>
<td></td>
</tr>
<tr>
<td>9,334,859</td>
<td>10-May-16</td>
<td>14/523,507</td>
<td>24-Oct-14</td>
<td>Brooks Automation, Inc.</td>
<td></td>
</tr>
<tr>
<td>9,368,382</td>
<td>201606-14</td>
<td>14/223,553</td>
<td>24-Mar-14</td>
<td>Brooks Automation, Inc.</td>
<td></td>
</tr>
<tr>
<td>9,378,995</td>
<td>28-Jun-16</td>
<td>14/508,974</td>
<td>7-Oct-14</td>
<td>C.ASTGP191.C1</td>
<td></td>
</tr>
<tr>
<td>9,437,469</td>
<td>201609-06</td>
<td>11/741,416</td>
<td>27-Apr-07</td>
<td>Brooks Automation, Inc.</td>
<td></td>
</tr>
<tr>
<td>9,514,974</td>
<td>6-Dec-16</td>
<td>14/325,702</td>
<td>8-Jul-14</td>
<td>Brooks Automation, Inc.</td>
<td></td>
</tr>
<tr>
<td>9,517,558</td>
<td>13-Dec-16</td>
<td>14/342,035</td>
<td>30-Aug-12</td>
<td>Brooks Automation, Inc.</td>
<td></td>
</tr>
<tr>
<td>9,524,896</td>
<td>20-Dec-16</td>
<td>12/368,241</td>
<td>9-Feb-09</td>
<td>Brooks Automation, Inc.</td>
<td></td>
</tr>
<tr>
<td>9,545,724</td>
<td>17-Jan-17</td>
<td>13/830,692</td>
<td>14-Mar-13</td>
<td>C.ASTGP196</td>
<td></td>
</tr>
</tbody>
</table>

#90122365v3
<table>
<thead>
<tr>
<th>Patent No.</th>
<th>Date</th>
<th>Filing No.</th>
<th>Date of Filing</th>
<th>Dom. No.</th>
<th>Issuer</th>
</tr>
</thead>
<tbody>
<tr>
<td>9,567,988</td>
<td>14-Feb-17</td>
<td>12/936,129</td>
<td>3-Apr-09</td>
<td>0100.2223-003</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>9,570,330</td>
<td>14-Feb-17</td>
<td>14/180,876</td>
<td>14-Feb-14</td>
<td>390P011010-US(D24)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>9,687,753</td>
<td>27-Jun-17</td>
<td>13/753,093</td>
<td>29-Jul-11</td>
<td>0100.2312-002</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>9,702,887</td>
<td>11-Jul-17</td>
<td>13/595,817</td>
<td>23-Jan-07</td>
<td>1181P014735-US(D01)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>9,751,209</td>
<td>5-Sep-17</td>
<td>14/941,888</td>
<td>12-Jul-12</td>
<td>390P014101-US(C01)</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>RE40,627</td>
<td>27-Jan-09</td>
<td>11/032,701</td>
<td>7-Jan-05</td>
<td>0100.2099-005</td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>5588789</td>
<td>12/31/96</td>
<td>08/498835</td>
<td>7/6/95</td>
<td></td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>5588789</td>
<td>12/31/96</td>
<td>08/498835</td>
<td>7/6/95</td>
<td></td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>5588827</td>
<td>12/31/96</td>
<td>08/480128</td>
<td>6/7/95</td>
<td></td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>5607276</td>
<td>3/4/97</td>
<td>08/498859</td>
<td>7/6/95</td>
<td></td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>5609459</td>
<td>3/11/97</td>
<td>08/498597</td>
<td>7/6/95</td>
<td></td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>5613821</td>
<td>3/25/97</td>
<td>08/4990069</td>
<td>7/6/95</td>
<td></td>
<td>Brooks Automation, Inc.</td>
</tr>
<tr>
<td>Application Number</td>
<td>Filing Date</td>
<td>Patent Date</td>
<td>Assignee</td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------</td>
<td>------------</td>
<td>-------------</td>
<td>----------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5647724</td>
<td>7/15/97</td>
<td>10/27/95</td>
<td>Brooks Automation, Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5655060</td>
<td>8/5/97</td>
<td>03/31/95</td>
<td>Brooks Automation, Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5664925</td>
<td>9/9/97</td>
<td>1/27/97</td>
<td>Brooks Automation, Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5765983</td>
<td>6/16/98</td>
<td>5/30/96</td>
<td>Brooks Automation, Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5778968</td>
<td>7/14/98</td>
<td>5/28/96</td>
<td>Brooks Automation, Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5908281</td>
<td>6/1/99</td>
<td>9/20/96</td>
<td>Brooks Automation, Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5954472</td>
<td>9/21/99</td>
<td>7/15/96</td>
<td>Brooks Automation, Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5997235</td>
<td>12/7/99</td>
<td>9/20/96</td>
<td>Brooks Automation, Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6062798</td>
<td>5/16/00</td>
<td>6/13/96</td>
<td>Brooks Automation, Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6139245</td>
<td>10/31/00</td>
<td>7/11/97</td>
<td>Brooks Automation, Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6231297</td>
<td>5/15/01</td>
<td>1/21/97</td>
<td>Brooks Automation, Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6265803</td>
<td>7/24/01</td>
<td>11/10/99</td>
<td>Brooks Automation, Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6279412</td>
<td>8/28/01</td>
<td>5/19/99</td>
<td>Brooks Automation, Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6299404</td>
<td>10/29/01</td>
<td>1/16/96</td>
<td>Brooks Automation, Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6309161</td>
<td>10/30/01</td>
<td>11/4/99</td>
<td>Brooks Automation, Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6409448</td>
<td>6/25/02</td>
<td>4/3/00</td>
<td>Brooks Automation, Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6428266</td>
<td>8/6/02</td>
<td>7/9/96</td>
<td>Brooks Automation, Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6481956</td>
<td>11/19/02</td>
<td>3/20/98</td>
<td>Brooks Automation, Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6485250</td>
<td>11/26/02</td>
<td>12/30/98</td>
<td>Brooks Automation, Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6609876</td>
<td>8/26/03</td>
<td>11/13/01</td>
<td>Brooks Automation, Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patent Number</td>
<td>Filing Date</td>
<td>Application Number</td>
<td>Issue Date</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------</td>
<td>-------------</td>
<td>--------------------</td>
<td>------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6837663</td>
<td>1/4/05</td>
<td>10/460698</td>
<td>6/12/03</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7037083</td>
<td>5/2/06</td>
<td>10/339181</td>
<td>1/8/03</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7047984</td>
<td>5/23/06</td>
<td>10/31296</td>
<td>6/26/01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7155919</td>
<td>1/2/07</td>
<td>10/750547</td>
<td>12/31/03</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7413411</td>
<td>08/19/08</td>
<td>11/115774</td>
<td>04/27/05</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7806643</td>
<td>10/5/10</td>
<td>11/210918</td>
<td>8/23/05</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>12/696224</td>
<td>1/29/10</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>12/696268</td>
<td>1/29/10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5520538</td>
<td>5/28/96</td>
<td>08/520811</td>
<td>8/30/95</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5577879</td>
<td>11/26/96</td>
<td>08/421533</td>
<td>4/13/95</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5720590</td>
<td>02/24/96</td>
<td>08/434012</td>
<td>5/3/95</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5743704</td>
<td>4/28/98</td>
<td>08/833768</td>
<td>4/9/97</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5813823</td>
<td>9/29/98</td>
<td>08/740496</td>
<td>10/30/96</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5899658</td>
<td>5/4/99</td>
<td>08/957141</td>
<td>10/24/97</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6002971</td>
<td>12/14/99</td>
<td>08/864264</td>
<td>5/28/97</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6158941</td>
<td>12/12/00</td>
<td>09/228305</td>
<td>1/12/99</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6318945</td>
<td>11/20/01</td>
<td>09/362490</td>
<td>7/28/99</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6510688</td>
<td>1/28/03</td>
<td>09/158560</td>
<td>9/22/98</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6986636</td>
<td>1/17/06</td>
<td>10/298485</td>
<td>5/10/01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9299597</td>
<td>3/29/16</td>
<td>14/318707</td>
<td>6/30/14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9312152</td>
<td>4/12/16</td>
<td>14/569662</td>
<td>12/13/14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9401270</td>
<td>7/26/16</td>
<td>14/682059</td>
<td>4/8/15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9524892</td>
<td>12/20/16</td>
<td>13/537016</td>
<td>6/28/12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9536763</td>
<td>1/3/17</td>
<td>13/537009</td>
<td>6/28/12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Application No.</td>
<td>Filing Date</td>
<td>Docket Number</td>
<td>Owner</td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------------</td>
<td>---------------</td>
<td>---------------------</td>
<td>------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11/046,655</td>
<td>28-Jan-05</td>
<td>0100.2134-002</td>
<td>Brooks Automation, Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11/644,240</td>
<td>22-Dec-06</td>
<td>ASTGP151</td>
<td>Brooks Automation, Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12/008,985</td>
<td>15-Jan-08</td>
<td>0100.2181-002</td>
<td>Brooks Automation, Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12/054,160</td>
<td>24-Mar-08</td>
<td>C.ASTGP190</td>
<td>Brooks Automation, Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12/177,737</td>
<td>22-Jul-08</td>
<td>0100.2061-015</td>
<td>Brooks Automation, Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12/886,301</td>
<td>20-Sep-10</td>
<td>390P012404-US(CO3)</td>
<td>Brooks Automation, Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12/941,009</td>
<td>5-Nov-10</td>
<td>1181-014743-US(CO1)</td>
<td>Brooks Automation, Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13/111,149</td>
<td>19-May-11</td>
<td>0100.2260-002</td>
<td>Brooks Automation, Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14/001,803</td>
<td>5-Mar-12</td>
<td>0100.2245-003</td>
<td>Brooks Automation, Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14/071,314</td>
<td>4-Nov-13</td>
<td>390-011658-US(CO1)</td>
<td>Brooks Automation, Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14/130,263</td>
<td>29-Jun-12</td>
<td>0100.2331-003</td>
<td>Brooks Automation, Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14/148,785</td>
<td>7-Jan-14</td>
<td>390-011803-US(CO2)</td>
<td>Brooks Automation, Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14/161,039</td>
<td>22-Jan-14</td>
<td>390P014865-US(PAR)</td>
<td>Brooks Automation, Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14/216,829</td>
<td>17-Mar-14</td>
<td>390P014151-US(CI5)</td>
<td>Brooks Automation, Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14/305,715</td>
<td>16-Jun-14</td>
<td>390P012752-US(DO1)</td>
<td>Brooks Automation, Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Application Number</td>
<td>Priority Date</td>
<td>Filing Date</td>
<td>Publication Number</td>
<td>assignee</td>
<td></td>
</tr>
<tr>
<td>--------------------</td>
<td>---------------</td>
<td>-------------</td>
<td>--------------------</td>
<td>-----------</td>
<td></td>
</tr>
<tr>
<td>14/419,854</td>
<td>5-Feb-15</td>
<td>0100.2407-000</td>
<td>Brooks Automation, Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14/452,490</td>
<td>5-Aug-14</td>
<td>C.ASTGP133.C2</td>
<td>Brooks Automation, Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14/472,678</td>
<td>29-Aug-14</td>
<td>390-011657-US(D01)</td>
<td>Brooks Automation, Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14/530,102</td>
<td>31-Oct-14</td>
<td>C.ASTGP195.C1</td>
<td>Brooks Automation, Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14/537,696</td>
<td>10-Nov-14</td>
<td>ASTGP187.C1</td>
<td>Brooks Automation, Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14/541,934</td>
<td>14-Nov-14</td>
<td>390P011935-US(C01)</td>
<td>Brooks Automation, Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14/568,742</td>
<td>12-Dec-14</td>
<td>390P014951-US(PAR)</td>
<td>Brooks Automation, Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14/600,751</td>
<td>20-Jan-15</td>
<td>1181P014776-US(PAR)</td>
<td>Brooks Automation, Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14/611,697</td>
<td>2-Feb-15</td>
<td>390P014155-US(C03)</td>
<td>Brooks Automation, Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14/617,052</td>
<td>9-Feb-15</td>
<td>390P011126-US(D02)</td>
<td>Brooks Automation, Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14/852,365</td>
<td>11-Sep-15</td>
<td>0100.2206-008</td>
<td>Brooks Automation, Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14/988,256</td>
<td>5-Jan-16</td>
<td>390P014526-US(C02)</td>
<td>Brooks Automation, Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15/011,299</td>
<td>1-Feb-16</td>
<td>0100.2318-006</td>
<td>Brooks Automation, Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15/012,425</td>
<td>1-Feb-16</td>
<td>390-012202-US(C01)</td>
<td>Brooks Automation, Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15/085,431</td>
<td>30-Mar-16</td>
<td>0100.2400-001</td>
<td>Brooks Automation, Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15/085,630</td>
<td>30-Mar-16</td>
<td>0100.2401-001</td>
<td>Brooks Automation, Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15/110,130</td>
<td>7-Jul-16</td>
<td>390P014988-US(PCT)</td>
<td>Brooks Automation, Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LICENSEE</td>
<td>LICENSOR</td>
<td>DESCRIPTION</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------</td>
<td>----------</td>
<td>-------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Labcyte Inc.</td>
<td>Brooks Automation, Inc.</td>
<td>License under Joint Development Agreement dated October 1, 2015</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Celestica Oregon LLC</td>
<td>Brooks Automation, Inc.</td>
<td>License Agreement dated June 28, 2011</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brooks Automation, Inc. (as successor to Helix Technology Corporation)</td>
<td>Clever Fellows Innovation Consortium</td>
<td>Exclusive License Agreement dated October 4, 2004*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brooks Automation</td>
<td>Beckhoff Automation GmbH</td>
<td>Ethercat Technology Family License Agreement dated May 24, 2012</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LICENSEE</td>
<td>LICENSOR</td>
<td>DESCRIPTION</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------------------</td>
<td>-----------------------------------------</td>
<td>---------------------------------------------------------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greiner BioOne GmbH</td>
<td>Brooks Automation, Inc. (as successor to Aurora Discovery, Inc.)</td>
<td>Cross License Agreement dated December 31, 2004*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hakuto Enterprises Ltd.</td>
<td>Brooks Automation, Inc.</td>
<td>Royalty Based License Agreement dated November 1, 2011</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ISA Impex Private Limited</td>
<td>Brooks Automation, Inc. (as successor to IGC-Polycold Systems, Inc.)</td>
<td>License Agreement dated June 16, 2004*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mitsubishi Heavy Industries Ltd</td>
<td>Brooks Automation, Inc.</td>
<td>Patent License Agreement dated March 31, 2004*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brooks Automation, Inc.</td>
<td>Praxair Technology, Inc.</td>
<td>Assignment and License Agreement dated April 6, 2009</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brooks Automation, Inc. (as successor to REMP AG)</td>
<td>F.Hoffman-La Roche Ltd. and Hoffman-La Roche Ltd.</td>
<td>License Agreement dated January 1, 2005</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>