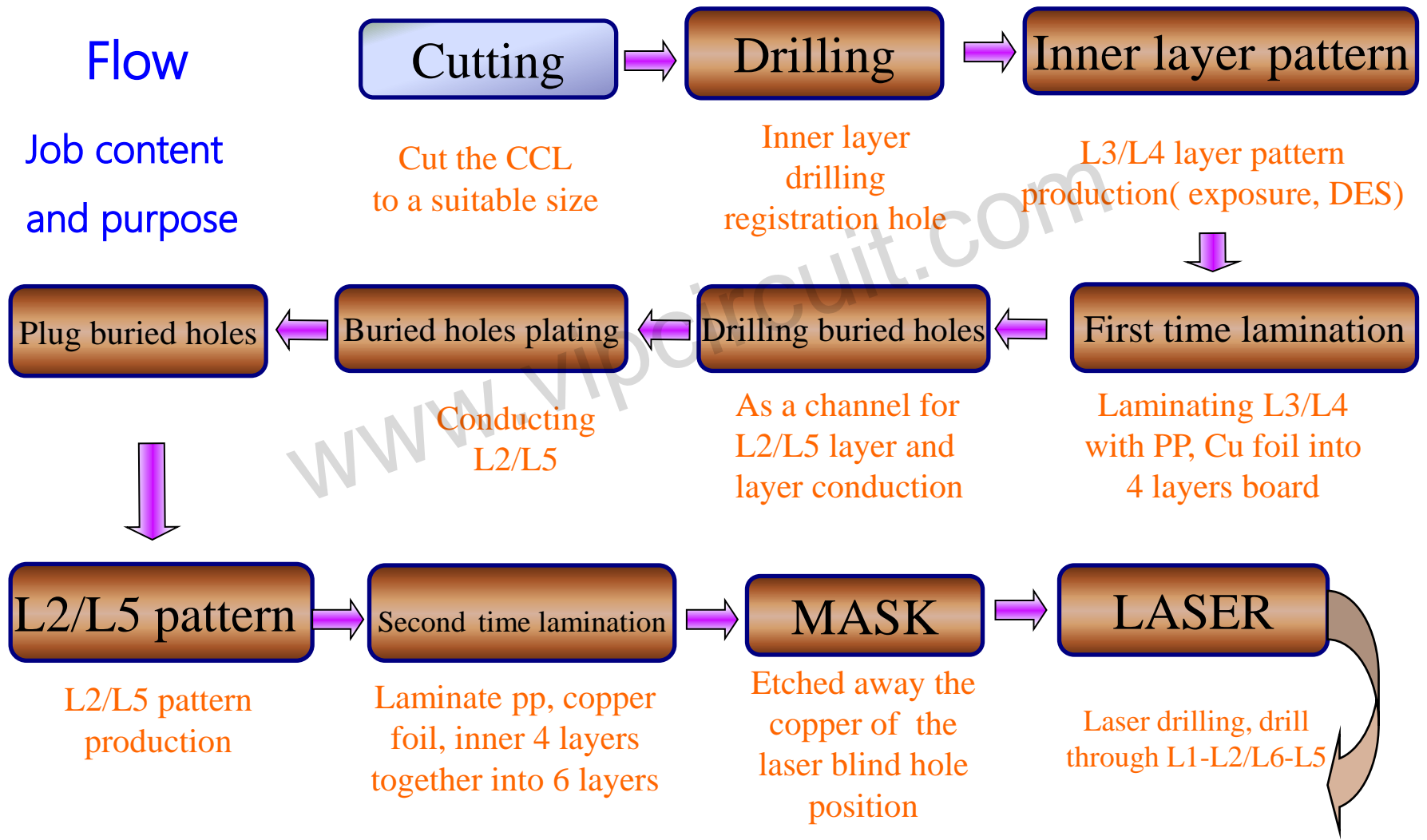
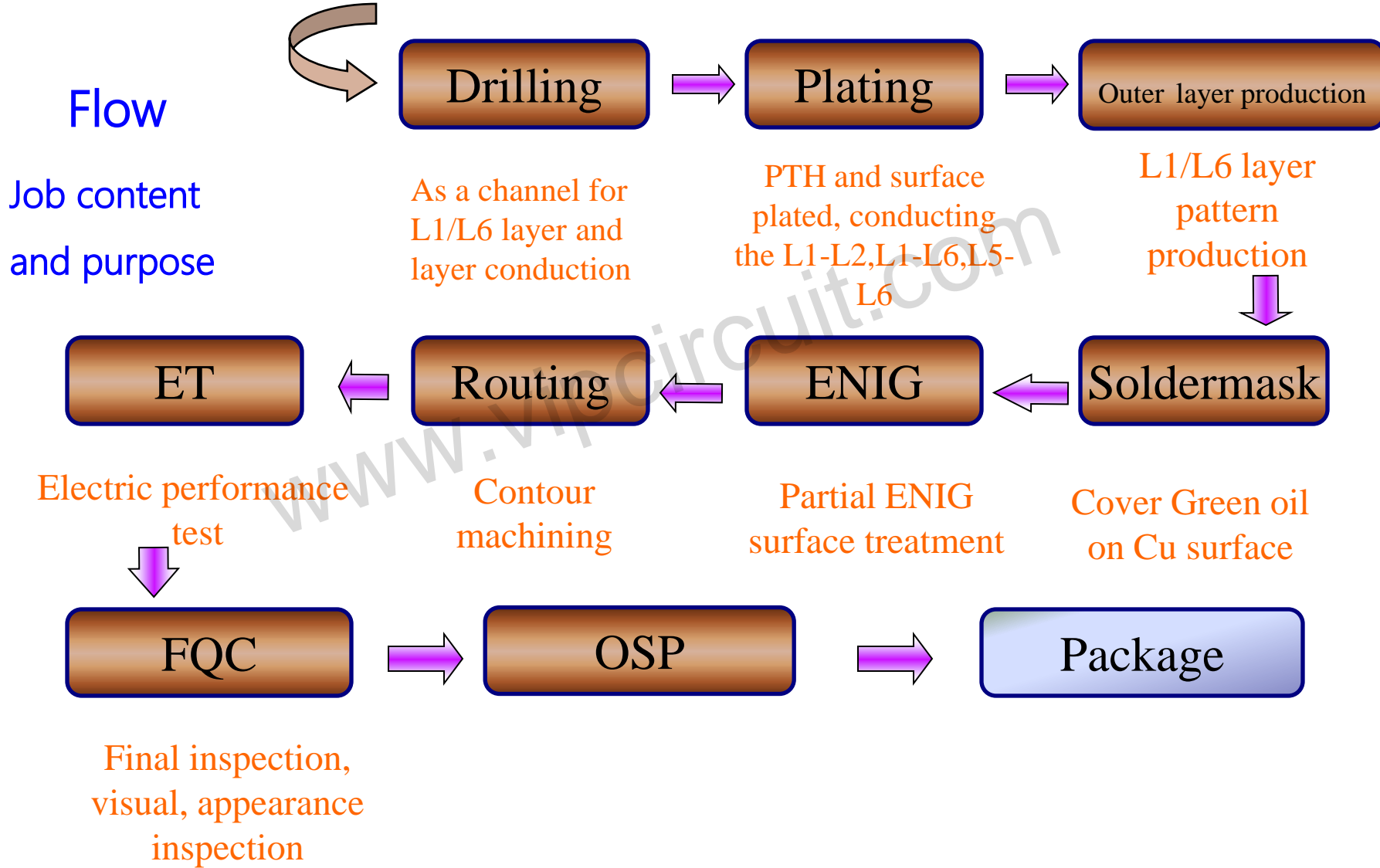


# \*\*H.D.I(1+4+1) (OSP+ENIG) The process flow diagram



# \*\*H.D.I(1+4+1) (OSP+ENIG) The process flow diagram



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Raw material CCL

19 5:07 PM



Cutting machine

19 5:04 PM

[www.vipcircuit.com](http://www.vipcircuit.com)

After cutting

19 4:58 PM



# Mechanical Drilling

A stack of several white, rectangular prepreg sheets for printed circuit boards. The sheets are stacked on a blue surface. A watermark 'www.vipcircuit.com' is visible across the center of the top sheet. The sheets appear to be in the process of being prepared or drilled.

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After Inner layer drilling

Pretreatment

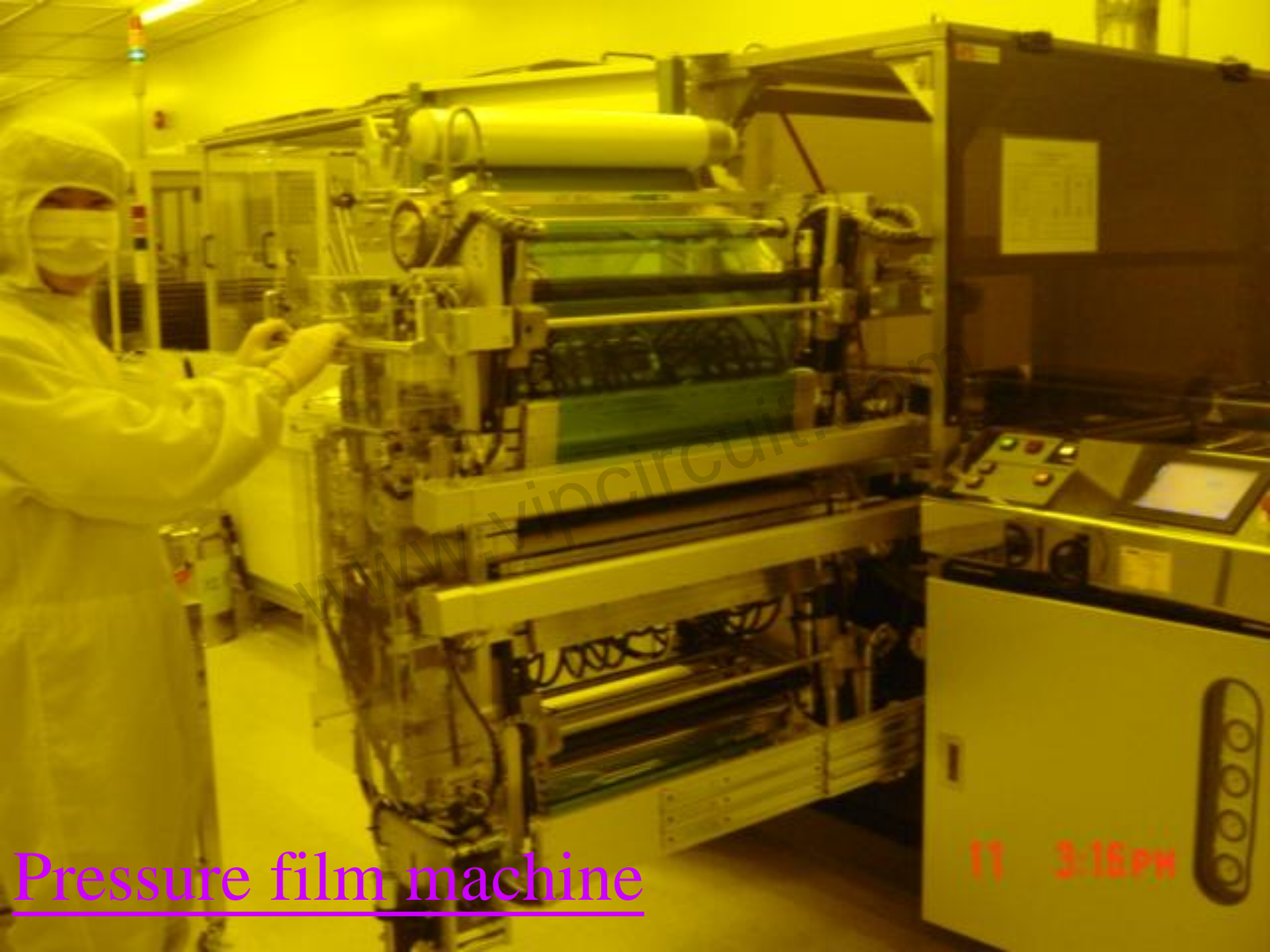
11 2:58 PM



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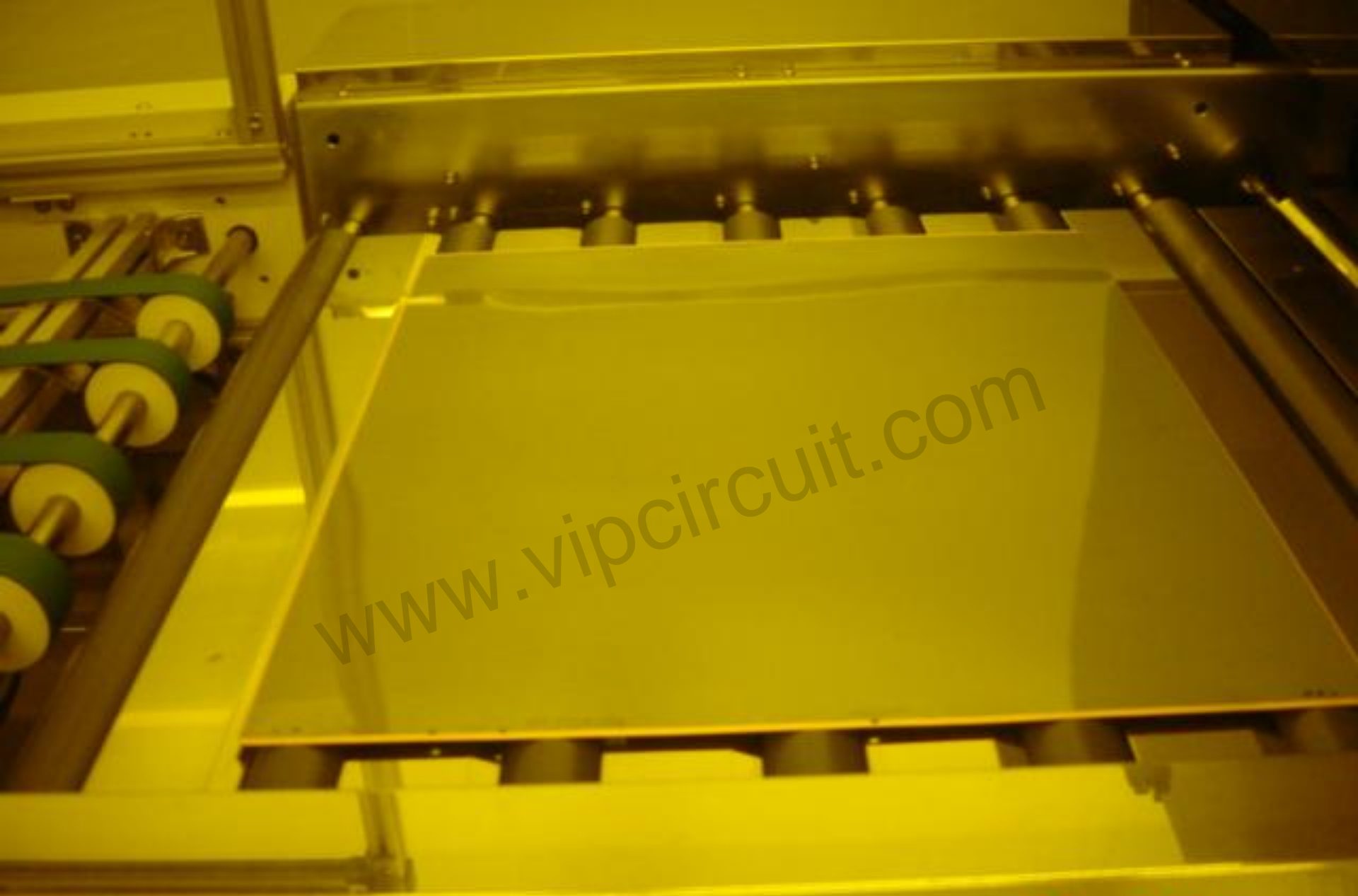
Before pressed film

11 3:13 PM



Pressure film machine

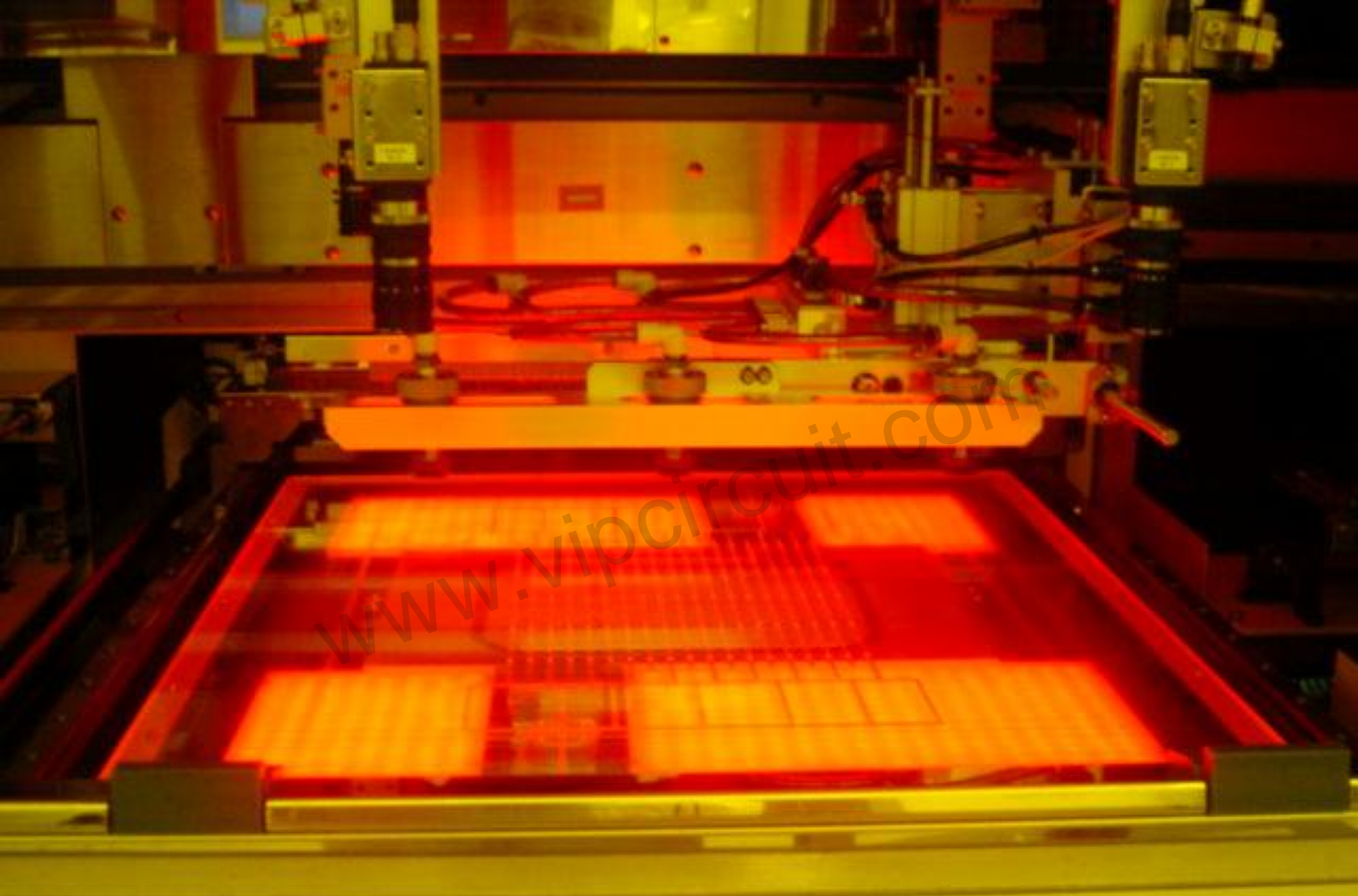
11 3:15 PM



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After pressed film

11 3:14 PM



Automotive exposure machine



After exposure

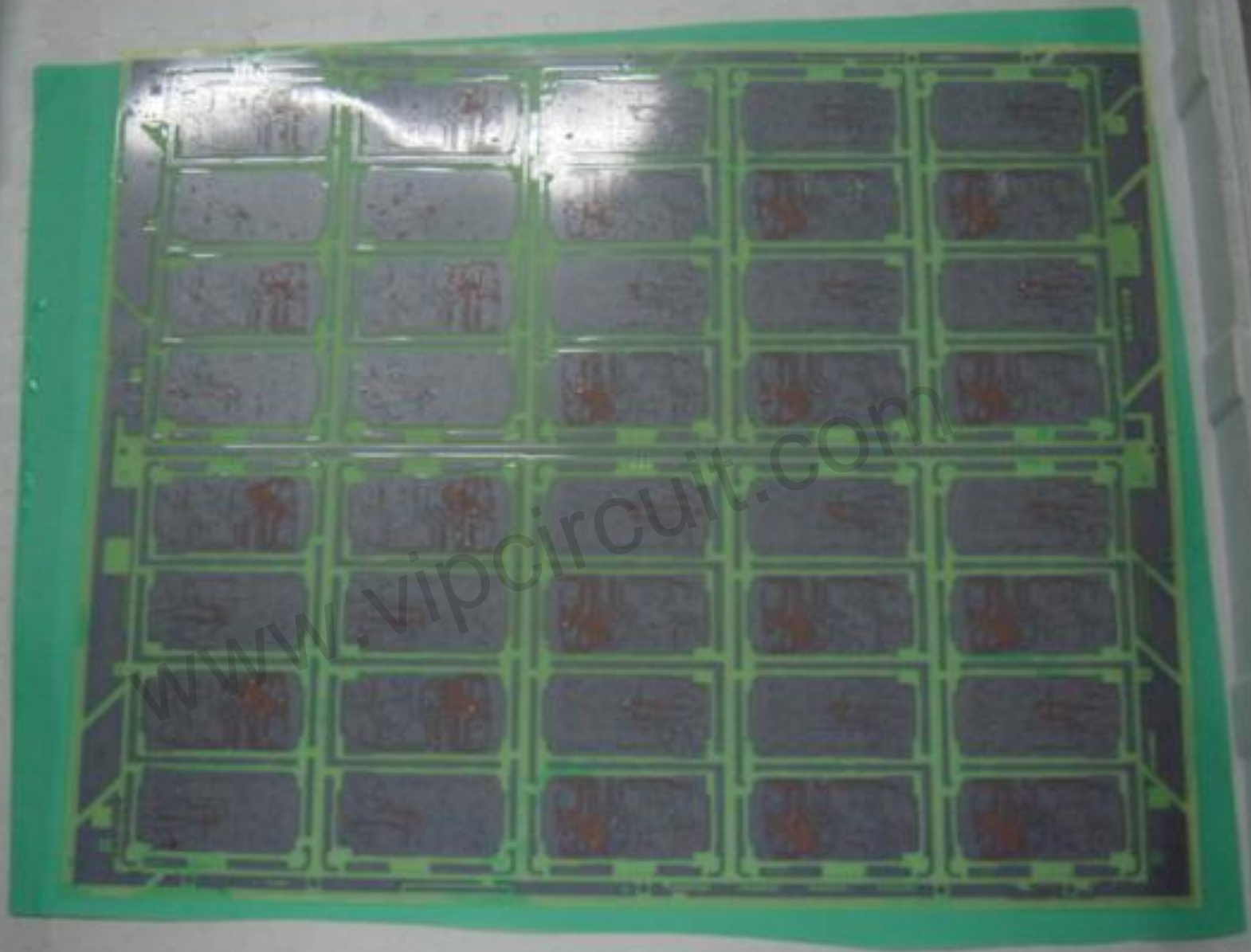
After developing

11 3:09 PM



After etching

11 3:41 PM





After stripping





AOI

11 2.51 PM

CVR repair machine

11 2:52 PM



Wire repaired

11 2:53 PM





Before black oxide

11 3:03 PM



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Black Oxide Line

19 5:02 PM



After black oxide

11 3:59 PM



P/P Cutting

11 3:50 PM

Bonding







Lamination

11 3:46 PM



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After lamination

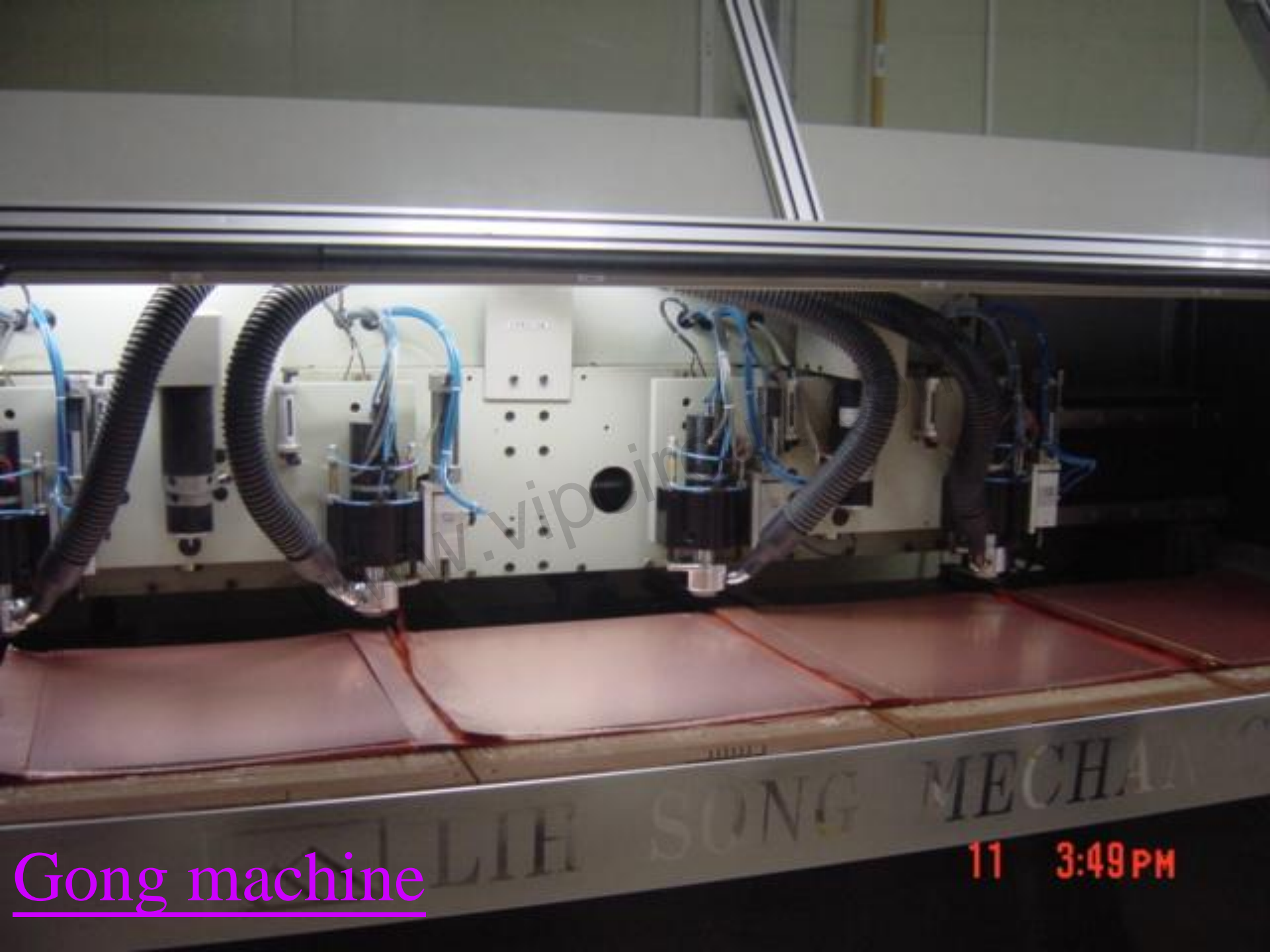


Cutting



X-RAY Drilling target

11 3:48 PM



W.vip.ir

Gong machine

11 3:49 PM



Edge grinding machine

Drilling

11 4:01 PM



HOLE-CHECK

19 5:00 PM

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Horizontal plating line

11 3:28 PM

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After plating

11 3:36 PM

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Before plugging hole

19 4:20 PM

Plug hole machine

19 4:21 PM



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After plugging

19 4:20 PM

Roaster

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19 4:21 PM



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After MASK

19 3:57 PM



Laser drilling machine

19 4:01 PM



PLASMA

19 4:02 PM

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Carbide removal

19 4:08 PM





BLASER AOI

19 4:07 PM

[www.vipcircuit.com](http://www.vipcircuit.com)

19 4:59 PM

After removal



Pretreatment before soldermask

Soldermask ink spraying





Exposure

After exposure







Developing line

19 4:08 PM



After developing

CP-720A

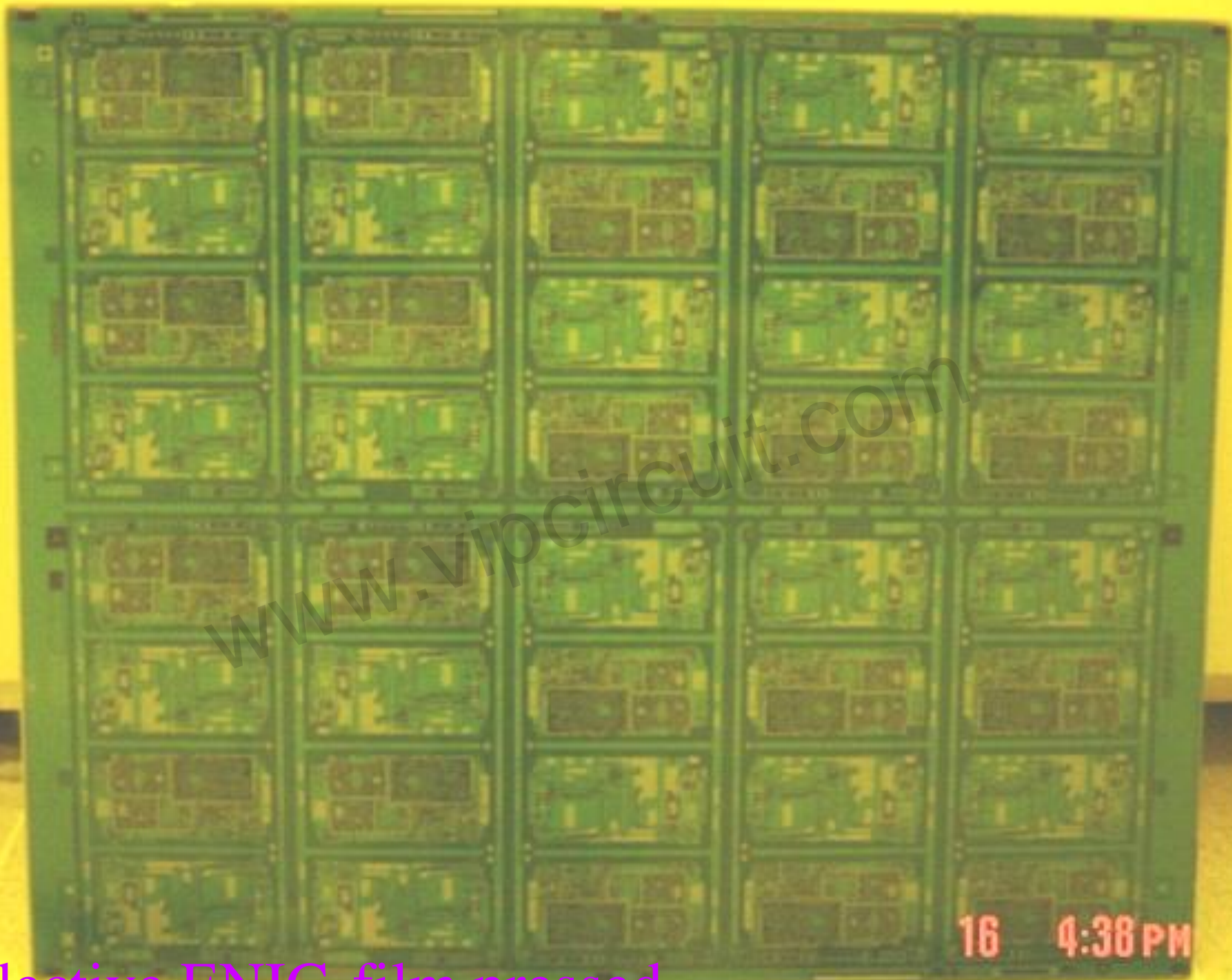
www.vipcircuit.com

Baking machine

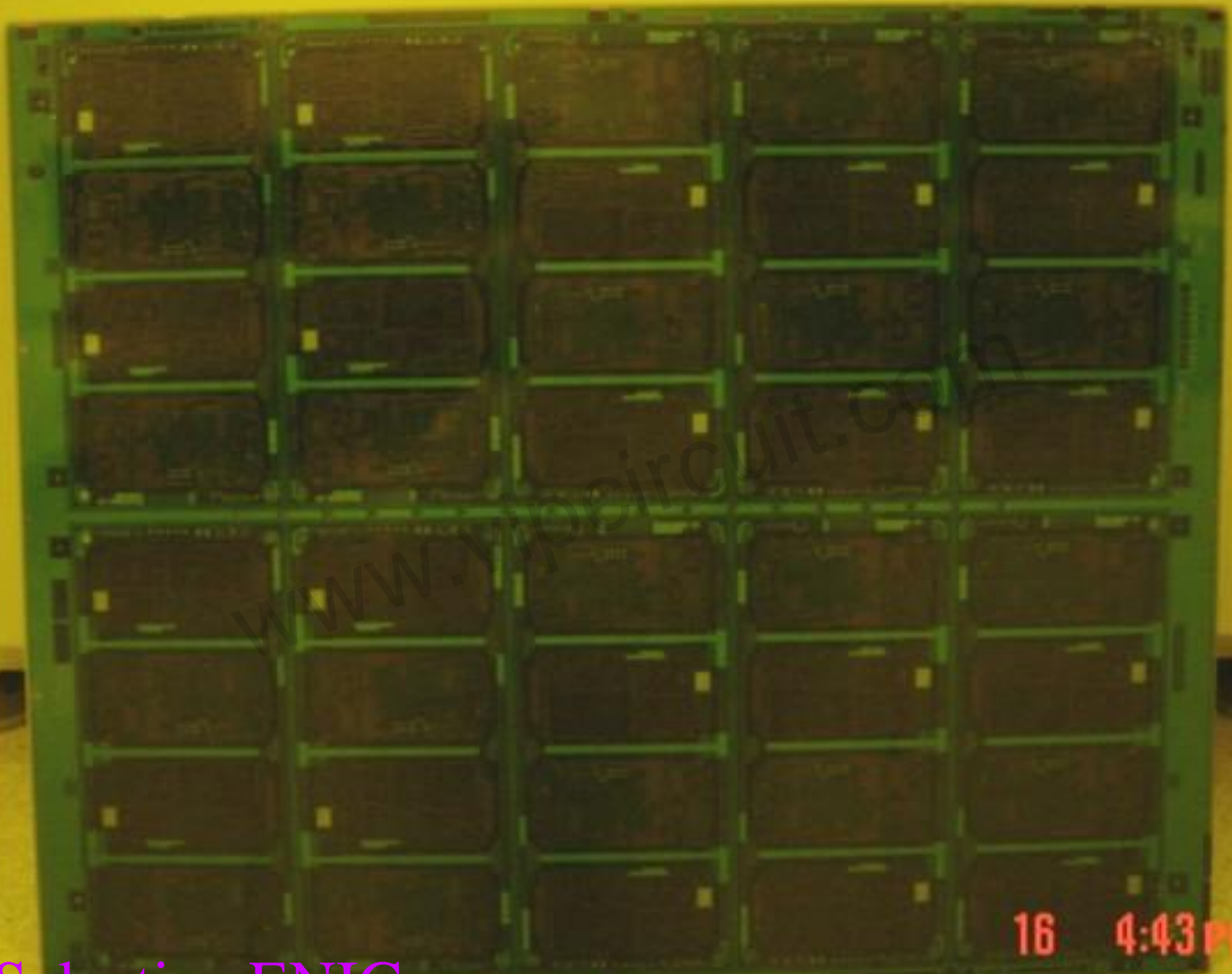
19 4:15 PM



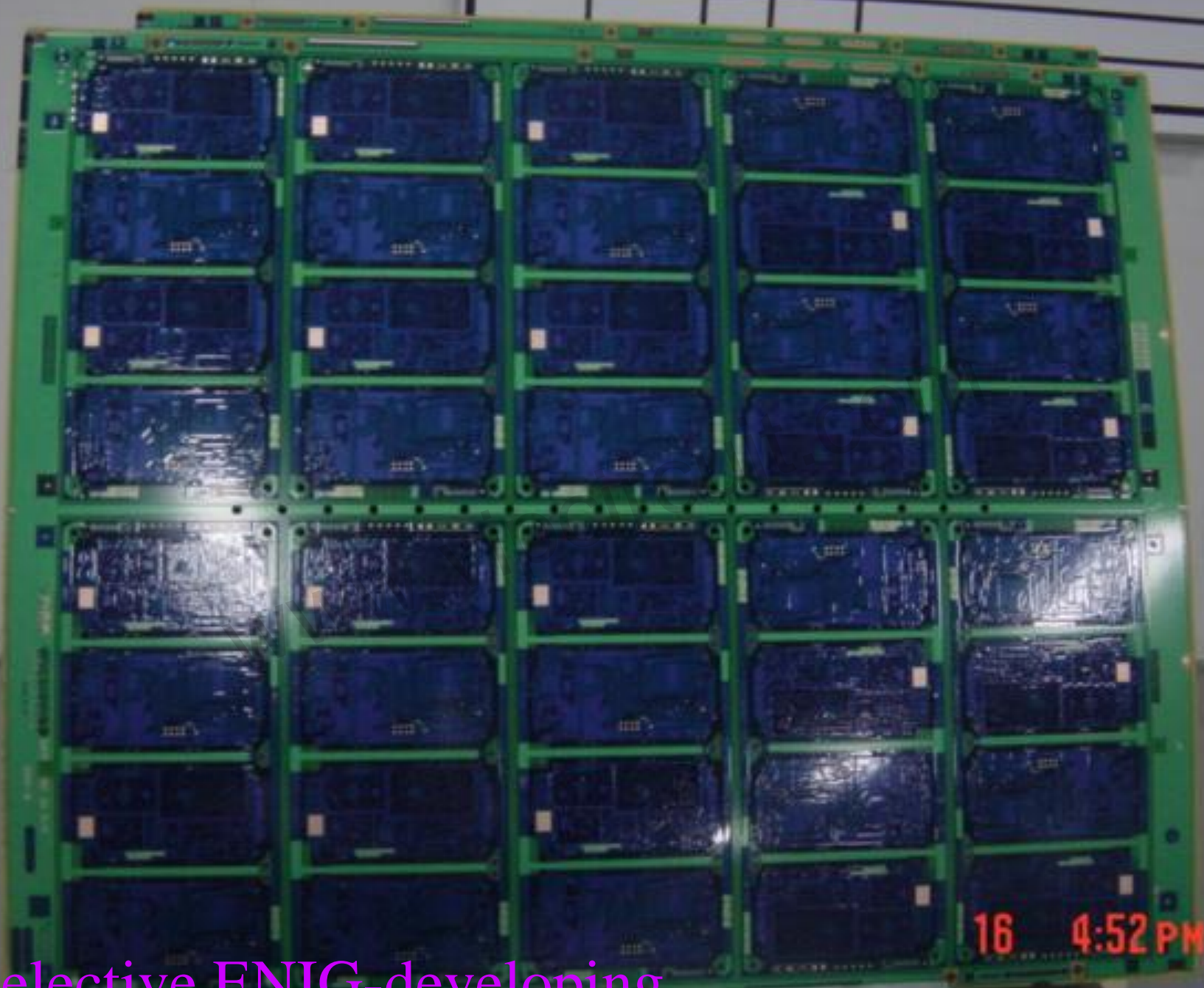
Selective ENIG-pretreatment



Selective ENIG-film pressed



Selective ENIG-exposure

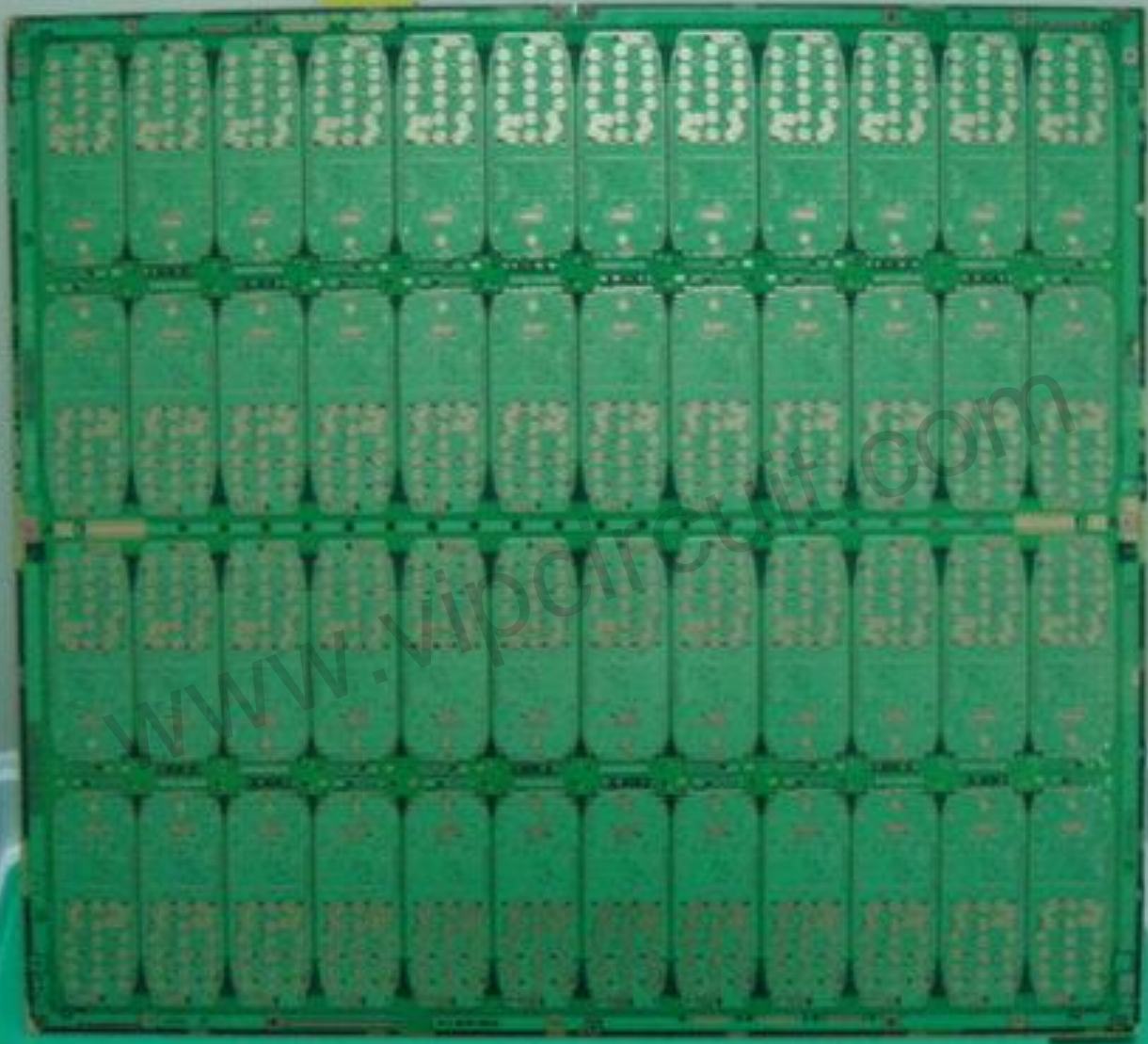


Selective ENIG-developing

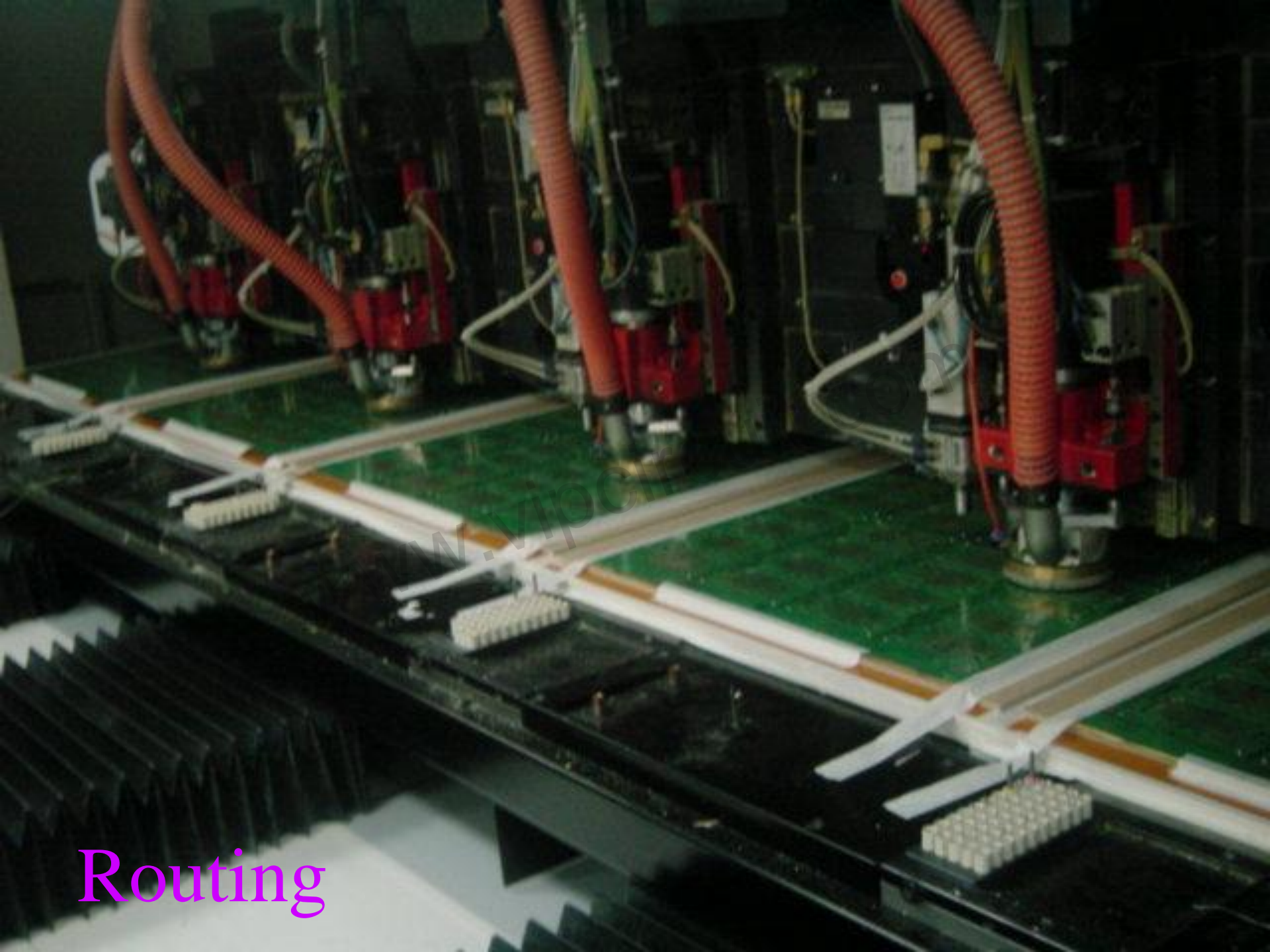


Selective ENIG-ENIG

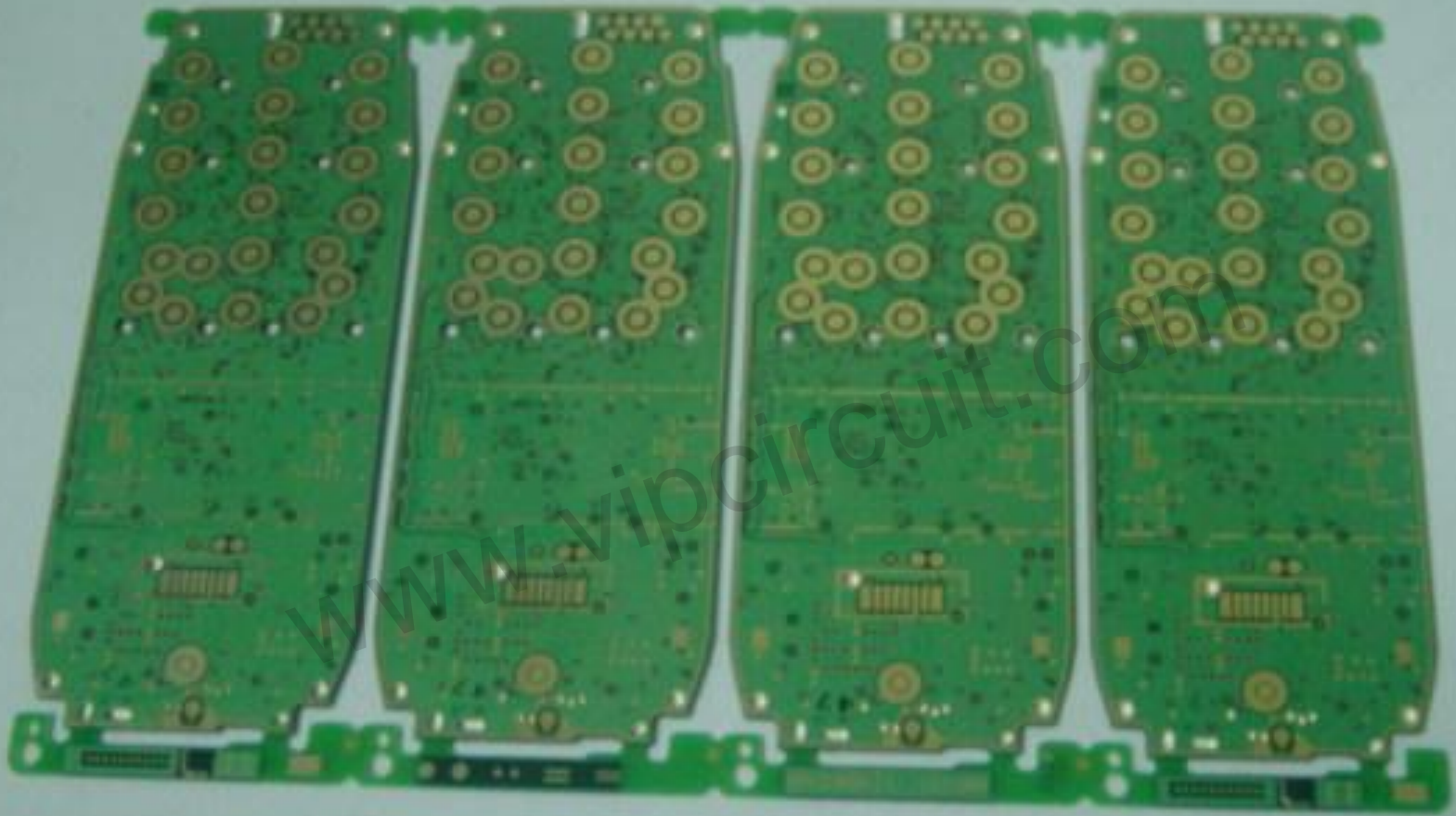




After stripping



Routing



After routing



ET test



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FQC



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OSP



Quantity: 10000  
(P) 00000000000000000000  
041000  
02 30000000000000000000  
00000000000000000000

Quantity: 10000  
Customer ID: 00000000000000000000  
Customer Name: 00000000000000000000  
Customer No: 00000000000000000000  
00000000000000000000

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Package