

# INTRODUCTION OF **ISYS**'s In-Line system

*Vision 2015*

*TO be the World wide PVD & Ion Beam Irradiator Manufacturing Company*



**“ISYS is committed to building the best”**

June. 2007

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## [Introduction of ISYS]

**iSYS**, based on excellent technology and sufficient equipment manufacturing experience, is an energetic venture company where every employee is pursuing to be the best in his respective role while regarding confidence of customers as the ultimate value.

**iSYS** has supplied various **PVD systems** to specialized coating companies for various materials such as plastic, ABS, polymer film, cutting tools, steels, automobile parts and accessory hard-coating.

**iSYS** has also an technology transfer of **Ion beam irradiator** from KAERI, is a core device of nano-materials.

**iSYS** has developed various plasma sources and systems so as to improve product quality and cost effectiveness.

## [Introduction of ISYS]

<http://www.isysinc.co.kr>

President

Sang-Youl, Bae

Foundation

2001. 10. 25

Main Product

PVD coating equipment, Ion Beam Irradiator & Vacuum valve

Contact Us

MATSUBO Co. in JAPAN (<http://www.matsubo.co.jp>)

Website <http://www.isysinc.co.kr>

Portfolio

SYSTEM	Components & Service
<ul style="list-style-type: none"> <li>➤ Arc System(iA)</li> <li>➤ HCD System(HIPS)</li> <li>➤ In-line System(ILS)</li> <li>➤ Sputtering System(MSS)</li> <li>➤ Ion Beam Irradiator(iB)</li> </ul>	<ul style="list-style-type: none"> <li>➤ Vacuum parts               <ul style="list-style-type: none"> <li>✓7G Gate Door Valve</li> <li>✓Circular Valve</li> <li>✓Rectangular Gate Valve</li> </ul> </li> <li>➤ Service               <ul style="list-style-type: none"> <li>✓Coating Service (iC)</li> </ul> </li> </ul>

## [History of ISYS]

	Month	History
2006	12	➤ Contracted with KAERI 『Manufacturing Technology of Industrial Ion Beam Irradiator』
	11	➤ Selected Kyunggi - province promising company and Innovational Business Company (INNOBIZ)
	8	➤ Administered SMBA Project 『Developed High speed coated Arc source without macroparticles』
	4	➤ Selected as a Frontier Kyunggi - Do Internet Trade
2005	12	➤ Foundation of the ISYS R&D center
	12	➤ Selected as a materials and components industry company
	9	➤ Developed HCD Ion Plating System (HIPS-820)
	8	➤ Selected as a promising export company(Kyunggi - Do)
	7	➤ Selected as a company for an export support(Kyunggi - Do)
	6	➤ Designated as a CLEAN business place(KOSHA) ➤ Made a Know how license agreement with KERI 『The method and system of MgO coating』
	4	➤ Registered as a venture company(Kyunggi - Do SMBA)
	3	➤ Export i90A System in Japan(Arc system) ➤ Developed 7G Gate Door Valve
	1	➤ Registration of Patent(No.0469552 )The system and method of Plasma treatment using plasma』
	12	➤ Developed Circular Gate Valve
2004	11	➤ Registration of Design (No. 0367934 ) 『Glass carrier of display』
	5	➤ Export i90A System in China(Arc system)
2003	7	➤ Join in Society of Trade Associations(45034385 )
2002	6	➤ Developed Auto Pressure Gate Valve
	3	➤ Developed Rectangular Gate Valve
2001	10	➤ Foundation of the ISYS

Ref. KERI is one of Federal laboratories, stands for Korea Electrotechnology Research Institute.  
KAERI is one of Federal laboratories, stands for Korea Atomic Energy Research Institute.

## [Introduction of In line system]

<http://www.isysinc.co.kr>

### Systems

ILS - 740,920,1460,1720

In-line system is an equipment of connecting all the process chambers of various batch process for the productivity improvement.

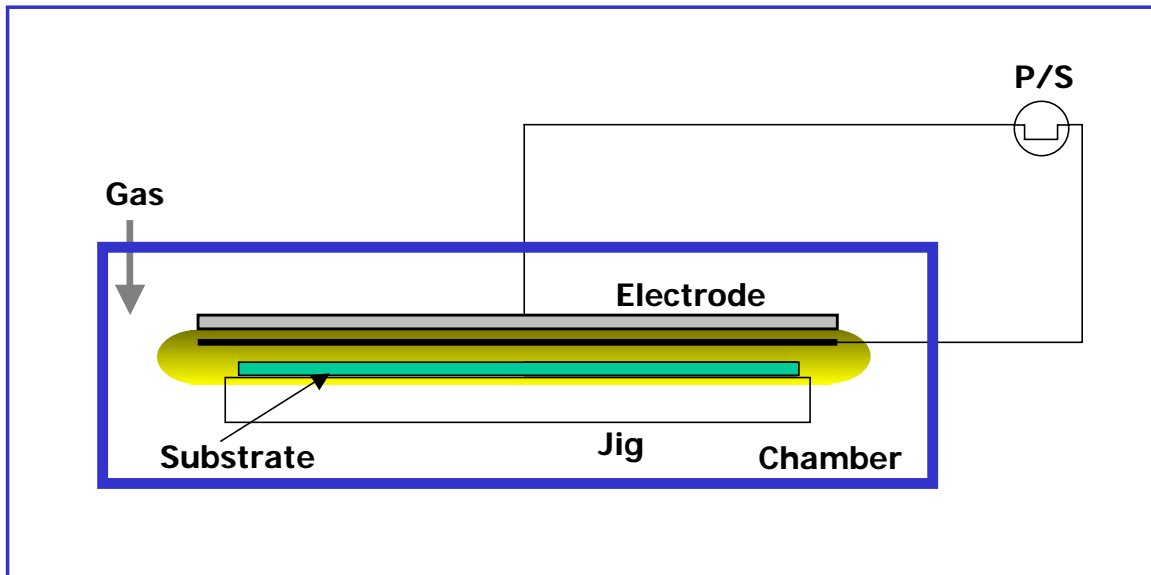
### Features

- ❖ Suitable to large size glass and sheet
- ❖ High productivity & reliability
- ❖ Full Auto process
- ❖ Compiling database for each chamber
- ❖ Large sized plasma cleaning system
- ❖ Application : ITO(Plat Panel Display)  
                   CrN(Automobile parts)  
                   Decoration Coating  
                   Hard Coating(Cutting&mold)  
                   Metal Coating(Electric part)



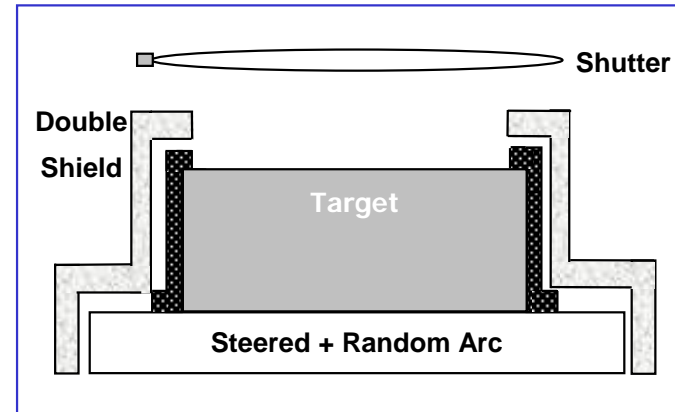
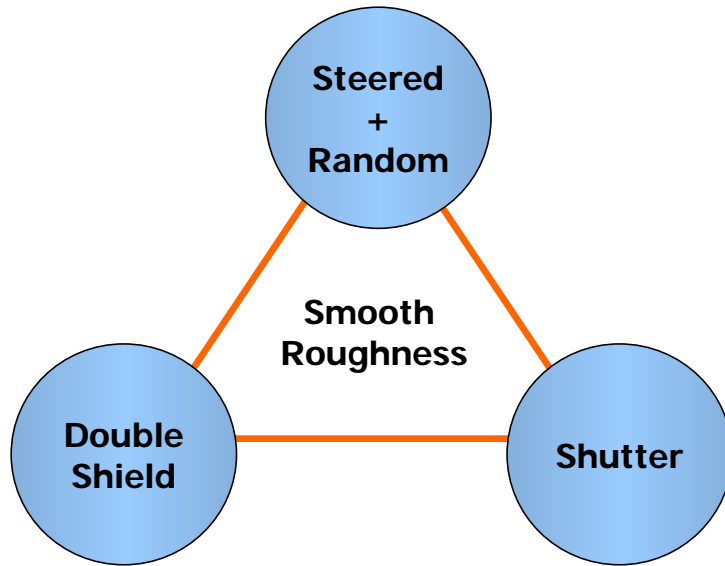
[Remote Plasma Etching]

1. Concept of Remote Plasma Etching for Large size sheet



2. ISYS's Patent Number of Plasma Etching : No.0469552

1. Concept of Arc Source for good performance

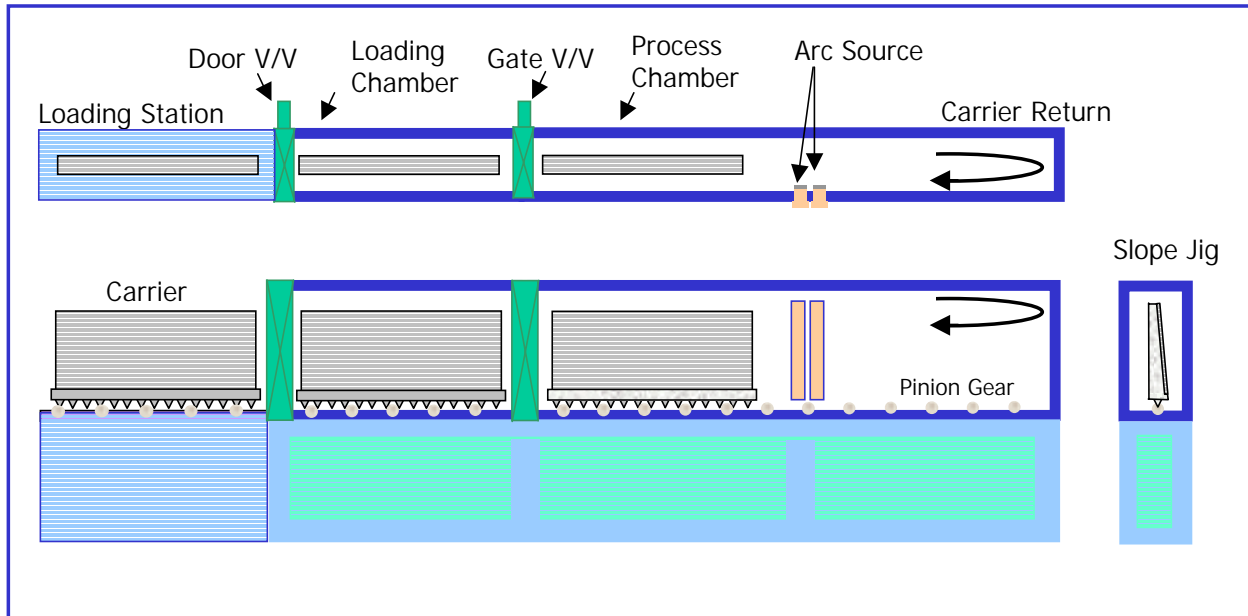


2. ISYS's Patent Number of Arc Source : No. 0716264



[Arc In-Line system (A type)]

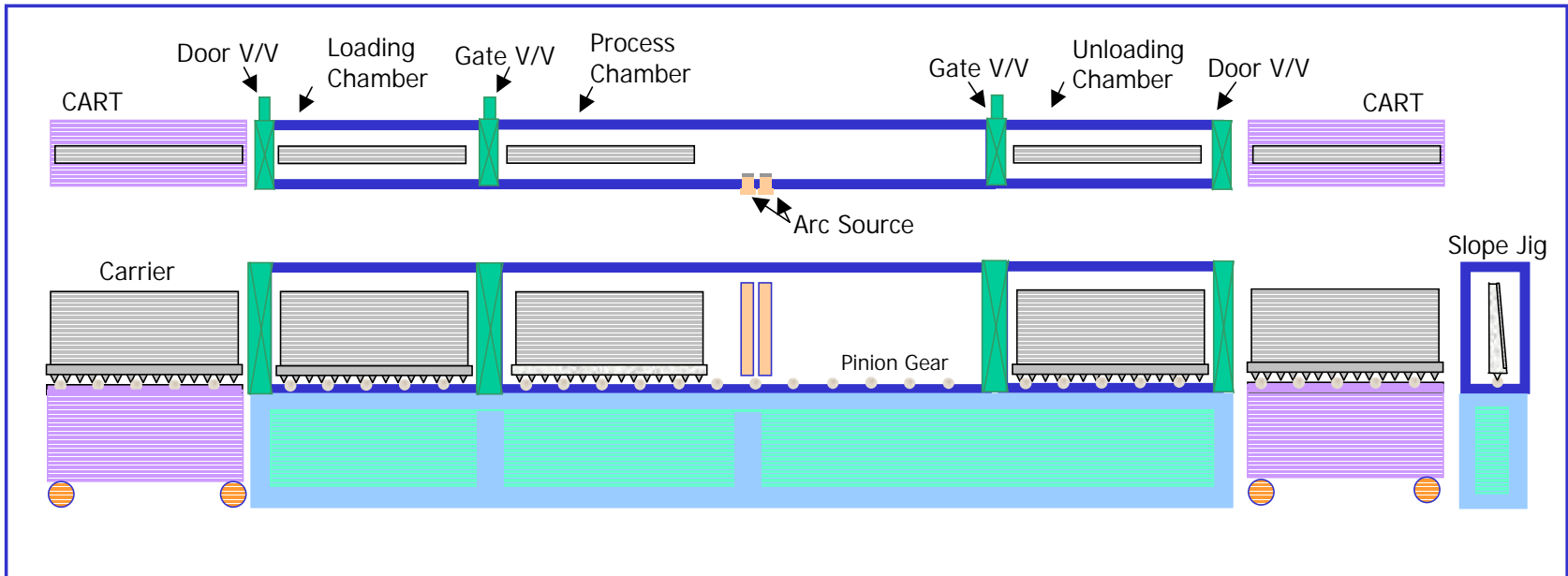
I-1. Carrier/ Loading Station+Loading Chamber + Process Chamber



I-2. Estimate Tact time : 25mins/sheet

[Arc In-Line system (B type)]

II-1. Carrier/Cart +L/Chamber + P/Chamber+UL/Chamber



II-2. Estimate Tact time : 12.5mins/sheet

**[Compare with Two System (A & B)]**

TYPE	SYSTEM	TACT TIME	INSTALL AREA	
A type	Carrier Loading Station Loading Chamber Process Chamber	25 MINUTES	3.8M x 12.1M x 2.5M	
B type	Carrier Cart Loading Chamber Process Chamber Unloading Chamber	12.5 MINUTES	3.8M x 15.1M x 2.5M	

**[FAB of In-Line system]**

Feature	Advantage	Benefit
Remote Plasma Etching	Plasma Cleaning of Large Sized Sheet	Excellent Adhesion
Arc Source	High Speed Deposition	Improve Productivity
Software & Analysis program	Display a Process in Real Time Storage of Displaying & Printing data Analysis Program of Recipe	Easy Analysis Compiling Database of each Lot
In-Line System	Carrier & Cart System Full Auto process Stable & Reliable Equipment Easy Maintenance	Easy Control Mass Product System