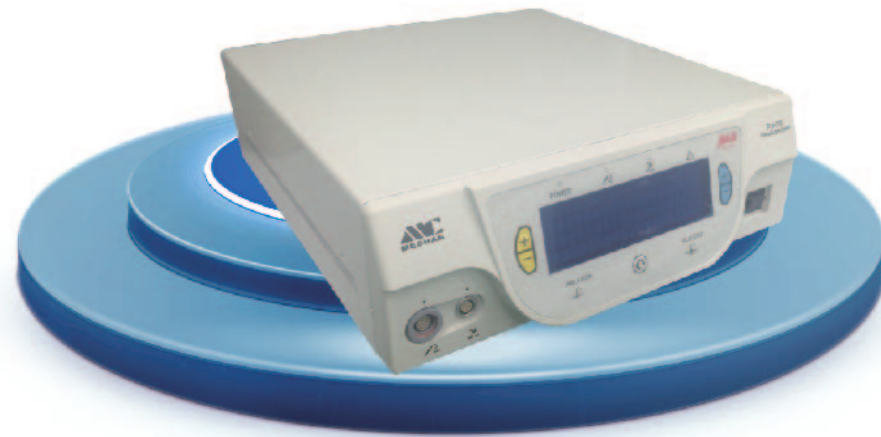




Stock Name: Mechan Medical
Stock Code: 833234



All for Health, All for Life **PLA-800**



**MECHAN has proprietary intellectual property rights of
PLA series orthopedics plasma surgery system**

ISO,CE,ROHS,EMC Inspection,CMD Audit,Korean KGMP System Audit

Class III Medical Products of State Food and Drug Administration Approved

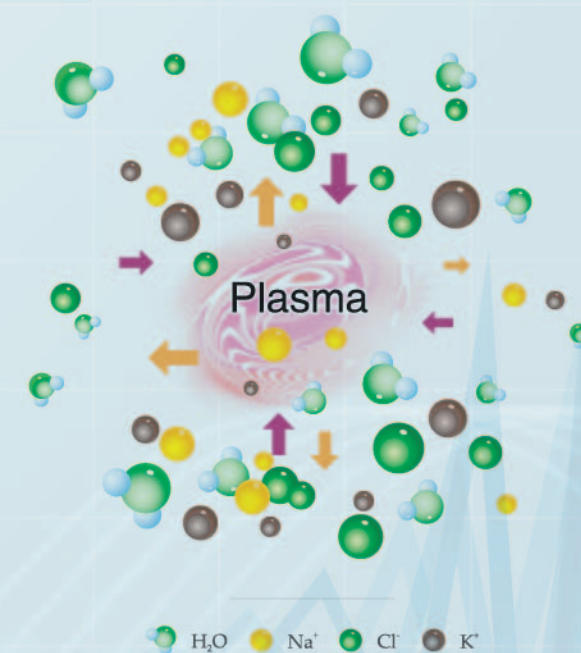


This information is for internal reference only
In case of difference found between the products and the
description of the brochure, the real object shall prevail



Spinal Surgery/Arthroscopic Surgery/Sports Medicine

Plasma Surgery System



MECHAN Plasma Probe can provide idea surgical options for Spinal Surgery/Arthroscopic Surgery/Sports Medicine.

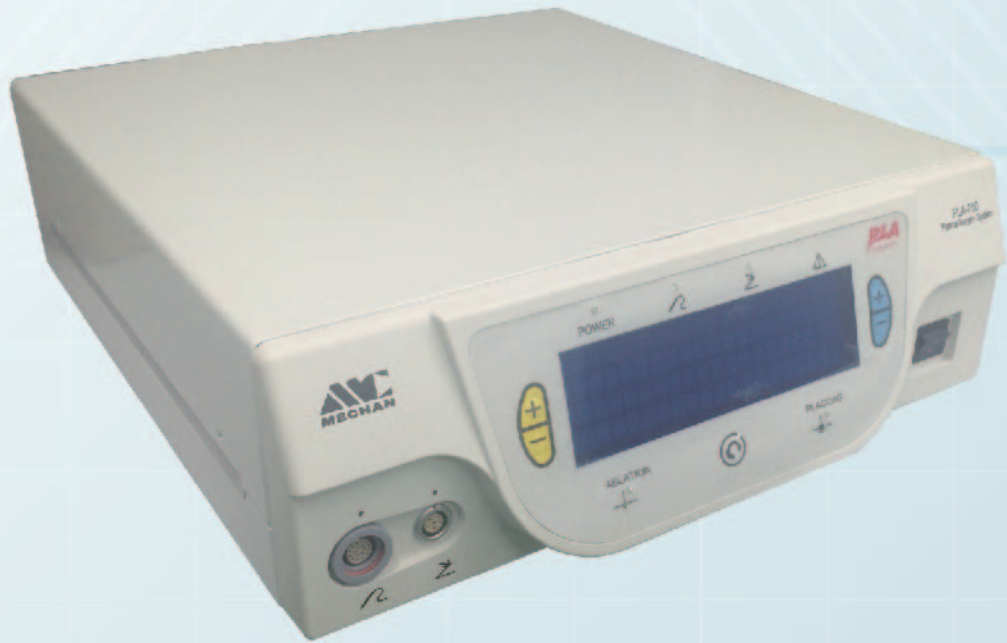


MECHAN Plasma Probe can provide ideal surgical options for Spinal Surgery/Arthroscopic Surgery/Sports Medicine.

Spinal Surgery/Arthroscopic Surgery/Sports Medicine

PLA-800

Low Temperature Cutting
Coagulation While Cutting
Impedance Feedback
Clear Operation Field



Mechan Plasma Surgery System
——Provides classical surgical schemes including slipped disc,meni-
sectomy,synovectomy,etc.

Functional Features

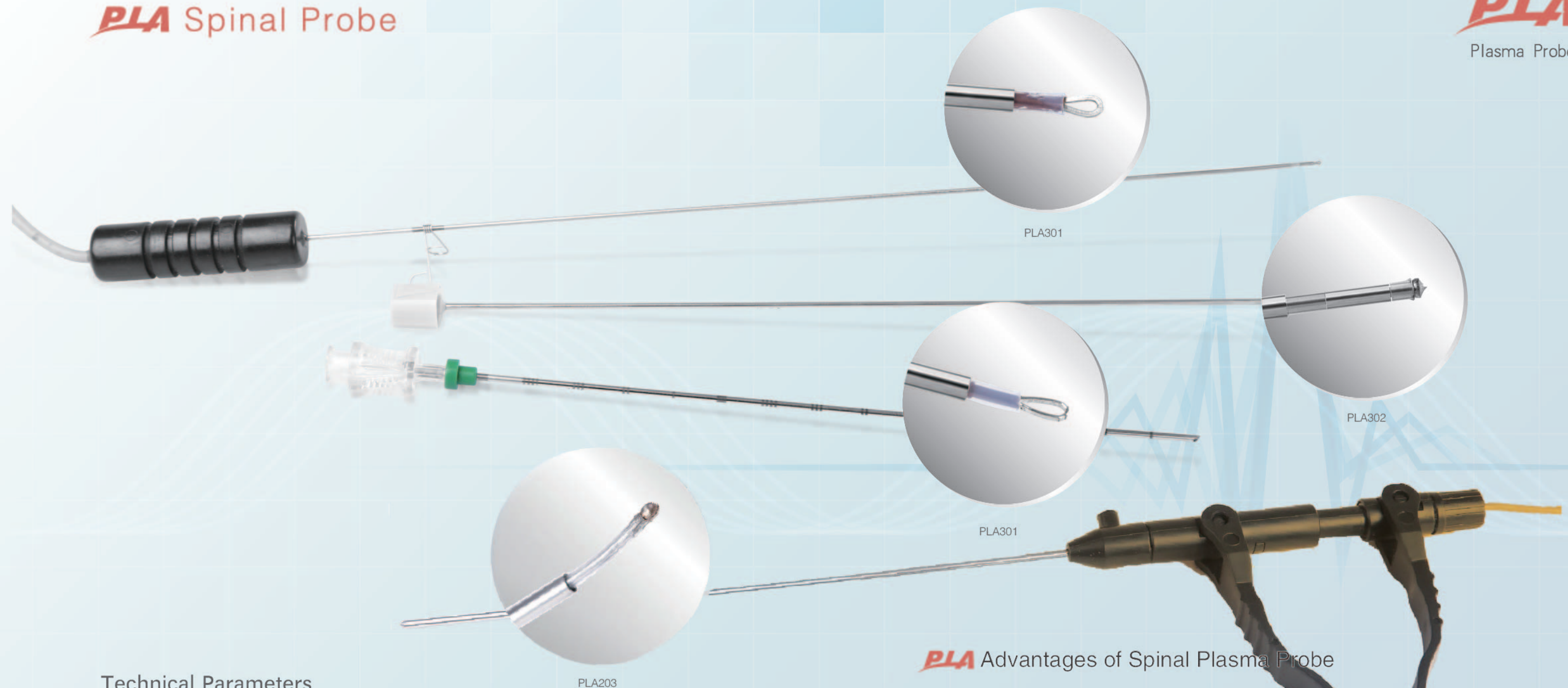
- Bipolar or multipolar cutting, low temperature melting, hemostatic, minimally invasive, safe and reliable.
- ABLATION (cutting, hemostatic, ABLATION) mode, PLACOAG (hemostatic, solidification).
- Multiple probes: according to different parts, and different lesions with different length, thickness, radian. energy.
- A probe can achieve functions of melting and solidification, hemostasis, and cutting.Avoid frequently switch probes and handles during the surgery.
- With multiplolar suction/cutting function,available for spinal surgery, six big joints surgery and minimally invasive surgery for small joints.
- The voice host size is adjustable: distinguish between ABLATION and PLACOAG voice, to avoid the wrong pedal.
- Impedance feedback and energy detection, and thermal damage depth monitoring system.
- Detect the probe automatically.
- Monitor plasma intensity dynamically.
- Set up default power automatically after connecting pedals and handles.
- Start by foot switch,and switch between ABLATION and PLACOAG mode.
- Remote service.

Clinical Use

With different orthopedics probes, Mechan plasma surgery system carries out cutting,ablation, coagulation, hemostasis and thermal shrinkage molding on human being tissue by low temperature plasma energy.

Technical Parameters

Input Voltage	198~242V 50Hz/100~120V 60Hz converted automatically for exporting
Working Frequency	100KHz ± 10%
Working Mode	ABLATION:1-10, PLACOAG:1-10
Output Power	ABLATION ≤ 350W PLACOAG ≤ 100W
Physical Dimension	Length 409* Width 460* Height 145 (mm)
Weight	7kg



Technical Parameters

Model No.	Probe Shape	Working length	Outer diameter	Guide pin diameter	Usage	Art.No.
PLA301	Flat	76mm	0.92mm	1.12mm	Cervical vertebra	GK301M18-1 GK301A27-1
PLA301	Annular	76mm	0.92mm	1.12mm	Cervical vertebra	GK301M18-2 GK301A27-2
PLA302	Cone	157mm	1.1mm	1.5mm	Lumbar vertebra	GK302M18-1 GK302A27-1
PLA203	Cone	375mm	2.0mm	3.6mm	Lumbar vertebra	GK203M18-1

PLA Advantages of Spinal Plasma Probe

- Coagulation in low temperature(50℃)
- Quick coagulation
- Multipoint ablation
- Obvious decompression
- Protecting fibrous ring
- Thorough hemostasis

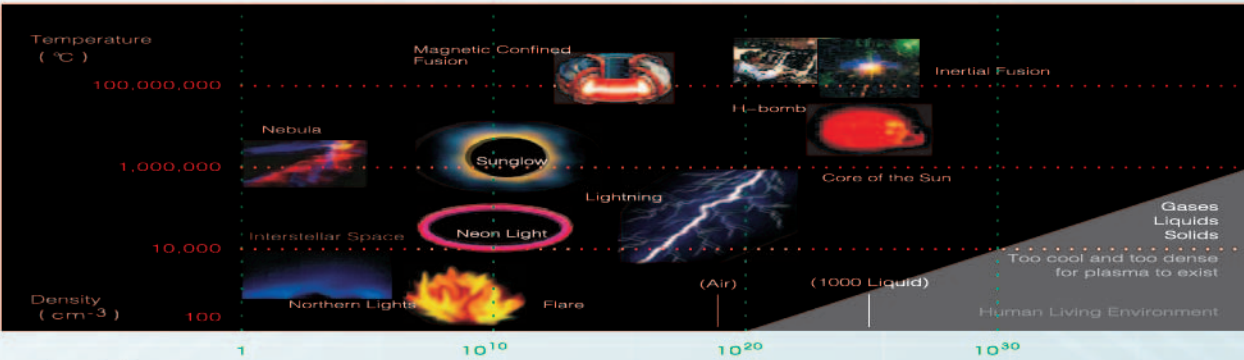
Turn the main treatment method from accelerating degeneration to restoring, applying for subcutaneous and endoscopic immunotherapy of cervical vertebra lumbar disc herination.

PLA Clinical Applications

Slipped disc minimally invasive treatment:indirect ablation decompression in internal disc,direct ablation decompression in external disc, direct ablation decompression in foramen intervertebrale endoscope, hemostasis in foramen intervertebrale endoscope, etc.

About Plasma

It's confirmed that there are 3 physical forms of material existence in human living environment. They are solids, liquids and gases. And any physical form can exist in different states due to the influence of environmental factors. Plasma is the fourth form of material existence. It's composed of ionized conductive gases, including six typical particles, which are electron, positive ion, negative ion, atom or molecule at excited state, atom or molecule at ground state, and photon. Plasma is composed of those positive and negative charged particles and neutral particles, and is a kind of quasi-neutrality gas with collective behavior. That is also called highly ionized gas. No matter whether it's partially ionized or completely ionized, it's called plasma when the total negative electric charge equals to the total positive electric charge.99% visible materials in universe may exist in plasma state, including fixed stars. Plasma can be natural or man-made. For example, the lightning during rainstorms is plasma phenomena, because the high voltage difference between cloud layer and ground makes the air ionized. And neon light and fluorescent lamp are from man-made plasma. The gases in light tube are ionized into plasma state.



Cutting Theory:

Plasma at high speed moving generates kinetic energy, which breaks molecular bonds (40–70°C).Thermal injury is controlled within 0.5mm.

Coagulation Theory:

High temperature plasma can result in protein denaturation and blood drying to coagulate. But there is heavy burning sensation and big trauma to normal tissue.In this case, it has limitation for clinical applications.Low temperature plasma can accelerate fibrinogen gathering, and transform fibrinogen to fibrous protein, to achieve coagulation and hemostasis. No carbonization and incrustation.

Ablation Theory:

Low temperature plasma can change DNA structure from helical structure to quasi-linear structure.Longer time on DNA, two DNA strands dissociation, but no change of the strand structure and hereditary characters.According to the survey, chemical activity particles cause two DNA strands dissociation, not because of energy, electric field, ultraviolet light, and charge particle.

Plasma Energy Density:

- Low energy density (<1J/cm²) can kill bacteria, but has no influence on normal cells.
- Medium energy density (2–6J/cm²) can let cancer cell release abundantly active growth factor, but has no influence on normal cells.
- High energy density (>7J/cm²) can result in normal cells and cancel cells inactivation.
- Super-high energy density (>10J/cm²) will result in cells thanatosis permanently.

THE LEADING PIONEER IN ADVANCED PLASMA PRODUCTS IN MEDICAL APPLICATIONS



Introduction of Mechan

Established in 2002, Mechan Medical (stock code: 833234) is a high-tech medical enterprise with the integration of R&D, manufacture, marketing and after-sale service. It is the pioneer of research, development and manufacturing plasma medical products in mainland China, and the constitutor of industrial standards for plasma surgery system. Products of Mechan at present cover Spine, Joint, Pain, Recovery, ENT, Urology, Ophthalmology, Anorectal, Gynecology, etc., which are exported to dozens of countries in Europe, Asia, America and Africa.

Mechan devotes to improving products quality, and to creating good economic benefits and social benefits for customers. As a high-tech enterprise, Mechan has obtained ISO Certification, CE Certification, Rohs Certification, EMC Inspection, CMD Audit, Korean KGMP System Audit, and Class III Medical Products Registration of State Food and Drug Administration. We Mechan stick to the belief *Best Quality, Best Sincerity*, and will provide customers with the best plasma surgery equipments.

PLA Series Products Inspection Items

Biocompatibility: cytotoxicity	EN ISO 10993-5:2009
Biocompatibility: sensitization, skin irritation test	EN ISO 10993-10:2009
Test of packaging materials: vacuum leaks, pigment infiltration, agar attack, seal stripping \ aging experiment	EN ISO 11607-1:2009
Safety regulations Third Edition	EN 60601-1:2006/AC:2012
Obtained the CE Certificate and ROHS Certificate, Passed the EMC detection	IEC 62321:2008 IEC 60601-1-2:2007
Special standard	EN 60601-2-2:2009