

# Armed Inc. – Your One Stop Spine Solution

## Discover Armed Inc. – Your One-Stop Spine Solution

#### **Comprehensive Product Portfolio**

At Armed Inc., headquartered in South Korea, we are dedicated to providing superior spine and orthopedic products that meet the highest standards of quality and innovation. Our CE and FDA certified solutions are trusted by healthcare professionals worldwide for their reliability and effectiveness.

## **Education and Training**

At Armed Inc., we understand the importance of continuous education and training for healthcare professionals. We have put significant effort into our educational programs, focusing primarily on Endoscopic Spine Surgery (ESS). Our exclusive opportunities, in partnership with world-class hospitals in South Korea, are led by pioneering leaders in the industry. These globally renowned surgeons provide hands-on training and advanced techniques in spine and orthopedic care

#### **Global Presence**

Armed Inc. has a strong global presence, with operations in 17 countries and subsidiary offices in:

- Den Haag, Netherlands
- Orlando, Florida, USA
- Tashkent, Uzbekistan

## Why Choose Armed Inc.?

#### Certified Quality:

Our products meet rigorous CE and FDA standards, ensuring the highest levels of safety and effectiveness.

#### Innovative Technology:

We are committed to continuous innovation, incorporating the latest advancements in medical technology into our products.

#### **Global Reach:**

Our extensive distribution network ensures that healthcare professionals around the world have access to our top-tier medical solutions.

#### **Expert Training:**

Our educational programs offer invaluable training from world-known surgeons in leading Sputh Korean hospitals, with a strong emphasis on ESS.

Armed Inc. is your trusted partner in delivering outstanding spine and orthopedic care. Our commitment to quality, innovation, and global service makes us the go-to choice for medical professionals seeking reliable and effective solutions. Explore our product range and discover how Armed Inc. can enhance your practice and improve patient outcomes.

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A. INSTRUMENTS

## Biportal ESS - UBE / BESS Instrument Set



#### **Scope & Sheath**



21.0008A 21.0003A

Article Code	Product Description	Qty
21.0003A	0°, 4.0 X 175mm HD, Wide Angle	1
21.0008A	30°, 4.0 X 175mm HD, Wide Angle	1
TST0001	Sheath	1

#### **Serial Dilator**



Article Code	Product Description	Qty
TSD0001-1	Target Serial Dilator 1	1
TSD0001-2	Target Serial Dilator 2	1
TSD0001-3	Target Serial Dilator 3	1
TSD0001-4	Target Serial Dilator 4	1

\*Target Serial Dilator Set: TSD0001

#### **Tools**



Article Code	Product Description	Qty
TFR0001	Freer	1
TDI0001	Muscle Dilator	1
TIK0001	Indian Knife	1
TML0001	Mallet	1

#### Retractor



#### Kerrison Rotating Rongeur Shaft

Straight Type
Curved Type

No. Model No.		Size
1	21-421	2.0 x 180
2	21-431	3.0 x 180

No. Model No.		Size	
1	21-466	2.0 x 180	
2	21-473	3.0 x 180	

#### Kerrison Rotating Rongeur Handle



No. Model No.		Size	
1	21-400	136.9 x 114.9	

Straight

7		
	Up	

mm

No.	Model No.	Size
* 1	20-4010	1.5 x 150.0 / UP
* 2	20-3010	1.5 x 150.0 / Straight
3	20-103	2.0 x 180.0 / UP
4	20-003	2.0 x 180.0 / Straight

#### Chisel



Article Code	Product Description	Qty
TCH0001	Straight Chisel 5mm	1
TCH0002	Hockey Chisel 5mm, Left	1
TCH0003	Hockey Chisel 5mm, Right	1
TCH0004	Pedicle Chisel 4mm	1

TCH0004

#### Curette



Article Code	Product Description	Qty
TCU0002	Straight Curette 3mm, Bishop	1
TCU0003	Straight Curette 5mm, Maximus	1
TCU0004	Straight Curette 6mm, Wang	1
TCU0005	Reverse Curette 3mm	1
TCU0006	Boomerang Curette 3mm	1

D. IMAGING SYSTEM

**A.INSTRUMENTS** 

## Monoportal ESS – PSLD / PELD

#### Kerrison 360° Rotating Rongeur



#### Endo Scope Kerrison 360° Rotating Rongeur

Shaft Type



	No.	Model No.	Size	Remarks
	1	21-449	1mm x 250mm	
	2	21-462	2mm x 250mm	
	3	21-463	3mm x 250mm	
	4	21-464	4mm x 250mm	
PSLD	5	21-465	5mm x 250mm	
	1	21-458	2mm x 310mm	
	2	21-459	3mm x 310mm	
	3	21-460	4mm x 310mm	
	4	21-461	5mm x 310mm	

#### Straight Type



No.	Model No.	Size	Remarks
1	21-411	1mm x 180mm	
2	21-421	2mm x 180mm	
3	21-424	2mm x 250mm	
4	21-426	2mm x 300mm	
5	21-431	3mm x 180mm	
6	21-434	3mm x 250mm	
7	21-436	3mm x 300mm	UBESS
8	21-441	4mm x 180mm	
9	21-444	4mm x 250mm	
10	21-446	4mm x 300mm	
11	21-451	5mm x 180mm	
12	21-454	5mm x 250mm	
13	21-456	5mm x 300mm	

#### Curved Type



Remarks	Size	Model No.	No.
	2mm x 180mm	21-466	1
	2mm x 250mm	21-469	2
	2mm x 300mm	21-471	3
	3mm x 180mm	21-473	4
	3mm x 250mm	21-476	5
LIDEOO	3mm x 300mm	21-478	6
UBE55	4mm x 180mm	21-480	7
	4mm x 250mm	21-483	8
	4mm x 300mm	21-485	9
	5mm x 180mm	21-487	10
	5mm x 250mm	21-490	11
	5mm x 300mm	21-492	12

#### Monoportal ESS – PSLD / PELD

#### **Endo Forceps**



#### **Grasping Forceps**

Grasping Forceps - Peanut Type, Pipe Body



No.	Model No.	Size	Remarks
1	50-103-3	1.7mm x 303mm	
2	50-103-4	1.7mm x 330mm	Single
3	50-103-5	1.7mm x 220mm	

#### Grasping Forceps - Peanut Type, Pipe Body



No.	Model No.	Size	Remarks
1	50-103-1	1.6mm x 220mm	Double

### Grasping Forceps - Peanut Type, Spring Body

		No.	Model No.	Size	Remarks
		1	50-107	1.2mm x 500mm	Double
		2	50-108	1.2mm x 570mm	Double
Teeth, S	pring Body				
eth, S	pring Body		MadalNa	Sizo	Bomorko
- Teeth, S	pring Body	<b>No.</b>	Model No. 50-105	<b>Size</b> 2.2mm x 420mm	Remarks Double

#### Probe & Knife (\* Optional)

			/	
	No.	Model No.	Size	Remarks
			3.0000 x 320000	43 / F3LI
ndo Ball Probe				
	No.	Model No.	Size	Remarks
	1	18-162	1.8mm x 350mm	PSLD
ndo Ball Probe (* Optional)	No.	Model No.	Size	Remarks
ndo Ball Probe (* Optional)	<u>No.</u> 1	Model No. 50-035	Size 1.65mm x 220mm	Remarks PCD
ndo Ball Probe (* Optional)	<u>No.</u> 1	Model No. 50-035	Size 1.65mm x 220mm	Remarks PCD
ndo Ball Probe (* Optional)	No. 1 No.	Model No. 50-035	Size 1.65mm x 220mm Size 2.75mm x 360mm	Remarks PCD PCD
ndo Ball Probe (* Optional)	No. 1 No. 1 2	Model No. 50-035	Size 1.65mm x 220mm 1.65mm x 220mm Size 2.75mm x 360mm 3.90mm x 280mm	Remarks PCD PCD PCD
ndo Ball Probe (* Optional)	No. 1 No. 1 2 3	Model No. 50-035	Size           1.65mm x 220mm           Size           2.75mm x 360mm           3.90mm x 280mm           3.90mm x 360mm	Remarks PCD PCD PSLD PSLD PSLD
ndo Ball Probe (* Optional)	No. 1 No. 1 2 3 No.	Model No. 50-035 Model No. 50-039 50-041 50-042	Size         1.65mm x 220mm         Size         2.75mm x 360mm         3.90mm x 280mm         3.90mm x 360mm	Remarks PCD Remarks PSLD PSLD PSLD PSLD

#### Monoportal ESS – PSLD / PELD

#### Punch



#### Endo Kerrison Punch





No.	Model No.	Size	Remarks
1	50-116	3.0mm x 320mm	$65^{\circ}$ / PELD
2	50-113-65	3.2mm x 320mm	$65^{\circ}$ / PELD

#### **Dissector, Sharp**

#### Dissector, Sharp

No.	Model No.	Size	Remar
1	48-004	2.5mm x 350mm	n PSLC
2	48-005	4.5mm x 350mm	n PSLC
		,	
No.	Model No.	Size	Remarks
<u>No.</u>	Model No. 09-271	• Size 4.0mm x 250mm	Remarks Up / PSLD
<b>No.</b> 1 2	Model No. 09-271 09-272	Size 4.0mm x 250mm 4.0mm x 250mm	Remarks Up / PSLD Down / PSLI
 <b>No.</b> 1 2 3	Model No. 09-271 09-272 09-273	Size 4.0mm x 250mm 4.0mm x 250mm 2.5mm x 250mm	Remarks Up / PSLD Down / PSLD Up / PSLD

D. IMAGING SYSTEM

**B. RF SYSTEM** 

## Framily<sup>™</sup> RF Generator



#### MODEL: FRG-100B



**Mode Selection** 

Channel Selection - Retain previous settings on power cycle Output Standby - Intuitive and user-friendly interface

#### Advantages

- Arthro / Spine / Integration Mode7.0 Inches Touch Screen
- Stable Output
- Min 1W, Max 400W output
- 100kHz Fundamental Frequency
- Up to 6 Electrodes can be connected
- Display Usage time
- Electrical Rating: AC 100V/8A, 220V/4A
- Rated Frequency: 50 / 60 Hz
- Easy System Setup and Operation
- Temperature Display feature Available after upcoming Software Update

B. RF SYSTEM

D. IMAGING SYSTEM

**B. RF SYSTEM** 

## ESStar™ RF Electrode (UBE)

#### **Framily ESStar I**



## **Plug Options** . ۲ 6 PIN 27 PIN 10 PIN

#### **Ordering Information**

#### \*F/S=Foot Switch, H=Hand Control

inages	Series (Nick Name)	Model	Control	Shaft(mm)	Suction	Socke
		E-FAA11-150	F/S	150	0	
		E-FAA01-150	F/S	150		6 Pin
Aux	AA	E-FAA01-280	F/S	280		
0.27	(Tom 90)	E-GAA14-150	Н	150	0	
		E-GAA04-150	Н	150		10 Pin
		E-GAA04-280	Н	280		
		E-FBA11-150	F/S	150	0	
		E-FBA01-150	F/S	150		6 Pin
	BA	E-FBA01-280	F/S	280		
	(Tom 45)	E-GBA14-150	Н	150	0	
3		E-GBA04-150	Н	150		10 Pin
		E-GBA04-280	Н	280		
		E-FBB11-150	F/S	150	0	0 Dia
	BB	E-FBB01-150	F/S	150		6 Pin
	(Tom 60)	E-GBB14-150	F/S	150	0	40 D'
ā.		E-GBB04-150	F/S	150		10 Pir
		E-FCA11-150	F/S	150	0	6 Pin
		E-FCA01-150	F/S	150		
	СА	E-FCA01-280	F/S	280		
	(Tom 0)	E-GCA14-150	н	150	0	
ester		E-GCA04-150	н	150		10 Pin
		E-GCA04-280	н	280		1
	DB	E-FDB01-110-23	F/S	110		6 Pin
	(Jerry)	E-GDB04-110-23	Н	110		10 Pin
-	BF	E-FBF01-145-30	F/S	145		6 Pin
7)	(Spikes)	E-GBF04-145-30	Н	145		10 Pin
	вн	E-FBH01-145-30	F/S	145		6 Pin
	(Hook)	E-GBH04-145-30	Н	145		10 Pin
		E-FBI01-110-23	F/S	110		0.0
	BI	E-FBI01-145-23	F/S	145		6 Pin
	(BJ Pen)	E-GBI04-110-23	Н	110		10 D'
		E-GBI04-145-23	н	145		10 Pin

**B. RF SYSTEM** 

## Costar<sup>™</sup> RF Electrode (PSLD / PELD)



#### **Costar**<sup>™</sup>

Image	Series	Model	Control	Shaft(mm)	Socket	
		HKC01-150-21	F/S	150		
		HKC01-240-21	F/S	240	Banana Plug	
	Castar	HKC01-320-21	F/S	320	-	
	Costar	HKC02-150-21	F/S	150		
		HKC02-240-21	F/S	240	6 Pin	
U		HKC02-320-21	F/S	320		

D. IMAGING SYSTEM



### HighSurg 30 Rotary spinal milling cutters and associated support sleeves

Illustration	REF	Description	Head-Ø	Support sleeve, inner -Ø	Working length	Support sleeve, outer-Ø	Parts/PU
	1918nou	Support sleeve, open	-	3.2 mm	185 mm	4.0 mm	1
<b>9</b>	1750nou	Diamond milling cutter, round	5.0 mm	_	185 mm	_	3
()=	1751nou	Carbide milling cutter, round	5.0 mm	_	185 mm	-	3
	1752nou	Carbide milling cutter, conica	l 5.0 mm	_	185 mm	-	3
	1753nou	Support sleeve, open	_	3.0 mm	230 mm	3.5 mm	1
()=	1762nou	Carbide milling cutter, round	3.0 mm	_	230 mm	-	3
0	1763nou	Diamond milling cutter, round	3.0 mm	_	230 mm	-	3
0	1764nou	Diamond milling cutter, round	3.7 mm	_	230 mm	-	3
() 	1765nou	Carbide milling cutter, round	3.5 mm	_	230 mm	-	3
	1748nou	Support sleeve, open	-	3.2 mm	230 mm	4.0 mm	1
2	1749nou	Support sleeve with distal protection	on –	3.2 mm	230 mm	4.0 mm	1
()=	1745nou	Carbide milling cutter, round	3.0 mm	_	230 mm	-	3
<b>0</b>	1746nou	Diamond milling cutter, round	3.0 mm	_	230 mm	-	3
9	1766nou	Carbide milling cutter, round	3.5 mm	_	230 mm	-	3
0	1747nou	Diamond milling cutter, round	3.7 mm	_	230 mm	_	3
	1916nou	Support sleeve, open	-	3.0 mm	315 mm	3.5 mm	1
() ()	1755nou	Carbide milling cutter, round	3.0 mm	_	315 mm	-	3
<b>0</b>	1756nou	Diamond milling cutter, round	3.0 mm	_	315 mm	_	3
()=	1759nou	Carbide milling cutter, round	3.5 mm	_	315 mm	-	3
0	1757nou	Diamond milling cutter, round	3.7 mm	-	315 mm	-	3
	1914nou	Support sleeve, open	-	3.2 mm	315 mm	4.0 mm	1
J	1915nou	Support sleeve with distal protection	on –	3.2 mm	315 mm	4.0 mm	1
0	1737nou	Support sleeve with beveled protect	ion –	3.2 mm	315 mm	4.0 mm	1
()	1911nou	Carbide milling cutter, round	3.0 mm	-	315 mm	-	3
<b>0</b>	1912nou	Diamond milling cutter, round	3.0 mm	-	315 mm	-	3
() — — — — — — — — — — — — — — — — — — —	1738nou	Carbide milling cutter, round	3.5 mm	-	315 mm	_	3
0	1913nou	Diamond milling cutter, round	3.7 mm	-	315 mm	_	3
()=	1784nou	Carbide milling cutter, round	4.0 mm	_	315 mm	_	3

D. IMAGING SYSTEM

## ELICA III 3in1 Full HD Imaging System



#### **Camera Head**

Image Sensor	1/3 " CMOS, Progressive scanning
Sensor Pixels	1920*1080 pixels
Camera Head Button	2 Programmable buttons
Lens Adaptor	Standard C-Mount
Camera Cable	3m
Weight	280g
Dimension [W*D*H]	41.6 * 41.4 * 88.5mm

#### Light Source

		_
Lamp type	LED	Power consu
Lamp life time	Over 50,000 hours	Operating hu
Color temperature	5,000K	Extend of del
Light outlets	Compatible with wolf type	_

#### Main unit

Order-No.	670-51500
Dimensions(w*d*h)	380*440*140mm
Weight	11.0Kg
User interface	7" LCD touch screen
Power supply	100~240 VAC, 50/60 Hz
	Medical safety standards :
Safety	EN60601-1, Class I, Type BF
	Medical EMC standards :
	EN60601-1-2
Operating temperature	+10°C ~ +40°C
Power consumption	2.0A – 1.0A
Operating humidity	30% ~ 75%
Extend of delivery	Power cord
	Instruction for use

## KYBS<sup>™</sup> Kypho Balloon system

The Balloon recovers vertebral morphology intact and makes a cavity to infect fluid from the pressurizer to cement after insertion into damaged vertebral body.

- Vertebral compression fracture due to osteoporosis
- Osteolytic fracture
- Metastatic bone fractures





Armed					
No	Components		Single	Double	
1	K	Y Balloon	1ea	2ea	
2	Bal	Balloon Dilator		2ea	
3 Osteo Toolkit Set		Start Needle	1ea	2ea	
		Guide Wir	1ea	2ea	
	Osteo Toolkit Set	Cannula & Expander	1ea	2 ea	
		Spacer	1ea	1ea	
		Bone Cement Filler & Pusher	3 ea	6 ea	

#### Surgical technique



#### 01

Spinal Fracture, also known as Vertebral Compression Fracture(VCF)



Through two small incisions, the doctor creates narrow pathway into the fractured bone and inserts two Kypho balloons



The balloons are carefully inflated in an attempt to raise the collapsed vertebra and return it to its normal position. The balloons are deflated and removed, leaving a cavity within the bone



#### 04

The cavity is filled with a bone cement to support the surrounding bone and prevent further collapse



#### 05

The cement forms an internal cast that holds the vertebral place

## **KY Osteo Tool Kit**



## **OTN system™**



#### Kyphoplastyballoon system

- > Through the pedicle of damaged vertebral body, enter GuideWire, Expander & Cannula using manual control.
- ▶ Inject the proper quantity of bone cement into the operating region with Cannula

#### **Features and benefits**

- Possible to safely inject high density bone cement with required amounts.
- Easy to make a hole by enclosed 'Spacer', and possible to insert the 'Cement Pipe' without pain.
- By infusing high density bone cement, it can be adopted to the fracture body.
- Almost no complication.

#### **KY Osteo Tool Kit**

Armed						
Component	Q'ty	Dimension	Component	Q'ty	Dimension	
Start Needwle	1ea	2.6	Spacer	1ea	3.5	
Expander &Cannula	1set	4.3	Bone Cement Filler & Pusher	3set	3.5	
Guide Wire	1ea	1.8				

	OTN sy	/stem8	OTN system10	
Component	Q'ty	Dimension	Q'ty	Dimension
Cannula Pin	1ea	4.3	1ea	3.5
Spacer	1ea	3.5	1ea	2.8
Bone Cement Filler & Pusher	3set	3.5	3set	2.8

#### **Surgical technique**



Approach to entry point of facet joint



Remove the Guide Pin and push the Spacer through the Introducer Needle to make the space for injecting the bone cement.



Approach to entry point of facet joint



Infuse the bone cement into the body by Pusher



Fill up the bone cement into the Bone Cement Pipe

## **VPN<sup>™</sup> Vertebraplasty**



#### Indication

- Vertebral compression fracture
- Osteoporosis
- Spine deformity
- Metastic bone tumor

#### **Features and benefit**

- With Thread Filler, slowly touch in the vertebral place with pain reduced
- Pain relief
- Reinforcement
- Stabilize the spine rigidity
- Decompress the spinal cord and nerves

		Armed			
Model 100	G 11G	11G-103	12G	12G-103	13G
Diameter 3.5	ō 3	3	2.6	2.6	2.4
Туре					

#### **VPN<sup>™</sup> Vertebraplasty**

#### Injector

The tool is for infusing bone cement, by connecting with syringe filled with bone cement.

Image of combination as Cement Dispenser(VP Needle™) + syringe with bone cement + Injector™



#### Surgical technique



## 01

Advance the Guide pin and Filler through the pedicle into the vertebral body.



## 02

Remove the Guide Pin leaving the Filler in the place.



## 03

Inject bone cement through the Filler.

## **Spinofil Bone Cement**



**Specifications** 

In-house laboratory test results, ISO 5833



## Osteon<sup>™</sup> III Synthetic Bone Graft

#### **Application**

- · Bone filling
- · Fractures with bone defects
- · Pseudoarthrosis with or without bone defects
- · Tibial osteotomy
- $\cdot$  In certain cases of arthroplasty revision

#### **Compositiont**

OSTEON<sup>™</sup> III is a biphasic calcium phosphate composed of 60% HA(Hydroxyapatite) and 40% β-TCP(Beta-Tricalcium Phosphate)

#### ORTHOPEDIC OSTEON<sup>™</sup> III = HA 60% + β-TCP 40%

#### **Microstructure**





x50

Animal Test Beagle mandible

Histologic result of OSTEON III



8 weeks



OSTEON III

0.5-1

Volut

16 weeks

#### **Products**

REF	Particle size(mm)	Volume(cc)	REF	Particle size(mm)	Volume(cc)	REF	Particle size(mm)	Volume(cc)
O3G203005		5.0	O3G305005		5.0	O3G507005		5.0
O3G203010	2.0	10	O3G305010	3.5	10	O3G507010	- 5.0 -	10
O3G203015	- ~ -	15	O3G305015	- ~ -	15	O3G507015	- ~ -	15
O3G203020	- 3.0 -	20	O3G305020	- 5.0 -	20	O3G507020	- 7.0 -	20
								29



ORTHOPEDIC OSTEON"

Osteoconductive, Biphasi (HA 60% +β-TCP 40%)

## Bio Paste II<sup>™</sup> DBM

#### TheInnovative Technology for Bone Formation

ARMED Inc. is dedicated to developing bio-material for effective bone formation based on high-level of technology and extent knowledge of Armed R&D Center.As the best outcome of huge R&D investment, BIO-PASTE II is a great mixture of human originated DBM [Demineralized Bone Matrix] and carrie





OS Code	Volume
RDA03	1.0cc
RDA04	3.0cc

#### Feature

- DBM in syringe reducing bone loss & easy-to-use
- Moldability filling various type of bone defects
- Carrier high visco-elasticity

#### **High content of DBM**

Name	Raw Material	Ratio(weight)	Standard	
	Demineralized BoneMatrix (DBM)	50%	GTP	
BIO-PASTE II	Carrier	50%	USP	
Effective BoneFo	rmation		DBM	
DBM is well known with i	tsremarkable osteoinductive			
ability for effective bone	e regeneration. Mixed with carrier,			
the DBM powder becom	nes transformable form to fill			
out the site of boneloss	or damage [osteoconductivity].			
Carrier is used asbiocor	npatible carrier to delay DBM	Osteoinductivity		Osteoconductivi
absorption.The combina	ation of osteoinductivity and			
osteoconductivity make	s BIO-PASTE II as the best			
material for effective bo	ne formation.			
			Effective Bone	
			Formation	





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