

MINUTES OF PRE BID MEETING

Tender for Supply, Delivery, Installation & Commissioning of Laboratory Equipment for Department of Animal Science, Faculty of Animal Science and Export Agriculture

Tender No : UWU/G/NCB/18/02

Date & Time : 30th May 2018 & 11.30 a.m.

Venue : Boardroom

The Following decisions were made at the Pre Bid Meeting

At the Pre Bids Meeting following clarification were made against the bidders' questions.


- a. Changes in specifications – Specifications of following items were changed at the Pre Bid Meeting(Refer annexure for new specification)



Item No	Description	Reference Annexure
03	Patty Maker Attachment for Meat Grinder	Annexure 01
08	Refrigerated centrifuge machine	
14	Analytical Balance	

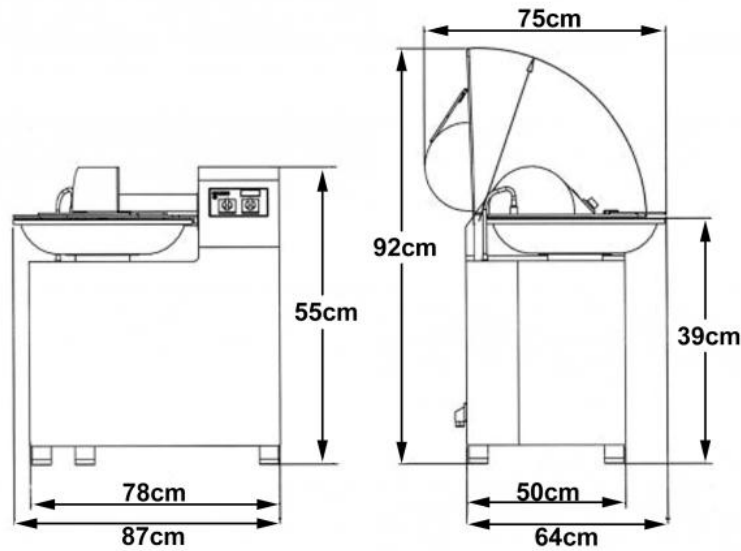
Chairman
Procurement Committee,
Uva Wellassa University

Technical Specifications

Supply, Delivery, Installation & Commissioning of Laboratory Equipment for Department of Animal Science, Faculty of Animal Science and Export Agriculture - UWU/G/NCB/18/02

No	Item	Specifications	Bidders' Response
1	Stainless Steel Digital Smoker	<p>The interior and exterior of the smoker should be made with food grade stainless steel</p> <p>Capacity: 30 lbs</p> <p>Temperature range 100° – 250° F</p> <p>The smoker should include following:</p> <ul style="list-style-type: none"> · 4 wire mesh shelves (food grade stainless steel) with approximately 1/4" square holes · 4 wire mesh shelves (food grade stainless steel) with approximately 3/4" square holes · 3 wood dowels to hang sausage · Stainless steel sawdust pan · Removable shelving brackets · Digital control and internal temperature sensor built-in for precision and ease-of-use · Drip collecting base directs drippings underneath smoker · Raised heating element for cleaning clearance underneath the burner · Smoke diffuser lowered to maximize meat capacity and is ventilated to disperse smoke more evenly · Large rear casters and push/pull handle that allows easy mobility · Opening for steam generating <p>The smoker should accommodate up to 12 shelves</p> <p>Spacing between shelves: 1 3/4" minimum spacing</p> <p>Outside dimensions: 17-19"D x 19-21"W x 48-50"H</p> <p>Inside dimensions: 15-17"D x 16-18"W x 24-26"H (minimum) 34-36"H (maximum)</p> <p>1,000 Watt, 220-240 Volt heating element</p> <p>Manufacturer product catalogs with requested information (highlighted) should be supplied</p> <p>After Sale Services should be provided by the technicians/engineers of the supplier</p> <p>Warranty: 2 years</p>	
2	Digital Deep Fryer	<p>1800-watt immersion style heating element which can be detached easily from the main unit.</p> <p>Adjustable thermostat with signal light that indicates when oil is ready for frying</p> <p>3 Oblong shaped mesh baskets with cool-touch handles (One large and two small mesh baskets)</p> <p>Should be able to use two small baskets at a time or one big basket at a time.</p> <p>Stainless steel, dual basket type deep fryer</p> <p>Capacity: 4.5 L oil capacity</p> <p>30 minute digital timer</p> <p>Removable enamel-coated oil container</p> <p>Power and ready LED indicator lights</p> <p>3-5 pound food capacity</p> <p>Warranty: 2 years</p> <p>After Sale Services should be provided by the technicians/engineers of the supplier</p>	

3	Patty Maker Attachment for Meat Grinder	<p>It should be a universal patty making attachment.</p> <p>It should include 5 attachment funnels that fits most #5, #8, #10/12, #20/22 and #32 meat grinders, attaches to some sausage stuffing machines as well.</p> <ul style="list-style-type: none"> · 2 1/8 " adapter for #5 grinders · 2 1/2" adapter for #8 grinders · 2 3/4" adapter for #10/12 grinders · 3 1/4" adapter for #22 grinders · 3 7/8" adapter for #32 grinders <p>It should make up to 20 patties per minute</p> <p>Approx. weight of patties: 1/3 lb or 5 oz. each</p> <p>Patty size: 4- 4 1/2" diameter x 3/4" thick</p>		
		<p>It is recommended to quote an item compatible with the stainless steel meat grinder listed in this tender.</p>		
		<p>After Sale Services should be provided by the technicians/engineers of the supplier</p>		
		<p>Warranty: 2 years</p>		
4	Heavy duty stainless steel brine injectors/Seasoning Injectors	<p>The injectors and needles should be made out of food grade stainless steel.</p> <p>Needles should have threads and screws with durable silicone washers for easy assembling to Barrel</p> <p>Should have 4 extra silicone O-rings (3 small silicone O-rings for needles and 1 large silicone O-ring for barrel)</p> <p>Barrel capacity should be 2-3</p> <p>Barrel length should be 6-7"</p> <p>Barrel should have a easily disassembled cap</p> <p>Zinc alloy barrel top with rust-proof and erosion resistant features</p> <p>1 for chunky marinades (length of the needle: 5.5-6.0")</p> <p>1 for bursting liquid marinades (length of the needle: 5.5-6.0")</p> <p>Quick and easy disassembling feature</p> <p>Should have 3 marinade needles with different lengths and diameters</p> <p>1 for precision marinade (length of the needle: 4.2-4.5")</p> <p>The needles should be ultra-sharp to puncture any meat with ease.</p> <p>A storage pouch and 2 pieces of cleaning brushes</p> <p>Warranty: 2 years</p> <p>After Sale Services should be provided by the technicians/engineers of the supplier</p>		
5	Bowl cutter	<p>The bowl cutter should be constructed entirely of stainless steel with a strong and rigid cutting bowl.</p> <p>It should come with 2-speed motor capable of cutting at 1420 and 2840 rpm which is thermally protected.</p> <p>The bowl cutter should have a removable six-knife head and 6 stainless steel knives/blades.</p> <p>It should contain the tool to fix and detach knives/blades.</p> <p>It should include a digital mixture thermometer</p> <p>Bowl and cutting head are all covered by a folding plastic anti-noise cover fitted with a safety switch.</p>		




- Sealed base.
- Power 3ph 2.1/2.7 HP (1.6/2.0kW)
- Bowl volume: 15 L
- Meat bowl/mix Capacity: +/- 3-12 kg
- Knife Speed: 1420/2840rpm
- External Dimensions (W x D x H): 87 x 64 x 55 cm as given in the below diagram
- Max. Weight range 160-175 kg
- Manufacturer product catalogs with requested information (highlighted) should be supplied.
- After Sale Services should be provided by the technicians/engineers of the supplier
- Warranty: 2 years

6 Stainless Steel Meat Grinder and Sausage Stuffer

- Meat Grinder and Sausage Stuffer should be constructed with food grade stainless steel and contain following;
- Stainless steel cutting knife/blade
- Two stainless steel grinding plates: coarse (7mm (3/10")) and medium (4.5mm (1/5"))
- Three stuffing funnels with flange 20mm (4/5"), 30mm (1 1/5")& 40mm (1 3/5")
- Stainless steel stuffing funnel 10mm (2/5")
- Cyclone high speed stuffing auger
- Stuffing star converts grinder into a sausage stuffer
- All metal gear construction for optimum grinding performance
- Powerful air-cooled motor, permanently lubricated (1100-1200 watt, 1.5 Horse Power, 120 volts-60Hz)
- Equipped with a circuit breaker for safe use
- Extra-large stainless steel hopper(15" width x 10" length x 2.5" height) equipped with safety guard
- On/off switch with reverse functions
- Sturdy handle for portability
- Non-slip rubber feet keeps machine stable while in use
- Capacity : should be able to grind up to 9 – 12 lbs of meat per minute
- The grinder should be able to disassemble easily for clean-up
- After Sale Services should be provided by the technicians/engineers of the supplier
- Warranty: 2 years

7	Stainless Steel Meat Mixer	Mixer should have following features;	
		Constructed of polished stainless steel structure, tank exterior and paddle	
		Direct hand operation by crank	
		Removable stainless steel paddle for quick and easy discharge and cleaning	
		Transparent/clear food grade plastic lid	
		Rubber feet for stability	
		Tank capacity: 20-25 Lbs	
		Overall dimensions: 12-13"H x 9-10"W x 11-13"L	
		Tank dimensions: 11-12"H x 9-10"W x 11-13"L	
		After Sale Services should be provided by the technicians/engineers of the supplier	
Warranty: 2 years			
8	Refrigerated centrifuge machine	The controlled system of refrigerated centrifuge should be a Microprocessor with digital display.	
		Drive System should be direct, brushless induction low profile motor	
		The Centrifuge should have a feature to install and remove rotor without tool in less than 5 seconds with just a push of a button for quick and easy change of rotors for different applications.	
		It should have an auto-lock rotor locking system.	
		Temperature range should be from -10°C to +40°C with CFC free refrigeration system	
		The centrifuge must have a minimum of 6 direct access program keys.	
		It should have a timer of at least 9-10 hr and continuous operation	
		Acceleration/Deceleration rates shall be 9/10	
		Speed Accuracy should be 100 rpm or 100 x g	
		There should be a Pre-cooling function with direct button	
		Time Setting should be available with countdown from start	
		Highly visible, backlit display should be available for clear reading of parameters	
		Centrifugation chamber should be stainless steel	
		Speed Setting must be through Scrolling arrow keys	
		Centrifuge should have advanced imbalance technology that pts for specific rotors	
		Sound level should be less than 63 dB with swinging bucket rotor at top speed	
		Instrument should be easily toggle between RCF and RPM	
		It should have a glove- and detergent-friendly panel and a power save feature that turns off display when not in use	
		The centrifuge must be UL listed, CSA certified, CE marked, IVD compliant, Certified Biosafety, RoHS compliant, WEEE compliant	
		<u>Details of Rotor and other accessories</u>	
		· Swing out bucket rotor	
		· Rotor capacity should be 4 x 750 ml	
		· Rotor speed: 4700-4800 rpm (max. speed)	
		· Four (04) round buckets	
		· Four (04) click sealing type biocontainment lids for round buckets.	
		· Four (04) replacement O-rings for lids	
		· Four (04) adapters to accommodate 28-32 Nos. of 50-ml conical tubes (7-8 tubes/adapters)	
		· Four (04) adapters to accommodate 56-60 Nos. of 15-ml conical tubes (14-15 tubes/adapters)	
		Manufacturer product catalogs with requested information (highlighted) should be supplied	
		Manufacturer authorization for the bidder to represent the given brand	
User reference list should be attached			
Bidder should have good aftersales facility with trained technicians/engineers and parts available locally to carry out any service/repair immediately			
Warranty: 2 years			

9	Distilled water unit	Distilled water unit should have following features;	
		· It should supply at least 4 L/ hour	
		· Automatic operation	
		· Heating element should be made of stainless steel	
		· Good distillate quality with conductivity of approx. 2.3 $\mu\text{s} / \text{cm}$ at 25 °C	
		· Built-in distillate storage tank with a minimum capacity of 8 L	
		· Storage tank for distillate accepts double the hourly capacity of the unit.	
		Material: stainless steel	
		· Condenser (cooling coil) in the storage tank should be made of stainless steel and easily exchangeable	
		· An electronic level switch to switch the still off when the storage tank is full and restarts it automatically when distillate is withdrawn	
		· Impurity detector switches to off the unit in case of high degree impurities in the evaporator	
		· Distillate withdrawal through the drain cock on the front of the unit	
		· The drain cock should be able to open in either continuous or touch position	
		· Main switch and pilot lamps should be on the front of the unit	
		· Degassing of carbon dioxide through vent in the top	
		· Double-walled made of electrolytically galvanized sheet steel, electrostatically powder-coated with epoxy resin	
· Cooling Water consumption shall be not higher than 50 L/h			
· Power consumption shall be not higher than 3 KW			
· System shall be able to work on single phase power supply			
Manufacturer product catalogs with requested information (highlighted) should be supplied			
After Sale Services should be provided by the technicians/engineers of the supplier			
Warranty: 2 years			
10	Meat mincer+ stuffer (Home scale)	The home scale mincer should have following features;	
		· Performance: 2.5-3.0 kg/ min mincing	
		· 2 stainless steel screens/discs: medium (5 mm) and coarse (8 mm)	
		· Metal tray with a dust cover	
		· Knife should be impossible to assemble incorrectly on the feeding screw	
		· 2 sausage horns (12 mm diameter and 22 mm diameter)	
		· Accessory storage tray	
		· Kebber maker	
		· Cookie making accessory	
		· Two-sided cleaning tool	
		· Voltage : 220-240 V	
		· Frequency: 50 Hz	
		· Speed: 1+ Reverse	
		· Blocked power 2000 W & Nominal power 600 W	
After Sale Services should be provided by the technicians of the supplier			
Warranty: 2 years			
11	Air fryer	Air fryer should have ability to fry, grill, roast and bake.	
		· Power: 1400 W	
		· Voltage: 220-240 V	
		· Automatic shut-off	
		· Cool wall exterior	
		· Temperature control & Time control	
		· Ready signal	
		· Recipe book & App	
		· Non-slip feet	
		· Cooking basket should have a mesh bottom with non-stick coating which easily detaches for quick cleaning	
		After Sale Services should be provided by the engineers of the supplier	
Warranty: 1-2 years			

12	Microwave oven	Charcoal Convection type microwave oven should have following features;	
		· Capacity: 30-32 L	
		· Stainless steel cavity	
		· Control type: glass touch	
		· 5 microwave power levels	
		· Microwave frequency (MHz): 2450	
		· Watts Microwave (output): 900	
		· Watts Grill (input): 1250	
		· Watts Convection (input): 2400	
		· Watts Combination (input): 2400	
		· Variety of cooking features including followings;	
		- Fermentation	
		- Keep warm option	
		- Steam clean option	
		- Custom cook option	
		- Quick menu option	
		- Two stage cooking option	
		- Quick start option	
		- Combination cooking option	
		- Fast cook option	
- Quick defrost option			
- Auto cook options			
- Auto defrost options			
After Sale Services should be provided by the engineers of the supplier			
Warranty: 1-2 years			
13	Meat cutting knives set	12 piece knife set with a storage briefcase.	
		· 9" round sharpening steel	
		· 7" cleaver	
		· 6" meat fork	
		· 6" straight boning knife	
		· 3 1/2" paring knife	
		· 5" paring knife	
		· 8 1/2" serrated slicer knife	
		· 9 1/2" cook knife	
		· 7 1/2" carving slicer	
		· 9 1/2" carving slicer	
		· 3" scissors	
		· 5" utility kitchen shears.	
		All knives should have durable stainless steel blades	
All knives should have riveted handles			
Warranty: 2 years			
14	Analytical Balance	Capacity – 220g; Readability [d] – 0.1mg	
		Repeatability – 0.1mg	
		Stabilization time – 3.0 sec	
		Pan size 80 mm diameter approximately	
		Calibration – Internal & External	
		Measuring system : Tuning – fork frequency system or equivalent	
		Tare – Full weighing range	
		Display – Back- lit LCD display; AC powered; Optional Dry cell battery pack; One year warranty	

15	Moisture Analyzer	Application- Measurement of Moisture by evaporation loss Range of Products- Grain, Processed Food, Copra, Animal feed ingredients, Formulated feed pellets etc.	
		Measurement range 0 to 100% (Wet base solids) 0-500% (dry base)	
		Operating modes- Both timed and auto	
		Sample weight 1g to 100 g; Temperature range 30 ⁰ C to 200 ⁰ C	
		Power consumption 750-1000W	
		Sample Pan- Stainless steel , diameter 110 mm or higher Display	
		Visual alarm for Drying ;Power 220V 50-60 Hz	
		Warranty – Minimum 2 Years	
		Spare parts availability- 10 Years	
		Reblity balance: 0.005 g, Measurement mode: Automatic operation mode, Timed operation mode	
		Items included: Sample pan×2, sample pan handler, windshield, sample panbase, spoon and spatula set, sample aluminum sheet×10, operation manual	
16	Grain Grinder	Grain Mill with stand mixer attachment	
		Six grind levels	
		Grind worm	
		Bench top	
		Adjustment knob-Large knob adjusts the fineness of the grind with confirming clicks for positive precision settings	
		Enduring Design-Die-cast metal construction, Grain mill body	
		Easy to clean	
		Designed to mill all type of grains such as wheat, corn, rye oats, rice, buckwheat, barley and millet	
		Capacity: maximum 1 kg	
One year warranty			
17	GPS	Should be able to track satellite signal even under thin forest canopy, Pixel dimension: Approximately 160 x 240 pixels, Physical dimension: Approximately 6.1 x 16.0 x 3.6 cm or equivalent, Display size: Approximately 3.6 x 5.5 cm or equivalent, High-sensitivity, Color screen : should be able to read the screen even in high sunlight condition, should be able to share data wirelessly, light weight (Approximately > 250 g) and with a built-in worldwide map, 2 AA batteries or rechargeable batteries, should be able to store 4000 or above waypoints/locations	
		At least six months warranty period	
		Accessories: Casing, Download Cable, Software (for data downloading)	
18	Binocular Microscope	Availability of an ergonomically designed Binocular tube with 360 degrees rotatable facility.	
		Locking pin should available for the safety binocular head.	
		Inter pupillary distance of the binocular heads should be adjustable between 48-75mm.	
		The Eye pieces should be fixed by a screw in the binocular tube to prevent damages or loss when moving the microscope.	
		The binocular Eye-pieces should have facility to adjust the Eye-point height adjustment for many student's comfort usage.	
		Eye piece with 10X magnification, field of view 20mm with front soft rubber cup with dioptry adjustment facility.	
		The microscope should be offered with Plan-Achromat Objectives and which should be suitable for bright field observation	

		Quadruple inward facing revolving nose piece with availability of plan 4X , 10X , 40X, 100X oil immersion objectives.	
		All the optics should be Anti-Fungal coated and should be proved by the Original literature. (Should mention both Eye pieces and Objectives)	
		Should be provided with the Abbe type condenser with height adjustment facility.	
		Availability of right hand side Stage clip with the Wire driven mechanism.	
		The illumination should be low power consumed LED illumination system.	
		Coarse focusing movement range should be 15mm and High sensitivity fine focusing knob	
		Minimum grtion per stroke should be 2.5 µm in the Fine focusing knob	
		There should be focus lock to prevent objectives and specimen from any damage	
		Stage movement range should be within 76mm (x - direction) and 30mm (y - direction)	
		Torque adjustment knob should be incorporated to adjust the tension of the coarse focusing knobs.	
		Supplier should provide Manufacturer's Authorization letter for sale from the same manufacturer to prove the Sole Authorized distribution in Sri Lanka.	
		The unit price for all spare parts and accessories shall be quoted separately.	
		At least eight year guarantee letter from the manufacturer on the availability of spare parts shall be supplied.	
		At least 10 years of experience in providing and handling microscopes in similar capacity; documentary evidences should be provided.	
		Letter of Manufacture Authorization	
		Warranty period two years	
		Prefer Olympus or equivalent.	
19	Micro pipette (2µl-20 µl)	Accuracy for volume 2ul± 0.5 and 20ul ± 1.0	
		Digital Volume setting , UV resistant Micro pipette	
		Fully autoclavable at 121 ⁰ C for 20 minutes	
		Plunger materials should be non-corrosive ceramic.	
		Ejector must be without metal parts to prevent corrosion and damaging to the glasses. chemical resistant, corrosion proof and abrasive	
		Easy single hand lock lever, which give the lock mechanism.	
		Pipette should be non-greasing type pipette	
		High accuracy ±0.7-±0.8	
		High Precision	
		Please indicate major consuming spare parts prices	
		Please mention the after sales facilities / Calibration services available	
		Compatible for universal tip sizes	
		Spare parts should be available for Next 10 Years	
		All the specifications required should be mentioned on the Original literatures.	
		Minimum warranty period – 3 years	
		Please attach the list of user references	
		Nichipet or equivalent	

20	Micro pipette (20µl-200 µl)	Volume(20 µl – Accuracy ±1.0,100 µl – Accuracy ±0.8,200 µl – Accuracy ±0.8)	
		Digital Volume setting , UV resistant Micro pipette	
		Fully autoclavable at 121°C for 20 minutes	
		Plunger materials should be non-corrosive ceramic.	
		Ejector must be without metal parts to prevent corrosion and damaging to the glasses. chemical resistant, corrosion proof and abrasive	
		Easy single hand lock lever, which give the lock mechanism.	
		Pipette should be non-greasing type pipette	
		High accuracy ±0.7-±0.8 & High Precision	
		Please indicate major consuming spare parts prices	
		Please mention the after sales facilities / Calibration services available	
		Compatible for universal tip sizes	
		Spare parts should be available for Next 10 Years	
		All the specifications required should be mentioned on the Original literatures.	
		Minimum warranty period – 3 years	
Please attach the list of user references			
Nichipet or equivalent			
21	Micro pipette (100µl-1000 µl)	Volume(100 µl – Accuracy ±1.0, 500 µl- Accuracy ±8.0, 1000 µl Accuracy ±0.7,)	
		Digital Volume setting , UV resistant Micro pipette	
		Fully autoclavable at 121°C for 20 minutes	
		Plunger materials should be non-corrosive ceramic.	
		Ejector must be without metal parts to prevent corrosion and damaging to the glasses. chemical resistant, corrosion proof and abrasive	
		Easy single hand lock lever, which give the lock mechanism.	
		Pipette should be non-greasing type pipette	
		High accuracy ±0.7-±0.8 & High Precision	
		Please indicate major consuming spare parts prices	
		Please mention the after sales facilities / Calibration services available	
		Compatible for universal tip sizes	
		Spare parts should be available for Next 10 Years	
		All the specifications required should be mentioned on the Original literatures.	
		Minimum warranty period – 3 years	
Please attach the list of user references			
Nichipet or equivalent			
22	Micro pipette (1000µl-5000 µl)	Volume(1000 µl – Accuracy ±1.0,2500 µl –Accuracy ±0.8,5000 µl–Accuracy ±0.6)	
		Digital Volume setting , UV resistant Micro pipette	
		Fully autoclavable at 121°C for 20 minutes	
		Plunger materials should be non-corrosive ceramic.	
		Ejector must be without metal parts to prevent corrosion and damaging to the glasses. chemical resistant, corrosion proof and abrasive	
		Easy single hand lock lever, which give the lock mechanism.	
		Pipette should be non-greasing type pipette	
		High accuracy & High Precision	
		Please indicate major consuming spare parts prices	
		Please mention the after sales facilities / Calibration services available	
		Compatible for universal tip sizes	
		Spare parts should be available for Next 10 Years	
		All the specifications required should be mentioned on the Original literatures.	
		Minimum warranty period – 3 years	
Please attach the list of user references			
Nichipet or equivalent			

23	Vortex mixer	Digital vortex mixer, with adjustable stirring speed	
		- Two operating modes- IR sensor and continuous	
		- IR (Infra-red) sensor mode- Infra red detects the presence of test tube, automatically	
		- Speed regulation up to 3000 rpm	
		- Suitable for work in the laminar flow cabinet	
		- simple operating, digital display-	
		- Speed accuracy – 5%	
		- Timer – which helps user to set the operating time	
		- Power supply 220 - 240VAC, 50Hz	
		- two additional Plat forms for multiple tubes and micro plates should come with the instrument	
	- Warranty at least 01 year		
24	Mini-Protein SDS PAGE gel electrophoresis unit with power pack	1-4 gel mounting ability	
		Precast gels	
		Power unit	
		Total buffer volume (4gels 1000ml)	
		Should include Lid with power cables, tank, Electrode assembly, companion running module, mini trans-blot module	
		With 10 well (30 ul) combs	
		With 15 well (15 ul) combs	
		10 sets of glass plates	
		02 casting stands	
		4 casting frames with stand and rubber pads	
	>02 year warranty		